This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

Document number: SD-WM-DP-074

Section 3 **of** 8

Title: 216 Day Final Report for Tank 241-SY-103 Push Mode Core 62

Date: 08-11-95 **Revision:** A000

Originator: A D Rice
Co: WHC

Recipient:
Co:

References: EDT-612158

THIS PAGE INTENTIONALLY
LEFT BLANK.

THERMOGRAVIMETRIC ANALYSES

THIS PAGE INTENTIONALLY
LEFT BLANK.

LABCORE Data Entry Template for Worklist# 733

Analyst: SMF **Instrument:** TGA01 **Book #** 42N8-A

Method: LA-560-112 Rev/Mod ~~B-1~~ A-2 gmf 4/10/95

Worklist Comment: Please run SY-103 TGA under N2. bdv

WHC-SD-WM-DP-074, REV. 0

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	LIQUID	59.14	58.76	N/A	%
94000020	SY-103	2 SAMPLE	S95T000281	0		TGA-01	LIQUID	N/A	41.40		%
94000020	SY-103	3 DUP	S95T000281	0		TGA-01	LIQUID	41.40	46.04	N/A	%
94000020	SY-103	4 SAMPLE	S95T000282	0		TGA-01	LIQUID	N/A	48.52		%
94000020	SY-103	5 DUP	S95T000282	0		TGA-01	LIQUID	48.52	48.34	N/A	%

Final page for worklist # 733

Susie M. Dalton 4-4-95
Analyst Signature **Date**

Analyst Signature **Date**

4-5-95

Verified by Blandina Valenzuela 4-5-95

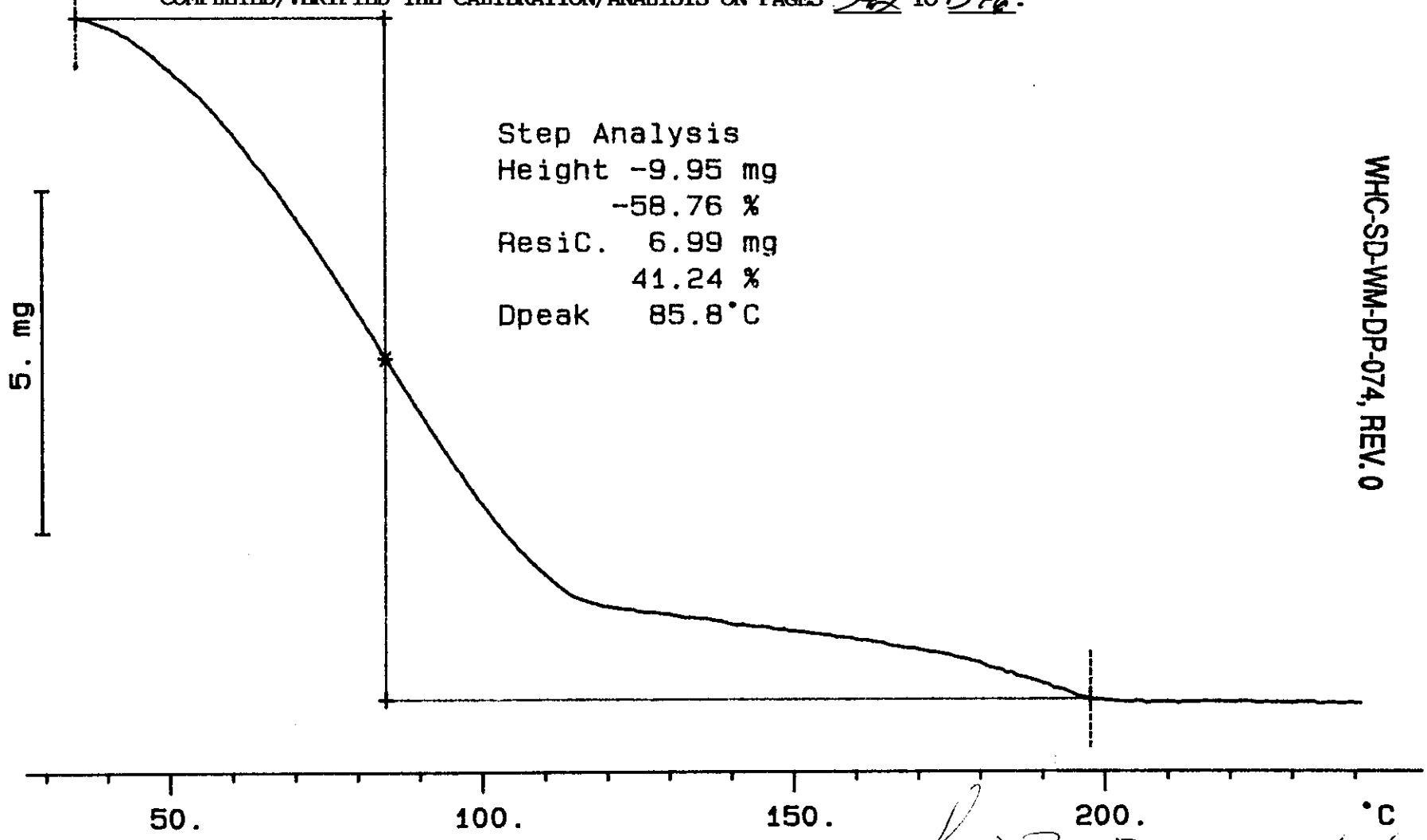
Data Entry Comments:
S95T000281 sample is a thick clear liquid with about 50-70% ~~suspended~~ suspended brown particles gmf 4/19/95
S95T000282 sample is a light yellow liquid

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.

TGA STD 42N8-A File: 00048.001 TG METTLER 04-Apr-95

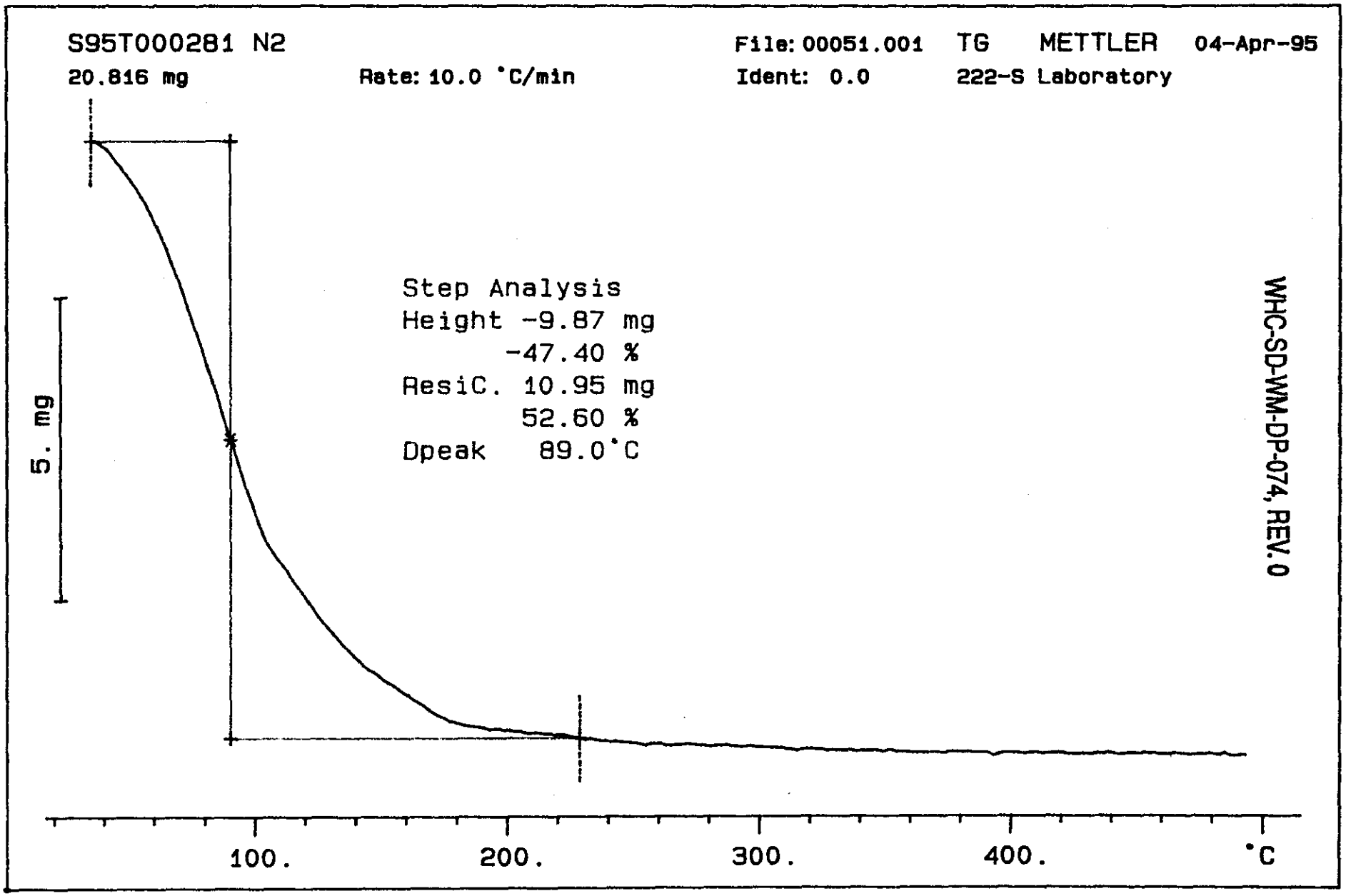
16.939 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 542 TO 546.

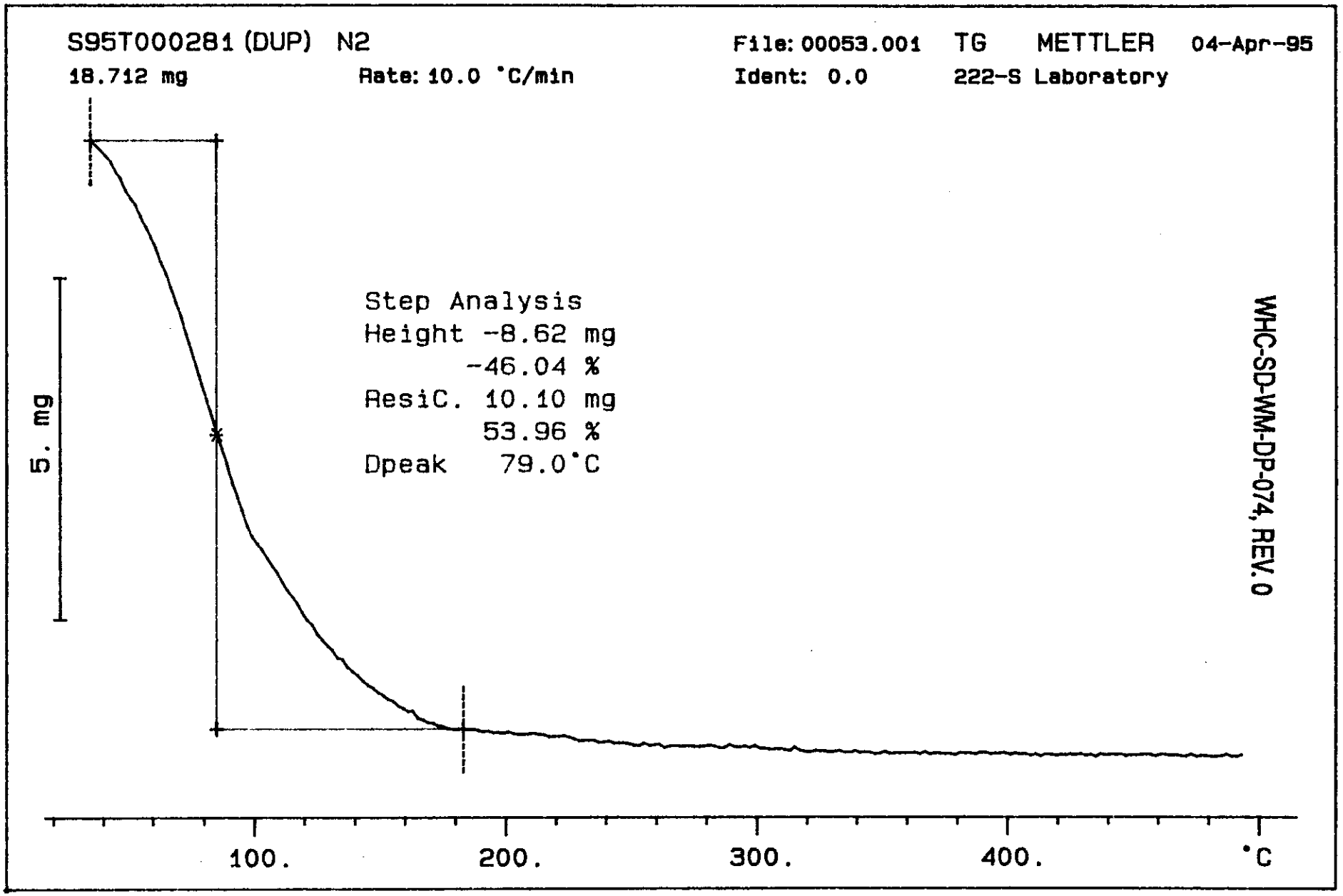


WHC-SD-WM-DP-074, REV. 0

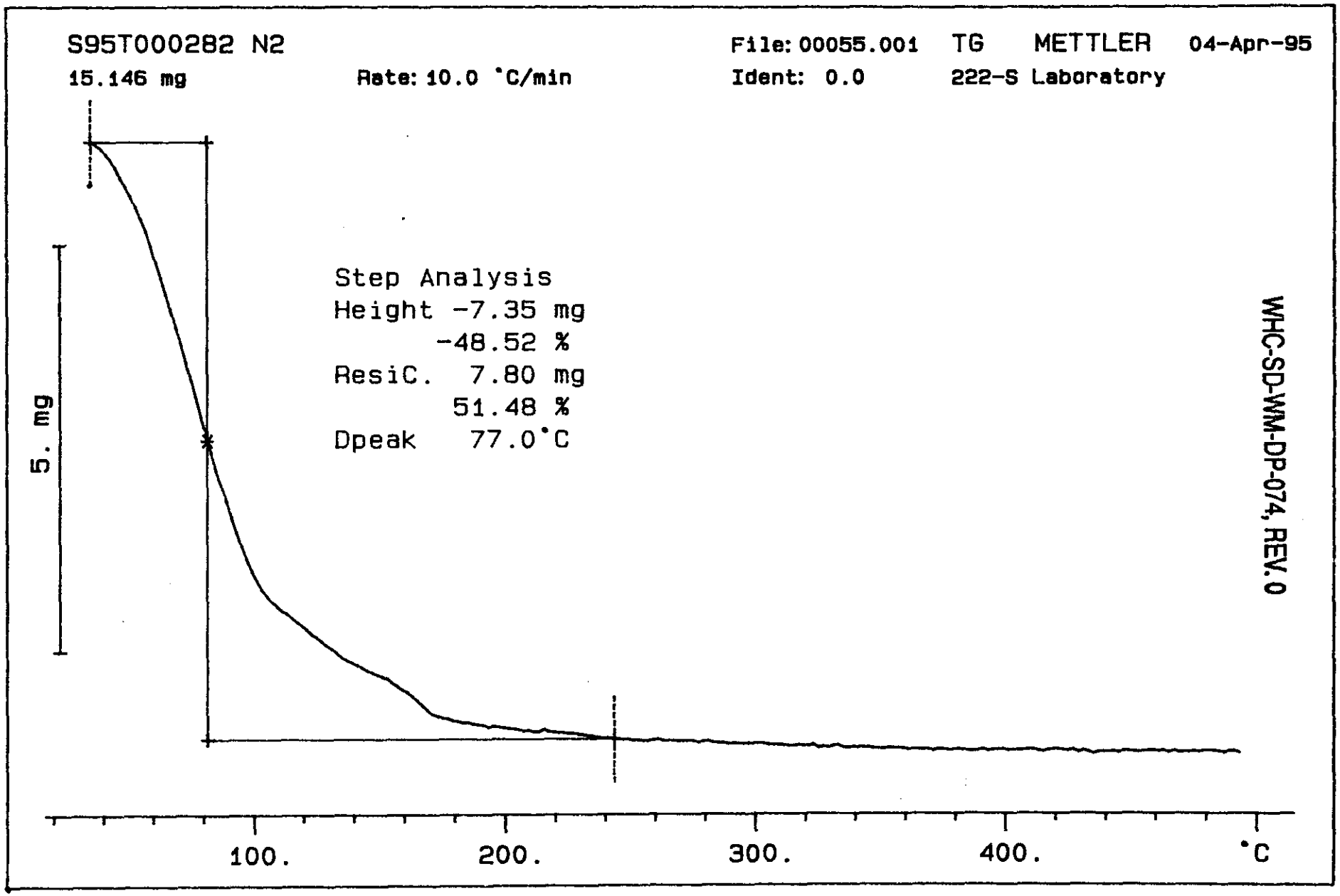
Susie M. Fulton 4-4-95



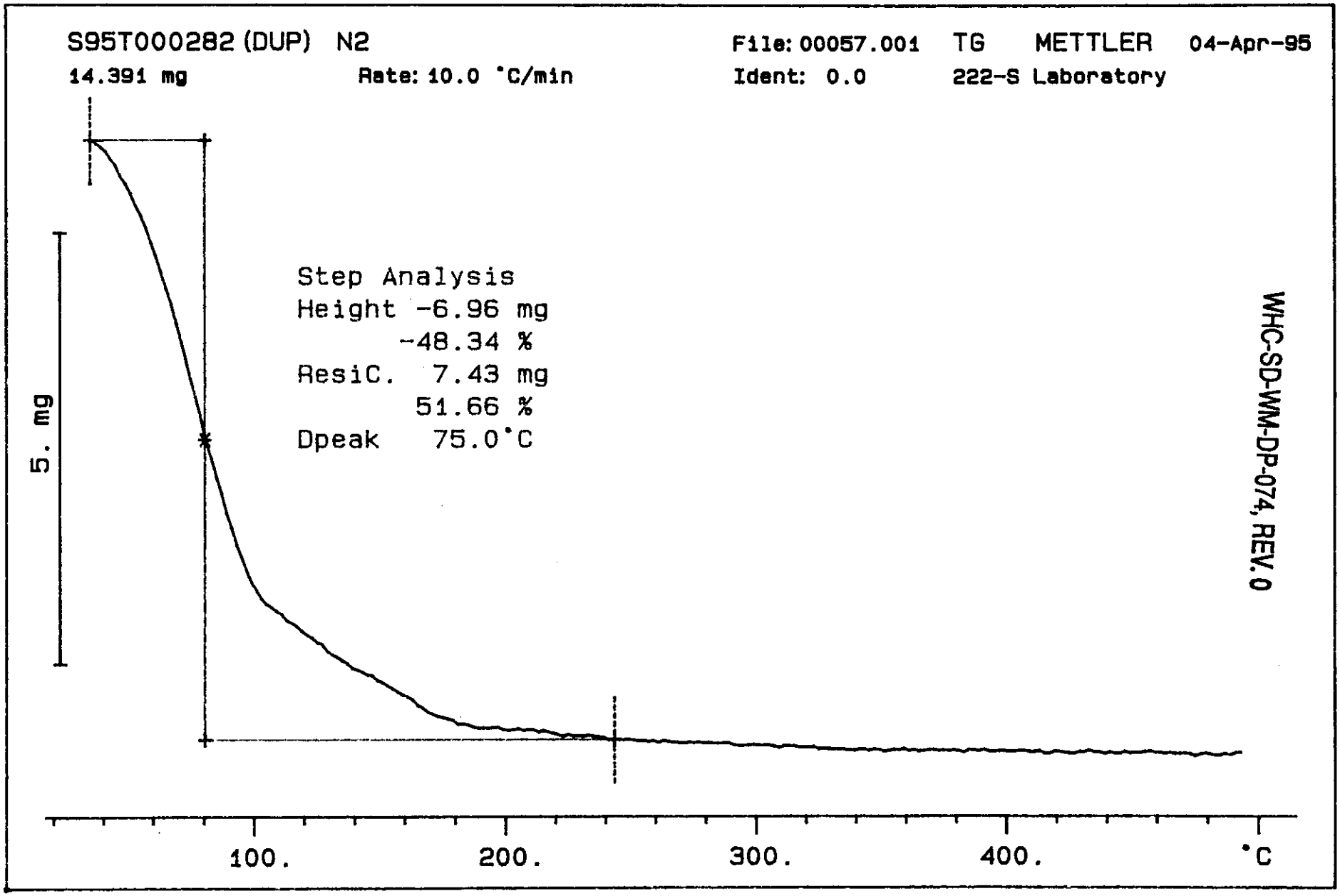
WHC-SD-WM-DP-074, REV. 0



WHC-SD-WM-DP-074, REV. 0



WHC-SD-WM-DP-074, REV. 0



WHC-SD-WM-DP-074, REV. 0

LABCORE Data Entry Template for Worklist# 734

Analyst: SMH **Instrument:** TGA01 **Book #** 4215 11

Method: LA-560-112 Rev/Mod A-2

WHC-SD-WM-DP-074, REV. 0

Worklist Comment: Please run SY-103 TGA under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	LIQUID	59.19	58.50	N/A	%
94000020	SY-103	2	SAMPLE	S95T000283	0		TGA-01	LIQUID	N/A	47.65		%
94000020	SY-103	3	DUP	S95T000283	0		TGA-01	LIQUID	47.65	47.85	N/A	%
94000020	SY-103	4	SAMPLE	S95T000284	0		TGA-01	LIQUID	N/A	69.58		%
94000020	SY-103	5	DUP	S95T000284	0		TGA-01	LIQUID	69.58	69.48	N/A	%

Final page for worklist # 734

Susie M. Dalton 4-6-95
Analyst Signature **Date**

Tony Hamm
Analyst Signature **Date**

Verified 4/10/95 J. M. Fuge

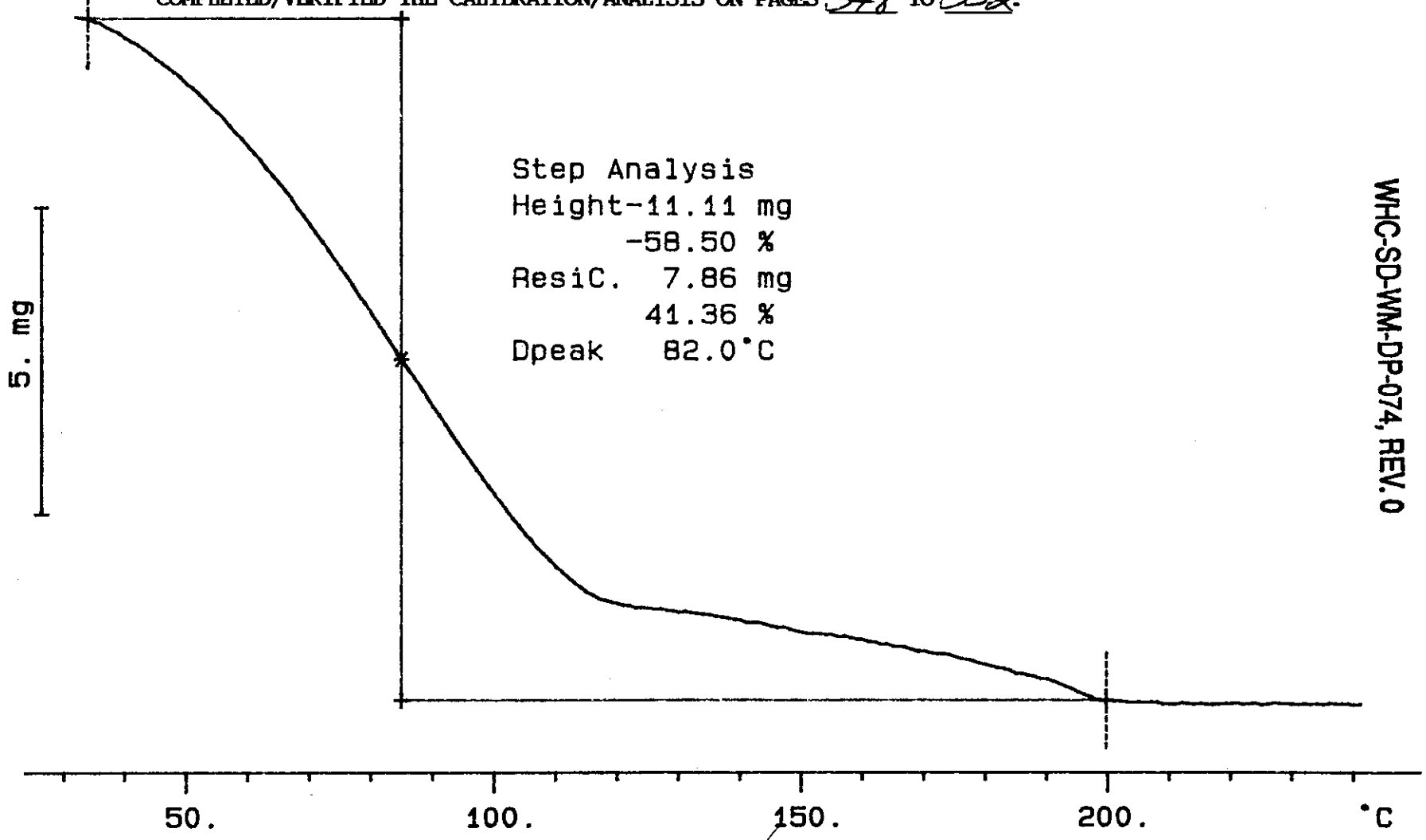
Data Entry Comments: Both samples are a light tan clear liquid with suspended light brown particles

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.

TGA STD 42N8-A File: 00067.001 TG METTLER 06-Apr-95

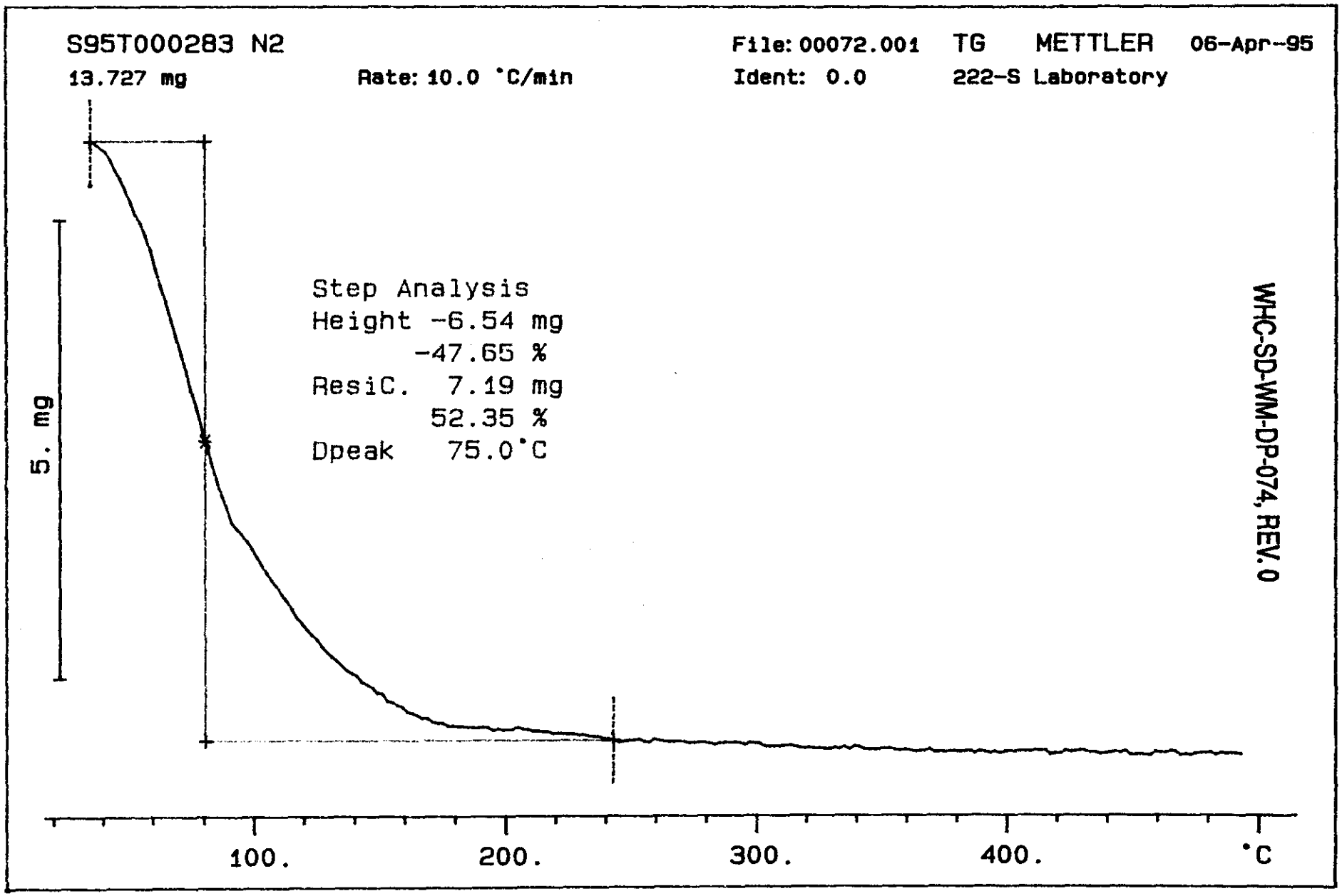
18.994 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

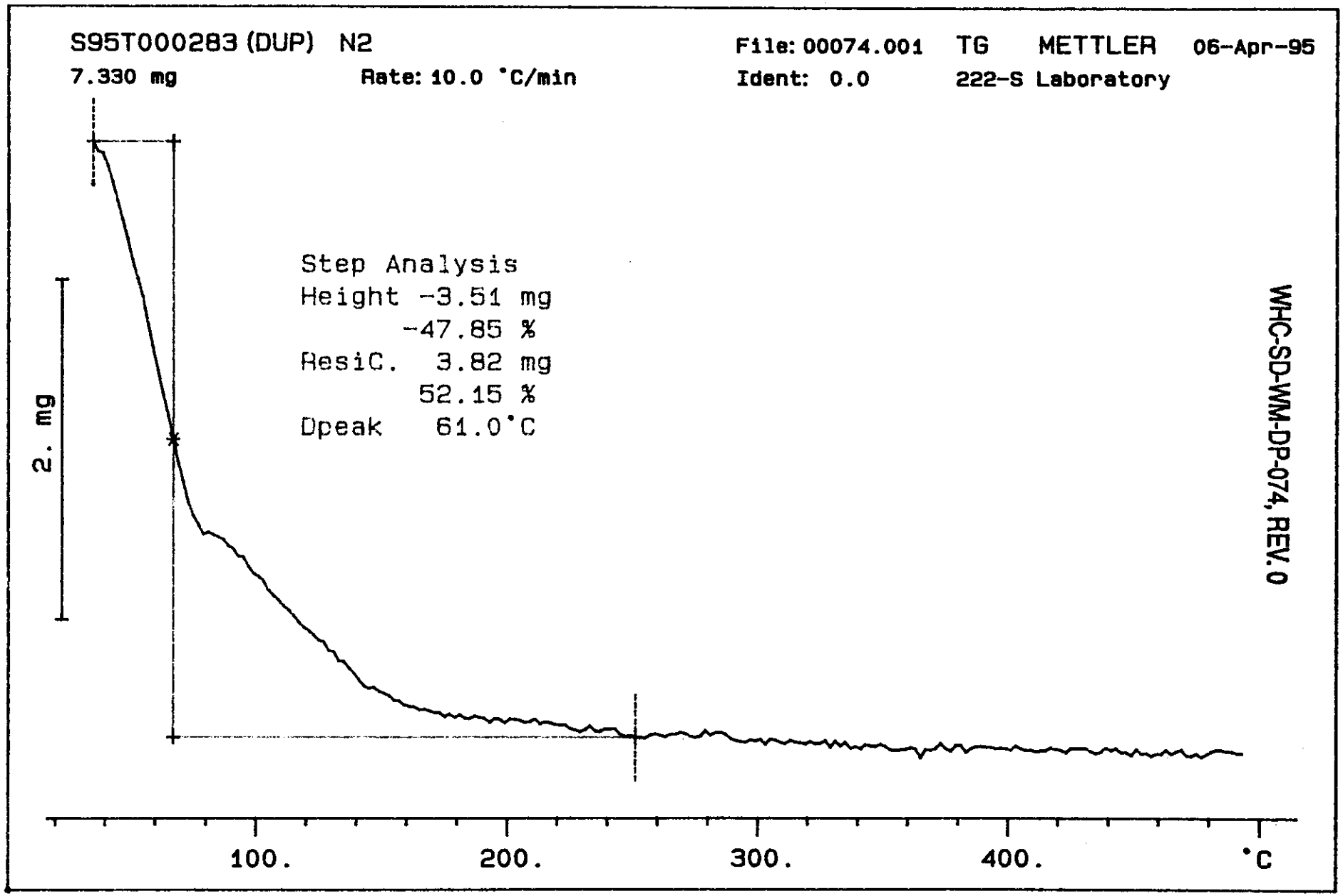
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 548 TO 552.



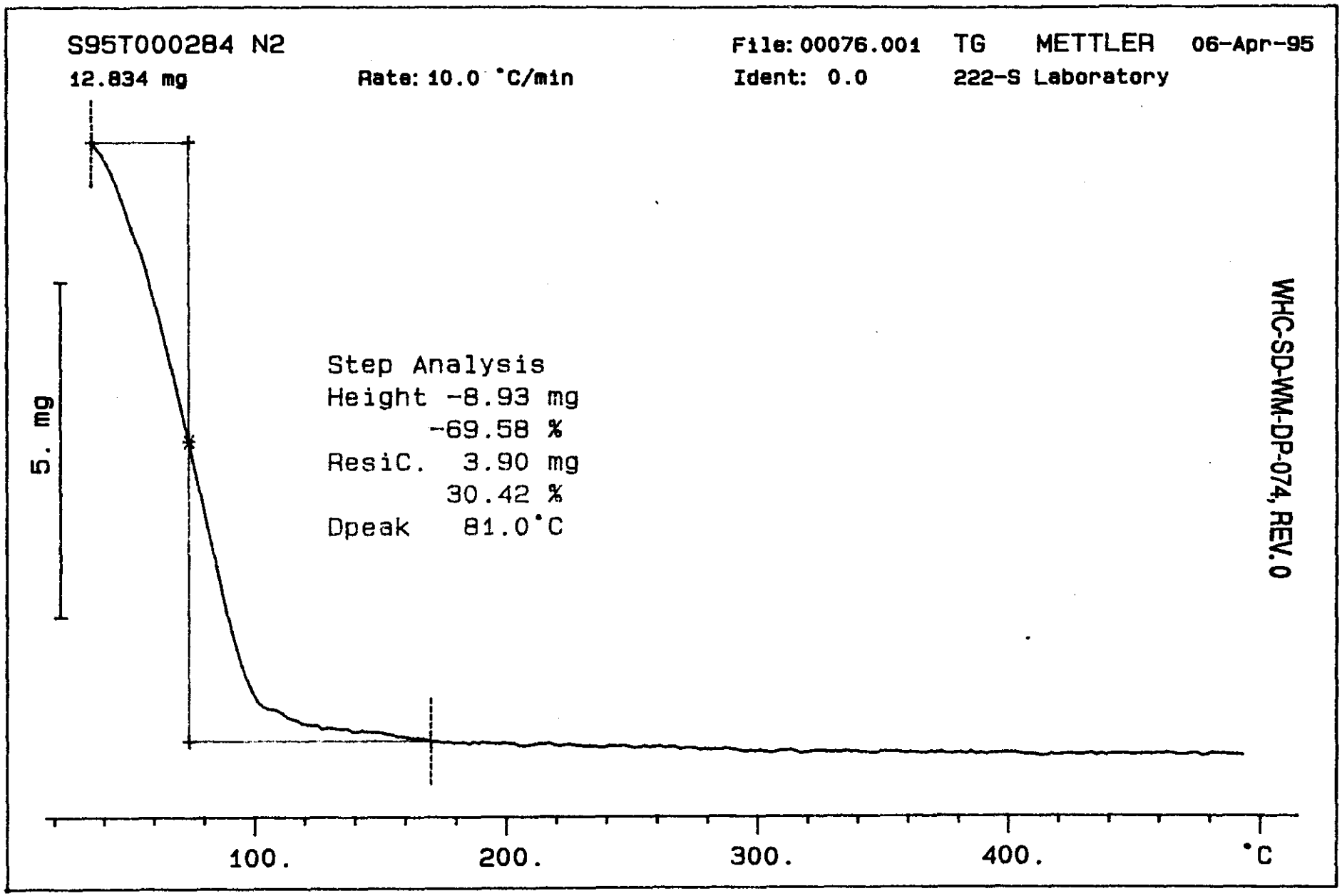
WHC-SD-WM-DP-074, REV. 0

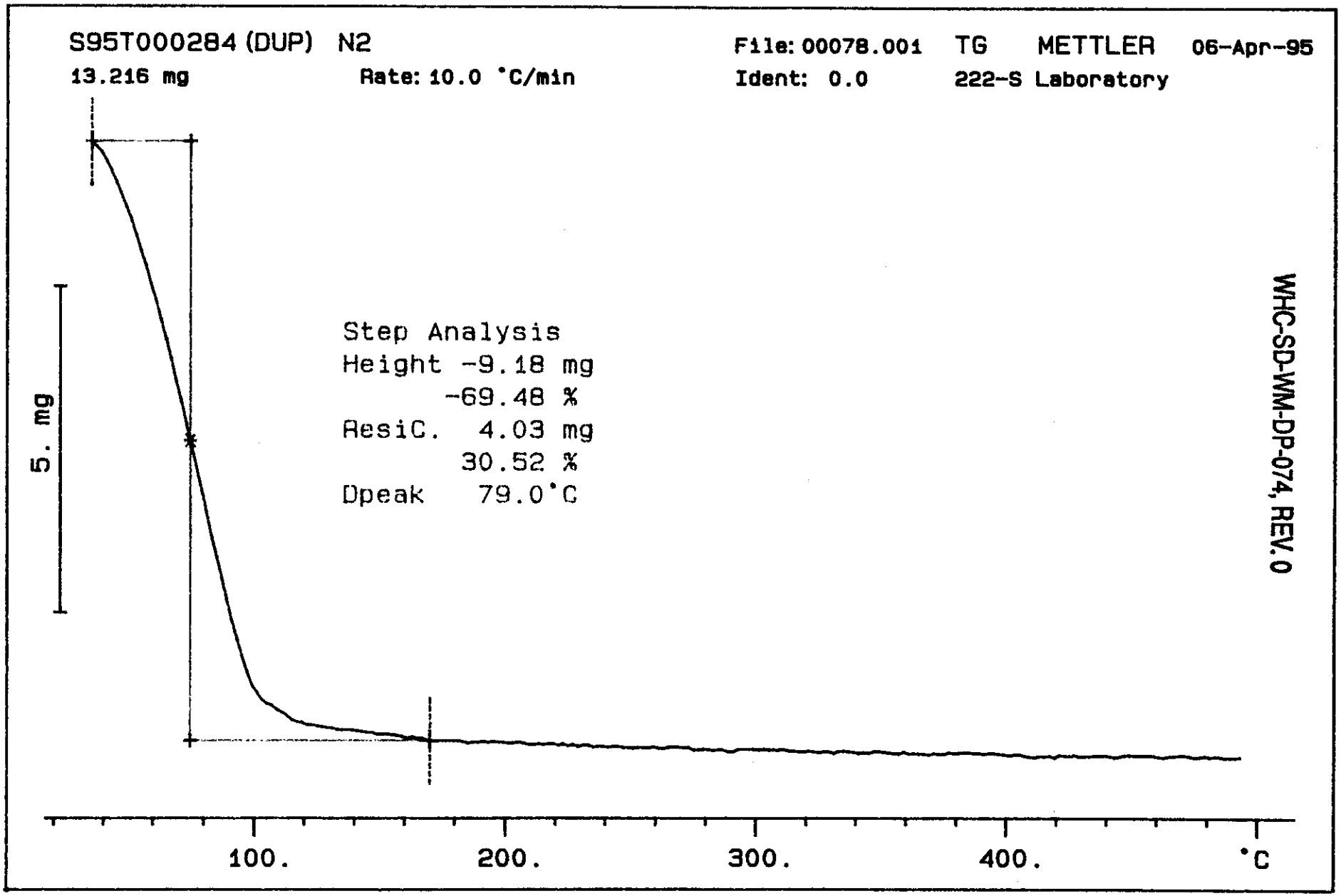
Jackie M. Dalton 4-6-95


S95T000283 N2
13.727 mg
Rate: 10.0 °C/min
File: 00072.001
TG
METTLER
06-Apr-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -6.54 mg
-47.65 %
ResiC. 7.19 mg
52.35 %
Dpeak 75.0°C
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-074, REV. 0


S95T000284 N2
12.834 mg
Rate: 10.0 °C/min
File: 00076.001
TG
METTLER
06-Apr-95
Ident: 0.0
222-S Laboratory
5. mg
Step Analysis
Height -8.93 mg
-69.58 %
ResiC. 3.90 mg
30.42 %
Dpeak 81.0°C
100.
200.
300.
400.
°C


S95T000284 (DUP) N2
13.216 mg
Rate: 10.0 °C/min
File: 00078.001
TG
METTLER
06-Apr-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -9.18 mg
-69.48 %
ResiC. 4.03 mg
30.52 %
Dpeak 79.0°C
5. mg
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 736

Analyst: SMF **Instrument:** TGA01 _____ **Book #** 41208-A

Method: LA-560-112 Rev/Mod A-2

WHC-SD-WM-DP-074, REV. 0

Worklist Comment: Please run SY-103 TGA under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	LIQUID	59.19	58.80	N/A	%
94000020	SY-103	2 SAMPLE	S95T000285	0		TGA-01	LIQUID	N/A	75.35		%
94000020	SY-103	3 DUP	S95T000285	0		TGA-01	LIQUID	75.35	74.73	N/A	%

Final page for worklist # 736

Susie M. Fulton 4-5-95

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

Entered + Verified J M Frye 4/10/95

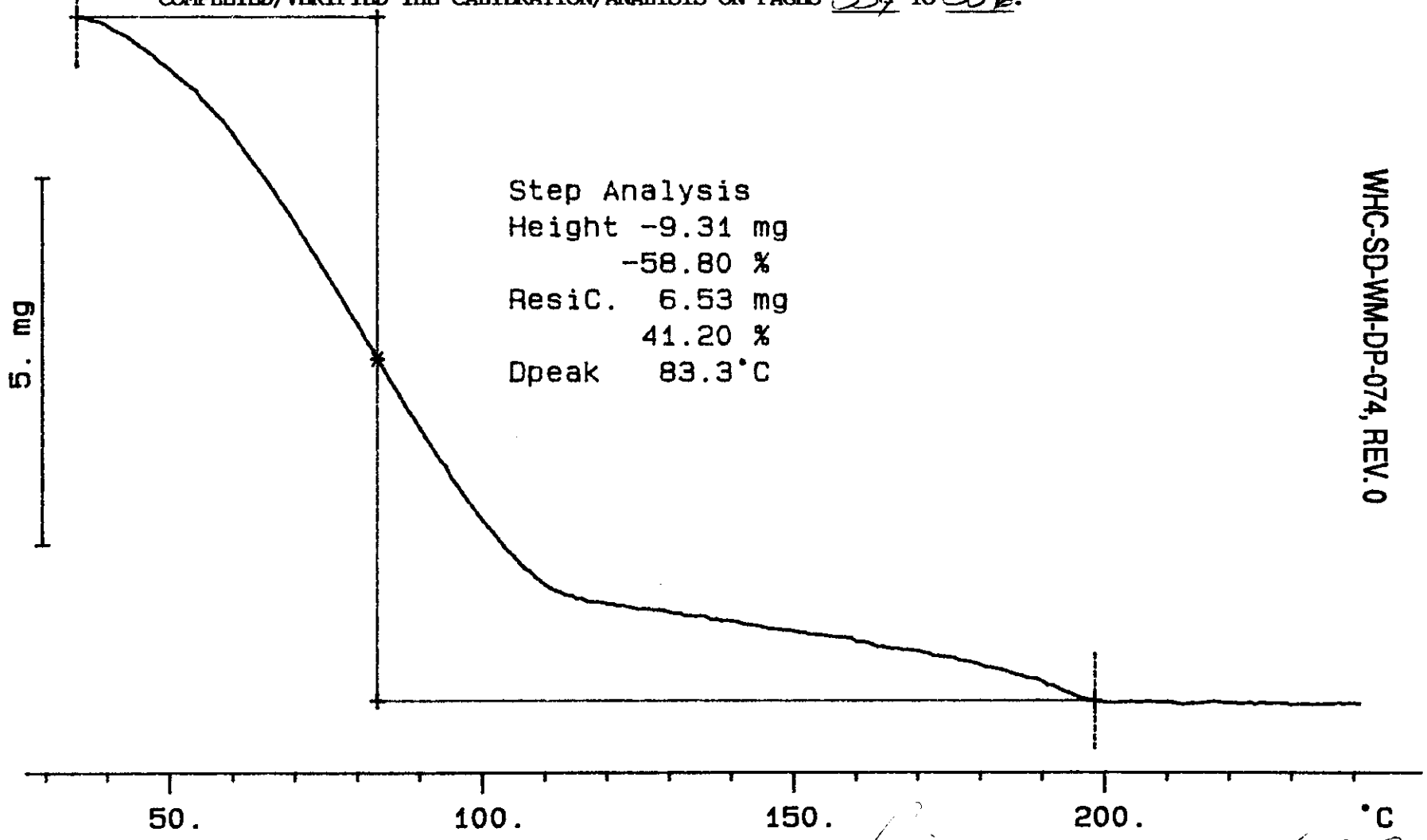
Data Entry Comments: sample clear liquid

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.

TGA STD 42N8-A File: 00059.001 TG METTLER 05-Apr-95

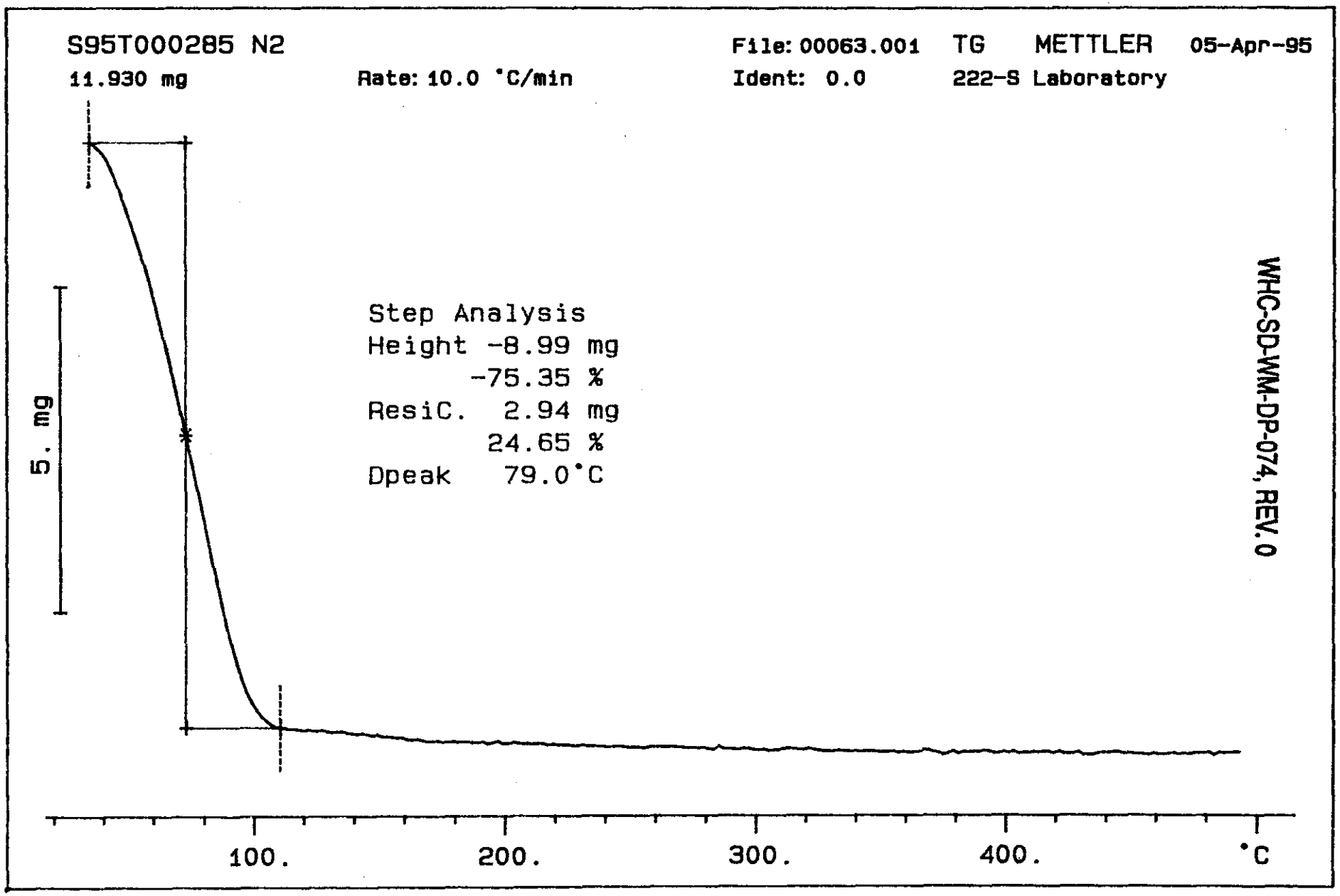
15.840 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 554 TO 556.

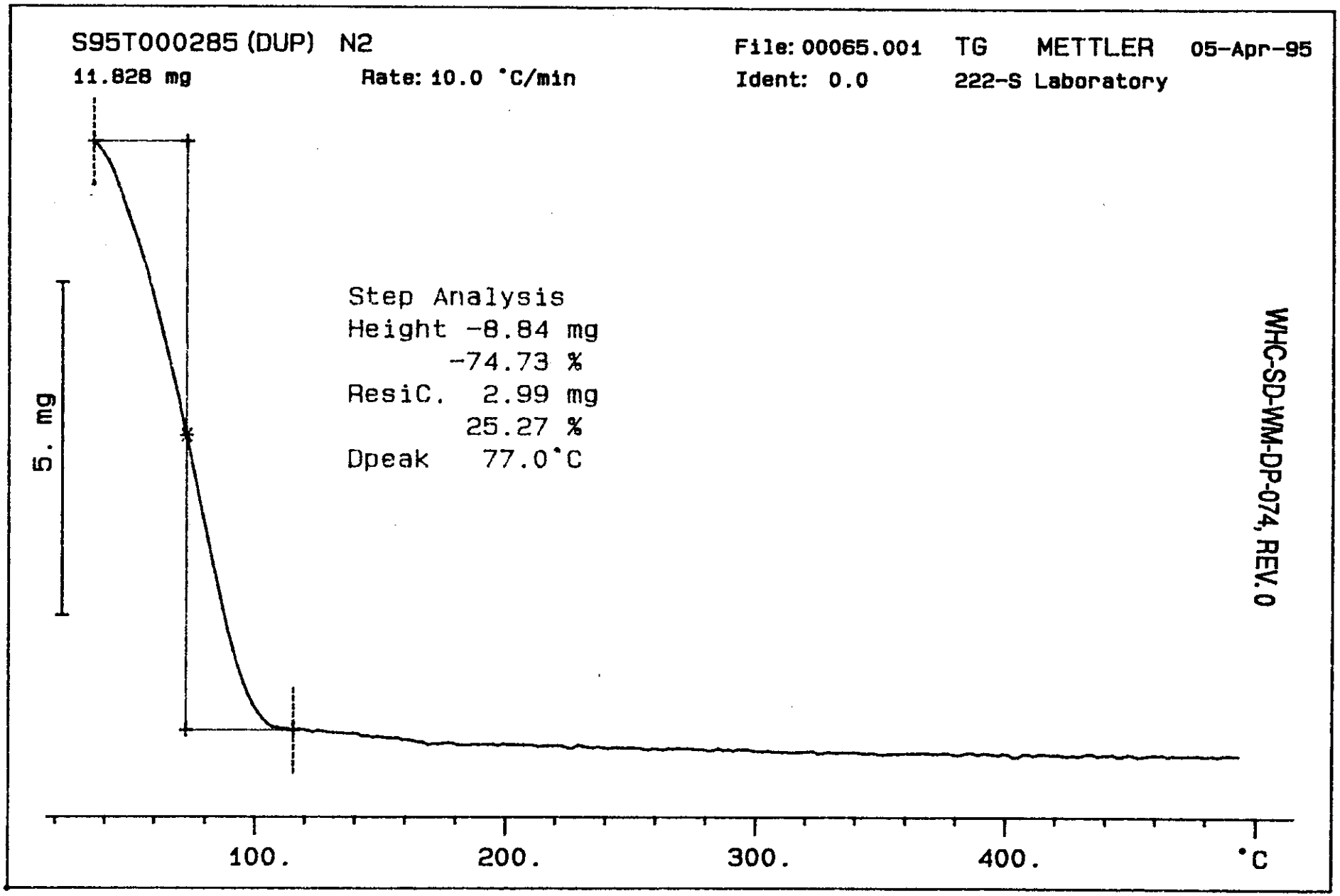


Susie M. Sutton 4-5-95

WHC-SD-WM-DP-074, REV. 0



WHC-SD-WM-DP-074, REV. 0



WHC-SD-WM-DP-074, REV. 0

LABCORE Data Entry Template for Worklist# 1421

Analyst: SMF **Instrument:** TGA0 3 **Book #** 42N8-A

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

Worklist Comment: Please run SY-103 TGA under N2. bdv

WHC-SD-WM-DP-074, REV. 0

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.19	58.29	N/A	%
94000020	SY-103	2	SAMPLE	S94T000273	0		TGA-03	SOLID	N/A	46.81		%
94000020	SY-103	3	DUP	S94T000273	0		TGA-03	SOLID	46.81	46.55	N/A	%
		4	STD				TGA-03	SOLID	59.19	58.17	N/A	%
94000020	SY-103	5	SAMPLE	S94T000275	0		TGA-03	SOLID	N/A	32.13		%
94000020	SY-103	6	DUP	S94T000275	0		TGA-03	SOLID	32.13	33.85	N/A	%

Final page for worklist # 1421

See attached for signatures 5/24/95 BDV
Analyst Signature **Date**

5-24-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 5/25/95

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# 1421

Analyst: SMF **Instrument:** TGA0 **Book #** 42N8-7

Method: ~~LA-560-112~~ SMF Rev/Mod LA-514-114/B-0

WHC-SD-WM-DP-074, REV. 0

Worklist Comment: Please run SY-103 TGA under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
94000020	SY-103	2	SAMPLE	S94T000273	0		TGA-01	SOLID	N/A			%
94000020	SY-103	3	DUP	S94T000273	0		TGA-01	SOLID			N/A	%
94000020	SY-103	4	SAMPLE	S94T000275	0		TGA-01	SOLID	N/A			%
94000020	SY-103	5	DUP	S94T000275	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1421

Susie M. Dalton 5-23-95

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

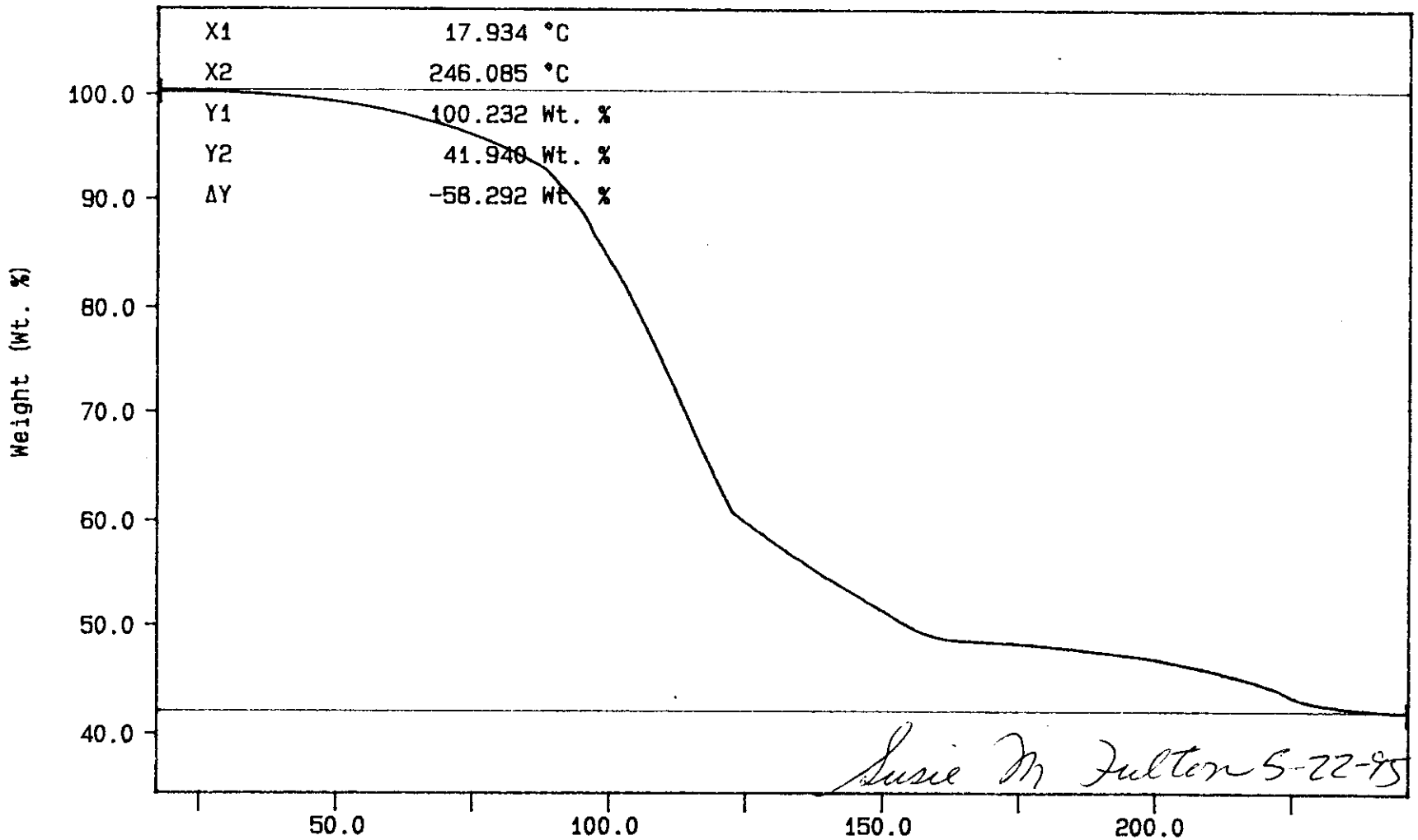
Other instrument was used
5/24/95
BDV

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: TER052201 Mon May 22 11:07:56 1995
Sample Weight: 9.459 mg
42N8A Terliq

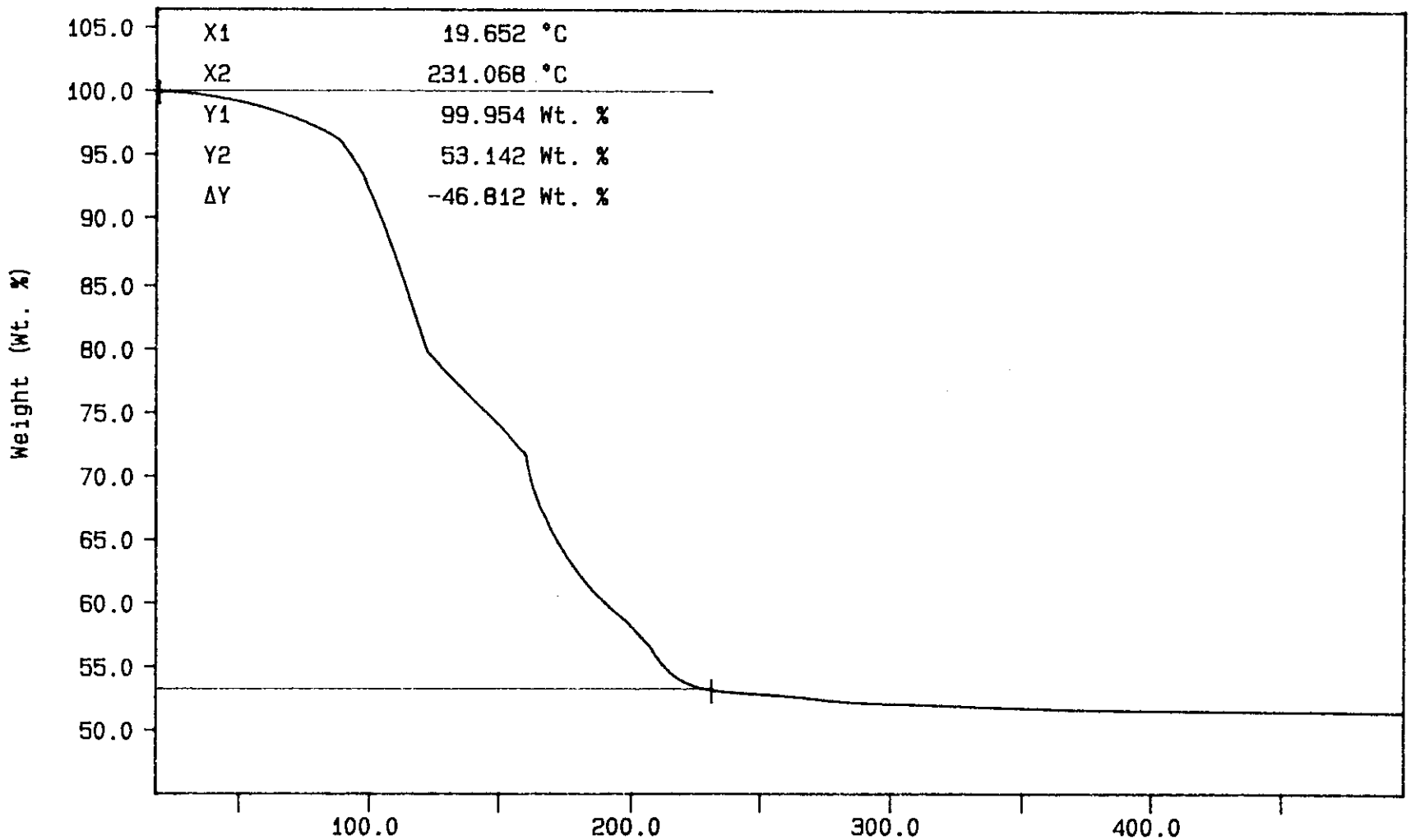
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 559 TO 564.



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon May 22 11:53:25 1995

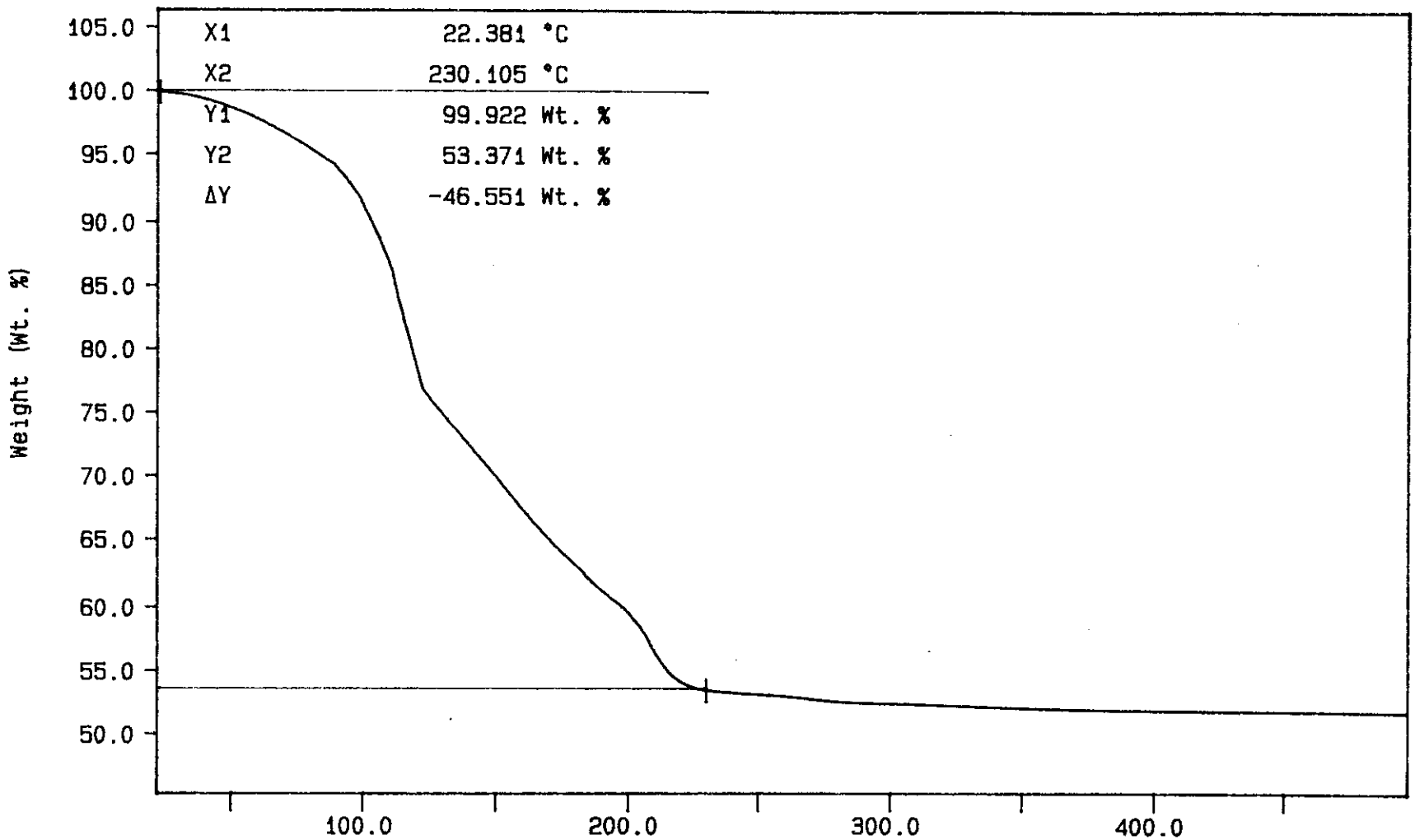
Curve 1: TGA
File info: SAM052201 Mon May 22 12:51:52 1995
Sample Weight: 17.221 mg
S94T000273, 10C/min



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
Mon May 22 12:59:03 1995

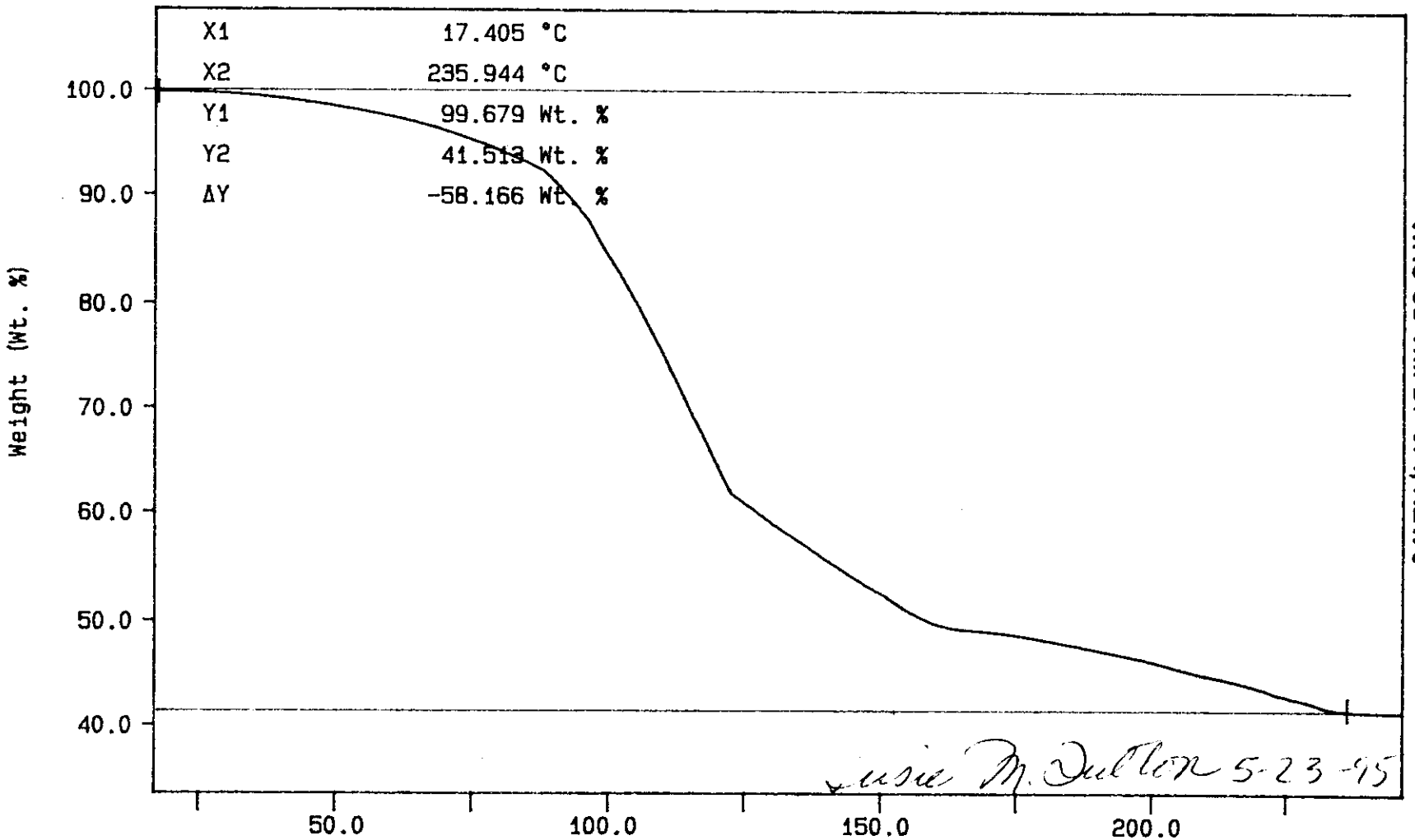
Curve 1: TGA
File info: SAM052202 Mon May 22 14:13:19 1995
Sample Weight: 15.796 mg
S94T000273(DUP), 10C/min



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
Mon May 22 14:29:59 1995

Curve 1: TGA
File info: TER052301 Tue May 23 08:21:37 1995
Sample Weight: 12.073 mg
42N8A Terliq



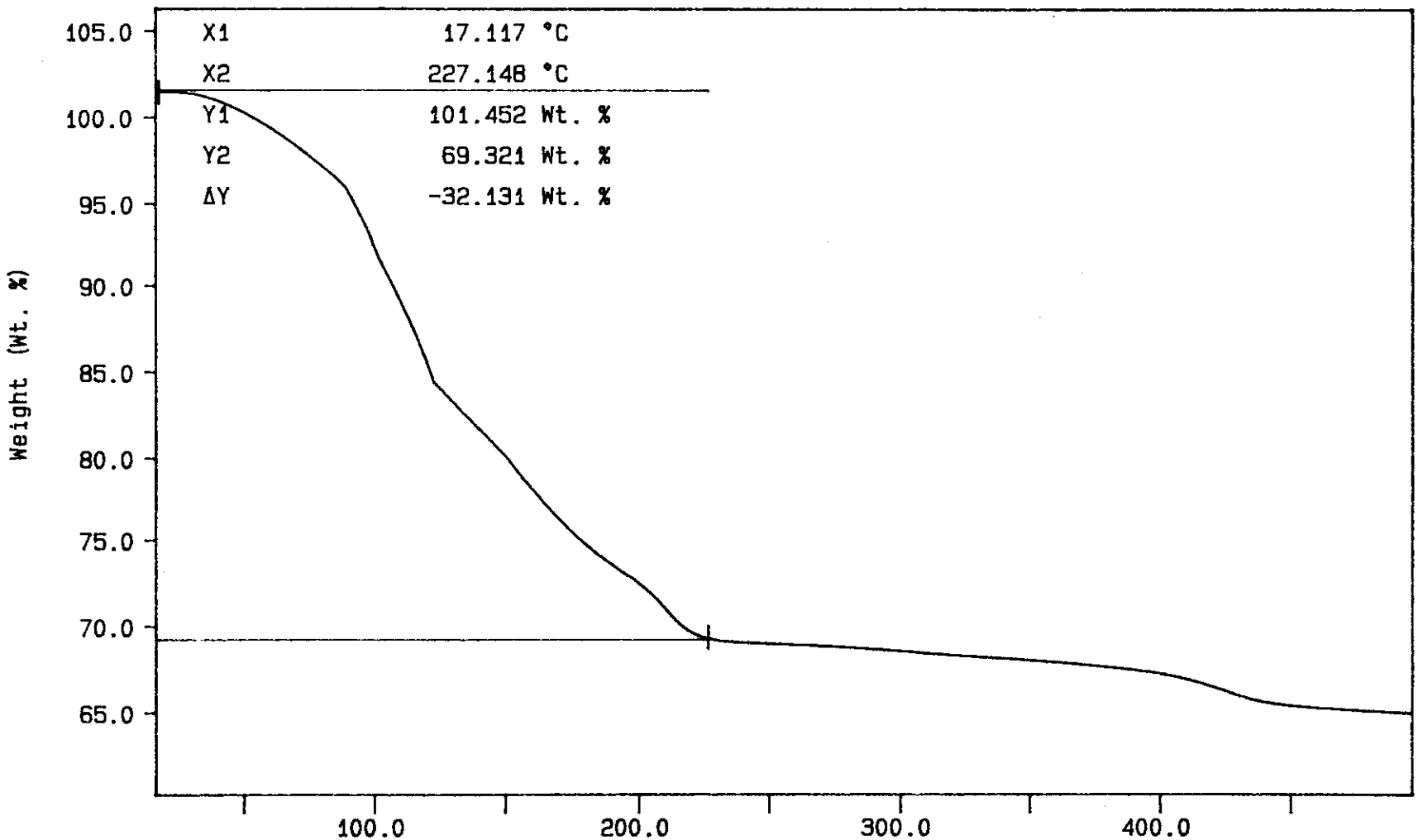
N2
TEMP1: 95.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 23 08:35:49 1995

562

WHC-SD-WM-DP-074, REV. 0

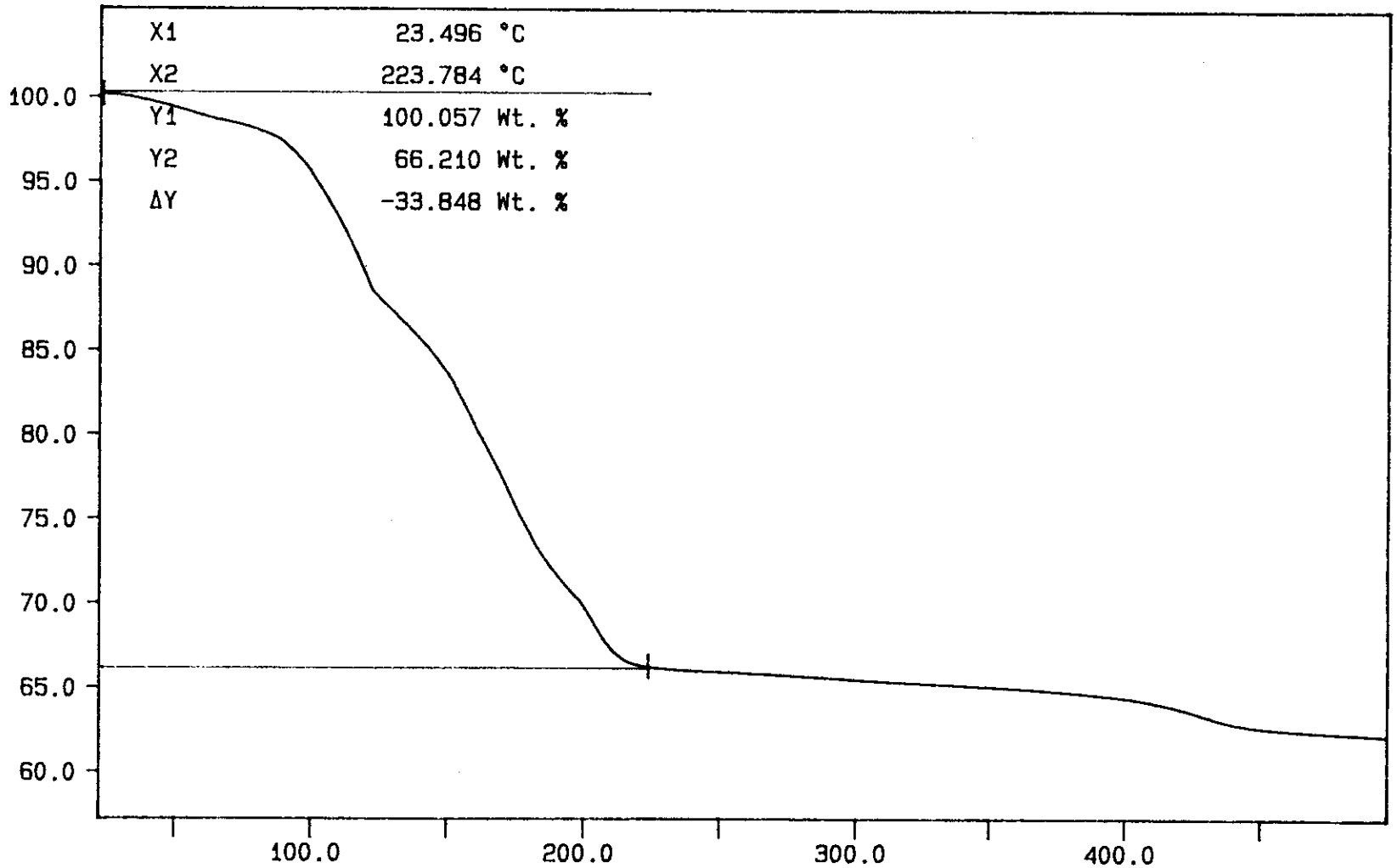
Curve 1: TGA
File info: SAM052301 Tue May 23 09:46:48 1995
Sample Weight: 13.473 mg
S94T000275, 10C/min



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
Tue May 23 10:03:23 1995

Curve 1: TGA
File info: SAM052302 Tue May 23 10:57:17 1995
Sample Weight: 20.559 mg
S94T000275(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
Tue May 23 11:00:02 1995

WHC-SD-WM-DP-074, REV. 0

pH/OH ANALYSES

THIS PAGE INTENTIONALLY
LEFT BLANK.

.01

LABCORE Data Entry Template for Worklist# 212

Analyst: DCD **Instrument:** PH01 _____ **Method:** LA-212-103/B-3

Worklist Comment: Assign to B shift Tech. WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit
1	STD				PH-02	SOLID	9.94	9.96	N/A	pH
2	SAMPLE	S94T000265	0		PH-02	SOLID	N/A	13.01		pH
3	DUP	S94T000265	0		PH-02	SOLID	13.01	13.04	N/A	pH
4	SAMPLE	S94T000273	0		PH-02	SOLID	N/A	12.85		pH
5	DUP	S94T000273	0		PH-02	SOLID	12.85	12.92	N/A	pH
6	SAMPLE	S94T000274	0		PH-02	SOLID	N/A	13.04		pH
7	DUP	S94T000274	0		PH-02	SOLID	13.04	12.98	N/A	pH
8	SAMPLE	S94T000275	0		PH-02	SOLID	N/A	13.08		pH
9	DUP	S94T000275	0		PH-02	SOLID	13.08	13.05	N/A	pH

Final page for worklist # 212

David C. Dunham
Analyst Signature

12-8-94
Date

STD # - 18N16-N

Data Entry Comments: Data entered by REW 12/9/94
reviewed by Robert W Schroeder 12/9/94

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 806

Analyst: rwk **Instrument:** PH01 _____ **Book #** 86N16 H

Method: LA-212-102 Rev/Mod C-5

WHC-SD-WM-DP-074, REV. 0

Worklist Comment: SY-103 pH

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT	
		1	STD				PH-01	LIQUID	7.38	7.39	N/A	pH	
94000020	SY-103	2	SAMPLE	S95T000281	0		PH-01	LIQUID	N/A	I.S.	0.01	pH	insufficient sample
94000020	SY-103	3	DUP	S95T000281	0		PH-01	LIQUID	I.S.	I.S.	N/A	pH	insufficient sample
94000020	SY-103	4	SAMPLE	S95T000282	0		PH-01	LIQUID	N/A	13.99	0.01	pH	
94000020	SY-103	5	DUP	S95T000282	0		PH-01	LIQUID	13.99	14.02	N/A	pH	
94000020	SY-103	6	SAMPLE	S95T000283	0		PH-01	LIQUID	N/A	I.S.	0.01	pH	
94000020	SY-103	7	DUP	S95T000283	0		PH-01	LIQUID	I.S.	I.S.	N/A	pH	
94000020	SY-103	8	SAMPLE	S95T000284	0		PH-01	LIQUID	N/A	13.63	0.01	pH	
94000020	SY-103	9	DUP	S95T000284	0		PH-01	LIQUID	13.63	IS	N/A	pH	
94000020	SY-103	10	SAMPLE	S95T000285	0		PH-01	LIQUID	N/A	I.S.	0.01	pH	
94000020	SY-103	11	DUP	S95T000285	0		PH-01	LIQUID	I.S.	I.S.	N/A	pH	
		12	STD				PH-01	LIQUID	7.38	7.33	N/A	pH	

Final page for worklist # 806

Analyst Signature **Date**
3-29-95

3/29/95 worklist approved.

Analyst Signature **Date**
3/27/95

Data Entry Comments: didn't dup. sample due to I.S.

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.

34103

LABCORE Data Entry Template for Worklist# 295

Analyst: RAG **Instrument:** PH01 _____ **Method:** LA-211-102 B-1

Worklist Comment: Assigned to shift tech. No spikes due to interferences. **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found E+4	DL	Unit
1	BLNK				OH-01	SOLID	1	<6.03 ~~E+3~~ RWS 4-27-95 ~~<63~~ RWS 1/3/95	N/A	ug/g
2	STD	21N8B			OH-01	SOLID	9.39 E-1 M	9.33 E-1 M	N/A	~~ug/g~~ M RWS 1/3/95
3	SAMPLE	S94T000267 10.44g/L	0	W	OH-01	SOLID	N/A RWS 4-27-95	1.40 E+4 ~~1.40 E+3~~	5.99 E+3 ~~5.99 E+2~~ RWS 4-27-95	ug/g
4	DUP	S94T000267 10.44g/L	0	W	OH-01	SOLID	1.40 E+4 ~~1.40 E+3~~ RWS 4-27-95	~~1.59 E+3~~ RWS 4-27-95 ~~1.66 E+4~~ RWS 1/3/94	1.59 E+4 N/A	ug/g
5	SAMPLE	S94T000279 10.33g/L	0	W	OH-01	SOLID	N/A RWS 4-27-95	1.46 E+4 ~~1.46 E+3~~	6.05 E+3 ~~6.05 E+2~~ RWS 4-27-95	ug/g
6	DUP	S94T000279 10.296	0	W	OH-01	SOLID	1.46 E+4 ~~1.46 E+3~~ RWS 4-27-95	6.42 E+3 ~~6.42 E+2~~ ~~6.42 E+3~~ RWS 1/3/95	N/A	ug/g
7	SAMPLE	S94T000280 10.23	0	W	OH-01	SOLID	N/A RWS 4-27-95	2.00 E+4 ~~2.00 E+3~~	6.11 E+3 ~~6.11 E+2~~ RWS 4-27-95	ug/g
8	DUP	S94T000280 10.228	0	W	OH-01	SOLID	2.00 E+4 ~~2.00 E+3~~ RWS 4-27-95	2.02 E+4 ~~2.02 E+3~~	RWS 4-27-95 N/A	ug/g
9	SAMPLE	S94T000281 10.52	0	W	OH-01	SOLID	N/A RWS 4-27-95	1.81 E+4 ~~1.81 E+3~~	5.94 E+3 ~~5.94 E+2~~	ug/g
10	DUP	S94T000281 10.396	0	W	OH-01	SOLID	1.81 E+4 ~~1.81 E+3~~	1.88 E+4 ~~1.88 E+3~~	N/A	ug/g

Final page for worklist # 295

Rae Ann Green
Analyst Signature

12-31-94
Date

Data corrected for calculation error on 4-27-95 RW Schroeder and Labcore

Data ~~entered~~ entered RWS

Data reviewed RWS 1/3/94

Data Entry Comments:

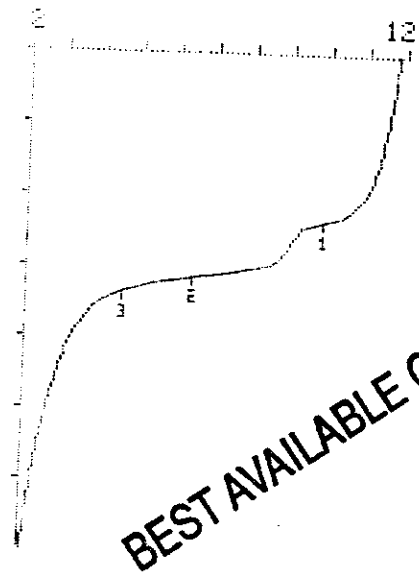
The calculated RPD will reflect the error in preparation of the water leach. To illustrate this, the sample S94T000279 and duplicate were analyzed in replicate with RPD'S of 0.48% and 6.39%.

Units shown for QC (SPK) may not reflect the actual units.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

```
calibration data
date      94-12-31
pH(S) 1     10.03
pH(S) 2      7.00
T.cal.      24.0 °C
slope(rel)   .973
Uoff            .6 mV
electr. input  1
========
```

```
date 94-12-31 time 02:35
GET pH        12  #  118
.10ml/div      ΔpH=1/div
start V   .000 ml
```




```
date 94-12-31 time 02:35
GET pH        12
Id.#1
Id.#2       .1994
pH(init)    11.75
            V/ml        pH
EP1         .234      9.88
EP2         .314      6.42
EP3         .335      4.54
stop volt.reached
========
```

BEST AVAILABLE COPY

WHC-SD-WM-DP-074, REV. 0

OH (AUTO) : LA-211-102 (B-1)

		std
Type	Sample Size (mL) SS	0.050
std	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.234
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	9.33E-01
OH	OH in Sample in µg/mL (PPM)	1.59E+04
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
Instrument Code	Detection Limit (µg/mL)	2.50E+03
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		std
04:45 AM	Concentration of OH in Sample (Molarity)	9.33E-01
	OH in Sample in µg/mL (PPM)	1.59E+04

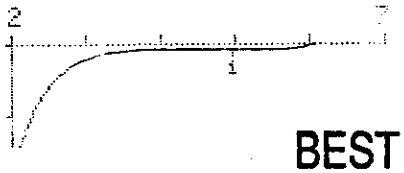
Data Entry by:	Ken Schroeder	Date:	01/03/95
Approved by:	Ken Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

```
Date 94-12-31 time 03:25
GET pH          12   #  135
Id.#1      [illegible] Blank
Id.#2        .1994
pH(init)      6.02
            V/ml          pH
EP1         .008        4.97
stop volt.reached
        ========

Date 94-12-31 time 03:25
GET pH          12   #  125
.10ml/div        ΔpH=1/div
start V    .000 ml
```




```
        ========
```

BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		blank
Type	Sample Size (mL) SS	2.000
blank	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.008
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	7.98E-04
OH	OH in Sample in µg/mL (PPM)	1.36E+01
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
1		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		blank
04:45 AM	Concentration of OH in Sample (Molarity)	7.98E-04
	OH in Sample in µg/mL (PPM)	<63

The Result is < Detection Limit

Data Entry by:	Rus Schroeder	Date:	01/03/95
Approved by:	Rus Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

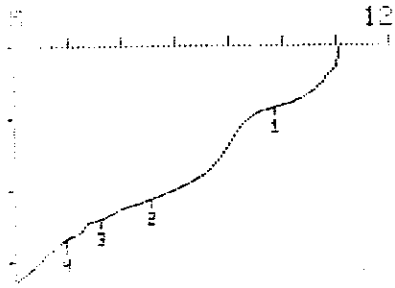
Sample

Date 94-12-31 time 03:38
GET pH 12 # 126
Id.#1 94000267
Id.#2 .1994
pH(init) 11.07

	V/ml	pH
EP1	.086	9.85
EP2	.213	7.54
EP3	.241	6.60
EP4	.279	5.94

stop volt.reached
========

Date 94-12-31 time 03:38
GET pH 12 # 126
.10ml/div pH=1/div
start V .000 ml



BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		Sample
Type	Sample Size (mL) SS	2.000
Sample	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.086
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	8.57E-03
OH	OH in Sample in µg/mL (PPM)	1.46E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000267		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Sample
04:45 AM	Concentration of OH in Sample (Molarity)	8.57E-03
	OH in Sample in µg/mL (PPM)	1.46E+02

Data Entry by:	Rus Schroeder	Date:	01/03/95
Approved by:	Rus Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3 Page 1 of 1

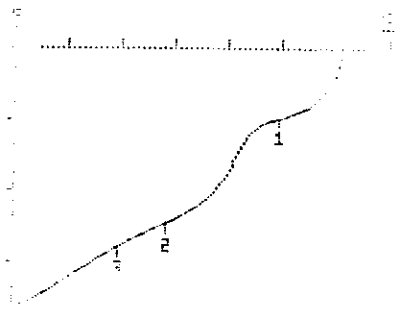
PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

duplicate

```
date 94-12-31 time
GET pH          12  #
.#1     94000267
.#2        .1994
(init)     11.97
           V/ml
1          .098
2          .246
3          .273
stop volt.reached
```

```
-------
date 94-12-31 time
GET pH          12  #
.10ml/div       ΔpH=
start V    .000 ml
```



BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		Duplicate
Type	Sample Size (mL) SS	2.000
Duplicate	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.098
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	9.77E-03
OH	OH in Sample in µg/mL (PPM)	1.66E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000267		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Duplicate
04:45 AM	Concentration of OH in Sample (Molarity)	9.77E-03
	OH in Sample in µg/mL (PPM)	1.66E+02

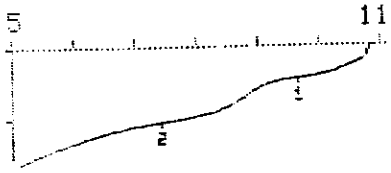
Data Entry by:	RW Schroeder	Date:	01/03/95
Approved by:	RW Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3

pH ANALYSIS

Duplicate 1st time

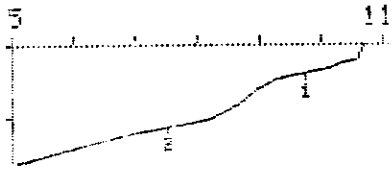
```
date 94-12-31 time 03:10
GET pH          12  #  122
Id.#1    94000267
Id.#2       .1994
pH(init)    10.84
            V/ml          pH
EP1         .045        9.66
EP2         .106        7.45
stop volt.reached
        ========

date 94-12-31 time 03:10
GET pH          12  #  122
.10ml/div       ΔpH=1/div
start V    .000 ml
```



========

Duplicate 2nd time

```
date 94-12-31 time 04:00
GET pH          12  #  131
Id.#1    94000279
Id.#2       .1994
pH(init)    10.65
            V/ml          pH
EP1         .039        9.74
EP2         .113        7.53
stop volt.reached
        ========

date 94-12-31 time 04:00
GET pH          12  #  131
.10ml/div       ΔpH=1/div
start V    .000 ml
```



========

BEST AVAILABLE COPY

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

OH (AUTO) : LA-211-102 (B-1)

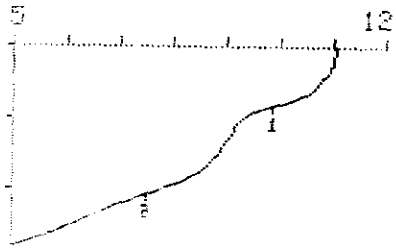
		Sam-ple
Type	Sample Size (mL) SS	2.000
Sam-ple	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.089
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	8.87E-03
OH	OH in Sample in µg/mL (PPM)	1.51E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000279		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Sam-ple
04:45 AM	Concentration of OH in Sample (Molarity)	8.87E-03
	OH in Sample in µg/mL (PPM)	1.51E+02

Data Entry by:	Rus Schroeder	Date:	01/03/95
Approved by:	Rus Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3

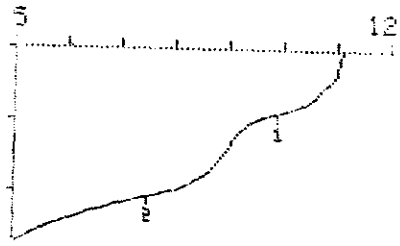
Sample 1st time

```
date 94-12-31 time 03:45
GET pH          12  #  128
Id.#1    94000279
Id.#2       .1994
pH(init)    11.02
            V/ml          pH
EP1         .083        9.86
EP2         .207        7.51
stop volt.reached
        ========

date 94-12-31 time 03:45
GET pH          12  #  128
.10ml/div       ΔpH=1/div
start V    .000 ml
```



Sample 2nd t

```
date 94-12-31 time 03:56
GET pH          12  #  130
Id.#1    94000279
Id.#2       .1994
pH(init)    11.06
            V/ml          pH
EP1         .089        9.88
EP2         .206        7.52
stop volt.reached
        ========

date 94-12-31 time 03:56
GET pH          12  #  130
.10ml/div       ΔpH=1/div
start V    .000 ml
```



========

BEST AVAILABLE COPY

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

OH (AUTO) : LA-211-102 (B-1)

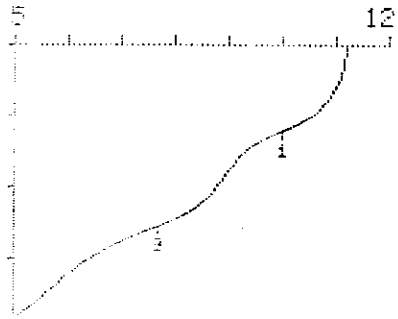
		Duplicate
Type	Sample Size (mL) SS	2.000
Duplicate	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.039
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	3.89E-03
OH	OH in Sample in µg/mL (PPM)	6.61E+01
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000279		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Duplicate
04:45 AM	Concentration of OH in Sample (Molarity)	3.89E-03
	OH in Sample in µg/mL (PPM)	6.61E+01

Data Entry by:	RW Schroeder	Date:	01/03/95
Approved by:	RW Schroeder	Date:	1/3/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

```
date 94-12-31 time 04:17
GET pH          12  #  132
Id.#1    94000280
Id.#2       .1994
pH(init)    11.18
           V/ml          pH
EP1        .121       10.01
EP2        .255        7.69
stop volt.reached
        ========

date 94-12-31 time 04:17
GET pH          12  #  132
.10ml/div       ΔpH=1/div
start V    .000 ml
```



BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		Sample
Type	Sample Size (mL) SS	2.000
Sample	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.121
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	1.21E-02
OH	OH in Sample in µg/mL (PPM)	2.05E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000280		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Sample
04:45 AM	Concentration of OH in Sample (Molarity)	1.21E-02
	OH in Sample in µg/mL (PPM)	2.05E+02

Data Entry by:	RW Schroeder	Date:	01/03/95
Approved by:	RW Schroeder	Date:	1/3/95

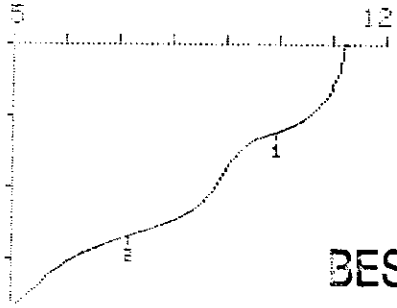
Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

```
date 94-12-31 time 04:23
GET pH          12  #  133
Id.#1    94002233
Id.#2       .1994
pH(init)    11.21
           V/ml          pH
EP1        .122        9.94
EP2        .268        7.21
stop volt.reached
```

```
date 94-12-31 time 04:22
GET pH          12  #  133
.10ml/div       ΔpH=1/div
start V    .000 ml
```



BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		Duplicate
Type	Sample Size (mL) SS	2.000
Duplicate	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.122
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	1.22E-02
OH	OH in Sample in µg/mL (PPM)	2.07E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000280		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Duplicate
04:45 AM	Concentration of OH in Sample (Molarity)	1.22E-02
	OH in Sample in µg/mL (PPM)	2.07E+02

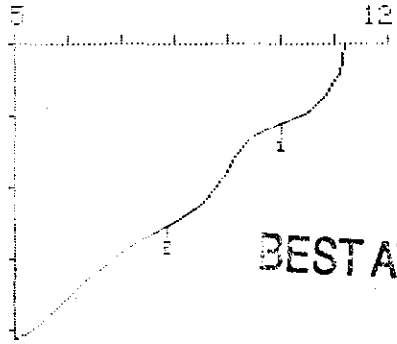
Data Entry by:	Rus Schroeder	Date:	01/03/95
Approved by:	Rus Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

```
date 94-12-31 time 04:30
GET pH          12  #  134
Id.#1    94000281
Id.#2       .1994
pH(init)    11.18
            V/ml          pH
EP1         .112        9.99
EP2         .255        7.85
stop volt.reached
        ========

date 94-12-31 time 04:30
GET pH          12  #  134
.10ml/div        ΔpH=1/div
start V    .000 ml
```



BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		Sample
Type	Sample Size (mL) SS	2.000
Sample	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.112
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	1.12E-02
OH	OH in Sample in µg/mL (PPM)	1.90E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000281		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Sample
04:45 AM	Concentration of OH in Sample (Molarity)	1.12E-02
	OH in Sample in µg/mL (PPM)	1.90E+02

Data Entry by:	Rus Schroeder	Date:	01/03/95
Approved by:	Rus Schroeder	Date:	1/3/95

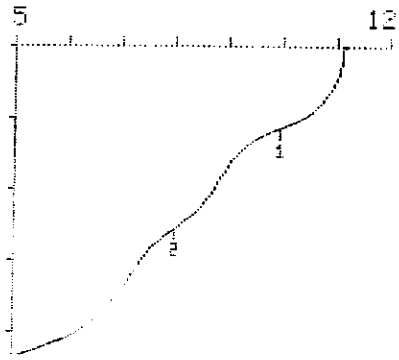
Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

```
date 94-12-31 time 04:00
GET pH          12  #  136
Id.#1    94000281
Id.#2       .1994
pH(init)    11.09
            V/ml          pH
EP1         .115        9.94
EP2         .256        7.98
stop mlt.reached
```

```
date 94-12-31 time 04:41
GET pH          12  #  136
.10ml/div       dpH=1/div
start V    .000 ml
```



BEST AVAILABLE COPY

OH (AUTO) : LA-211-102 (B-1)

		Duplicate
Type	Sample Size (mL) SS	2.000
Duplicate	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.115
295	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	1.15E-02
OH	OH in Sample in µg/mL (PPM)	1.95E+02
Matrix		
Liquid		
Sample #	Detection Limit = 125µg / SS * DF	
S94T000281		
Instrument Code	Detection Limit (µg/mL)	6.25E+01
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
RA Green		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
12/31/94		
Time		Duplicate
04:45 AM	Concentration of OH in Sample (Molarity)	1.15E-02
	OH in Sample in µg/mL (PPM)	1.95E+02

Data Entry by:	Ru Schroeder	Date:	01/03/95
Approved by:	Ru Schroeder	Date:	1/3/95

Form 211102_1 Rev. 1.3

LABCORE Data Entry Template for Worklist# 1135

Analyst: RAW **Instrument:** PH01 (NLOADAS **Book #** 21N8-B

Method: LA-211-102 Rev/Mod B-31 RWS 4-27-95

Worklist Comment: OH- SY-103, 100D.F.

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				OH-C1	LIQUID	1	<.4167 ~~<.42~~ NEW 4/13/95	N/A	ug/mL
		2	STD				OH-01	LIQUID	1.60E+4	1.59E+4	N/A	ug/mL
94000020	SY-103	3	SAMPLE	S95T000332	0		OH-01	LIQUID	N/A	2.93E+3 4/18/95 ~~+2~~ NEW	4.17E+4 ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	4	DUP	S95T000332	0		OH-01	LIQUID	2.93E+3	2.79E+4 4/18/95 ~~+2~~ NEW	N/A ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	5	SAMPLE	S95T000333	0		OH-01	LIQUID	N/A	2.96E+3 4/18/95 ~~+2~~ NEW	4.17E+4 ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	6	DUP	S95T000333	0		OH-01	LIQUID	2.96E+3	2.89E+4 4/18/95 ~~+2~~ NEW	N/A ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	7	SAMPLE	S95T000334	0		OH-01	LIQUID	N/A	1.42E+4 4/18/95 ~~+2~~ NEW	4.17E+4 ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	8	DUP	S95T000334	0		OH-01	LIQUID	1.42E+4	1.50E+4 4/18/95 ~~+2~~ NEW	N/A ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	9	SAMPLE	S95T000335	0		OH-01	LIQUID	N/A	1.30E+4 4/18/95 ~~+2~~ NEW	4.17E+4 ~~+2~~ NEW 4/18/95	ug/mL
94000020	SY-103	10	DUP	S95T000335	0		OH-01	LIQUID	1.30E+4	1.27E+4	N/A	ug/mL
		11	STD				OH-01	LIQUID	1.60E+4	1.59E+4	N/A	ug/mL

Final page for worklist # 1135

Rob Wenman 4-17-95
Analyst Signature **Date**

Analyst Signature **Date**

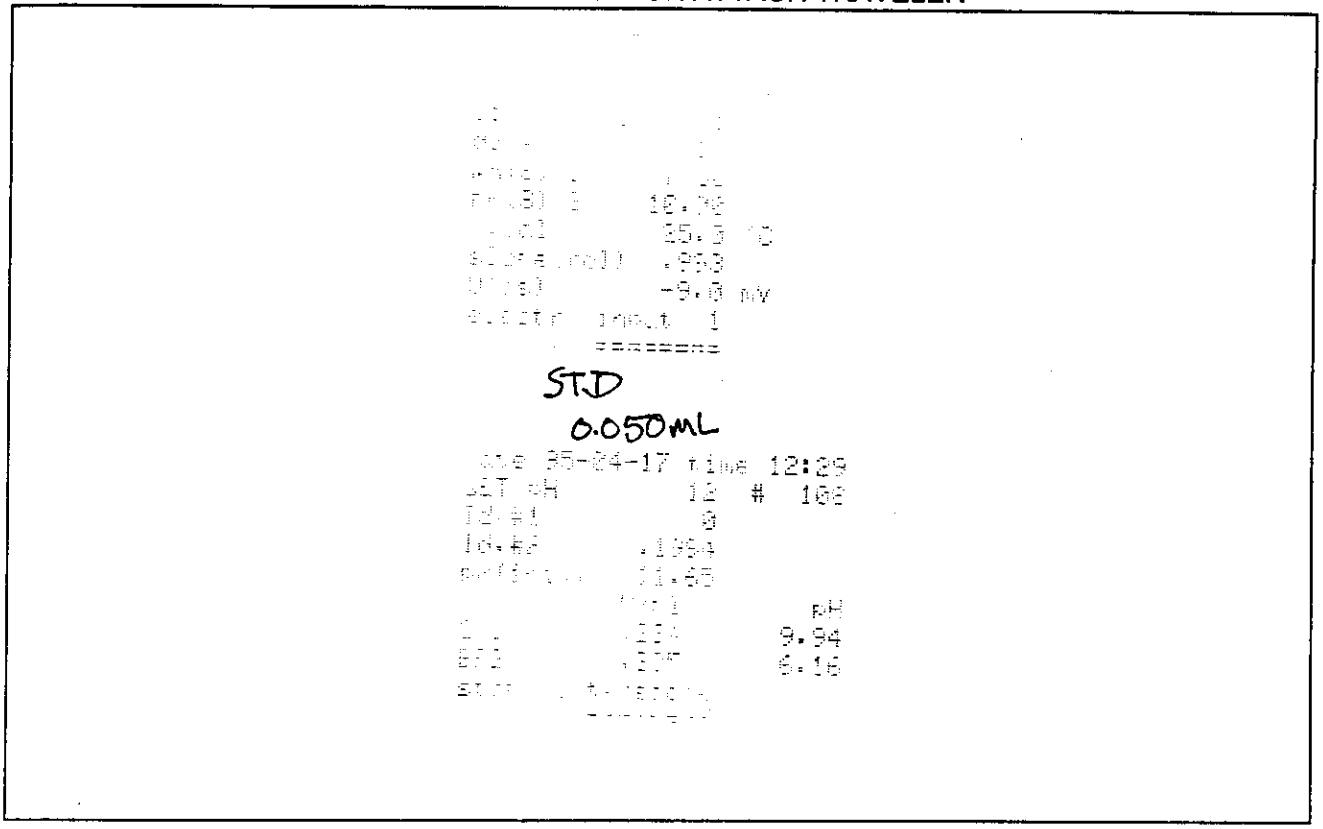
4-19-95

Reviewed RW Schroeder 4-19-95

Data Entry Comments: 3ML DIRECT + 1ML BaCl2

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



OH (AUTO) : LA-211-102 (B-1)

		STANDARD
Type	Sample Size (mL) SS	0.050
STANDARD	Concentration of HNO3 (Molarity)	0.1994
WorkList	HNO3 Titrant at OH end-point in mL	0.234
1135	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	9.33E-01
	OH in Sample in µg/mL (PPM)	1.59E+04
Matrix		
LIQUID		
Sample #		
21N8B		
Instrument Code		
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		STANDARD
12:29 PM	Concentration of OH in Sample (Molarity)	9.33E-01
	OH in Sample in µg/mL (PPM)	1.59E+04

Data Entry by:	RE Wright	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4-19-95

Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

```
date [illegible] time 12:5[illegible]
GET [illegible] 110
Iv.#1 [illegible]
Iv.#2 .1994
pH(init) 5.33
stop volt.reached
========
```

BLK
3mL

```
date 95-04-17 time 12:57
GET pH 12 # 11[illegible]
.10ml/div 4pH=1/[illegible]
start V .000 ml

4 6
```

OH (AUTO) : LA-211-102 (B-1)

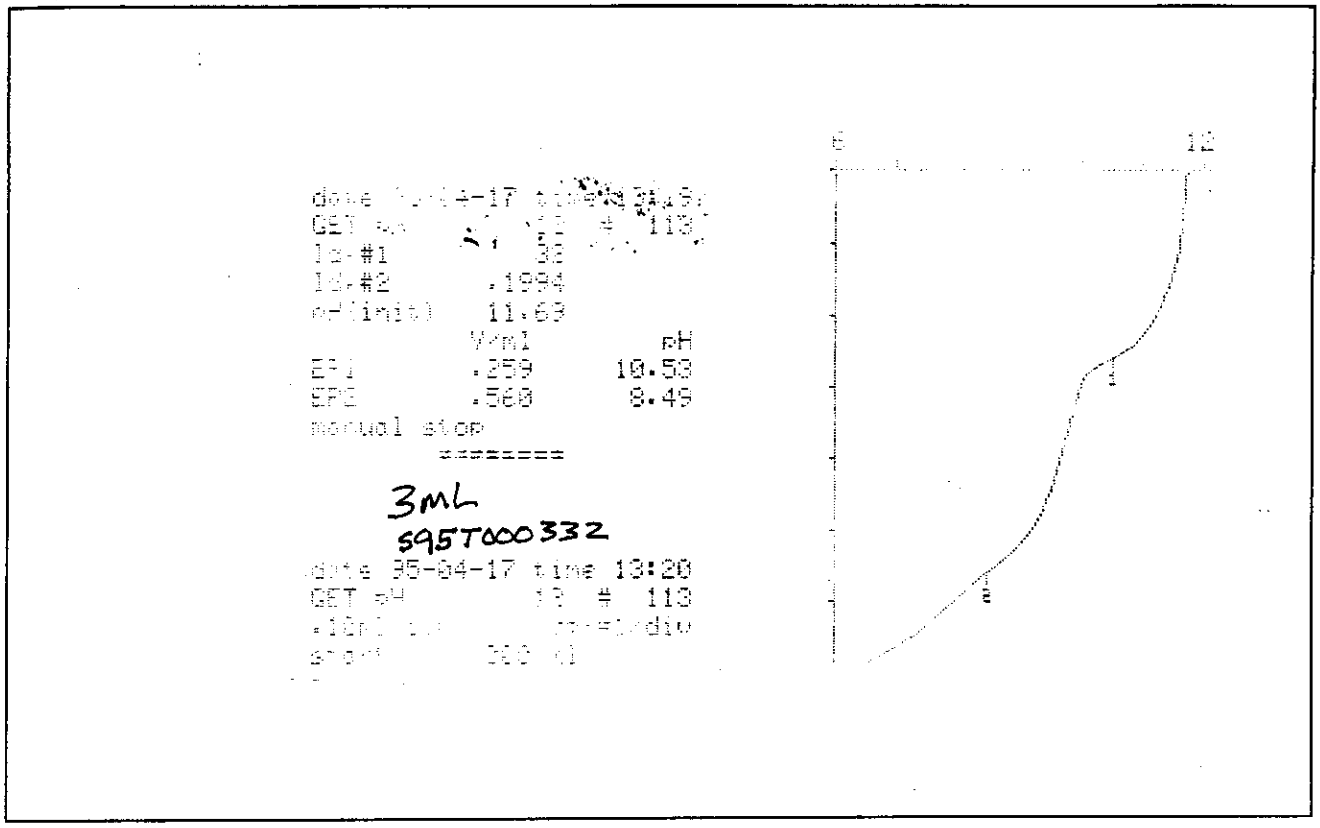
		BLANK
Type	Sample Size (mL) SS	3.000
BLANK	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.000
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	0.00E+00
	OH in Sample in µg/mL (PPM)	0.00E+00
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		BLANK
01:56 PM	Concentration of OH in Sample (Molarity)	0.00E+00
	OH in Sample in µg/mL (PPM)	<4167

The Result is < Detection Limit

Data Entry by:	[illegible]	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER



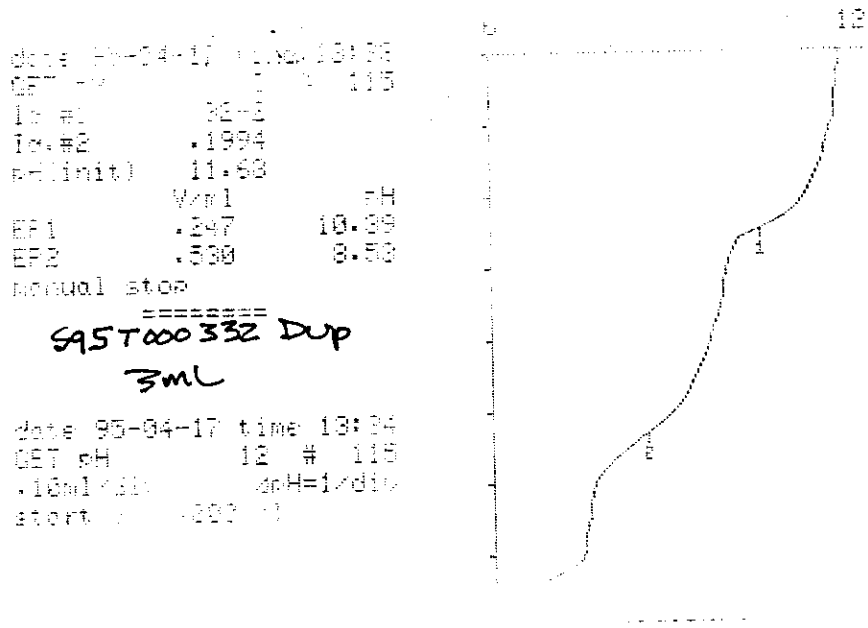
OH (AUTO) : LA-211-102 (B-1)

		SAMPLE
Type	Sample Size (mL) SS	3.000
SAMPLE	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.259
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	1.72E+00
	OH in Sample in µg/mL (PPM)	2.93E+04
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000332		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		SAMPLE
01:56 PM	Concentration of OH in Sample (Molarity)	1.72E+00
	OH in Sample in µg/mL (PPM)	2.93E+04

Data Entry by:	R E Wright	Date:	04/18/95
Approved by:	Rui Edmondson	Date:	4/19/95

Form 211102_1 Rev. 1.3 WHC-SD-WM-DP-074, REV. 0 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER




```
date 95-04-17 time 13:38
OET pH          12  #  115
.10ml/div       .pH=1/div
start [ .000 ]
```

```
date 95-04-17 time 13:38
OET pH          12  #  115
Id #1          32-1
Id.#2        .1994
pH(init)     11.68
            V/ml          pH
EP1          .247       10.39
EP2          .530        8.58
manual stop
=========
```

S95T000332 DUP
3mL

OH (AUTO) : LA-211-102 (B-1)

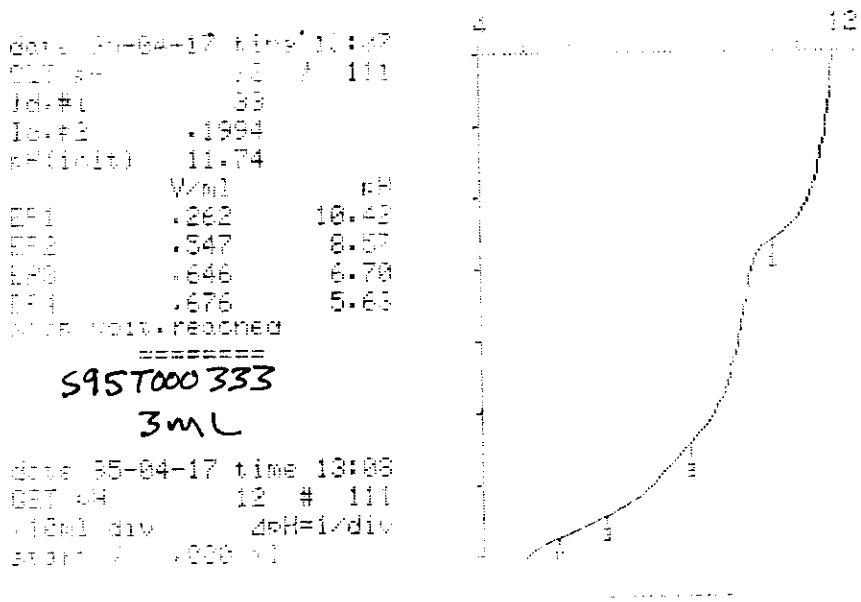
		DUPLICATE
Type	Sample Size (mL) SS	3.000
DUPLICATE	Concentration of HNO3 (Molarity)	0.1994
Work Listing	HNO3 Titrant at OH end-point in mL	0.247
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	1.64E+00
	OH in Sample in µg/mL (PPM)	2.79E+04

Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000332		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		DUPLICATE
01:56 PM	Concentration of OH in Sample (Molarity)	1.64E+00
	OH in Sample in µg/mL (PPM)	2.79E+04

Data Entry by:	RE Wright	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER



OH (AUTO) : LA-211-102 (B-1)

		SAMPLE
Type	Sample Size (mL) SS	3.000
SAMPLE	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.262
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	1.74E+00
	OH in Sample in µg/mL (PPM)	2.96E+04
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000333		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		SAMPLE
01:56 PM	Concentration of OH in Sample (Molarity)	1.74E+00
	OH in Sample in µg/mL (PPM)	2.96E+04

Data Entry by:	[illegible]	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

Form 211102_1 Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

```
title titrate-1
GET pH          12  #  116
ID.#1        S95-2
ID.#2        .1994
pH(init)     11.71
             V/ml          pH
EP1          .256       10.41
EP2          .534        8.60
manual stop
        ========
```

S95T000333 dup

3 mL

```
done 95-04-17 time 13:42
GET pH          12  #  116
.10ml/div        dpH=1/div
start       .000 ml
```

OH (AUTO) : LA-211-102 (B-1)

		DUPLICATE
Type	Sample Size (mL) SS	3.000
DUPLICATE	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.256
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	1.70E+00
	OH in Sample in µg/mL (PPM)	2.89E+04
Matrix		
LIQUID		
Sample#	Detection Limit = 125µg / SS * DF	
S95T000333		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		DUPLICATE
01:56 PM	Concentration of OH in Sample (Molarity)	1.70E+00
	OH in Sample in µg/mL (PPM)	2.89E+04

Data Entry by:	[illegible]	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

```
date 95-04-17 time 13:12
SET pH          11   #  112
Ip.#1           34
Ip.#2        .1994
pH (init)    11.37
             V/ml        pH
EP1          .126      9.38
EP2          .171      8.26
Manual stop
```

3 mL
S95T000334

OH (AUTO) : LA-211-102 (B-1)

		SAMPLE
Type	Sample Size (mL) SS	3.000
SAMPLE	Concentration of HNO3 (Molarity)	0.1994
Worklist	HNO3 Titrant at OH end-point in mL	0.126
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	8.37E-01
	OH in Sample in µg/mL (PPM)	1.42E+04
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000334		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		SAMPLE
01:56 PM	Concentration of OH in Sample (Molarity)	8.37E-01
	OH in Sample in µg/mL (PPM)	1.42E+04

Data Entry by:	RE Wright	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

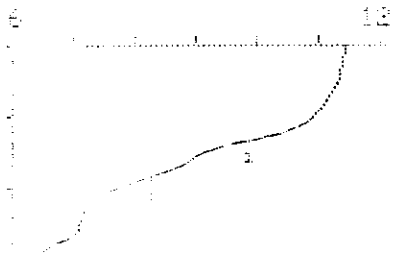
date 95-04-17 time 13:47
GET pH 12 # 117
Ts.#1 [illegible]
Ts.#2 .1994
p-(init) 11.42

	V/ml	pH
EP1	.133	9.[illegible]
EP2	.133	8.[illegible]

normal stop
========

S95T000334 dup
3mL

date 95-04-17 time 13:47
GET pH 12 # 117
.10ml/div dpH=1/div
start V .000 ml



OH (AUTO) : LA-211-102 (B-1)

		DUPLICATE
Type	Sample Size (mL) SS	3.000
DUPLICATE	Concentration of HNO3 (Molarity)	0.1994
WorkList	HNO3 Titrant at OH end-point in mL	0.133
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	8.84E-01
	OH in Sample in µg/mL (PPM)	1.50E+04
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000334		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		DUPLICATE
01:56 PM	Concentration of OH in Sample (Molarity)	8.84E-01
	OH in Sample in µg/mL (PPM)	1.50E+04

Data Entry by:	[illegible]	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

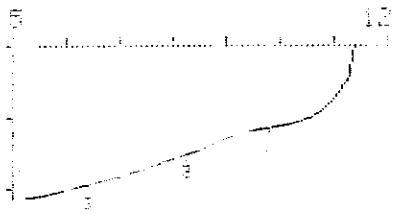
Form 211102_1 Rev. 1.3 WHC-SD-WM-DP-074, REV. 0 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

```
date 95-04-17  time 13:25
GET pH          12  #  114
Ia.#1           .115
Ia.#2        .1994
pH(init)     11.37
            V/ml          pH
EP1         .115        9.00
EP2         .151        8.37
EP3         .194        6.41
manual stop
        ========
```

S95T000335
3mL

```
date 95-04-17 time 13:26
GET pH          12  #  114
.13ml/div        ΔpH=1/div
start V    .000 ml
```



OH (AUTO) : LA-211-102 (B-1)

		SAMPLE
Type	Sample Size (mL) SS	3.000
SAMPLE	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.115
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	7.64E-01
	OH in Sample in µg/mL (PPM)	1.30E+04
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000335		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		SAMPLE
01:56 PM	Concentration of OH in Sample (Molarity)	7.64E-01
	OH in Sample in µg/mL (PPM)	1.30E+04

Data Entry by:	R. Wendland	Date:	04/18/95
Approved by:	Ruy Schroeder	Date:	4/19/95

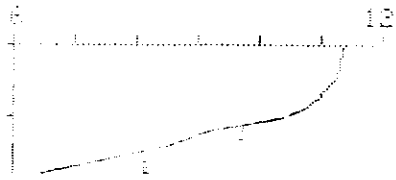
Form 211102_1 Rev. 1.3 WHC-SD-WM-DP-074, REV. 0 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

```
date 95-04-17 time 13:52
GET pH          12  #  118
Iq.#1          [illegible]
Iq.#2        .1994
pH(init)     11.34
             V/ml          pH
EP1          .112        9.[illegible]
EP2          .149        8.17
manual stop
========
```

S95T000335 dup
3mL

```
date 95-04-17 time 13:5[illegible]
GET pH          12  #  11[illegible]
.10ml/div        dpH=1/div
start V    .000 ml
```



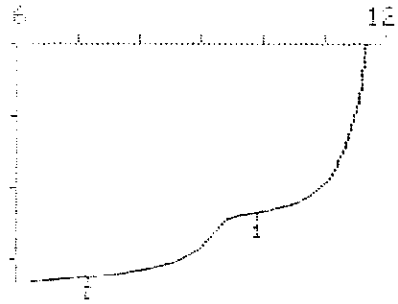
OH (AUTO) : LA-211-102 (B-1)

		DUPLICATE
Type	Sample Size (mL) SS	3.000
DUPLICATE	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.112
1135	Dilution Factor DF	100
Test Code	Concentration of OH in Sample (Molarity)	7.44E-01
	OH in Sample in µg/mL (PPM)	1.27E+04
Matrix		
LIQUID		
Sample #	Detection Limit = 125µg / SS * DF	
S95T000335		
Instrument Code	Detection Limit (µg/mL)	4.17E+03
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		DUPLICATE
01:56 PM	Concentration of OH in Sample (Molarity)	7.44E-01
	OH in Sample in µg/mL (PPM)	1.27E+04

Data Entry by:	[illegible]	Date:	04/18/95
Approved by:	RW Schroeder	Date:	4/19/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

date 95-04-17 time 13:56
GET 12 # 119
Id.#1
Id.#2 .000
pH(min) 11.66
V/ml pH
EP1 .234 9.33
EP2 .326 7.18
normal stop
========
end std
0.050mL
date 95-04-17 time 13:56
GET 12 # 119
.10ml/div pH=1/div
start v .000 ml



OH (AUTO) : LA-211-102 (B-1)

		STANDARD
Type	Sample Size (mL) SS	0.050
STANDARD	Concentration of HNO3 (Molarity)	0.1994
Work List	HNO3 Titrant at OH end-point in mL	0.234
1135	Dilution Factor DF	1
Test Code	Concentration of OH in Sample (Molarity)	9.33E-01
	OH in Sample in µg/mL (PPM)	1.59E+04
Matrix		
LIQUID		
Sample#		
21N8B		
Instrument Code		
WL06695		
Analyst	OH Molarity =((mL HNO3)*(M HNO3))/Sample Size in mL*Dilution Factor	
R. WENDLAND		
Date	OH in µg/mL = (OH MOLARITY)*(17.0g/mole)*((1000000µg/g)/(1000mL/L))	
04/17/95		
Time		STANDARD
01:56 PM	Concentration of OH in Sample (Molarity)	9.33E-01
	OH in Sample in µg/mL (PPM)	1.59E+04

Data Entry by:	R.C. Wright	Date:	04/18/95
Approved by:	Ru Schroeder	Date:	4/19/95

Form 211102_1 Rev. 1.3

WHC-SD-WM-DP-074, REV. 0

THIS PAGE INTENTIONALLY
LEFT BLANK.

CYANIDE ANALYSES

THIS PAGE INTENTIONALLY
LEFT BLANK

LABCORE Data Entry Template for Worklist# 160

Analyst: JTK **Instrument:** SP01 **Method:** LA-695-102 B-2

Worklist Comment: Jim Knight- use EDTA/en reagent. WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit
1	BLNK				CN-01	SOLID	0.00	<0.002	N/A	ug/g
2	STD	41N8D			CN-01	SOLID	922	834	N/A	ug/g
3	SAMPLE	S94T000091	0		CN-01	SOLID	N/A	25.3	0.3	ug/g
4	DUP	S94T000091	0		CN-01	SOLID	25.3	27.2	N/A	ug/g
5	SAMPLE	S94T000092	0		CN-01	SOLID	N/A	55.8	2.0	ug/g
6	DUP	S94T000092	0		CN-01	SOLID	55.8	41.4	N/A	ug/g
7	SPK	S94T000092	0		CN-01	SOLID	922	812	N/A	ug/g
8	STD				CN-01	SOLID	922	842	N/A	ug/g

Final page for worklist # 160

Analyst Signature

12.15.94
Date

12.13.94

12.13.94

580NM 0.000 A
580NM 0.008 A 1
580NM 0.524 A 2
580NM 0.103 A 3
580NM 0.110 A 4
580NM 0.047 A 5
580NM 0.038 A 6
580NM 0.296 A 7
580NM 0.528 A 8

CN
Worklist #160

Data Entry Comments: Data entered 12/14/94

All data approved except for sample S94T000092, which is out for reanalysis (Worklist # 258). Because insufficient sample was used, the results for S94T000092 were outside the working calibration range.

12/14/94

nits shown for QC (SPK) may not reflect the actual units.

Page: 1

SAMPLE	ug CN	wt. sample, spike, or std.	Result
2	$\frac{(0.524-0.008)-0.004}{0.1237} = \cancel{0.736}$ 4.13 QWB	$\frac{922\ ug/ml}{10\ d.f.} \times 0.500ml = 4.56\ ug$	$\frac{4.13}{4.56} \times 100\% = 90.6\%$ rec.
3	$\frac{[(0.103)-0.008]-0.004}{0.1237} = 0.736$	$\frac{0.2908g}{5.00ml} \times 0.500ml = 0.0291\ g$	$\frac{0.736\ ug\ CN}{0.0291\ g} = 25.3\ \frac{ug\ CN}{g}$
4	$\frac{(0.110-0.008)-0.004}{0.1237} = 0.792$	$\frac{0.2908\ g}{5.00\ ml} \times 0.500\ ml = 0.0291\ g$	$\frac{0.792\ ug\ CN}{0.0291\ g} = 27.2\ \frac{ug\ CN}{g}$
5	$\frac{(0.047-0.008)-0.004}{0.1237} = 0.283$	$\frac{0.5076\ g}{5.00\ ml} \times 0.0500\ ml = 0.005076\ g$	$\frac{0.283\ ug\ CN}{0.005076\ g} = 55.8\ \frac{ug\ CN}{g}$
6	$\frac{(0.038-0.008)-0.004}{0.1237} = 0.210$	$\frac{0.5076\ g}{5.00\ ml} \times 0.0500\ ml = 0.005076\ g$	$\frac{0.210\ ug\ CN}{0.005076\ g} = 41.4\ \frac{ug}{g}$
7	$\frac{(0.296-0.008)-0.004}{0.1237} = 2.296$	$\frac{922\ ug/ml}{10\ d.f.} \times 0.250\ ml = 2.28\ ug$	$\frac{(2.296-0.283)}{2.28} \times 100\% = \{$ rec.
8	$\frac{(0.528-0.008)-0.004}{0.1237} = 4.17$	$\frac{922\ ug/ml}{10\ d.f.} \times 0.500\ ml = 4.56\ ug$	$\frac{4.17}{4.56} \times 100\% = 91.4\%$ rec.

BEST AVAILABLE COPY

D.L.s

3 .01 ug CN / 0.0291 g = 0.34 ug/g

~~4~~ 5 QWD .01 ug CN / .005076 g = 1.97 ug/g

LABCORE Data Entry Template for Worklist# 258

OA

Analyst: [illegible] **Instrument:** SP01 _____ **Method:** LA-695-102 B-2

Worklist Comment: Assigned to Jim Knight -- CN rerun WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit
1	BLNK				CN-01	SOLID	<0.1	<0.1	N/A	~~ug/g~~ mg/mL RWS 12-19-94
2	STD				CN-01	SOLID	9.22E+2	9.74E+2	N/A	~~ug/g~~ mg/mL RWS 12-19-94
3	SAMPLE	S94T000092	0		CN-01	SOLID	N/A	9.10E+1	6.64E+0	ug/g
4	DUP	S94T000092	0		CN-01	SOLID	9.10E+1	9.43E+1	N/A	ug/g
5	SPK	S94T000092	0		CN-01	SOLID	100 RWS 12-19-94 ~~9.22E+2~~	8.28E+1 ~~7.63E+2~~	RWS 12-19-94 N/A	RWS 12-19-94 % rec. ~~ug/g~~
6	STD				CN-01	SOLID	9.22E+2	8.34E+2 ~~833~~ RWS 12-19-94	N/A	mg/mL ~~ug/g~~ RWS 12-19-94

Final page for worklist # 258

[illegible] 12.19.94

Analyst Signature **Date** 12-19-94

Blank = $\frac{0.007 - 0.004492}{0.123666} = 0.02028 \text{ mg}/5\text{mL} = <0.1 \text{ mg/mL}$

Std = $\frac{(0.607 - 0.007) - 0.004492}{0.123666} = 4.82 \text{ mg}/4.56 \cdot 100 = 105.7 \%$ rec

T.V. = 9.22E+2 ppm

S94T000092 = $\frac{(0.181 - 0.007) - 0.004492}{0.123666} = 1.37 \text{ mg}/0.200\text{mL} = 6.85 \text{ mg/mL} \cdot 1\text{mL}/0.0753\text{g} =$ 90.97 mg/g

S94T000092 dup = $\frac{(0.187 - 0.007) - 0.004492}{0.123666} = 1.42 \text{ mg}/.0200\text{mL} = 7.096 = 7.10 \text{ mg/mL}$

$7.10 \text{ mg/mL} \cdot 1\text{mL}/0.0753 = 94.3 \text{ mg/g}$

Spike = $\frac{(0.426 - 0.007) - 0.004492}{0.123666} = 1.89 \times 101/.250 = 763 \text{ mg/mL}$ RWS 12-19-94 ~~3.35~~ RWS 12-19-94

(0.426-.181-0.007)

STD = $\frac{(0.522 - 0.007) - 0.004492}{0.123666} = 4.13 \times 101/0.500 = 833.8/922 = 90.4 \%$ rec

Data Entry Comments: Std .100ml-10ml-.500ml 4IN8D

.3765g in 5ml EDTA Sample & Dupe are .200ml

250ml 4IN8D Data Entered by Robert W. Schroeder 12-19-94

Data Reviewed by Robert W. Schroeder 12-19-94

Units shown for QC (SPK) may not reflect the actual units.

12-19-94

580NM 0.000 A Instrument Blank
580NM 0.607 A Standard 41N8D
580NM 0.007 A Reagent Blank
580NM 0.181 A S94T000092
580NM 0.187 A S94T000092 Dup
580NM 0.426 A S94T000092 + SpK
580NM 0.522 A Standard 41N8D

12.19.94

BEST AVAILABLE COPY

BEST AVAILABLE COPY

Date: 12/16/94
Calibration Std: 39N16F
Inst. ID: 3805002002
Working Std #1 = 1040 ug/ml / 11 dil factor = 94.
Working Std. #2 = 94.55 ug/ml / 11 d.f. = 8.60 ug/ml

	ug CN⁻	Net Abs.
Blank	0	0
0.05 ml WS2	0.430	0.053
0.10 ml WS2	0.860	0.092
0.20 ml WS2	1.720	0.220
0.05 ml WS1	4.73	0.637
0.10 ml WS1	9.46	1.152

580NM 0.050 A ←
580NM 0.099 A
580NM 0.227 A
580NM 0.644 A
580NM 1.159 A
580NM 1.967 A out
580NM 2.187 A out
580NM 0.087 A Blank
580NM 0.532 A Stand

597

Leslie Diaz 1-21-95

CHROMIUM VI ANALYSES

LABCORE Data Entry Template for Worklist# 377

Analyst: SMF **Instrument:** SP01 _____ **Method:** LA-265-101/A-2

Worklist Comment: SY-103 samples for Cr+6. JMF WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				CRVI-01	SOLID		.003	N/A	ug/g
2	STD				CRVI-01	SOLID		.385	N/A	ug/g
3	SAMPLE	S94T000267	0	W	CRVI-01	SOLID	N/A	.014	21.9	ug/g
4	DUP	S94T000267	0	W	CRVI-01	SOLID		.013	N/A	ug/g
5	SPK	S94T000267	0	W	CRVI-01	SOLID		.199	N/A	ug/g
6	SAMPLE	S94T000279	0	W	CRVI-01	SOLID	N/A	.012	22.1	ug/g
7	SPK	S94T000279	0	W	CRVI-01	SOLID		.008	N/A	ug/g
8	DUP	S94T000279	0	W	CRVI-01	SOLID		.200	N/A	ug/g

Final page for worklist # 377

Susie M. Fulton
Analyst Signature

1-12-95
Date

S94T000267 .5221g → 50ml 10.442g/L
Dup .5221g → 50ml 10.442g/L

S94T000279 .5164g → 50ml 10.328g/L
.5148g → 50ml 10.296g/L

43N16R - 5.36 ppm

Data Entered + Verified 1/16/95. J. M. Fuge

Data Entry Comments: STD 1.0m #43N16-R ; SPK+ .500ml #43N16-R
all samples ran a 1.0ml sample size

Units shown for QC (SPK) may not reflect the actual units.

Page: 1

CHROMIUM VI ANALYSIS

540NM -.003 540NM -.003 A
Prep Blank 1.0 ml

540NM 0.385 A
STD #43N16-R 1.0 ml

540NM 0.014 A
S94T000267 1.0 ml

540NM 0.013 A
S94T000267 DUP 1.0 ml

540NM 0.199 540NM 0.199 A
S94T000267 SPK 1.0 ml
+.500 ml #43N16-R

540NM 0.012 A
S94T000279 1.0 ml

540NM 0.008 A
S94T000279 DUP 1.0 ml

540NM 0.200 A
S94T000279 SPK 1.0 ml
+.500 ml #43N16-R

BEST AVAILABLE COPY

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			blank	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.003	
blank	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 + Vsamp)	(MF)	11	
	Dilution Factor	(DF)	1	
Test Code	Digest Dilution Factor	(DDF)	1	
	Low Calibration Point		0.019	
Matrix	High Calibration Point		0.776	
LIQUID	Y-intercept	(a)	0.00276	
Sample #	Slope	(b)	0.78068	
	Cr +6 µg/mL =		<0.229	

Calibration Date
12/11/94
Instrument Code
Analyst
Date
Time

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	blank	DUPLICATE
Cr +6 µg/mL =	<0.229	

The Sample Absorbance is < Detection Limit (the Low Calibration Point)

RESULT > N/A

Data Entry by: Jann Fuy Date: 01/16/95

Approved by: Jann Fuy Date: 1/17/95

Form 265101L1 Rev. 1.2

Page 1 of 1

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			standard	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.385	
standard	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 + Vsamp)	(MF)	11	
wkl 377	Dilution Factor	(DF)	1	
Test Code	Digest Dilution Factor	(DDF)	1	
	Low Calibration Point		0.019	
Matrix	High Calibration Point		0.776	
LIQUID	Y-Intercept	(a)	0.00276	
Sample #	Slope	(b)	0.78068	
std	Cr +6 µg/mL =		5.39E+00	
Calibration Date				
12/11/94				
Instrument Code				
spec 301				
Analyst				
Susie M. Fulton				
Date				
01/12/95				
Time				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	standard	DUPLICATE
Cr +6 µg/mL =	5.39E+00	

RESULT > N/A

Data Entry by: [signature] Date: 01/16/95

Approved by: [signature] Date: 1/17/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) SOLID SAMPLE

			sample	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.014	0.013
sample	Sample Volume in mL	(Vsamp)	1.000	1.000
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
wkl #377	Dilution Factor	(DF)	1	1
Test Code	Digest g/L	(DGL)	10.442	10.442
	Low calibration abs point		0.019	0.019
Matrix	High calibration abs point		0.776	0.776
SOLID	Y-intercept	(a)	0.00276	0.00276
Sample #	Slope	(b)	0.78068	0.78068
S94T000267	Cr +6 µg/g =		<21.914	<21.914

Calibration Date
12/11/94
Instrument Code
spec 301
Analyst
Susie M. Fulton
Date
01/12/95
Time

Cr +6 µg/g = (abs-a) * MF * DF * (1000mL/L) / (b * DGL * Vsamp)
RPD = |Cr +6 µg/g SAM - Cr +6 µg/g DUP| / AVERAGE OF THE SAM + DUP * 100
Less Than Value = Sample Absorbance < Low Calibration Point

v RESULT v	sample	DUPLICATE
Cr +6 µg/g =	<21.914	<21.914

Both Absorbances are < Detection Limit (the Low Calibration Point)

RESULT > Recovery % Difference = N/A

Data Entry by: [signature] Date: 01/16/95
Approved by: [signature] Date: 1/17/95

Form 265101S2 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) HEXAVALENT CHROMIUM - SPIKE

			SPIKE
Type	SAMPLE ABSORBANCE at 540 nm	(SAM abs)	0.014
SPIKE	SAMPLE + SPIKE ABSORBANCE at 540 nm	(S+S abs)	0.199
Work List	SAMPLE VOLUME (Sample) in mL	(Vsam)	1.000
wkl 377	SAMPLE VOLUME (Spiked Sample) in mL	(S+S Vsam)	1.000
Test Code	VOLUME of SPIKE in mL	(VOL Spk)	0.500
	SPIKE DILULTION FACTOR	(SDF)	1
Matrix	SPIKE VALUE	(µg/mL)	5.36
solid			
Sample #	LOW CALIBRATION POINT		0.019
s94T000267	HIGH CALIBRATION POINT		0.776
Calibration Date	Y-INTERCEPT	(a)	0.00276
12/11/94	SLOPE	(b)	0.78068
Instrument Code			
spec 301			
Analyst			
Susie M. Fulton			
Date			
01/12/95			
Time			

Cr +6 Molarity in SAMP VIAL = (SAM abs - a) / b (MSV)
Cr +6 Molarity in S+S VIAL = (S+S abs - a) / b (MSSV)
TOTAL VOLUME for SAMP VIAL = 10 + Vsam (TVS)
TOTAL VOLUME for S+S VIAL = 10 + S+S Vsam + VOL Spk (TVSS)
% Spike Rec. = ((MSSV * TVSS) - (MSV * TVS * SSCF)) / (SPIKE VALUE * VOL Spk / SDF)
Note: SAMPLE SIZE CORRECTION FACTOR (SSCF) = S+S Vsam / Vsam

RESULT % SPIKE RECOVERY = 107.9%

Data entry by:	[illegible]	Date:	01/17/95
Approved by:	[illegible]	Date:	1/17/95

Form 265101X3 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) SOLID SAMPLE

			sample	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.012	0.008
sample	Sample Volume in mL	(Vsamp)	1.000	1.000
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
wkl 377	Dilution Factor	(DF)	1	1
Test Code	Digest g/L	(DGL)	10.328	10.296
	Low calibration abs point		0.019	0.019
Matrix	High calibration abs point		0.776	0.776
SOLID	Y-intercept	(a)	0.00276	0.00276
Sample #	Slope	(b)	0.78068	0.78068
S94T000279	Cr +6 µg/g =		<22.156	<22.225

Calibration Date
12/11/94
Instrument Code
spec 301
Analyst
Susie M. Fulton
Date
01/12/95
Time

Cr +6 µg/g = (abs-a) * MF * DF * (1000mL/L) / (b * DGL * Vsamp)

RPD = |Cr +6 µg/g SAM - Cr +6 µg/g DUP| / AVERAGE OF THE SAM + DUP * 100

Less Than Value = Sample Absorbance < Low Calibration Point

v RESULT v	sample	DUPLICATE
Cr +6 µg/g =	<22.156	<22.225

Both Absorbances are < Detection Limit (the Low Calibration Point)

RESULT > Recovery % Difference = N/A

Data Entry by: [signature] Date: 01/16/95

Approved by: [signature] Date: 1/17/95

Form 265101S2 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) HEXAVALENT CHROMIUM - SPIKE

			SPIKE
Type	SAMPLE ABSORBANCE at 540 nm	(SAM abs)	0.012
SPIKE	SAMPLE + SPIKE ABSORBANCE at 540 nm	(S+S abs)	0.2
Work List	SAMPLE VOLUME (Sample) in mL	(Vsam)	1.000
wkl 377	SAMPLE VOLUME (Spiked Sample) in mL	(S+S Vsam)	1.000
Test Code	VOLUME of SPIKE in mL	(VOL Spk)	0.500
	SPIKE DILULTION FACTOR	(SDF)	1
Matrix	SPIKE VALUE	(µg/mL)	5.36
solid			
Sample #	LOW CALIBRATION POINT		0.019
S94T000279	HIGH CALIBRATION POINT		0.776
Calibration Date	Y-INTERCEPT	(a)	0.00276
12/11/94	SLOPE	(b)	0.78068
Instrument Code			
spec 301			
Analyst			
Susie M. Fulton			
Date			
01/12/95			
Time			

Cr +6 Molarity in SAMP VIAL = (SAM abs - a) / b (MSV)
Cr +6 Molarity in S+S VIAL = (S+S abs - a) / b (MSSV)
TOTAL VOLUME for SAMP VIAL = 10 + Vsam (TVS)
TOTAL VOLUME for S+S VIAL = 10 + S+S Vsam + VOL Spk (TVSS)
% Spike Rec. = ((MSSV * TVSS) - (MSV * TVS * SSCF)) / (SPIKE VALUE * VOL Spk / SDF)
Note: SAMPLE SIZE CORRECTION FACTOR (SSCF) = S+S Vsam / Vsam

RESULT % SPIKE RECOVERY = 108.4%

Data entry by:	[signature]	Date:	01/17/95
Approved by:	[signature]	Date:	1/17/95

Form 265101X3 Rev. 1.2

LABCORE Data Entry Template for Worklist# 378

Analyst: DCD **Instrument:** SP01 _____ **Method:** LA-265-101 /A-2

Worklist Comment: SY-103 for Cr+6. JMF

WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				CRVI-01	SOLID	1	<0.229 ~~<20.765~~ ere 7/31/95	N/A	ug/g
2	STD	#43N16-R			CRVI-01	SOLID	5.36	5.46	N/A	ug/g
3	SAMPLE	S94T000280	0	W	CRVI-01	SOLID	N/A	6.17E 01	20.76	ug/g
4	DUP	S94T000280	0	W	CRVI-01	SOLID	6.17E 01	6.37E 01	N/A	ug/g
5	SPK	S94T000280	0	W	CRVI-01	SOLID	100	100.6	N/A	ug/g
6	SAMPLE	S94T000281	0	W	CRVI-01	SOLID	N/A	1.54E 02	21.75	ug/g
7	DUP	S94T000281	0	W	CRVI-01	SOLID	1.54E 02	1.48E 02	N/A	ug/g
8	SPK	S94T000281	0	W	CRVI-01	SOLID	100	100.6	N/A	ug/g

Final page for worklist # 378

David C Dunham
Analyst Signature

1-14-95 / 1720
Date

1-14-95 / 1925

David C Dunham Sample Size

S94T280 SAM 1ml
S94T280 DUP 1ml
S94T280 Spike 1ml + .500 ml spike #43N16-R
S94T281 SAM 1ml
S94T281 DUP 1ml
S94T281 SPIKE 1ml + .500 ml spike #43N16-R
STD 1ml
BLNK-PREP 1ml

Data Entry Comments: Verified 1/17/95. Jenn Frye

Units shown for QC (SPK) may not reflect the actual units.

Page: 1

CHROMIUM VI ANALYSIS

BEST AVAILABLE COPY

540NM 0.000 A BLK
540NM 0.390 A STD

540NM 540NM -.000 A PREP BLANK

540NM 0.051 A S94T280 SAM

540NM 0.049 540NM 0.049 A S94T280 DUP

540NM 0.232 A S94T280 SPIKE

540NM 0.118 A S94T281 SAM

540NM 0.112 A S94T281 DUP

540NM 0.296 A S94T281 SPIKE

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			BLANK	DUPLICATE
[illegible]	Sample Absorbance at 540 nm	(abs)	0.000	
BLANK	Sample Volume in mL	(Vsamp)	1.00	
[illegible]	Method Factor (10 + Vsamp)	(MF)	11	
378	Dilution Factor	(DF)	1	
[illegible]	Digest Dilution Factor	(DDF)	1	
CRVI-01	Low Calibration Point		0.019	
[illegible]	High Calibration Point		0.776	
LIQUID	Y-Intercept	(a)	0.00276	
[illegible]	Slope	(b)	0.78068	
BLNK-PREP	Cr +6 µg/mL =		<0.229	

[illegible] Calibration Date
12/11/94

Instrument Code
[illegible]

[illegible] Analyst
DC DUNHAM

[illegible] Date
01/14/95

[illegible] Time
05:20 PM

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)
RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100
Less Than Value = abs < Low Calibration Point

v RESULT v	BLANK	DUPLICATE
Cr +6 µg/mL =	<0.229	

The Sample Absorbance is < Detection Limit (the Low Calibration Point)

RESULT > N/A

Data Entry by:	Jane M. Fage	Date:	07/31/95
Approved by:	Jane M. Fage	Date:	7/31/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			STANDARD	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.390	
STANDARD	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 + Vsamp)	(MF)	11	
378	Dilution Factor	(DF)	1	
Test Code	Digest Dilution Factor	(DDF)	1	
CRVI-01	Low Calibration Point		0.019	
Matrix	High Calibration Point		0.776	
LIQUID	Y-Intercept	(a)	0.00276	
Sample #	Slope	(b)	0.78068	
STD	Cr +6 µg/mL =		5.46E+00	
Calibration Date				
12/11/94				
Instrument Code				
Analyst				
DC DUNHAM				
Date				
01/14/95				
Time				
05:20 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	STANDARD	DUPLICATE
Cr +6 µg/mL =	5.46E+00	

RESULT > N/A

Data Entry by: David C Dunham Date: 01/14/95

Approved by: James Lugi Date: 1/16/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) SOLID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.051	
SAMPLE	Sample Volume in mL	(Vsamp)	1.000	
Work List	Method Factor (10 + Vsamp)	(MF)	11	
378	Dilution Factor	(DF)	1	
Test Code	Digest g/L	(DGL)	11.02	
CRVI-01	Low calibration abs point		0.019	
Matrix	High calibration abs point		0.776	
SOLID	Y-intercept	(a)	0.00276	
Sample #	Slope	(b)	0.78068	
S94T000280	Cr +6 µg/g =		6.17E+01	
Calibration Date				
12/11/94				
Instrument Code				
Analyst				
DC DUNHAM				
Date				
01/14/95				
Time				
05:20 PM				

Cr +6 µg/g = (abs-a) * MF * DF * (1000mL/L) / (b * DGL * Vsamp)

RPD = |Cr +6 µg/g SAM - Cr +6 µg/g DUP| / AVERAGE OF THE SAM + DUP * 100

Less Than Value = Sample Absorbance < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/g =	6.17E+01	

RESULT >

Data Entry by:	Dawn C. Dunham	Date:	01/14/95
Approved by:	[illegible]	Date:	1/14/95

Form 265101S2 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) SOLID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.051	0.049
DUPLICATE	Sample Volume in mL	(Vsamp)	1.000	1.000
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
378	Dilution Factor	(DF)	1	1
Test Code	Digest g/L	(DGL)	11.02	10.23
CRVI-01	Low calibration abs point		0.019	0.019
Matrix	High calibration abs point		0.776	0.776
SOLID	Y-intercept	(a)	0.00276	0.00276
Sample #	Slope	(b)	0.78068	0.78068
S94T000280	Cr +6 µg/g =		6.17E+01	6.37E+01
Calibration Date				
12/11/94				
Instrument Code				
Analyst				
DC DUNHAM				
Date				
01/14/95				
Time				
05:20 PM				

Cr +6 µg/g = (abs-a) * MF * DF * (1000mL/L) / (b * DGL * Vsamp)

RPD = |Cr +6 µg/g SAM - Cr +6 µg/g DUP| / AVERAGE OF THE SAM + DUP * 100

Less Than Value = Sample Absorbance < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/g =	6.17E+01	6.37E+01

RESULT > Recovery % Difference = 3.20

Data Entry by:	Daniel C Dunham	Date:	01/14/95
Approved by:	Jann Fuge	Date:	1/16/95

Form 265101S2 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) HEXAVALENT CHROMIUM - SPIKE

			SPIKE
Type	SAMPLE ABSORBANCE at 540 nm	(SAM abs)	0.051
SPIKE	SAMPLE + SPIKE ABSORBANCE at 540 nm	(S+S abs)	0.232
Work List	SAMPLE VOLUME (Sample) in mL	(Vsam)	1.000
378	SAMPLE VOLUME (Spiked Sample) in mL	(S+S Vsam)	1.000
Test Code	VOLUME of SPIKE in mL	(VOL Spk)	0.500
CRVI-01	SPIKE DILULTION FACTOR	(SDF)	1
Matrix	SPIKE VALUE	(µg/mL)	5.36
SOLID			
Sample #	LOW CALIBRATION POINT		0.019
S94T000280	HIGH CALIBRATION POINT		0.776
Calibration Date	Y-INTERCEPT	(a)	0.00276
12/11/94	SLOPE	(b)	0.78068
Instrument Code			
	Cr +6 Molarity in SAMP VIAL = (SAM abs - a) / b	(MSV)	
Analyst	Cr +6 Molarity in S+S VIAL = (S+S abs - a) / b	(MSSV)	
DC DUNHAM	TOTAL VOLUME for SAMP VIAL = 10 + Vsam	(TVS)	
Date	TOTAL VOLUME for S+S VIAL = 10 + S+S Vsam + VOL Spk	(TVSS)	
01/14/95	% Spike Rec. = ((MSSV * TVSS) - (MSV * TVS * SSCF)) / (SPIKE VALUE * VOL Spk / SDF)		
Time	Note: SAMPLE SIZE CORRECTION FACTOR (SSCF) = S+S Vsam / Vsam		
05:20 PM			

RESULT % SPIKE RECOVERY = 100.6%

Data entry by:	David C Dunham	Date:	01/14/95
Approved by:	Jerome Fage	Date:	1/16/95

Form 265101X3 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) SOLID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.118	
SAMPLE	Sample Volume in mL	(Vsamp)	1.000	
Work List	Method Factor (10 + Vsamp)	(MF)	11	
378	Dilution Factor	(DF)	1	
Test Code	Digest g/L	(DGL)	10.52	
CRVI-01	Low calibration abs point		0.019	
Matrix	High calibration abs point		0.776	
SOLID	Y-intercept	(a)	0.00276	
Sample #	Slope	(b)	0.78068	
S94T000281	Cr +6 µg/g =		1.54E+02	
Calibration Date				
12/11/94				
Instrument Code				
Analyst				
DC DUNHAM				
Date				
01/14/95				
Time				
05:20 PM				

Cr +6 µg/g = (abs-a) * MF * DF * (1000mL/L) / (b * DGL * Vsamp)
RPD = |Cr +6 µg/g SAM - Cr +6 µg/g DUP| / AVERAGE OF THE SAM + DUP * 100
Less Than Value = Sample Absorbance < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/g =	1.54E+02	

RESULT >

Data Entry by:	Daniel C. Dunham	Date:	01/14/95
Approved by:	Jana M. Fuge	Date:	1/14/95

Form 265101S2 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) SOLID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.118	0.112
DUPLICATE	Sample Volume in mL	(Vsamp)	1.000	1.000
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
378	Dilution Factor	(DF)	1	1
Test Code	Digest g/L	(DGL)	10.52	10.4
CRVI-01	Low calibration abs point		0.019	0.019
Matrix	High calibration abs point		0.776	0.776
SOLID	Y-intercept	(a)	0.00276	0.00276
Sample #	Slope	(b)	0.78068	0.78068
S94T000281	Cr +6 µg/g =		1.54E+02	1.48E+02
Calibration Date				
12/11/94				
Instrument Code				
Analyst				
DC DUNHAM				
Date				
01/14/95				
Time				
05:20 PM				

Cr +6 µg/g = (abs-a) * MF * DF * (1000mL/L) / (b * DGL * Vsamp)
RPD = |Cr +6 µg/g SAM - Cr +6 µg/g DUP| / AVERAGE OF THE SAM + DUP * 100
Less Than Value = Sample Absorbance < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/g =	1.54E+02	1.48E+02

RESULT > Recovery % Difference = 4.20

Data Entry by:	Daina C Dunham	Date:	01/14/95
Approved by:	[illegible]	Date:	1/14/95

Form 265101S2 Rev. 1.2

Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) HEXAVALENT CHROMIUM - SPIKE

			SPIKE
Type	SAMPLE ABSORBANCE at 540 nm	(SAM abs)	0.118
SPIKE	SAMPLE + SPIKE ABSORBANCE at 540 nm	(S+S abs)	0.296
Work List	SAMPLE VOLUME (Sample) in mL	(Vsam)	1.000
378	SAMPLE VOLUME (Spiked Sample) in mL	(S+S Vsam)	1.000
Test Code	VOLUME of SPIKE in mL	(VOL Spk)	0.500
CRVI-01	SPIKE DILULTION FACTOR	(SDF)	1
Matrix	SPIKE VALUE	(µg/mL)	5.36
SOLID			
Sample #	LOW CALIBRATION POINT		0.019
S94T000281	HIGH CALIBRATION POINT		0.776
Calibration Date	Y-INTERCEPT	(a)	0.00276
12/11/94	SLOPE	(b)	0.78068
Instrument Code			
	Cr +6 Molarity in SAMP VIAL = (SAM abs - a) / b	(MSV)	
Analyst	Cr +6 Molarity in S+S VIAL = (S+S abs - a) / b	(MSSV)	
DC DUNHAM	TOTAL VOLUME for SAMP VIAL = 10 + Vsam	(TVS)	
Date	TOTAL VOLUME for S+S VIAL = 10 + S+S Vsam + VOL Spk	(TVSS)	
01/14/95	% Spike Rec. = ((MSSV * TVSS) - (MSV * TVS * SSCF)) / (SPIKE VALUE * VOL Spk / SDF)		
Time	Note: SAMPLE SIZE CORRECTION FACTOR (SSCF) = S+S Vsam / Vsam		
05:20 PM			

RESULT % SPIKE RECOVERY = 100.6%

Data entry by:	David C Dunham	Date:	01/14/95
Approved by:	James Fagg	Date:	1/19/95

Form 265101X3 Rev. 1.2

LABCORE Data Entry Template for Worklist# 1164

Analyst: RMcCown **Instrument:** SP02 _____ **Book #** 109N16-D

Method: LA-265-101 Rev/Mod A-2

Worklist Comment: SY-103 , due ASAP. JMF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				CRVI-01	LIQUID	1	<0.039	N/A	ug/mL
		2	STD				CRVI-01	LIQUID	4.96	5.07	N/A	ug/mL
94000020	SY-103	3	SAMPLE	S95T000332	0		CRVI-01	LIQUID	N/A	6.76 EC0 JMF 7/31/95		ug/mL
94000020	SY-103	4	DUP	S95T000332	0		CRVI-01	LIQUID	JMF 7/31/95 6.76 EO	5.35 EO JMF 7/31/95	N/A	ug/mL
94000020	SY-103	5	SPK	S95T000332	0		CRVI-01	LIQUID	100	105.4	N/A	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0		CRVI-01	LIQUID	JMF 7/31/95 N/A	<3.939 ~~<0.039~~	3.939	ug/mL
94000020	SY-103	7	DUP	S95T000333	0		CRVI-01	LIQUID	JMF 7/31/95 <3.939 ~~<0.039~~	1.24 EO1	JMF 7/31/95 N/A	ug/mL
94000020	SY-103	8	SAMPLE	S95T000334	0		CRVI-01	LIQUID	N/A	6.47 EC1 JMF 7/31/95	3.939	ug/mL
94000020	SY-103	9	DUP	S95T000334	0		CRVI-01	LIQUID	JMF 7/31/95 6.47 EC1	7.88 EC1	JMF 7/31/95 N/A	ug/mL
94000020	SY-103	10	SAMPLE	S95T000335	0		CRVI-01	LIQUID	N/A	8.18 EO	JMF 7/31/95 3.939	ug/mL
94000020	SY-103	11	DUP	S95T000335	0		CRVI-01	LIQUID	JMF 7/31/95 8.18 EO	1.10 EC1	JMF 7/31/95 N/A	ug/mL

Final page for worklist # 1164

Patrick J. McCown 4/18/95
Analyst Signature **Date**

Analyst Signature **Date**

4-19-95

Verified 4/19/95 Jenn Frye

Corrected for missing prep dilution 7/31/95 JM Frye

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 HERE OR ATTACH TRAVELER

WHC-SD-WM-DP-074, REV. 0

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			BLANK	DUPLICATE
Name	Sample Absorbance at 540 nm	(abs)	-0.001	
BLANK	Sample Volume in mL	(Vsamp)	1.00	
Analyst	Method Factor (10 + Vsamp)	(MF)	11	
1164	Dilution Factor	(DF)	1	
	Digest Dilution Factor	(DDF)	1	
CRVI-01	Low Calibration Point		0.01	
Matrix	High Calibration Point		0.794	
LIQUID	Y-Intercept	(a)	0.00721	
Sample	Slope	(b)	0.77908	
BLANK	Cr +6 µg/mL =		<0.039	

Date Analyzed
04/06/95

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)
RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100
Less Than Value = abs < Low Calibration Point

Instrument Code
SP02

Analyst
P McCown

Date
04/18/95

Time
11:30 PM

v RESULT v	BLANK	DUPLICATE
Cr +6 µg/mL =	<0.039	

The Sample Absorbance is < Detection Limit (the Low Calibration Point)

RESULT > N/A

Data Entry by: Date: 04/19/95
Approved by: Date: 4/19/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			STANDARD	DUPLICATE
	Sample Absorbance at 540 nm	(abs)	0.366	
STANDARD	Sample Volume in mL	(Vsamp)	1.00	
	Method Factor (10 + Vsamp)	(MF)	11	
1164	Dilution Factor	(DF)	1	
	Digest Dilution Factor	(DDF)	1	
CRVI-01	Low Calibration Point		0.01	
	High Calibration Point		0.794	
LIQUID	Y-Intercept	(a)	0.00721	
	Slope	(b)	0.77908	
STANDARD	Cr +6 µg/mL =		5.07E+00	

04/06/95

SP02

P McCown

04/18/95

11:30 PM

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	STANDARD	DUPLICATE
Cr +6 µg/mL =	5.07E+00	

RESULT > N/A

Data Entry by: [signature] Date: 04/19/95

Approved by: [signature] Date: 4/19/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			sample	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.012	
sample	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 + Vsamp)	(MF)	11	
1164	Dilution Factor	(DF)	1	
Test Code	Digest Dilution Factor	(DDF)	100	
CrVI-01	Low Calibration Point		0.01	
Matrix	High Calibration Point		0.794	
LIQUID	Y-Intercept	(a)	0.00721	
Sample #	Slope	(b)	0.77908	
S95T000332	Cr +6 µg/mL =		6.76E+00	
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	sample	DUPLICATE
Cr +6 µg/mL =	6.76E+00	

RESULT > N/A

Data Entry by: [signature] Date: 07/31/95

Approved by: [signature] Date: 7/31/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.012	0.011
duplicate	Sample Volume in mL	(Vsamp)	1.00	1.00
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
1164	Dilution Factor	(DF)	1	1
Test Code	Digest Dilution Factor	(DDF)	100	100
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000332	Cr +6 µg/mL =		6.76E+00	5.35E+00

Calibration Date
04/06/95
Instrument Code
sp02
Analyst
P McCown
Date
04/18/95
Time
11:30 PM

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/mL =	6.76E+00	5.35E+00

RESULT > Recovery % Difference = 23.31%

Data Entry by:	Jerry Fagg	Date:	07/31/95
Approved by:	Jerry Fagg	Date:	7/31/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2)	HEXAVALENT CHROMIUM - SPIKE		SPIKE
	SAMPLE ABSORBANCE at 540 nm	(SAM abs)	0.012
SPIKE	SAMPLE + SPIKE ABSORBANCE at 540 nm	(S+S abs)	0.343
	SAMPLE VOLUME (Sample) in mL	(Vsam)	1.000
1164	SAMPLE VOLUME (Spiked Sample) in mL	(S+S Vsam)	1.000
	VOLUME of SPIKE in mL	(VOL Spk)	1.000
CRVI-01	SPIKE DILULTION FACTOR	(SDF)	1
	SPIKE VALUE	(µg/mL)	4.96
LIQUID			
	LOW CALIBRATION POINT		0.019
S95T000332	HIGH CALIBRATION POINT		0.776
	Y-INTERCEPT	(a)	0.00276
12/11/94	SLOPE	(b)	0.78068
SP02	Cr +6 Molarity in SAMP VIAL = (SAM abs - a) / b (MSV)		
	Cr +6 Molarity in S+S VIAL = (S+S abs - a) / b (MSSV)		
P McCown	TOTAL VOLUME for SAMP VIAL = 10 + Vsam (TVS)		
	TOTAL VOLUME for S+S VIAL = 10 + S+S Vsam + VOL Spk (TVSS)		
04/18/95	% Spike Rec. = ((MSSV * TVSS) - (MSV * TVS * SSCF)) / (SPIKE VALUE * VOL Spk / SDF)		
	Note: SAMPLE SIZE CORRECTION FACTOR (SSCF) = S+S Vsam / Vsam		
11:30 PM			

RESULT % SPIKE RECOVERY = 105.4%

Data entry by: [signature] Date: 04/19/95

Approved by: [signature] Date: 4/19/95

Form 265101X3 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			sample	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.009	
sample	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 + Vsamp)	(MF)	11	10
1164	Dilution Factor	(DF)	1	
Test Code	Digest Dilution Factor	(DDF)	100	
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000333	Cr +6 µg/mL =		<3.939	ERR
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	sample	DUPLICATE
Cr +6 µg/mL =	<3.939	ERR

Both Absorbances are < Detection Limit (the Low Calibration Point)

RESULT > Recovery % Difference = N/A

Data Entry by:	[illegible]	Date:	07/31/95
Approved by:	[illegible]	Date:	7/31/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.009	0.016
duplicate	Sample Volume in mL	(Vsamp)	1.00	1.00
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
1164	Dilution Factor	(DF)	1	1
Test Code	Digest Dilution Factor	(DDF)	100	100
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000333	Cr +6 µg/mL =		<3.939	1.24E+01
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/mL =	<3.939	1.24E+01

The Sample Absorbance is < Detection Limit (the Low Calibration Point)

RESULT > Recovery % Difference = N/A

Data Entry by:	Jana M. Faye	Date:	07/31/95
Approved by:	Jana M. Faye	Date:	7/31/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			sample	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.053	
sample	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 ÷ Vsamp)	(MF)	11	10
1164	Dilution Factor	(DF)	1	
Test Code	Digest Dilution Factor	(DDF)	100	
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000334	Cr +6 µg/mL =		6.47E+01	ERR
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	sample	DUPLICATE
Cr +6 µg/mL =	6.47E+01	ERR

The Duplicate Absorbance is < Detection Limit (the Low Calibration Point)

RESULT > Recovery % Difference = N/A

Data Entry by:	Jackie M. Fuge	Date:	07/31/95
Approved by:	Jackie M. Fuge	Date:	7/31/95

Form 265101L1 Rev. 1.2

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.053	0.063
duplicate	Sample Volume in mL	(Vsamp)	1.00	1.00
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
1164	Dilution Factor	(DF)	1	1
Test Code	Digest Dilution Factor	(DDF)	100	100
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000334	Cr +6 µg/mL =		6.47E+01	7.88E+01
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/mL =	6.47E+01	7.88E+01

RESULT > Recovery % Difference = 19.69%

Data Entry by:	Janis M. Faye	Date:	07/31/95
Approved by:	Janis M. Faye	Date:	7/31/95

Form 265101L1 Rev. 1.2

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			sample	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.013	
sample	Sample Volume in mL	(Vsamp)	1.00	
Work List	Method Factor (10 + Vsamp)	(MF)	11	10
1164	Dilution Factor	(DF)	1	1
Test Code	Digest Dilution Factor	(DDF)	100	100
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000335	Cr +6 µg/mL =		8.18E+00	ERR
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	sample	DUPLICATE
Cr +6 µg/mL =	8.18E+00	ERR

The Duplicate Absorbance is < Detection Limit (the Low Calibration Point)

RESULT > Recovery % Difference = N/A

Data Entry by:	Jerry M. Fuge	Date:	07/31/95
Approved by:	Jerry M. Fuge	Date:	7/31/95

Form 265101L1 Rev. 1.2 Page 1 of 1

PLACE ANALYTICAL CARD HERE OR ATTACH TRAVELER

Cr+6 : LA-265-101 (A-2) LIQUID SAMPLE

			SAMPLE	DUPLICATE
Type	Sample Absorbance at 540 nm	(abs)	0.013	0.015
duplicate	Sample Volume in mL	(Vsamp)	1.00	1.00
Work List	Method Factor (10 + Vsamp)	(MF)	11	11
1164	Dilution Factor	(DF)	1	1
Test Code	Digest Dilution Factor	(DDF)	100	100
CrVI-01	Low Calibration Point		0.01	0.01
Matrix	High Calibration Point		0.794	0.794
LIQUID	Y-Intercept	(a)	0.00721	0.00721
Sample #	Slope	(b)	0.77908	0.77908
S95T000335	Cr +6 µg/mL =		8.18E+00	1.10E+01
Calibration Date				
04/06/95				
Instrument Code				
sp02				
Analyst				
P McCown				
Date				
04/18/95				
Time				
11:30 PM				

Cr +6 µg/mL = (abs-a) * MF * DF * DDF / (b * Vsamp)

RPD = (|Cr +6 µg/mL SAM - Cr +6 µg/mL DUP| / AVERAGE OF THE SAM + DUP)*100

Less Than Value = abs < Low Calibration Point

v RESULT v	SAMPLE	DUPLICATE
Cr +6 µg/mL =	8.18E+00	1.10E+01

RESULT > Recovery % Difference = 29.46%

Data Entry by:	Janie M. Fuge	Date:	07/31/95
Approved by:	Janie M Fuge	Date:	7/31/95

Form 265101L1 Rev. 1.2

ION CHROMATOGRAPHIC ANALYSES

LABCORE Data Entry Template for Worklist# 168

Analyst: EHC **Instrument:** IC01 **Method:** LA-533-105 C-2 J.M. Faye 12/14/

Worklist Comment: Please run for bromide only. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit
1	BLNK				BR-02	LIQUID	0	0	N/A	ug/ml
2	STD	60N9A			BR-02	LIQUID	572	584	N/A	ug/ml
3	SAMPLE	S94T000127	0		BR-02	LIQUID	N/A	24686		ug/ml
4	DUP	S94T000127	0		BR-02	LIQUID	24686	24609	N/A	ug/ml

Final page for worklist # 168

E.H. Cole
Analyst Signature

12-8-94
Date

Data Entry Comments: Entered & Verified 12/14/94. J. M. Faye

Units shown for QC (SPK) may not reflect the actual units.

Analytical Batch Summary Sheet

Procedure: LA-533-105C2
Prepared by: Janis Fuge
Analyst: Ed Colvin
Computer Method: Auto mel met

Date Run: 12/8/94
Date Completed: 12/14/94
Batch: Worklist 168
Page 1 of .

Br^- only requested. J.M. Fuge

	Units:								
Name	ID #	F	Cl	NO_2	Br	NO_3	PO_4	SO_4	Oxalate
D. L.		<.1	<.2	<1	<1	<1	<1	<1	<1
60N9A	60N9A				584 / 102%				
Sample	S94T000127				2.47E4				
dup.	S94T000127				2.46E4				

Comments:

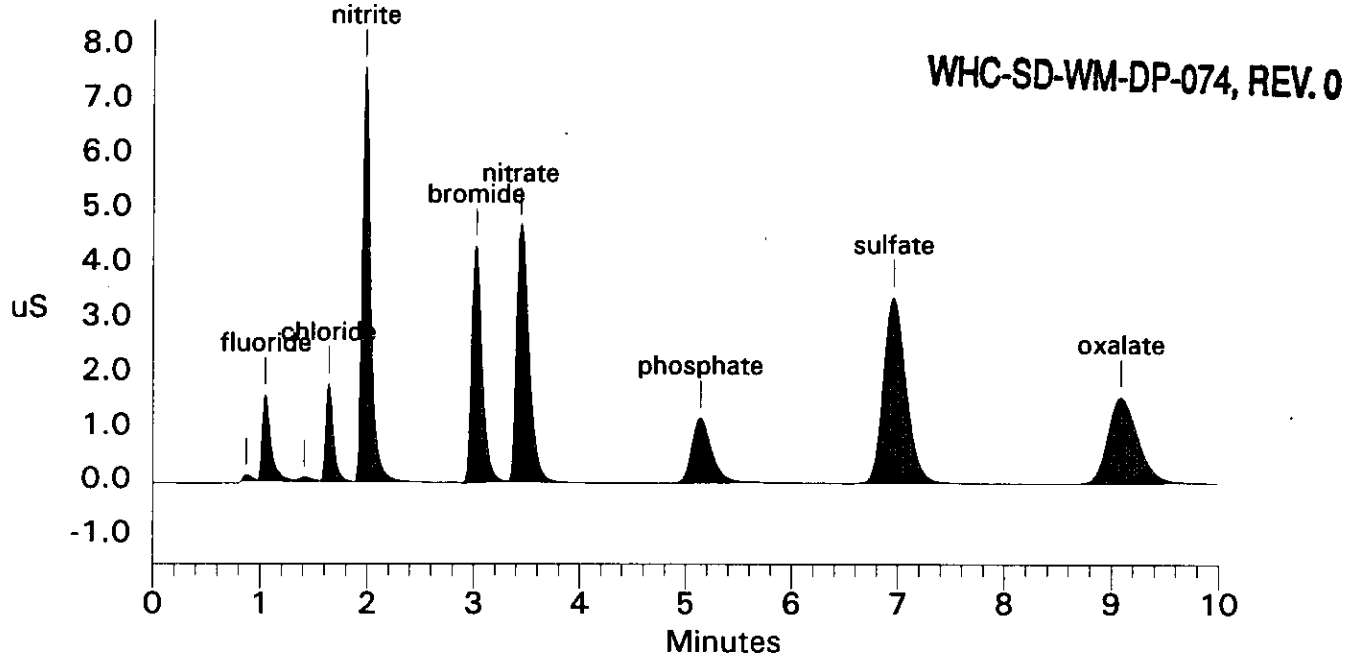
Sample Name: 60N9-A STD Date: 12/08/1994 10:01:26
Data File : C:\DX\DATA\94120891.D07
Method : C:\DX\METHOD\AUTOMEL.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : [illegible] Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	101	467	2	
2	1.05	fluoride	57.702	1578	8444	2	1.94
3	1.41		0.000	66	451	2	
4	1.64	chloride	78.671	1786	8545	1	1.23
5	1.98	nitrite	539.412	7608	41012	1	1.02
6	3.02	bromide	584.224	102.14 4345	28971	1	1.00
7	3.44	nitrate	587.749	4707	37980	1	1.78
8	5.14	phosphate	519.649	1205	15592	1	0.98
9	6.96	sulfate	597.775	3420	50138	1	0.58
10	9.09	oxalate	515.136	1598	31034	1	0.66
		Totals	3480.317	26413	222635		

File: 94120891.D07 Sample: 60N9-A STD



SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 632 TO 635.

[illegible] 1-20-95

```
==============================================================================
| Sample Name: BLANK                          Date: 12/08/1994 08:39:08       |
| Data File  : C:\DX\DATA\94120891.D01                                        |
| Method     : C:\DX\METHOD\AUTOMEL.MET                                       |
  ACI Address: 1  System: 1  Inject#: 1                  Detector:CDM-1       |
  Analyst    :                Column:                                         |
==============================================================================
```

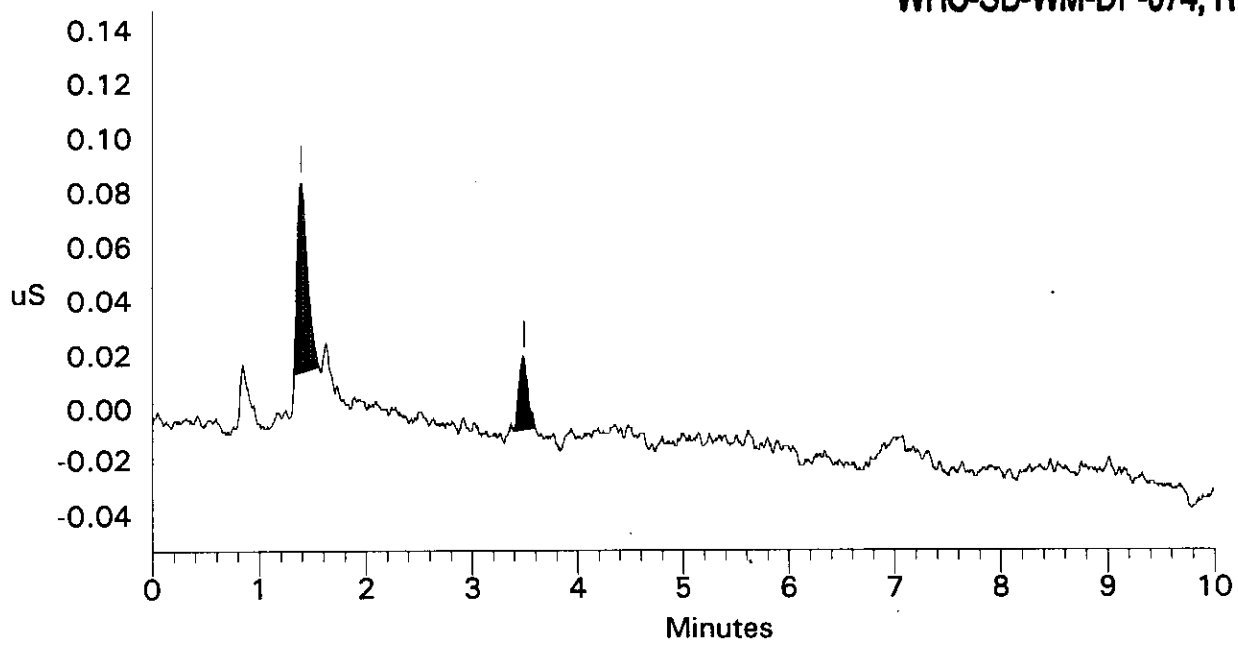
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.39		0.000	70	468	1	
		Totals	0.000	70	468		

File: 94120891.D01 Sample: BLANK

WHC-SD-WM-DP-074, REV. 0



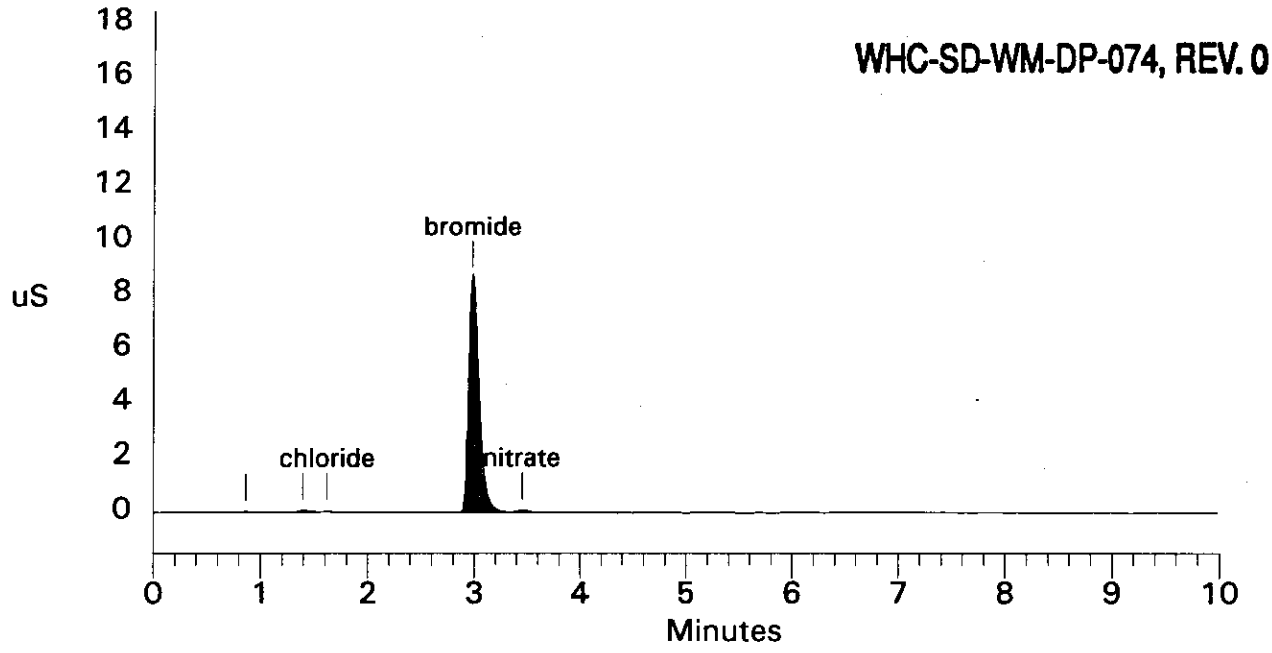
```
==============================================================================
| Sample Name: S94T000127                      Date: 12/08/1994 11:09:53      |
| Data File  : C:\DX\DATA\94120891.D09                                        |
| Method     : C:\DX\METHOD\AUTOMEL.MET                                       |
| ACI Address: 1  System: 1  Inject#: 9                   Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.86		0.000	40	217	1	
2	1.39		0.000	92	668	1	
3	1.62	chloride	-22.128	57	234	1	0.00
4	2.98	bromide	24686.154	8644	59859	1	-0.33
5	3.45	nitrate	473.994	89	615	1	2.07
		Totals	25138.020	8922	61594		

File: 94120891.D09 Sample: S94T000127



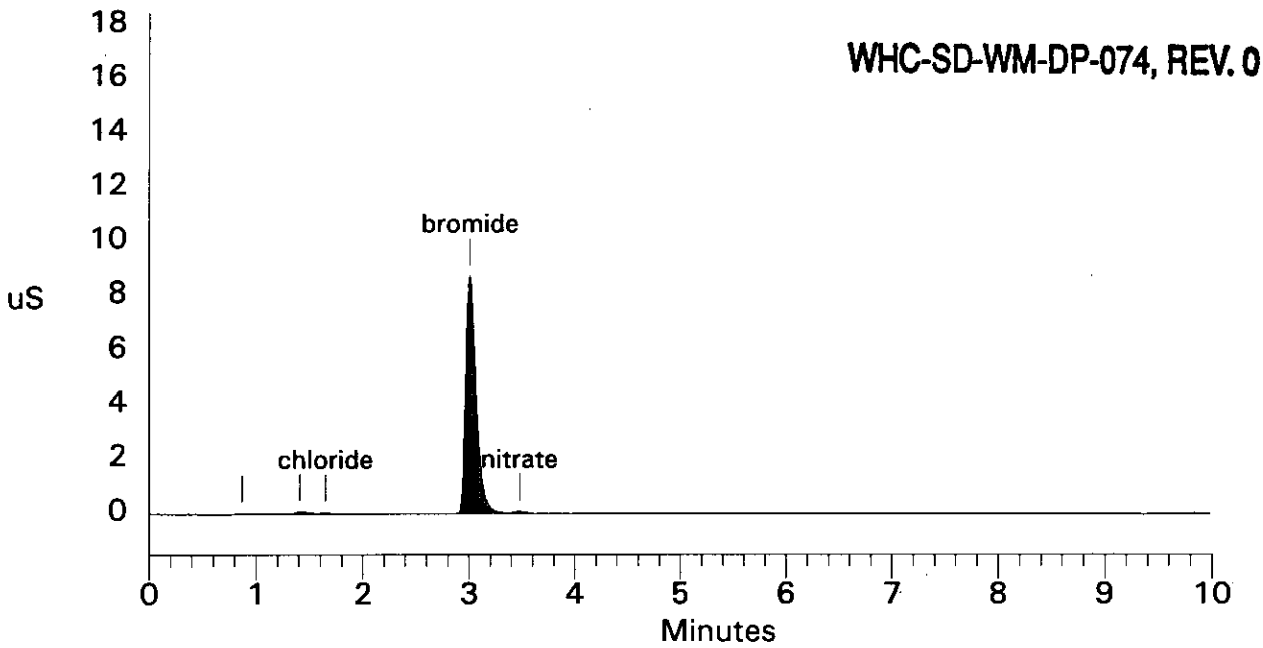
Sample Name: S94T000127 Date: 12/08/1994 10:54:58
Data File : C:\DX\DATA\94120891.D08
Method : C:\DX\METHOD\AUTOMEL.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	39	230	1	
2	1.41		0.000	84	604	1	
3	1.65	chloride	-27.908	49	206	1	1.85
4	3.01	bromide	24609.547	8740	59664	1	0.67
5	3.48	nitrate	428.382	71	474	1	2.96
		Totals	25010.021	8983	61178		

File: 94120891.D08 Sample: S94T000127



LABCORE Data Entry Template for Worklist# 231

Analyst: KLV **Instrument:** IC01 _____ **Method:** LA-533-105 C-2

Worklist Comment: Please run for bromide, concentration may be high. JMF WHC-SD-WM-DP-074, REV.

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK				@IC-01	CL-02	LIQUID	N/A		N/A	ug/mL
1	BLNK				@IC-01	F-02	LIQUID	NA		N/A	ug/mL
1	BLNK				@IC-01	NO2-02	LIQUID	NA		N/A	ug/mL
1	BLNK				@IC-01	BR-02	LIQUID	<1	<1	N/A	ug/mL
1	BLNK				@IC-01	NO3-02	LIQUID	NA		N/A	ug/mL
1	BLNK				@IC-01	PO4-02	LIQUID	NA		N/A	ug/mL
1	BLNK				@IC-01	SO4-02	LIQUID	NA		N/A	ug/mL
2	STD				@IC-01	F-02	LIQUID	NA		N/A	ug/mL
2	STD				@IC-01	CL-02	LIQUID	N/A		N/A	ug/mL
2	STD				@IC-01	NO2-02	LIQUID	NA		N/A	ug/mL
2	STD	60N9B			@IC-01	BR-02	LIQUID	572	589	N/A	ug/mL
2	STD				@IC-01	NO3-02	LIQUID	NA		N/A	ug/mL
2	STD				@IC-01	PO4-02	LIQUID	NA		N/A	ug/mL
2	STD				@IC-01	SO4-02	LIQUID	NA		N/A	ug/mL
3	SAMPLE	S94T000104	0		@IC-01	F-02	LIQUID	N/A	NA		ug/mL
3	SAMPLE	S94T000104	0		@IC-01	CL-02	LIQUID	N/A	NA		ug/mL
3	SAMPLE	S94T000104	0		@IC-01	NO2-02	LIQUID	N/A	NA		ug/mL
3	SAMPLE	S94T000104	0		@IC-01	BR-02	LIQUID	N/A	1.93E4		ug/mL
3	SAMPLE	S94T000104	0		@IC-01	NO3-02	LIQUID	N/A	NA		ug/mL
3	SAMPLE	S94T000104	0		@IC-01	PO4-02	LIQUID	N/A	NA		ug/mL

Data Entry Comments: Data entered 12/20/94, and verified 12/20/94. J. M. Fuge

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 231

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: Please run for bromide, concentration may be high. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
3	SAMPLE	S94T000104	0	@IC-01	SO4-02		LIQUID	N/A			ug/mL
4	DUP	S94T000104	0	@IC-01	CL-02		LIQUID	NA		N/A	ug/mL
4	DUP	S94T000104	0	@IC-01	F-02		LIQUID	NA		N/A	ug/mL
4	DUP	S94T000104	0	@IC-01	NO2-02		LIQUID	NA		N/A	ug/mL
4	DUP	S94T000104	0	@IC-01	BR-02		LIQUID	1.93E4 ~~1.89E4~~	1.89E4	N/A	ug/mL
4	DUP	S94T000104	0	@IC-01	NO3-02		LIQUID	NA		N/A	ug/mL
4	DUP	S94T000104	0	@IC-01	PO4-02		LIQUID	NA		N/A	ug/mL
4	DUP	S94T000104	0	@IC-01	SO4-02		LIQUID	NA		N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	CL-02		LIQUID	NA		N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	F-02		LIQUID	NA		N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	NO2-02		LIQUID	NA		N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	BR-02		LIQUID	100	98.6	N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	NO3-02		LIQUID	NA		N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	PO4-02		LIQUID	NA		N/A	ug/mL
5	SPK	S94T000104	0	@IC-01	SO4-02		LIQUID	NA		N/A	ug/mL

Final page for worklist # 231

J. M. Frye for KL Vogel
Analyst Signature

12/19/94
Date

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

Analytical Batch Summary Sheet

Procedure: LA-533-105 C-2
Prepared by: Jann Fuge
Analyst: Kit Vogel
Computer Method: Kit. Met

Date Run: 12/19/94
Date Completed: 12/20/94
Batch: WKL. 231
Page 1 of 1

	Units:				ug/ml				
Name	ID #	F	Cl	NO_2	Br	NO_3	PO_4	SO_4	Oxalate
D. L.		<.1	<.2	<1	<1	<1	<1	<1	<1
Stand.	60N9B	58.1 / 103.7	NA	532 / 99.8	589 / 103.0	579 / 100.2	529 / 102.5	602 / 100.5	488 / 100.2
Sample	S94T000104	NA	NA	5.34E4	1.93E4	7.15E4	<1.02E4	<1.02E4	<1.02E4
Dup	S94T000104	NA	NA	5.20E4	1.89E4	7.32E4	<1.02E4	<1.02E4	<1.02E4
Spike	S94T000104				94% Rec				
Repeat Spike	S94T000104				98.6% Rec				
Blank		<.1	<.2	<1	<1	<1	<1	<1	<1

Comments: Cl calibration was faulty - but this sample was only being run for Br.
F was interfered with by matrix of sample.

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i

LA-533-105, C-~~X~~ DIRECT SAMPLES Bromide 12/20/94 G MF

G MF 4/19/95

		FLOURIDE	CHLORID	NITRITE	NITRATE	PHOSPHA	SULFATE
Type	SAMPLE DATA (µg/mL)	1.93E+04	1.00E+00				
sample	SAMPLE DILUTION FACTOR	10201					
Work List							
231	DUPLICATE DATA (µg/mL)	1.89E+04					
Test Code	DUPLICATE DILUTION FACTOR	10201					
Matrix	SPIKE + SAMPLE (in µg/mL)	7.63E+04					
liquid							
Sample #	VOLUME OF SPIKE (mL)	1.00E-01					
s94t000104	SPIKE BOOK NUMBER	60N9B	60N9B	60N9B	60N9B	60N9B	60N9B
Instrument Code	TOTAL VOLUME	10.10					
dionex	SPIKE STD. (µg/mL)	572					
Analyst	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std						
K. Vogel	Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subt						
Date	Relative Percent Difference = ((Sample - Duplicate) / ((Sample + Duplicate) / 2) * 100)						
12/19/94	Less than Values are Calculated from the Detection Limit*Dilution Factor						
Time	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICAT	DUP RPD	SPIKE FOU	SPIKE RE	SPIKE AC
FLOURIDE (µg/mL)	1.93E+04	1.89E+04	1.9%	5.70E+04	98.6%	5.78E+04
CHLORIDE (µg/mL)	1.00E+00	<0.000	N/A	-1.00E+00	ERR	ERR
NITRITE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR
NITRATE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR
PHOSPHATE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR
SULFATE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR

Data Entry by: Jann Kuge Date: 20-Dec-94

Approved by: Jann Kuge Date: 12/20/94

Form L2 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i

LA-533-105, C-~~1~~ 2 DIRECT SAMPLES

Bromide JMF 12/20/94 JMF 4/19/95

		FLOURIDE	CHLORID	NITRITE	NITRATE	PHOSPHA	SULFATE
Type	SAMPLE DATA (µg/mL)	1.93E+04	1.00E+00				
sample	SAMPLE DILUTION FACTOR	10201					
Work List							
231	DUPLICATE DATA (µg/mL)	1.89E+04					
Test Code	DUPLICATE DILUTION FACTOR	10201					
Matrix	SPIKE + SAMPLE (in µg/mL)	7.36E+04					
liquid							
Sample #	VOLUME OF SPIKE (mL)	1.00E-01					
s94t000104	SPIKE BOOK NUMBER	60N9B	60N9B	60N9B	60N9B	60N9B	60N9B
Instrument Code	TOTAL VOLUME	10.10					
dionex	SPIKE STD. (µg/mL)	572					

Analyst: K. Vogel

Date: 12/19/94

Time:

Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std

Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subt

Relative Percent Difference = ((Sample - Duplicate) / ((Sample + Duplicate) / 2) * 100)

Less than Values are Calculated from the Detection Limit*Dilution Factor

Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICAT	DUP RPD	SPIKE FOU	SPIKE RE	SPIKE AC
FLOURIDE (µg/mL)	1.93E+04	1.89E+04	1.9%	5.43E+04	94.0%	5.78E+04
CHLORIDE (µg/mL)	1.00E+00	<0.000	N/A	-1.00E+00	ERR	ERR
NITRITE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR
NITRATE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR
PHOSPHATE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR
SULFATE (µg/mL)	<0.000	<0.000	N/A		ERR	ERR

Data Entry by: [signature] Date: 20-Dec-94

Approved by: [signature] Date: 12/20/94

Form L2 Rev. 2.0

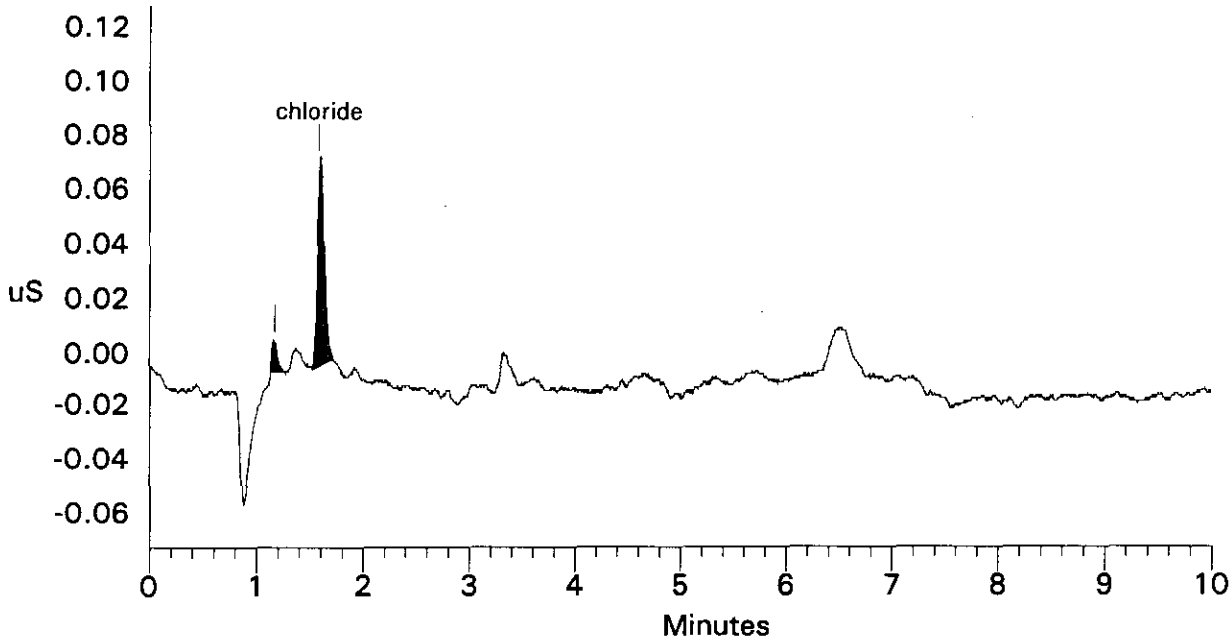
Sample Name: BLK Date: 12/19/1994 19:02:50
Data File : C:\DX\DATA\94121921.D04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : [illegible] 12/19/94 Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.59	chloride	-0.001	75	333	1	-1.24
		Totals	-0.001	75	333		

File: 94121921.D04 Sample: BLK **WHC-SD-WM-DP-074, REV. 0**



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 641 TO 646

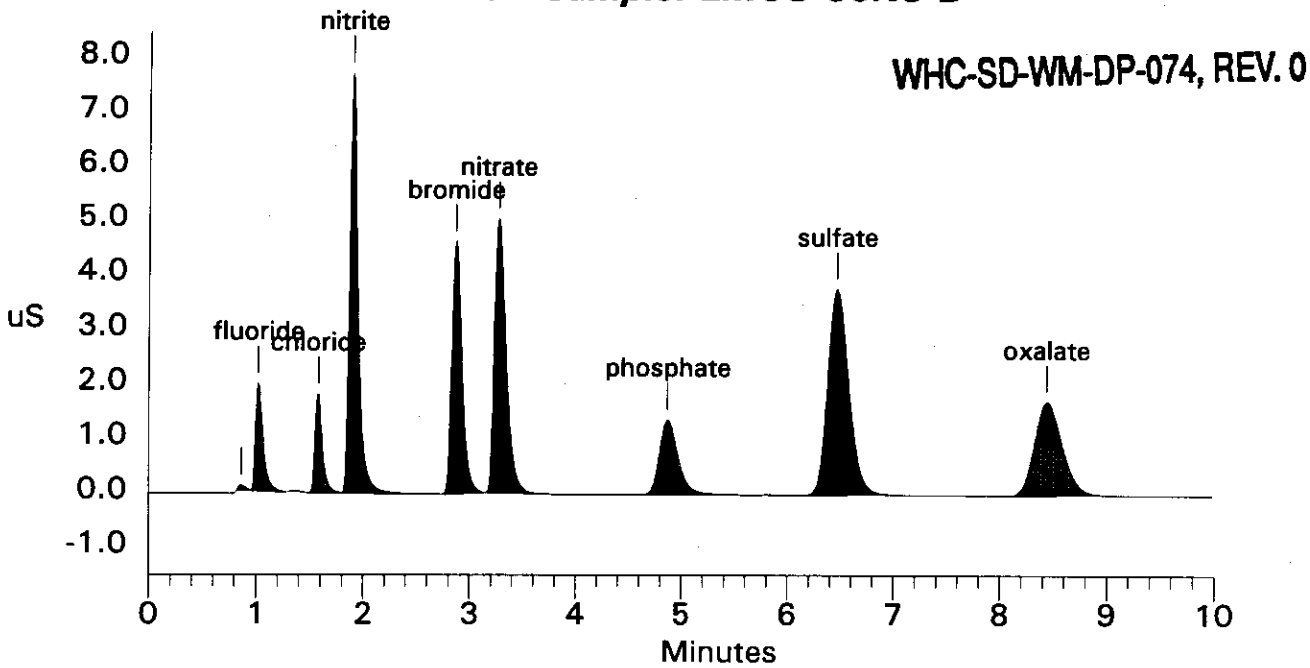
Sample Name: LMCS 60N9-B
Date: 12/19/1994 20:29:46
Data File : C:\DX\DATA\94121921.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7
Detector:CDM-1
Analyst : 12/19/94 Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.86		0.000	101	464	2	
2	1.02	fluoride	58.058	1975	9472	2	0.00
3	1.58	chloride	65.772	1812	8390	1	-1.86
4	1.90	nitrite	531.701	7728	41380	1	-3.55
5	2.87	bromide	589.377	4626	29831	1	-2.38
6	3.27	nitrate	579.403	5044	37895	1	-0.30
7	4.87	phosphate	528.627	1371	16551	1	-2.79
8	6.47	sulfate	602.114	3779	51739	1	-3.86
9	8.44	oxalate	488.351	1721	30877	1	-3.43
		Totals	3443.403	28159	226599		

File: 94121921.D07 Sample: LMCS 60N9-B



Sample Name: S94T000104 Date: 12/19/1994 20:53:48
Data File : C:\DX\DATA\94121921.D09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : Column:

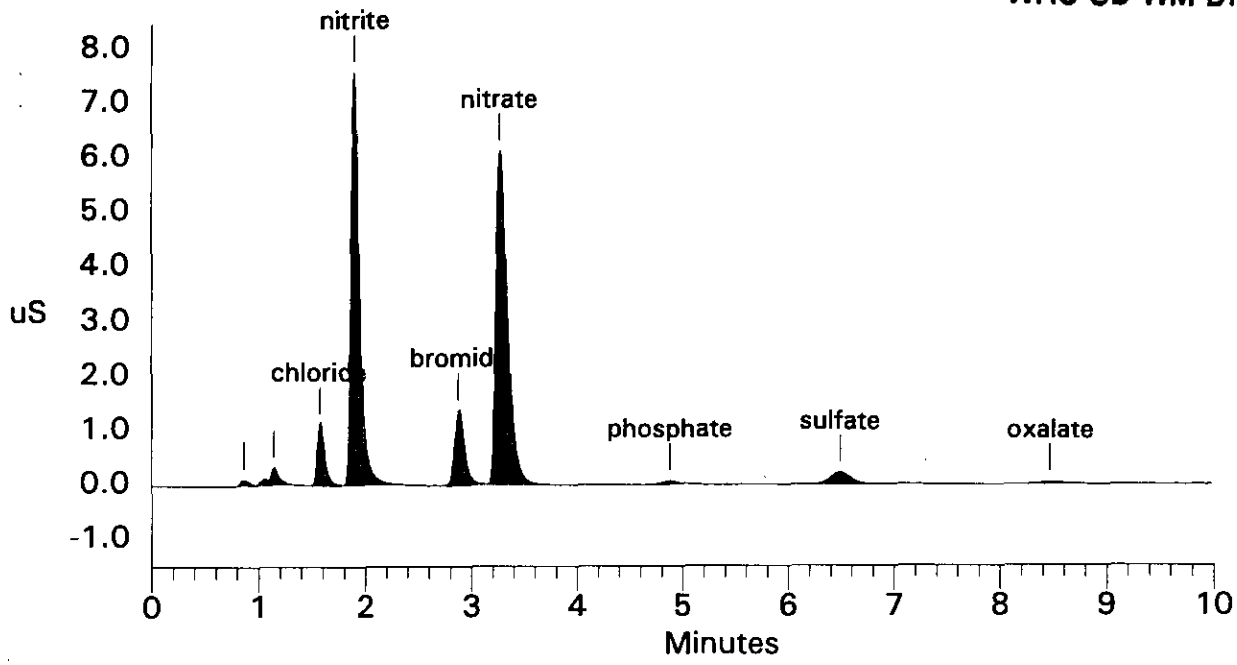
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	10201	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.86		0.000	99	511	2	
2	1.14		0.000	309	2022	2	
3	1.57	chloride	4313.549	1124	5572	1	-2.48
4	1.90	nitrite	53435.208	7582	41170	1	-3.55
5	2.88	bromide	19284.944	1381	8887	1	-2.04
6	3.27	nitrate	71519.980	6118	46676	1	-0.30
7	4.88	phosphate	2935.593	65	711	1	-2.59
8	6.49	sulfate	4498.464	207	2762	1	-3.57
9	8.47	oxalate	1232.330	34	500	1	-3.09
		Totals	157220.069	16919	108810		

File: 94121921.D09 Sample: S94T000104

WHC-SD-WM-DP-074, REV. 0



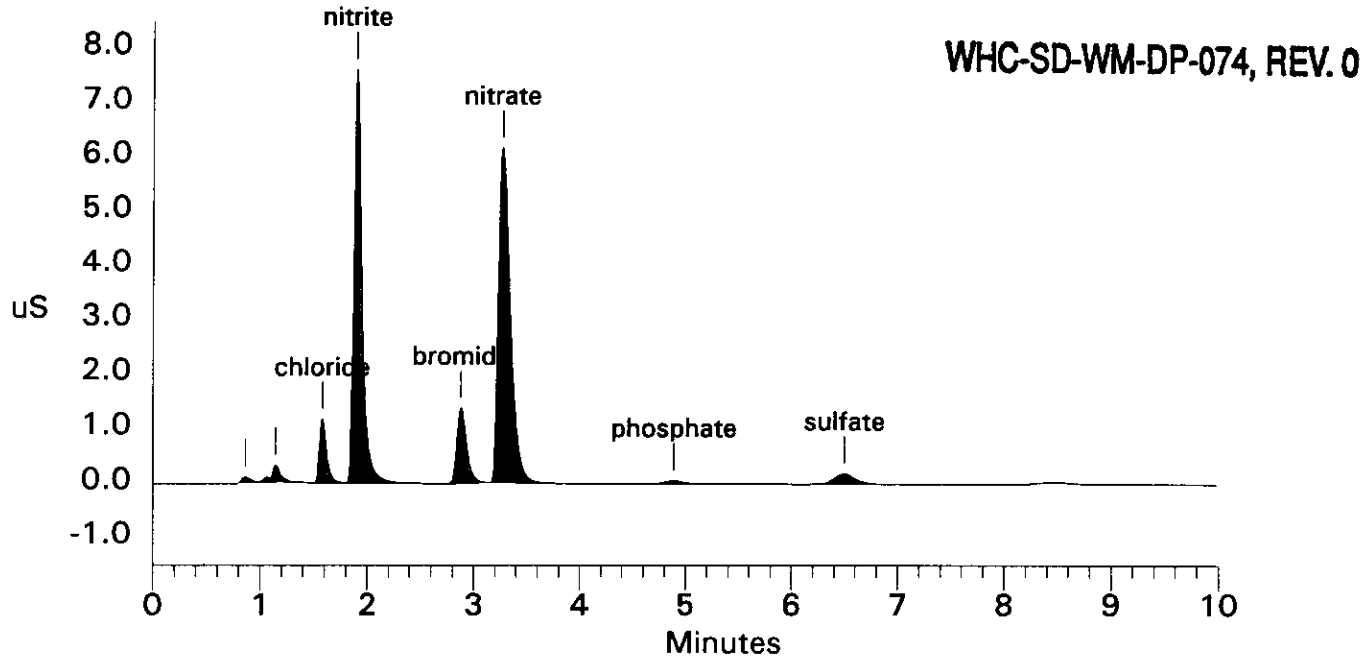
Sample Name: S94T000104 DUP Date: 12/19/1994 21:06:52
Data File : C:\DX\DATA\94121921.D10
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 10 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	10201	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.86		0.000	99	527	1	
2	1.14		0.000	303	1899	1	
3	1.58	chloride	4148.006	1162	5371	1	-1.86
4	1.90	nitrite	52016.849	7610	40052	1	-3.55
5	2.88	bromide	18928.837	1374	8704	1	-2.04
6	3.27	nitrate	73219.212	6176	47827	1	-0.30
7	4.89	phosphate	2561.126	56	595	1	-2.40
8	6.50	sulfate	4096.396	185	2417	1	-3.42
		Totals	154970.426	16964	107393		

File: 94121921.D10 Sample: S94T000104 DUP



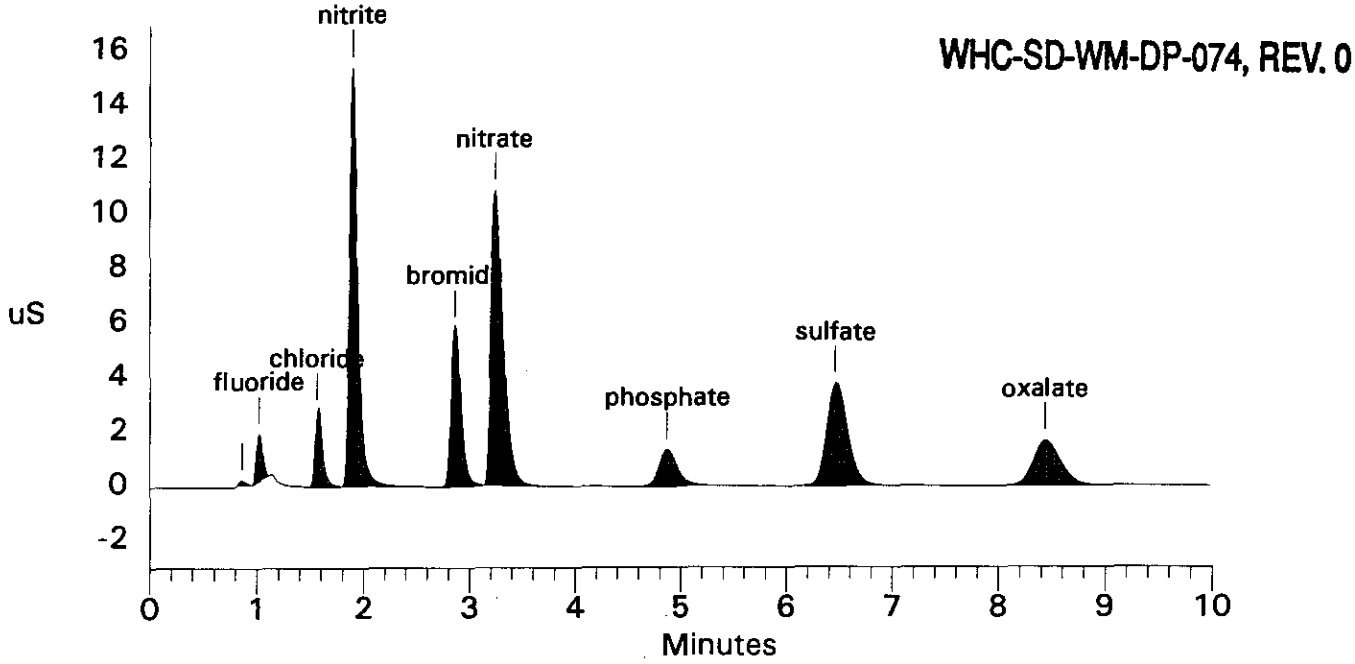
Sample Name: S94T000104 SPIKE Date: 12/19/1994 21:29:53
Data File : C:\DX\DATA\94121921.D12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	10201	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.86		0.000	168	738	1	
2	1.02	fluoride	4261.841	1739	6821	1	0.00
3	1.57	chloride	10714.413	2792	13313	1	-2.48
4	1.90	nitrite	104769.332	15416	81741	1	-3.55
5	2.86	bromide	73610.256	5853	37265	1	-2.72
6	3.24	nitrate	127351.224	10838	85007	1	-1.22
7	4.87	phosphate	52227.713	1355	16181	1	-2.79
8	6.47	sulfate	60693.339	3773	51633	1	-3.86
9	8.44	oxalate	47285.051	1655	29582	1	-3.43
		Totals	480913.169	43591	322281		

File: 94121921.D12 Sample: S94T000104 SPIKE



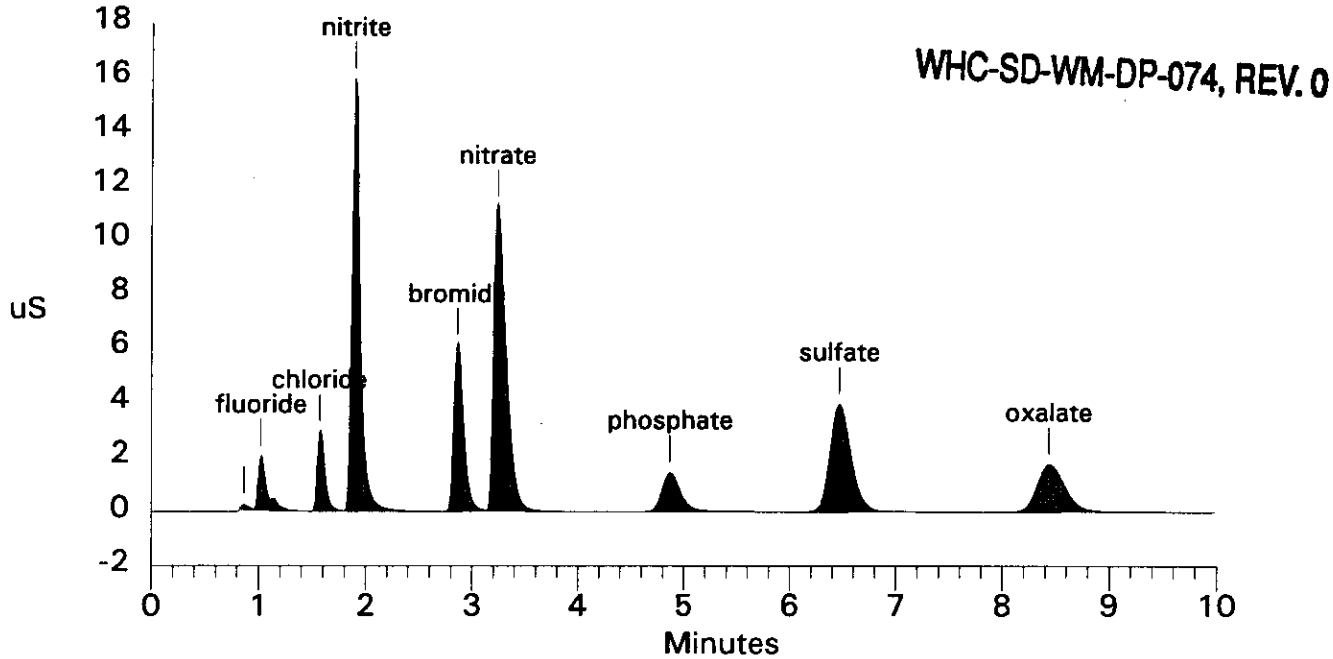
Sample Name: S94T000104 SPIKE Date: 12/19/1994 21:17:59
Data File : C:\DX\DATA\94121921.D11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	10201	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.86		0.000	173	797	2	
2	1.02	fluoride	6923.103	1940	11233	2	0.00
3	1.57	chloride	11459.370	2901	14214	1	-2.48
4	1.90	nitrite	108617.811	15899	84792	1	-3.55
5	2.86	bromide	76250.929	6085	38666	1	-2.72
6	3.24	nitrate	134506.379	11161	89995	1	-1.22
7	4.87	phosphate	55046.237	1416	17079	1	-2.79
8	6.47	sulfate	62961.096	3933	53634	1	-3.86
9	8.44	oxalate	49791.510	1733	31174	1	-3.43
		Totals	505556.435	45240	341584		

File: 94121921.D11 Sample: S94T000104 SPIKE



Sy 103

LABCORE Data Entry Template for Worklist# 373

Analyst: EHC **Instrument:** IC01 4606i **Method:** LA-533-105 C-2 gmF 1/30/95

Worklist Comment: IC 02 for organic acids. JMF WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				@IC-02	ACETATE2	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-02	FORMATE2	SOLID	<1	<1	N/A	ug/g
2	STD	66N9A			@IC-02	ACETATE2	SOLID	122	120	N/A	ug/g
2	STD				@IC-02	FORMATE2	SOLID	120	114	N/A	ug/g
3	SAMPLE	S94T000280	0	W	@IC-02	ACETATE2	SOLID	N/A	3.41E2	97.8	ug/g
3	SAMPLE	S94T000280	0	W	@IC-02	FORMATE2	SOLID	N/A	3.25E3	97.8	ug/g
4	DUP	S94T000280	0	W	@IC-02	ACETATE2	SOLID	3.41E2	3.94E2	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-02	FORMATE2	SOLID	3.25E3	3.62E3	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-02	ACETATE2	SOLID	100	72.2	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-02	FORMATE2	SOLID	100	123.3	N/A	ug/g
6	BLNK-PREP				@IC-02	ACETATE2	SOLID	<1	<1	N/A	ug/g
6	BLNK-PREP				@IC-02	FORMATE2	SOLID	<1	<1	N/A	ug/g
7	STD	66N9A			@IC-02	ACETATE2	SOLID	122	119	N/A	ug/g
7	STD				@IC-02	FORMATE2	SOLID	120	117	N/A	ug/g
8	SAMPLE	S94T000281	0	W	@IC-02	ACETATE2	SOLID	N/A	gmF 2/3/95 3.16E3 ~~2.66E3~~	95.1	ug/g
8	SAMPLE	S94T000281	0	W	@IC-02	FORMATE2	SOLID	N/A	gmF 2/3/95 4.83E3 ~~3.22E3~~	95.1	ug/g
9	DUP	S94T000281	0	W	@IC-02	ACETATE2	SOLID	gmF 2/3/95 3.16E3 ~~2.66E3~~	3.10E3 ~~3.01E3~~ gmF 2/3/95	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-02	FORMATE2	SOLID	gmF 2/3/95 4.83E3 ~~3.22E3~~	5.09E3 ~~3.42E3~~ gmF 2/3/95	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-02	ACETATE2	SOLID	100	100.6 ~~57.4~~ gmF 2/3/95	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-02	FORMATE2	SOLID	100	90.1 ~~67.5~~ gmF 2/3/95	N/A	ug/g

Data Entered 1/30/95, Data edited 2/3/95, Reviewed 2/3/95, QC edited 2/3/95 gmF

Data Entry Comments:
A copy was made of this to request a recheck on S94T000281 spk only. J.M.F 1/30/95

Units shown for QC (SPK) may not reflect the actual units.

Page: 1

LABCORE Data Entry Template for Worklist# 373

Analyst: [illegible] **Instrument:** IC01 4500 i **Method:** LA-533-105

Worklist Comment: IC 02 for organic acids. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				@IC-02	ACETATE2	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-02	FORMATE2	SOLID	<1	<1	N/A	ug/g
2	STD	66N9-A			@IC-02	ACETATE2	SOLID	122	120	N/A	ug/g
2	STD				@IC-02	FORMATE2	SOLID	120	114	N/A	ug/g
3	SAMPLE	S94T000280	0	W	@IC-02	ACETATE2	SOLID	N/A	~~3.16E3~~ ~~3.41E2~~ 3.41E2 gmF		ug/g
3	SAMPLE	S94T000280	0	W	@IC-02	FORMATE2	SOLID	N/A	~~4.83E3~~ ~~3.25E3~~ 3.25E3 gmF		ug/g
4	DUP	S94T000280	0	W	@IC-02	ACETATE2	SOLID	gmF 2/3/95 3.41E3	~~3.16E3~~ ~~3.41E2~~ ~~3.10E3~~ ~~3.94E2~~ 3.94E2 gmF	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-02	FORMATE2	SOLID	gmF 2/3/95 3.25E3	~~4.88E3~~ ~~3.25E3~~ ~~5.04E3~~ ~~3.62E3~~ 3.62E3 gmF	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-02	ACETATE2	SOLID	100	72.2	N/A	ug/g
5	SPK ~~BLK~~ STD gmF 1/30/95	S94T000280	0	W	@IC-02	FORMATE2	SOLID	100	123.3	N/A	ug/g
6	SAMPLE	S94T000281	0	W	@IC-02	ACETATE2	SOLID	N/A	2.66E3		ug/g
6	SAMPLE	S94T000281	0	W	@IC-02	FORMATE2	SOLID	N/A	3.22E3		ug/g
7	DUP	S94T000281	0	W	@IC-02	ACETATE2	SOLID	2.66E3	3.61E3	N/A	ug/g
7	DUP	S94T000281	0	W	@IC-02	FORMATE2	SOLID	3.22E3	3.42E3	N/A	ug/g
spk						acetate2		100	57.4		
spk						formate2		100	67.5		

Final page for worklist # 373

Analyst Signature **Date**

280 ~~.5513g~~ .5113g gmF 1/30/95 → 50ml ~~11.026g/L~~ 10.226g gmF 1/30/95

280 Dup .5114g → 50ml 10.228g/L

281 .5258g → 50ml 10.516g/L

281 Dup .5198g → 50ml 10.396g/L

Data Entry Comments:

There is an interference with the acetate peak, but this was not requested by the client. The spike on S94T000281 came out either too high or too low, we did it twice. Formate gave 67.5% Rec and 134.2% recovery.

Units shown for QC (SPK) may not reflect the actual units.

Page: 1

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

gmF 2/3/95 Acetate gmF 2/3/95 Formate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			3.32E+01	5.08E+01		
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto			1.01E+02	1.01E+02		
373	Duplicate Conc. (µg/m			3.22E+01	5.29E+01		
Test Code	Duplicate Prep DF (g/	10.396	10.396	10.396	10.396	10.396	10.396
@IC-02	Duplicate Dilution Fac			1.01E+02	1.01E+02		
Matrix	Spike+Sample (µg/ml			1.56E+02	1.59E+02		
solid							
Sample #	Volume of Spike (mL)			0.1	0.1		
S94T000281	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume			10.10	10.10		
dionex	Spike Std. (µg/mL)			122	120		

Analyst: Ed Colvin

Date: 02/01/95

Time:

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L

Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100

Less than Values are Calculated from the Detection Limit*Dilution Factor

Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample

Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa

Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	3.16E+03	3.10E+03	1.9%	1.17E+04	100.6%	1.16E+04
~~Nitrate (µg/g)~~	4.83E+03	5.09E+03	5.2%	1.03E+04	90.1%	1.14E+04
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

gmF 2/3/95 Acetate
gmF 2/3/95 Formate

Data Entry by:	Jenna Fryer	Date:	03-Feb-95
Approved by:	Jenna Fryer	Date:	2/3/95

Form L1 Rev. 2.0

```
==========================================================================
| Sample Name: 66N9-A STD                    Date: 02/01/1995 09:23:55    |
| Data File  : C:\DX\DATA\95020161.D02                                    |
| Method     : C:\DX\METHOD\AUTOACE.MET                                   |
| ACI Address: 1  System: 2  Inject#: 2                Detector:CDM-2     |
| Analyst    :  [illegible]          Column: AG4A-SC,AS4A-SC, SRS         |
==========================================================================
```

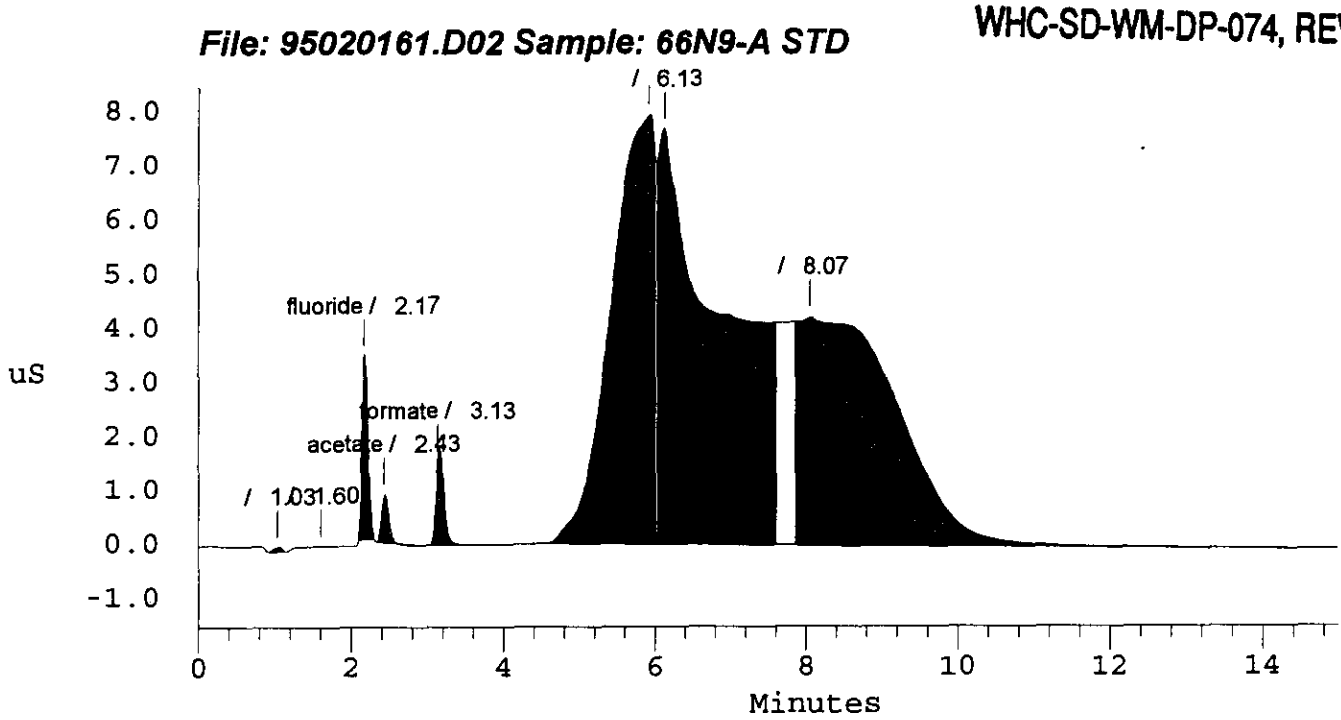
02/01/95

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	77277	615089	1	
2	1.60		0.000	4765	17876	1	
3	2.17	fluoride	64.273	3399280	17682680	1	0.31
4	2.43	acetate	119.243	880794	5530920	1	-0.68
5	3.13	formate	122.741	1548043	12478672	1	-0.53
6	5.93		0.000	7950915	305418022	2	
7	6.13		0.000	7675183	459156533	2	
8	8.07		0.000	4231109	384811733	2	
		Totals	306.257	25767365	1185711526		

WHC-SD-WM-DP-074, REV. 0



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 650 TO 655.

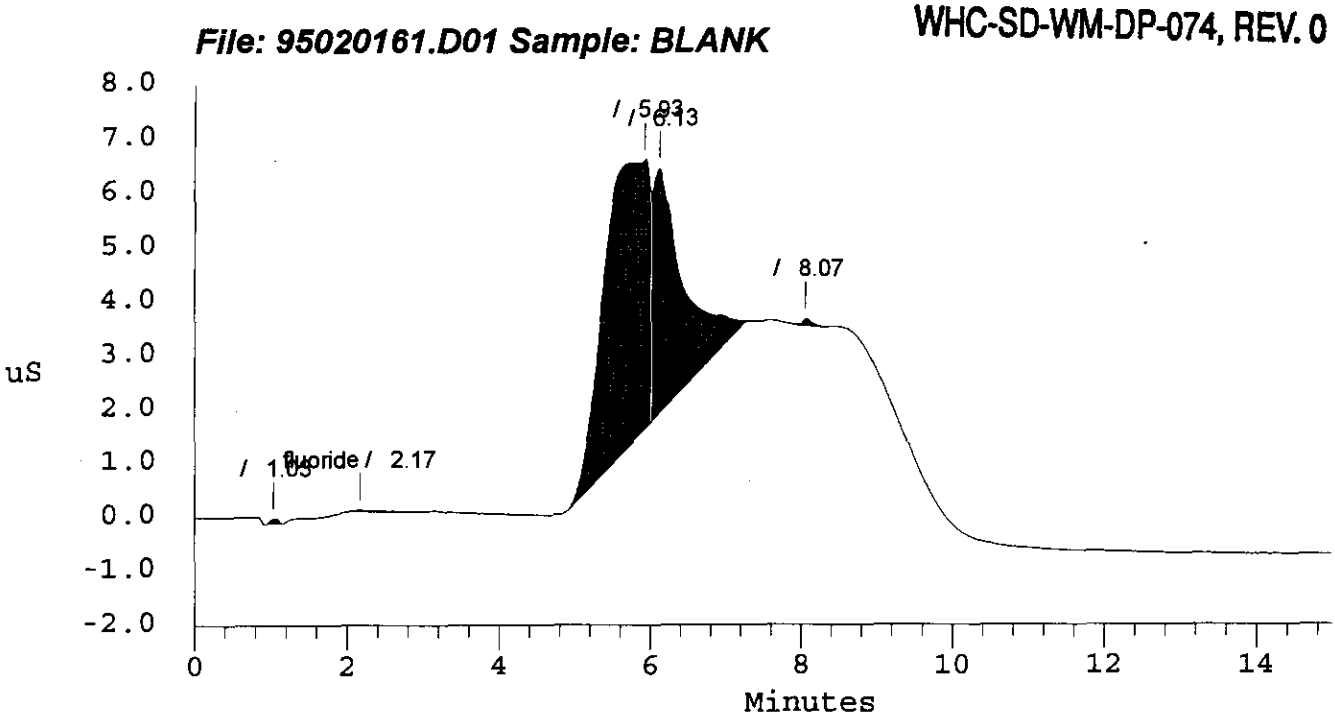
```
==============================================================================
| Sample Name: BLANK                          Date: 02/01/1995 09:02:50       |
| Data File  : C:\DX\DATA\95020161.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
  ACI Address: 1  System: 2  Inject#: 1                    Detector:CDM-2     |
  Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	76327	588024	1	
2	2.17	fluoride	0.124	25005	536820	1	0.31
3	5.93		0.000	4955872	212957046	2	
4	6.13		0.000	4495991	123015374	2	
5	8.07		0.000	118074	956200	1	
		Totals	0.124	9671270	338053464		

WHC-SD-WM-DP-074, REV. 0



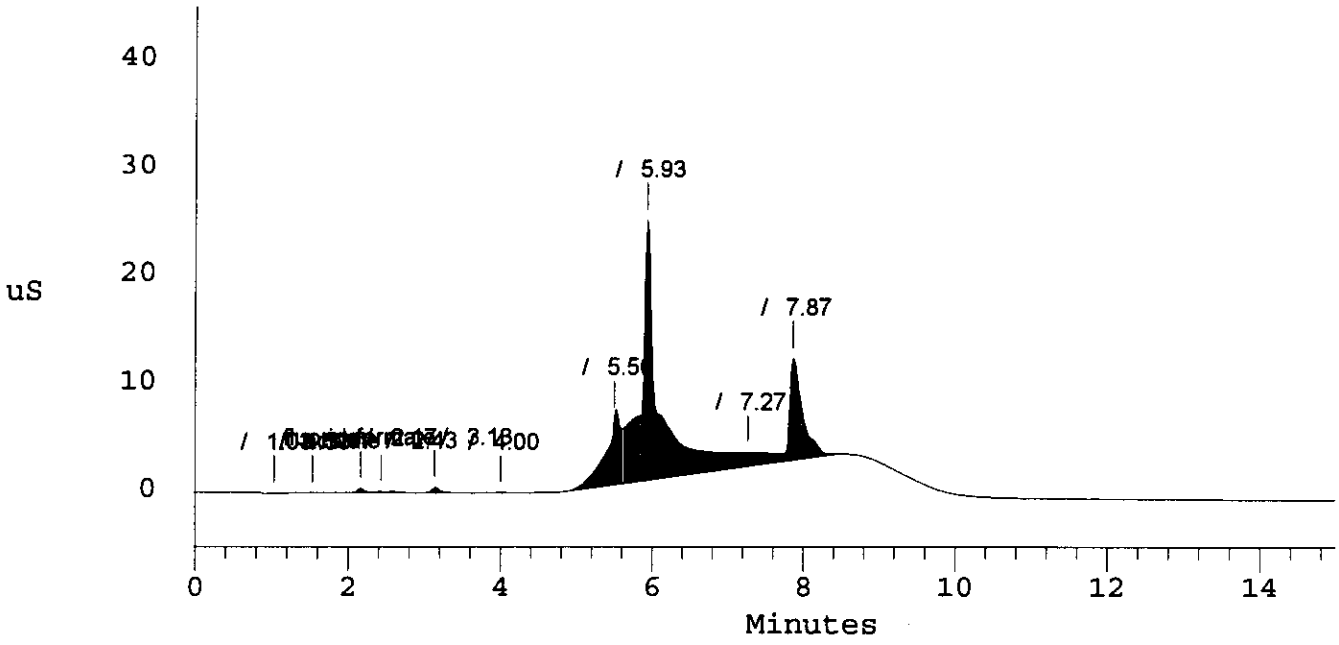
Sample Name: S94T000281	Date: 02/01/1995 11:04:05
Data File : C:\DX\DATA\95020161.D03	
Method : C:\DX\METHOD\AUTOACE.MET	
ACI Address: 1 System: 2 Inject#: 3	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	87533	672842	1	
2	1.53		0.000	25960	731272	1	
3	2.17	fluoride	17.556	389859	2218014	2	0.31
4	2.43	acetate	33.175	76060	1432261	2	-0.68
5	3.13	formate	50.826	481170	3595358	1	-0.53
6	4.00		0.000	29189	254420	1	
7	5.50		0.000	6173504	93517263	2	
8	5.93		0.000	24128146	425392784	3	
9	7.27		0.000	691007	25737025	4	
10	7.87		0.000	9432700	112483562	2	
		Totals	101.558	41515127	666034800		

File: 95020161.D03 Sample: S94T000281 **WHC-SD-WM-DP-074, REV. 0**



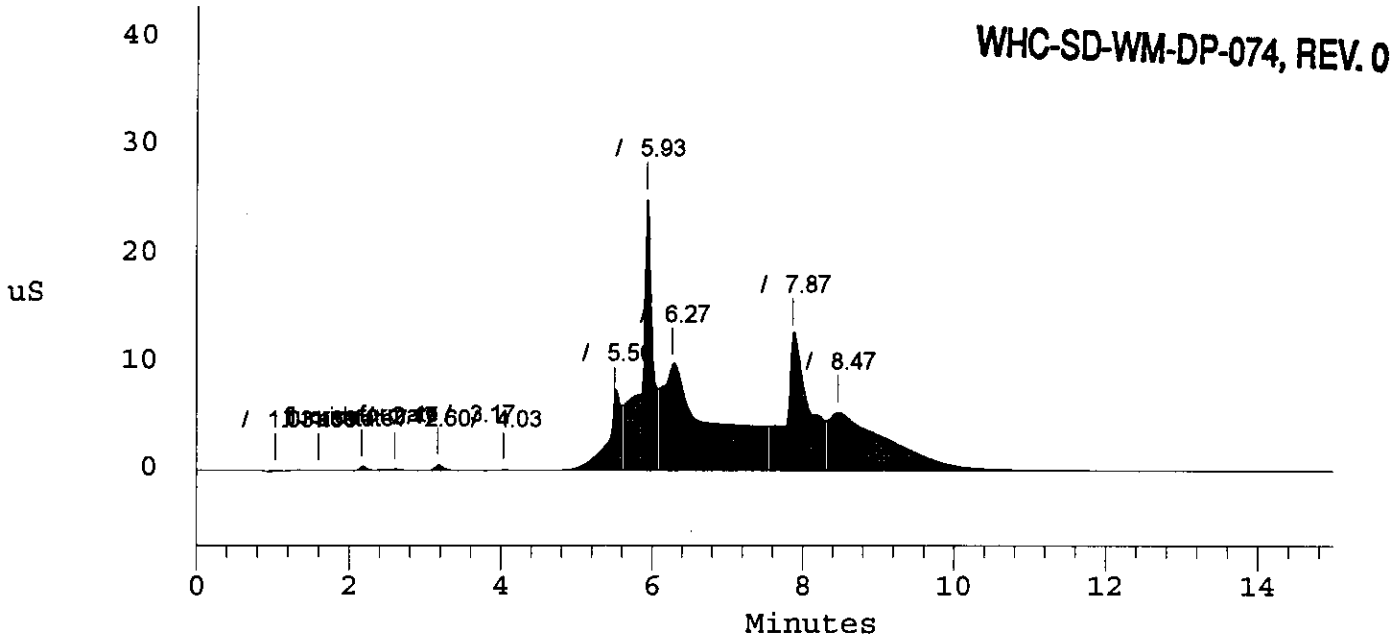
```
==============================================================================
| Sample Name: S94T000281  DUPLICATE          Date: 02/01/1995 12:16:14       |
| Data File  : C:\DX\DATA\95020161.D07                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
  ACI Address: 1  System: 2  Inject#: 7                    Detector:CDM-2     |
  Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	75895	604878	1	
2	1.60		0.000	22345	729306	1	
3	2.17	fluoride	17.450	357149	2182773	2	0.31
4	2.60	acetate	32.223	125885	1386884	2	6.12
5	3.17	formate	52.880	499521	3849037	2	0.53
6	4.03		0.000	28571	316766	2	
7	5.50		0.000	6169654	88527020	2	
8	5.93		0.000	25033550	268976905	2	
9	6.27		0.000	9801239	466457602	2	
10	7.87		0.000	12557546	281619625	2	
11	8.47		0.000	5441787	298925832	2	
		Totals	102.552	60113141	1413576628		

File: 95020161.D07 Sample: S94T000281 DUPLICATE



```
==============================================================================
| Sample Name: S94T000281  + SPIKE            Date: 02/01/1995 11:58:08      |
| Data File  : C:\DX\DATA\95020161.D06                                       |
| Method     : C:\DX\METHOD\AUTOACE.MET                                      |
| ACI Address: 1  System: 2  Inject#: 6                   Detector:CDM-2     |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                 |
==============================================================================
```

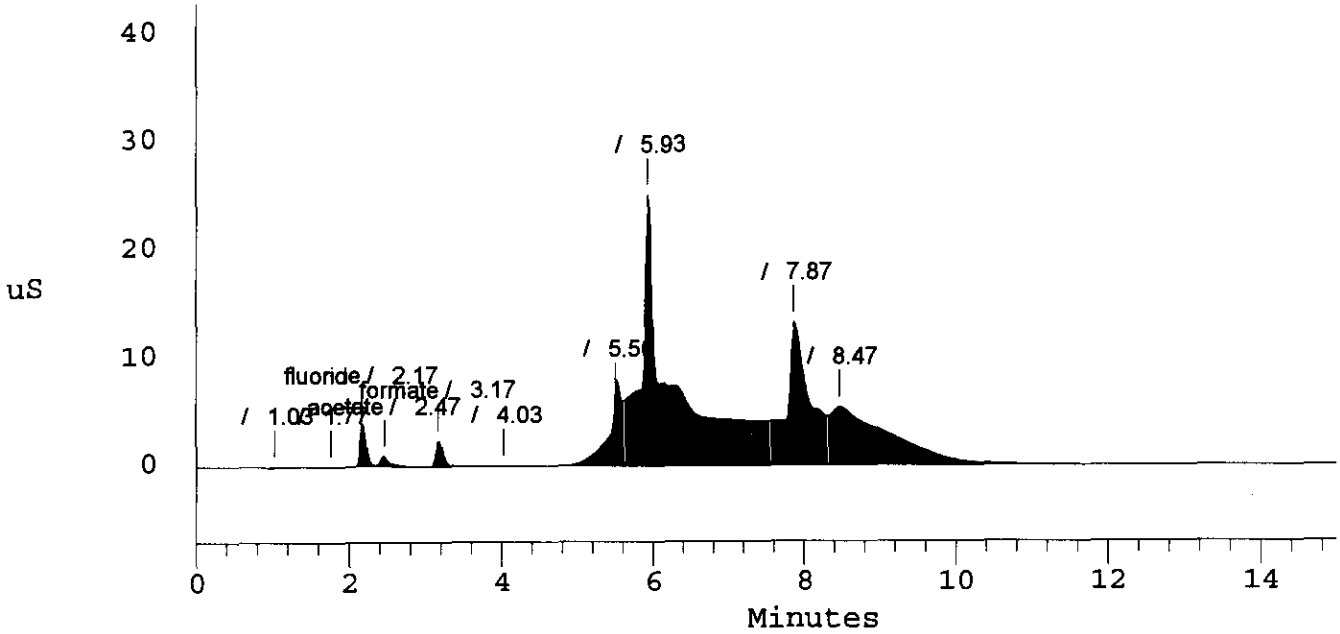
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	4500	5Hz	0.00	15.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	70080	552748	1	
2	1.77		0.000	24837	774248	1	
3	2.17	fluoride	73.517	3684181	20742875	2	0.31
4	2.47	acetate	155.913	815584	7277173	2	0.68
5	3.17	formate	158.878	2368975	16942419	2	0.53
6	4.03		0.000	30789	346717	2	
7	5.50		0.000	6137956	89597485	2	
8	5.93		0.000	25069554	721885540	2	
9	7.87		0.000	13212223	285291884	2	
10	8.47		0.000	5388051	294762450	2	
		Totals	388.308	56802230	1438173539		

File: 95020161.D06 Sample: S94T000281 + SPIKE

WHC-SD-WM-DP-074, REV. 0



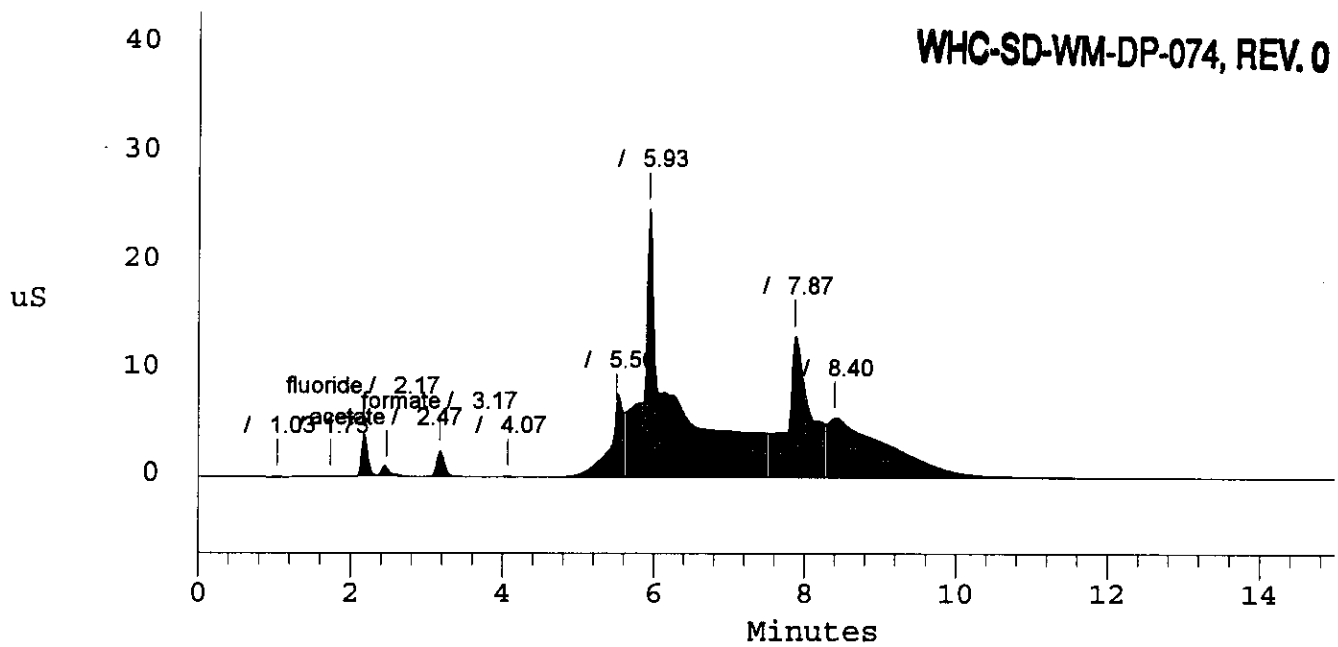
Sample Name: S94T000281 + SPIKE Date: 02/01/1995 11:40:19
Data File : C:\DX\DATA\95020161.D05
Method : C:\DX\METHOD\AUTOACE.MET
ACI Address: 1 System: 2 Inject#: 5 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	4500	5Hz	0.00	15.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	71182	552546	1	
2	1.73		0.000	29512	921608	1	
3	2.17	fluoride	72.563	3661591	20427045	2	0.31
4	2.47	acetate	149.713	779409	6981913	2	0.68
5	3.17	formate	160.054	2356926	17087749	2	0.53
6	4.07		0.000	31060	396595	2	
7	5.50		0.000	6215944	90598164	2	
8	5.93		0.000	24801505	704428264	2	
9	7.87		0.000	13124006	285481691	2	
10	8.40		0.000	5525696	308528295	2	
		Totals	382.330	56596830	1435403869		

File: 95020161.D05 Sample: S94T000281 + SPIKE



PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

I + says detection limit because I used the form to calculate the detection limit in the sample matrix. JMF 2/1/95

JMF 1/30/95 Acetate + Formate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	~~NITRITE~~	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00			
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto			1.10E+01			
373	Duplicate Conc. (µg/n						
Test Code	Duplicate Prep DF (g/						
dionex	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
detection limit 281	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/17/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV*	SPIKE AC
Flouride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<95.093	ERR	N/A	-9.51E+01	ERR	ERR
Nitrate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR

JMF 1/30/95 Acetate + Formate

Data Entry by:	[signature]	Date:	30-Jan-95
Approved by:	[signature]	Date:	1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 1/30/95
Acetate & Formate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	~~NITRITE~~	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL)			1.00E+00			
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto			1.10E+01			
373	Duplicate Conc. (µg/m						
Test Code	Duplicate Prep DF (g/						
dionex	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
detection limit 280	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/17/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

1/30/95 Acetate + Formate

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<97.790	ERR	N/A	-9.78E+01	ERR	ERR
Nitrate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR

Data Entry by:	Jann Frye	Date:	30-Jan-95
Approved by:	Jann Frye	Date:	1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

GMF 1/30/95 Acetate GMF 1/30/95 Formate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		~~FLOURID~~	~~CHLORID~~	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	3.49E+00	3.32E+01				
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto	1.10E+01	1.10E+01				
373	Duplicate Conc. (µg/m	4.03E+00	3.70E+01				
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@IC-02	Duplicate Dilution Fac	1.10E+01	1.10E+01				
Matrix	Spike+Sample (µg/ml	1.23E+01	4.80E+01				
solid							
Sample #	Volume of Spike (mL)	0.1	0.1				
S94t000280	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00	11.00				
dionex	Spike Std. (µg/mL)	122	120				
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/17/95 GMF	Spike Recovery = {((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

1/30/95 GMF Acetate
1/30/95 GMF Formate

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
~~Flouride~~ (µg/g)	3.41E+02	3.94E+02	14.3%	8.62E+02	72.2%	1.19E+03
~~Chloride~~ (µg/g)	3.25E+03	3.62E+03	10.8%	1.45E+03	123.3%	1.17E+03
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:	Gina Fryk	Date:	30-Jan-95
Approved by:	Gina Fryk	Date:	1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	3.49E+00	3.32E+01				
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto	1.10E+01	1.10E+01				
373	Duplicate Conc. (µg/m	4.03E+00	3.70E+01				
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@IC-02	Duplicate Dilution Fac	1.10E+01	1.10E+01				
Matrix	Spike+Sample (µg/ml	4.83E+01	4.72E+01				
solid							
Sample #	Volume of Spike (mL)	0.1	0.1				
S94t000280	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00	11.00				
dionex	Spike Std. (µg/mL)	122	120				

Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor
01/17	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
	Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	3.41E+02	3.94E+02	14.3%	4.38E+03	367.3%	1.19E+03
Chloride (µg/g)	3.25E+03	3.62E+03	10.8%	1.37E+03	116.7%	1.17E+03
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:	Jane Fuge	Date:	30-Jan-95
Approved by:	Jane Fuge	Date:	1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 1/26/95 Acetate

JMF 1/26/95 Formate

ANION ANALYSIS ON DIONEX MODEL 4000I - PREPARED SAMPLES

LA-533-105 (C-1)

		~~FLOURID~~	~~CHLORID~~	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	2.80E+01	3.39E+01				
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work Log	Sample Dilution Facto	1.10E+01	1.10E+01				
wkl 373	Duplicate Conc. (µg/n	3.13E+01	3.56E+01				
Test Code	Duplicate Prep DF (g/	10.396	10.396	10.396	10.396	10.396	10.396
@IC-02	Duplicate Dilution Fac	1.10E+01	1.10E+01				
Matrix	Spike+Sample (µg/ml	5.31E+01	5.00E+01				
solid							
Sample #	Volume of Spike (mL)	0.1	0.1				
S94T000261	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00	11.00				
dionex	Spike Std. (µg/mL)	122	120				
Analyst							
Ed Colvin							
Date							
01/19/95							
Time							

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Less than Values are Calculated from the Detection Limit*Dilution Factor
Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
Spike Actual = Spike Found / Spike Recovery

1/26/95 JMF Acetate
1/26/95 JMF Formate

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
~~Flouride~~ (µg/g)	2.66E+03	3.01E+03	12.3%	2.39E+03	205.7%	1.16E+03
~~Chloride~~ (µg/g)	3.22E+03	3.42E+03	6.0%	1.53E+03	134.2%	1.14E+03
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by: [signature] Date: 26-Jan-95
Approved by: [signature] Date: 1/26/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

1/26/95 1/26/95
JMF JMF
Acetate Formate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)		~~FLOURID~~	~~CHLORID~~	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	2.80E+01	3.39E+01				
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto	1.10E+01	1.10E+01				
wkl 373	Duplicate Conc. (µg/m	3.13E+01	3.56E+01				
Test Code	Duplicate Prep DF (g/	10.396	10.396	10.396	10.396	10.396	10.396
@IC-02	Duplicate Dilution Fac	1.10E+01	1.10E+01				
Matrix	Spike+Sample (µg/ml	3.50E+01	4.20E+01				
solid							
Sample #	Volume of Spike (mL)	0.1	0.1				
S94T000281	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00	11.00				
dionex	Spike Std. (µg/mL)	122	120				
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/19/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

1/26/95 JMF Acetate
1/26/95 JMF Formate

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
~~Flouride~~ (µg/g)	2.66E+03	3.01E+03	12.3%	6.66E+02	57.4%	1.16E+03
~~Chloride~~ (µg/g)	3.22E+03	3.42E+03	6.0%	7.70E+02	67.5%	1.14E+03
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:	Jean Fryer	Date:	26-Jan-95
Approved by:	Jean Fryer	Date:	1/26/95

Form L1 Rev. 2.0

Data Reprocessed On 01/30/1995 12:13:34

Sample Name: BLANK	Date: 01/17/1995 08:56:46
Data File : C:\DX\DATA\95011741.D01	
Method : C:\DX\METHOD\AUTOACE.MET	
ACI Address: 1 System: 2 Inject#: 1	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

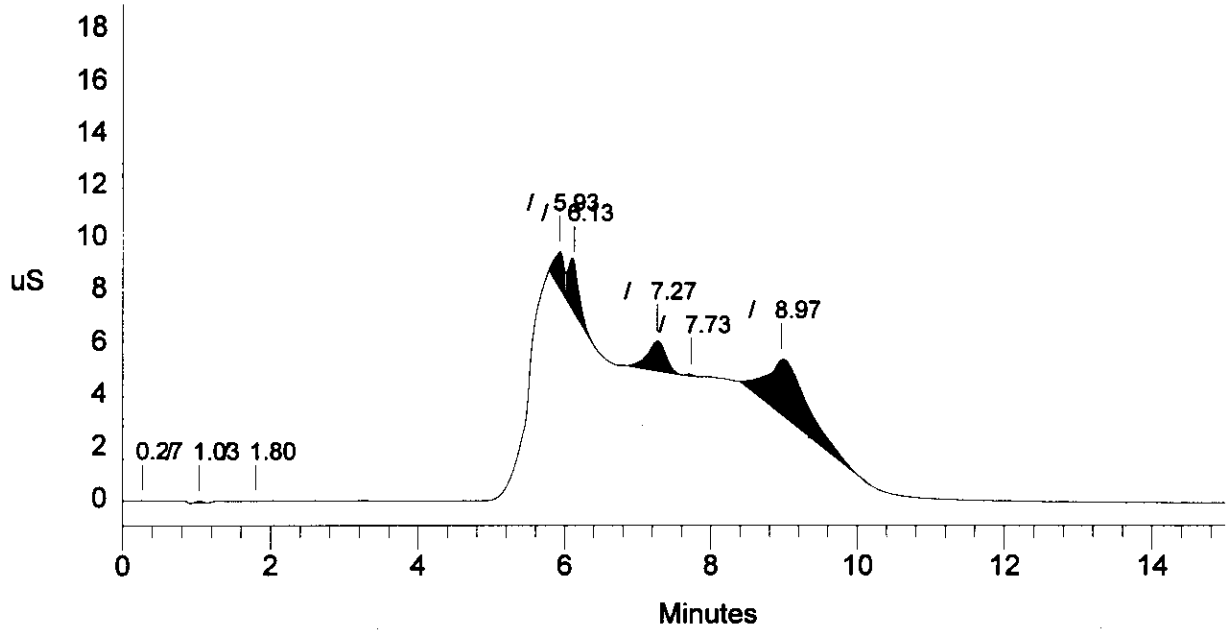
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.27		0.000	14773	130212	1	
2	1.03		0.000	61231	443908	1	
3	1.80		0.000	6121	154092	1	
4	5.93		0.000	1348979	11314000	2	
5	6.13		0.000	1891229	19140450	2	
6	7.27		0.000	1129273	20143800	1	
7	7.73		0.000	62000	419200	1	
8	8.97		0.000	2069092	84505860	1	
		Totals	0.000	6582698	136251522		

WHC-SD-WM-DP-074, REV. 0

File: 95011741.D01 Sample: BLANK



```
==================================================================================
| Sample Name: 66N9-A STD                          Date: 01/17/1995 09:16:08      |
| Data File  : C:\DX\DATA\95011741.D02                                            |
| Method     : C:\DX\METHOD\AUTOACE.MET                                           |
  ACI Address: 1  System: 2  Inject#: 2                        Detector:CDM-2     |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                      |
==================================================================================
```

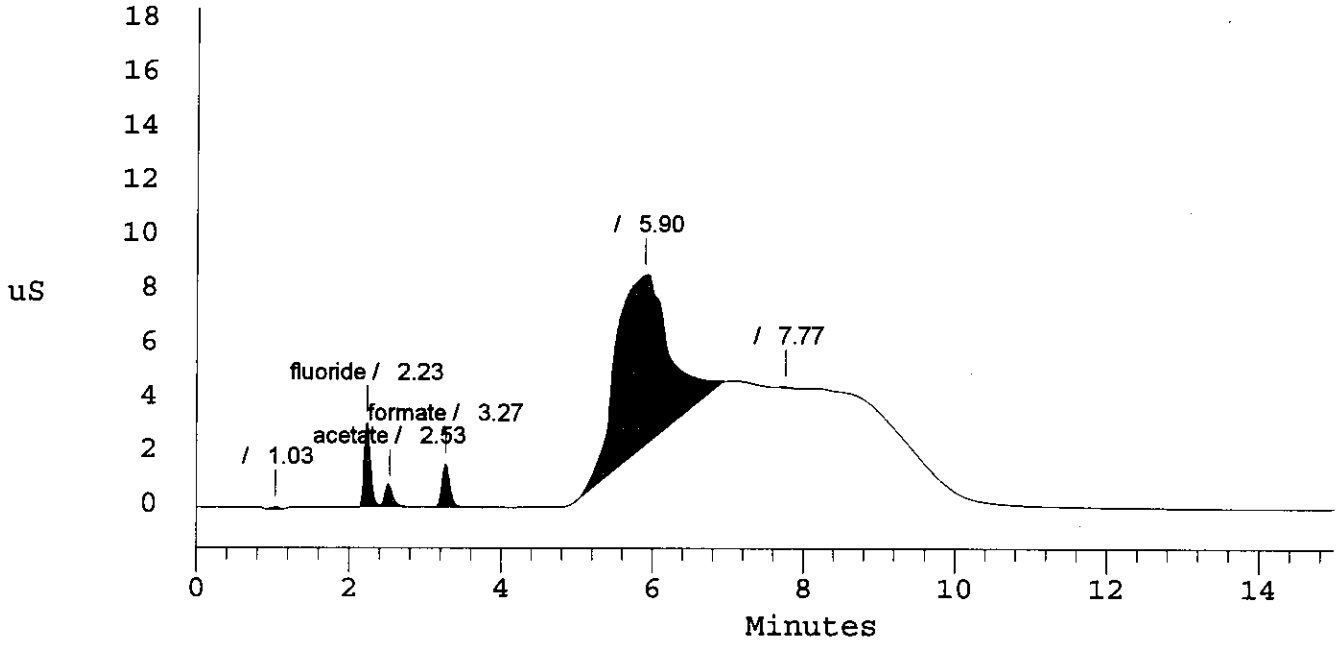
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	4500	5Hz	0.00	15.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	64412	464716	1	
2	2.23	fluoride	60.825	3074581	16541345	2	3.40
3	2.53	acetate	119.645	732018	5550034	2	3.40
4	3.27	formate	114.245	1588386	11429192	1	3.70
5	5.90		0.000	6262579	310691620	1	
6	7.77		0.000	36400	226200	1	
		Totals	294.715	11758376	344903107		

File: 95011741.D02 Sample: 66N9-A STD

WHC-SD-WM-DP-074, REV. 0



```
==============================================================================
| Sample Name: S94T000280                      Date: 01/17/1995 09:57:15      |
| Data File  : C:\DX\DATA\95011751.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 1                   Detector:CDM-2      |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

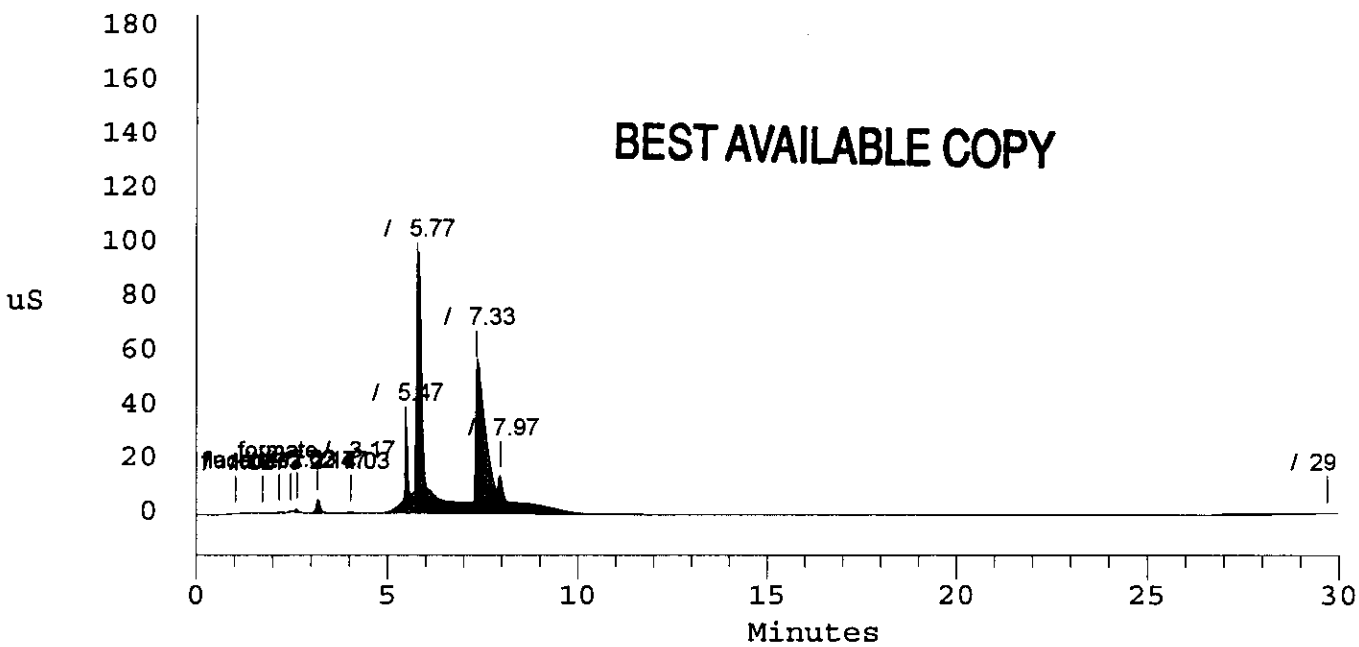
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	9000	5Hz	0.00	30.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	81106	511240	1	
2	1.73		0.000	51168	1168080	1	
3	2.17	fluoride	2.094	351450	2771240	1	0.31
4	2.47	acetate	3.490	295974	1378370	1	0.68
5	2.63		0.000	999691	6149350	1	
6	3.17	formate	33.236	4467298	35012355	2	0.53
7	4.03		0.000	246955	2267166	2	
8	5.47		0.000	25726458	221514768	2	
9	5.77		0.000	86370703	1272261389	2	
10	7.33		0.000	53957313	1090896312	2	
11	7.97		0.000	13148496	433685930	2	
12	29.70		0.000	34912	46657886	1	
		Totals	38.820	185731524	3114274087		

WHC-SD-WM-DP-074, REV. 0

File: 95011751.D01 Sample: S94T000280



```
==========================================================================
| Sample Name: S94T000280                    Date: 01/17/1995 10:58:02    |
| Data File  : C:\DX\DATA\95011761.D01                                    |
| Method     : C:\DX\METHOD\AUTOACE.MET                                   |
  ACI Address: 1  System: 2  Inject#: 1                  Detector:CDM-2   |
  Analyst    :                Column: AG4A-SC,AS4A-SC, SRS               |
==========================================================================
```

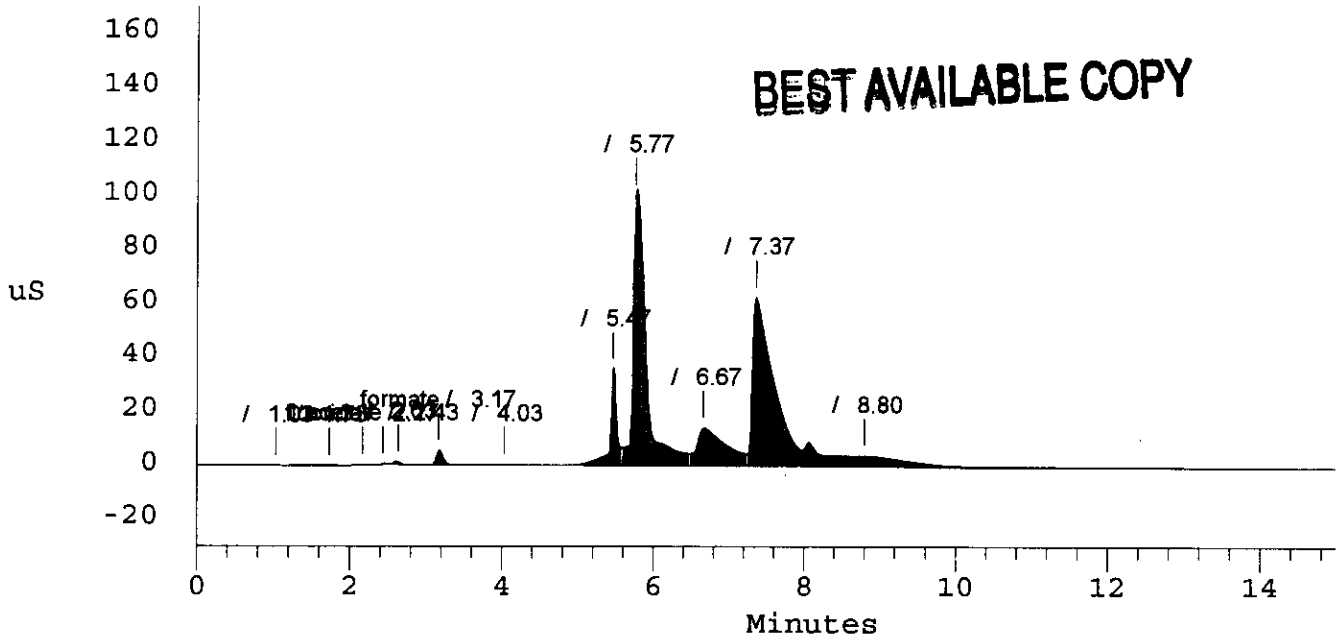
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	27061	172100	1	
2	1.73		0.000	63198	2066816	1	
3	2.17	fluoride	1.851	290715	2032808	1	0.31
4	2.43	acetate	4.031	349826	1614913	1	-0.68
5	2.63		0.000	1073475	7204792	1	
6	3.17	formate	37.041	5537592	39328273	2	0.53
7	4.03		0.000	298804	2558727	2	
8	5.47		0.000	35635696	225034061	2	
9	5.77		0.000	100385909	1240636323	2	
10	6.67		0.000	14036547	386495125	2	
11	7.37		0.000	62643710	1398155173	3	
12	8.80		0.000	2805843	180598039	4	
		Totals	42.923	223148375	3485897150		

WHC-SD-WM-DP-074, REV. 0

File: 95011761.D01 Sample: S94T000280



```
==============================================================================
| Sample Name: S94T000280 + SPIKE            Date: 01/17/1995 11:17:17       |
| Data File  : C:\DX\DATA\95011761.D02                                       |
| Method     : C:\DX\METHOD\AUTOACE.MET                                      |
| ACI Address: 1  System: 2  Inject#: 2                   Detector:CDM-2     |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

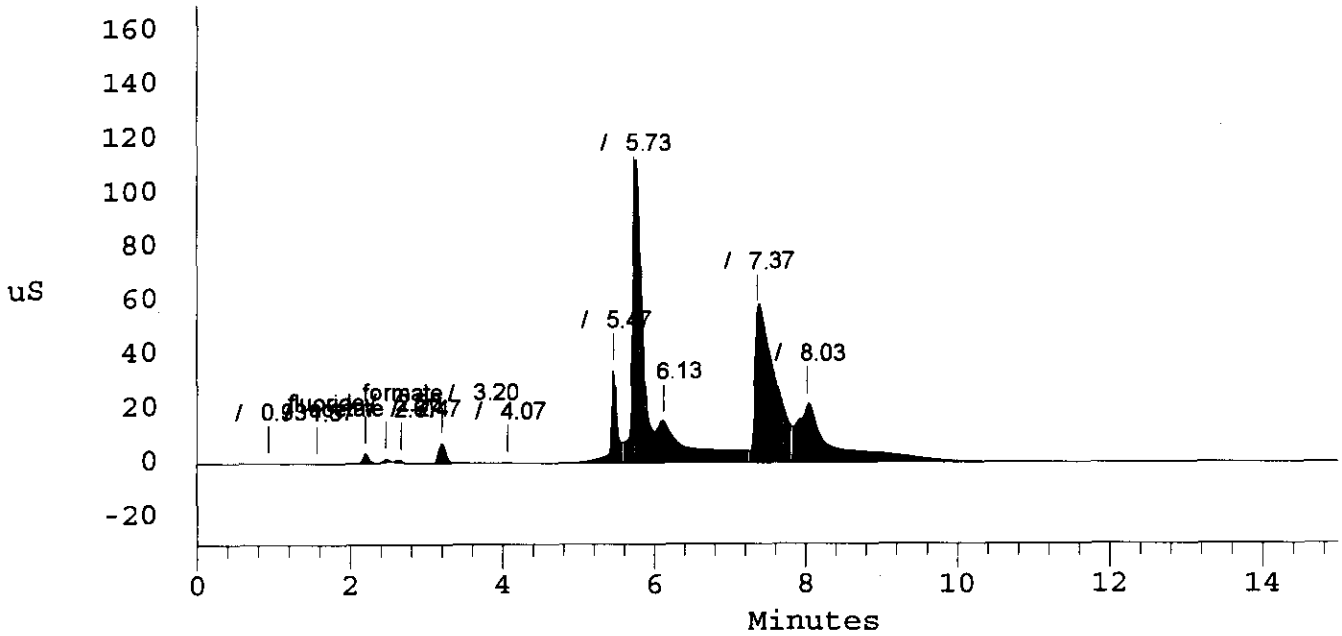
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.93		0.000	43130	285890	1	
2	1.57		0.000	46764	1658584	1	
3	2.20	fluoride	7.190	3505758	18261580	1	1.85
4	2.47	acetate	12.343	1125411	5249160	1	0.68
5	2.67		0.000	810431	5791280	1	
6	3.20	formate	48.001	7473977	51758453	2	1.59
7	4.07		0.000	281036	2311335	2	
8	5.47		0.000	34075918	194580613	2	
9	5.73		0.000	99856160	1058218695	3	
10	6.13		0.000	12480028	433490676	4	
11	7.37		0.000	55857646	1051071273	2	
12	8.03		0.000	21678252	720493181	2	
		Totals	67.534	237234511	3543170720		

WHC-SD-WM-DP-074, REV. 0

File: 95011761.D02 Sample: S94T000280 + SPIKE



```
==============================================================================
| Sample Name: S94T000280 + SPIKE              Date: 01/17/1995 11:38:55      |
| Data File  : C:\DX\DATA\95011761.D03                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
  ACI Address: 1  System: 2  Inject#: 3                    Detector:CDM-2     |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

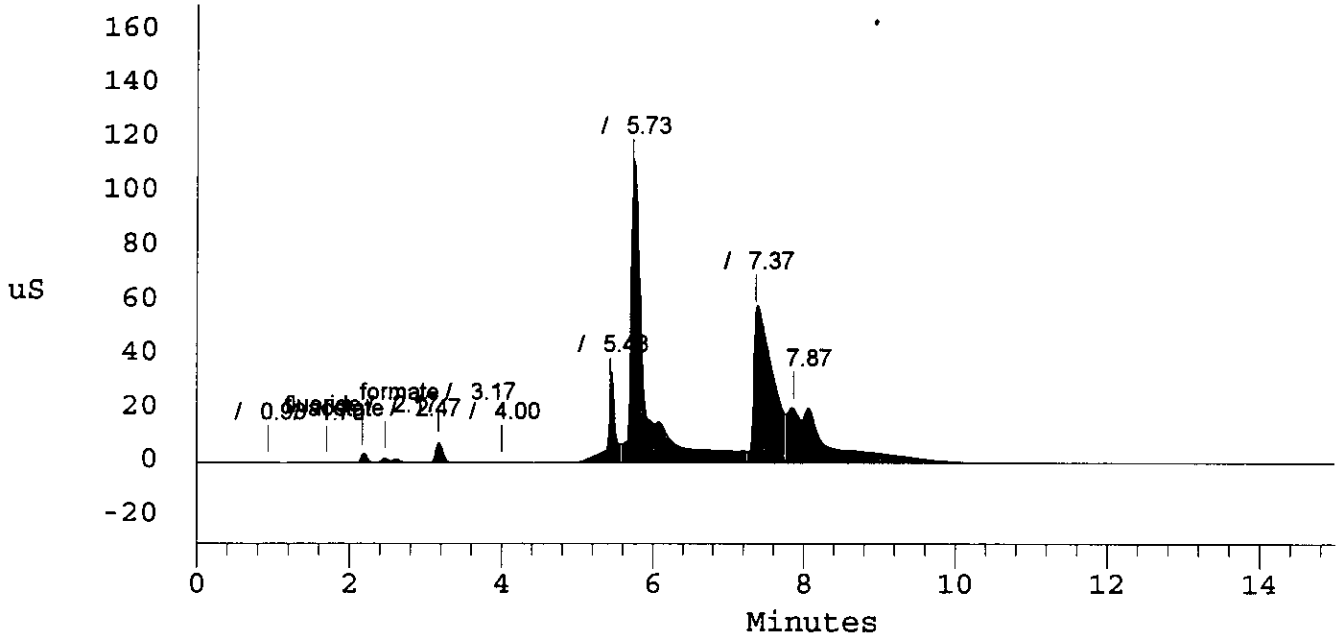
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.93		0.000	44130	310362	1	
2	1.70		0.000	45648	1641208	1	
3	2.17	fluoride	7.591	2778631	19478341	2	0.31
4	2.47	acetate	48.371	1604992	21002433	2	0.68
5	3.17	formate	47.198	7552593	50847719	2	0.53
6	4.00		0.000	252912	2268962	2	
7	5.43		0.000	25297962	219968398	2	
8	5.73		0.000	106068807	1511199738	2	
9	7.37		0.000	56223409	987645126	2	
10	7.87		0.000	20204818	828222326	2	
		Totals	103.159	220073903	3642584612		

WHC-SD-WM-DP-074, REV. 0

File: 95011761.D03 Sample: S94T000280 + SPIKE



```
==============================================================================
| Sample Name: 66N9-A STD                      Date: 01/19/1995 11:12:52      |
| Data File  : C:\DX\DATA\95011961.D04                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 4                   Detector:CDM-2      |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

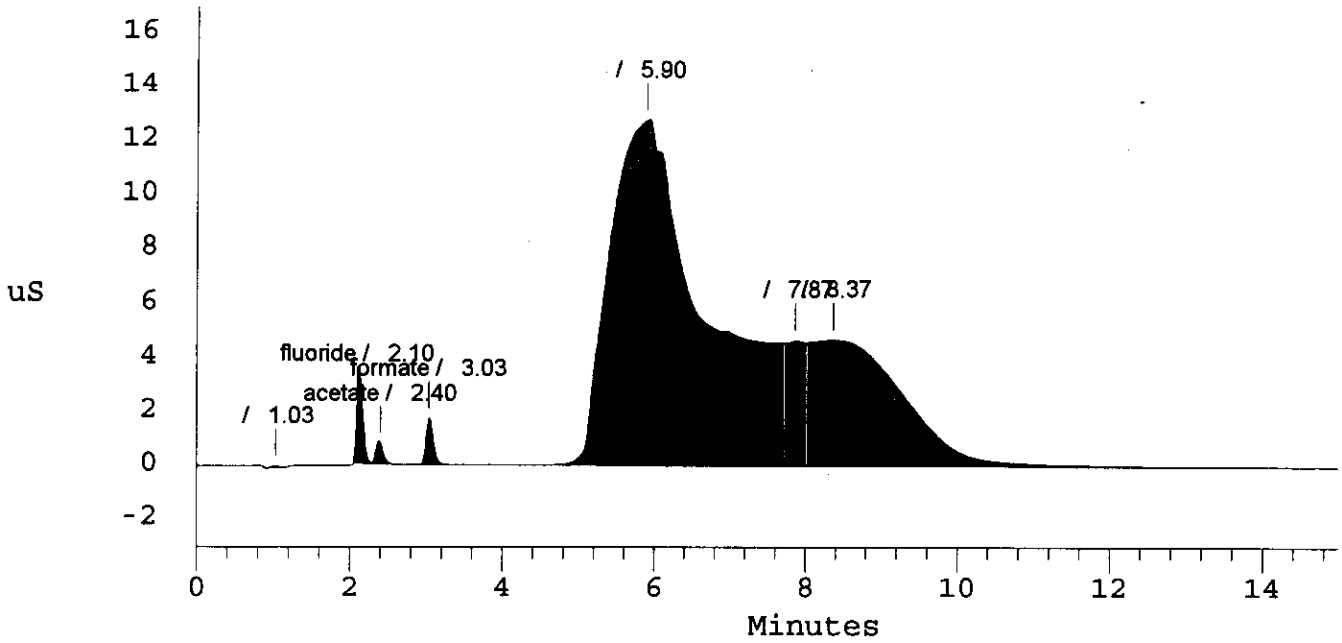
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	55746	308000	1	
2	2.10	fluoride	62.867	2201731	17217426	2	-2.78
3	2.40	acetate	119.059	770616	5522128	2	-2.04
4	3.03	formate	117.339	1732317	11811334	1	-3.70
5	5.90		0.000	12738503	1117018702	2	
6	7.87		0.000	4643204	73713912	2	
7	8.37		0.000	4674179	394216459	2	
		Totals	299.265	26816296	1619807960		

WHC-SD-WM-DP-074, REV. 0

File: 95011961.D04 Sample: 66N9-A STD



Sample Name: BLANK Date: 01/19/1995 09:29:20
Data File : C:\DX\DATA\95011961.D01
Method : C:\DX\METHOD\AUTOACE.MET
ACI Address: 1 System: 2 Inject#: 1 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

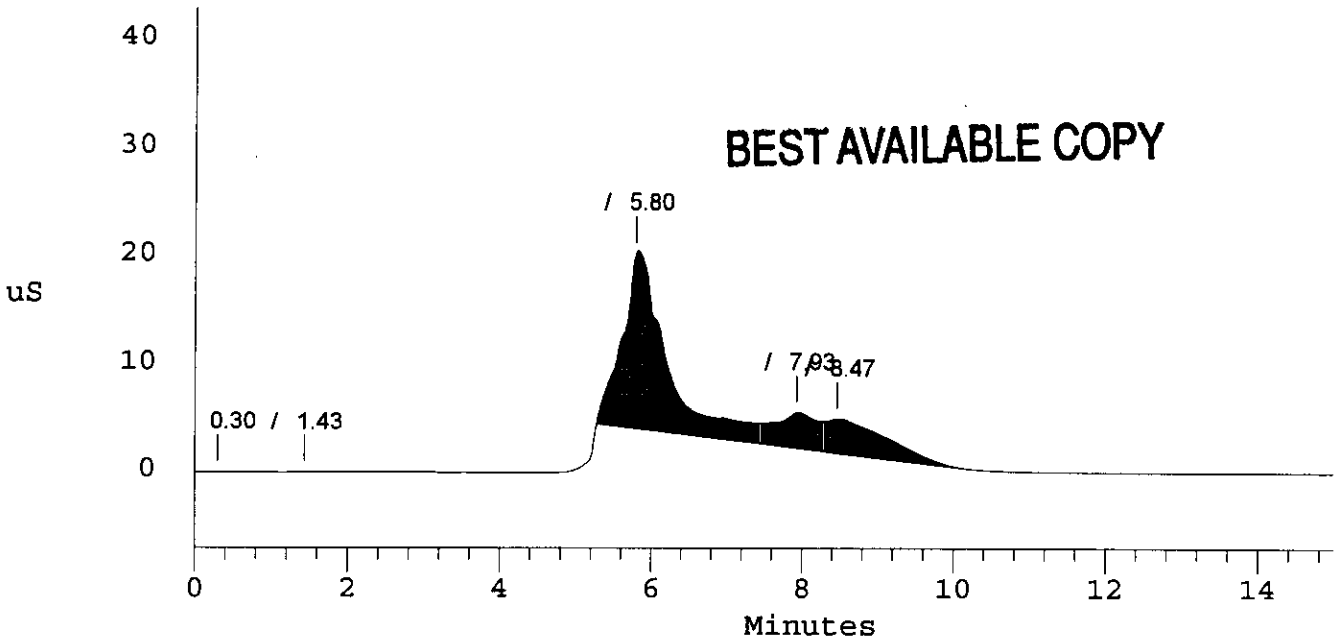
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.30		0.000	18493	177784	1	
2	1.43		0.000	11971	346780	1	
3	5.80		0.000	16198778	685462077	2	
4	7.93		0.000	3322654	127481366	2	
5	8.47		0.000	3168874	180571966	2	
		Totals	0.000	22720770	994039973		

WHC-SD-WM-DP-074, REV. 0

File: 95011961.D01 Sample: BLANK



```
==============================================================================
| Sample Name: S94T000281                    Date: 01/19/1995 11:36:09        |
| Data File  : C:\DX\DATA\95011961.D05                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 5                   Detector:CDM-2      |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

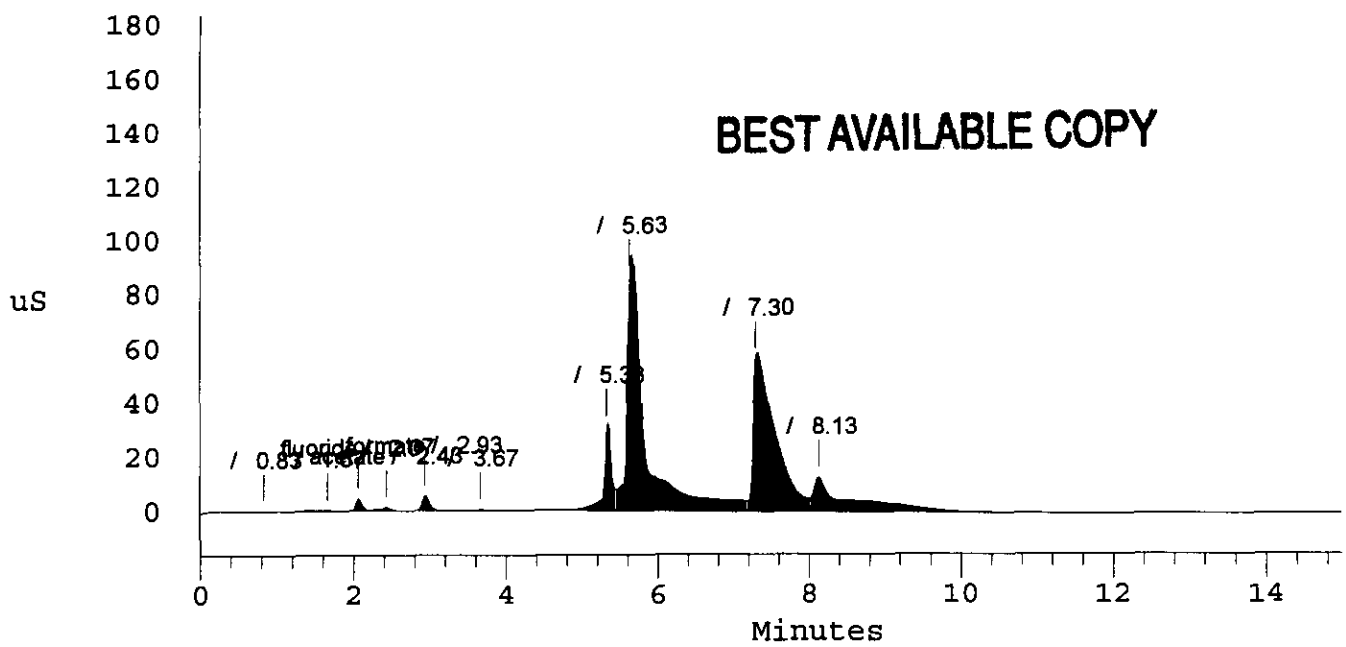
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.83		0.000	26000	201600	1	
2	1.67		0.000	54000	1055200	1	
3	2.07	fluoride	8.571	4242211	22456322	2	-4.32
4	2.43	acetate	27.958	1312176	12076996	2	-0.68
5	2.93	formate	33.929	5256545	35799223	2	-6.88
6	3.67		0.000	261545	2580900	2	
7	5.33		0.000	31067932	201142757	2	
8	5.63		0.000	86537651	1549032161	2	
9	7.30		0.000	56284980	1156320360	2	
10	8.13		0.000	12618644	403574830	2	
		Totals	70.458	197661685	3384240348		

WHC-SD-WM-DP-074, REV. 0

File: 95011961.D05 Sample: S94T000281



Sample Name: S94T000281 Date: 01/19/1995 11:55:19
Data File : C:\DX\DATA\95011961.D06
Method : C:\DX\METHOD\AUTOACE.MET
ACI Address: 1 System: 2 Inject#: 6 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

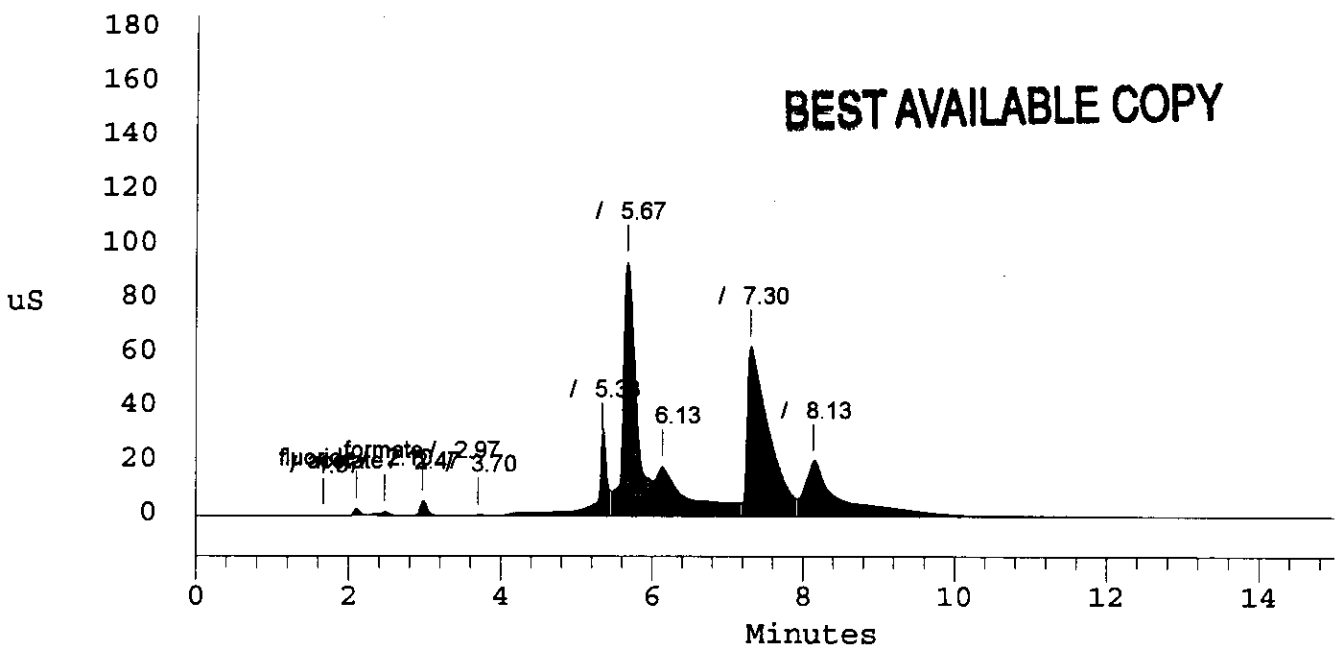
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.67		0.000	52169	1597796	1	
2	2.10	fluoride	5.632	2587989	13523726	2	-2.78
3	2.47	acetate	31.293	1410436	13535389	2	0.68
4	2.97	formate	35.644	5536269	37744365	2	-5.82
5	3.70		0.000	304884	2710947	2	
6	5.33		0.000	28240612	297767451	2	
7	5.67		0.000	94102210	1221567215	3	
8	6.13		0.000	14268595	482158168	4	
9	7.30		0.000	62870038	1247777176	2	
10	8.13		0.000	20394032	693010345	2	
		Totals	72.569	229767235	4011392577		

WHC-SD-WM-DP-074, REV. 0

File: 95011961.D06 Sample: S94T000281



Sample Name: S94T000281 + SPIKE Date: 01/19/1995 12:19:07
Data File : C:\DX\DATA\95011961.D07
Method : C:\DX\METHOD\AUTOACE.MET
ACI Address: 1 System: 2 Inject#: 7 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

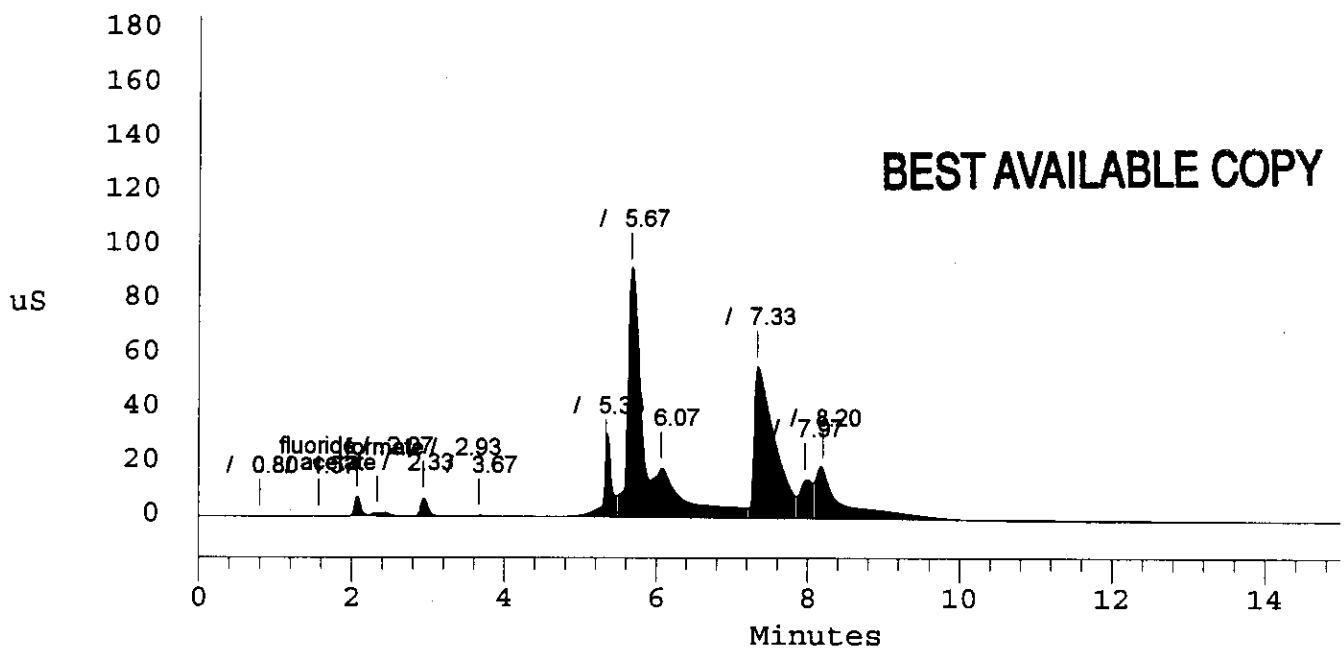
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.80		0.000	36200	897680	1	
2	1.57		0.000	44775	1069720	1	
3	2.07	fluoride	13.188	6963943	36490078	2	-4.32
4	2.33	acetate	35.023	1054011	15166351	2	-4.76
5	2.93	formate	42.043	6652998	45001812	2	-6.88
6	3.67		0.000	267839	2334797	2	
7	5.33		0.000	22210665	199486229	2	
8	5.67		0.000	91513068	1076352414	3	
9	6.07		0.000	15206606	495667330	4	
10	7.33		0.000	55705081	1035498723	2	
11	7.97		0.000	14243646	152273874	2	
12	8.20		0.000	18427328	430610423	2	
		Totals	90.254	232326161	3490849429		

File: 95011961.D07 Sample: S94T000281 + SPIKE

WHC-SD-WM-DP-074, REV. 0



BEST AVAILABLE COPY

```
==============================================================================
| Sample Name: S94T000281 + SPIKE            Date: 01/19/1995 12:37:44       |
| Data File  : C:\DX\DATA\95011961.D08                                       |
| Method     : C:\DX\METHOD\AUTOACE.MET                                      |
  ACI Address: 1  System: 2  Inject#: 8                   Detector:CDM-2     |
  Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

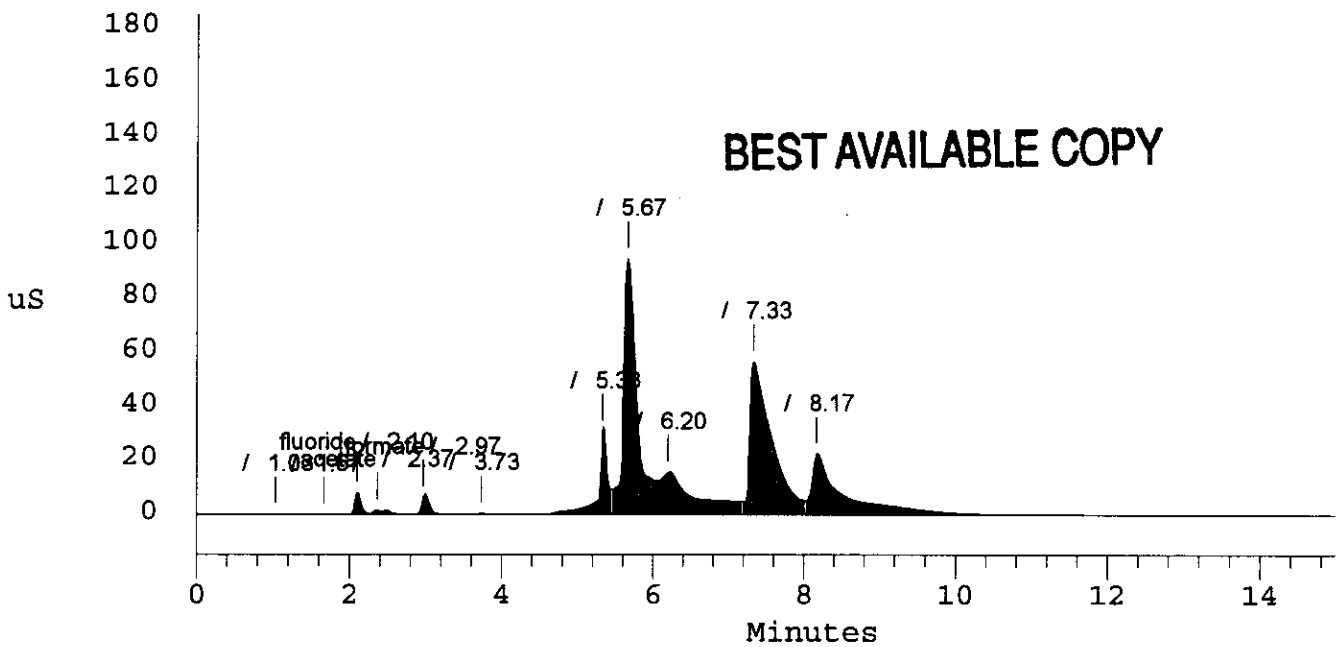
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	24087	144414	1	
2	1.67		0.000	49572	1521826	2	
3	2.10	fluoride	16.025	8009723	45113014	2	-2.78
4	2.37	acetate	53.056	1588997	23051259	2	-3.40
5	2.97	formate	50.046	6211364	54077777	2	-5.82
6	3.73		0.000	374978	4696577	2	
7	5.33		0.000	30849924	257384090	2	
8	5.67		0.000	94669017	1257419632	3	
9	6.20		0.000	12387210	460862618	4	
10	7.33		0.000	56844482	1151408074	2	
11	8.17		0.000	22362214	667614784	2	
		Totals	119.127	233371570	3923294066		

File: 95011961.D08 Sample: S94T000281 + SPIKE

WHC-SD-WM-DP-074, REV. 0



Seq 103

LABCORE Data Entry Template for Worklist# 379

in

Analyst: EHC **Instrument:** IC01 **Method:** LA-533-105 - C-2

Worklist Comment: Please include Br and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				@IC-01	F-02	SOLID	<.1	<.1	N/A	ug/g
1	BLNK-PREP				@IC-01	CL-02	SOLID	<.2	1.188	N/A	ug/g
1	BLNK-PREP				@IC-01	NO2-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	BR-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	NO3-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	PO4-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	SO4-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	OXALATE2	SOLID	<1	<1	N/A	ug/g
2	STD	60N9C			@IC-01	F-02	SOLID	56	53.1	N/A	ug/g
2	STD				@IC-01	CL-02	SOLID	75	71.8	N/A	ug/g
2	STD				@IC-01	NO2-02	SOLID	528	508	N/A	ug/g
2	STD				@IC-01	BR-02	SOLID	572	557	N/A	ug/g
2	STD				@IC-01	NO3-02	SOLID	578	556	N/A	ug/g
2	STD				@IC-01	PO4-02	SOLID	516	501	N/A	ug/g
2	STD				@IC-01	SO4-02	SOLID	599	574	N/A	ug/g
2	STD				@IC-01	OXALATE2	SOLID	520	493	N/A	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	F-02	SOLID	N/A	3.00E2	<9.58	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	CL-02	SOLID	N/A	5.79E3	<19.2	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	NO2-02	SOLID	N/A	6.86E4	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	BR-02	SOLID	N/A	<95.8	<95.8	ug/g

Data Entry Comments: Data entered + posted & verified. JMF 2/7/95.
Sample + dup agreement poor, a reprep may be needed.
J. M. Fuyr 2/7/95

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: Please include Br and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
3	SAMPLE	S94T000267	0	W	@IC-01	NO3-02	SOLID	N/A	1.61E5	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	PO4-02	SOLID	N/A	6.03E4	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	SO4-02	SOLID	N/A	1.58E3	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	OXALATE2	SOLID	N/A	<95.8	<95.8	ug/g
4	DUP	S94T000267	0	W	@IC-01	F-02	SOLID	3.00E2	3.66E2	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	CL-02	SOLID	5.79E3	7.05E3	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	NO2-02	SOLID	6.86E4	8.44E4	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	BR-02	SOLID	<95.8	<95.8	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	NO3-02	SOLID	1.61E5	1.05E5	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	PO4-02	SOLID	6.03E4	3.19E4	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	SO4-02	SOLID	1.58E3	1.84E3	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	OXALATE2	SOLID	<95.8	<95.8	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	CL-02	SOLID	100	72.7	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	F-02	SOLID	100	65.8	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	NO2-02	SOLID	100	102.1	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	BR-02	SOLID	100	94.4	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	NO3-02	SOLID	100	103.5	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	PO4-02	SOLID	100	65.9	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	SO4-02	SOLID	100	95.6	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	OXALATE2	SOLID	100	101.4	N/A	ug/g
6	STD	70N9A			@IC-01	F-02	SOLID	56	53.4	N/A	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: Please include Br and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
6	STD	70N9A			@IC-01	CL-02	SOLID	75	75.1	N/A	ug/g
6	STD				@IC-01	NO2-02	SOLID	528	522	N/A	ug/g
6	STD				@IC-01	BR-02	SOLID	572	572	N/A	ug/g
6	STD				@IC-01	NO3-02	SOLID	578	567	N/A	ug/g
6	STD				@IC-01	PO4-02	SOLID	516	501	N/A	ug/g
6	STD				@IC-01	SO4-02	SOLID	599	584	N/A	ug/g
6	STD				@IC-01	OXALATE2	SOLID	503	494	N/A	ug/g
7	BLNK-PREP				@IC-01	F-02	SOLID	<.1	<.1	N/A	ug/g
7	BLNK-PREP				@IC-01	CL-02	SOLID	<.2	<.2	N/A	ug/g
7	BLNK-PREP				@IC-01	NO2-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	BR-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	NO3-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	PO4-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	SO4-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	OXALATE2	SOLID	<1	<1	N/A	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	F-02	SOLID	N/A	2.67E2	<9.68	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	CL-02	SOLID	N/A	5.88E3	<19.4	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	NO2-02	SOLID	N/A	7.17E4	<96.8	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	BR-02	SOLID	N/A	<96.8	<96.8	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	NO3-02	SOLID	JMF 2/6/95 N/A	2.47E5 ~~2.32E4~~	<96.8	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: Please include Br and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
8	SAMPLE	S94T000279	0	W	@IC-01	PO4-02	SOLID	N/A	2.32E4	<96.8	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	SO4-02	SOLID	N/A	1.62E3	<96.8	ug/g
8	SAMPLE	S94T000279	0	W	@IC-01	OXALATE2	SOLID	N/A	<96.8	<96.8	ug/g
9	DUP	S94T000279	0	W	@IC-01	F-02	SOLID	2.67E2	<9.713	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	CL-02	SOLID	5.88E3	3.17E3	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	NO2-02	SOLID	7.17E4	3.96E4	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	BR-02	SOLID	<96.8	<97.1	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	NO3-02	SOLID	2.47E5	4.65E5	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	PO4-02	SOLID	2.32E4	1.54E4	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	SO4-02	SOLID	1.62E3	1.09E3	N/A	ug/g
9	DUP	S94T000279	0	W	@IC-01	OXALATE2	SOLID	<96.8	<97.1	N/A	ug/g
0	SPK	S94T000279	0	W	@IC-01	CL-02	SOLID	100	96.8	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	F-02	SOLID	100	71.7	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	NO2-02	SOLID	100	100	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	BR-02	SOLID	100	97.4	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	NO3-02	SOLID	100	101.2	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	PO4-02	SOLID	100	97.5	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	SO4-02	SOLID	100	94.2	N/A	ug/g
10	SPK	S94T000279	0	W	@IC-01	OXALATE2	SOLID	100	101.4	N/A	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: Please include Br and Oxalate. JMF

WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep Al	Test	Matrix	Actual	Found	DL	Unit

Final page for worklist # 379

E.N. Cohn

Analyst Signature

1-11-95

Date

See first page of attached sheet for signature.

Jane Jeye 2/7/95

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: PH Cole **Instrument:** IC01 _____ **Method:** LA-533-105 - C-2

Worklist Comment: Please include Br and Oxalate. JMF

WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				@IC-01	CL-02	SOLID	<2	1.188	N/A	ug/g
1	BLNK-PREP				@IC-01	F-02	SOLID	<.1	<.1	N/A	ug/g
1	BLNK-PREP				@IC-01	NO2-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	BR-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	NO3-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	PO4-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	SO4-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	OXALATE2	SOLID	<1	<1	N/A	ug/g
2	STD	60N9C			@IC-01	F-02	SOLID	56	53.1	N/A	ug/g
2	STD				@IC-01	CL-02	SOLID	75	71.8	N/A	ug/g
2	STD				@IC-01	NO2-02	SOLID	528	508	N/A	ug/g
2	STD				@IC-01	BR-02	SOLID	572	557	N/A	ug/g
2	STD				@IC-01	NO3-02	SOLID	578	556	N/A	ug/g
2	STD				@IC-01	PO4-02	SOLID	516	501	N/A	ug/g
2	STD				@IC-01	SO4-02	SOLID	599	574	N/A	ug/g
2	STD				@IC-01	OXALATE2	SOLID	520	493	N/A	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	F-02	SOLID	N/A	3.00E2	<9.58	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	CL-02	SOLID	N/A	5.79E3	<19.2	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	NO2-02	SOLID	N/A	6.86E4	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	BR-02	SOLID	N/A	~~1.61E5~~ <95.8 JMF 1/31/95	<95.8	ug/g

Data Entry Comments: Sample 267 .5221g → 50ml 10.442 g/L
Dup .5221g → 50ml 10.442 g/L
Sample 279 .5169g → 50ml 10.328 g/L
Dup .5148g → 50ml 10.296 g/L

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105 C-2

Worklist Comment: Please include Br and Oxalate. JMF

WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
3	SAMPLE	S94T000267	0	W	@IC-01	NO3-02	SOLID	N/A	1.61E5	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	PO4-02	SOLID	N/A	6.03E4	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	SO4-02	SOLID	N/A	1.58E3	<95.8	ug/g
3	SAMPLE	S94T000267	0	W	@IC-01	OXALATE2	SOLID	N/A	<95.8	<95.8	ug/g
4	DUP	S94T000267	0	W	@IC-01	CL-02	SOLID	5.79E3	7.05E3	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	F-02	SOLID	3.00E2	3.66E2	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	NO2-02	SOLID	6.86E4	8.44E4	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	BR-02	SOLID	<95.8	<95.8	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	NO3-02	SOLID	1.61E5	1.05E5	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	PO4-02	SOLID	6.03E4	3.19E4	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	SO4-02	SOLID	1.58E3	1.84E3	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-01	OXALATE2	SOLID	<95.8	<95.8	N/A	ug,
5	SPK	S94T000267	0	W	@IC-01	CL-02	SOLID	100	72.7	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	F-02	SOLID	100	65.8	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	NO2-02	SOLID	100	102.1	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	BR-02	SOLID	100	94.4	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	NO3-02	SOLID	100	103.5	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	PO4-02	SOLID	100	65.9	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	SO4-02	SOLID	100	95.6	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-01	OXALATE2	SOLID	100	101.4	N/A	ug/g
6	STD SAMPLE	S94T000279	0	W	@IC-01	F-02	SOLID	N/A			ug/g

Data Entry Comments:
S94T000267 has poor agreement between

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105 C-2

Worklist Comment: Please include Br and Oxalate. JMF

WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
6	SAMPLE	S94T000279	0	W	@IC-01	CL-02	SOLID	N/A			ug/g
6	SAMPLE	S94T000279	0	W	@IC-01	NO2-02	SOLID	N/A			ug/g
6	SAMPLE	S94T000279	0	W	@IC-01	BR-02	SOLID	N/A			ug/g
6	SAMPLE	S94T000279	0	W	@IC-01	NO3-02	SOLID	N/A			ug/g
6	SAMPLE	S94T000279	0	W	@IC-01	PO4-02	SOLID	N/A			ug/g
6	SAMPLE	S94T000279	0	W	@IC-01	SO4-02	SOLID	N/A			ug/g
6	SAMPLE	S94T000279	0	W	@IC-01	OXALATE2	SOLID	N/A			ug/g
7	DUP	S94T000279	0	W	@IC-01	CL-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	F-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	NO2-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	BR-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	NO3-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	PO4-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	SO4-02	SOLID			N/A	ug/g
7	DUP	S94T000279	0	W	@IC-01	OXALATE2	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	CL-02	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	F-02	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	NO2-02	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	BR-02	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	NO3-02	SOLID			N/A	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 379

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105 C-2

Worklist Comment: Please include Br and Oxalate. JMF

WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
8	SPK	S94T000279	0	W	@IC-01	PO4-02	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	SO4-02	SOLID			N/A	ug/g
8	SPK	S94T000279	0	W	@IC-01	OXALATE2	SOLID			N/A	ug/g

Final page for worklist # 379

E.N. Cohn
Analyst Signature

1-11-95
Date

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

BEST AVAILABLE COPY

Spike Recovery

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) 29 mt 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/ml)	1.00E-01	6.14E+01	7.41E+02	2.55E+03	2.42E+02	3.67E+01
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
379	Duplicate Conc. (µg/m	1.00E-01	3.63E+01	4.08E+02	4.78E+03	1.71E+02	3.02E+01
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
@ic-01	Duplicate Dilution Fac	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
Matrix	Spike+Sample (µg/ml)	3.99E+01	1.34E+02	1.27E+03	3.14E+03	7.45E+02	6.01E+02
solid							
Sample #	Volume of Spike (mL)	0.1	0.1	0.1	0.1	0.1	0.1
S94T000279	Spike Book Number	70n9a	70n9a	70n9a	70n9a	70n9a	70n9a
Instrument Code	Total Volume	10.10	10.10	10.10	10.10	10.10	10.10
dionex	Spike Std. (µg/ml.)	56	75	528	578	516	599
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less Than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v

	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<9.682	<9.713	N/A	3.85E+03	71.1%	5.42E+03
Chloride (µg/g)	5.95E+03	3.53E+03	51.1%	7.03E+03	96.8%	7.26E+03
Nitrite (µg/g)	7.17E+04	3.96E+04	57.7%	5.11E+04	100.0%	5.11E+04
Nitrate (µg/g)	2.47E+05	4.65E+05	61.2%	5.66E+04	101.2%	5.60E+04
Phosphate (µg/g)	2.34E+04	1.66E+04	34.1%	4.87E+04	97.5%	5.00E+04
Sulfate (µg/g)	3.55E+03	2.93E+03	19.1%	5.46E+04	94.2%	5.80E+04

Data Entry by: Jane Fuge Date: 31-Jan-95

Approved by: Jane Fuge Date: 1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

BEST AVAILABLE COPY

Sample
Duplicate
+ RPD

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)-2 9 MP 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	2.76E+00	6.07E+01	7.41E+02	2.55E+03	2.40E+02	1.67E+01
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
379	Duplicate Conc. (µg/m	1.00E-01	3.26E+01	4.08E+02	4.78E+03	1.59E+02	1.12E+01
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
@ic-01	Duplicate Dilution Fac	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
Matrix	Spike Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000279	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst							
Ed Colvin							
Date							
01/23/95							
Time							

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Less Than Values are Calculated from the Detection Limit*Dilution Factor
Spike Recovery = |((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	2.67E+02	<9.713	N/A	-2.67E+02	ERR	ERR
Chloride (µg/g)	5.88E+03	3.17E+03	60.0%	-5.88E+03	ERR	ERR
Nitrite (µg/g)	7.17E+04	3.96E+04	57.7%	-7.17E+04	ERR	ERR
Nitrate (µg/g)	2.47E+05	4.65E+05	61.2%	-2.47E+05	ERR	ERR
Phosphate (µg/g)	2.32E+04	1.54E+04	40.3%	-2.32E+04	ERR	ERR
Sulfate (µg/g)	1.62E+03	1.09E+03	39.1%	-1.62E+03	ERR	ERR

Data Entry by:	Jason Fuge	Date:	31-Jan-95
Approved by:	Jason Fuge	Date:	1/31/95

Form L1 Rev 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 2/6/95 Bromide JMF 2/6/95 Oxalate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 JMF 2/6/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00	1.00E+00		
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto			1.01E+02	1.01E+02		
379	Duplicate Conc. (µg/m						
Test Code	Duplicate Prep DF (g/						
@IC-01	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/ml			5.58E+02	5.11E+02		
solid							
Sample #	Volume of Spike (mL)			0.1	0.1		
S94T000279	Spike Book Number	70n9a	70n9a	70n9a	70n9a	70n9a	70n9a
Instrument Code	Total Volume			10.10	10.10		
dionex	Spike Std. (µg/mL)			572	503		
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/20/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<96.824	ERR	N/A	5.39E+04	97.4%	5.54E+04
~~Nitrate (µg/g)~~	<96.824	ERR	N/A	4.94E+04	101.4%	4.87E+04
Phosphate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR

JMF 2/6/95 Bromide
JMF 2/6/95 Oxalate

Data Entry by:	JMFrye	Date:	06-Feb-95
Approved by:	JMFrye	Date:	2/6/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 2/6/95 JMF 2/6/95
Bromide Oxalate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 JMF 2/19/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00	1.00E+00		
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto			2.10E+01	2.10E+01		
379	Duplicate Conc. (µg/m			1.00E+00	1.00E+00		
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
@IC-01	Duplicate Dilution Fac			2.10E+01	2.10E+01		
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000279	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/20/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrite (µg/g)	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR
~~Nitrate (µg/g)~~	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

JMF 2/6/95 Bromide
JMF 2/6/95 Oxalate

Data Entry by:	[signature]	Date:	06-Feb-95
Approved by:	[signature]	Date:	2/6/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Det. Limits
Box OX
are
same
as NO3
JMF 2/6/95

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) 2 JMF 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	1.00E-01	2.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
379	Duplicate Conc. (µg/m	1.00E-01	2.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
@IC-01	Duplicate Dilution Fac	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000279	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/20/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<9.682	<9.713	N/A	-9.68E+00	ERR	ERR
Chloride (µg/g)	<19.365	<19.425	N/A	-1.94E+01	ERR	ERR
Nitrite (µg/g)	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR
Nitrate (µg/g)	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR
Phosphate (µg/g)	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR
Sulfate (µg/g)	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR

Data Entry by: [signature] Date: 06-Feb-95
Approved by: [signature] Date: 2/6/95

Form L1 Rev. 2.0

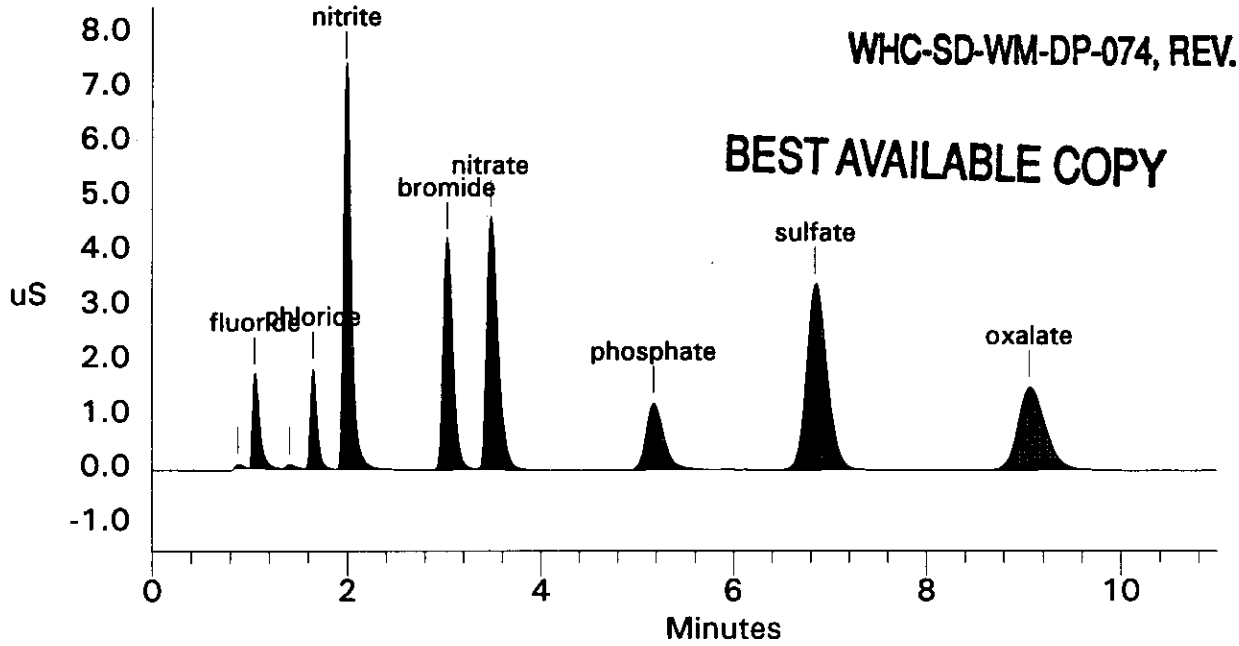
Sample Name: 70N9-A STD Date: 01/20/1995 08:53:58
Data File : C:\DX\DATA\95012011.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Jean Fey Column:
for Ed Colver 1/20/95

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	73	346	2	
2	1.05	fluoride	53.377	1715	8624	2	0.96
3	1.41		0.000	76	483	2	
4	1.65	chloride	75.140	1836	8439	1	-1.79
5	1.99	nitrite	522.187	7356	40576	1	-3.40
6	3.03	bromide	572.479	4223	29314	1	-2.88
7	3.48	nitrate	566.799	4628	37679	1	-0.85
8	5.17	phosphate	501.373	1219	15737	1	-2.08
9	6.85	sulfate	584.280	3410	50197	1	-3.39
10	9.06	oxalate	494.025	1519	29833	1	-3.62
		Totals	3369.660	26054	221230		

File: 95012011.D02 Sample: 70N9-A STD



WHC-SD-WM-DP-074, REV. 0

BEST AVAILABLE COPY

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 688 TO 695.

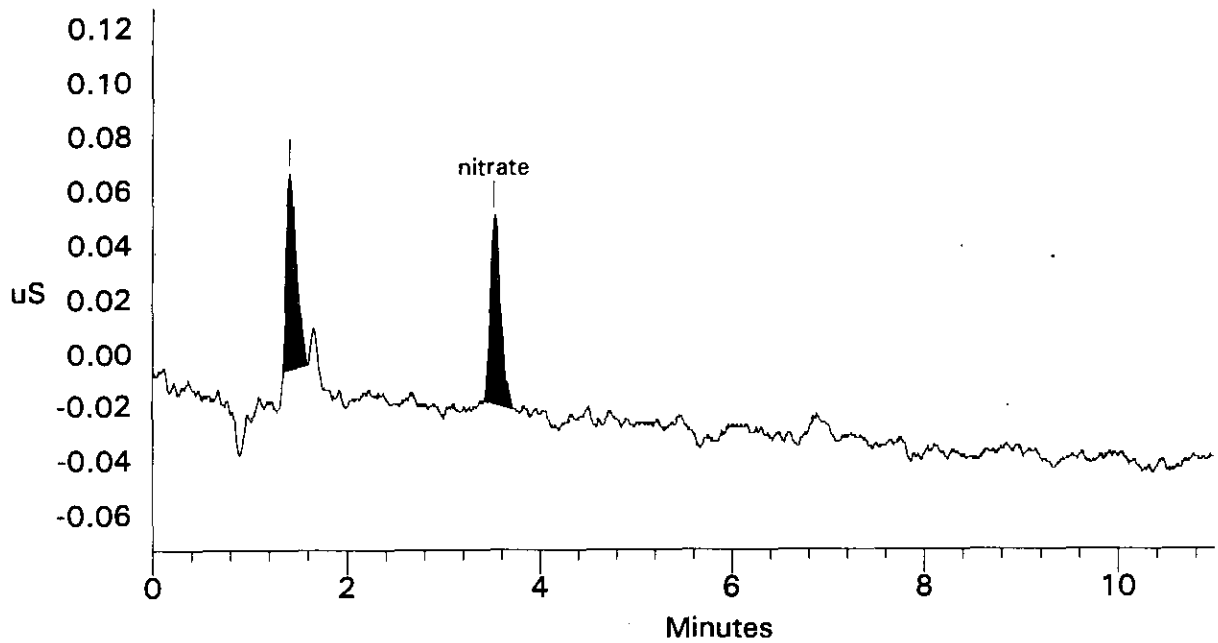
```
==============================================================================
| Sample Name: BLANK                          Date: 01/20/1995 08:42:00       |
| Data File  : C:\DX\DATA\95012011.D01                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1      |
  Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.41		0.000	71	506	1	
2	3.53	nitrate	0.301	68	508	1	0.57
		Totals	0.301	140	1014		

File: 95012011.D01 Sample: BLANK **WHC-SD-WM-DP-074, REV. 0**



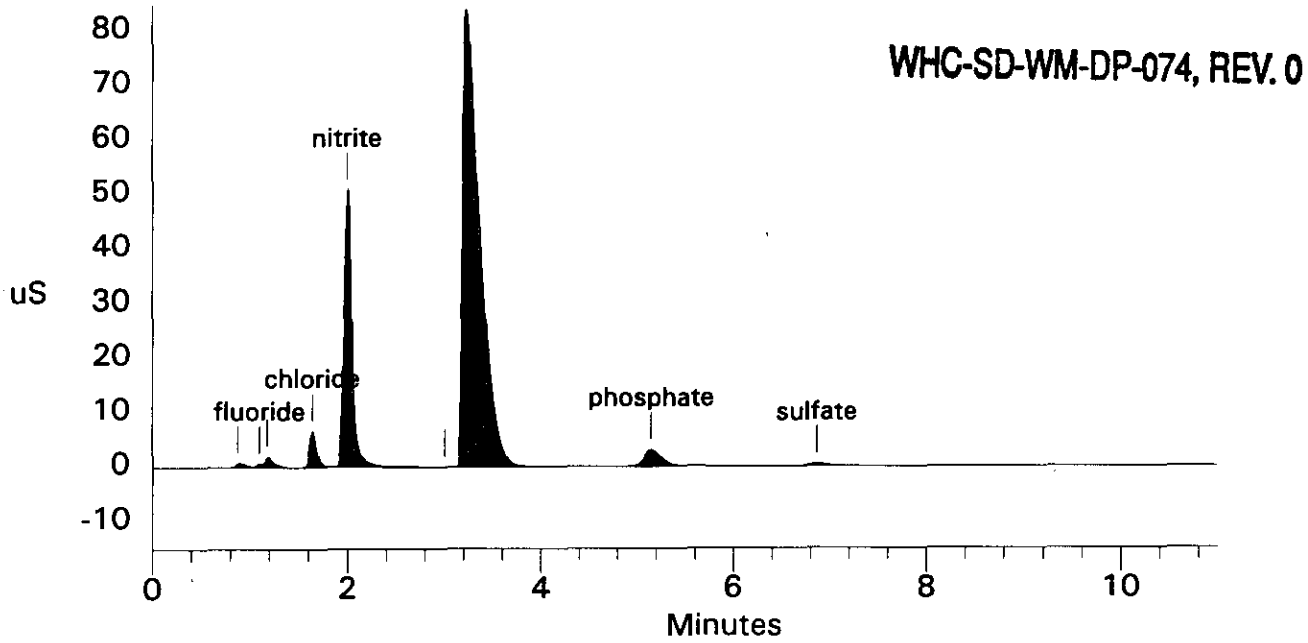
```
==============================================================================
| Sample Name: S94T000279                    Date: 01/20/1995 09:58:46        |
| Data File  : C:\DX\DATA\95012011.D05                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 5                  Detector:CDM-1       |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	698	4426	2	
2	1.10	fluoride	2.756	636	2086	2	5.77
3	1.18		0.000	1919	11451	2	
4	1.64	chloride	60.741	6619	33667	1	-2.38
5	2.00	nitrite	740.121	50858	295629	1	-2.91
7	3.23	bromide	1835.975	83702	1046125	1	3.53
8	5.15	phosphate	240.358	3000	38104	1	-2.46
9	6.87	sulfate	16.754	351	5103	1	-3.10
		Totals	2896.705	147781	1436591		

File: 95012011.D05 Sample: S94T000279



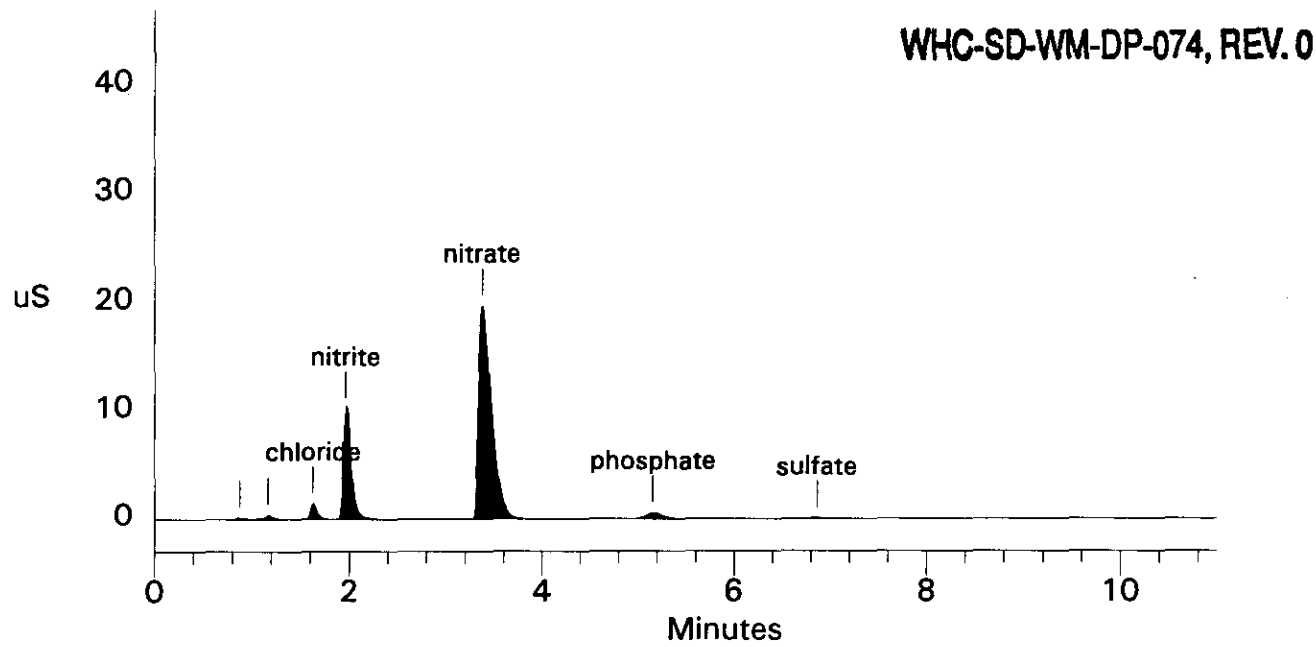
Sample Name: S94T000279 Date: 01/20/1995 09:12:49
Data File : C:\DX\DATA\95012011.D03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	150	897	1	
2	1.17		0.000	384	2403	1	
3	1.63	chloride	61.404	1462	6897	1	-2.98
4	1.97	nitrite	741.010	10199	58443	1	-4.37
5	3.38	nitrate	2550.990	19705	183961	1	-3.70
6	5.16	phosphate	242.453	564	7151	1	-2.27
7	6.86	sulfate	36.721	88	1230	1	-3.24
		Totals	3632.578	32552	260981		

File: 95012011.D03 Sample: S94T000279



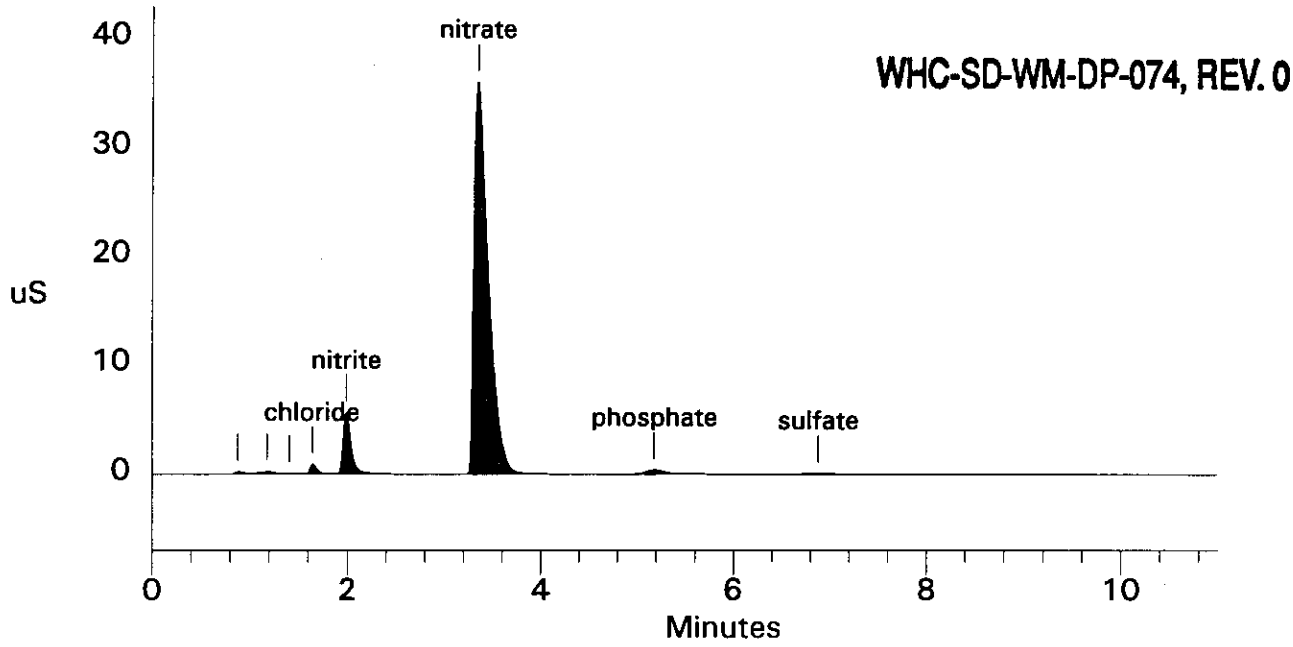
Sample Name: S94T000279 DUPLICATE Date: 01/20/1995 09:25:02
Data File : C:\DX\DATA\95012011.D04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	157	953	2	
2	1.18		0.000	206	1411	2	
3	1.41		0.000	40	255	2	
4	1.64	chloride	36.309	848	4095	1	-2.38
5	1.99	nitrite	407.992	5612	31281	1	-3.40
6	3.35	nitrate	4783.427	36033	370060	1	-4.56
7	5.18	phosphate	171.324	380	4816	1	-1.89
8	6.88	sulfate	30.259	48	660	1	-2.96
		Totals	5429.310	43325	413530		

File: 95012011.D04 Sample: S94T000279 DUPLICATE



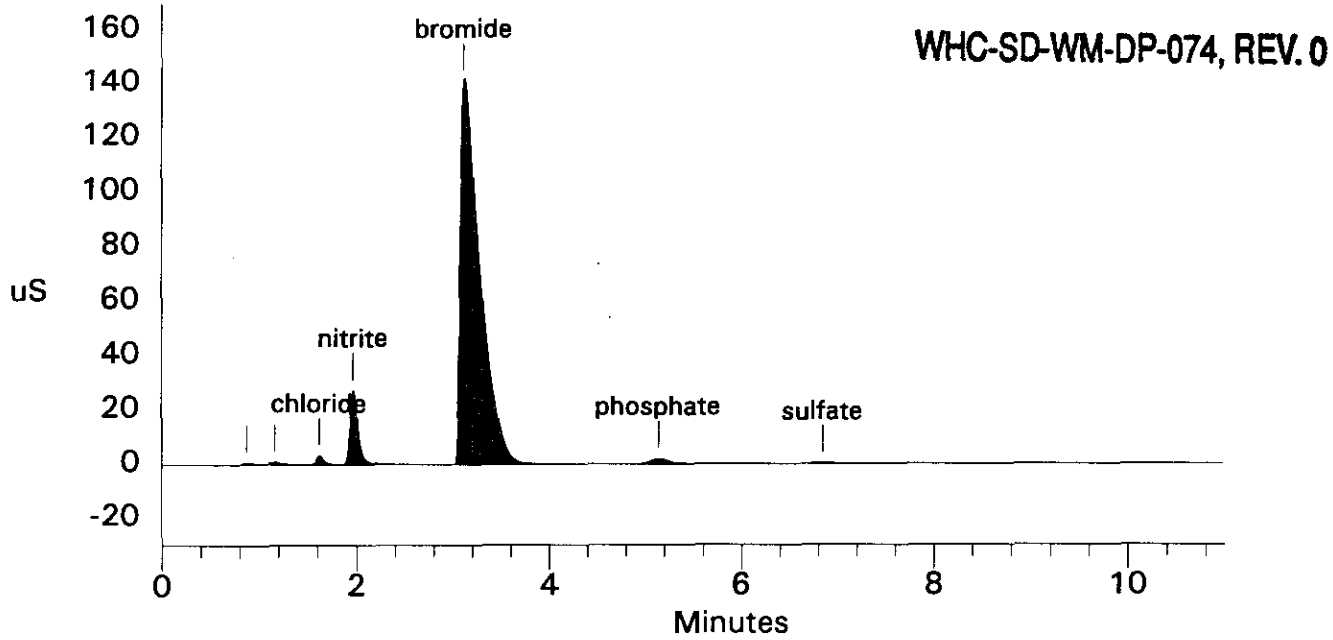
```
==============================================================================
| Sample Name: S94T000279  DUPLICATE          Date: 01/20/1995 11:04:07       |
| Data File  : C:\DX\DATA\95012011.D06                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 6                   Detector:CDM-1      |
  Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	746	4571	2	
2	1.16		0.000	997	7505	2	
3	1.62	chloride	32.642	3426	17759	1	-3.57
4	1.97	nitrite	398.731	27260	155827	1	-4.37
5	3.12	bromide ~~mis. ided - SO_4~~	-476.753	141080	1988885	1	0.00
6	5.14	phosphate	159.000	1908	24618	1	-2.65
7	6.85	sulfate	11.237	191	2759	1	-3.39
		Totals	124.856	175607	2201924		

File: 95012011.D06 Sample: S94T000279 DUPLICATE



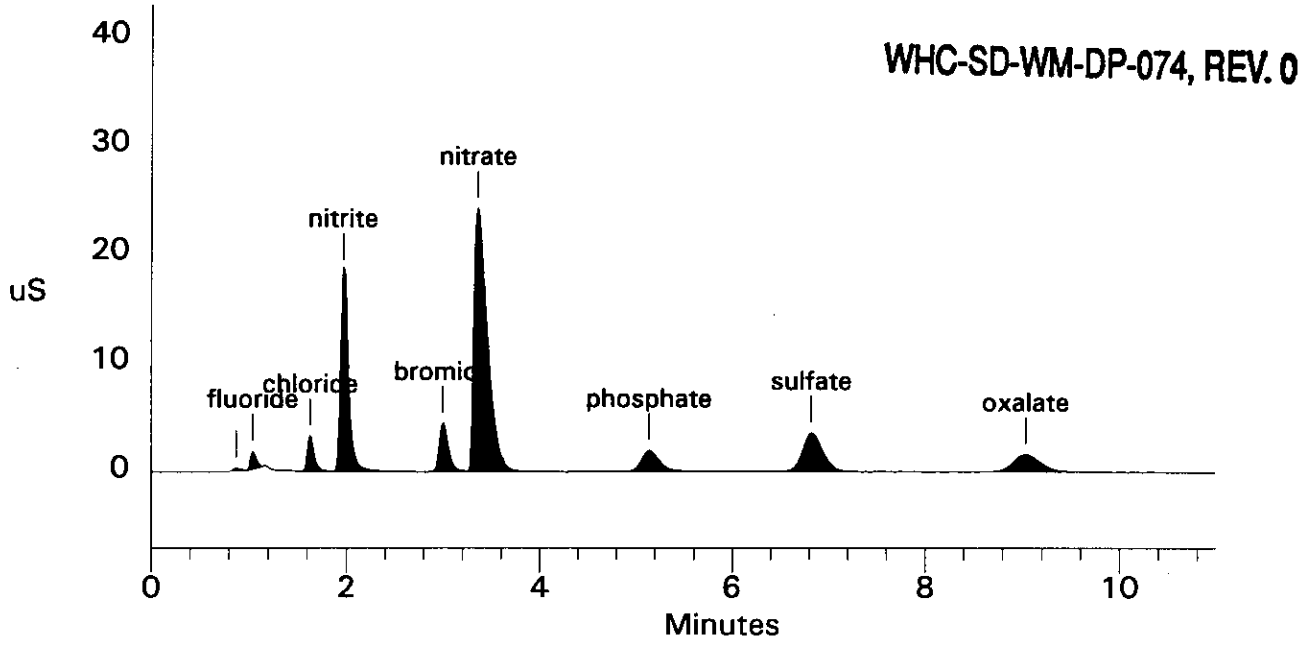
```
==============================================================================
| Sample Name: S94T000279  + SPIKE            Date: 01/20/1995 11:35:49      |
| Data File  : C:\DX\DATA\95012011.D08                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 8                   Detector:CDM-1     |
| Analyst    :                Column:                                        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	199	953	1	
2	1.04	fluoride	41.244	1614	6634	1	0.00
3	1.63	chloride	136.750	3249	15433	1	-2.98
4	1.97	nitrite	1305.551	18445	104886	1	-4.37
5	3.00	bromide	558.104	4431	28536	1	-3.85
6	3.36	nitrate	3182.356	24179	233917	1	-4.27
7	5.14	phosphate	755.642	1912	24309	1	-2.65
8	6.82	sulfate	600.693	3524	51686	1	-3.81
9	9.04	oxalate	511.029	1582	30919	1	-3.83
		Totals	7091.368	59135	497273		

File: 95012011.D08 Sample: S94T000279 + SPIKE



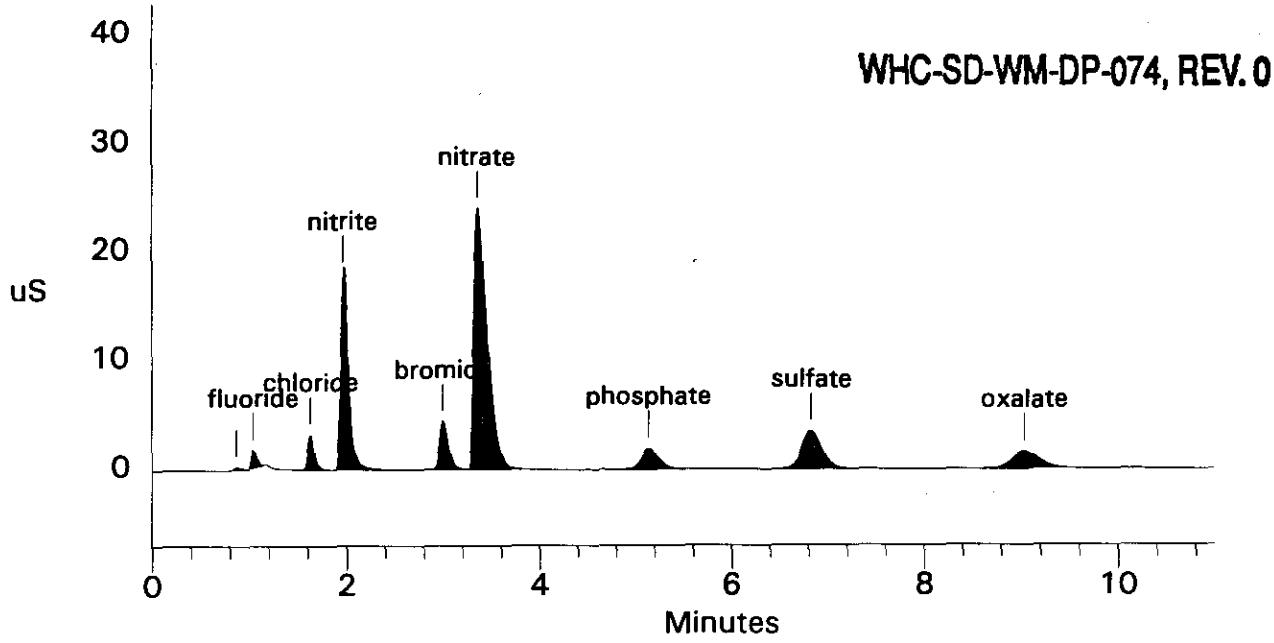
```
==============================================================================
| Sample Name: S94T000279  + SPIKE            Date: 01/20/1995 11:22:38      |
| Data File  : C:\DX\DATA\95012011.D07                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
  ACI Address: 1  System: 1  Inject#: 7                   Detector:CDM-1     |
  Analyst    :                Column:                                        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	204	996	1	
2	1.04	fluoride	39.959	1588	6424	1	0.00
3	1.63	chloride	133.596	3219	15072	1	-2.98
4	1.97	nitrite	1269.281	18101	101887	1	-4.37
5	3.00	bromide	552.004	4395	28206	1	-3.85
6	3.36	nitrate	3135.671	24018	230159	1	-4.27
7	5.14	phosphate	745.104	1897	23951	1	-2.65
8	6.83	sulfate	601.339	3496	51745	1	-3.67
9	9.04	oxalate	508.245	1573	30741	1	-3.83
		Totals	6985.200	58490	489180		

File: 95012011.D07 Sample: S94T000279 + SPIKE



PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Duplicate Data

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 J MF 2/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	3.13E+00	6.05E+01	7.16E+02	1.68E+03	6.30E+02	1.65E+01
sample	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
379	Duplicate Conc. (µg/m	3.82E+00	7.36E+01	8.81E+02	1.10E+03	3.33E+02	1.92E+01
Test Code	Duplicate Prep DF (g/	10.442	10.442	10.442	10.442	10.442	10.442
@ic-01	Duplicate Dilution Fac	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
Matrix	Spike+Sample (µg/ml	1.05E+01	7.14E+01	7.79E+02	1.68E+03	6.98E+02	1.31E+02
solid							
Sample #	Volume of Spike (mL)	0.1	0.1	0.1	0.1	0.1	0.1
S94T000267	Spike Book Number	60n9c	60n9c	60n9c	60n9c	60n9c	60n9c
Instrument Code	Total Volume	10.50	10.50	10.10	10.10	10.50	10.50
dionex	Spike Std. (µg/mL)	56	75	528	578	516	599
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	3.00E+02	3.66E+02	19.8%	7.06E+02	65.8%	1.07E+03
Chloride (µg/g)	5.79E+03	7.05E+03	19.5%	1.04E+03	72.7%	1.44E+03
Nitrite (µg/g)	6.86E+04	8.44E+04	20.7%	6.03E+03	57.4%	1.05E+04
Nitrate (µg/g)	1.61E+05	1.05E+05	42.1%	-3.83E+02	-3.3%	1.15E+04
Phosphate (µg/g)	6.03E+04	3.19E+04	61.7%	6.51E+03	65.9%	9.88E+03
Sulfate (µg/g)	1.58E+03	1.84E+03	15.1%	1.10E+04	95.6%	1.15E+04

Data Entry by: Jason Fogle Date: 31-Jan-95

Approved by: Jason Fogle Date: 1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Spike Recovery

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 gmt 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	3.13E+00	6.05E+01	7.15E+02	1.78E+03	6.30E+02	1.65E+01
sample	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
379	Duplicate Conc. (µg/m						
Test Code	Duplicate Prep DF (g/						
@ic-01	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/mL	1.05E+01	7.14E+01	1.25E+03	2.38E+03	6.98E+02	1.31E+02
solid							
Sample #	Volume of Spike (mL)	0.1	0.1	0.1	0.1	0.1	0.1
S94T000267	Spike Book Number	60n9c	60n9c	60n9c	60n9c	60n9c	60n9c
Instrument Code	Total Volume	10.50	10.50	10.10	10.10	10.50	10.50
dionex	Spike Std. (µg/mL)	56	75	528	578	516	599
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	3.00E+02	ERR	N/A	7.06E+02	65.8%	1.07E+03
Chloride (µg/g)	5.79E+03	ERR	N/A	1.04E+03	72.7%	1.44E+03
Nitrite (µg/g)	6.85E+04	ERR	N/A	5.16E+04	102.1%	5.06E+04
Nitrate (µg/g)	1.71E+05	ERR	N/A	5.73E+04	103.5%	5.54E+04
Phosphate (µg/g)	6.03E+04	ERR	N/A	6.51E+03	65.9%	9.88E+03
Sulfate (µg/g)	1.58E+03	ERR	N/A	1.10E+04	95.6%	1.15E+04

Data Entry by: Date: 31-Jan-95

Approved by: Date: 1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Comparison of replicate runs of S94T000267 sample. The % RPD is better than for sample-dup for those anions whose concentrations are within the calib. curve for both points used.

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-112 gmt 4/19/95

Type		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
sample	Sample Conc. (µg/ml)	3.13E+00	6.05E+01	7.16E+02	1.68E+03	6.30E+02	1.65E+01
Work List	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
379	Sample Dilution Facto	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
Test Code	Duplicate Conc. (µg/m	4.15E+00	6.09E+01	7.14E+02	1.78E+03	6.15E+02	3.41E+01
@ic-01	Duplicate Prep DF (g/	10.442	10.442	10.442	10.442	10.442	10.442
Matrix	Duplicate Dilution Fac	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
solid	Spiked Sample (µg/ml						
Sample #	Volume of Spike (ml.)						
S94T000267	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/ml.)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 ml./L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less Than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike-Sample)/(Sample)*(Vol of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

RESULTS	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flourade (µg/g)	3.00E+02	3.97E+02	28.0%	-3.00E+02	ERR	ERR
Chloride (µg/g)	5.79E+03	5.83E+03	0.7%	-5.79E+03	ERR	ERR
Nitrite (µg/g)	6.86E+04	6.84E+04	0.3%	-6.86E+04	ERR	ERR
Nitrate (µg/g)	1.61E+05	1.71E+05	5.8%	-1.61E+05	ERR	ERR
Phosphate (µg/g)	6.03E+04	5.89E+04	2.4%	-6.03E+04	ERR	ERR
Sulfate (µg/g)	1.58E+03	3.27E+03	69.6%	-1.58E+03	ERR	ERR

are not within curves

Data Entry by: Jean Faye Date: 31-Jan-95

Approved by: Jean Faye Date: 1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Detection Limits

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 9/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/ml)	1.00E-01	2.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00
sample	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
379	Duplicate Conc. (µg/m						
Test Code	Duplicate Prep DF (g/						
@ic-01	Duplicate Dilution Fac						
Matrix	Spike Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000267	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<9.577	ERR	N/A	-9.58E+00	ERR	ERR
Chloride (µg/g)	<19.153	ERR	N/A	-1.92E+01	ERR	ERR
Nitrite (µg/g)	<95.765	ERR	N/A	-9.58E+01	ERR	ERR
Nitrate (µg/g)	<95.765	ERR	N/A	-9.58E+01	ERR	ERR
Phosphate (µg/g)	<95.765	ERR	N/A	-9.58E+01	ERR	ERR
Sulfate (µg/g)	<95.765	ERR	N/A	-9.58E+01	ERR	ERR

Data Entry by: Jean Lyge Date: 31-Jan-95

Approved by: Jean Lyge Date: 1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

GMF 1/31/95 GMF 1/31/95
Bromide Oxalate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 GMF 1/31/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL)			1.00E+00	1.00E+00		
sample	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
Work List	Sample Dilution Facto			2.10E+01	2.10E+01		
379	Duplicate Conc. (µg/m			1.00E+00	1.00E+00		
Test Code	Duplicate Prep DF (g/	10.442	10.442	10.442	10.442	10.442	10.442
@ic-01	Duplicate Dilution Fac			2.10E+01	2.10E+01		
Matrix	Spike+Sample (µg/ml			1.09E+02	1.03E+02		
solid							
Sample #	Volume of Spike (mL)			0.1	0.1		
S94T000267	Spike Book Number	60n9c	60n9c	60n9c	60n9c	60n9c	60n9c
Instrument Code	Total Volume			10.50	10.50		
dionex	Spike Std. (µg/mL)			572	503		
Analyst							
Ed Colvin							
Date							
01/23/95							
Time							

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Less Than Values are Calculated from the Detection Limit*Dilution Factor
Spike Recovery = [((Spike+Sample)-(Sample)*(Vol of Sample&Diluent))/((Spike Vol)*(Spike Std.)*(Sample
Note (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<95.765	<95.767	N/A	1.03E+04	94.4%	1.10E+04
~~Nitrate (µg/g)~~	<95.765	<95.767	N/A	9.77E+03	101.4%	9.63E+03
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

GMF 1/31/95 Bromide
GMF 1/31/95 Oxalate

Data Entry by:	[signature]	Date:	31-Jan-95
Approved by:	[signature]	Date:	1/31/95

Form L1 Rev. 2.0 700 Page 1 of 1

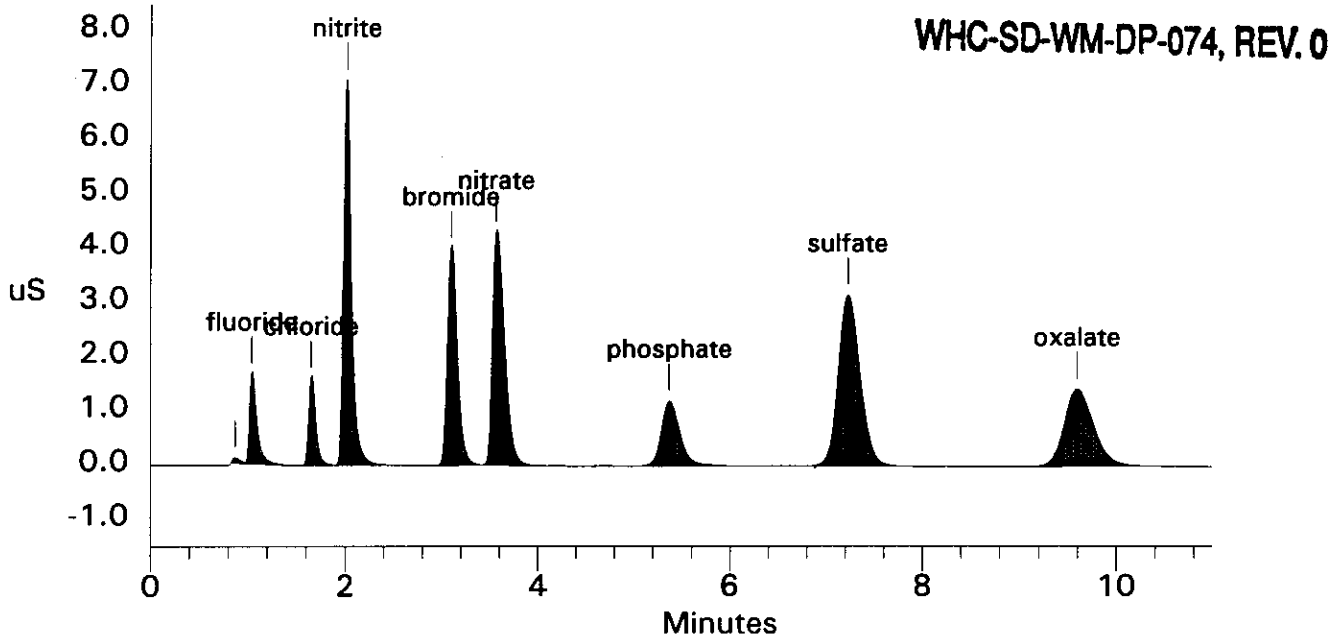
Sample Name: 60N9-C STD Date: 01/11/1995 08:55:44
Data File : C:\DX\DATA\95011221.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : M. Cohen Column: 04/11/95

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	99	496	2	
2	1.04	fluoride	53.103	1650	8579	2	0.00
3	1.65	chloride	71.845	1603	8069	1	-1.79
4	2.02	nitrite	508.346	7095	39448	1	-1.94
5	3.10	bromide	557.062	3999	28479	1	-0.64
6	3.57	nitrate	556.026	4301	36924	1	1.71
7	5.37	phosphate	501.176	1197	15731	1	1.70
8	7.23	sulfate	574.401	3161	49301	1	1.97
9	9.60	oxalate	492.737	1434	29751	1	2.13
		Totals	3314.695	24538	216778		

File: 95011221.D02 Sample: 60N9-C STD



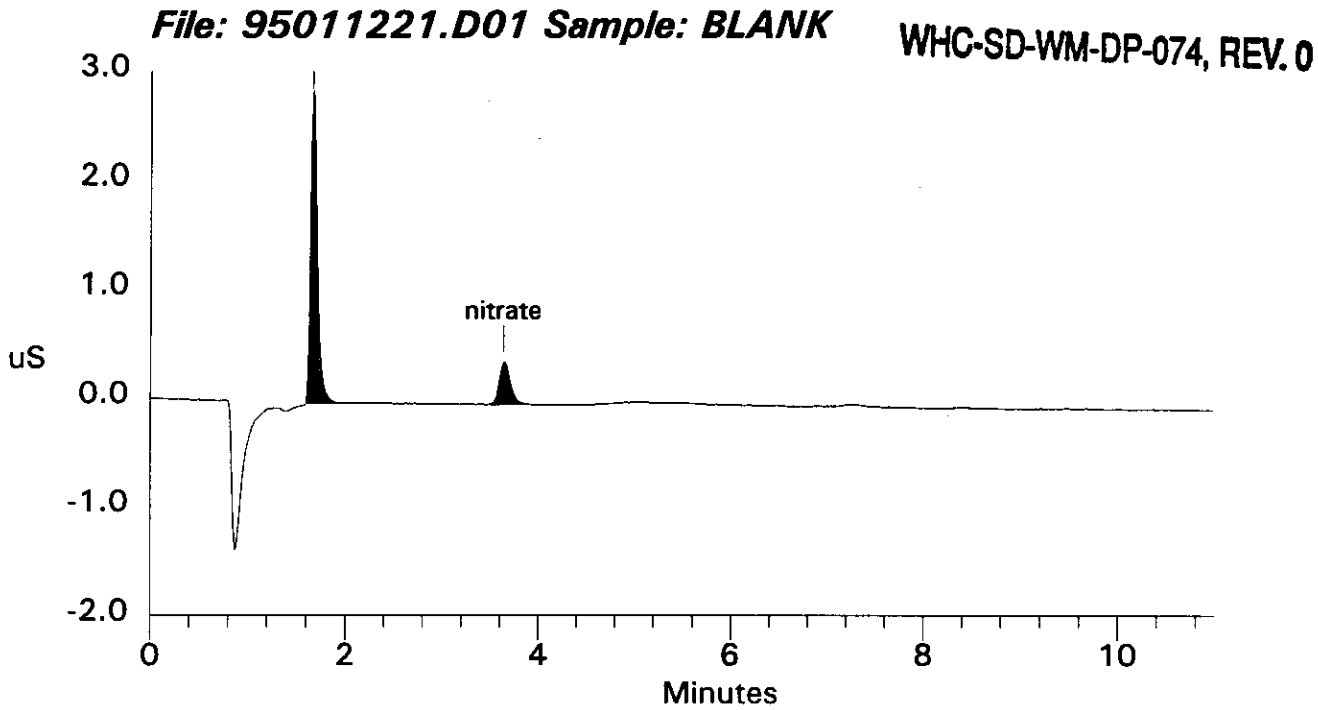
SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 701 TO 707.

```
==============================================================================
| Sample Name: BLANK                          Date: 01/11/1995 08:42:40       |
| Data File  : C:\DX\DATA\95011221.D01                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.66	chloride	1.188	2788	13513	1	-1.19
2	3.64	nitrate	0.672	389	3076	1	3.70
		Totals	1.860	3177	16590		



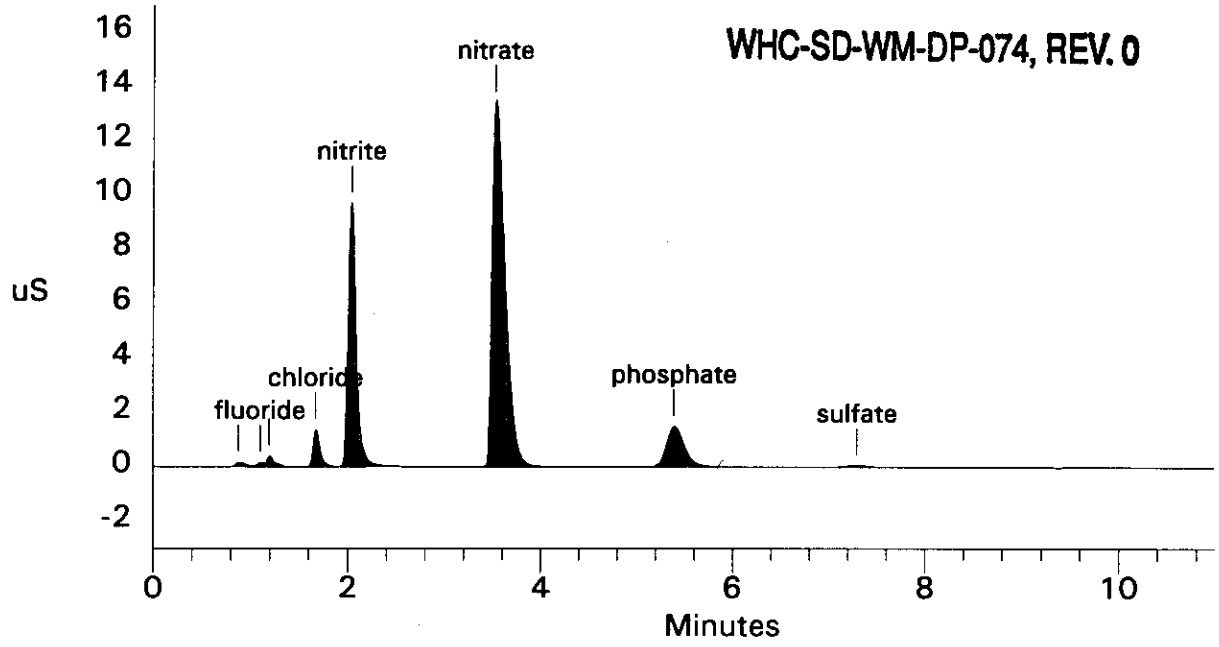
Sample Name: S94T000267 Date: 01/11/1995 09:10:15
Data File : C:\DX\DATA\95011221.D03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	153	970	2	
2	1.10	fluoride	4.158	156	620	2	5.77
3	1.19		0.000	393	2387	2	
4	1.67	chloride	60.966	1363	6848	1	-0.60
5	2.04	nitrite	714.691	9700	56290	1	-0.97
6	3.53	nitrate	1782.753	13411	125538	1	0.57
7	5.39	phosphate	615.116	1496	19554	1	2.08
8	7.29	sulfate	34.126	73	1001	1	2.82
		Totals	3211.811	26744	213208		

File: 95011221.D03 Sample: S94T000267



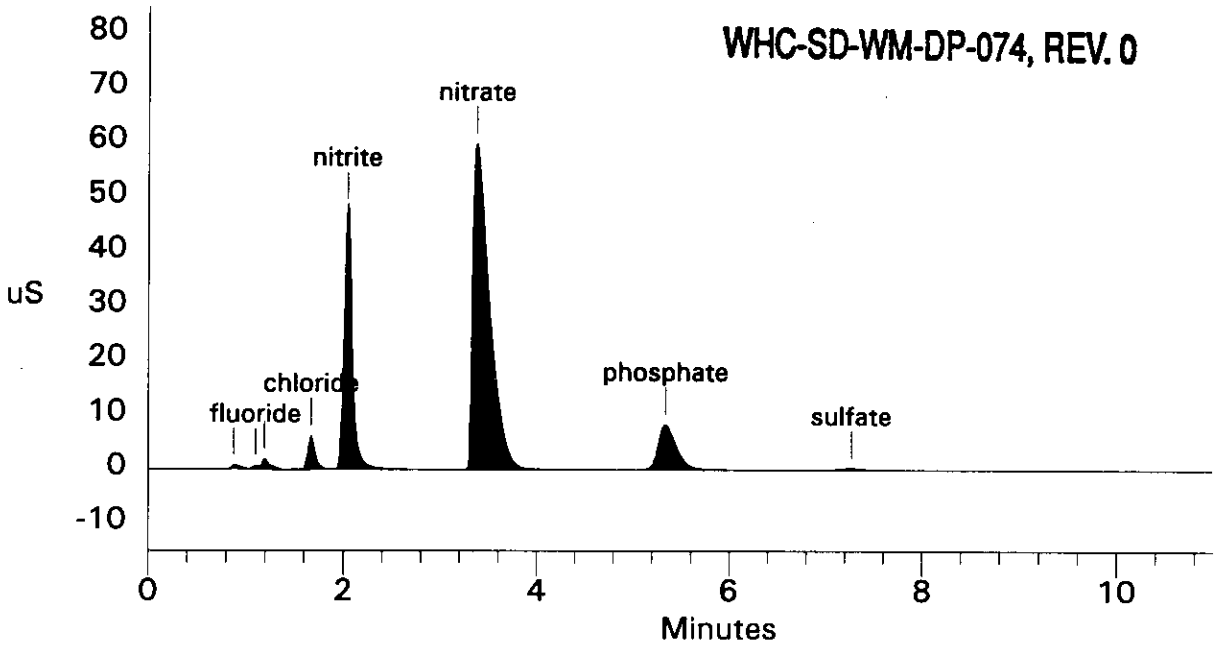
```
==============================================================================
| Sample Name: S94T000267                      Date: 01/11/1995 09:26:06      |
| Data File  : C:\DX\DATA\95011221.D04                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 4                   Detector:CDM-1      |
| Analyst    :                 Column:                                        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	722	4706	2	
2	1.10	fluoride	3.131	653	2377	2	5.77
3	1.19		0.000	1932	11671	2	
4	1.67	chloride	60.528	6210	33544	1	-0.60
5	2.04	nitrite	716.742	47673	285901	1	-0.97
6	3.38	nitrate	1682.064	59715	719195	1	-3.70
7	5.34	phosphate	630.496	8287	108608	1	1.14
8	7.27	sulfate	16.541	328	5012	1	2.54
		Totals	3109.502	125520	1171015		

File: 95011221.D04 Sample: S94T000267



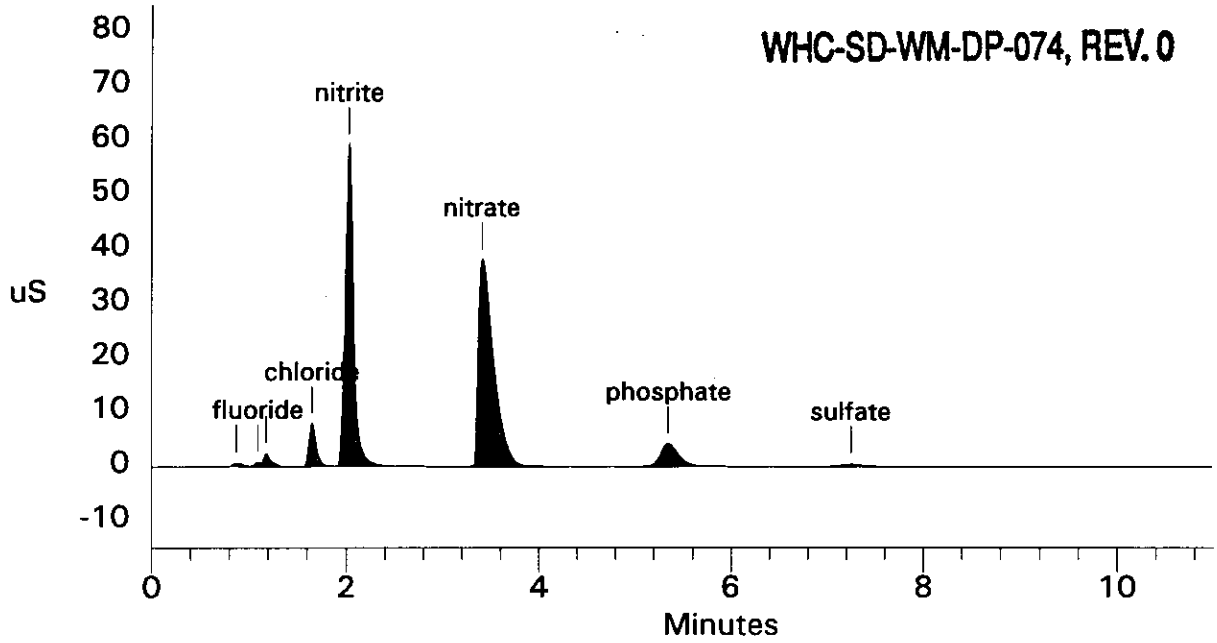
```
==============================================================================
| Sample Name: S94T000267 DUPLICATE          Date: 01/11/1995 09:46:33        |
| Data File  : C:\DX\DATA\95011221.D05                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 5                  Detector:CDM-1       |
  Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	669	4372	2	
2	1.09	fluoride	3.820	809	2913	2	4.81
3	1.18		0.000	2409	13779	2	
4	1.65	chloride	73.600	7846	41183	1	-1.79
5	2.03	nitrite	881.285	59226	354868	1	-1.46
6	3.41	nitrate	1097.599	38021	415505	1	-2.85
7	5.35	phosphate	332.708	4145	53866	1	1.33
8	7.25	sulfate	19.185	399	6136	1	2.26
		Totals	2408.197	113524	892623		

File: 95011221.D05 Sample: S94T000267 DUPLICATE



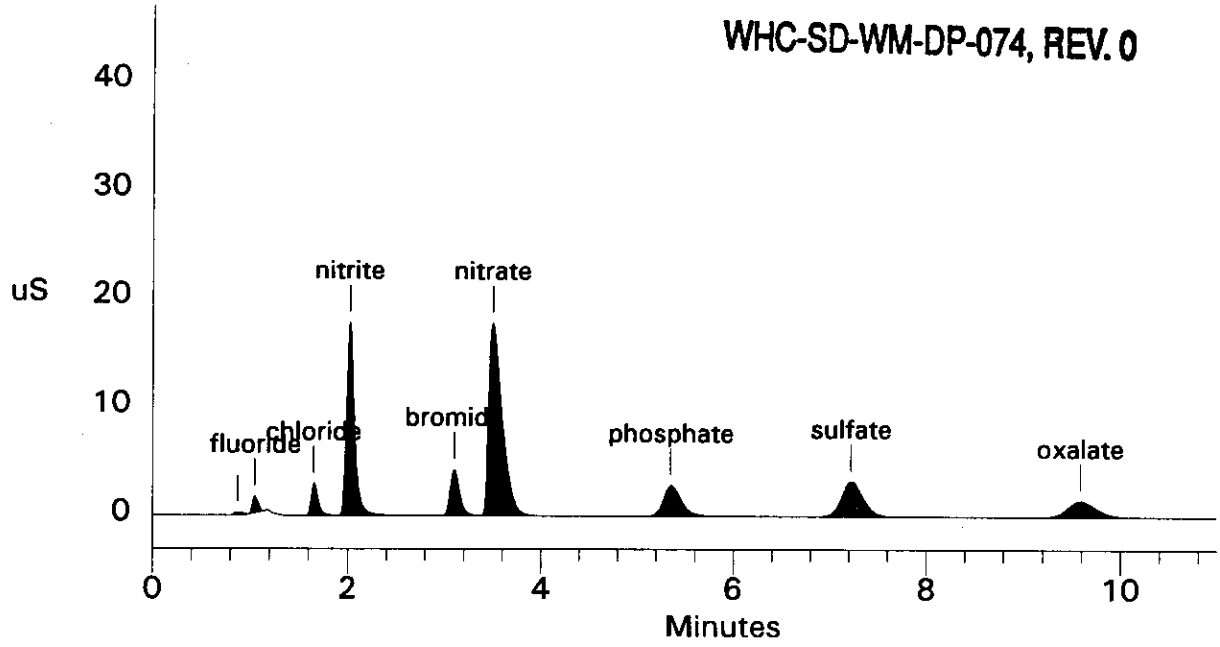
```
==============================================================================
| Sample Name: S94T000267 + SPIKE            Date: 01/11/1995 11:39:02       |
| Data File  : C:\DX\DATA\95011221.D07                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 7                  Detector:CDM-1      |
| Analyst    :                Column:                                        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	216	1105	1	
2	1.05	fluoride	40.040	1551	6437	1	0.96
3	1.65	chloride	132.634	2945	14962	1	-1.79
4	2.02	nitrite	1254.247	17772	100644	1	-1.94
5	3.10	bromide	560.551	4264	28668	1	-0.64
6	3.50	nitrate	2381.579	17694	170864	1	-0.28
7	5.35	phosphate	1122.887	2851	36948	1	1.33
8	7.22	sulfate	597.034	3284	51354	1	1.83
9	9.59	oxalate	516.626	1503	31277	1	2.02
		Totals	6605.598	52080	442260		

File: 95011221.D07 Sample: S94T000267 + SPIKE



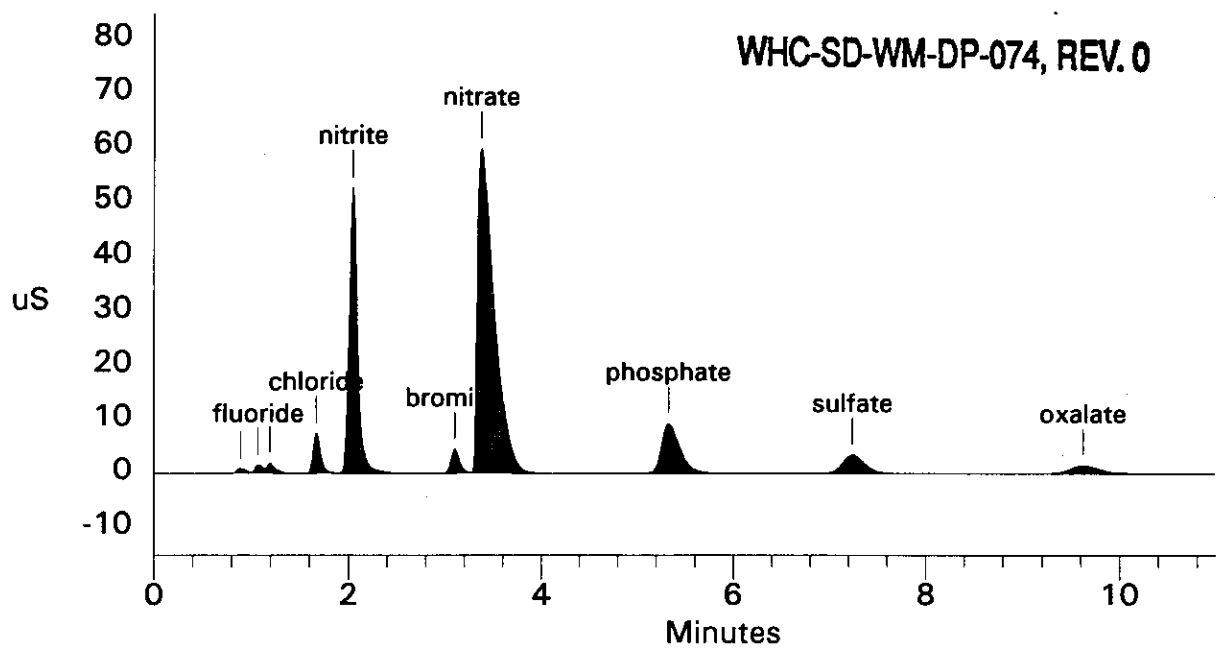
```
==============================================================================
| Sample Name: S94T000267 + SPIKE            Date: 01/11/1995 11:20:09        |
| Data File  : C:\DX\DATA\95011221.D06                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 6                   Detector:CDM-1      |
  Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	693	4075	2	
2	1.07	fluoride	10.514	1512	8162	2	2.88
3	1.19		0.000	1865	11308	2	
4	1.67	chloride	71.441	7480	39910	1	-0.60
5	2.05	nitrite	779.108	52626	311903	1	-0.49
6	3.10	bromide	109.417	4460	26813	1	-0.64
7	3.38	nitrate	1677.515	59605	716403	1	-3.70
8	5.33	phosphate	697.787	9250	121973	1	0.95
9	7.24	sulfate	130.602	3419	54178	1	2.12
10	9.63	oxalate	103.470	1452	30064	1	2.45
		Totals	3579.856	142362	1324790		

File: 95011221.D06 Sample: S94T000267 + SPIKE



LABCORE Data Entry Template for Worklist# 380

See Attached worklist for signature J.M. Fyfe 1/30/95

Analyst: EHC **Instrument:** IC01 4000i IC **Method:** LA-533-105 C-2 JM 1/30/95

Worklist Comment: Please include BR and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				@IC-01	F-02	SOLID	<.1	<.1	N/A	ug/g
1	BLNK-PREP				@IC-01	CL-02	SOLID	<.2	<.2	N/A	ug/g
1	BLNK-PREP				@IC-01	NO2-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	BR-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	NO3-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	PO4-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	SO4-02	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-01	OXALATE2	SOLID	<1	<1	N/A	ug/g
2	STD	70 N9A			@IC-01	F-02	SOLID	56	54.4	N/A	ug/g
2	STD				@IC-01	CL-02	SOLID	75	75.3	N/A	ug/g
2	STD				@IC-01	NO2-02	SOLID	528	525	N/A	ug/g
2	STD				@IC-01	BR-02	SOLID	572	563	N/A	u
2	STD				@IC-01	NO3-02	SOLID	578	562	N/A	ug/g
2	STD				@IC-01	PO4-02	SOLID	516	499	N/A	ug/g
2	STD				@IC-01	SO4-02	SOLID	599	584	N/A	ug/g
2	STD				@IC-01	OXALATE2	SOLID	603	494	N/A	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	F-02	SOLID	N/A	3.76E2	<9.78	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	CL-02	SOLID	N/A	7.44E3	<19.6	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	NO2-02	SOLID	N/A	7.91E4	<97.8	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	BR-02	SOLID	N/A	~~<~~ <97.8 JMF 1/30/95	<97.8	ug/g

Data Entry Comments: Data entered on 2/6/95. JMF Data verified & posted 2/6/95 JMF

F has matrix interference from acetate. JMF

Units shown for QC (SPK) may not reflect the actual units.

Page: 1

LABCORE Data Entry Template for Worklist# 380

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105C-2

Worklist Comment: Please include BR and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
3	SAMPLE	S94T000280	0	W	@IC-01	NO3-02	SOLID	N/A	9.54E4	<97.8	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	PO4-02	SOLID	N/A	8.37E3	<97.8	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	SO4-02	SOLID	N/A	6.38E3	<97.8	ug/g
3	SAMPLE	S94T000280	0	W	@IC-01	OXALATE2	SOLID	N/A	2.31E4	<97.8	ug/g
4	DUP	S94T000280	0	W	@IC-01	F-02	SOLID	3.76E2	4.18E2	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	CL-02	SOLID	7.44E3	7.36E3	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	NO2-02	SOLID	7.91E4	8.07E4	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	BR-02	SOLID	<97.8	<97.8	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	NO3-02	SOLID	9.54E4	9.74E4	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	PO4-02	SOLID	8.37E3	8.52E3	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	SO4-02	SOLID	6.38E3	6.38E3	N/A	ug/g
4	DUP	S94T000280	0	W	@IC-01	OXALATE2	SOLID	2.31E4	2.33E4	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	CL-02	SOLID	100	104.1	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	F-02	SOLID	100	67.4	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	NO2-02	SOLID	100	102.8	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	BR-02	SOLID	100	~~99~~ 99.0 JMF 1/08/95	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	NO3-02	SOLID	100	99.1	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	PO4-02	SOLID	100	98.6	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	SO4-02	SOLID	100	95.0	N/A	ug/g
5	SPK	S94T000280	0	W	@IC-01	OXALATE2	SOLID	100	100.8	N/A	ug/g
6	STD	70N9A			@IC-01	F-02	SOLID	56	53.0	N/A	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 380

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105 C-2

Worklist Comment: Please include BR and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
6	STD				@IC-01	CL-02	SOLID	75	72.3	N/A	ug/g
6	STD				@IC-01	NO2-02	SOLID	528	517	N/A	ug/g
6	STD				@IC-01	BR-02	SOLID	572	563	N/A	ug/g
6	STD				@IC-01	NO3-02	SOLID	578	572	N/A	ug/g
6	STD				@IC-01	PO4-02	SOLID	516	513	N/A	ug/g
6	STD				@IC-01	SO4-02	SOLID	599	575	N/A	ug/g
6	STD				@IC-01	OXALATE2	SOLID	503	480	N/A	ug/g
7	BLNK-PREP				@IC-01	F-02	SOLID	<.1	<.1	N/A	ug/g
7	BLNK-PREP				@IC-01	CL-02	SOLID	<.2	<.2	N/A	ug/g
7	BLNK-PREP				@IC-01	NO2-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	BR-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	NO3-02	SOLID	<1	<1	N/A	ug
7	BLNK-PREP				@IC-01	PO4-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	SO4-02	SOLID	<1	<1	N/A	ug/g
7	BLNK-PREP				@IC-01	OXALATE2	SOLID	<1	<1	N/A	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	F-02	SOLID	N/A	1.55E3	<9.51	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	CL-02	SOLID	N/A	7.08E3	<19.0	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	NO2-02	SOLID	N/A	8.06E4	<95.1	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	BR-02	SOLID	JMF 2/6/95 N/A	<95.1 ~~9.72E4~~	<95.1	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	NO3-02	SOLID	N/A JMF 2/6/95	9.72E4 ~~1.55E4~~	<95.1	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 380

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105C-2

Worklist Comment: Please include BR and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
8	SAMPLE	S94T000281	0	W	@IC-01	PO4-02	SOLID	N/A	1.55E4	<95.1	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	SO4-02	SOLID	N/A	7.77E3	<95.1	ug/g
8	SAMPLE	S94T000281	0	W	@IC-01	OXALATE2	SOLID	N/A	2.07E4	<95.1	ug/g
9	DUP	S94T000281	0	W	@IC-01	F-02	SOLID	1.55E3	1.57E3	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	CL-02	SOLID	7.08E3	6.98E3	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	NO2-02	SOLID	8.06E4	8.32E4	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	BR-02	SOLID	<95.1	<96.1	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	NO3-02	SOLID	9.72E4	9.90E4	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	PO4-02	SOLID	1.55E4	1.58E4	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	SO4-02	SOLID	7.77E3	7.88E3	N/A	ug/g
9	DUP	S94T000281	0	W	@IC-01	OXALATE2	SOLID	2.07E4	2.08E4	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	CL-02	SOLID	100	93.5	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	F-02	SOLID	100	84.3	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	NO2-02	SOLID	100	102.1	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	BR-02	SOLID	100	88.8	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	NO3-02	SOLID	100	97.6	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	PO4-02	SOLID	100	88.4	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	SO4-02	SOLID	100	88.0	N/A	ug/g
10	SPK	S94T000281	0	W	@IC-01	OXALATE2	SOLID	100	90.7	N/A	ug/g
11	STD	70N9A			@IC-01	F-02	SOLID	56	54.2	N/A	ug/g
11	STD				@IC-01	CL-02	SOLID	75	72.3	N/A	ug/g

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 380

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105 C-2

Worklist Comment: Please include BR and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
11	STD				@IC-01	NO2-02	SOLID	528	509	N/A	ug/g
11	STD				@IC-01	BR-02	SOLID	572	560	N/A	ug/g
11	STD				@IC-01	NO3-02	SOLID	578	596	N/A	ug/g
11	STD				@IC-01	PO4-02	SOLID	516	503	N/A	ug/g
11	STD				@IC-01	SO4-02	SOLID	599	582	N/A	ug/g
11	STD				@IC-01	OXALATE2	SOLID	503	482	N/A	ug/g

Final page for worklist # 380

E.M. Cole
Analyst Signature

2-6-95
Date

See attached
copy for signature
Jann Fuge 2/6/95

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 380

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: Please include BR and Oxalate. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
8	SPK	S94T000281	0	W	@IC-01	PO4-02	SOLID	_____	_____	N/A	ug/g
8	SPK	S94T000281	0	W	@IC-01	SO4-02	SOLID	_____	_____	N/A	ug/g
8	SPK	S94T000281	0	W	@IC-01	OXALATE2	SOLID	_____	_____	N/A	ug/g

Final page for worklist # 380

E.N. Cohn
Analyst Signature

1-23-95
Date

Prep dilution factors

S94T000280 10.226 g/L
Dup 10.228 g/L

S94T000281 10.516 g/L
Dup 10.396 g/L

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)2 JMF 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	3.84E+00	7.61E+01	8.09E+02	9.76E+02	8.56E+01	6.52E+01
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
373	Duplicate Conc. (µg/n	4.28E+00	7.53E+01	8.25E+02	9.96E+02	8.71E+01	6.53E+01
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@IC-01	Duplicate Dilution Fac	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000280	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	3.76E+02	4.18E+02	10.8%	-3.76E+02	ERR	ERR
Chloride (µg/g)	7.44E+03	7.36E+03	1.1%	-7.44E+03	ERR	ERR
Nitrite (µg/g)	7.91E+04	8.07E+04	1.9%	-7.91E+04	ERR	ERR
Nitrate (µg/g)	9.54E+04	9.74E+04	2.0%	-9.54E+04	ERR	ERR
Phosphate (µg/g)	8.37E+03	8.52E+03	1.7%	-8.37E+03	ERR	ERR
Sulfate (µg/g)	6.38E+03	6.38E+03	0.1%	-6.38E+03	ERR	ERR

Data Entry by: [signature] Date: 30-Jan-95

Approved by: [signature] Date: 1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

To compute detection limits. Br is the same as NO_3. J. M. Fuge 1/30/95 Oxalate is also the same as NO_3. JMF 1/30/95

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) JMF 1/19/95

Type		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
sample	Sample Conc. (µg/mL	1.00E-01	2.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00
	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
373	Duplicate Conc. (µg/m	1.00E-01	2.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@IC-01	Duplicate Dilution Fac	2.10E+01	2.10E+01	1.01E+02	1.01E+02	2.10E+01	2.10E+01
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000280	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						

Analyst: Ed Colvin
Date: 01/23/95
Time:

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Less than Values are Calculated from the Detection Limit*Dilution Factor
Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<9.779	<9.777	N/A	-9.78E+00	ERR	ERR
Chloride (µg/g)	<19.558	<19.554	N/A	-1.96E+01	ERR	ERR
Nitrite (µg/g)	<97.790	<97.771	N/A	-9.78E+01	ERR	ERR
Nitrate (µg/g)	<97.790	<97.771	N/A	-9.78E+01	ERR	ERR
Phosphate (µg/g)	<97.790	<97.771	N/A	-9.78E+01	ERR	ERR
Sulfate (µg/g)	<97.790	<97.771	N/A	-9.78E+01	ERR	ERR

Data Entry by: Jane Fuge Date: 30-Jan-95
Approved by: Jane Fuge Date: 1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	4.53E+00	6.69E+01	8.09E+02	9.76E+02	1.57E+02	9.37E+01
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
373	Duplicate Conc. (µg/m	4.56E+00	6.76E+01	8.25E+02	9.96E+02	1.64E+02	9.34E+01
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@IC-01	Duplicate Dilution Fac	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
Matrix	Spike+Sample (µg/ml	4.23E+01	1.45E+02	1.35E+03	1.55E+03	6.66E+02	6.63E+02
solid							
Sample #	Volume of Spike (mL)	0.1	0.1	0.1	0.1	0.1	0.1
S94T000280	Spike Book Number	70n9a	70n9a	70n9a	70n9a	70n9a	70n9a
Instrument Code	Total Volume	10.10	10.10	10.10	10.10	10.10	10.10
dionex	Spike Std. (µg/mL)	56	75	528	578	516	599

Analyst: Ed Colvin
Date: 01/23/95
Time:

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Less than Values are Calculated from the Detection Limit*Dilution Factor
Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	4.43E+02	4.46E+02	0.6%	3.69E+03	67.4%	5.48E+03
Chloride (µg/g)	6.54E+03	6.61E+03	1.0%	7.64E+03	104.1%	7.33E+03
Nitrite (µg/g)	7.91E+04	8.07E+04	1.9%	5.31E+04	102.8%	5.16E+04
Nitrate (µg/g)	9.54E+04	9.74E+04	2.0%	5.60E+04	99.1%	5.65E+04
Phosphate (µg/g)	1.54E+04	1.60E+04	4.3%	4.98E+04	98.6%	5.05E+04
Sulfate (µg/g)	9.16E+03	9.13E+03	0.3%	5.57E+04	95.0%	5.86E+04

Data Entry by: Date: 30-Jan-95
Approved by: Date: 1/30/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 1/31/95 Bromide JMF 1/31/95 Oxalate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-112 JMF 1/19/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00	2.36E+02		
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto			2.10E+01	1.01E+02		
380	Duplicate Conc. (µg/m			1.00E+00	2.38E+02		
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@ic-01	Duplicate Dilution Fac			2.10E+01	1.01E+02		
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000280 BR + OX	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = |((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<97.790	<97.771	N/A	-9.78E+01	ERR	ERR
~~Nitrate (µg/g)~~	2.31E+04	2.33E+04	0.8%	-2.31E+04	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

JMF 1/31/95 Bromide
JMF 1/31/95 Oxalate

Data Entry by:	Jann Fogle	Date:	31-Jan-95
Approved by:	Jann Fogle	Date:	1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 1/31/95 Bromide JMF 1/31/95 Oxalate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) JMF 4/19/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00	2.36E+02		
sample	Sample Prep DF (g/L)	10.226	10.226	10.226	10.226	10.226	10.226
Work List	Sample Dilution Facto			1.01E+02	1.01E+02		
380	Duplicate Conc. (µg/m			1.00E+00	2.38E+02		
Test Code	Duplicate Prep DF (g/	10.228	10.228	10.228	10.228	10.228	10.228
@ic-01	Duplicate Dilution Fac			1.01E+02	1.01E+02		
Matrix	Spike+Sample (µg/ml			5.67E+02	7.43E+02		
solid							
Sample #	Volume of Spike (mL)			0.1	0.1		
S94T000280 BR + OX	Spike Book Number	70n9a	70n9a	70n9a	70n9a	70n9a	70n9a
Instrument Code	Total Volume			10.10	10.10		
dionex	Spike Std. (µg/mL)			572	503		
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<97.790	<97.771	N/A	5.53E+04	99.0%	5.59E+04
~~Nitrate (µg/g)~~	2.31E+04	2.33E+04	0.8%	4.96E+04	100.8%	4.92E+04
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

JMF 1/31/95 Bromide
JMF 1/31/95 Oxalate

Data Entry by:	[signature]	Date:	31-Jan-95
Approved by:	[signature]	Date:	1/31/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Duplicate

JMF 2/6/95 Bromide Oxalate JMF 2/6/95

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) JMF 2/6/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00	2.18E+02		
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto			2.10E+01	2.10E+01		
380	Duplicate Conc. (µg/m			1.00E+00	2.16E+02		
Test Code	Duplicate Prep DF (g/	10.396	10.396	10.396	10.396	10.396	10.396
@IC-01	Duplicate Dilution Fac			2.10E+01	2.10E+01		
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000281	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						

Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
	Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<95.093	<96.191	N/A	-9.51E+01	ERR	ERR
~~Nitrate (µg/g)~~	2.07E+04	2.08E+04	0.2%	-2.07E+04	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

JMF 2/6/95 Bromide JMF 2/6/95 Oxalate

Data Entry by:	Jan Fuge	Date:	06-Feb-95
Approved by:	Jan Fuge	Date:	2/6/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Spike

GMF 2/6/95 Bromide Oxalate GMF 2/6/95

ANION ANALYSIS ON DIONEX MODEL 4000I - PREPARED SAMPLES

LA-533-105 (C-1)2 GMF 2/6/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00	2.09E+02		
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto			1.01E+02	1.01E+02		
380	Duplicate Conc. (µg/m						
Test Code	Duplicate Prep DF (g/						
@IC-01	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/ml			5.09E+02	6.65E+02		
solid							
Sample #	Volume of Spike (mL)			0.1	0.1		
S94T000281	Spike Book Number	70n9a	70n9a	70n9a	70n9a	70n9a	70n9a
Instrument Code	Total Volume			10.10	10.10		
dionex	Spike Std. (µg/mL)			572	503		
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
~~Nitrite (µg/g)~~	<95.093	ERR	N/A	4.83E+04	88.8%	5.44E+04
~~Nitrate (µg/g)~~	1.99E+04	ERR	N/A	4.34E+04	90.7%	4.78E+04
Phosphate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	ERR	N/A	0.00E+00	ERR	ERR

GMF 2/6/95 Bromide Oxalate GMF 2/6/95

Data Entry by:	[signature]	Date:	06-Feb-95
Approved by:	[signature]	Date:	2/6/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

Detection Limits

JMF 2/6/95 Nitrite & Bromide

JMF 2/6/95 Nitrite Oxalate & Nitrate

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) JMF 2/6/95

		FLOURID	CHLORID	~~NITRITE~~	~~NITRATE~~	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	1.00E-01	2.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
380	Duplicate Conc. (µg/n						
Test Date	Duplicate Prep DF (g/						
@IC-01	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000281	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						

Analyst: Ed Colvin

Date: 01/23/95

Time:

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L

Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100

Less than Values are Calculated from the Detection Limit*Dilution Factor

Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample

Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa

Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	<9.509	ERR	N/A	-9.51E+00	ERR	ERR
Chloride (µg/g)	<19.019	ERR	N/A	-1.90E+01	ERR	ERR
~~Nitrite (µg/g)~~	<95.093	ERR	N/A	-9.51E+01	ERR	ERR
~~Nitrate (µg/g)~~	<95.093	ERR	N/A	-9.51E+01	ERR	ERR
Phosphate (µg/g)	<95.093	ERR	N/A	-9.51E+01	ERR	ERR
Sulfate (µg/g)	<95.093	ERR	N/A	-9.51E+01	ERR	ERR

JMF 2/6/95 Nitrite & Bromide

JMF 2/6/95 Oxalate Nitrate

Data Entry by:	[signature]	Date:	06-Feb-95
Approved by:	[signature]	Date:	2/6/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) 2 JMF 2/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	1.63E+01	7.45E+01	8.48E+02	1.02E+03	1.63E+02	8.17E+01
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
380	Duplicate Conc. (µg/m	1.63E+01	7.26E+01	8.65E+02	1.03E+03	1.64E+02	8.19E+01
Test Code	Duplicate Prep DF (g/	10.396	10.396	10.396	10.396	10.396	10.396
@IC-01	Duplicate Dilution Fac	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
S94T000281	Spike Book Number						
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	1.55E+03	1.57E+03	1.1%	-1.55E+03	ERR	ERR
Chloride (µg/g)	7.08E+03	6.98E+03	1.4%	-7.08E+03	ERR	ERR
Nitrite (µg/g)	8.06E+04	8.32E+04	3.1%	-8.06E+04	ERR	ERR
Nitrate (µg/g)	9.72E+04	9.90E+04	1.8%	-9.72E+04	ERR	ERR
Phosphate (µg/g)	1.55E+04	1.58E+04	1.8%	-1.55E+04	ERR	ERR
Sulfate (µg/g)	7.77E+03	7.88E+03	1.4%	-7.77E+03	ERR	ERR

Data Entry by:	Jerry Fryer	Date:	06-Feb-95
Approved by:	Jerry Fryer	Date:	2/6/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) 2 JMF 4/19/95

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	1.25E+01	6.99E+01	8.19E+02	9.62E+02	1.64E+02	9.08E+01
sample	Sample Prep DF (g/L)	10.516	10.516	10.516	10.516	10.516	10.516
Work List	Sample Dilution Facto	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
380	Duplicate Conc. (µg/n						
Test Code	Duplicate Prep DF (g/						
@IC-01	Duplicate Dilution Fac						
Matrix	Spike+Sample (µg/ml	5.97E+01	1.40E+02	1.36E+03	1.53E+03	6.20E+02	6.18E+02
solid							
Sample #	Volume of Spike (mL)	0.1	0.1	0.1	0.1	0.1	0.1
S94T000281	Spike Book Number	70n9a	70n9a	70n9a	70n9a	70n9a	70n9a
Instrument Code	Total Volume	10.10	10.10	10.10	10.10	10.10	10.10
dionex	Spike Std. (µg/mL)	56	75	528	578	516	599
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/23/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
	Spike Actual = Spike Found / Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	1.19E+03	ERR	N/A	4.49E+03	84.3%	5.33E+03
Chloride (µg/g)	6.65E+03	ERR	N/A	6.67E+03	93.5%	7.13E+03
Nitrite (µg/g)	7.79E+04	ERR	N/A	5.13E+04	102.1%	5.02E+04
Nitrate (µg/g)	9.15E+04	ERR	N/A	5.36E+04	97.6%	5.50E+04
Phosphate (µg/g)	1.56E+04	ERR	N/A	4.34E+04	88.4%	4.91E+04
Sulfate (µg/g)	8.63E+03	ERR	N/A	5.01E+04	88.0%	5.70E+04

Data Entry by:	Joann Faye	Date:	06-Feb-95
Approved by:	Joann Faye	Date:	2/6/95

Form L1 Rev. 2.0

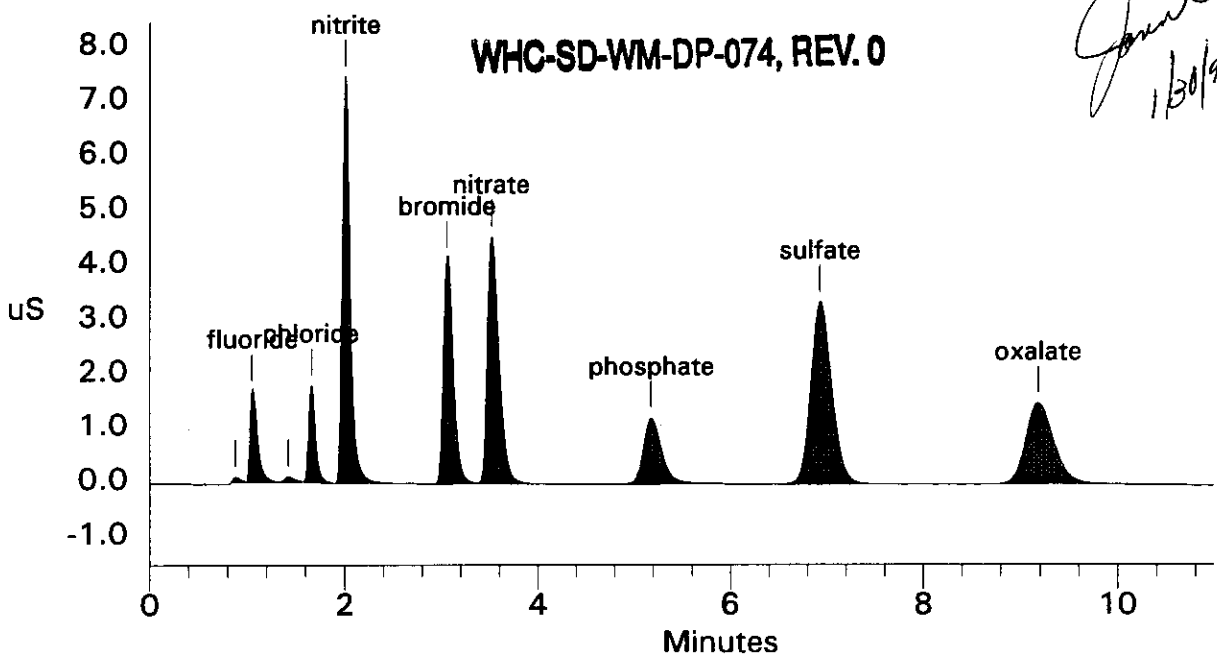
```
==============================================================================
| Sample Name: 70N9-A STD                      Date: 01/23/1995 08:44:15      |
| Data File  : C:\DX\DATA\95012311.D02                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 2                  Detector:CDM-1       |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	83	412	2	
2	1.05	fluoride	54.396	1677	8791	2	0.96
3	1.42		0.000	97	621	1	
4	1.66	chloride	75.341	1782	8462	1	-1.19
5	2.01	nitrite	525.018	7475	40807	1	-2.43
6	3.06	bromide	562.572	4148	28778	1	-1.92
7	3.52	nitrate	562.075	4538	37348	1	0.28
8	5.18	phosphate	499.160	1213	15663	1	-1.89
9	6.93	sulfate	584.323	3356	50201	1	-2.26
10	9.19	oxalate	494.011	1494	29832	1	-2.23
		Totals	3356.895	25862	220915		

File: 95012311.D02 Sample: 70N9-A STD



1/30/95

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 724 TO 739.

```
==============================================================================
| Sample Name: BLANK                          Date: 01/23/1995 08:30:17       |
| Data File  : C:\DX\DATA\95012311.D01                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1      |
| Analyst    :                Column:                                        |
==============================================================================
```

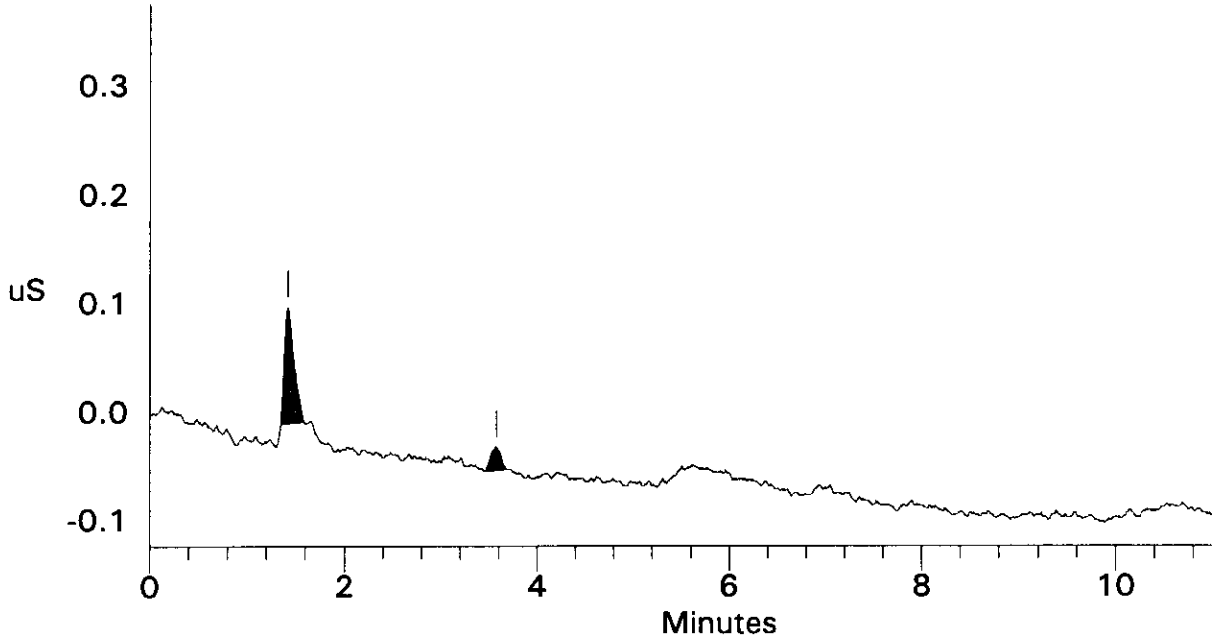
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.42		0.000	106	719	1	
		Totals	0.000	106	719		

File: 95012311.D01 Sample: BLANK

WHC-SD-WM-DP-074, REV. 0



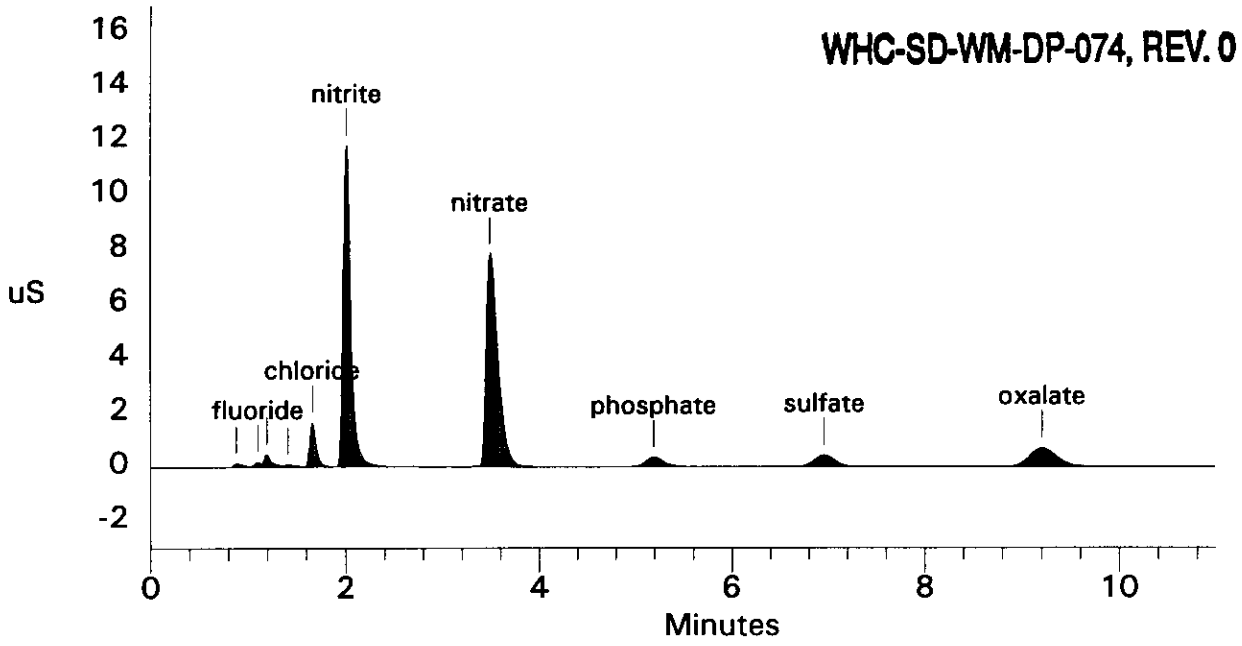
```
==============================================================================
| Sample Name: S94T000280                    Date: 01/23/1995 08:59:57        |
| Data File  : C:\DX\DATA\95012311.D03                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 3                  Detector:CDM-1       |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	119	689	1	
2	1.10	fluoride	4.535	164	681	2	5.77
3	1.19		0.000	445	2406	3	
4	1.41		0.000	61	406	4	
5	1.66	chloride	66.860	1613	7509	1	-1.19
6	2.01	nitrite	809.187	11797	64025	1	-2.43
7	3.49	nitrate	976.479	7795	66699	1	-0.57
8	5.19	phosphate	157.181	342	4353	1	-1.70
9	6.96	sulfate	93.745	424	6267	1	-1.83
10	9.21	oxalate	236.136	688	13446	1	-2.02
		Totals	2344.124	23448	166481		

File: 95012311.D03 Sample: S94T000280



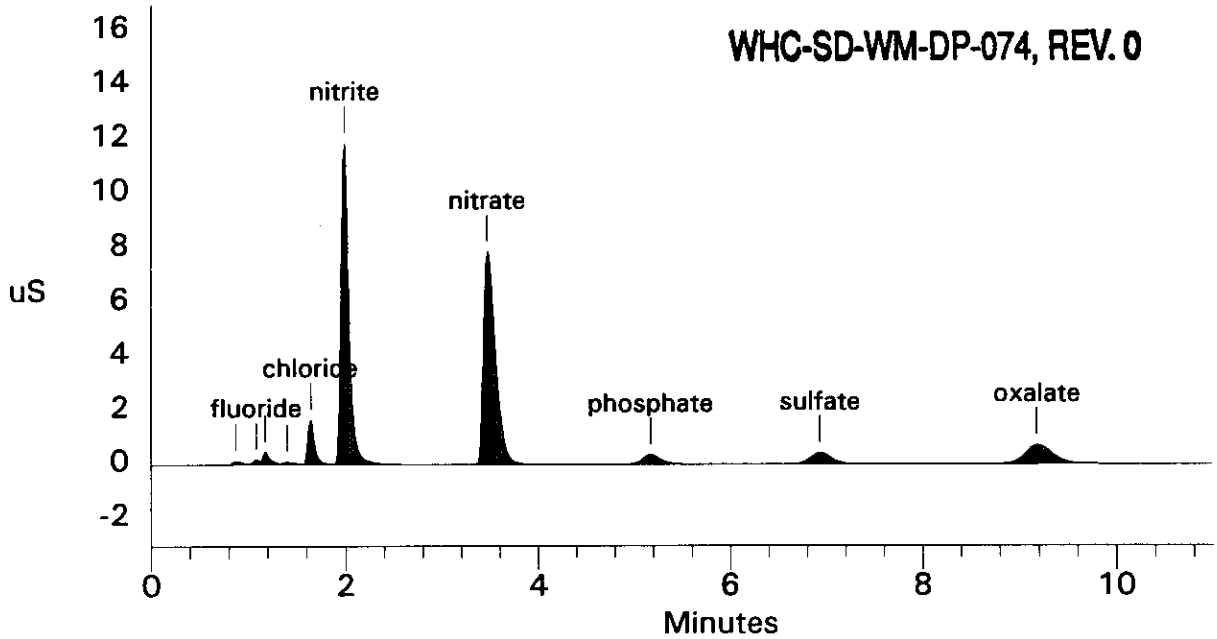
Sample Name: S94T000280 DUPLICATE Date: 01/23/1995 09:20:48
Data File : C:\DX\DATA\95012311.D04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	127	725	2	
2	1.08	fluoride	4.560	167	685	2	3.85
3	1.17		0.000	443	2440	3	
4	1.40		0.000	75	490	4	
5	1.64	chloride	67.573	1638	7589	1	-2.38
6	1.99	nitrite	824.964	11853	65318	1	-3.40
7	3.47	nitrate	995.727	7843	68076	1	-1.14
8	5.17	phosphate	163.970	351	4575	1	-2.08
9	6.93	sulfate	93.381	420	6235	1	-2.26
10	9.18	oxalate	238.264	692	13581	1	-2.34
		Totals	2388.439	23606	169713		

File: 95012311.D04 Sample: S94T000280 DUPLICATE



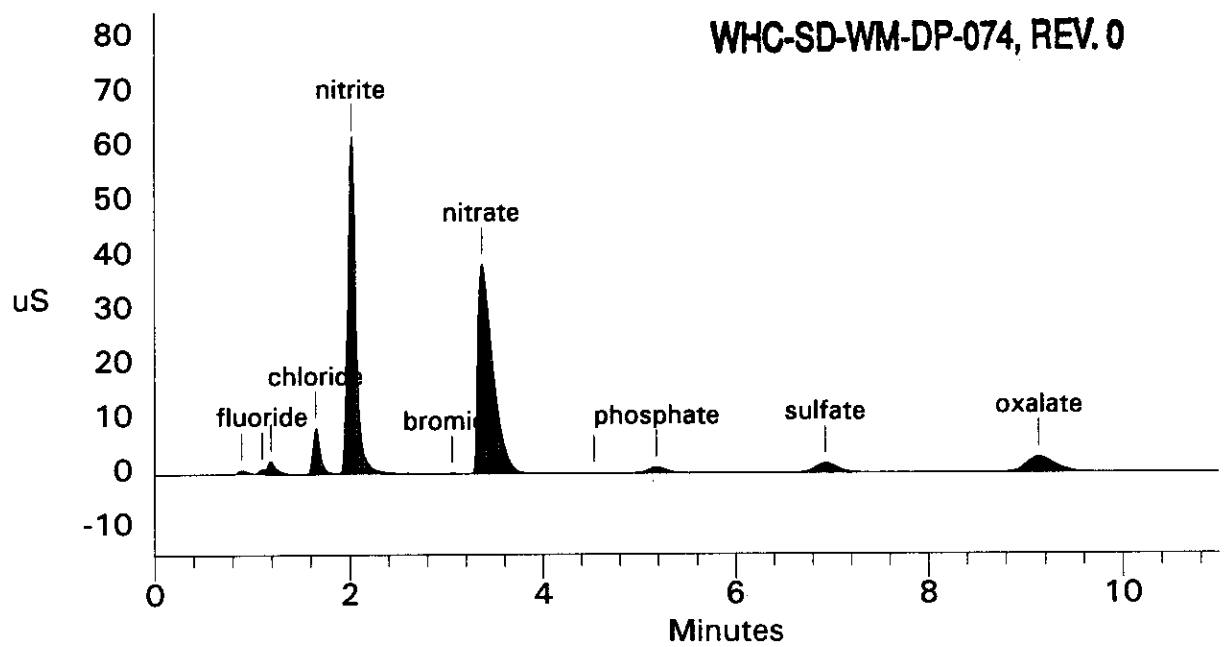
Sample Name: S94T000280	Date: 01/23/1995 09:46:19
Data File : C:\DX\DATA\95012311.D06	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 6	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	642	3775	2	
2	1.10	fluoride	3.835	836	2925	2	5.77
3	1.19		0.000	2393	14344	2	
4	1.65	chloride	76.071	8339	42645	1	-1.79
5	2.02	nitrite	903.512	61155	364276	1	-1.94
6	3.06	bromide	5.804	47	275	1	-1.92
7	3.37	nitrate	1095.304	38561	414473	1	-3.99
9	5.18	phosphate	85.632	1014	12753	1	-1.89
10	6.93	sulfate	65.238	1712	25836	1	-2.26
11	9.14	oxalate	191.372	2849	57270	1	-2.77
		Totals	2426.768	117550	938570		

File: 95012311.D06 Sample: S94T000280



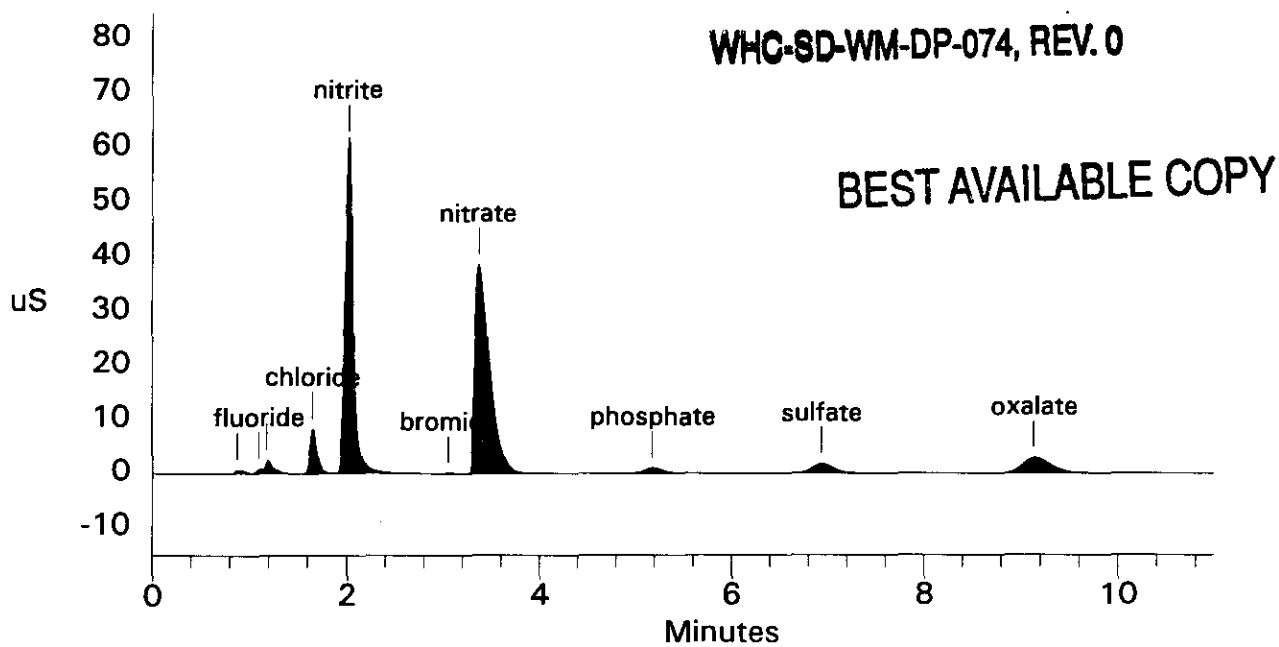
```
==============================================================================
| Sample Name: S94T000280  DUPLICATE          Date: 01/23/1995 09:33:31       |
| Data File  : C:\DX\DATA\95012311.D05                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 5                   Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	643	3937	2	
2	1.10	fluoride	4.283	849	3274	2	5.77
3	1.18		0.000	2366	13948	2	
4	1.65	chloride	75.301	8352	42189	1	-1.79
5	2.02	nitrite	901.863	61075	363577	1	-1.94
6	3.06	bromide	5.699	43	248	1	-1.92
7	3.37	nitrate	1090.593	38490	412357	1	-3.99
8	5.18	phosphate	87.145	1005	12995	1	-1.89
9	6.94	sulfate	65.358	1713	25888	1	-2.12
10	9.14	oxalate	191.270	2844	57238	1	-2.77
		Totals	2421.512	117380	935649		

File: 95012311.D05 Sample: S94T000280 DUPLICATE



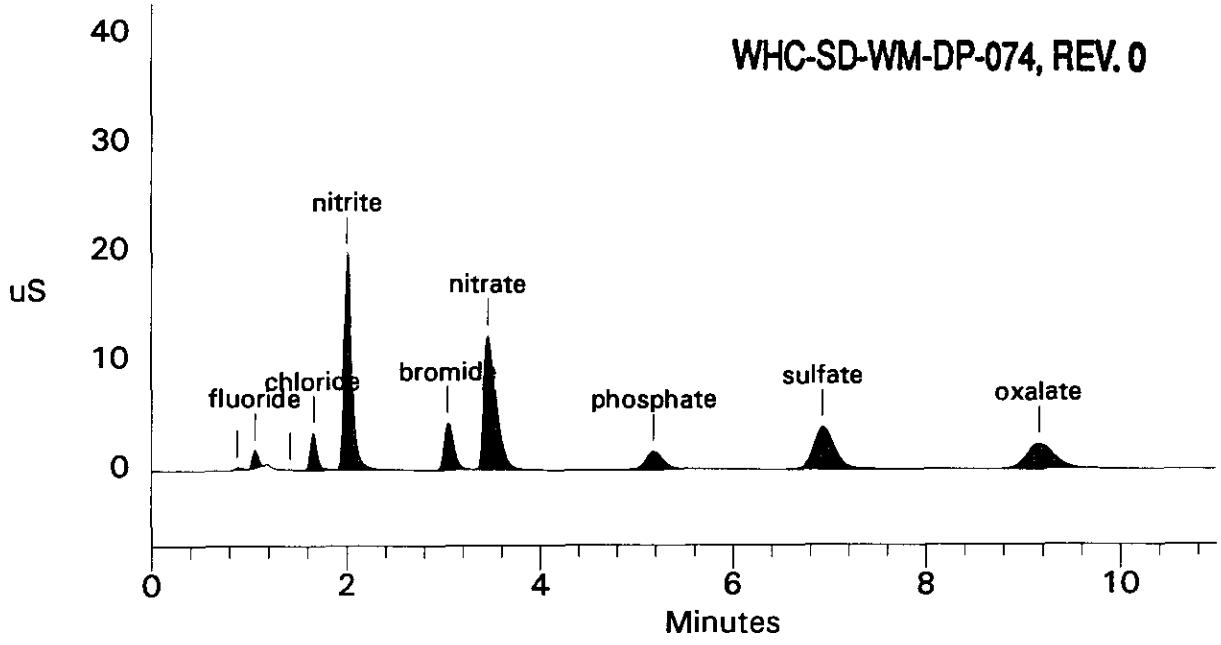
```
==============================================================================
| Sample Name: S94T000280  + SPIKE            Date: 01/23/1995 11:00:56      |
| Data File  : C:\DX\DATA\95012311.D07                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 7                   Detector:CDM-1     |
| Analyst    :                Column:                                        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	188	927	1	
2	1.06	fluoride	42.301	1598	6807	1	1.92
3	1.42		0.000	43	241	1	
4	1.66	chloride	145.441	3391	16430	1	-1.19
5	2.01	nitrite	1351.869	19804	108719	1	-2.43
6	3.05	bromide	566.653	4269	28999	1	-2.24
7	3.46	nitrate	1548.926	12279	108227	1	-1.42
8	5.18	phosphate	665.755	1651	21263	1	-1.89
9	6.94	sulfate	662.684	3823	57321	1	-2.12
10	9.17	oxalate	743.027	2276	45803	1	-2.45
		Totals	5726.656	49324	394735		

File: 95012311.D07 Sample: S94T000280 + SPIKE



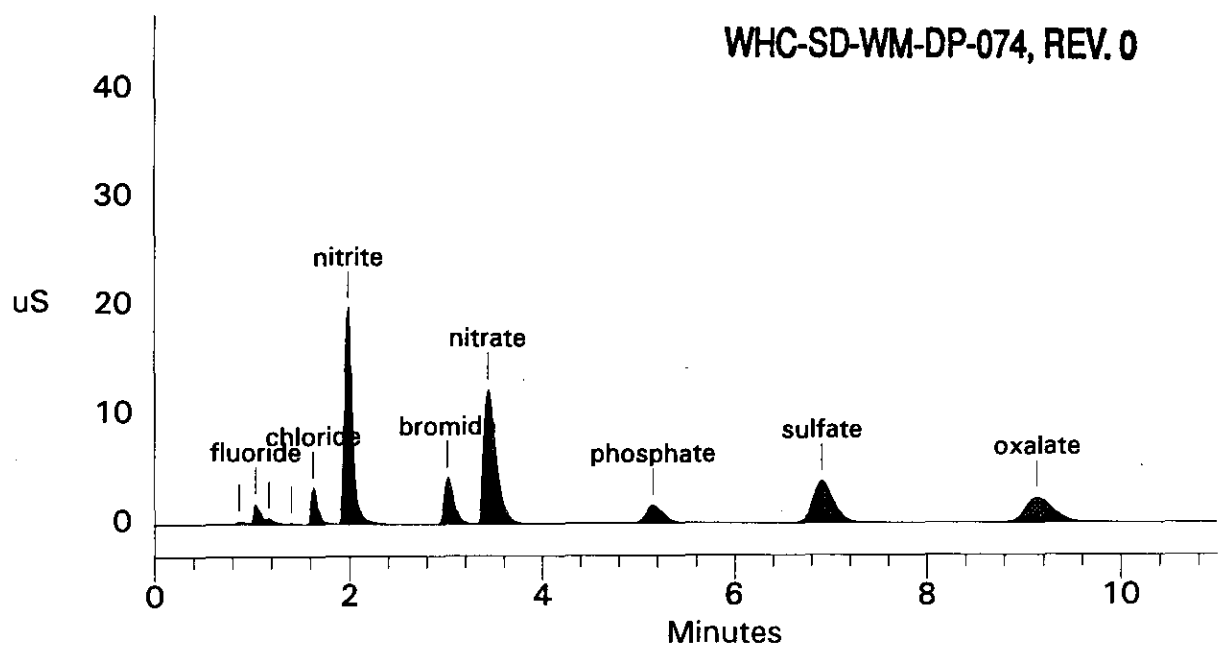
```
==============================================================================
| Sample Name: S94T000280  + SPIKE            Date: 01/23/1995 11:15:44      |
| Data File  : C:\DX\DATA\95012311.D08                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
  ACI Address: 1  System: 1  Inject#: 8                   Detector:CDM-1     |
| Analyst    :                Column:                                        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	207	1078	2	
2	1.04	fluoride	53.975	1800	8722	2	0.00
3	1.18		0.000	520	2857	3	
4	1.41		0.000	69	458	4	
5	1.63	chloride	142.719	3315	16118	1	-2.98
6	1.99	nitrite	1367.725	19808	110032	1	-3.40
7	3.02	bromide	561.798	4205	28736	1	-3.21
8	3.44	nitrate	1572.591	12327	109969	1	-1.99
9	5.16	phosphate	667.933	1652	21336	1	-2.27
10	6.91	sulfate	660.503	3819	57123	1	-2.54
11	9.14	oxalate	736.002	2271	45350	1	-2.77
		Totals	5763.246	49994	401779		

File: 95012311.D08 Sample: S94T000280 + SPIKE



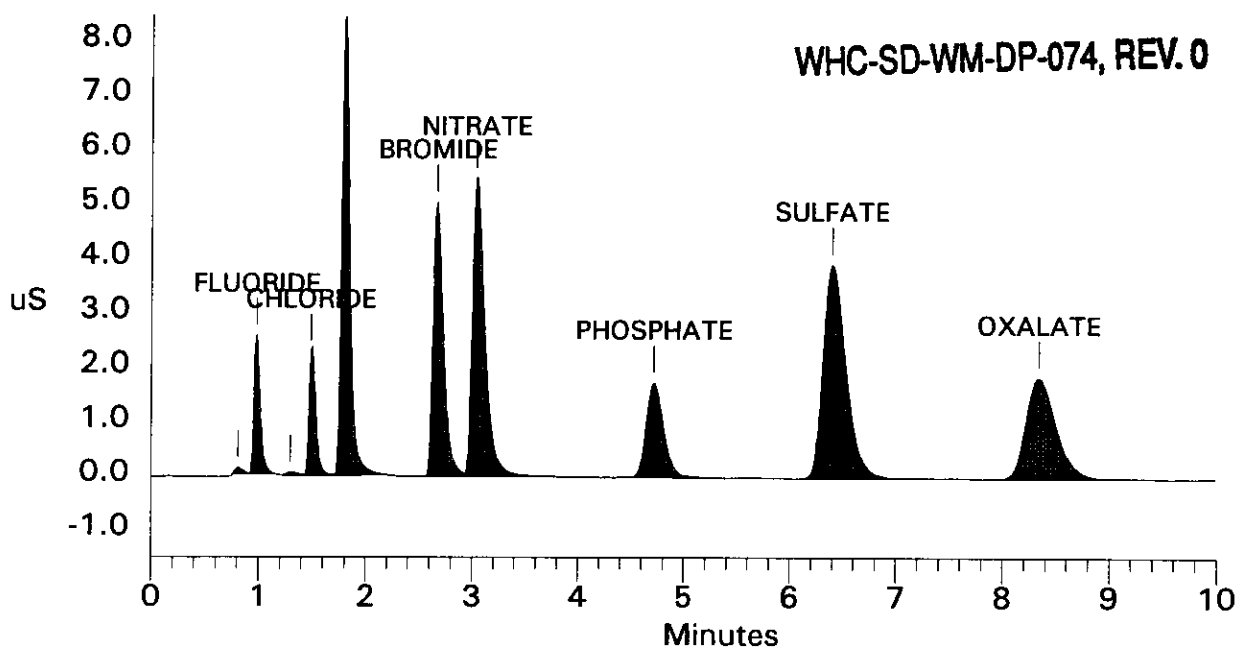
Sample Name: 70N9-A STD Date: 01/23/1995 09:14:50
Data File : C:\DX\DATA\95012311.D04
Method : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Ed Colvin Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	105	521	2	
2	0.98	FLUORIDE	53.034	2541	10130	2	0.00
3	1.30		0.000	55	359	2	
4	1.49	CHLORIDE	77.337	2277	10071	2	0.00
5	1.80	NITRITE	517.313	8437	45005	2	0.00
6	2.67	BROMIDE	563.306	5058	33917	2	1.09
7	3.04	NITRATE	572.423	5484	44563	2	0.00
8	4.72	PHOSPHATE	513.196	1750	19963	1	0.00
9	6.40	SULFATE	575.041	3949	58497	1	0.00
10	8.34	OXALATE	480.227	1863	36367	1	0.00
		Totals	3351.877	31520	259394		

File: 95012311.D04 Sample: 70N9-A STD



```
==============================================================================
| Sample Name: BLANK                          Date: 01/23/1995 08:43:15       |
| Data File  : C:\DX\DATA\95012311.D02                                        |
| Method     : C:\DX\METHOD\ANIONS.MET                                        |
  ACI Address: 1  System: 1  Inject#: 2                   Detector:CDM-1      |
| Analyst    : Ed Colvin      Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

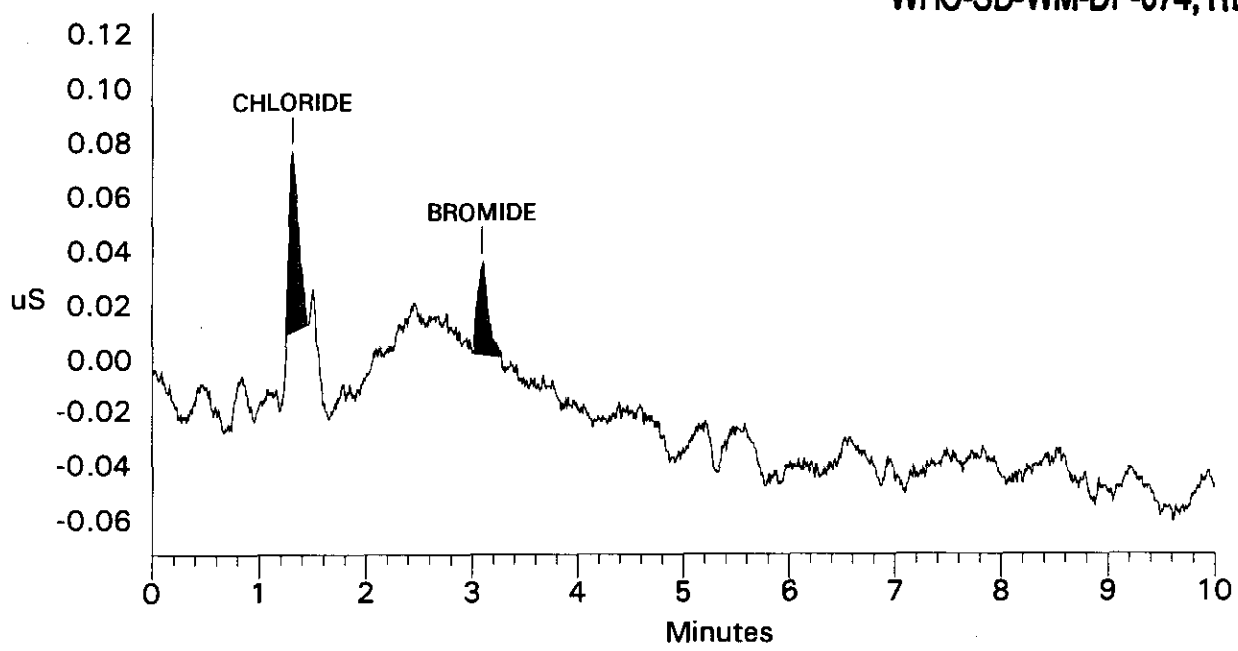
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.31	CHLORIDE	0.017	66	396	1	0.00
2	3.10	BROMIDE	0.320	33	227	1	15.09
		Totals	0.337	99	623		

File: 95012311.D02 Sample: BLANK

WHC-SD-WM-DP-074, REV. 0



Data Reprocessed On 01/24/1995 08:48:26

Sample Name: S94T000281	Date: 01/23/1995 10:56:14
Data File : C:\DX\DATA\95012311.D05	
Method : C:\DX\METHOD\ANIONS.MET	
ACI Address: 1 System: 1 Inject#: 5	Detector:CDM-1
Analyst : Ed Colvin Column: AG4A-SC,AS4A-SC, SRS	

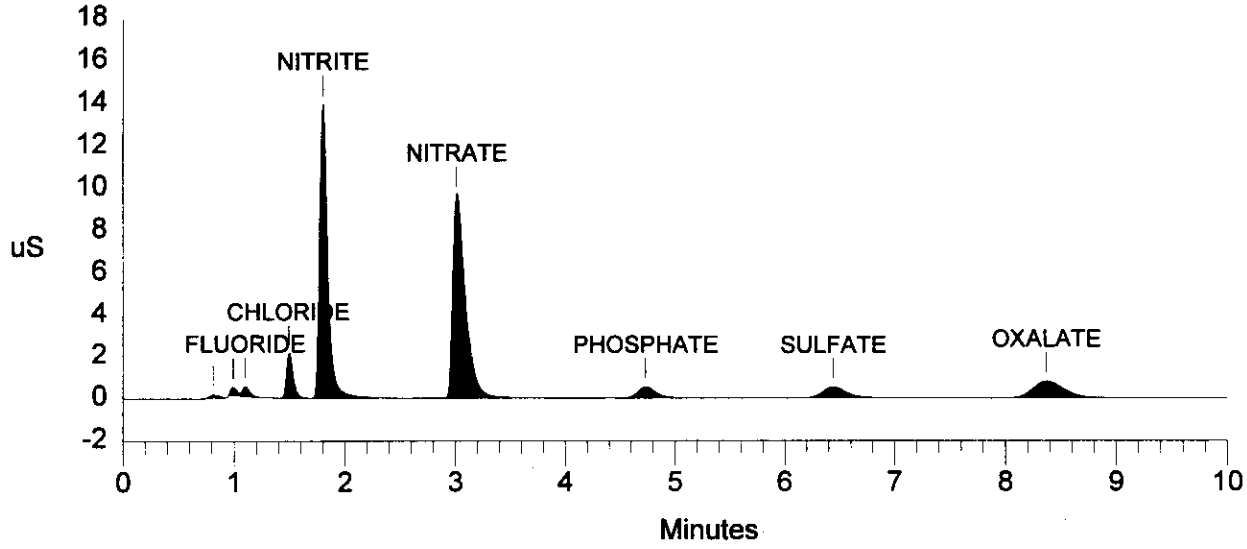
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	143	779	1	
2	0.99		0.000	364	1375	2	
3	1.10	FLUORIDE	12.454	458	2030	2	0.00
4	1.49	CHLORIDE	69.863	2100	9101	1	0.00
5	1.80	NITRITE	818.689	13925	72403	1	0.00
6	3.01	NITRATE	962.084	9635	77987	1	0.00
7	4.73	PHOSPHATE	164.047	520	5998	1	0.00
8	6.44	SULFATE	90.818	503	7358	1	0.00
9	8.37	OXALATE	208.799	805	15754	1	0.00
		Totals	2326.753	28452	192786		

WHC-SD-WM-DP-074, REV. 0

File: 95012311.D05 Sample: S94T000281



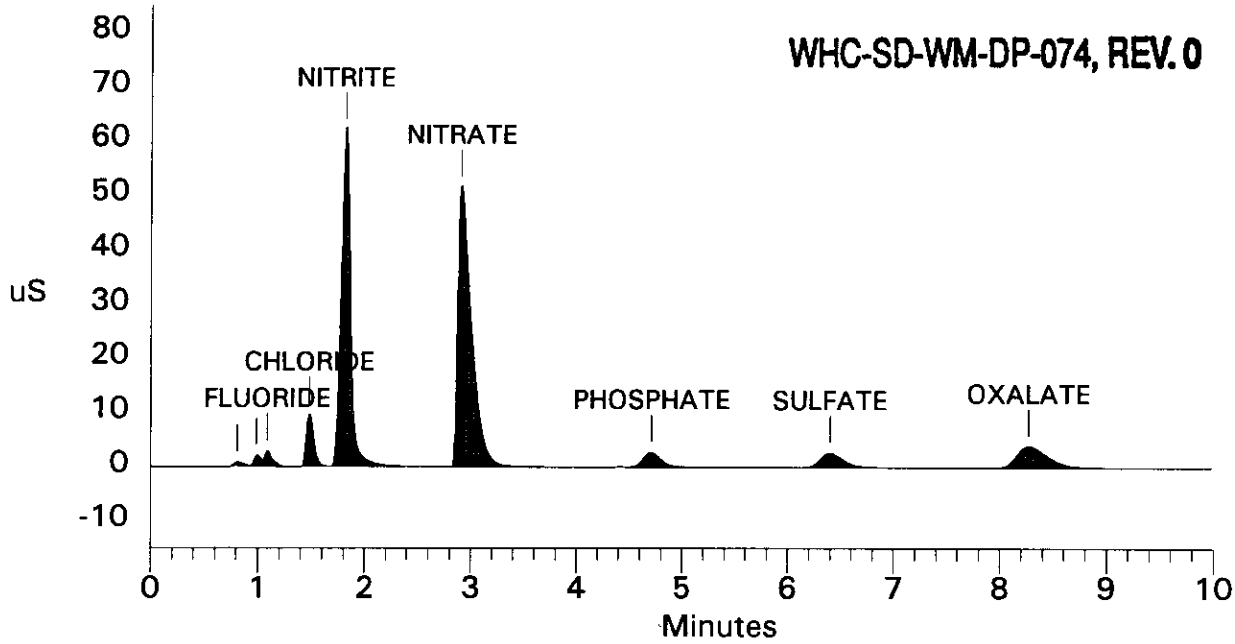
```
==============================================================================
| Sample Name: S94T000281                      Date: 01/23/1995 11:28:16      |
| Data File  : C:\DX\DATA\95012321.D01                                        |
| Method     : C:\DX\METHOD\ANIONS.MET                                        |
| ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1      |
| Analyst    : Ed Colvin      Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	669	3819	2	
2	0.99		0.000	2079	8081	2	
3	1.09	FLUORIDE	16.306	2907	15236	2	0.00
4	1.48	CHLORIDE	74.597	9683	49078	2	0.00
5	1.82	NITRITE	847.925	61987	383757	2	0.00
6	2.91	NITRATE	1022.236	51507	462516	1	0.00
7	4.71	PHOSPHATE	162.817	2714	30968	1	0.00
8	6.40	SULFATE	81.723	2648	39123	1	0.00
9	8.27	OXALATE	217.729	3939	79939	1	0.00
		Totals	2423.332	138133	1072517		

File: 95012321.D01 Sample: S94T000281



Data Reprocessed On 02/06/1995 07:41:15

Sample Name: S94T000281	Date: 01/23/1995 11:11:52
Data File : C:\DX\DATA\95012311.D06	
Method : C:\DX\METHOD\ANIONS.MET	
ACI Address: 1 System: 1 Inject#: 6	Detector:CDM-1
Analyst : Ed Colvin Column: AG4A-SC,AS4A-SC, SRS	

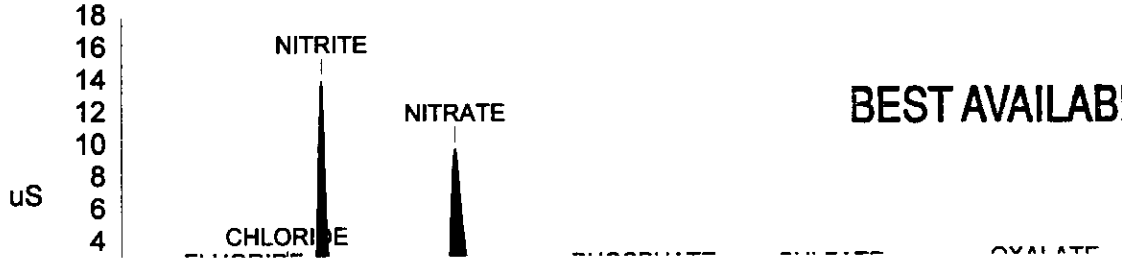
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	148	804	1	
2	0.99		0.000	342	1331	2	
3	1.10	FLUORIDE	11.774	444	1895	2	0.00
4	1.49	CHLORIDE	69.829	2152	9097	1	0.00
5	1.80	NITRITE	823.045	14060	72801	1	0.00
6	3.01	NITRATE	969.208	9805	78604	1	0.00
7	4.73	PHOSPHATE	164.817	530	6028	1	0.00
8	6.44	SULFATE	95.221	526	7818	1	0.00
9	8.38	OXALATE	205.581	803	15511	1	0.00
		Totals	2339.476	28810	193888		

WHC-SD-WM-DP-074, REV. 0

File: 95012311.D06 Sample: S94T000281



BEST AVAILABLE COPY

Data Reprocessed On 01/24/1995 11:13:06

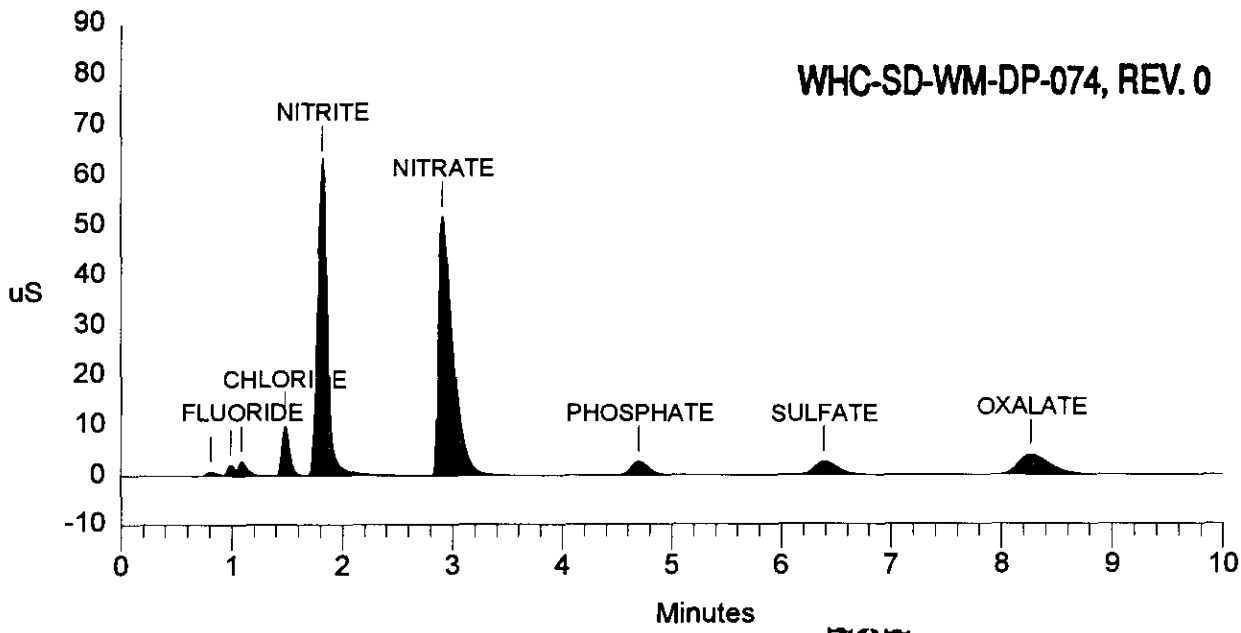
Sample Name: S94T000281 DUPLICATE	Date: 01/23/1995 11:44:00
Data File : C:\DX\DATA\95012331.D01	
Method : C:\DX\METHOD\ANIONS.MET	
ACI Address: 1 System: 1 Inject#: 1	Detector:CDM-1
Analyst : Ed Colvin Column: AG4A-SC,AS4A-SC, SRS	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	692	3933	2	
2	0.99		0.000	2062	8275	2	
3	1.09	FLUORIDE	16.297	2891	15226	2	0.00
4	1.48	CHLORIDE	72.559	9638	47627	2	0.00
5	1.82	NITRITE	865.289	62857	392136	2	0.00
6	2.91	NITRATE	1028.728	51827	465983	1	0.00
7	4.70	PHOSPHATE	163.702	2726	31143	1	0.00
8	6.39	SULFATE	81.868	2638	39197	1	0.00
9	8.27	OXALATE	216.404	3945	79445	1	0.00
		Totals	2444.846	139274	1082965		

File: 95012331.D01 Sample: S94T000281 DUPLICATE



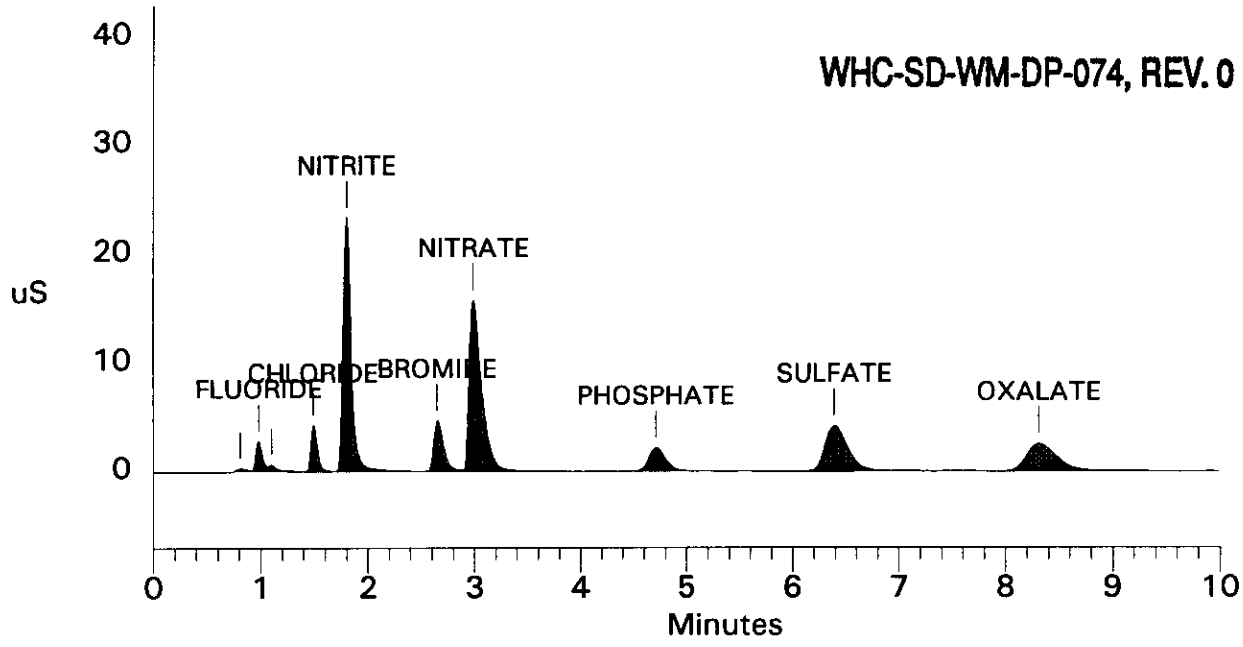
```
==============================================================================
| Sample Name: S94T000281 + SPIKE            Date: 01/23/1995 11:59:52       |
| Data File  : C:\DX\DATA\95012341.D01                                       |
| Method     : C:\DX\METHOD\ANIONS.MET                                       |
| ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1     |
| Analyst    : Ed Colvin      Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	214	1085	2	
2	0.98	FLUORIDE	59.707	2778	11469	2	0.00
3	1.10		0.000	602	3051	2	
4	1.49	CHLORIDE	139.995	4299	18321	1	0.00
5	1.80	NITRITE	1357.804	23294	121958	1	0.00
6	2.65	BROMIDE	509.328	4673	30442	2	2.01
7	2.99	NITRATE	1526.243	15770	127538	2	0.00
8	4.71	PHOSPHATE	620.119	2187	24301	1	0.00
9	6.39	SULFATE	617.937	4260	63091	1	0.00
10	8.31	OXALATE	664.745	2561	50470	1	0.00
		Totals	5495.878	60638	451725		

File: 95012341.D01 Sample: S94T000281 + SPIKE



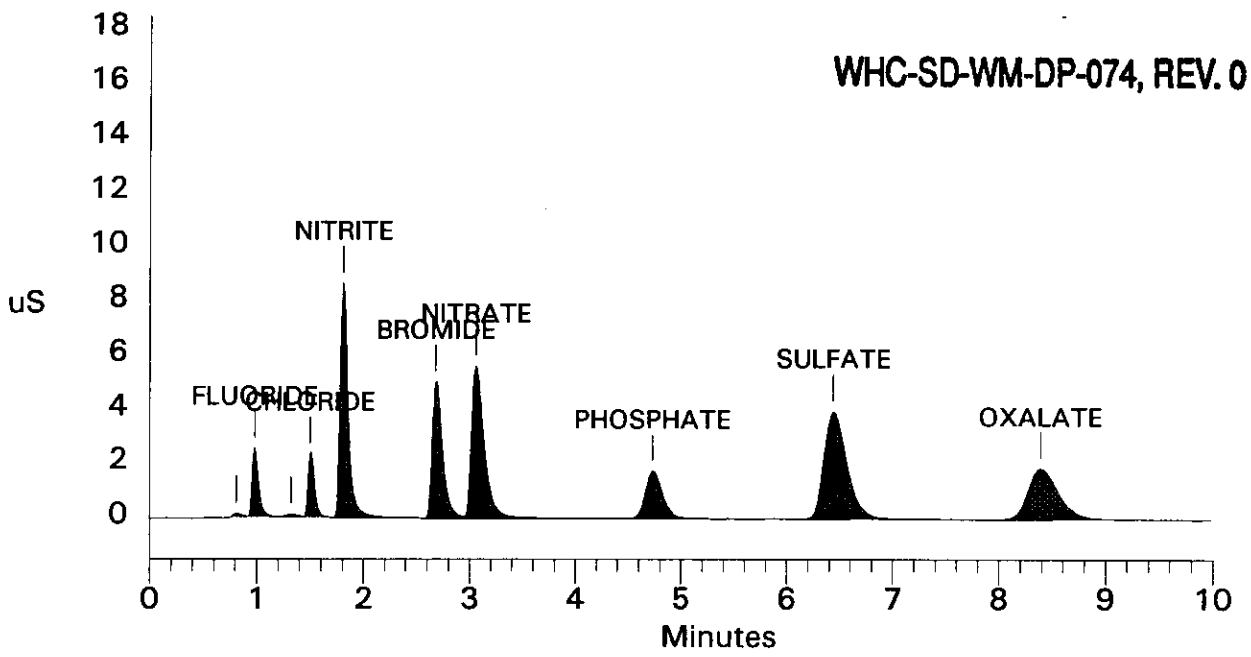
```
==============================================================================
| Sample Name: 70N9-A STD                      Date: 01/24/1995 09:45:37      |
| Data File  : C:\DX\DATA\95012411.D01                                        |
| Method     : C:\DX\METHOD\ANIONS.MET                                        |
  ACI Address: 1  System: 1  Inject#: 1                    Detector:CDM-1     |
| Analyst    : Ed Colvin      Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.81		0.000	106	515	2	
2	0.98	FLUORIDE	54.219	2532	10368	2	0.00
3	1.32		0.000	91	600	2	
4	1.50	CHLORIDE	72.282	2335	9415	2	0.00
5	1.81	NITRITE	509.245	8645	44274	1	0.00
6	2.68	BROMIDE	560.392	5034	33729	2	0.05
7	3.06	NITRATE	595.571	5632	46531	2	0.00
8	4.73	PHOSPHATE	503.448	1740	19569	1	0.00
9	6.44	SULFATE	581.702	3993	59210	1	0.00
10	8.39	OXALATE	482.481	1872	36538	1	0.00
		Totals	3359.339	31978	260749		

File: 95012411.D01 Sample: 70N9-A STD



S4103

LABCORE Data Entry Template for Worklist# 469

NR

Analyst: EHC **Instrument:** IC01 4500i IC **Method:** LA-533-105 C-2 JMF 1/25/95

Worklist Comment: S94T000267 and 279 for @IC-02. JMF **WHC-SD-WM-DP-074, REV. 0**

Seg	Type	Sample#	Rep	Al	Test		Matrix	Actual	Found	DL	Unit
1	BLNK-PREP				@IC-02	ACETATE2	SOLID	<1	<1	N/A	ug/g
1	BLNK-PREP				@IC-02	FORMATE2	SOLID	<1	<1	N/A	ug/g
2	STD	66N9-A			@IC-02	ACETATE2	SOLID	122	117	N/A	ug/g
2	STD				@IC-02	FORMATE2	SOLID	120	121	N/A	ug/g
3	SAMPLE	S94T000267	0	W	@IC-02	ACETATE2	SOLID	N/A	N/A	N/A	ug/g
3	SAMPLE	S94T000267	0	W	@IC-02	FORMATE2	SOLID	N/A	2.83E3	<95.8	ug/g
4	DUP	S94T000267	0	W	@IC-02	ACETATE2	SOLID	N/A	N/A	N/A	ug/g
4	DUP	S94T000267	0	W	@IC-02	FORMATE2	SOLID	2.83E3	3.00E3	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-02	ACETATE2	SOLID	N/A	N/A	N/A	ug/g
5	SPK	S94T000267	0	W	@IC-02	FORMATE2	SOLID	100	108.3%	N/A	ug/g
6	STD				@IC-02	ACETATE2	SOLID	N/A	N/A	N/A	ug/g
6	STD				@IC-02	FORMATE2	SOLID	120	~~107~~ 110 JMF 1/25/95	91.6% Rec N/A	ug/g
7	SAMPLE	S94T000279	0	W	@IC-02	ACETATE2	SOLID	N/A	N/A	N/A	ug/g
7	SAMPLE	S94T000279	0	W	@IC-02	FORMATE2	SOLID	N/A	2.70E3	<96.8	ug/g
8	DUP	S94T000279	0	W	@IC-02	ACETATE2	SOLID	N/A	N/A	N/A	ug/g
8	DUP	S94T000279	0	W	@IC-02	FORMATE2	SOLID	2.70E3	2.80E3	N/A	ug/g
9	SPK	S94T000279	0	W	@IC-02	ACETATE2	SOLID	N/A ~~100~~	N/A ~~141.77~~	JMF 1/25/95 N/A	ug/g
9	SPK	S94T000279	0	W	@IC-02	FORMATE2	SOLID	100	91.7% ~~141.7%~~ JMF 1/25/95	N/A	ug/g

Sample S94T000267 .5221g → 50ml 10.442g/L
Dup S94T000267 .5221g → 50ml 10.442g/L
Sample S94T000279 .5164g → 50ml 10.328g/L
Dup S94T000279 .5148g → 50ml 10.296g/L

Data Entry Comments: The acetate was not requested by A. Rice, the data for it needed to be re integrated and since it was not wanted I did not reintegrate it. JM Frye

Units shown for QC (SPK) may not reflect the actual units.

Data entered 1/25/95 J. M. Frye 740
A Reviewed

LABCORE Data Entry Template for Worklist# 469

Analyst: _____ **Instrument:** IC01 _____ **Method:** LA-533-105

Worklist Comment: S94T000267 and 279 for @IC-02. JMF WHC-SD-WM-DP-074, REV. 0

Seg	Type	Sample#	Rep	Al	Test	Matrix	Actual	Found	DL	Unit

Final page for worklist # 469

Jean Frye
Analyst Signature for Ed Colvin
E.W. Cohn

Date 1/26/95

Data Entry Comments:

Units shown for QC (SPK) may not reflect the actual units.

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

GMF 1/25/95

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1) Formate

		~~FLOURID~~	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL)	2.95E+01					
sample	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
Work List	Sample Dilution Facto	1.10E+01	1.10E+01				
wkl 469	Duplicate Conc. (µg/n	3.13E+01					
Test Code	Duplicate Prep DF (g/	10.442	10.442	10.442	10.442	10.442	10.442
@IC-02	Duplicate Dilution Fac	1.10E+01					
Matrix	Spike+Sample (µg/ml	4.25E+01					
solid							
Sample #	Volume of Spike (mL)	0.1					
S94T000267	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00					
dionex	Spike Std. (µg/mL)	120					

Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor
01/11/95	Spike Recovery = {((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
11:04:31	Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	2.83E+03	3.00E+03	5.9%	1.24E+03	108.3%	1.15E+03
Chloride (µg/g)	~~<210.680~~	<0.000	N/A	0.00E+00	ERR	ERR
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:	[signature]	Date:	25-Jan-95
Approved by:	[signature]	Date:	1/25/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

JMF 1/25/95

ANION ANALYSIS ON DIONEX MODEL 4000I - PREPARED SAMPLES

LA-533-105 (C-1) Formate

		~~FLOURID~~	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL	2.79E+01					
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto	1.10E+01	1.10E+01				
wkl 469	Duplicate Conc. (µg/m	2.88E+01					
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
@IC-02	Duplicate Dilution Fac	1.10E+01					
Matrix	Spike+Sample (µg/ml	4.49E+01					
solid							
Sample #	Volume of Spike (mL)	0.1					
S94T000279	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00					
dionex	Spike Std. (µg/mL)	120					

Analyst: Ed Colvin
Date: 01/11/95
Time: 11:04:31

Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Less than Values are Calculated from the Detection Limit*Dilution Factor
Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	2.70E+03	2.80E+03	3.5%	1.65E+03	141.7%	1.16E+03
Chloride (µg/g) JMF 1/25/95	~~<243.013~~	<0.000	N/A	0.00E+00	ERR	ERR
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by: Jaren Frye Date: 25-Jan-95
Approved by: Jaren Frye Date: 1/25/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL			1.00E+00			
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto	1.10E+01	1.10E+01	1.10E+01			
wkl 469	Duplicate Conc. (µg/n			1.00E+00			
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
IC-02	Duplicate Dilution Fac	1.10E+01		1.10E+01			
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
detection limit 279	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						
Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L						
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100						
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor						
01/11/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample						
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa						
11:04:31	Spike Actual = Spike Found/ Spike Recovery						

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	~~<106.507~~	~~<106.836~~	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	~~<213.843~~	<0.000	N/A	0.00E+00	ERR	ERR
Nitrite (µg/g)	<96.824	<97.125	N/A	-9.68E+01	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:		Date:	25-Jan-95
Approved by:		Date:	1/25/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL)			1.00E+00			
sample	Sample Prep DF (g/L)	10.442	10.442	10.442	10.442	10.442	10.442
Work Unit	Sample Dilution Facto	1.10E+01	1.10E+01	1.10E+01			
wkl 469	Duplicate Conc. (µg/m			1.00E+00			
Test Code	Duplicate Prep DF (g/	10.442	10.442	10.442	10.442	10.442	10.442
@IC-02	Duplicate Dilution Fac	1.10E+01		1.10E+01			
Matrix	Spike+Sample (µg/ml						
solid							
Sample #	Volume of Spike (mL)						
detection limit 267	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume						
dionex	Spike Std. (µg/mL)						

Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor
01/11/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
11:04:31	Spike Actual = Spike Found / Spike Recovery

1/25/95

v RESULTS v

	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	~~<105.344~~	~~<105.344~~	N/A	0.00E+00	ERR	ERR
Chloride (µg/g)	~~<210.688~~	<0.000	N/A	0.00E+00	ERR	ERR
Nitrite (µg/g)	<95.767	<95.767	N/A	-9.58E+01	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:		Date:	25-Jan-95
Approved by:		Date:	1/25/95

Form L1 Rev. 2.0

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-074, REV. 0

ANION ANALYSIS ON DIONEX MODEL 4000i - PREPARED SAMPLES

LA-533-105 (C-1)

		FLOURID	CHLORID	NITRITE	NITRATE	PHOSPHATE	SULFATE
Type	Sample Conc. (µg/mL)	2.79E+01					
sample	Sample Prep DF (g/L)	10.328	10.328	10.328	10.328	10.328	10.328
Work List	Sample Dilution Facto	1.10E+01					
wkl469	Duplicate Conc. (µg/m	2.88E+01					
Test Code	Duplicate Prep DF (g/	10.296	10.296	10.296	10.296	10.296	10.296
@IC-02	Duplicate Dilution Fac	1.10E+01					
Matrix	Spike+Sample (µg/ml)	3.89E+01					
solid							
Sample #	Volume of Spike (mL)	0.1					
S94T000279	Spike Book Number	66n9a	66n9a	66n9a	66n9a	66n9a	66n9a
Instrument Code	Total Volume	11.00					
dionex	Spike Std. (µg/mL)	120					

Analyst	Results in µg/g sample = Analyte/(g sample/L) * 1000 mL/L
Ed Colvin	Relative Percent Difference = ((Sample-Duplicate)/((Sample + Duplicate)/2)) * 100
Date	Less than Values are Calculated from the Detection Limit*Dilution Factor
11/16/95	Spike Recovery = [((Spike+Sample)-(Sample)*(Vol.of Sample&Diluent))/((Spike Vol.)*(Spike Std.)*(Sample
Time	Note: (For Spike Recovery When The Sample Conc. is Less Than Detection Limit You Do NOT Subtract Sa
	Spike Actual = Spike Found / Spike Recovery

v RESULTS v	SAMPLE	DUPLICA	DUP RPD	SPIKE	SPIKE RECV'	SPIKE AC
Flouride (µg/g)	2.70E+03	2.80E+03	3.5%	1.07E+03	91.7%	1.16E+03
Chloride (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrite (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Nitrate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Phosphate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR
Sulfate (µg/g)	<0.000	<0.000	N/A	0.00E+00	ERR	ERR

Data Entry by:	Jason Hyde	Date:	25-Jan-95
Approved by:	Jason Hyde	Date:	1/25/95

Form L1 Rev. 2.0

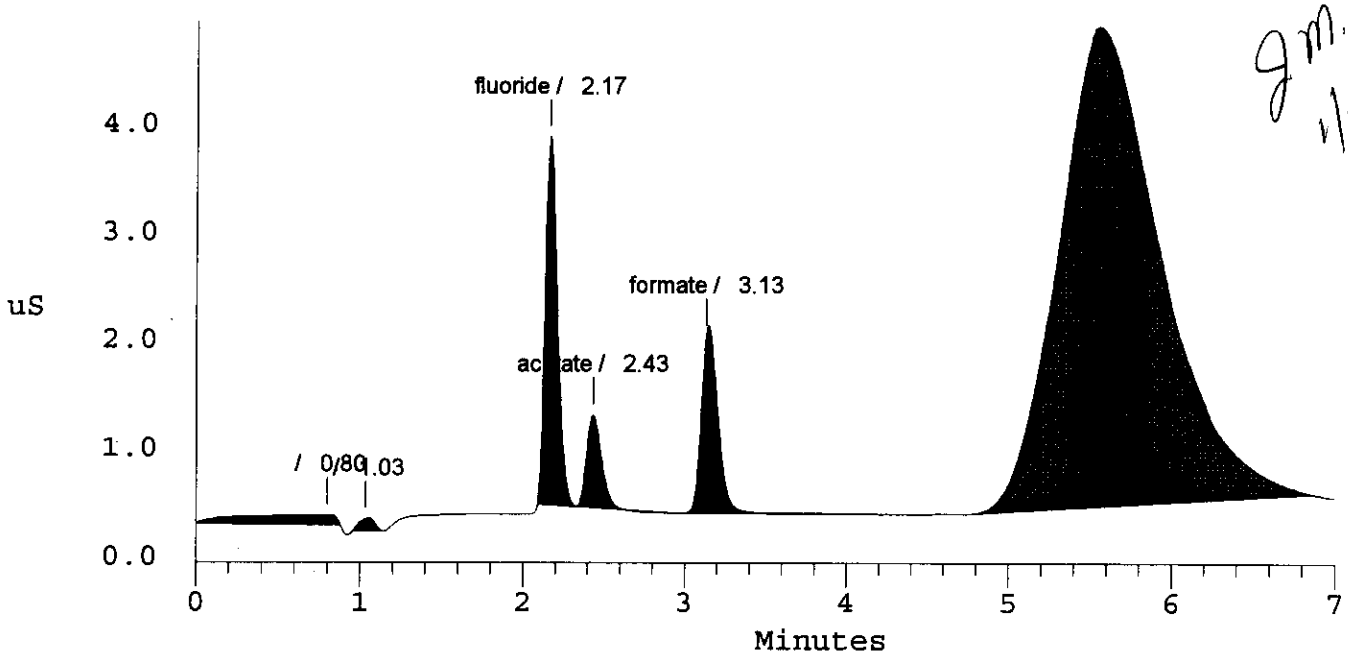
```
==============================================================================
| Sample Name: 66N9-A STD                      Date: 01/11/1995 09:33:05      |
| Data File  : C:\DX\DATA\95013001.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
  ACI Address: 1  System: 2  Inject#: 1                   Detector:CDM-2      |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	2100	5Hz	0.00	7.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.80		0.000	88436	3637300	1	
2	1.03		0.000	111222	775100	1	
3	2.17	fluoride	63.742	3398868	17507006	2	0.31
4	2.43	acetate	116.653	857190	5407541	2	-0.68
5	3.13	formate	121.357	1637438	12307660	1	-0.53
6	5.53		0.000	4409245	193155260	1	
		Totals	301.751	10502399	232789866		

File: 95013001.D01 Sample: 66N9-A STD



J.M. Fry
1/25/95

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 747 TO 757.

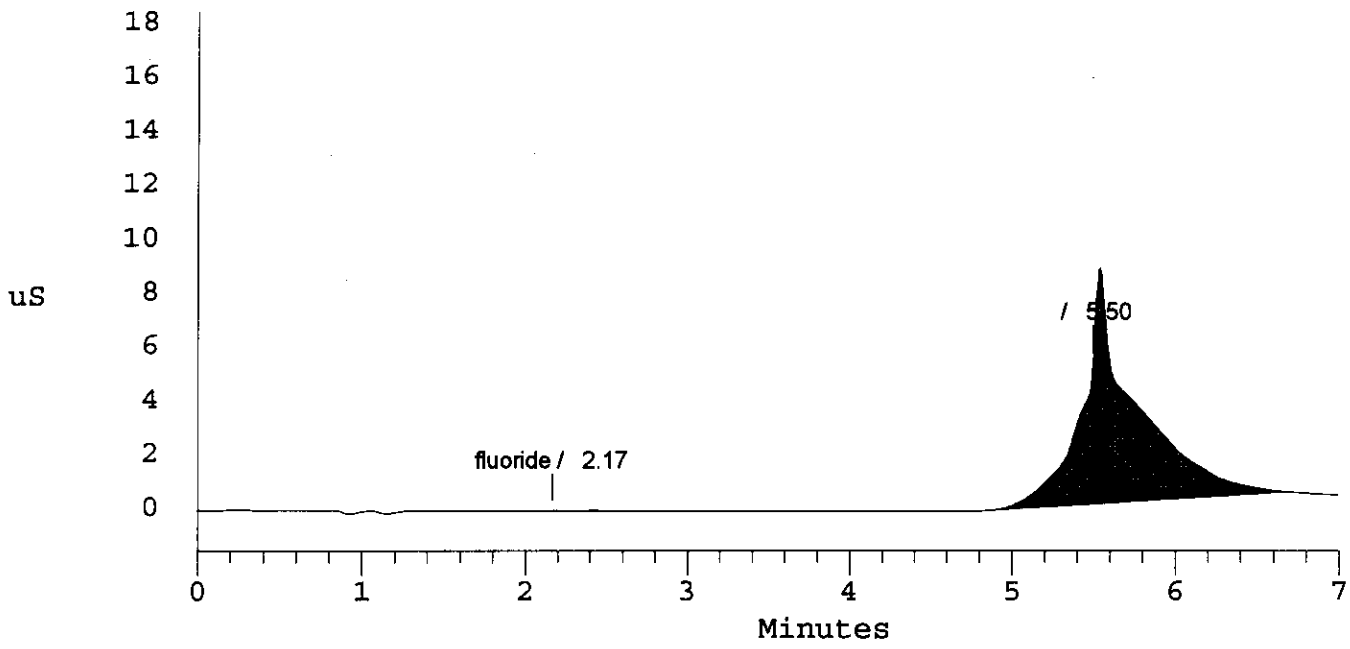
```
==============================================================================
| Sample Name: BLANK                          Date: 01/11/1995 08:32:33       |
| Data File  : C:\DX\DATA\95012991.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 1                   Detector:CDM-2      |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	2100	5Hz	0.00	7.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	2.17	fluoride	0.131	15048	779340	1	0.31
2	5.50		0.000	5210777	197337397	1	
		Totals	0.131	5225825	198116737		

File: 95012991.D01 Sample: BLANK **WHC-SD-WM-DP-074, REV. 0**



Sample Name: S94T000267 Date: 01/11/1995 11:04:31
Data File : C:\DX\DATA\95013001.D03
Method : C:\DX\METHOD\AUTOACE.MET
ACI Address: 1 System: 2 Inject#: 3 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

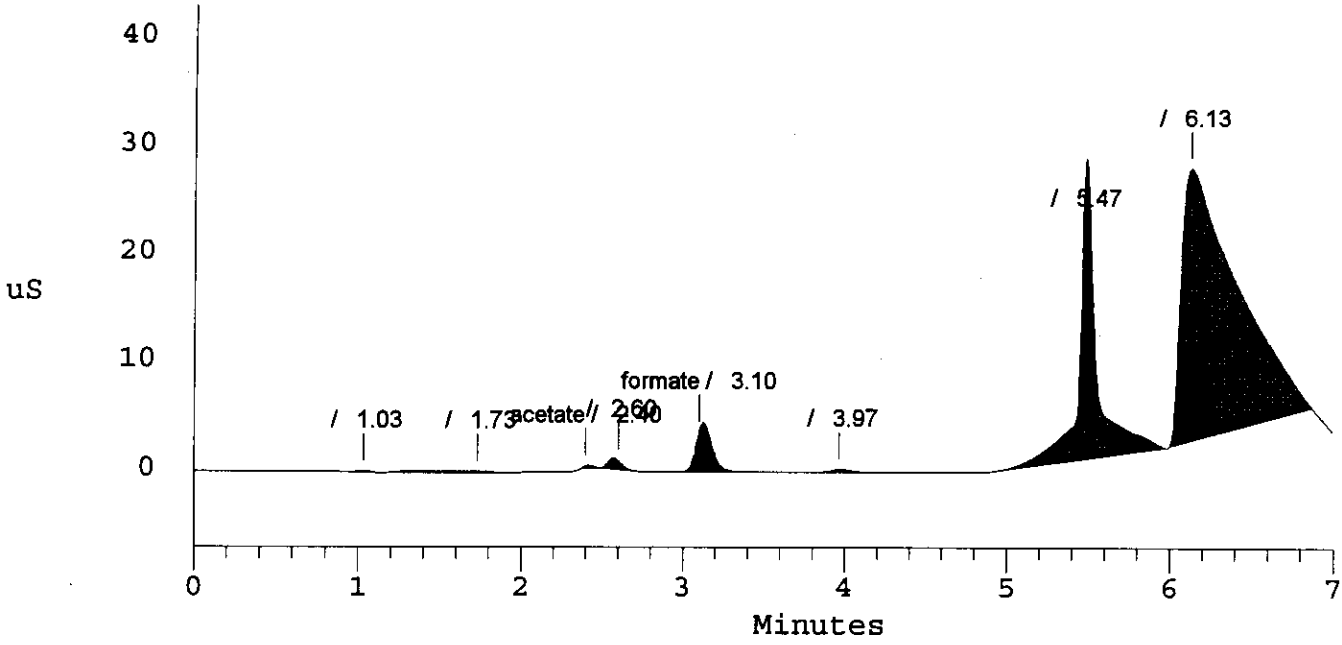
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	2100	5Hz	0.00	7.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	53520	337460	1	
2	1.73		0.000	101807	3365190	1	
3	2.40	acetate	2.129	187259	783160	1	-2.04
4	2.60		0.000	828414	5566685	1	
5	3.10	formate	29.543	3608288	30823710	2	-1.59
6	3.97		0.000	251843	2213548	2	
7	5.47		0.000	19380267	206336780	1	
8	6.13		0.000	25069154	593337200	1	
		Totals	31.671	49480552	842763733		

File: 95013001.D03 Sample: S94T000267

WHC-SD-WM-DP-074, REV. 0



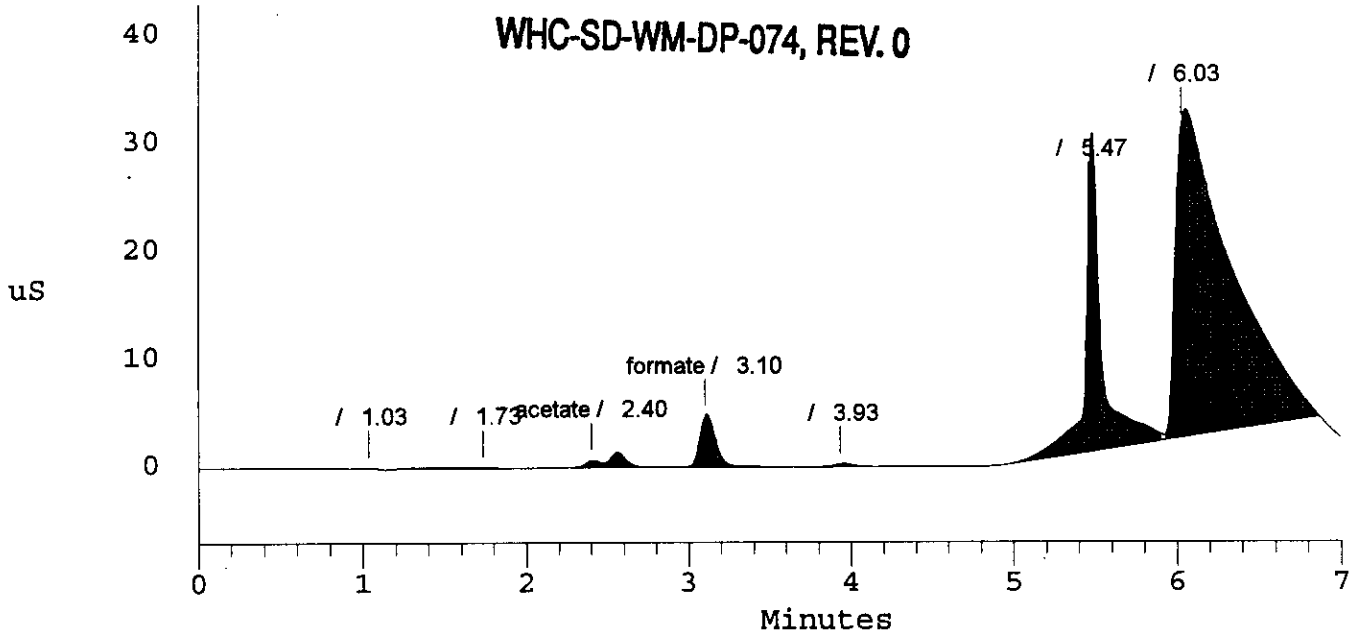
```
==============================================================================
| Sample Name: S94T000267  DULICATE          Date: 01/11/1995 12:11:51        |
| Data File  : C:\DX\DATA\95013001.D06                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 6                   Detector:CDM-2      |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	2100	5Hz	0.00	7.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	49849	298024	1	
2	1.73		0.000	89717	2909404	1	
3	2.40	acetate	31.093	630377	13447942	2	-2.04
4	3.10	formate	31.344	4693466	32866801	2	-1.59
5	3.93		0.000	250763	2436443	2	
6	5.47		0.000	23347512	208058946	2	
7	6.03		0.000	28938305	716028995	2	
		Totals	62.437	57999988	976046556		

File: 95013001.D06 Sample: S94T000267 DULICATE



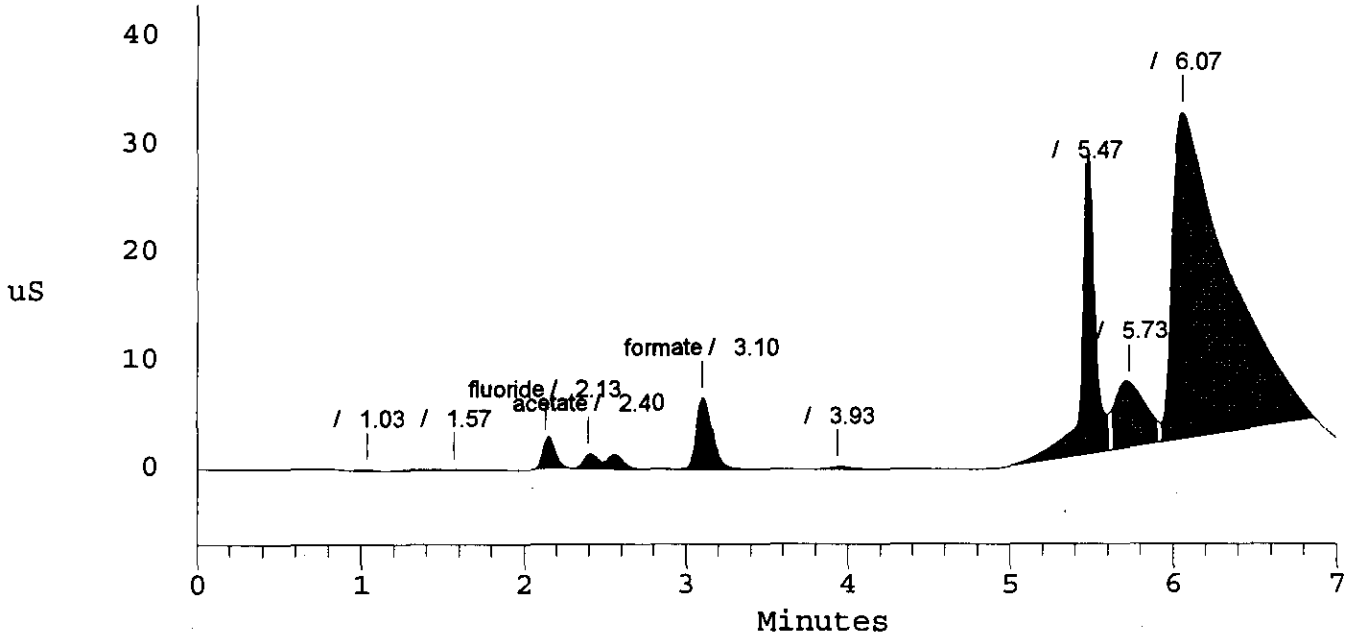
```
==============================================================================
| Sample Name: S94T000267  + SPIKE            Date: 01/11/1995 12:37:40      |
| Data File  : C:\DX\DATA\95013001.D07                                       |
| Method     : C:\DX\METHOD\AUTOACE.MET                                      |
  ACI Address: 1  System: 2  Inject#: 7                    Detector:CDM-2    |
  Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	2100	5Hz	0.00	7.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	58198	355968	1	
2	1.57		0.000	107004	3657992	1	
3	2.13	fluoride	5.982	2625907	14589688	1	-1.23
4	2.40	acetate	41.110	1373215	17827648	1	-2.04
5	3.10	formate	42.547	6582615	45572944	2	-1.59
6	3.93		0.000	241145	2148882	2	
7	5.47		0.000	23439003	160547942	2	
8	5.73		0.000	6064479	75022073	2	
9	6.07		0.000	30157573	715591532	2	
		Totals	89.639	70649139	1035314668		

File: 95013001.D07 Sample: S94T000267 + SPIKE **WHC-SD-WM-DP-074, REV. 0**



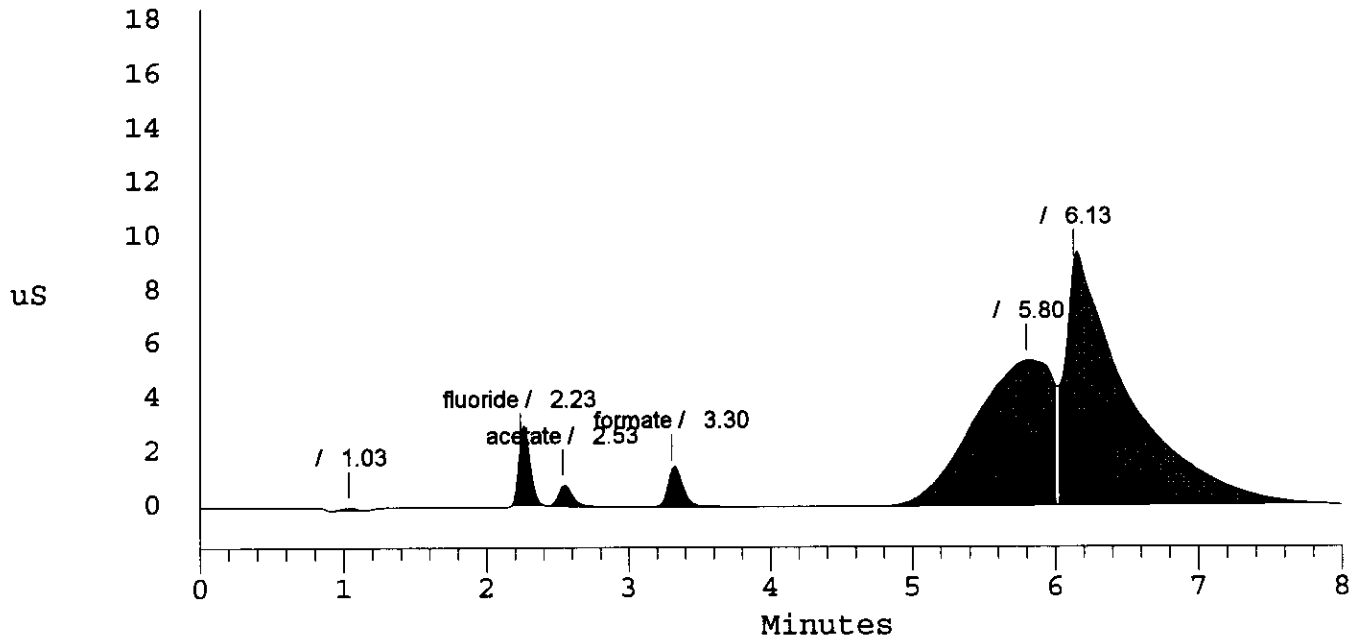
```
==============================================================================
| Sample Name: 66N9-A STD                      Date: 01/16/1995 10:54:45      |
| Data File  : C:\DX\DATA\95011621.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 1                   Detector:CDM-2      |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	2400	5Hz	0.00	8.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	85304	623094	1	
2	2.23	fluoride	58.285	2029897	15700668	1	3.40
3	2.53	acetate	114.690	739167	5314068	1	3.40
4	3.30	formate	109.926	1320618	10895708	1	4.76
5	5.80		0.000	5345932	198168213	2	
6	6.13		0.000	8828619	282804493	2	
		Totals	282.901	18349538	513506244		

File: 95011621.D01 Sample: 66N9-A STD **WHC-SD-WM-DP-074, REV. 0**



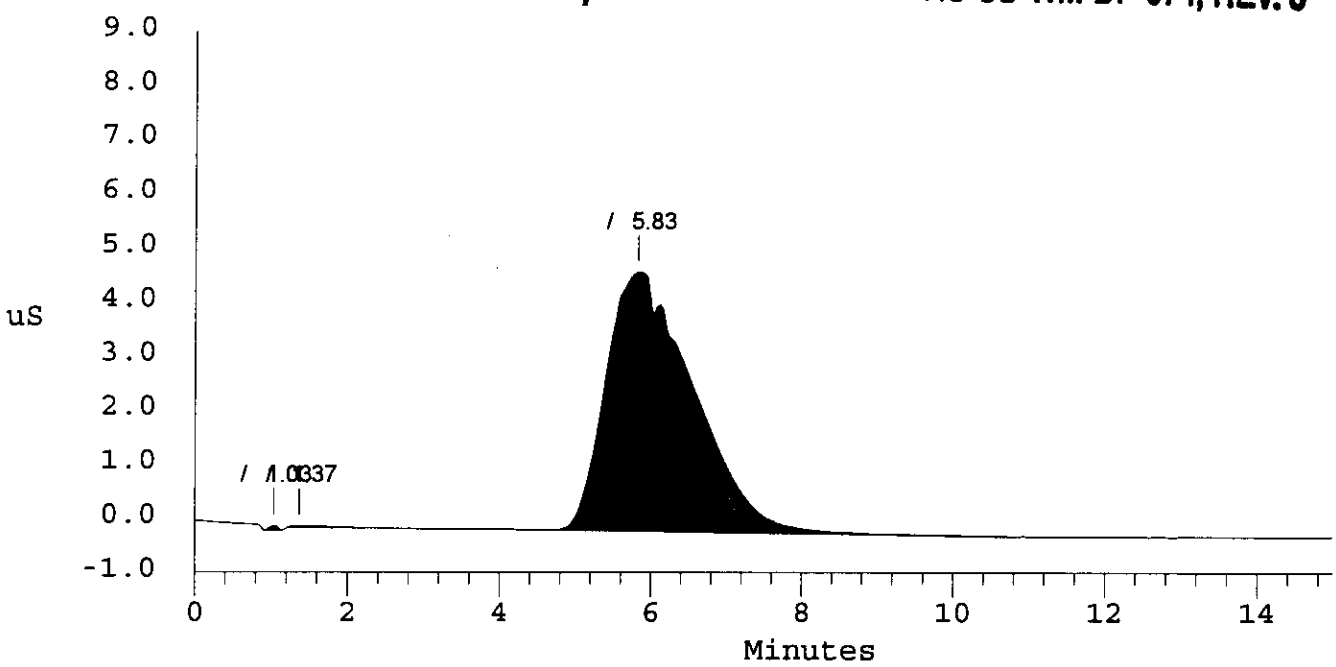
```
==============================================================================
| Sample Name: BLANK                          Date: 01/16/1995 09:00:01       |
| Data File  : C:\DX\DATA\95011601.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
| ACI Address: 1  System: 2  Inject#: 1                   Detector:CDM-2      |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                    |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	83018	636160	1	
2	1.37		0.000	37516	1488720	1	
3	5.83		0.000	4783894	385700506	1	
		Totals	0.000	4904428	387825386		

File: 95011601.D01 Sample: BLANK **WHC-SD-WM-DP-074, REV. 0**



Sample Name: S94T000279	Date: 01/16/1995 09:44:42
Data File : C:\DX\DATA\95011611.D01	
Method : C:\DX\METHOD\AUTOACE.MET	
ACI Address: 1 System: 2 Inject#: 1	Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS	

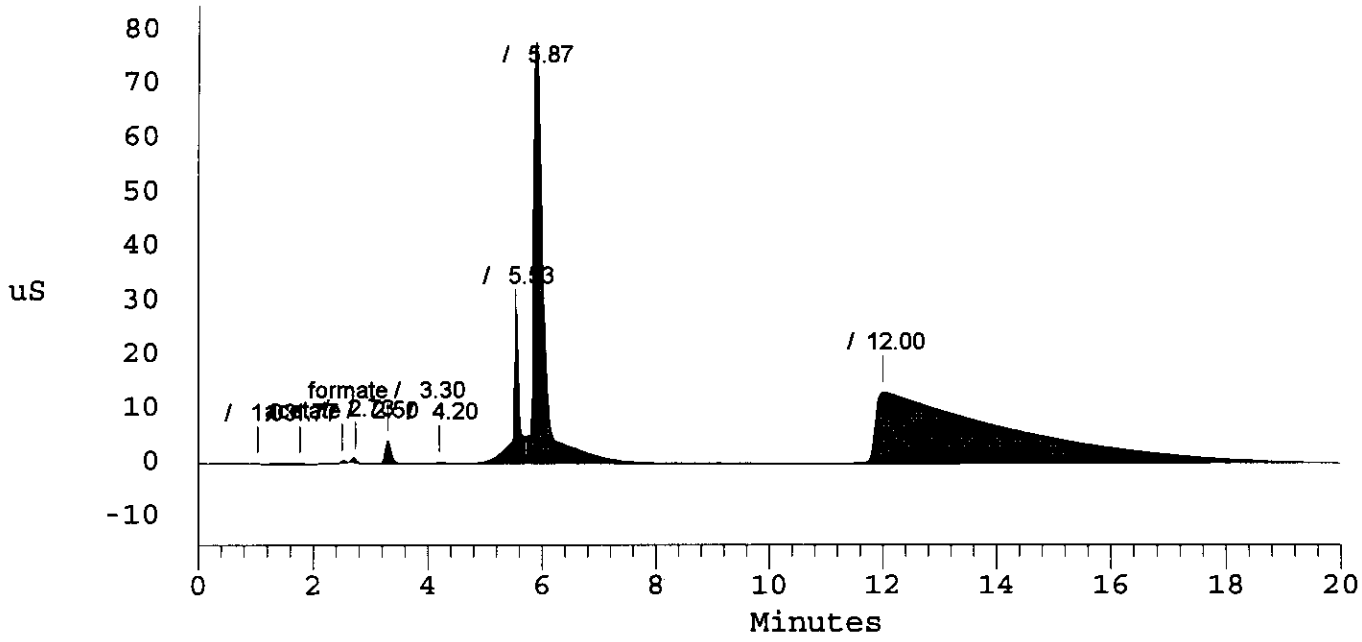
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	6000	5Hz	0.00	20.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.03		0.000	23717	155320	1	
2	1.77		0.000	67986	2504660	1	
3	2.50	acetate	3.758	221642	1495740	1	2.04
4	2.73		0.000	668902	4857139	1	
5	3.30	formate	27.871	4218637	28927672	1	4.76
6	4.20		0.000	194740	2444539	2	
7	5.53		0.000	25383491	207685663	2	
8	5.87		0.000	66309003	985265178	2	
9	12.00		0.000	13252153	2121389874	1	
		Totals	31.629	110340270	3354725785		

File: 95011611.D01 Sample: S94T000279

WHC-SD-WM-DP-074, REV. 0



```
==============================================================================
| Sample Name: S94T000279                      Date: 01/16/1995 11:34:47      |
| Data File  : C:\DX\DATA\95011631.D01                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
  ACI Address: 1  System: 2  Inject#: 1                    Detector:CDM-2     |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

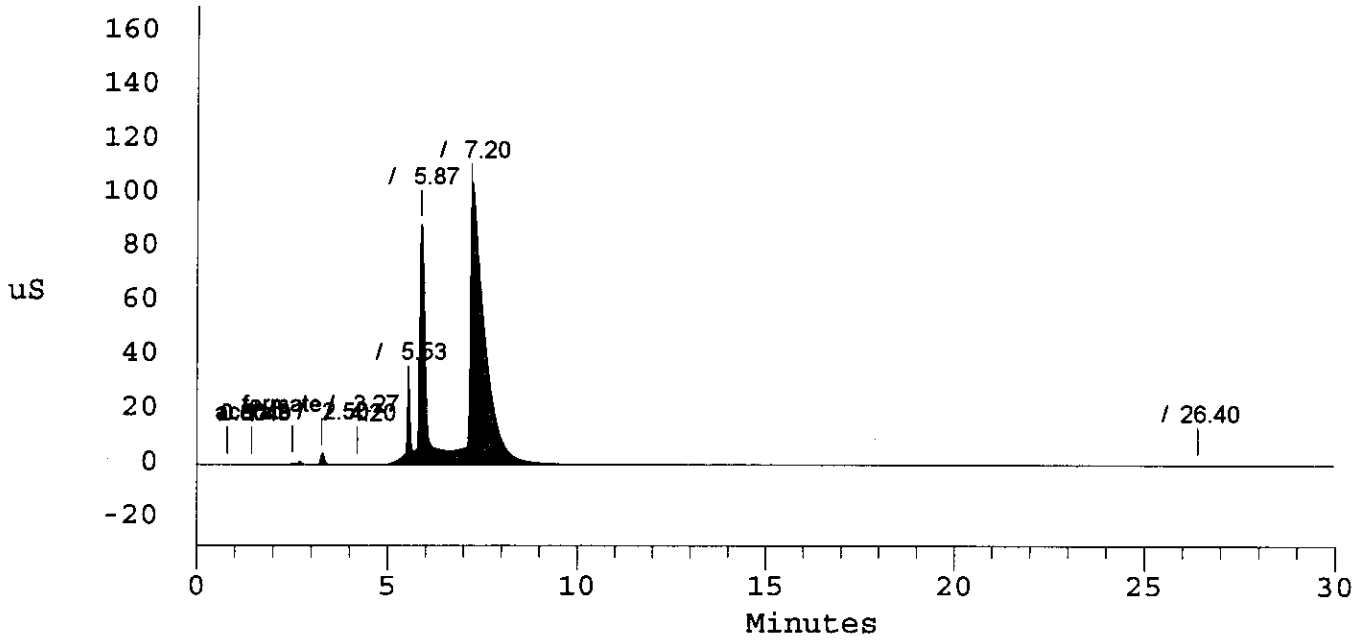
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	9000	5Hz	0.00	30.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.80		0.000	17288	445062	1	
2	1.43		0.000	75523	2787860	1	
3	2.50	acetate	29.117	508152	12583642	1	2.04
4	3.27	formate	28.844	3447614	30030842	1	3.70
5	4.20		0.000	202900	1794104	1	
6	5.53		0.000	22776342	188393908	2	
7	5.87		0.000	87837629	1035045341	2	
8	7.20		0.000	97762778	2851779111	2	
9	26.40		0.000	32596	2350831	1	
		Totals	57.960	212660822	4125210701		

File: 95011631.D01 Sample: S94T000279

WHC-SD-WM-DP-074, REV. 0



Sample Name: S94T000279 + SPIKE	Date: 01/16/1995 12:00:11
Data File : C:\DX\DATA\95011641.D01	
Method : C:\DX\METHOD\AUTOACE.MET	
ACI Address: 1 System: 2 Inject#: 1	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

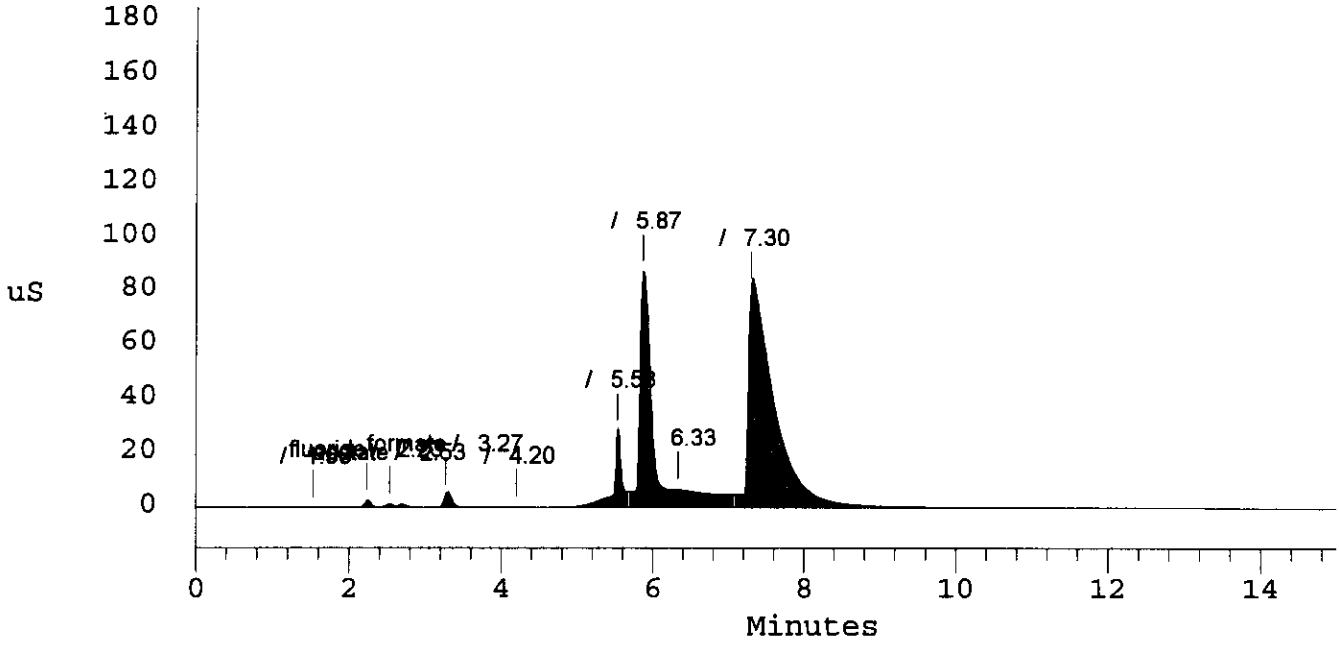
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.53		0.000	110524	4366624	2	
2	2.23	fluoride	6.680	2655595	16709833	2	3.40
3	2.53	acetate	51.969	1466192	22576015	2	3.40
4	3.27	formate	44.944	4840541	48292153	3	3.70
5	4.20		0.000	290171	5367707	4	
6	5.53		0.000	28385166	220669822	2	
7	5.87		0.000	87408052	918797341	3	
8	6.33		0.000	5433965	262735301	4	
9	7.30		0.000	81320461	2028412098	2	
		Totals	103.594	211910668	3527926893		

File: 95011641.D01 Sample: S94T000279 + SPIKE

WHC-SD-WM-DP-074, REV. 0



```
==============================================================================
| Sample Name: S94T000279 + SPIKE              Date: 01/16/1995 12:18:02      |
| Data File  : C:\DX\DATA\95011641.D02                                        |
| Method     : C:\DX\METHOD\AUTOACE.MET                                       |
  ACI Address: 1  System: 2  Inject#: 2                    Detector:CDM-2     |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                  |
==============================================================================
```

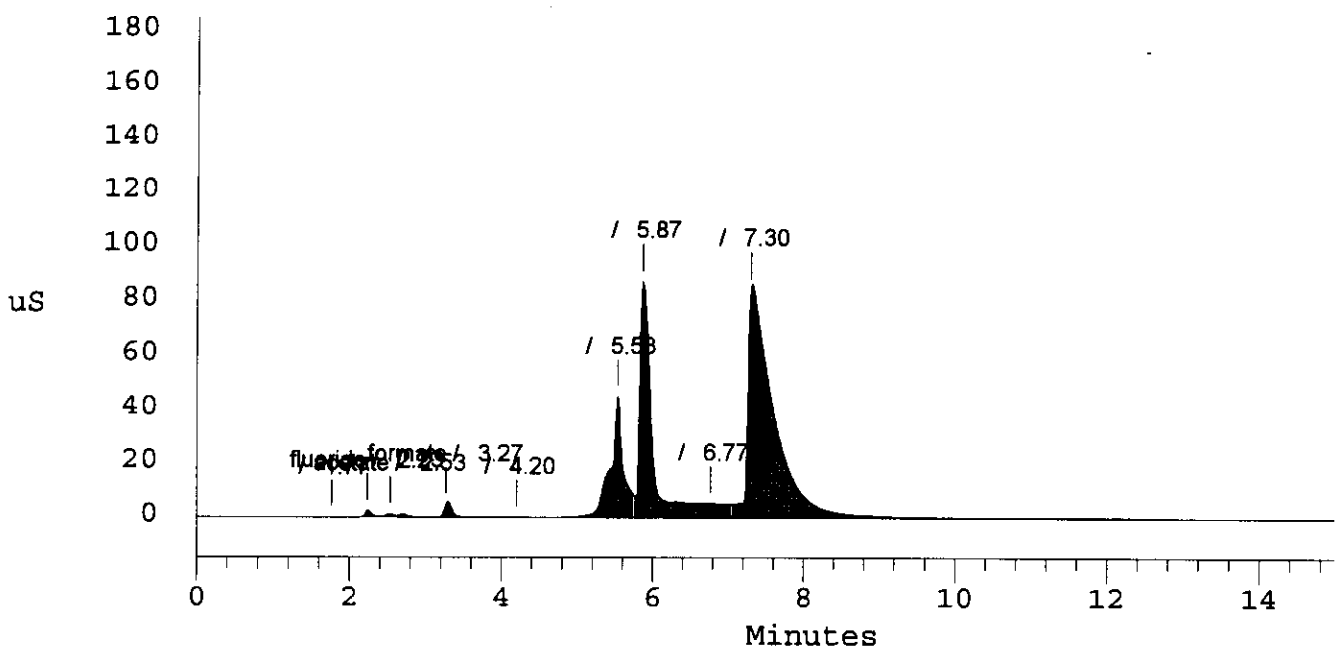
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.77		0.000	53729	1988150	1	
2	2.23	fluoride	5.875	2433502	14264683	2	3.40
3	2.53	acetate	38.989	1291123	16900397	2	3.40
4	3.27	formate	38.870	4917744	41403242	1	3.70
5	4.20		0.000	202585	1829286	1	
6	5.53		0.000	44907974	521366295	2	
7	5.87		0.000	87287044	1012803184	3	
8	6.77		0.000	4015350	96416622	4	
9	7.30		0.000	84583044	2070301525	2	
		Totals	83.735	229692094	3777273385		

File: 95011641.D02 Sample: S94T000279 + SPIKE

WHC-SD-WM-DP-074, REV. 0



LABCORE Data Entry Template for Worklist# 780

Analyst: EP **Instrument:** IC01 **Book #** 78N19-A

Method: LA-533-105 Rev/Mod C-2 WHC-SD-WM-DP-074, REV. 0

Worklist Comment: Expect high Br JMF All they want is Br. JMF 3/22/95

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-------TEST------		MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			@IC-01	F-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP			@IC-01	CL-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP			@IC-01	NO2-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP			@IC-01	BR-02	SOLID	<1	<1	N/A	ug/g
		1 BLNK-PREP			@IC-01	NO3-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP			@IC-01	PO4-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP			@IC-01	SO4-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP			@IC-01	OXALATE2	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	F-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	CL-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	NO2-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	BR-02	SOLID	572	574	N/A	ug/g
		2 STD			@IC-01	NO3-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	PO4-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	SO4-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD			@IC-01	OXALATE2	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	3 SAMPLE	S95T000157	0 W	@IC-01	BR-02	SOLID	JMF N/A	2.44E4 ~~6.79E2~~	1.93E4	ug/g
94000001	SY-103	4 DUP	S95T000157	0 W	@IC-01	F-02	SOLID	N/A	N/A	N/A	ug/g

Data Entry Comments:

Sample S95T000157 5.232 g/L ; dup 5.245 g/L
Verified James Fuge 5/30/95.
Analyzed for Br ONLY - HHF

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# 780

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------		MATRIX	ACTUAL	FOUND	DL	UNIT
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	CL-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	NO2-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	BR-02	SOLID	2.44E4	2.40E4	N/A	ug/g
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	NO3-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	PO4-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	SO4-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	4 DUP	S95T000157	0	W	@IC-01	OXALATE2	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	CL-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	F-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	NO2-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	BR-02	SOLID	100	97.8	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	NO3-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	PO4-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	SO4-02	SOLID	N/A	N/A	N/A	ug/g
94000001	SY-103	5 SPK	S95T000157	0	W	@IC-01	OXALATE2	SOLID	N/A	N/A	N/A	ug/g

Final page for worklist # 780

P.H. Cole 3-23-95
Analyst Signature **Date**

Analyst Signature **Date**

LMCS 78N9-A .100mL - 10mL
SPIKE 78N9-A .100 mL
3-28-95

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.

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET

ANION ANALYSIS ON DIONEX

SAMPLE #:			
TEST CODE:	@ic-01	ANALYST:	Ed Colvin
INSTRUMENT:	dionex	ANALYSIS DATE:	03/23/95
WORK LIST #:	780	SAMPLE POINT:	SY-103
BATCH ID:		SAMPLE PREP:	H2O digest

BC gmf 3/28/95

	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	~~Sulfate~~	Bromide	Oxalate
	ERR	ERR	ERR	ERR	ERR	ERR	100.3%	ERR
S95T000157	<0.00	<0.00	<0.00	<0.00	<0.00	<19282.17	2.44E+04	<0.00
S95T000157 Dup	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	2.40E+04	<0.00
Duplicate 1 RPD	N/A	N/A	N/A	N/A	N/A	N/A	1.7%	N/A
	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
S95T000157 spike	ERR	ERR	ERR	ERR	ERR	ERR	97.0%	ERR
	ERR	ERR	ERR	ERR	ERR	ERR	~~22.0%~~	ERR

gmf 3/28/95

NARRATIVE: **Analyst Comments:**

Chemist Comments:

Verified 3/30/95. GMF
Problems with ACE forms has been reported to programmer. GMF 3/30/95

Form Completed By:	Jann Fuge	Date:	3/28/95
Chemist Approval:	Jann Fuge	Date:	3/28/95

760

JMF 3/28/95

LAB LEADER INFO	
Method:	LA-533106
Matrix:	solid
Test Code:	ic-01
Work List #:	790
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	79N8A
Spike Sample #:	1
Prepared By:	Jann Frye
Prepared Date:	03/28/95
Chemist:	Jann Frye
Analyst:	Ed Colvin
Analysis Date:	03/23/95
Time Complete:	
Instrument Code:	dionex
Rerun:	
Sample Prep:	H2O digest
Sample Point:	SY-103
Sample Type	
STANDARD	
SAMPLE 1	595T000157
DUPLICATE 1	595T000157
SAMPLE 2	
DUPLICATE 2	
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	
SPIKE DUPLICATE	

[redacted]

TECH INFO	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)						<1	<1	
Standard Data (µg/mL)						574	574	
Sample 1 Data (µg/mL)						1.00E+00	1.26E+02	
Sample 1 Dilution Factor						101	101	
Sample 1 Prep DF	5.238	5.238	5.238	5.238	5.238	5.238	5.238	5.238
Duplicate 1 Data (µg/mL)							1.26E+02	
Duplicate 1 Dilution Factor							101	
Duplicate 1 Prep DF	5.245	5.245	5.245	5.245	5.245	5.245	5.245	5.245
Sample 2 Data (µg/mL)								
Sample 2 Dilution Factor								
Sample 2 Prep DF								
Duplicate 2 Data (µg/mL)								
Duplicate 2 Dilution Factor								
Duplicate 2 Prep DF								
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)							8.83E+02	
Spike + Dup 1 (µg/mL)								
Spike Volume (mL)							1.00E-01	
Total Volume (mL)							10.10	
Std. Conc. (µg/mL)							672	
Detection Limit	0.100	0.200	1.000	1.000	1.000	1.000	1.000	1.000

Spike Recovery = [((Spike+Sample)-(Sample)*(Total Volume))/((Spike Vol.)*(Spike Std.)*(Sample DF))]*100%
Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
Duplicate Relative % Difference = ((Sample - Duplicate) / ((Sample + Duplicate) / 2) * 100%)
Less than Values are Calculated from the Detection Limit*Dilution Factor

3/28/95 BC JMF

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
ERR	ERR	ERR	ERR	ERR	ERR	ERR	100.3%	ERR
595T000157 Sample 1 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<19282.17	2.44E+04	<0.00
Duplicate 1 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	2.40E+04	<0.00
Duplicate 1 RPD	N/A	N/A	N/A	N/A	N/A	N/A	1.7%	N/A
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
SPIKE ERR	ERR	ERR	ERR	ERR	ERR	ERR	97.0%	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	98.0%	ERR

JMF 3/28/95

Data Entry by:	Jann Frye	Date: 03/28/95
Approved by:	Jann Frye	Date: 3/28/95

Sample Name: 78N9-A STD Date: 03/23/1995 07:05:18
Data File : C:\DX\DATA\95032311.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : PH Cahn Column: 3/23/95

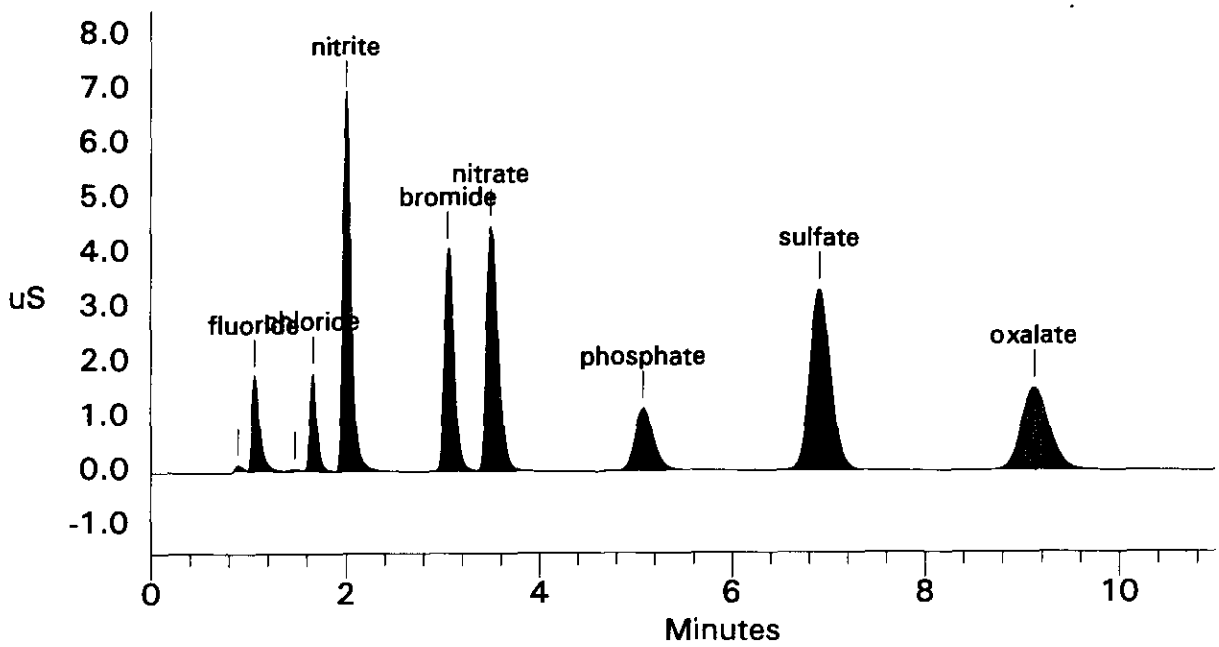
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	89	426	2	
2	1.06	fluoride	57.732	1708	9112	2	0.00
3	1.47		0.000	38	225	1	
4	1.66	chloride	78.763	1789	8502	1	0.00
5	2.00	nitrite	524.050	6846	39674	1	0.00
6	3.06	bromide	573.650	4097	27915	1	0.00
7	3.50	nitrate	592.168	4505	37258	1	0.00
8	5.08	phosphate	547.173	1146	15345	1	0.00
9	6.91	sulfate	615.426	3331	50023	1	0.00
10	9.13	oxalate	516.212	1525	30433	1	0.00
		Totals	3505.174	25073	218913		

File: 95032311.D07 Sample: 78N9-A STD

WHC-SD-WM-DP-074, REV. 0



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 762 TO 767.

```
==============================================================================
| Sample Name: BLANK                          Date: 03/23/1995 06:53:20       |
| Data File  : C:\DX\DATA\95032311.D06                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 6                  Detector:CDM-1       |
| Analyst    :                Column:                                         |
==============================================================================
```

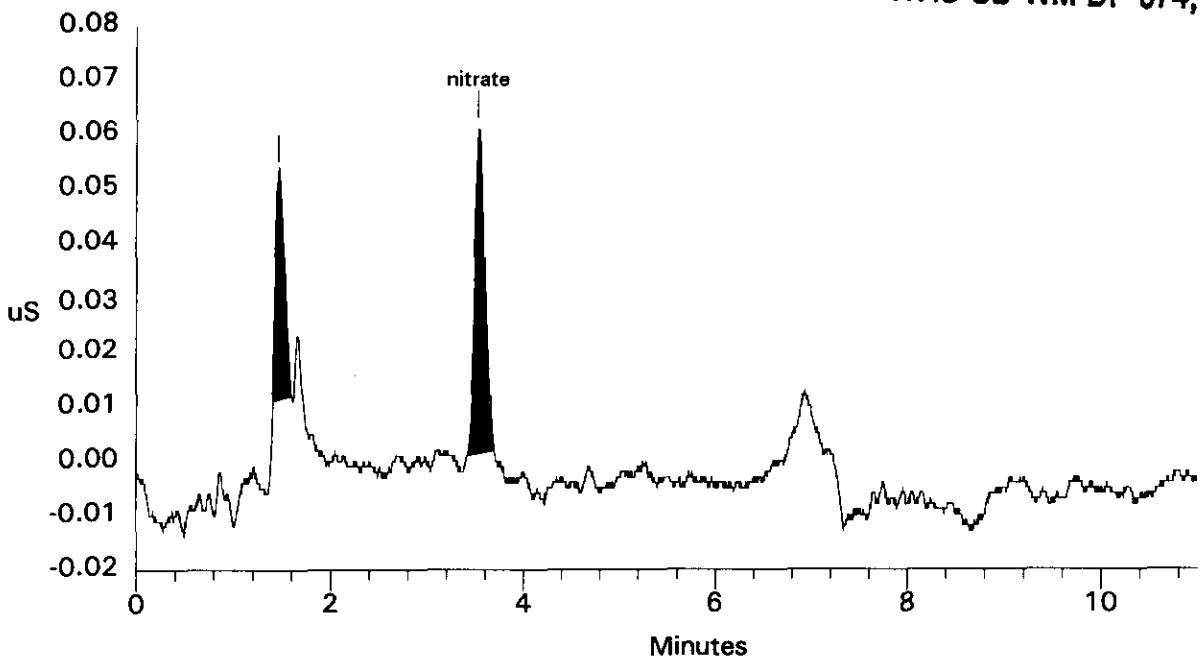
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.46		0.000	42	273	1	
2	3.54	nitrate	0.398	60	442	1	0.00
		Totals	0.398	101	714		

File: 95032311.D06 Sample: BLANK

WHC-SD-WM-DP-074, REV. 0



```
==============================================================================
| Sample Name: PREP BLANK                    Date: 03/23/1995 09:10:06        |
| Data File  : C:\DX\DATA\95032311.D08                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 8                  Detector:CDM-1       |
| Analyst    :                Column:                                         |
==============================================================================
```

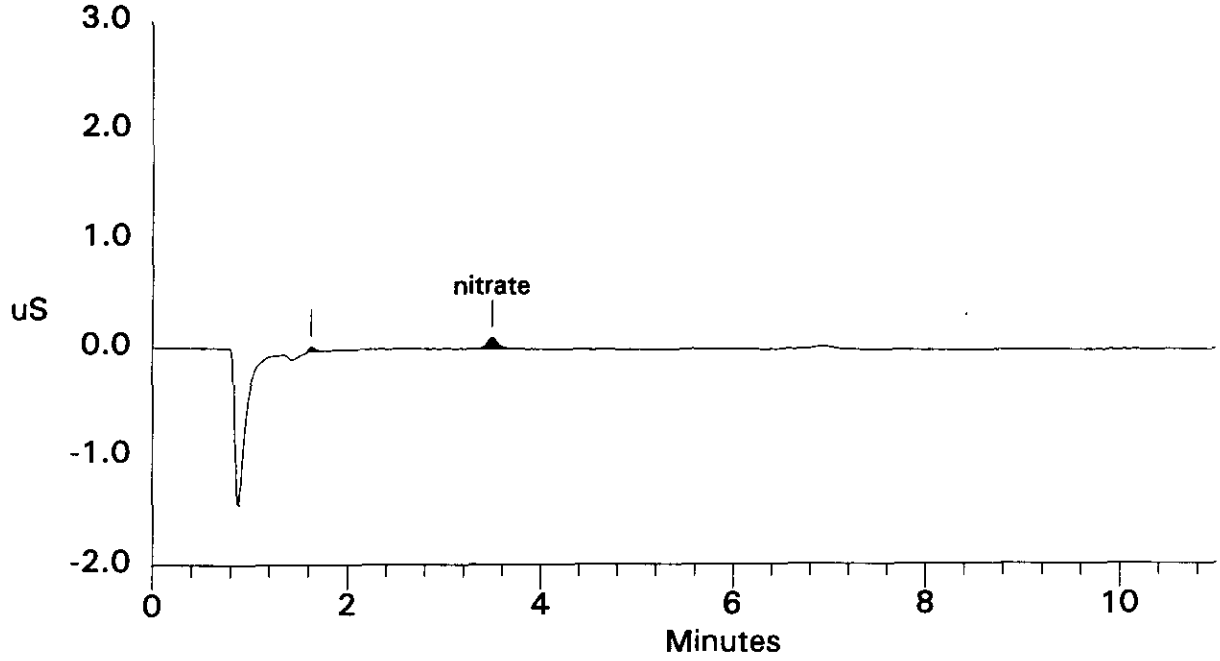
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	3.50	nitrate	0.442	99	735	1	0.00
		Totals	0.442	99	735		

File: 95032311.D08 Sample: PREP BLANK

WHC-SD-WM-DP-074, REV. 0



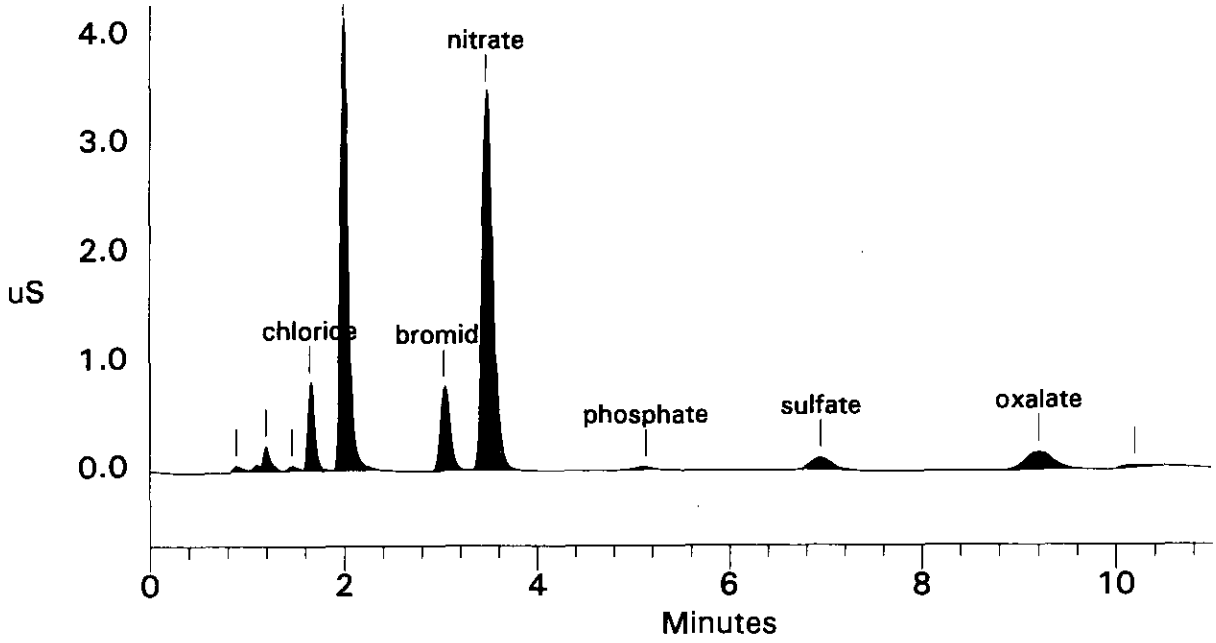
```
==============================================================================
| Sample Name: S95T000157                    Date: 03/23/1995 09:36:58        |
| Data File  : C:\DX\DATA\95032311.D10                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 10                  Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	41	217	2	
2	1.19		0.000	221	1373	2	
3	1.46		0.000	39	229	1	
4	1.65	chloride	34.581	801	3737	1	0.00
5	1.99	nitrite	314.771	4089	22638	1	0.00
6	3.04	bromide	128.195	776	5281	1	0.00
7	3.47	nitrate	443.558	3477	27261	1	0.00
8	5.13	phosphate	17.807	23	262	1	0.00
9	6.95	sulfate	28.928	111	1702	1	0.00
10	9.21	oxalate	64.976	165	3224	1	0.00
11	10.20		0.000	27	429	1	
		Totals	1032.815	9770	66352		

File: 95032311.D10 Sample: S95T000157 **WHC-SD-WM-DP-074, REV. 0**



```
==============================================================================
| Sample Name: S95T000157  DUP                Date: 03/23/1995 09:52:53      |
| Data File  : C:\DX\DATA\95032311.D11                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 11                  Detector:CDM-1     |
| Analyst    :                Column:                                        |
==============================================================================
```

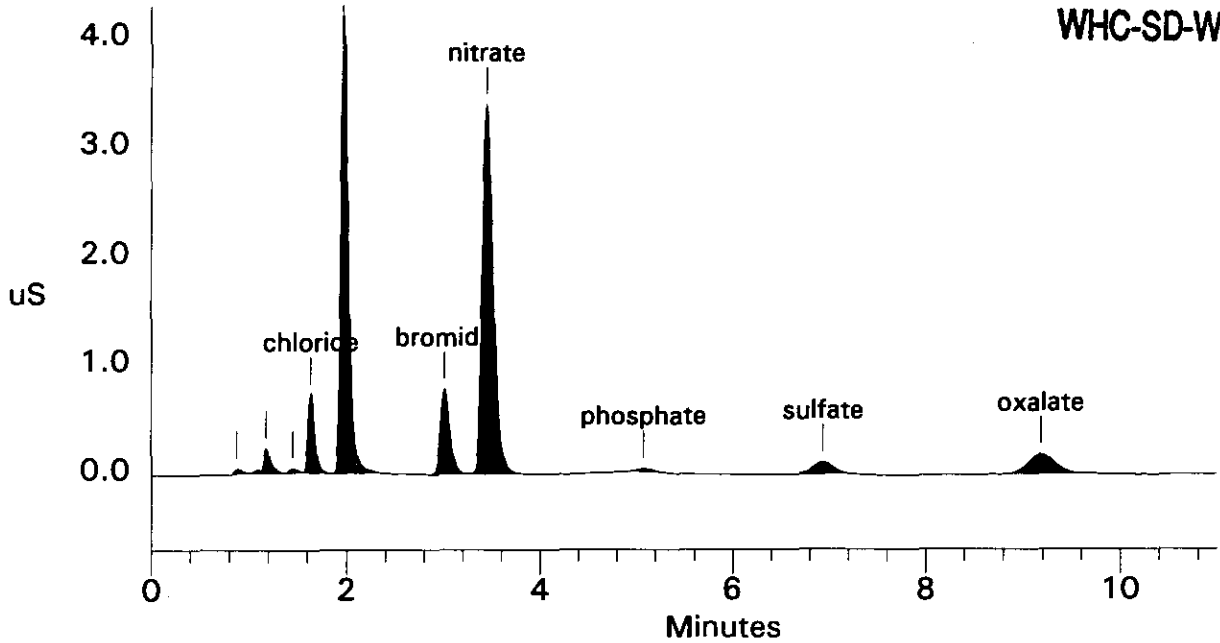
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.18		0.000	223	1225	2	
4	1.63	chloride	30.993	715	3352	1	0.00
5	1.97	nitrite	313.784	4120	22558	1	0.00
6	3.01	bromide	126.499	779	5196	1	0.00
7	3.45	nitrate	432.552	3381	26523	1	0.00
8	5.08	phosphate	19.158	28	300	1	0.00
9	6.94	sulfate	27.287	109	1569	1	0.00
10	9.19	oxalate	66.140	174	3294	1	0.00
		Totals	1016.413	9527	64015		

File: 95032311.D11 Sample: S95T000157 DUP

WHC-SD-WM-DP-074, REV. 0



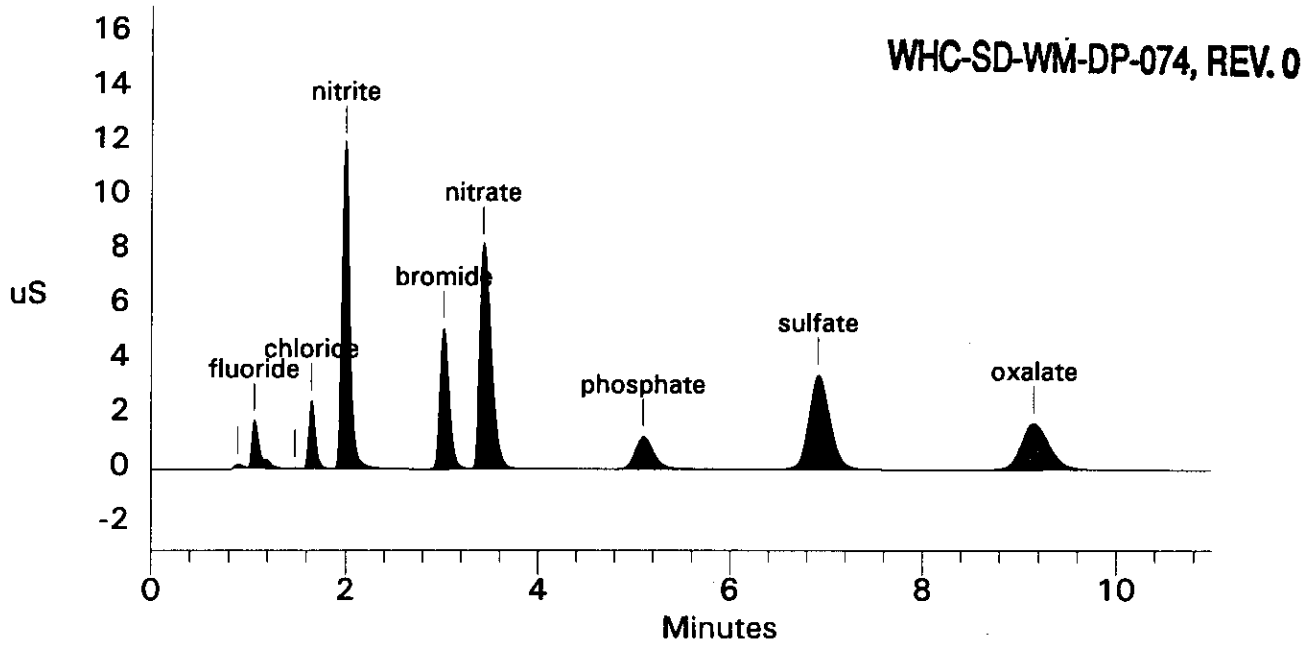
Sample Name: S95T000157 + SPIKE Date: 03/23/1995 10:06:42
Data File : C:\DX\DATA\95032311.D12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	123	628	2	
2	1.06	fluoride	61.944	1720	9803	2	0.00
4	1.65	chloride	104.293	2456	11277	1	0.00
5	2.00	nitrite	846.499	11951	65864	1	0.00
6	3.02	bromide	682.530	5145	33544	1	0.00
7	3.43	nitrate	1039.474	8239	67743	1	0.00
8	5.10	phosphate	554.173	1174	15549	1	0.00
9	6.92	sulfate	634.951	3444	51661	1	0.00
10	9.16	oxalate	574.728	1708	33992	1	0.00
		Totals	4498.592	35960	290059		

File: 95032311.D12 Sample: S95T000157 + SPIKE



LABCORE Data Entry Template for Worklist# 1117

Analyst: RMcCown **Instrument:** IC01 WC54919 **Book #** 78N9-C

Method: LA-533-105 Rev/Mod C2

Worklist Comment: SY 103 IC, JMF Do Before BY108

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST		MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				@IC-01	F-02	LIQUID		~~<.06~~ <3.06	N/A	ug/mL
		1	BLNK-PREP				@IC-01	CL-02	LIQUID		~~<1~~ <5.10	N/A	ug/mL
		1	BLNK-PREP				@IC-01	NO2-02	LIQUID		~~<.8~~ <40.8	N/A	ug/mL
		1	BLNK-PREP				@IC-01	BR-02	LIQUID		~~<.8~~ <40.8	N/A	ug/mL
		1	BLNK-PREP				@IC-01	NO3-02	LIQUID		~~<1~~ <19.6 <51	N/A	ug/mL
		1	BLNK-PREP				@IC-01	PO4-02	LIQUID		~~<.6~~ <30.6	N/A	ug/mL
		1	BLNK-PREP				@IC-01	SO4-02	LIQUID		~~<.8~~ <40.8	N/A	ug/mL
		1	BLNK-PREP				@IC-01	OXALATE2	LIQUID		~~<.5~~ <25.5	N/A	ug/mL
		2	STD				@IC-01	F-02	LIQUID	56	54.2	N/A	ug/mL
		2	STD				@IC-01	CL-02	LIQUID	75	76.4	N/A	ug/mL
		2	STD				@IC-01	NO2-02	LIQUID	539	504	N/A	ug/mL
		2	STD				@IC-01	BR-02	LIQUID	572	572	N/A	ug/mL
		2	STD				@IC-01	NO3-02	LIQUID	578	591	N/A	ug/mL
		2	STD				@IC-01	PO4-02	LIQUID	516	497	N/A	ug/mL
		2	STD				@IC-01	SO4-02	LIQUID	599	609	N/A	ug/mL
		2	STD				@IC-01	OXALATE2	LIQUID	517	474	N/A	ug/mL
94000020	SY-103	3	SAMPLE	S95T000332	0		@IC-01	F-02	LIQUID	N/A	<306e2	<306e2	ug/mL
94000020	SY-103	3	SAMPLE	S95T000332	0		@IC-01	CL-02	LIQUID	N/A	1.17e4	5.10e2	ug/mL

JMF 4/14/95 - all cross outs on BLNK-prep

Data Entry Comments: These are prep dilutions
S95T000332 DF=100, S95T000333 DF=100

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# 1117

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------		MATRIX	ACTUAL	FOUND	DL	UNIT
94000020	SY-103	3 SAMPLE	S95T000332	0		@IC-01	NO2-02	LIQUID	N/A	1.45e5	4.08e3	ug/mL
94000020	SY-103	3 SAMPLE	S95T000332	0		@IC-01	BR-02	LIQUID	N/A	<4.08e3	4.08e3	ug/mL
94000020	SY-103	3 SAMPLE	S95T000332	0		@IC-01	NO3-02	LIQUID	N/A	1.83e5	5.10e3	ug/mL
94000020	SY-103	3 SAMPLE	S95T000332	0		@IC-01	PO4-02	LIQUID	N/A	3.23e3	3.06e3	ug/mL
94000020	SY-103	3 SAMPLE	S95T000332	0		@IC-01	SO4-02	LIQUID	N/A	<4.08e3	4.08e3	ug/mL
94000020	SY-103	3 SAMPLE	S95T000332	0		@IC-01	OXALATE2	LIQUID	N/A	<2.55e3	2.55e3	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	F-02	LIQUID	<3.06e2	<3.06e2	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	CL-02	LIQUID	1.17e4	1.15e4	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	NO2-02	LIQUID	1.45e5	1.41e5	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	BR-02	LIQUID	<4.08e3	<4.08e3	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	NO3-02	LIQUID	1.83e5	1.75e5	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	PO4-02	LIQUID	3.23e3	3.02e3	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	SO4-02	LIQUID	<4.08e3	<4.08e3	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000332	0		@IC-01	OXALATE2	LIQUID	<2.55e3	<2.55e3	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	F-02	LIQUID	100	81.8	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	CL-02	LIQUID	100	112.0	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	NO2-02	LIQUID	100	98.3	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	BR-02	LIQUID	100	94.3	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	NO3-02	LIQUID	100	108.0	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	PO4-02	LIQUID	100	96.7	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0		@IC-01	SO4-02	LIQUID	100	99.9	N/A	ug/mL

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# 1117

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST		MATRIX	ACTUAL	FOUND	DL	UNIT
94000020	SY-103	5	SPK	S95T000332	0	@IC-01	OXALATE2		LIQUID	100	93.2	N/A	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	F-02		LIQUID	N/A	<3.06e2	<306	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	CL-02		LIQUID	N/A	1.17e4	5.10e2	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	NO2-02		LIQUID	N/A	1.43e5	4.08e3	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	BR-02		LIQUID	N/A	<4.08e3	4.08e3	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	NO3-02		LIQUID	N/A	1.78e5	5.10e3	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	PO4-02		LIQUID	N/A	3.38e3	3.06e3	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	SO4-02		LIQUID	N/A	<4.08e3	4.08e3	ug/mL
94000020	SY-103	6	SAMPLE	S95T000333	0	@IC-01	OXALATE2		LIQUID	N/A	<2.55e3	2.55e3	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	F-02		LIQUID	<3.06e2	<3.06e2	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	CL-02		LIQUID	1.17e4	1.10e4	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	NO2-02		LIQUID	1.43e5	1.34e5	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	BR-02		LIQUID	<4.08e3	<4.08e3	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	NO3-02		LIQUID	1.78e5	1.67e5	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	PO4-02		LIQUID	3.38e3	2.98e3	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	SO4-02		LIQUID	<4.08e3	<4.08e3	N/A	ug/mL
94000020	SY-103	7	DUP	S95T000333	0	@IC-01	OXALATE2		LIQUID	<2.55e3	<2.55e3	N/A	ug/mL

Final page for worklist # 1117

Patrick J. McCann 4/13/95
Analyst Signature **Date**

Analyst Signature **Date**

Entered by Sandra K McFarland 4-17-95
Verified 4/17/95 J. M. Fuge

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.

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET

ANION ANALYSIS ON DIONEX

SAMPLE #:	S95T332 & S95T333		
TEST CODE:	@IC-01	ANALYST:	MCCOWN
INSTRUMENT:	WC54919	ANALYSIS DATE:	04/13/95
WORK LIST #:	1117	SAMPLE POINT:	SY-103
BATCH ID:		SAMPLE PREP:	WATER DIGEST

	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
STD	96.8%	101.9%	93.5%	102.2%	96.3%	101.7%	100.0%	91.7%
S95T332	<306 ~~<510.00~~	1.17E+04	1.45E+05	1.83E+05	3.23E+03	~~2.87E+03~~	~~4.34E+03~~	~~<5100.00~~
S95T332DUP	<306 ~~<510.00~~	1.15E+04	1.41E+05	1.75E+05	3.02E+03	~~2.81E+03~~	~~<5100.00~~	~~<5100.00~~
Duplicate 1 RPD	N/A	1.7%	2.9%	4.4%	6.7%	2.1%	N/A	N/A
S95T333	<306 ~~<510.00~~	1.17E+04	1.43E+05	1.78E+05	3.38E+03	~~2.92E+03~~	~~<5100.00~~	~~<5100.00~~
S95T333DUP	<306 ~~<510.00~~	1.10E+04	1.34E+05	1.67E+05	2.98E+03	~~2.73E+03~~	~~<5100.00~~	~~<5100.00~~
Duplicate 2 RPD	N/A	6.2%	6.6%	6.3%	12.6%	6.7%	N/A	N/A
						<4.08e3	<4.08e3	<2.55e3
S95T332SPK	81.8%	112.0%	98.3%	108.0%	96.7%	99.9%	94.3%	93.2%

NARRATIVE: Analyst Comments:

Chemist Comments:

Form Completed By:	[signature]	Date:	4-14-95
Chemist Approval:	[signature]	Date:	4/17/95

771

LAB LEADER INFO	
Method:	LA-633-105
Matrix:	LIQUID
Test Code:	@IC-01
Work List #:	1117
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/mL
Spike Book Number:	78N9C
Spike Sample #:	1
Prepared By:	STORM
Prepared Date:	04/14/95
Chemist:	FRYE
Analyst:	MCCOWN
Analysis Date:	04/13/95
Time Complete:	09:58 PM
Instrument Code:	WC54919
Rerun:	0
Sample Prep:	WATER DIGEST
Sample Point:	SY-103
Sample Type	
STANDARD	STD
SAMPLE 1	S95T332
DUPLICATE 1	S95T332DUP
SAMPLE 2	S95T333
DUPLICATE 2	S95T333DUP
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T332SPK
SPIKE DUPLICATE	

PRINT

TECH INFO

	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<3.06	<5.1	<40.8	<51	<30.6	<40.8	<40.8	<25.5
Standard Data (µg/mL)	54.2	76.4	504	591	497	609	572	474
Sample 1 Data (µg/mL)	<3.06E2	1.17E+02	1.45E+03	1.83E+03	3.23E+01	2.87E+01	1.34E+01	<2.55E3
Sample 1 Dilution Factor	51	51	51	51	51	51	51	51
Sample 1 Prep DF	100	100	100	100	100	100	100	100
Duplicate 1 Data (µg/mL)	<3.06E2	1.15E+02	1.41E+03	1.75E+03	3.02E+01	2.81E+01	<4.08E3	<2.55E3
Duplicate 1 Dilution Factor	51	51	51	51	51	51	51	51
Duplicate 1 Prep DF	100	100	100	100	100	100	100	100
Sample 2 Data (µg/mL)	<3.06E2	1.17E+02	1.43E+03	1.78E+03	3.38E+01	2.92E+01	<4.08E3	<2.55E3
Sample 2 Dilution Factor	51	51	51	51	51	51	51	51
Sample 2 Prep DF	100	100	100	100	100	100	100	100
Duplicate 2 Data (µg/mL)	<3.06E2	1.10E+02	1.34E+03	1.67E+03	2.98E+01	2.73E+01	<4.08E3	<2.55E3
Duplicate 2 Dilution Factor	51	51	51	51	51	51	51	51
Duplicate 2 Prep DF	100	100	100	100	100	100	100	100
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)	2.29E+01	1.59E+02	1.72E+03	2.14E+03	2.82E+02	3.28E+02	2.83E+02	2.41E+02
Spike + Dup 1 (µg/mL)								
Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.20	10.20	10.20	10.20	10.20	10.20	10.20	10.2
Std. Conc. (µg/mL)	56	75	539	578	516	599	572	517
Detection Limit	~~0.100~~ .06	~~0.200~~ .1	~~1.000~~ .8	~~1.000~~ 1	~~1.000~~ .6	~~1.000~~ .8	~~1.000~~ .8	~~1.000~~ .5

Spike Recovery = [((Spike+Sample)-(Sample)*(Total Volume))/((Spike Vol.)*(Spike Std.)*(Sample DF))]*100%
Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
Duplicate Relative % Difference = ((Sample - Duplicate) / ((Sample + Duplicate) / 2) * 100%)
Less than Values are Calculated from the Detection Limit*Dilution Factor

JMF 4/17/95

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
	<306					<4.08e3	<4.08e3	<2.55e3
Standard % Recovery	96.8%	101.9%	93.5%	102.2%	96.3%	101.7%	100.0%	91.7%
Sample 1 in µg/mL	~~<510.00~~	1.17E+04	1.45E+05	1.83E+05	3.23E+03	~~2.87E+03~~	~~1.34E+03~~	~~<5100.00~~
Duplicate 1 in µg/mL	~~<510.00~~	1.15E+04	1.41E+05	1.75E+05	3.02E+03	~~2.81E+03~~	~~<5100.00~~	~~<5100.00~~
Duplicate 1 RPD	N/A	1.7%	2.9%	4.4%	6.7%	2.1%	N/A	N/A
Sample 2 in µg/mL	~~<510.00~~	1.17E+04	1.43E+05	1.78E+05	3.38E+03	~~2.92E+03~~	~~<5100.00~~	~~<5100.00~~
Duplicate 2 in µg/mL	~~<510.00~~	1.10E+04	1.34E+05	1.67E+05	2.98E+03	~~2.73E+03~~	~~<5100.00~~	~~<5100.00~~
Duplicate 2 RPD	N/A	6.2%	6.6%	6.3%	12.6%	6.7%	N/A	N/A
Spike % Recovery	81.8%	112.0%	98.3%	108.0%	96.7%	99.9%	94.3%	93.2%

Data Entry by: [signature] Date: 04/14/95
Approved by: [signature] Date: 4/17/95

772

```
==============================================================================
| Sample Name:   BLANK                          Date: 04/13/1995 17:09:31      |
| Data File   : C:\DX\DATA\95041301.D01                                        |
| Method      : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1       |
| Analyst     :                Column:                                         |
==============================================================================
```

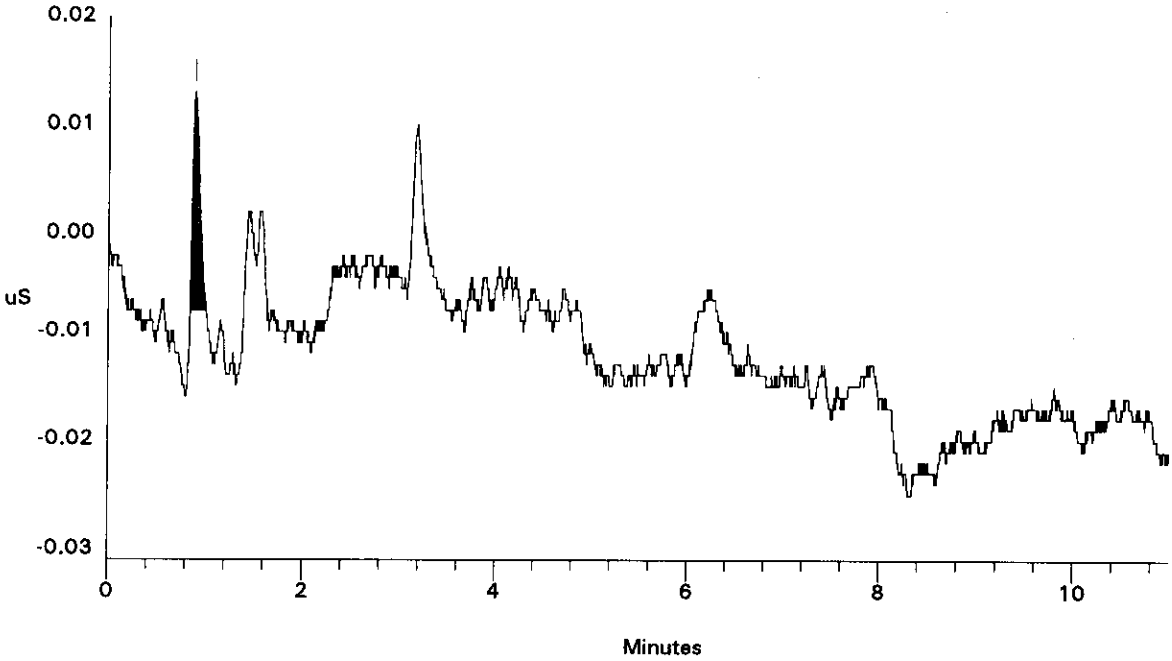
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

PA McCown 4-13-95

File: 95041301.D01 Sample: BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 773 TO 785.

```
==============================================================================
| Sample Name: LMCS 78N9-C                    Date: 04/13/1995 17:59:54       |
| Data File  : C:\DX\DATA\95041301.D04                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 4                   Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

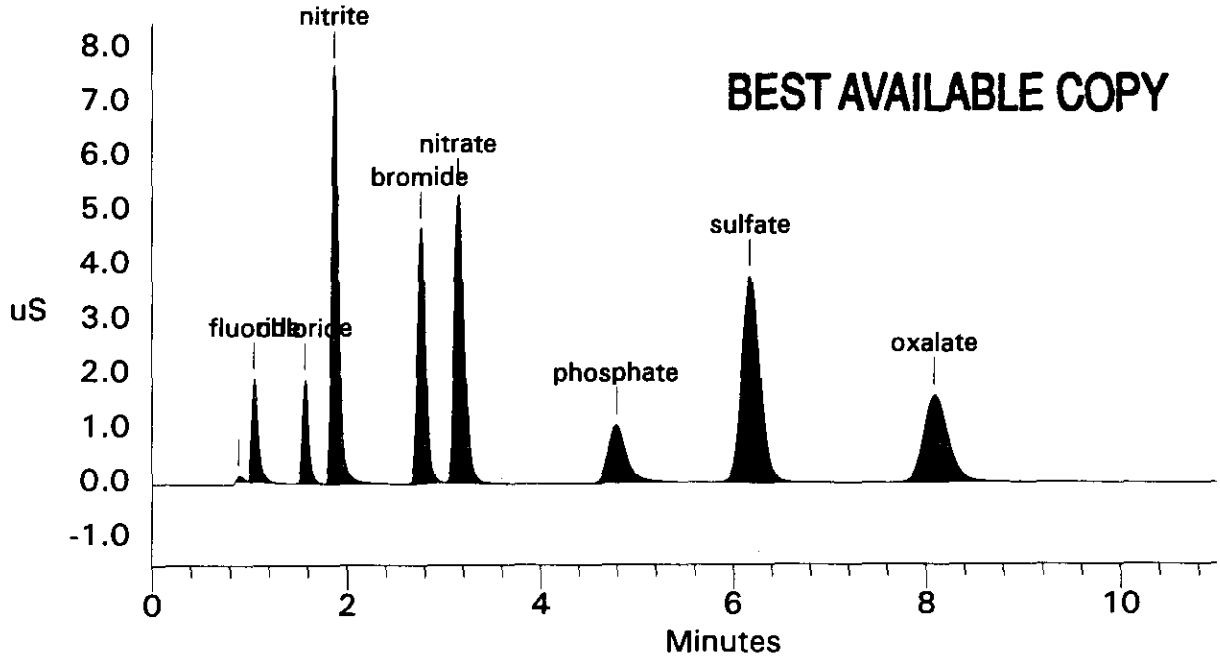
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	93	400	2	
2	1.05	fluoride	54.175	1879	8530	2	0.00
3	1.57	chloride	76.437	1898	8249	1	0.00
4	1.87	nitrite	503.940	7654	38038	1	0.00
5	2.76	bromide	571.802	4685	27820	1	0.00
6	3.15	nitrate	590.775	5287	37164	1	0.00
7	4.79	phosphate	497.025	1068	13892	1	0.00
8	6.18	sulfate	609.143	3779	49497	1	0.00
9	8.09	oxalate	474.267	1592	27886	1	0.00
		Totals	3377.566	27934	211477		

.100mL - 10mL RJ McCown

File: 95041301.D04 Sample: LMCS 78N9-C



BEST AVAILABLE COPY

WHC-SD-WM-DP-074, REV. 0

```
==============================================================================
| Sample Name: PREP BLANK                        Date: 04/13/1995 22:11:08     |
| Data File  : C:\DX\DATA\95041301.D13                                         |
| Method     : C:\DX\METHOD\KIT.MET                                            |
  ACI Address: 1  System: 1  Inject#: 13                  Detector:CDM-1       |
  Analyst    :                Column:                                          |
==============================================================================
```

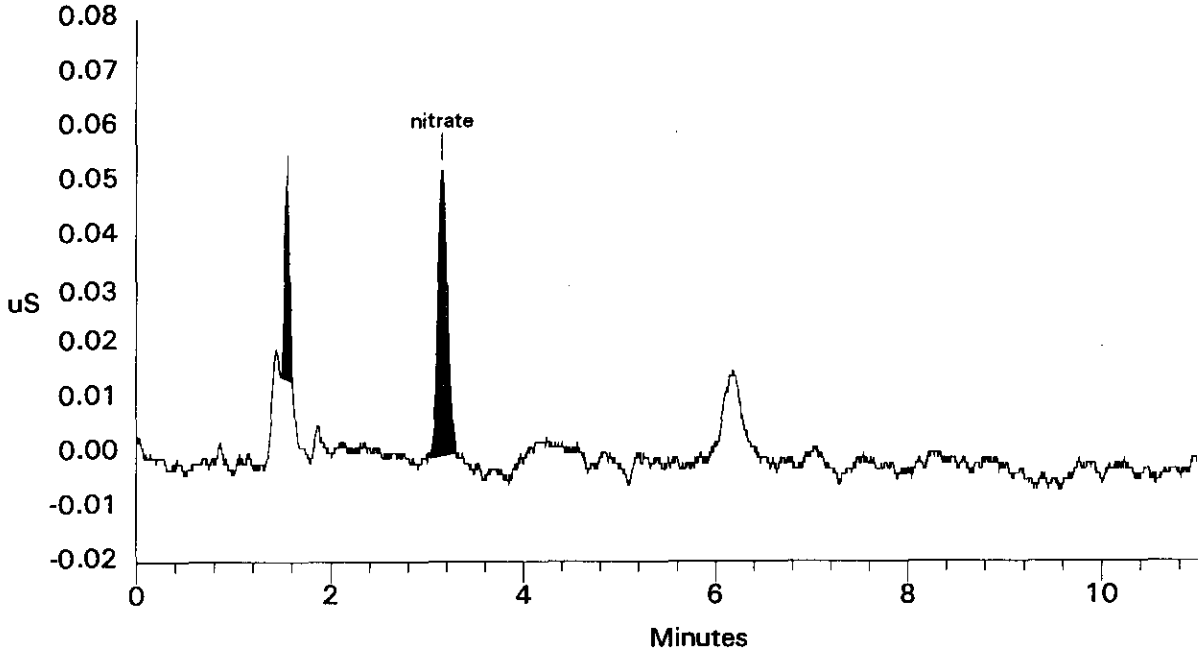
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	3.17	nitrate	19.670	53	357	1	0.00
		Totals	19.670	53	357		

.200mL -10 mL RJ McCown

File: 95041301.D13 Sample: PREP BLANK



Data Reprocessed On 04/14/1995 10:09:53

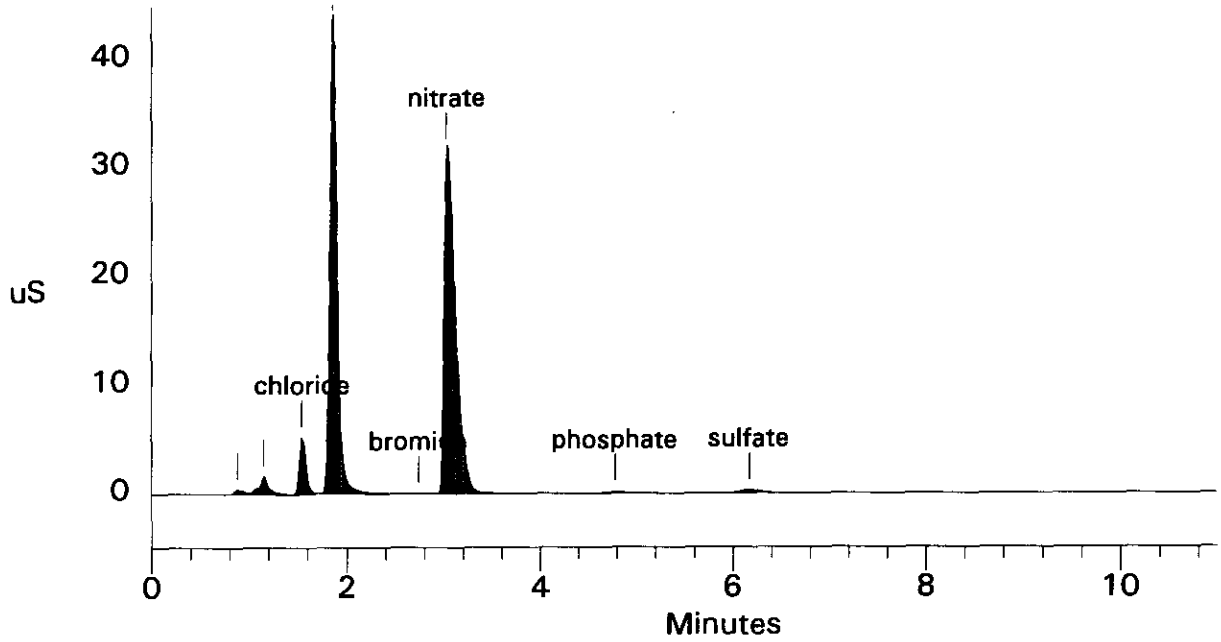
Sample Name: S95T000332 SAMPLE	Date: 04/13/1995 19:37:42
Data File : C:\DX\DATA\95041301.D07	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 7	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	51	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	417	2412	2	
2	1.15		0.000	1649	11390	2	
3	1.54	chloride	117.368	5268	25470	1	0.00
4	1.86	nitrite	1451.764	43616	229065	1	0.00
5	2.74	bromide	13.431	38	203	1	0.00
6	3.04	nitrate	1826.178	31676	256722	1	0.00
7	4.78	phosphate	32.338	127	1557	1	0.00
8	6.17	sulfate	28.691	303	3964	1	0.00
		Totals	3469.770	83094	530784		

File: 95041301.D07 Sample: S95T000332 SAMPLE



Sample Name: S95T000332 SAMPLE Date: 04/13/1995 19:37:42
Data File : C:\DX\DATA\95041301.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column:

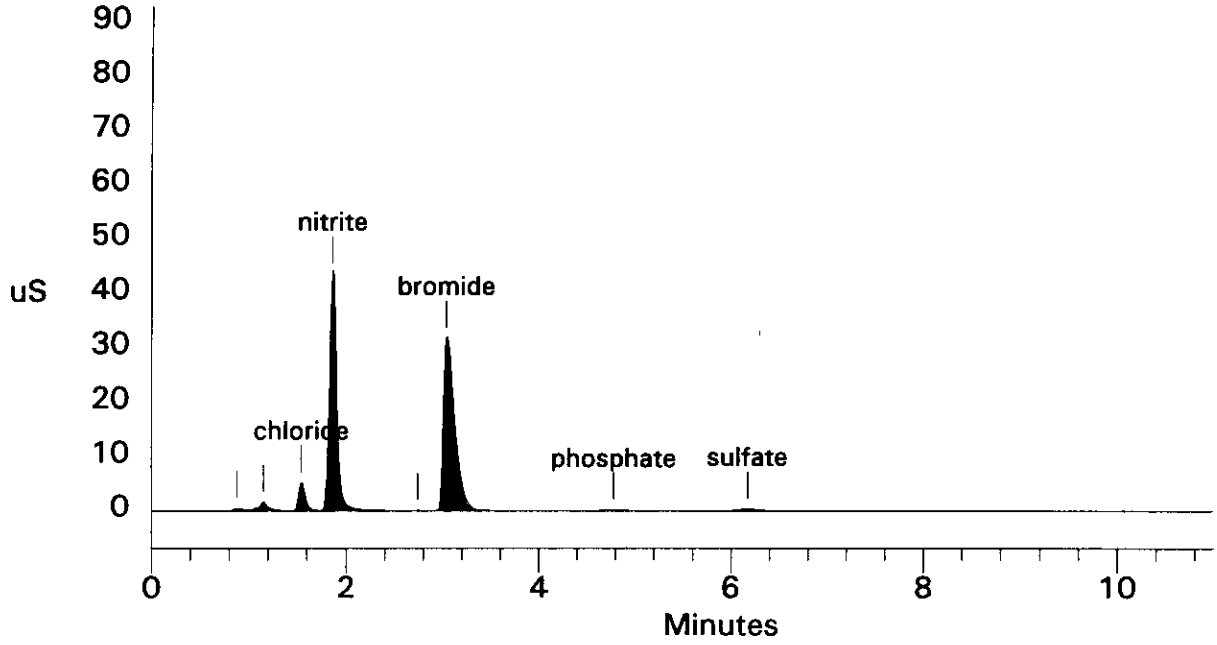
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	51	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	417	2412	2	
2	1.15		0.000	1649	11390	2	
3	1.54	chloride	117.368	5268	25470	1	0.00
4	1.86	nitrite	1451.764	43616	229065	1	0.00
5	2.74		0.000	38	203	1	
6	3.04	bromide	2217.301	31676	256722	1	0.00
7	4.78	phosphate	32.338	127	1557	1	0.00
8	6.17	sulfate	28.691	303	3964	1	0.00
		Totals	3847.462	83094	530784		

.200mL - 10mL RHMcCown

File: 95041301.D07 Sample: S95T000332 SAMPLE



WHC-SD-WM-DP-074, REV. 0

Data Reprocessed On 04/14/1995 10:08:11

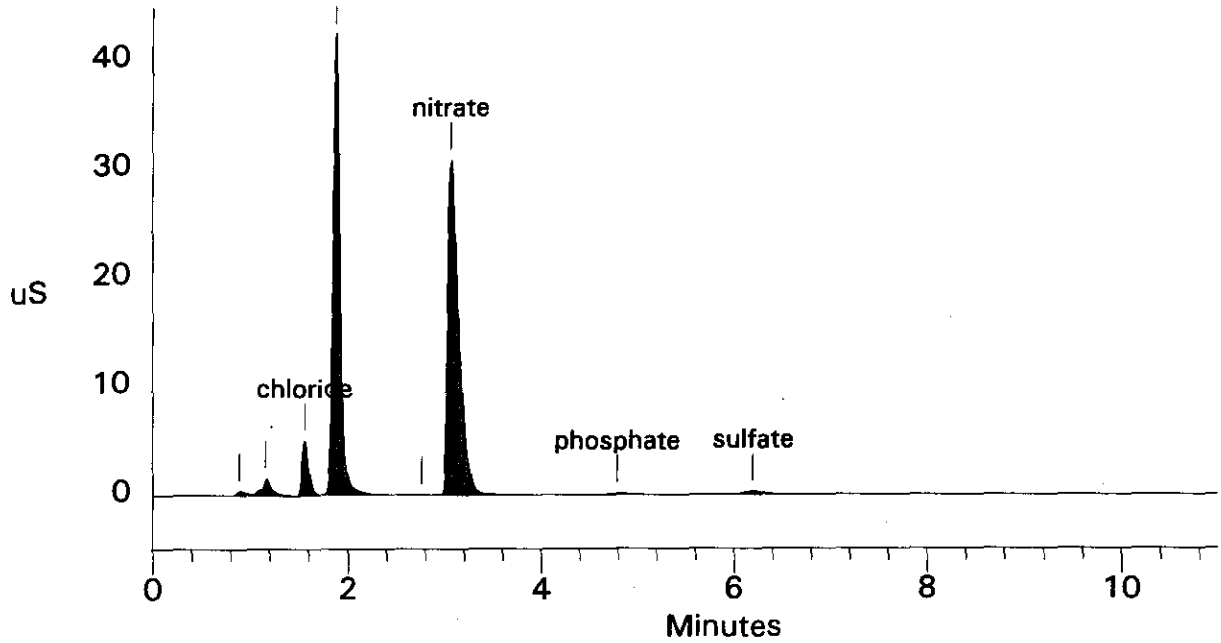
Sample Name: S95T000332 SAMPLE DUP.	Date: 04/13/1995 20:01:20
Data File : C:\DX\DATA\95041301.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	402	2434	2	
2	1.16		0.000	1559	10867	2	
3	1.56	chloride	115.484	5056	25050	1	0.00
4	1.88	nitrite	1405.992	42352	221829	1	0.00
6	3.07	nitrate	1747.046	30853	244481	1	0.00
7	4.79	phosphate	30.237	120	1440	1	0.00
8	6.20	sulfate	28.051	294	3861	1	0.00
		Totals	3326.810	80636	509962		

File: 95041301.D08 Sample: S95T000332 SAMPLE DUP.



```
==============================================================================
| Sample Name: S95T000332 SAMPLE  DUP.        Date: 04/13/1995 20:01:20      |
| Data File  : C:\DX\DATA\95041301.D08                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
  ACI Address: 1  System: 1  Inject#: 8                   Detector:CDM-1     |
| Analyst    :                Column:                                        |
==============================================================================
```

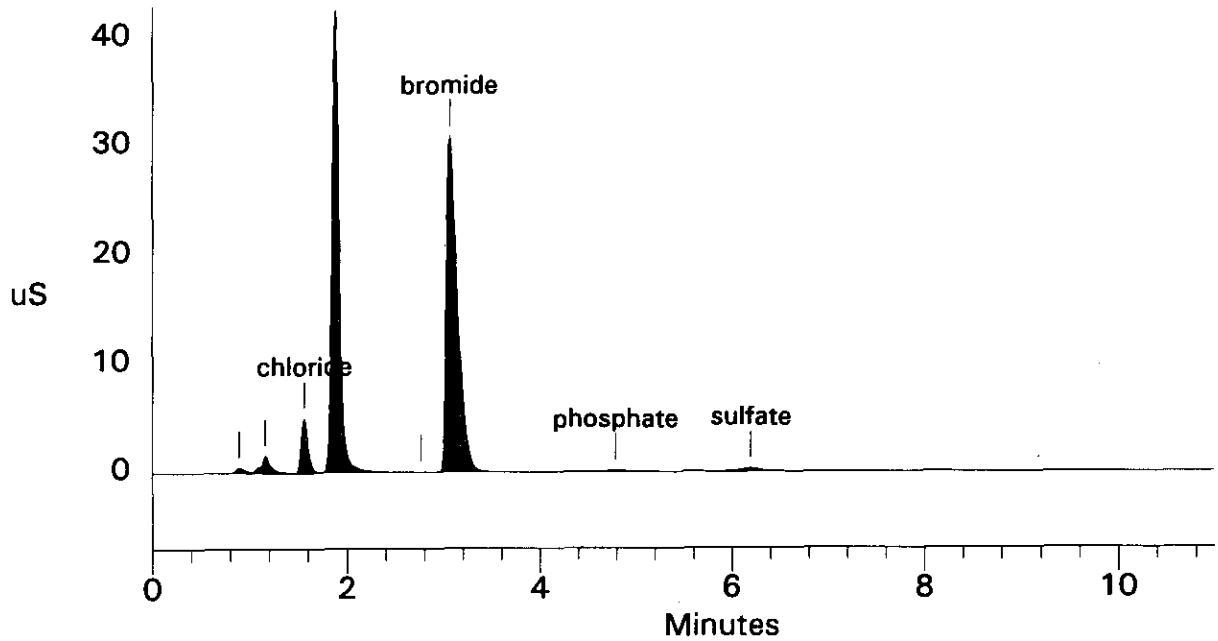
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	51	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	402	2434	2	
2	1.16		0.000	1559	10867	2	
3	1.56	chloride	115.484	5056	25050	1	0.00
4	1.88	nitrite	1405.992	42352	221829	1	0.00
6	3.07	bromide	2130.123	30853	244481	1	0.00
7	4.79	phosphate	30.237	120	1440	1	0.00
8	6.20	sulfate	28.051	294	3861	1	0.00
		Totals	3709.888	80636	509962		

.200mL - 10mL RH McCown

File: 95041301.D08 Sample: S95T000332 SAMPLE DUP.



Data Reprocessed On 04/14/1995 10:06:50

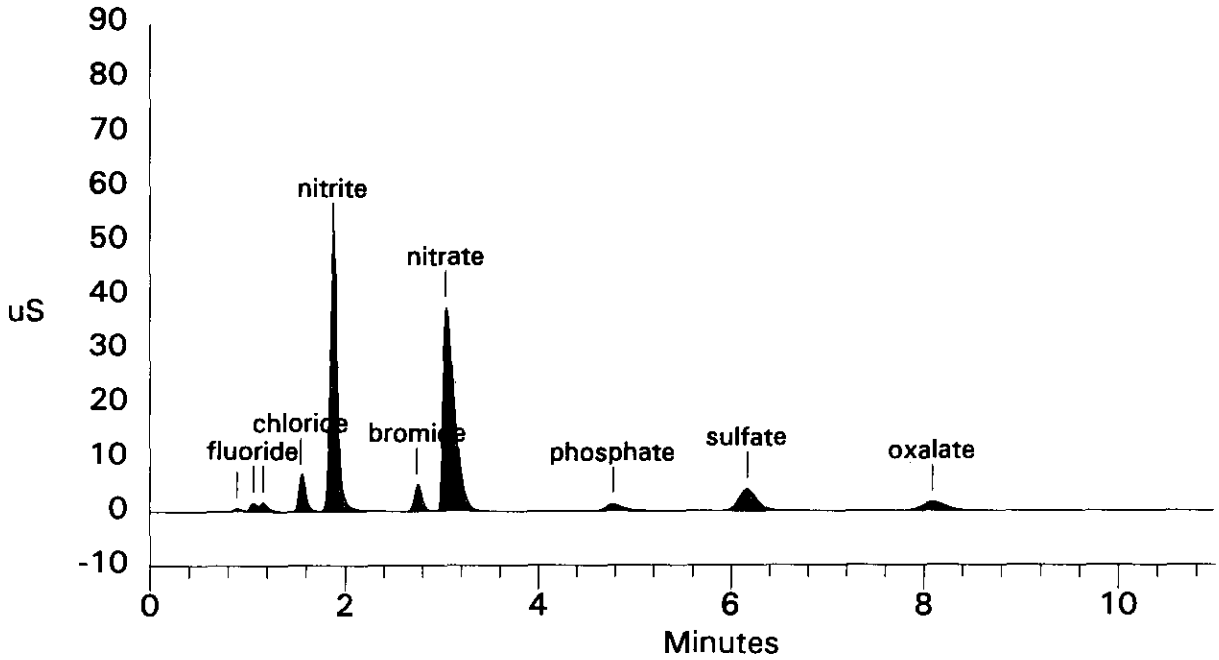
Sample Name: S95T000332 SAMPLE SPIKE	Date: 04/13/1995 20:15:36
Data File : C:\DX\DATA\95041301.D09	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 9	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	452	2352	2	
2	1.06	fluoride	22.865	1493	7077	2	0.00
3	1.16		0.000	1703	9996	2	
4	1.55	chloride	159.046	6814	34855	1	0.00
5	1.88	nitrite	1715.986	50017	270734	1	0.00
6	2.75	bromide	283.228	4834	27258	1	0.00
7	3.05	nitrate	2137.837	37406	306055	1	0.00
8	4.78	phosphate	281.898	1217	15668	1	0.00
9	6.17	sulfate	328.375	4055	52950	1	0.00
10	8.09	oxalate	241.171	1599	28089	1	0.00
		Totals	5170.406	109591	755034		

File: 95041301.D09 Sample: S95T000332 SAMPLE SPIKE



Sample Name: S95T000332 SAMPLE SPIKE Date: 04/13/1995 20:15:36
Data File : C:\DX\DATA\95041301.D09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : Column:

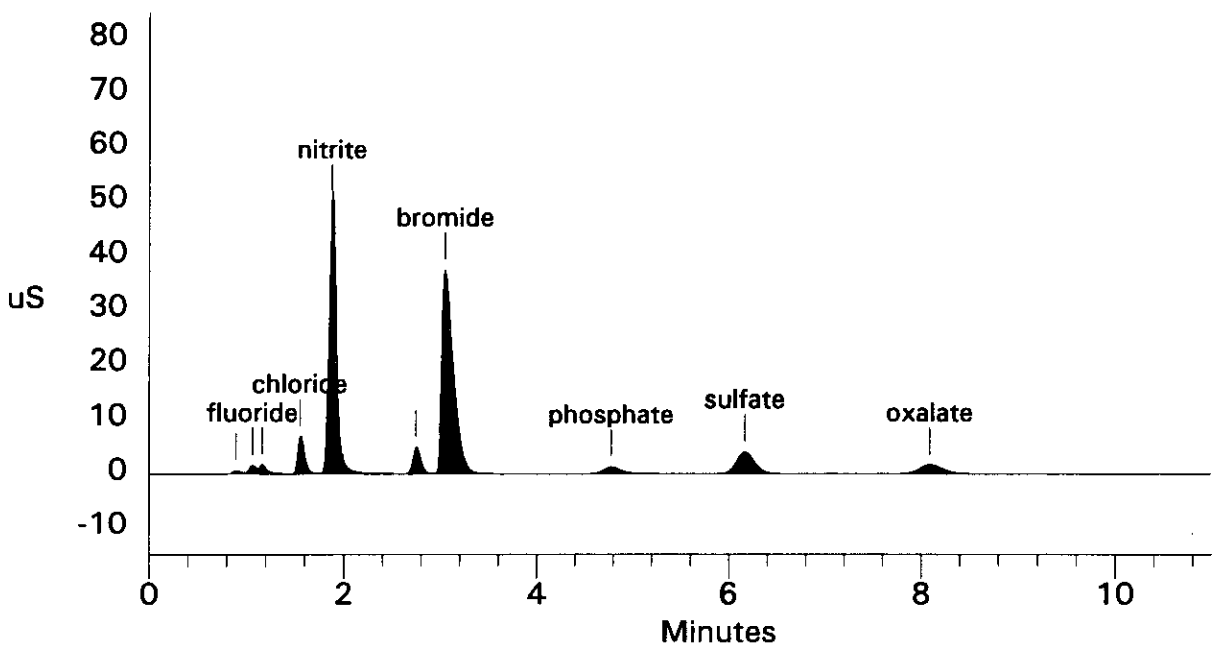
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	452	2352	2	
2	1.06	fluoride	22.865	1493	7077	2	0.00
3	1.16		0.000	1703	9996	2	
4	1.55	chloride	159.046	6814	34855	1	0.00
5	1.88	nitrite	1715.986	50017	270734	1	0.00
6	2.75		0.000	4834	27258	1	
7	3.05	bromide	2550.351	37406	306055	1	0.00
8	4.78	phosphate	281.898	1217	15668	1	0.00
9	6.17	sulfate	328.375	4055	52950	1	0.00
10	8.09	oxalate	241.171	1599	28089	1	0.00
		Totals	5299.692	109591	755034		

.200mL – 9.900mL ELUENT + .100mL SPIKE R McCown

File: 95041301.D09 Sample: S95T000332 SAMPLE SPIKE



Data Reprocessed On 04/14/1995 10:03:57

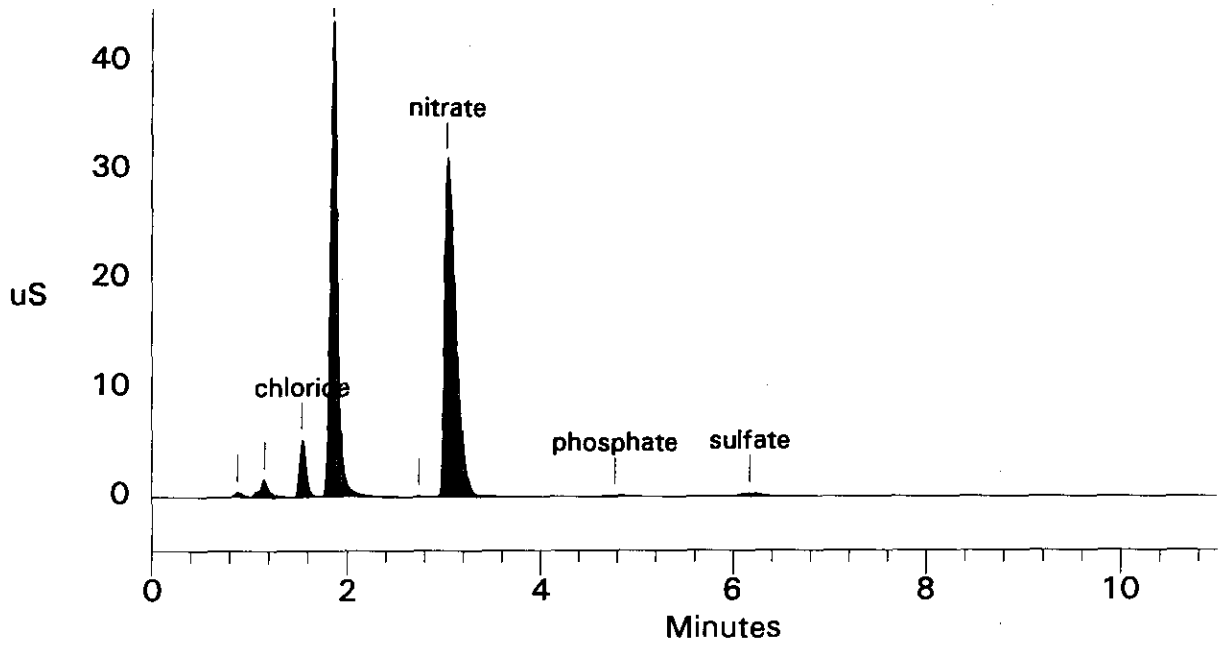
Sample Name: S95T000333 SAMPLE	Date: 04/13/1995 21:30:29
Data File : C:\DX\DATA\95041301.D10	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 10	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	51	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	430	2518	2	
2	1.15		0.000	1657	11343	2	
3	1.54	chloride	116.779	5280	25338	1	0.00
4	1.86	nitrite	1426.846	43191	225126	1	0.00
6	3.04	nitrate	1782.740	30990	249989	1	0.00
7	4.77	phosphate	33.813	132	1639	1	0.00
8	6.17	sulfate	29.193	306	4045	1	0.00
		Totals	3389.371	81985	519998		

File: 95041301.D10 Sample: S95T000333 SAMPLE



```
==============================================================================
| Sample Name: S95T000333 SAMPLE              Date: 04/13/1995 21:30:29      |
| Data File  : C:\DX\DATA\95041301.D10                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 10                  Detector:CDM-1     |
| Analyst    :                Column:                                        |
==============================================================================
```

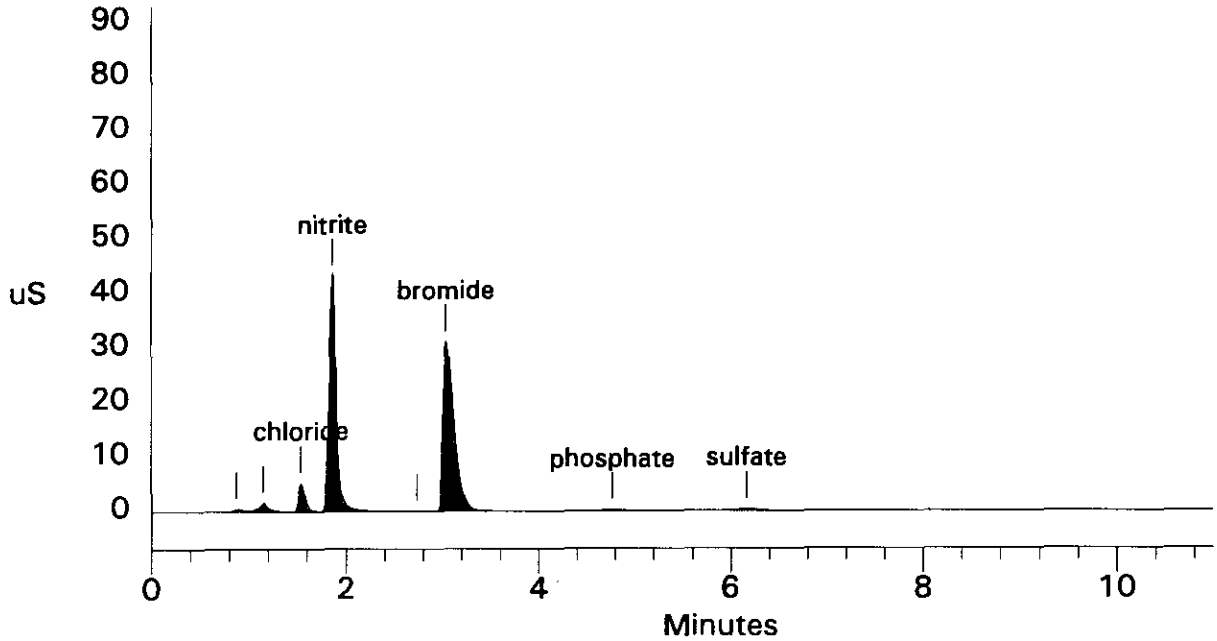
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	51	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	430	2518	2	
2	1.15		0.000	1657	11343	2	
3	1.54	chloride	116.779	5280	25338	1	0.00
4	1.86	nitrite	1426.846	43191	225126	1	0.00
6	3.04	bromide	2169.572	30990	249989	1	0.00
7	4.77	phosphate	33.813	132	1639	1	0.00
8	6.17	sulfate	29.193	306	4045	1	0.00
		Totals	3776.204	81985	519998		

.200mL - 10mL RJ McCown

File: 95041301.D10 Sample: S95T000333 SAMPLE



Data Reprocessed On 04/14/1995 10:13:24

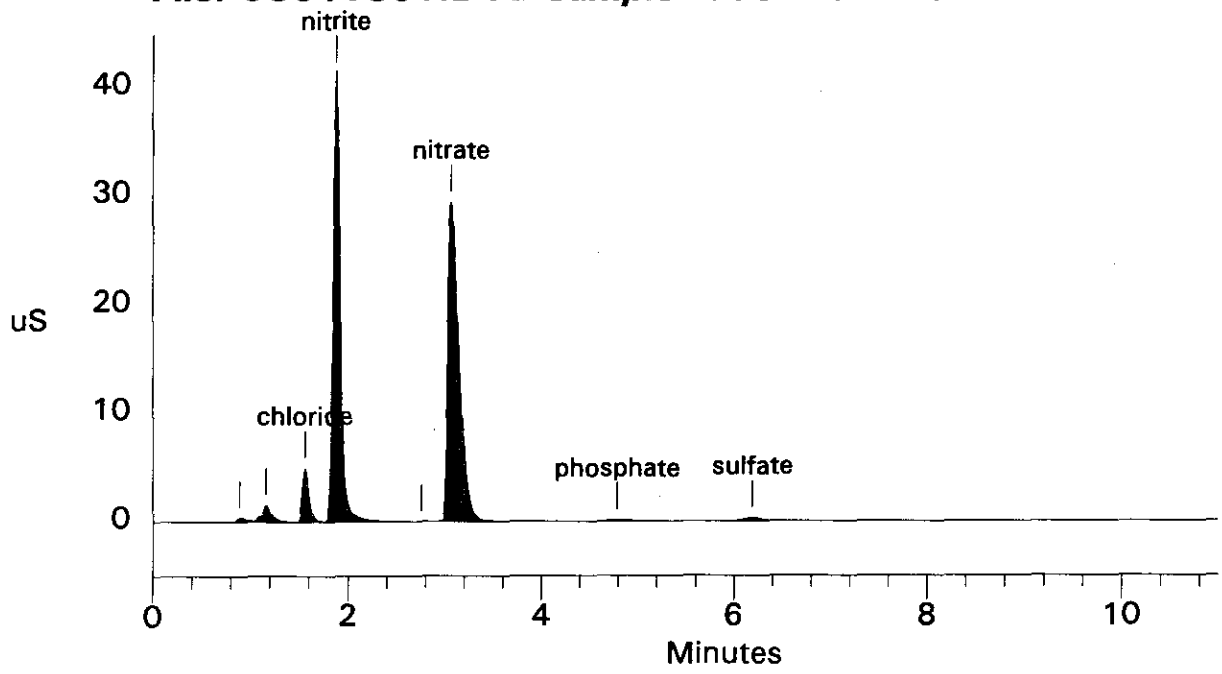
Sample Name: S95T000333 SAMPLE DUP.	Date: 04/13/1995 21:58:37
Data File : C:\DX\DATA\95041301.D12	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 12	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	395	2448	2	
2	1.16		0.000	1513	11022	2	
3	1.56	chloride	110.021	4956	23836	1	0.00
4	1.88	nitrite	1336.295	41315	210801	1	0.00
6	3.07	nitrate	1673.037	29418	233131	1	0.00
7	4.79	phosphate	29.827	120	1418	1	0.00
8	6.19	sulfate	27.321	284	3744	1	0.00
		Totals	3176.501	78001	486398		

File: 95041301.D12 Sample: S95T000333 SAMPLE DUP.



Sample Name: S95T000333 SAMPLE DUP. Date: 04/13/1995 21:58:37
Data File : C:\DX\DATA\95041301.D12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column:

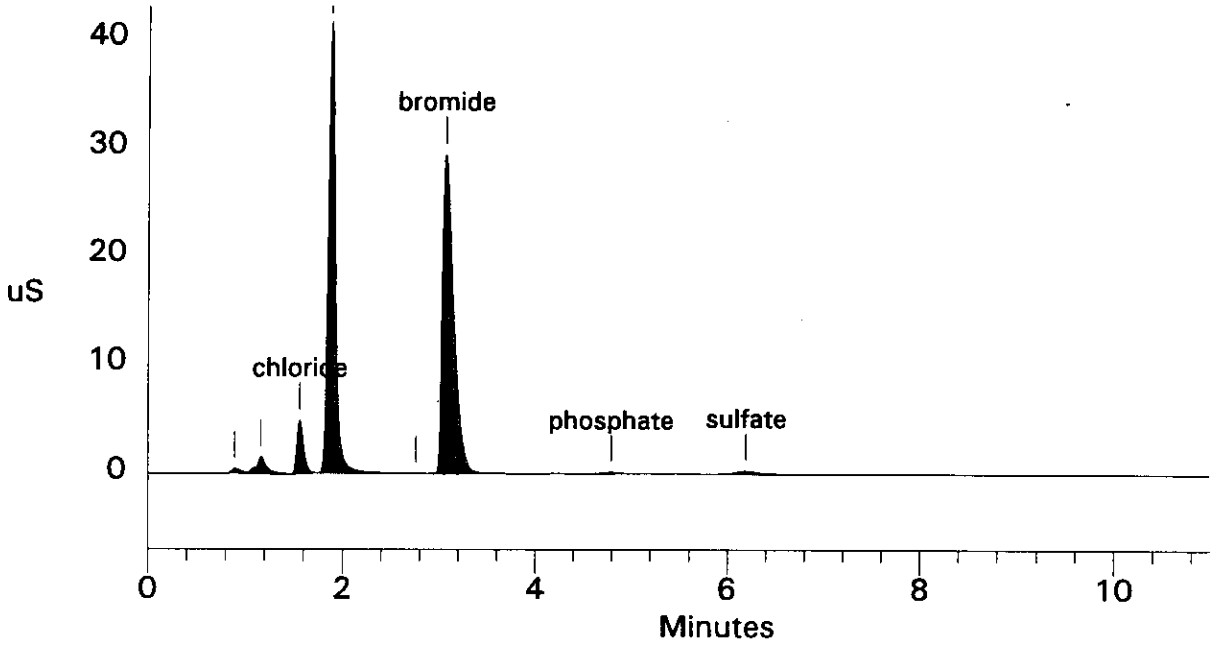
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	51	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	395	2448	2	
2	1.16		0.000	1513	11022	2	
3	1.56	chloride	110.021	4956	23836	1	0.00
4	1.88	nitrite	1336.295	41315	210801	1	0.00
6	3.07	bromide	2047.682	29418	233131	1	0.00
7	4.79	phosphate	29.827	120	1418	1	0.00
8	6.19	sulfate	27.321	284	3744	1	0.00
		Totals	3551.146	78001	486398		

.200mL - 10mL RMcCown

File: 95041301.D12 Sample: S95T000333 SAMPLE DUP.



LABCORE Data Entry Template for Worklist# 1118

Analyst: RH McCown **Instrument:** IC01 wc54919 **Book #** 78N9-D

Method: LA-533-105 Rev/Mod C-2

Worklist Comment: SY103 IC JMF Do Before BY108

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP			@IC-01	F-02	LIQUID		<.06	N/A	ug/mL
		1	BLNK-PREP			@IC-01	CL-02	LIQUID		<.1	N/A	ug/mL
		1	BLNK-PREP			@IC-01	NO2-02	LIQUID		<.3	N/A	ug/mL
		1	BLNK-PREP			@IC-01	BR-02	LIQUID		<.3	N/A	ug/mL
		1	BLNK-PREP			@IC-01	NO3-02	LIQUID		<1	N/A	ug/mL
		1	BLNK-PREP			@IC-01	PO4-02	LIQUID		<.6	N/A	ug/mL
		1	BLNK-PREP			@IC-01	SO4-02	LIQUID		<.3	N/A	ug/mL
		1	BLNK-PREP			@IC-01	OXALATE2	LIQUID		<.5	N/A	ug/mL
		2	STD			@IC-01	F-02	LIQUID		54.8	N/A	ug/mL
		2	STD			@IC-01	CL-02	LIQUID		77.4	N/A	ug/mL
		2	STD			@IC-01	NO2-02	LIQUID		526	N/A	ug/mL
		2	STD			@IC-01	BR-02	LIQUID		592	N/A	ug/mL
		2	STD			@IC-01	NO3-02	LIQUID		591	N/A	ug/mL
		2	STD			@IC-01	PO4-02	LIQUID		496	N/A	ug/mL
		2	STD			@IC-01	SO4-02	LIQUID		621	N/A	ug/mL
		2	STD			@IC-01	OXALATE2	LIQUID		482	N/A	ug/mL
94000020	SY-103	3	SAMPLE	S95T000334	0	@IC-01	F-02	LIQUID	N/A	3.22e2 1.26e2		ug/mL JMF 5/3/95
94000020	SY-103	3	SAMPLE	S95T000334	0	@IC-01	CL-02	LIQUID	N/A	~~44.4~~ 4.11e3	2.10e2	ug/mL JMF 5/3/95

Data Entry Comments: These are prep dilutions 100X dilution with

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# 1118

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
94000020	SY-103	3 SAMPLE	S95T000334	0	@IC-01	NO2-02	LIQUID	gmF 5/3/95 N/A	4.86e4 ~~486~~	1.68e3 ~~16.8~~	ug/mL gmF 5/3/95
94000020	SY-103	3 SAMPLE	S95T000334	0	@IC-01	BR-02	LIQUID	gmF 5/3/95 N/A	1.56e4 ~~156~~	1.68e3 ~~16.8~~	ug/mL gmF 5/3/95
94000020	SY-103	3 SAMPLE	S95T000334	0	@IC-01	NO3-02	LIQUID	gmF 5/3/95 N/A	6.47e4 ~~647~~	2.10e3 ~~21.0~~	ug/mL gmF 5/3/95
94000020	SY-103	3 SAMPLE	S95T000334	0	@IC-01	PO4-02	LIQUID	gmF 5/3/95 N/A	2.56e3 ~~25.6~~	1.26e3 ~~12.6~~	ug/mL gmF 5/3/95
94000020	SY-103	3 SAMPLE	S95T000334	0	@IC-01	SO4-02	LIQUID	gmF 5/3/95 N/A	3.83e3 ~~38.3~~	1.68e3 ~~16.8~~	ug/mL gmF 5/3/95
94000020	SY-103	3 SAMPLE	S95T000334	0	@IC-01	OXALATE2	LIQUID	gmF 5/3/95 N/A	1.05e3 ~~<10.5~~	1.05e3 ~~10.5~~	ug/mL gmF 5/3/95
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	F-02	LIQUID	3.22e2	<1.26e2	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	CL-02	LIQUID	gmF 5/3/95 4.14e3 ~~41.4~~	4.20e3 ~~42.0~~	gmF N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	NO2-02	LIQUID	4.86e4	4.98e4	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	BR-02	LIQUID	1.56e4	1.63e4	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	NO3-02	LIQUID	6.47e4	6.88e4	N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	PO4-02	LIQUID	gmF 5/3/95 2.56e3 ~~25.6~~	2.86e3 ~~28.6~~	gmF 5/3/95 N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	SO4-02	LIQUID	gmF 5/3/95 3.83e3 ~~38.3~~	3.83e3 ~~40.0~~ ~~38~~ 4.00e3	gmF 4/18/95 + 5/3/95 N/A	ug/mL
94000020	SY-103	4 DUP	S95T000334	0	@IC-01	OXALATE2	LIQUID	gmF 5/3/95 1.05e3 ~~<10.5~~	1.05e3 ~~<10.5~~	gmF 5/3/95 N/A	ug/mL
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	F-02	LIQUID	N/A	1.26e2 ~~<1.26~~	gmF 5/3/95 1.26e2	ug/mL
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	CL-02	LIQUID	gmF 5/3/95 N/A	3.86e3 ~~38.6~~	2.10e2	ug/mL
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	NO2-02	LIQUID	N/A	4.15e4	1.68e3 ~~16.8~~	ug/mL gmF 5/3/95
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	BR-02	LIQUID	N/A	1.76e4	1.68e3 ~~16.8~~	ug/mL gmF 5/3/95
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	NO3-02	LIQUID	N/A	5.93e4	2.10e3 ~~21.0~~	ug/mL gmF 5/3/95
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	PO4-02	LIQUID	gmF 5/3/95 N/A	1.68e3 ~~16.8~~	1.26e3 ~~12.6~~	ug/mL gmF 5/3/95
94000020	SY-103	5 SAMPLE	S95T000335	0	@IC-01	SO4-02	LIQUID	gmF 5/3/95 N/A	2.55e3 ~~25.5~~	1.68e3 ~~16.8~~	ug/mL gmF 5/3/95

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# 1118

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST		MATRIX	ACTUAL	FOUND	DL3	UNIT
94000020	SY-103	5	SAMPLE	S95T000335	0		AIC-01	OXALATE2	LIQUID	N/A	<10.5	10.5	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	F-02	LIQUID	<1.26e2	<1.26e2	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	CL-02	LIQUID	3.86e3 / 38.6	3.88e3 / 38.8	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	NO2-02	LIQUID	4.15e4	4.14e4	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	BR-02	LIQUID	1.76e4	1.75e4	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	NO3-02	LIQUID	5.93e4	5.92e4	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	PO4-02	LIQUID	1.68e3 / 16.8	1.72e3 / 17.2	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	SO4-02	LIQUID	2.55e3 / 25.5	2.57e3 / 25.7	N/A	ug/mL
94000020	SY-103	6	DUP	S95T000335	0		AIC-01	OXALATE2	LIQUID	1.05e3 / <10.5	1.05e3 / <10.5	N/A	ug/mL

Final page for worklist # 1118

Patricia J. McCann 4/14/95
Analyst Signature Date

Analyst Signature Date

Data entered by Arden K McFarland 4-18-95

Verified 4/19/95 J. M. Fuge

Data corrected to include 100 prep dil factor 5/3/95. J M Fuge

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 Name:  BLANK                          Date: 04/14/1995 17:23:01      |
| Data File   : C:\DX\DATA\95041401.D01                                       |
| Method      : C:\DX\METHOD\KIT.MET                                          |
  ACI Address: 1  System: 1  Inject#: 1                   Detector:CDM-1      |
| Analyst     :                Column:                                        |
==============================================================================
```

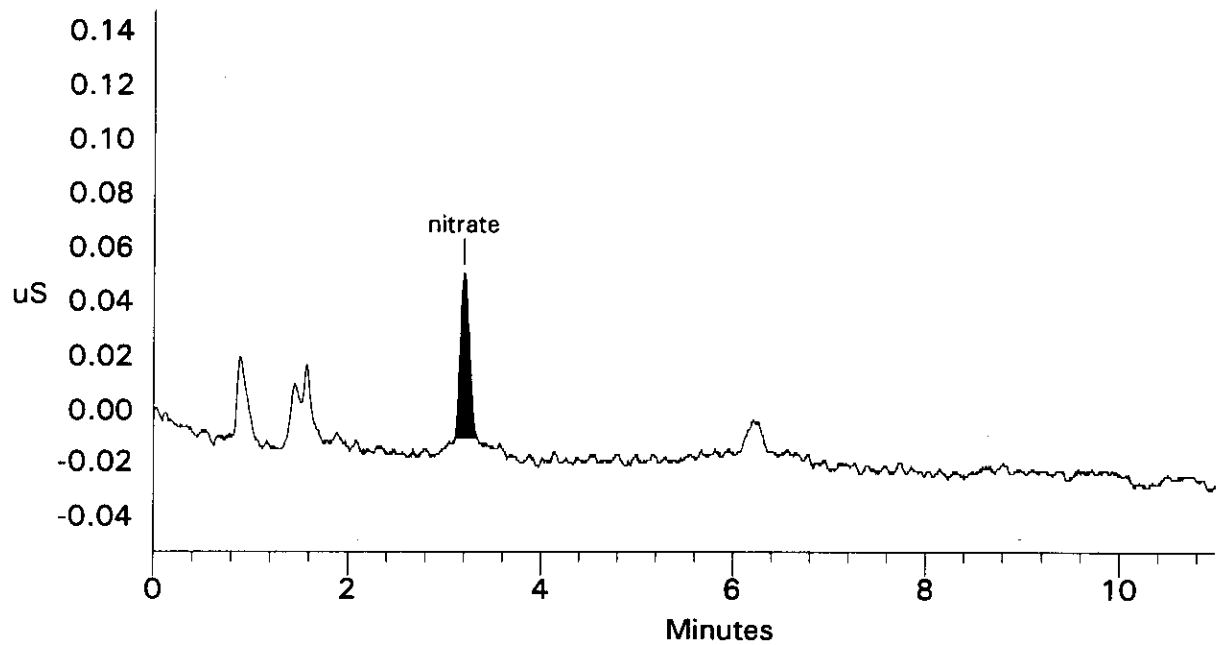
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	3.20	nitrate	0.390	60	386	1	0.00
		Totals	0.390	60	386		

DIRECT RH McCoon 4/14/95

File: 95041401.D01 Sample: BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 789 TO 799.

```
==============================================================================
| Sample Name: PREP. BLANK                    Date: 04/14/1995 19:12:11       |
| Data File  : C:\DX\DATA\95041401.D04                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 4                   Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

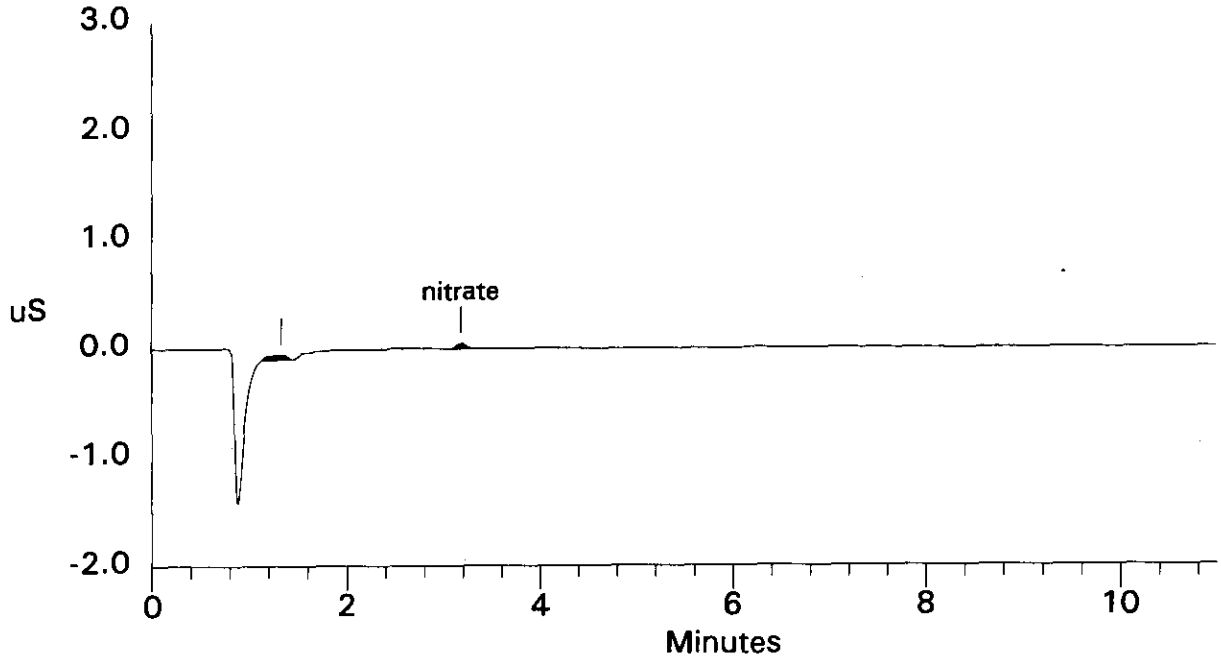
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.33		0.000	47	617	1	
2	3.18	nitrate	0.377	50	298	1	0.00
		Totals	0.377	97	915		

DIRECT RJ McCown

File: 95041401.D04 Sample: PREP. BLANK



Sample Name: LMCS 78N9-D Date: 04/14/1995 17:38:47
Data File : C:\DX\DATA\95041401.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column:

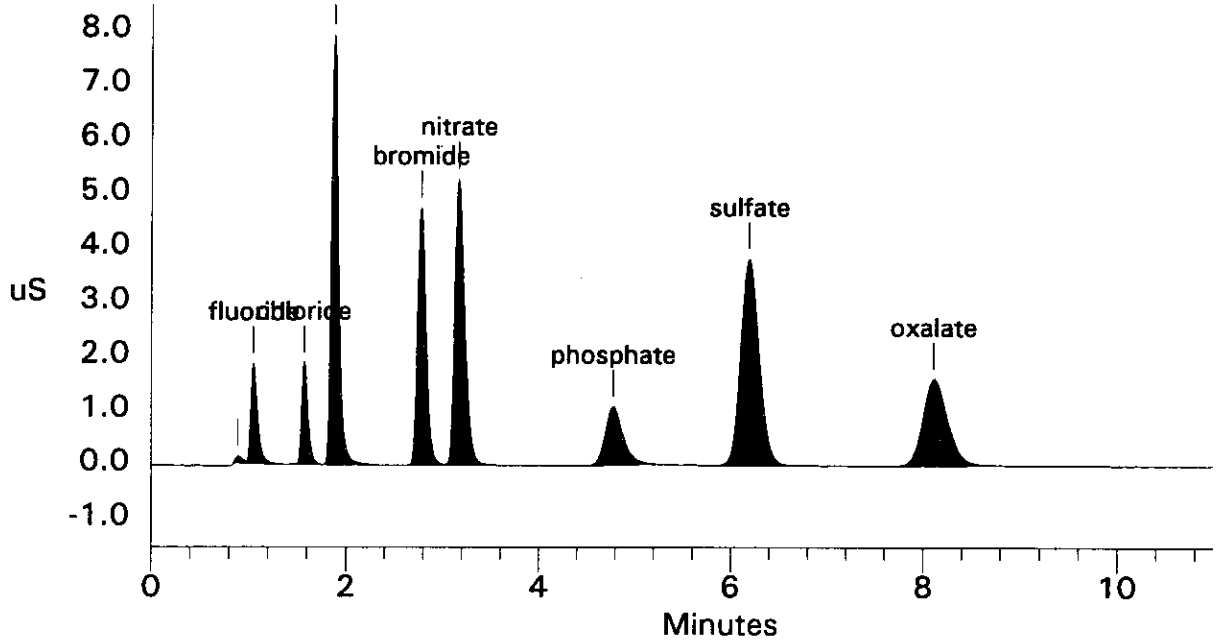
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	116	550	2	
2	1.05	fluoride	54.840	1841	8638	2	0.00
3	1.57	chloride	77.448	1872	8359	1	0.00
4	1.88	nitrite	526.400	7926	39865	1	0.00
5	2.78	bromide	592.012	4755	28861	1	0.00
6	3.17	nitrate	591.487	5276	37212	1	0.00
7	4.78	phosphate	496.272	1084	13870	1	0.00
8	6.19	sulfate	621.293	3818	50515	1	0.00
9	8.11	oxalate	481.794	1605	28343	1	0.00
		Totals	3441.545	28293	216214		

•100mL - 10mL RJ McCown

File: 95041401.D02 Sample: LMCS 78N9-D



Data Reprocessed On 04/17/1995 14:59:54

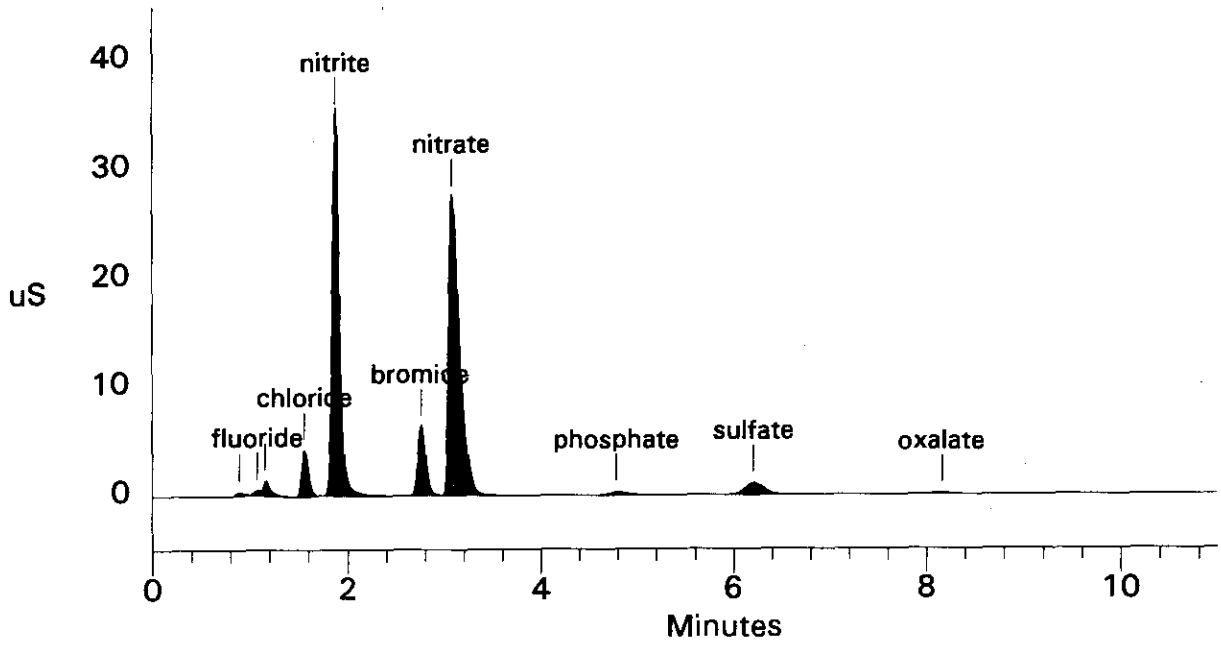
Sample Name: S95T000334 SAMPLE	Date: 04/14/1995 19:29:45
Data File : C:\DX\DATA\95041401.D05	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 5	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	300	1554	2	
2	1.08	fluoride	3.218	511	2249	2	0.00
3	1.16		0.000	1371	7978	2	
4	1.56	chloride	41.459	4264	21768	1	0.00
5	1.88	nitrite	486.072	34967	186099	1	0.00
6	2.76	bromide	156.351	6355	37154	1	0.00
7	3.08	nitrate	647.191	27441	217748	1	0.00
8	4.79	phosphate	25.575	263	3215	1	0.00
9	6.21	sulfate	38.340	1076	14354	1	0.00
10	8.16	oxalate	9.446	125	2055	1	0.00
		Totals	1407.652	76672	494172		

File: 95041401.D05 Sample: S95T000334 SAMPLE



```
==============================================================================
| Sample Name: S95T000334 SAMPLE                Date: 04/14/1995 19:29:45     |
| Data File  : C:\DX\DATA\95041401.D05                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 5                   Detector:CDM-1      |
| Analyst    :                Column:                                         |
==============================================================================
```

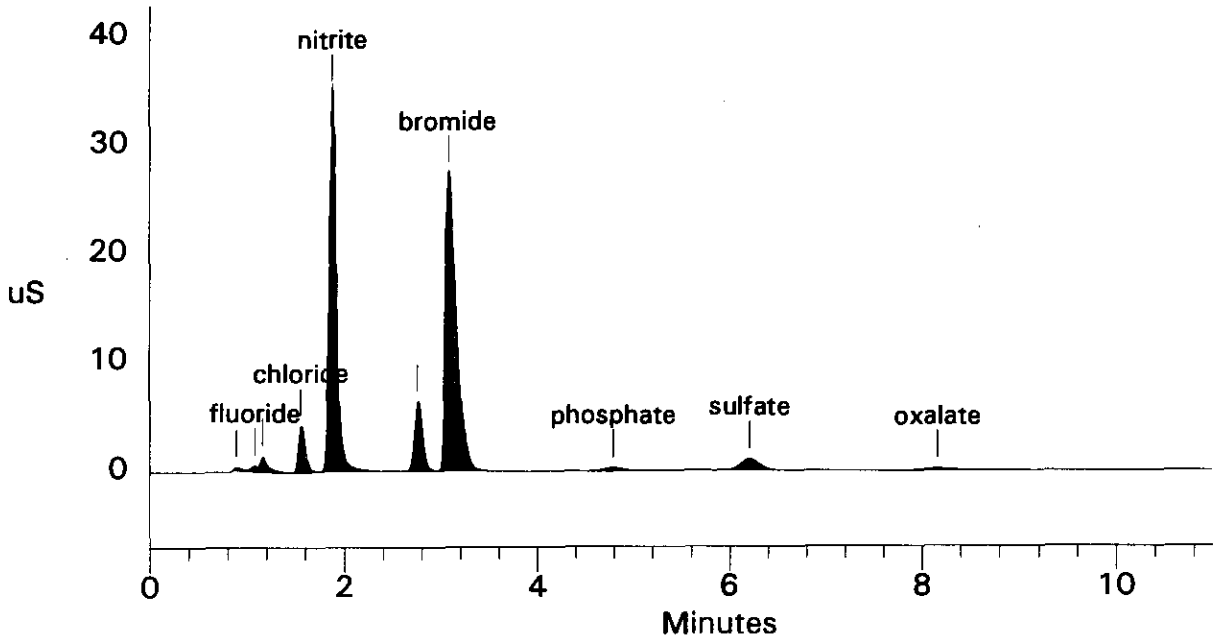
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	300	1554	2	
2	1.08	fluoride	3.218	511	2249	2	0.00
3	1.16		0.000	1371	7978	2	
4	1.56	chloride	41.459	4264	21768	1	0.00
5	1.88	nitrite	486.072	34967	186099	1	0.00
6	2.76		0.000	6355	37154	1	
7	3.08	bromide	796.136	27441	217748	1	0.00
8	4.79	phosphate	25.575	263	3215	1	0.00
9	6.21	sulfate	38.340	1076	14354	1	0.00
10	8.16	oxalate	9.446	125	2055	1	0.00
		Totals	1400.246	76672	494172		

.500mL - 10mL RHMcCown

File: 95041401.D05 Sample: S95T000334 SAMPLE



Data Reprocessed On 04/17/1995 15:01:04

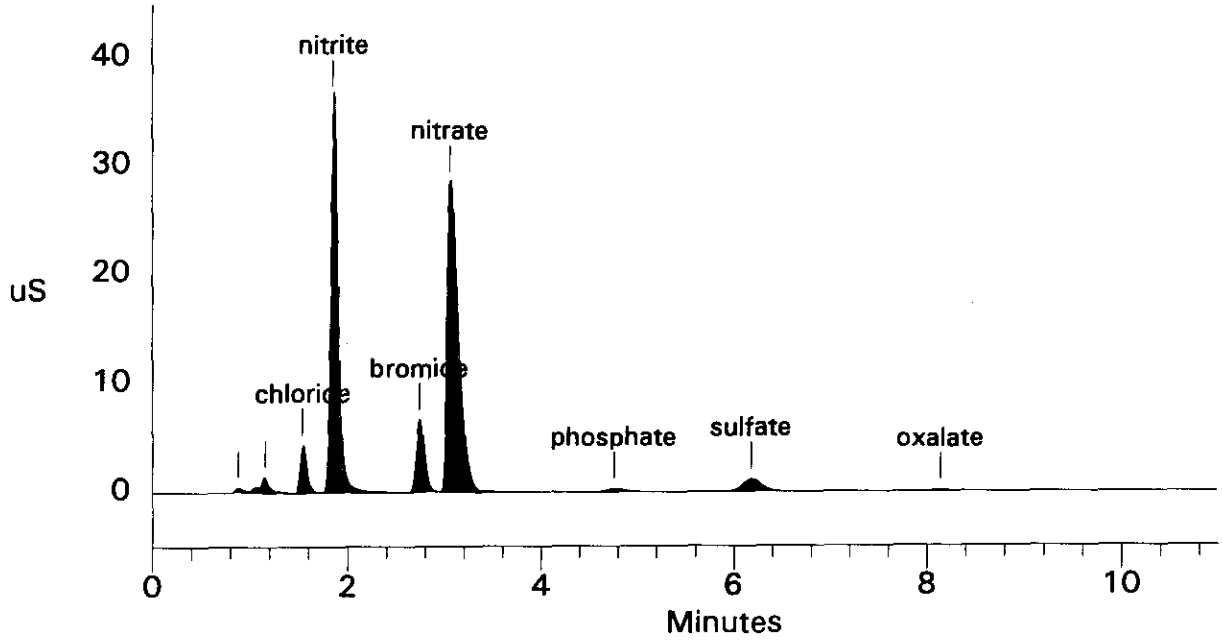
Sample Name: S95T000334 SAMPLE DUP. Date: 04/14/1995 19:48:44
Data File : C:\DX\DATA\95041401.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	337	1731	2	
2	1.15		0.000	1446	10878	2	
3	1.54	chloride	42.031	4410	22075	1	0.00
4	1.86	nitrite	497.879	36404	190649	1	0.00
5	2.74	bromide	163.419	6562	38927	1	0.00
6	3.06	nitrate	688.193	28439	232870	1	0.00
7	4.76	phosphate	28.607	284	3626	1	0.00
8	6.18	sulfate	40.013	1130	15012	1	0.00
9	8.14	oxalate	9.763	127	2146	1	0.00
		Totals	1469.904	79139	517913		

File: 95041401.D06 Sample: S95T000334 SAMPLE DUP.



```
==============================================================================
| Sample Name: S95T000334 SAMPLE DUP.          Date: 04/14/1995 19:48:44      |
| Data File  : C:\DX\DATA\95041401.D06                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
  ACI Address: 1  System: 1  Inject#: 6                   Detector:CDM-1      |
  Analyst    :                Column:                                         |
==============================================================================
```

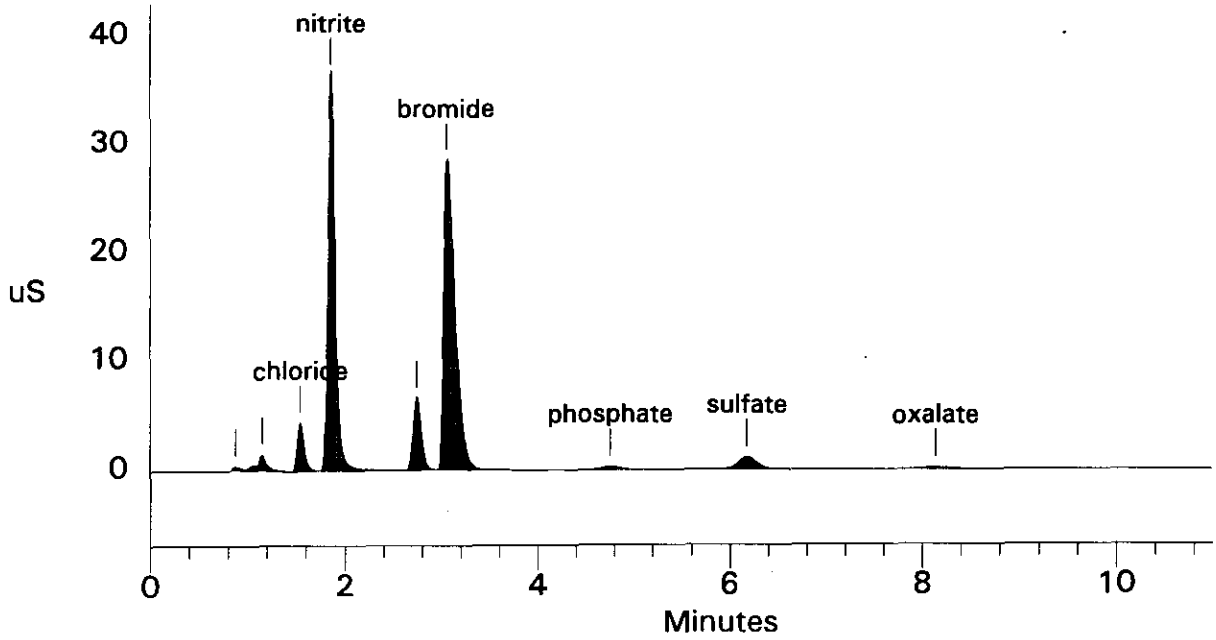
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	337	1731	2	
2	1.15		0.000	1446	10878	2	
3	1.54	chloride	42.031	4410	22075	1	0.00
4	1.86	nitrite	497.879	36404	190649	1	0.00
5	2.74		0.000	6562	38927	1	
6	3.06	bromide	842.374	28439	232870	1	0.00
7	4.76	phosphate	28.607	284	3626	1	0.00
8	6.18	sulfate	40.013	1130	15012	1	0.00
9	8.14	oxalate	9.763	127	2146	1	0.00
		Totals	1460.666	79139	517913		

.500 mL - 10 mL RH McCown

File: 95041401.D06 Sample: S95T000334 SAMPLE DUP.



Data Reprocessed On 04/17/1995 15:03:07

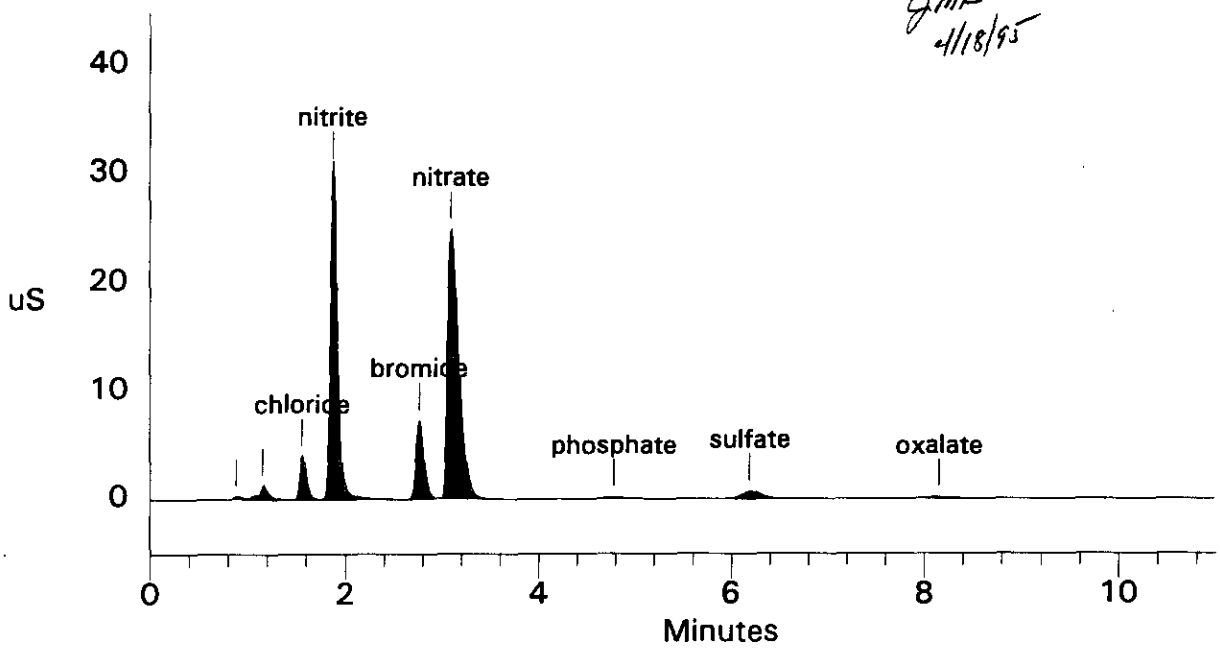
Sample Name: S95T000334 SAMPLE 3 gmF 4/18/95	Date: 04/14/1995 20:14:08
Data File : C:\DX\DATA\95041401.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector:CDM-1
Analyst : Column:	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3300	5Hz	0.00	11.00	200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	259	1426	2	
2	1.16		0.000	1344	9853	2	
3	1.56	chloride	38.622	4087	20248	1	0.00
4	1.88	nitrite	414.567	30456	158500	1	0.00
5	2.77	bromide	175.584	7297	41989	1	0.00
6	3.10	nitrate	593.362	24884	198143	1	0.00
7	4.79	phosphate	16.762	171	2022	1	0.00
8	6.20	sulfate	25.489	699	9311	1	0.00
9	8.16	oxalate	9.642	128	2111	1	0.00
		Totals	1274.028	69325	443602		

File: 95041401.D08 Sample: S95T000334 SAMPLE 5 gmF 4/18/95



RLM 4/14/95

Sample Name: S95T000334 SAMPLE Date: 04/14/1995 20:14:08
Data File : C:\DX\DATA\95041401.D08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

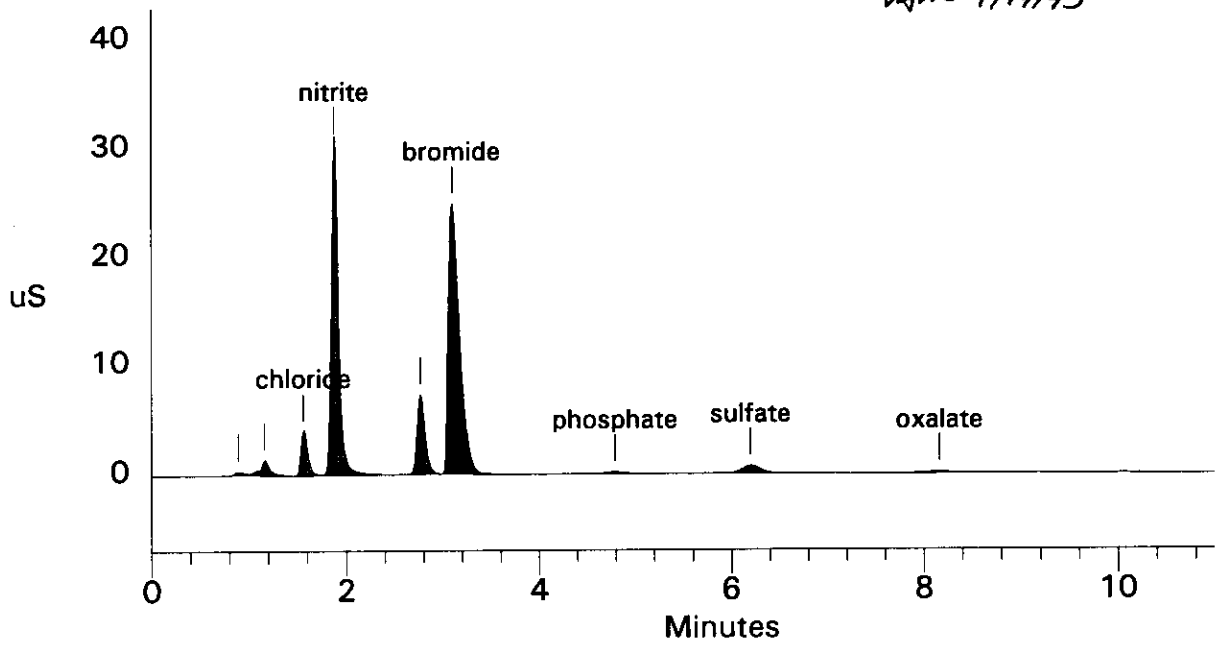
********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	259	1426	2	
2	1.16		0.000	1344	9853	2	
3	1.56	chloride	38.622	4087	20248	1	0.00
4	1.88	nitrite	414.567	30456	158500	1	0.00
5	2.77		0.000	7297	41989	1	
6	3.10	bromide	734.500	24884	198143	1	0.00
7	4.79	phosphate	16.762	171	2022	1	0.00
8	6.20	sulfate	25.489	699	9311	1	0.00
9	8.16	oxalate	9.642	128	2111	1	0.00
		Totals	1239.582	69325	443602		

.500mL - 10mL RLMcCown

File: 95041401.D08 Sample: S95T000334 SAMPLE

RLM 4/14/95



Data Reprocessed On 04/17/1995 15:05:22

5 gmf 4/18/95

Sample Name: S95T000334 SAMPLE DUP.	Date: 04/14/1995 21:34:02
Data File : C:\DX\DATA\95041401.D09	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 9	Detector:CDM-1
Analyst : Column:	

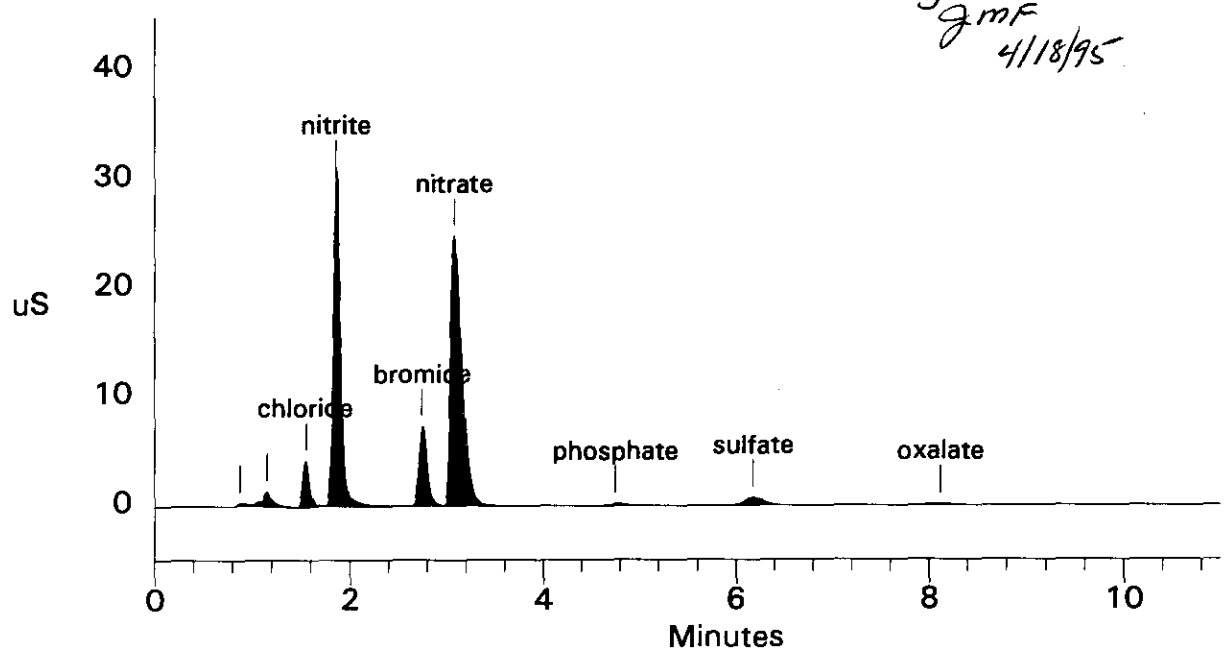
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3300	5Hz	0.00	11.00		200

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	251	1297	2	
2	1.15		0.000	1350	9480	2	
3	1.55	chloride	38.841	4198	20365	1	0.00
4	1.86	nitrite	414.205	30200	158360	1	0.00
5	2.75	bromide	174.713	7232	41769	1	0.00
6	3.08	nitrate	591.595	24754	197504	1	0.00
7	4.75	phosphate	17.168	170	2077	1	0.00
8	6.18	sulfate	25.667	701	9381	1	0.00
9	8.12	oxalate	10.007	132	2216	1	0.00
		Totals	1272.196	68988	442449		

File: 95041401.D09 Sample: S95T000334 SAMPLE DUP.

5 gmf 4/18/95



RJM 4/14/95

Sample Name: S95T000334 5 SAMPLE DUP. Date: 04/14/1995 21:34:02
Data File : C:\DX\DATA\95041401.D09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : Column:

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3300	5Hz	0.00	11.00	200

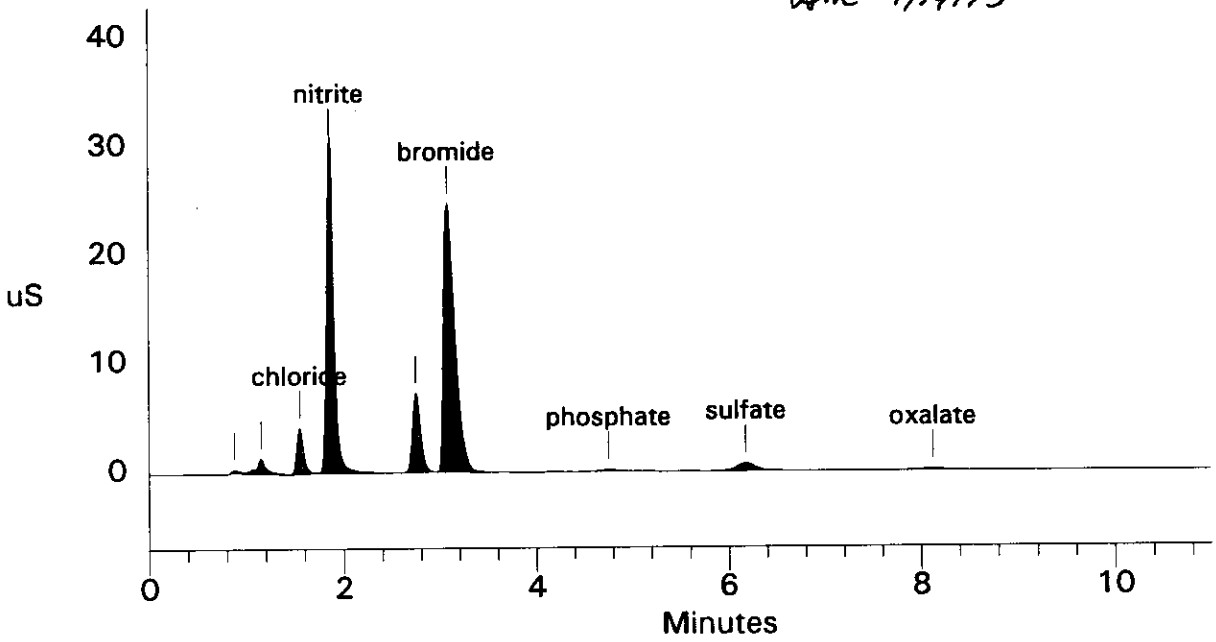
********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.88		0.000	251	1297	2	
2	1.15		0.000	1350	9480	2	
3	1.55	chloride	38.841	4198	20365	1	0.00
4	1.86	nitrite	414.205	30200	158360	1	0.00
5	2.75		0.000	7232	41769	1	
6	3.08	bromide	732.459	24754	197504	1	0.00
7	4.75	phosphate	17.168	170	2077	1	0.00
8	6.18	sulfate	25.667	701	9381	1	0.00
9	8.12	oxalate	10.007	132	2216	1	0.00
		Totals	1238.347	68988	442449		

.500 mL - 10 mL RJ McCown

File: 95041401.D09 Sample: S95T000334 5 SAMPLE DUP.

RJM 4/14/95



LABCORE Data Entry Template for Worklist# 1162

Analyst: EHC **Instrument:** IC01 4500i **Book #** 66N9B

Method: LA-533-105 Rev/Mod C-2

Worklist Comment: SY 103 organic acids, for Ed Colvin. JMF

Prep.	Dilution Factor
332	100
333	100
334	100
335	100

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST		MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			@IC-02	ACETATE2		LIQUID	1	<.2	N/A	ug/mL
		1 BLNK-PREP			@IC-02	FORMATE2		LIQUID	1	<.2	N/A	ug/mL
		2 STD			@IC-02	ACETATE2		LIQUID	122	121.8	N/A	ug/mL
		2 STD			@IC-02	FORMATE2		LIQUID	122	125.9	N/A	ug/mL
94000020	SY-103	3 SAMPLE	S95T000332	0	V	@IC-02	ACETATE2	LIQUID	JMF 4/24/95 N/A	1.37e3 ~~13.7~~	2.2e2 ~~2.2~~	ug/mL JMF 4/24/95
94000020	SY-103	3 SAMPLE	S95T000332	0	V	@IC-02	FORMATE2	LIQUID	JMF 4/24/95 N/A	4.28e3 ~~42.8~~	2.2e2 ~~2.2~~	ug/mL JMF 4/24/95
94000020	SY-103	4 DUP	S95T000332	0	V	@IC-02	ACETATE2	LIQUID	JMF 4/24/95 1.37e3 ~~13.7~~	1.33e3 ~~13.3~~	N/A	ug/mL JMF 4/24/95
94000020	SY-103	4 DUP	S95T000332	0	V	@IC-02	FORMATE2	LIQUID	JMF 4/24/95 4.28e3 ~~42.8~~	4.21e3 ~~42.1~~	N/A	ug/mL JMF 4/24/95
94000020	SY-103	5 SPK	S95T000332	0	V	@IC-02	ACETATE2	LIQUID	100	41.2%	N/A	ug/mL
94000020	SY-103	5 SPK	S95T000332	0	V	@IC-02	FORMATE2	LIQUID	100	13.9	N/A	ug/mL
94000020	SY-103	6 SAMPLE	S95T000333	0	V	@IC-02	ACETATE2	LIQUID	N/A	1.32e3 ~~13.2e3~~	2.2e2	ug/mL JMF 4/24/95
94000020	SY-103	6 SAMPLE	S95T000333	0	V	@IC-02	FORMATE2	LIQUID	N/A	4.23e3 ~~42.3~~	2.2e2	ug/mL JMF 4/24/95
94000020	SY-103	7 DUP	S95T000333	0	V	@IC-02	ACETATE2	LIQUID	JMF 4/24/95 1.32e3 ~~13.2~~	1.34e3 ~~13.4~~	N/A	ug/mL JMF 4/24/95
94000020	SY-103	7 DUP	S95T000333	0	V	@IC-02	FORMATE2	LIQUID	JMF 4/24/95 4.23e3 ~~42.3~~	4.34e3 ~~43.4~~	N/A	ug/mL JMF 4/24/95
94000020	SY-103	8 SAMPLE	S95T000334	0	V	@IC-02	ACETATE2	LIQUID	N/A	7.16e2 ~~7.16~~	2.2e2	ug/mL JMF 4/24/95
94000020	SY-103	8 SAMPLE	S95T000334	0	V	@IC-02	FORMATE2	LIQUID	N/A	2.08e3 ~~20.8~~	2.2e2	ug/mL JMF 4/24/95
94000020	SY-103	9 DUP	S95T000334	0	V	@IC-02	ACETATE2	LIQUID	JMF 4/24/95 7.16e2 ~~7.16~~	7.57e2 ~~7.57~~	N/A	ug/mL JMF 4/24/95
94000020	SY-103	9 DUP	S95T000334	0	V	@IC-02	FORMATE2	LIQUID	JMF 4/24/95 2.08e3 ~~20.8~~	2.13e3 ~~21.3~~	N/A	ug/mL JMF 4/24/95

Data Entry Comments:
All Samples have an unknown peak eluting right after acetate. This unknown is not present in standards JMF 4/24/95
Spike Vol.: 0.100 ml, Total Volume: 11 The spikes came out low in all cases. They were done in duplicate on S95T000332 and on S95T000334 even though not requested. JMF 4/25/95

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.

~~SLOT CHK~~ JMF 4/25/95

Spike recoveries for S95T000334 formate was 58.6%, and formate 75.7%

LABCORE Data Entry Template for Worklist# 1162

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------		MATRIX	ACTUAL	FOUND	DL	UNIT
94000020	SY-103	10 SAMPLE	S95T000335	0	V	aIC-02	ACETATE2	LIQUID	N/A	7.05e2 ~~7.05~~	gmF 4/24/95 2.2e2	ug/mL
94000020	SY-103	10 SAMPLE	S95T000335	0	V	aIC-02	FORMATE2	LIQUID	N/A	2.09e3 ~~26.4~~	gmF 4/24/95 2.2e2	ug/mL
94000020	SY-103	11 DUP	S95T000335	0	V	aIC-02	ACETATE2	LIQUID	gmF 4/24/95 7.05e2 ~~7.05~~	6.92e2 ~~6.92~~	gmF 4/24/95 N/A	ug/mL
94000020	SY-103	11 DUP	S95T000335	0	V	aIC-02	FORMATE2	LIQUID	gmF 4/24/95 2.09e3 ~~20.4~~	2.01e3 ~~20.1~~	gmF 4/24/95 N/A	ug/mL

Final page for worklist # 1162

G.M. Colon 4-19-95
Analyst Signature **Date**

Analyst Signature **Date**

[illegible] 4-25-95

~~Spike Calculation S95T000332~~

~~Acetate~~

$$\frac{(19.36 - 13.72)\ 11}{(.1)(122)(11)} \times 100 = 46.2\%$$

~~gmF 4/24/95~~ see acc form

~~Formate~~

$$\frac{(44.5 - 42.8)\ 11}{(.1)(122)(11)} \times 100 = 13.9\%$$

~~gmF gmF 4/24/95~~

Verified 4/25/95. J.M. Fuge

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.

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET

ANION ANALYSIS ON DIONEX

SAMPLE #:	S95T000332 & S95T000333 & S95T000334 & S95T000335		
TEST CODE:	@ic-01	ANALYST:	Ed Colvin
INSTRUMENT:	4500i	ANALYSIS DATE:	04/19/95
WORK LIST #:	1162	SAMPLE POINT:	SY-103
BATCH ID:	gmF 4/28/95 gmE 4/28/95	SAMPLE PREP:	dilution

	~~Fluoride~~ Acetate	~~Chloride~~ Formate	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
78n9c	99.8%	103.2%						
S95T000332	1.37E+03	4.28E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
S95t000332	1.33E+03	4.21E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 RPD	3.0%	1.6%	N/A	N/A	N/A	N/A	N/A	N/A
S95T000333	1.32E+03	4.23E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
S95T000333	1.34E+03	4.34E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	1.5%	2.6%	N/A	N/A	N/A	N/A	N/A	N/A
S95T000334	7.16E+02	2.08E+03						
S95T000334	7.57E+02	2.13E+03						
Duplicate 3 RPD	5.6%	2.4%						
S95T000335	7.05E+02	2.09E+03						
S95T000335	6.92E+02	2.01E+03						
Duplicate 4 RPD	1.9%	3.9%						
S95T000332	46.4%	13.9%						

NARRATIVE: **Analyst Comments:**

Chemist Comments:

Form Completed By:	[signature]	Date:	4/28/95
Chemist Approval:	[signature]	Date:	4/28/95

802

JMF 4/24/95

LAB LEADER INFO	
Method:	ia-533-105 c-2
Matrix:	liquid
Test Code:	@ic-01
Work List #:	1162
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/mL
Spike Book Number:	78n9c
Spike Sample #:	1
Prepared By:	Jann Frye
Prepared Date:	04/24/95
Chemist:	Jann Frye
Analyst:	Ed Colvin
Analysis Date:	04/19/95
Time Complete:	
Instrument Code:	4500I
Rerun:	0
Sample Prep:	dilution
Sample Point:	SY-103
Sample Type	JMF 4/24/95
STANDARD	~~78n9c~~
SAMPLE 1	S95T000332
DUPLICATE 1	S95t000332
SAMPLE 2	S95T000333
DUPLICATE 2	S95T000333
SAMPLE 3	S95T000334
DUPLICATE 3	S95T000334
SAMPLE 4	S95T000335
DUPLICATE 4	S95T000335
SPIKE	S95T000332
SPIKE DUPLICATE	

PRINT

Acetate Formate INFO	~~Fluoride~~	~~Chloride~~	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<.2	<.2						
Standard Data (µg/mL)	121.8	125.9						
Sample 1 Data (µg/mL)	1.37E+01	4.28E+01						
Sample 1 Dilution Factor	11	11						
Sample 1 Prep DF	100	100	100	100	100	100	100	100
Duplicate 1 Data (µg/mL)	1.33E+01	4.21E+01						
Duplicate 1 Dilution Factor	11	11						
Duplicate 1 Prep DF	100	100	100	100	100	100	100	100
Sample 2 Data (µg/mL)	1.32E+01	4.23E+01						
Sample 2 Dilution Factor	11	11						
Sample 2 Prep DF	100	100	100	100	100	100	100	100
Duplicate 2 Data (µg/mL)	1.34E+01	4.34E+01						
Duplicate 2 Dilution Factor	11	11						
Duplicate 2 Prep DF	100	100	100	100	100	100	100	100
Sample 3 Data (µg/mL)	7.18E+00	2.08E+01						
Sample 3 Dilution Factor	11	11						
Sample 3 Prep DF	100	100	100	100	100	100	100	100
Duplicate 3 Data (µg/mL)	7.57E+00	2.13E+01						
Duplicate 3 Dilution Factor	11	11						
Duplicate 3 Prep DF	100	100	100	100	100	100	100	100
Sample 4 Data (µg/mL)	7.05E+00	2.09E+01						
Sample 4 Dilution Factor	11	11						
Sample 4 Prep DF	100	100	100	100	100	100	100	100
Duplicate 4 Data (µg/mL)	6.92E+00	2.01E+01						
Duplicate 4 Dilution Factor	11	11						
Duplicate 4 Prep DF	100	100	100	100	100	100	100	100
Spike + Sample 1 (µg/mL)	1.94E+01	4.45E+01						
Spike + Dup 1 (µg/mL)								
Spike Volume (mL)	1.00E-01	1.00E-01						
Total Volume (mL)	11.00	11.00						
Std. Conc. (µg/mL)	122	122						
Detection Limit	0.200	0.200	1.000	1.000	1.000	1.000	1.000	1.000

Spike Recovery = [((Spike+Sample)-(Sample)*(Total Volume))/((Spike Vol.)*(Spike Std.)*(Sample DF))]*100%
Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
Duplicate Relative % Difference = ((Sample - Duplicate) / ((Sample + Duplicate) / 2) * 100%)
Less than Values are Calculated from the Detection Limit*Dilution Factor

JMF 4/24/95

v RESULTS v	~~Fluoride~~ Acetate	~~Chloride~~ Formate	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	99.8%	103.2%						
Sample 1 in µg/mL	1.37E+03	4.28E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 in µg/mL	1.33E+03	4.21E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 RPD	3.0%	1.6%	N/A	N/A	N/A	N/A	N/A	N/A
Sample 2 in µg/mL	1.32E+03	4.23E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 in µg/mL	1.34E+03	4.34E+03	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	1.5%	2.6%	N/A	N/A	N/A	N/A	N/A	N/A
Sample 3 in µg/mL	7.18E+02	2.08E+03						
Duplicate 3 in µg/mL	7.57E+02	2.13E+03						
Duplicate 3 RPD	5.6%	2.4%						
Sample 4 in µg/mL	7.05E+02	2.09E+03						
Duplicate 4 in µg/mL	6.92E+02	2.01E+03						
Duplicate 4 RPD	1.9%	3.9%						
Spike % Recovery	46.4%	13.9%						

Data Entry by:	J. M. Frye	Date:	04/24/95
Approved by:	Jann Frye	Date:	4/28/95

803

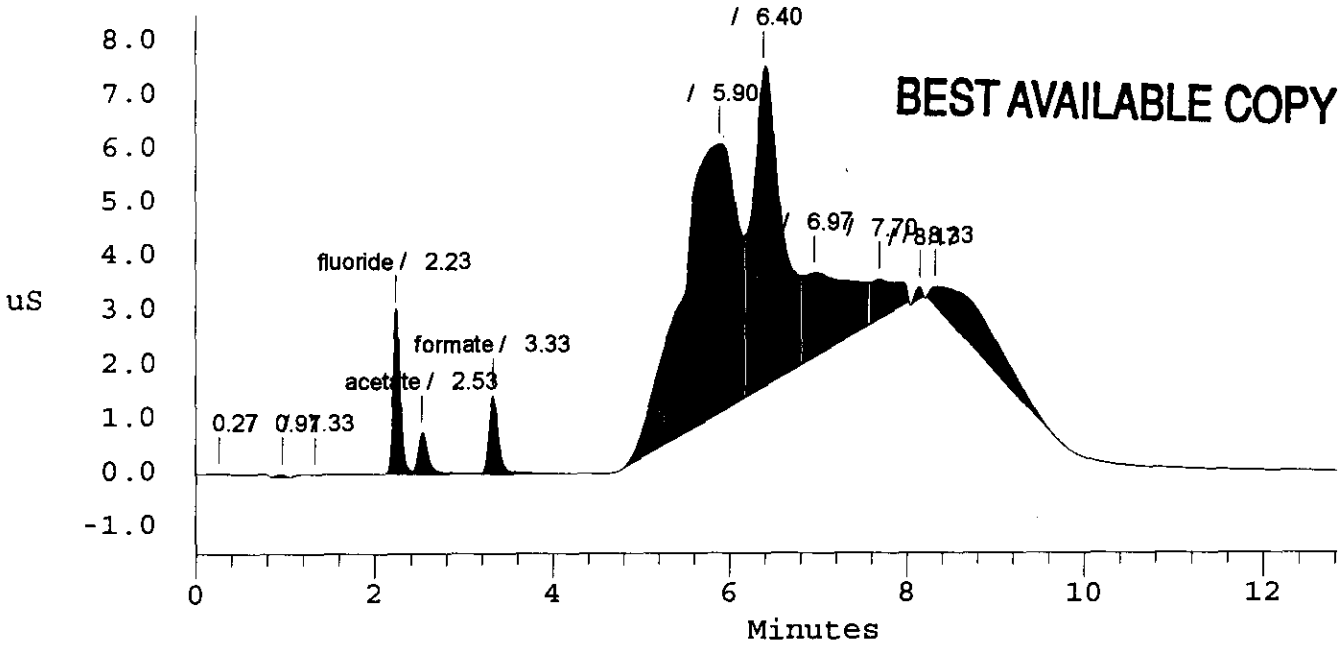
Sample Name: 66N9-B STD	Date: 04/21/1995 07:45:35
Data File : C:\DX\DATA\95042141.D06	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 6	Detector:CDM-2
Analyst : E.W. Cohn 4/18/95	Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3852	5Hz	0.00	12.84		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.27		0.000	5489	82920	1	
2	0.97		0.000	50107	309352	1	
3	1.33		0.000	3177	55875	2	
4	2.23	fluoride	77.616	2981332	16728397	2	1.52
5	2.53	acetate	121.838	774914	6119774	2	1.33
6	3.33	formate	125.926	1449632	10728375	2	1.94
7	5.90		0.000	4966705	223624042	2	
8	6.40		0.000	5890165	130511101	2	
9	6.97		0.000	1548353	53916422	2	
10	7.70		0.000	734360	14604014	2	
11	8.17		0.000	181500	1131000	1	
12	8.33		0.000	361265	38196060	1	
		Totals	325.380	18947000	496007332		

File: 95042141.D06 Sample: 66N9-B STD



BEST AVAILABLE COPY

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 804 TO 818.

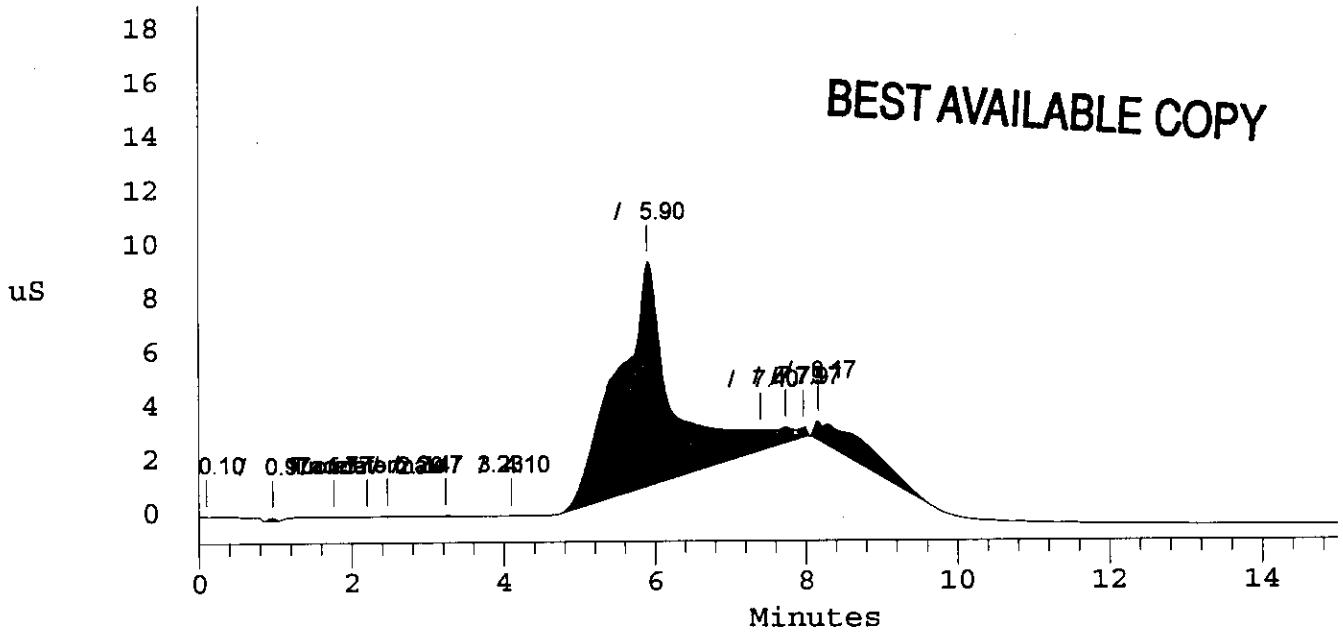
```
==============================================================================
| Sample Name: SAMPLE BLK                        Date: 04/21/1995 06:36:11     |
| Data File  : C:\DX\DATA\95042141.D02                                         |
| Method     : C:\DX\METHOD\ACE.MET                                            |
  ACI Address: 1  System: 2  Inject#: 2                      Detector:CDM-2    |
| Analyst    :                 Column: AG4A-SC,AS4A-SC, SRS                   |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.10		0.000	554	4234	1	
2	0.97		0.000	94022	531332	1	
3	1.77		0.000	136	5528	1	
4	2.20	fluoride	-0.021	1513	5272	1	0.00
5	2.47	acetate	0.369	18721	189593	2	-1.33
6	3.23	formate	0.187	12783	102472	2	-1.12
7	4.10		0.000	770	1344	1	
8	5.90		0.000	8310900	433252688	3	
9	7.40		0.000	143121	2551914	4	
10	7.73		0.000	299772	2939084	4	
11	7.97		0.000	283531	2221324	4	
12	8.17		0.000	689930	53657270	1	
		Totals	0.535	9855754	495462054		

File: 95042141.D02 Sample: SAMPLE BLK



BEST AVAILABLE COPY

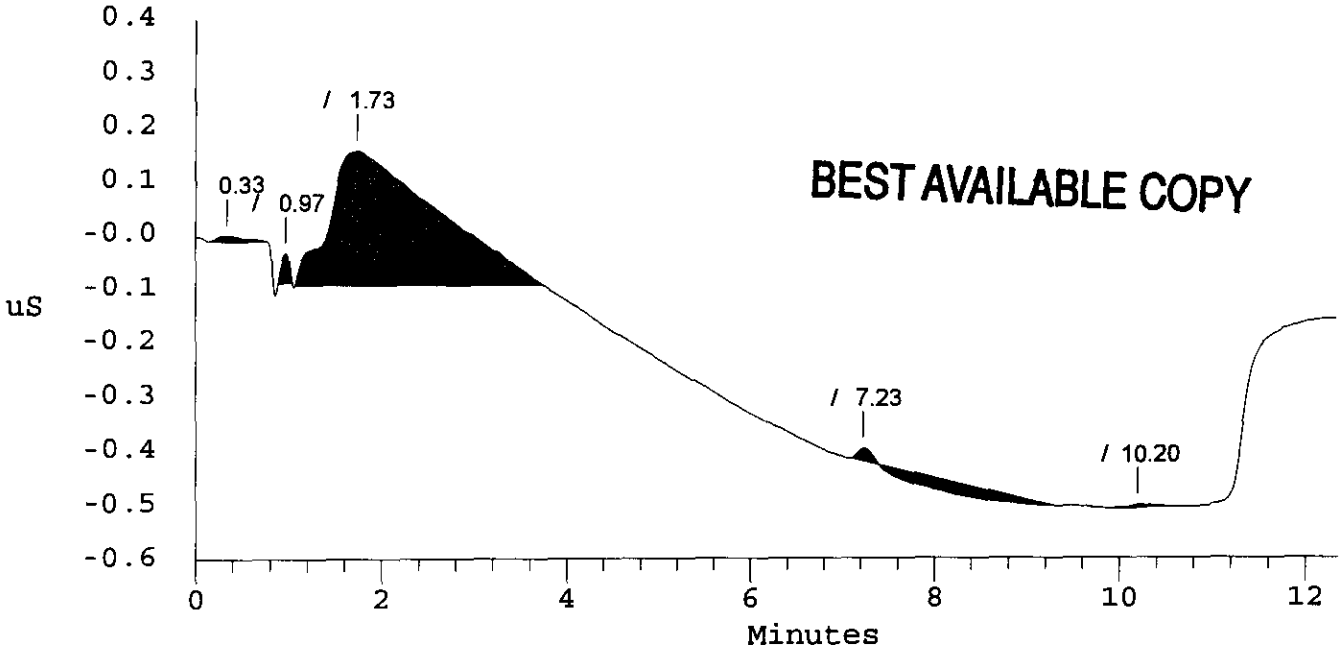
```
==========================================================================
| Sample Name: INSTR BLANK                    Date: 04/21/1995 06:19:30   |
| Data File  : C:\DX\DATA\95042141.D01                                   |
| Method     : C:\DX\METHOD\ACE.MET                                      |
| ACI Address: 1  System: 2  Inject#: 1                  Detector:CDM-2  |
| Analyst    :                Column: AG4A-SC,AS4A-SC, SRS               |
==========================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3706	5Hz	0.00	12.35		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.33		0.000	11075	226908	1	
2	0.97		0.000	54522	322332	1	
3	1.73		0.000	248995	20036902	1	
4	7.23		0.000	23574	1447160	1	
5	10.20		0.000	4289	93480	1	
		Totals	0.000	342456	22126782		

File: 95042141.D01 Sample: INSTR BLANK



BEST AVAILABLE COPY

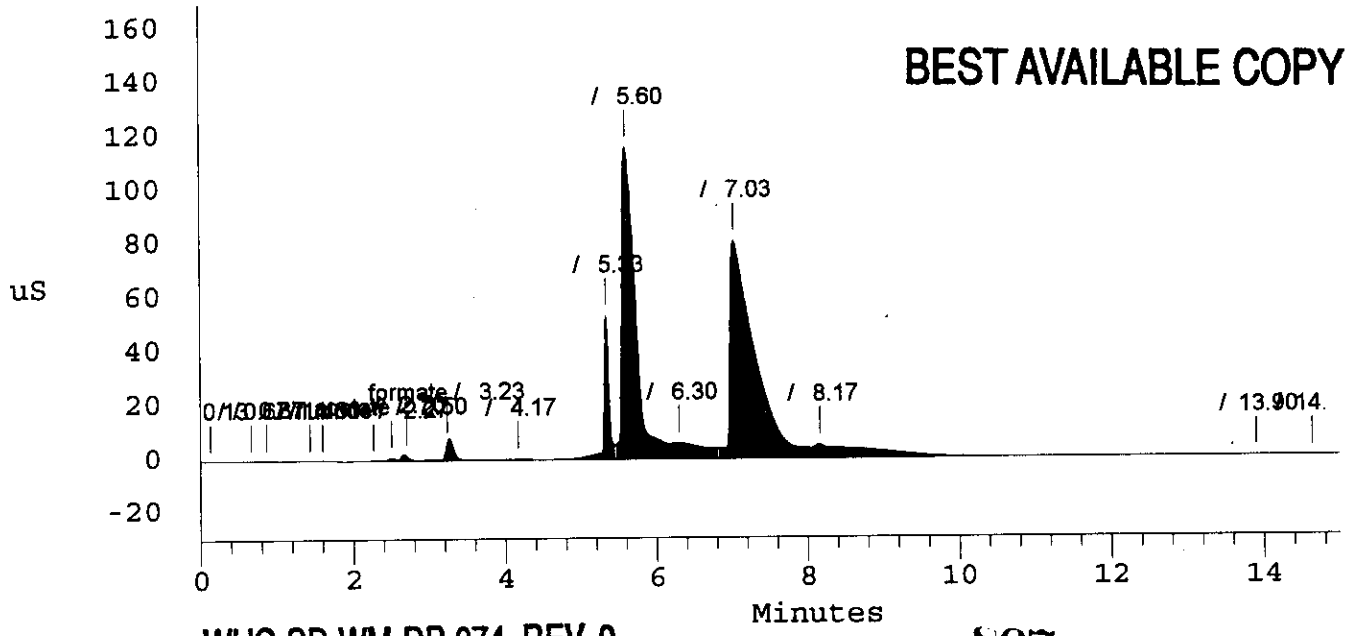
Sample Name: S95T000332 Date: 04/21/1995 07:31:49
Data File : C:\DX\DATA\95042141.D05
Method : C:\DX\METHOD\ACE.MET
ACI Address: 1 System: 2 Inject#: 5 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.13		0.000	2766	65302	1	
2	0.67		0.000	318	1202	1	
3	0.87		0.000	28175	157344	1	
4	1.43		0.000	158	810	1	
5	1.60		0.000	4435	50478	1	
6	2.27	fluoride	-0.190	19966	78690	1	3.03
7	2.50	acetate	13.724	1060335	6428135	2	0.00
8	2.70		0.000	1880612	16478679	2	
9	3.23	formate	42.790	6575351	57163614	2	-1.12
10	4.17		0.000	427344	3677030	2	
11	5.33		0.000	53160174	237451026	2	
12	5.60		0.000	115748697	1458281658	3	
13	6.30		0.000	4179413	146696622	4	
14	7.03		0.000	80730758	1877515462	3	
15	8.17		0.000	3429022	247611643	4	
16	13.90		0.000	6060	140040	4	
17	14.63		0.000	500	2872	4	
		Totals	56.323	267254084	4051800607		

File: 95042141.D05 Sample: S95T000332



Data Reprocessed On 04/21/1995 11:51:14

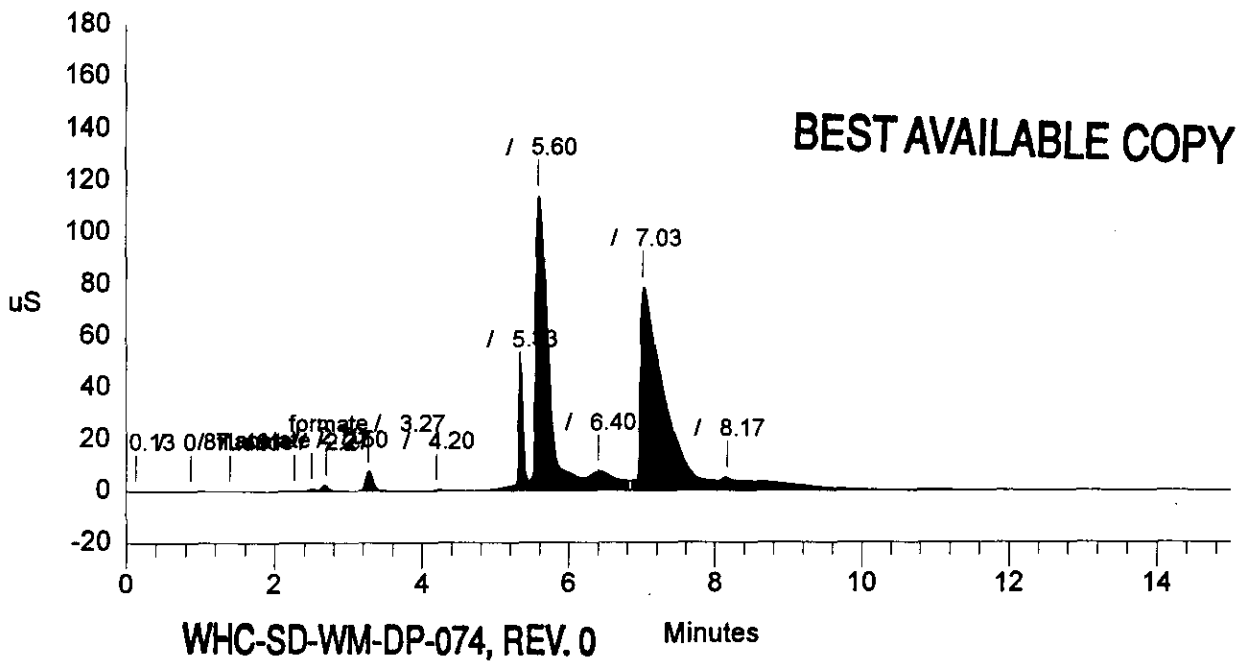
Sample Name: S95T000332 DUP	Date: 04/21/1995 08:04:49
Data File : C:\DX\DATA\95042141.D07	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 7	Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.13		0.000	4244	37704	1	
2	0.87		0.000	21593	122632	1	
3	1.40		0.000	64381	2571868	1	
4	2.27	fluoride	-0.171	19756	113068	1	3.03
5	2.50	acetate	13.343	918982	6169390	2	0.00
6	2.70		0.000	2222648	14657380	2	
7	3.27	formate	42.056	7235561	54402138	2	-0.10
8	4.20		0.000	404560	3476204	2	
9	5.33		0.000	39629411	222702571	2	
10	5.60		0.000	113758218	1396615240	3	
11	6.40		0.000	6638665	186172618	4	
12	7.03		0.000	78481807	1799340832	3	
13	8.17		0.000	3430770	247895317	4	
		Totals	55.228	252830597	3934276962		

File: 95042141.D07 Sample: S95T000332 DUP



Data Reprocessed On 04/21/1995 11:44:18

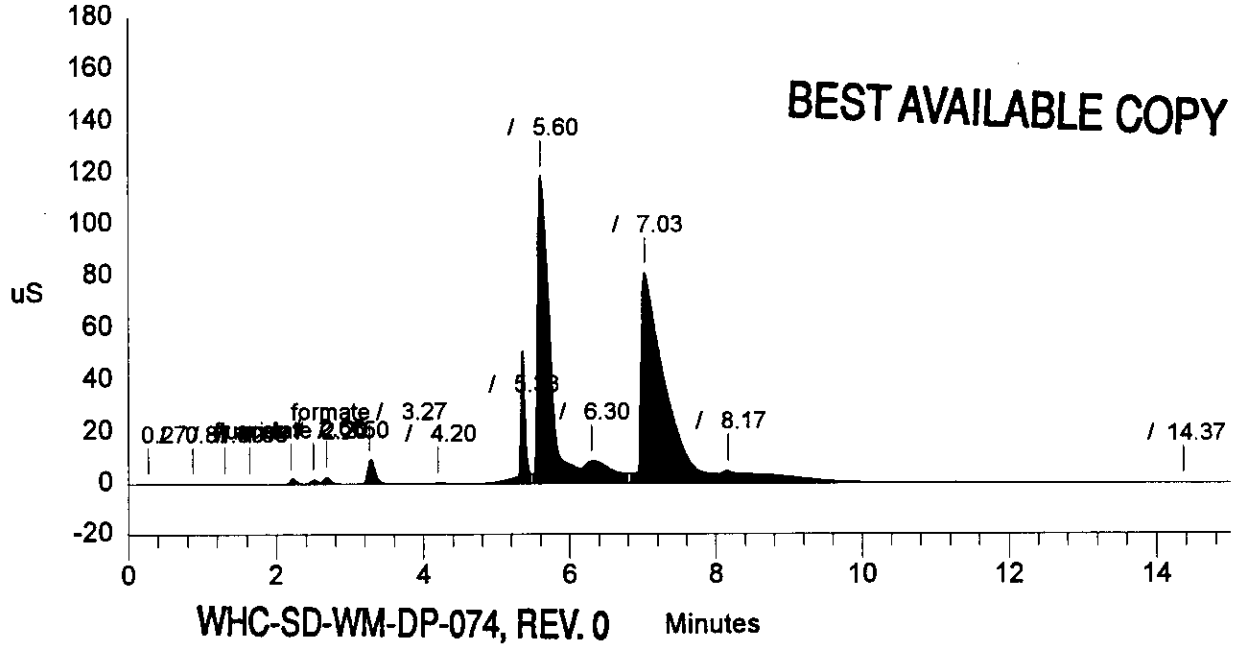
Sample Name: S95T000332 + SPIKE Date: 04/21/1995 08:20:45
Data File : C:\DX\DATA\95042141.D08
Method : C:\DX\METHOD\ACE.MET
ACI Address: 1 System: 2 Inject#: 8 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.27		0.000	5544	117001	2	
2	0.87		0.000	27186	184963	2	
3	1.30		0.000	139	64	1	
4	1.63		0.000	3609	42996	1	
5	2.20	fluoride	5.829	1504592	11289194	2	0.00
6	2.50	acetate	19.358	1631911	10398993	2	0.00
7	2.68		0.000	2560495	17772948	2	
8	3.27	formate	44.516	8757303	69178795	2	-0.10
9	4.20		0.000	376294	3668047	2	
10	5.33		0.000	19174658	234277957	2	
11	5.60		0.000	118543507	1422034263	3	
12	6.30		0.000	7198713	208566841	4	
13	7.03		0.000	80827318	1861238005	3	
14	8.17		0.000	3372551	245010815	4	
15	14.37		0.000	1240	13920	4	
		Totals	69.703	243985058	4083794803		

File: 95042141.D08 Sample: S95T000332 + SPIKE



Data Reprocessed On 04/21/1995 11:47:04

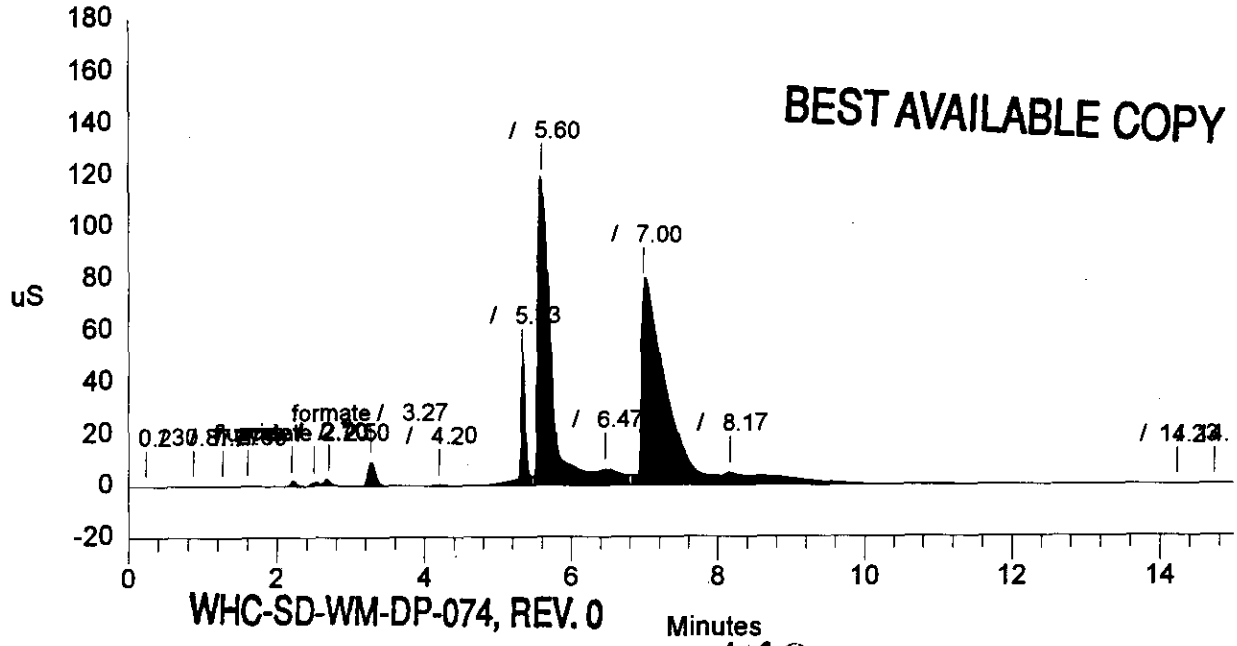
Sample Name: S95T000332 + SPIKE	Date: 04/21/1995 11:09:49
Data File : C:\DX\DATA\95042141.D16	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 16	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.23		0.000	3792	81667	2	
2	0.87		0.000	25613	150819	2	
3	1.27		0.000	43985	627022	2	
4	1.60		0.000	18672	473646	2	
5	2.20	fluoride	5.767	1629253	11165720	1	0.00
6	2.50	acetate	19.265	1588525	10331552	2	0.00
7	2.70		0.000	2229861	15141210	2	
8	3.27	formate	44.475	9274629	68372510	2	-0.10
9	4.20		0.000	422945	3655037	2	
10	5.33		0.000	46576083	233603049	2	
11	5.60		0.000	117944968	1493229343	3	
12	6.47		0.000	5240571	123979680	4	
13	7.00		0.000	77689113	1853127833	3	
14	8.17		0.000	3408183	249615692	4	
15	14.23		0.000	3040	37280	4	
16	14.73		0.000	1220	9912	4	
		Totals	69.507	266100452	4063601972		

File: 95042141.D16 Sample: S95T000332 + SPIKE



Data Reprocessed On 04/21/1995 11:53:41

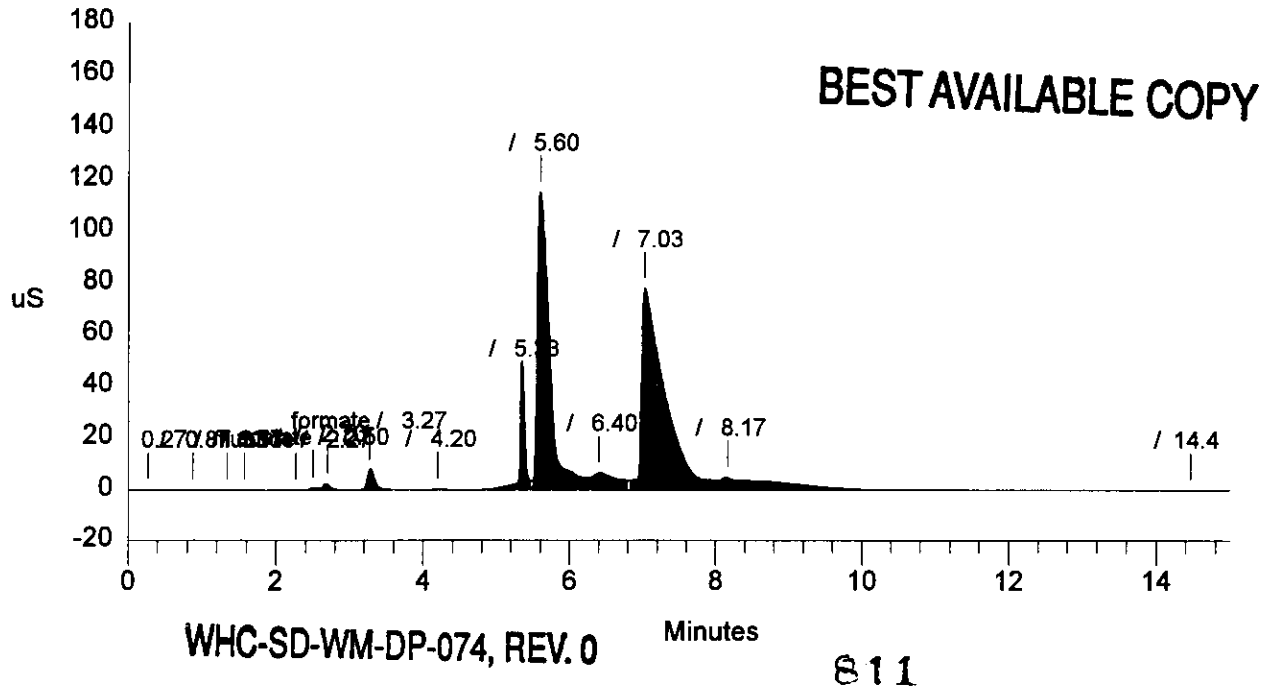
Sample Name: S95T000333	Date: 04/21/1995 08:36:59
Data File : C:\DX\DATA\95042141.D09	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 9	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.27		0.000	5024	118371	2	
2	0.87		0.000	20689	118541	2	
3	1.33		0.000	624	3026	1	
4	1.57		0.000	5762	67348	1	
5	2.27	fluoride	-0.170	20093	114624	1	3.03
6	2.50	acetate	13.222	906872	6087551	2	0.00
7	2.70		0.000	2198628	14598969	2	
8	3.27	formate	42.323	7310380	55354875	2	-0.10
9	4.20		0.000	387991	3516578	2	
10	5.33		0.000	35293294	232838202	2	
11	5.60		0.000	115142227	1408113656	3	
12	6.40		0.000	5353823	140280938	4	
13	7.03		0.000	77766489	1774100033	3	
14	8.17		0.000	3317604	242430157	4	
15	14.47		0.000	1420	20876	4	
		Totals	55.376	247730920	3877763744		

File: 95042141.D09 Sample: S95T000333



BEST AVAILABLE COPY

Data Reprocessed On 04/21/1995 11:55:57

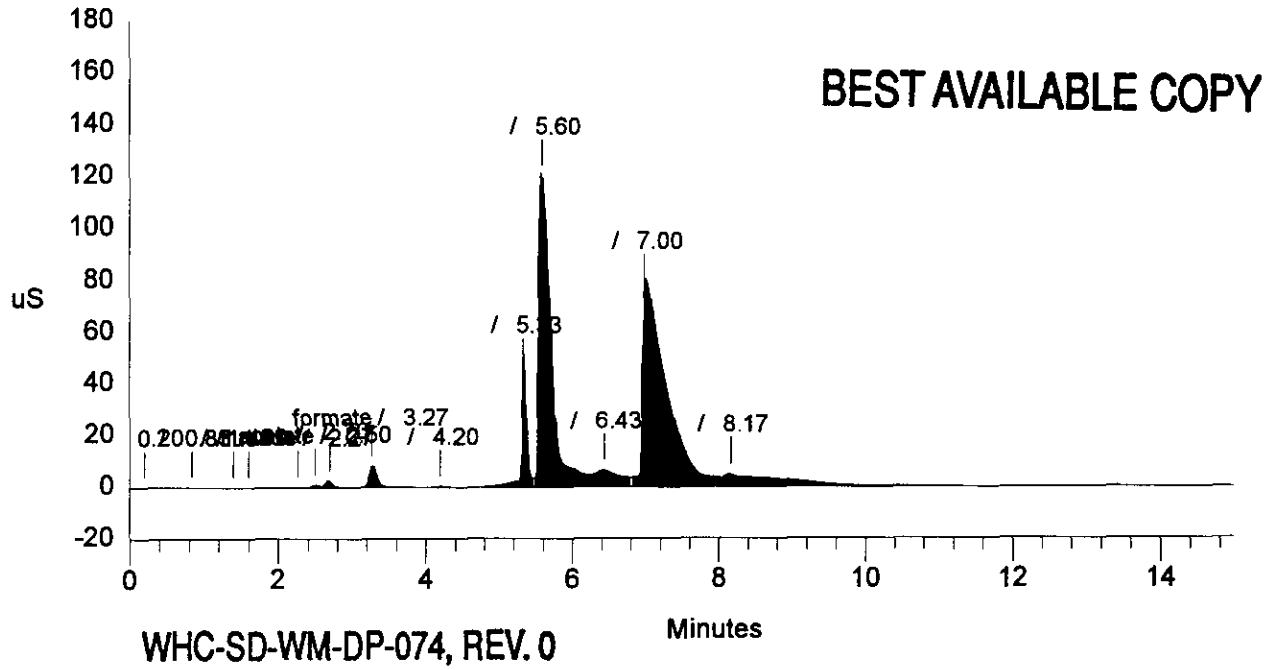
Sample Name: S95T000333 DUP	Date: 04/21/1995 08:52:49
Data File : C:\DX\DATA\95042141.D10	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 10	Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.20		0.000	4285	96193	2	
2	0.83		0.000	16802	156590	2	
3	1.40		0.000	831	4096	1	
4	1.60		0.000	5681	65488	1	
5	2.27	fluoride	-0.171	20201	113148	1	3.03
6	2.50	acetate	13.369	940070	6187295	2	0.00
7	2.70		0.000	2376962	15952551	2	
8	3.27	formate	43.407	7767366	59975958	2	-0.10
9	4.20		0.000	400082	3694965	2	
10	5.33		0.000	43631056	242143166	2	
11	5.60		0.000	120140078	1455797030	3	
12	6.43		0.000	5616129	139458853	4	
13	7.00		0.000	75804943	1848137808	3	
14	8.17		0.000	3366548	241689928	4	
		Totals	56.606	260091033	4013473069		

File: 95042141.D10 Sample: S95T000333 DUP



Data Reprocessed On 04/21/1995 11:58:52

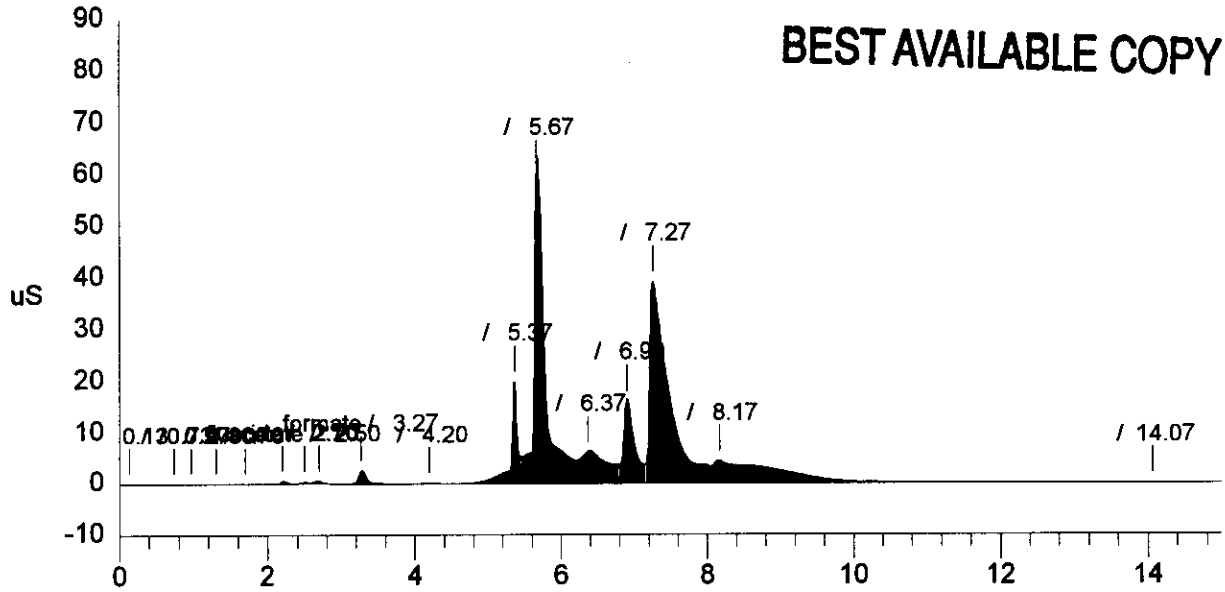
Sample Name: S95T000334	Date: 04/21/1995 09:12:22
Data File : C:\DX\DATA\95042141.D11	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 11	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.13		0.000	3070	48270	1	
2	0.73		0.000	1164	5860	1	
3	0.97		0.000	22025	123186	1	
4	1.30		0.000	1015	12645	2	
5	1.70		0.000	3336	31489	2	
6	2.20	fluoride	1.466	454338	3015178	1	0.00
7	2.50	acetate	7.158	322446	2121276	2	0.00
8	2.70		0.000	553036	3858000	2	
9	3.27	formate	20.841	2442705	18251224	2	-0.10
10	4.20		0.000	138286	1168084	2	
11	5.37		0.000	19791257	113395022	2	
12	5.67		0.000	59591252	696304928	3	
13	6.37		0.000	5113382	133135779	4	
14	6.90		0.000	16131233	168645162	2	
15	7.27		0.000	39191227	745841595	3	
16	8.17		0.000	3011741	236748841	4	
17	14.07		0.000	6780	184896	4	
		Totals	29.465	146778294	2122891434		

File: 95042141.D11 Sample: S95T000334



Data Reprocessed On 04/21/1995 12:01:22

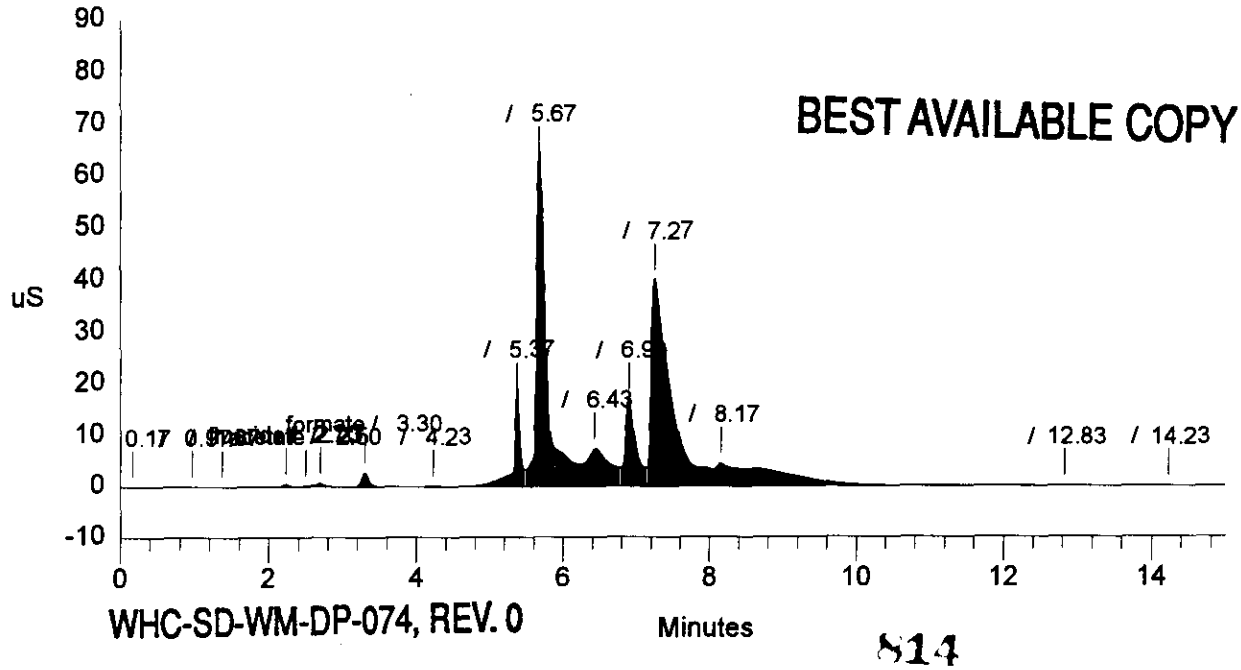
Sample Name: S95T000334 DUP	Date: 04/21/1995 09:28:14
Data File : C:\DX\DATA\95042141.D12	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 12	Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.17		0.000	3620	47610	1	
2	0.97		0.000	24494	134980	1	
3	1.37		0.000	57992	2438380	1	
4	2.23	fluoride	1.517	573927	3108338	1	1.52
5	2.50	acetate	7.572	305664	2384113	2	0.00
6	2.70		0.000	662453	4456657	2	
7	3.30	formate	21.346	2675514	18824415	2	0.92
8	4.23		0.000	140008	1239436	2	
9	5.37		0.000	16997330	117469186	2	
10	5.67		0.000	62357022	687752166	3	
11	6.43		0.000	6464470	139335522	4	
12	6.90		0.000	16875758	168934213	2	
13	7.27		0.000	39735382	764251846	3	
14	8.17		0.000	3061087	244855672	4	
15	12.83		0.000	16220	760863	4	
16	14.23		0.000	3020	45772	4	
		Totals	30.435	149953960	2156039169		

File: 95042141.D12 Sample: S95T000334 DUP



Data Reprocessed On 04/21/1995 12:04:22

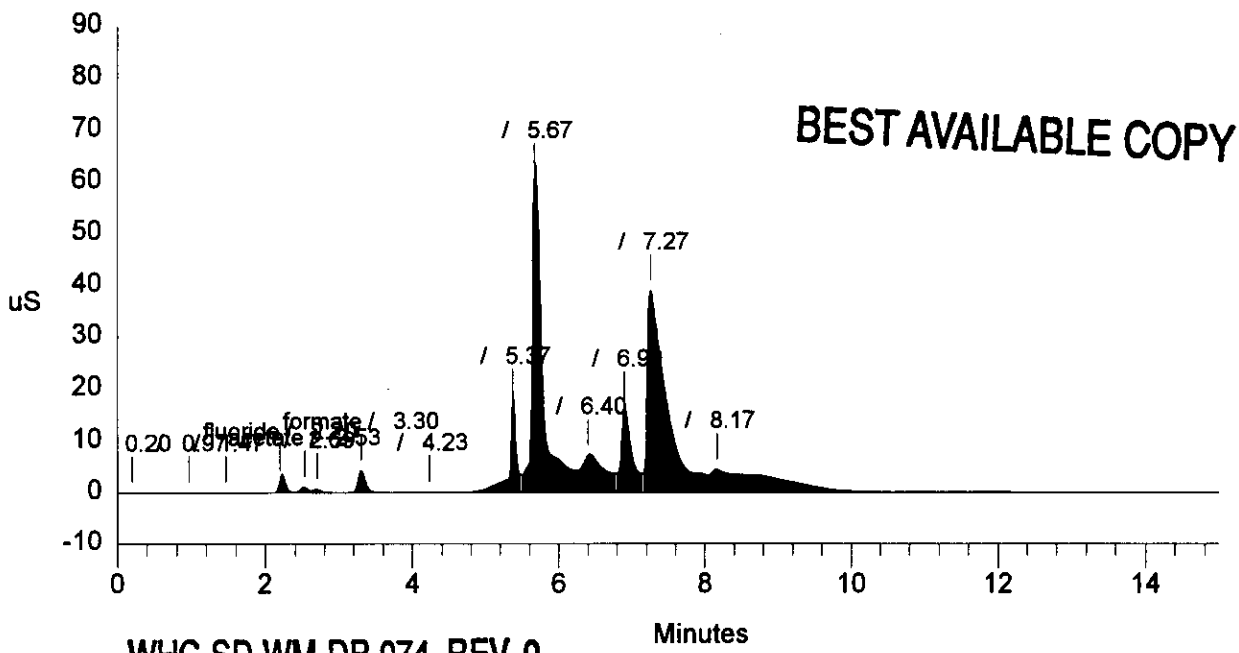
Sample Name: S95T000334 + SPIKE Date: 04/21/1995 09:44:16
Data File : C:\DX\DATA\95042141.D13
Method : C:\DX\METHOD\ACE.MET
ACI Address: 1 System: 2 Inject#: 13 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.20		0.000	4483	55338	1	
2	0.97		0.000	22699	129448	1	
3	1.47		0.000	60742	2548996	1	
4	2.20	fluoride	9.081	2214142	18093094	2	0.00
5	2.53	acetate	58.6% 14.373	1041156	6871538	2	1.33
6	2.69		0.000	669062	4686082	2	
7	3.30	formate	75.7% 30.041	4229793	29910907	2	0.92
8	4.23		0.000	132433	1164180	2	
9	5.37		0.000	16698274	117668589	2	
10	5.67		0.000	60418065	677000975	3	
11	6.40		0.000	6091390	137615830	4	
12	6.90		0.000	16137208	164658265	2	
13	7.27		0.000	38916953	741633313	3	
14	8.17		0.000	2999796	244560734	4	
		Totals	53.495	149636195	2146597289		

File: 95042141.D13 Sample: S95T000334 + SPIKE



BEST AVAILABLE COPY

Data Reprocessed On 04/21/1995 12:06:45

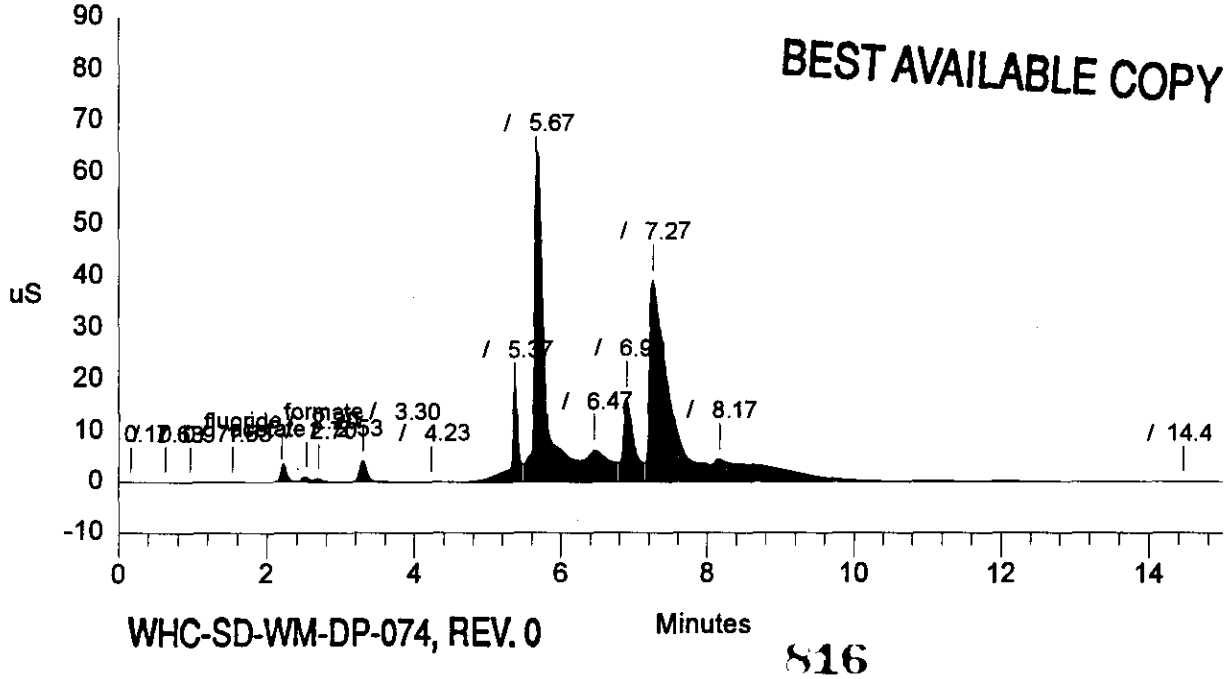
Sample Name: S95T000334 + SPIKE	Date: 04/21/1995 11:25:59
Data File : C:\DX\DATA\95042141.D17	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 17	Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	4500	5Hz	0.00	15.00		0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.17		0.000	2758	30887	2	
2	0.63		0.000	3076	38630	2	
3	0.97		0.000	24074	134712	1	
4	1.53.		0.000	55461	2317072	1	
5	2.20	fluoride	9.104	2460759	18143144	2	0.00
6	2.53	acetate	14.034	1007941	6639891	2	1.33
7	2.70		0.000	665680	4882392	2	
8	3.30	formate	29.651	4219544	29351675	2	0.92
9	4.23		0.000	134564	1138765	2	
10	5.37		0.000	16236860	116031238	2	
11	5.67		0.000	59936653	684738173	3	
12	6.47		0.000	5414516	118772029	4	
13	6.90		0.000	16415802	166848911	2	
14	7.27		0.000	38995549	750644600	3	
15	8.17		0.000	3009946	238757459	4	
16	14.47		0.000	3680	68584	4	
		Totals	52.789	148586862	2138538163		

File: 95042141.D17 Sample: S95T000334 + SPIKE



Data Reprocessed On 04/21/1995 12:09:07

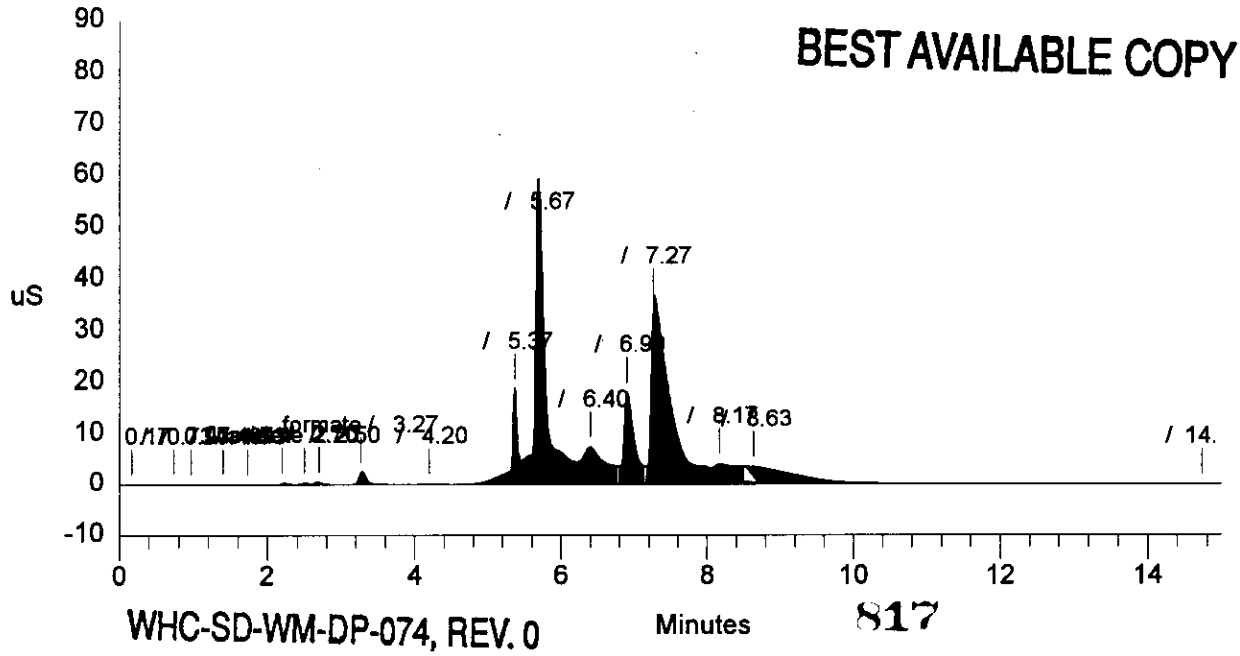
Sample Name: S95T000335	Date: 04/21/1995 10:03:03
Data File : C:\DX\DATA\95042141.D14	
Method : C:\DX\METHOD\ACE.MET	
ACI Address: 1 System: 2 Inject#: 14	Detector:CDM-2
Analyst :	Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.17		0.000	3361	32140	1	
2	0.73		0.000	2326	13612	1	
3	0.97		0.000	33597	190348	1	
4	1.40		0.000	14401	399396	2	
5	1.73		0.000	68261	806471	2	
6	2.20	fluoride	0.823	249434	1862900	1	0.00
7	2.50	acetate	7.052	290241	2053917	2	0.00
8	2.70		0.000	471270	3184051	2	
9	3.27	formate	20.932	2317559	18353835	2	-0.10
10	4.20		0.000	124927	1107950	2	
11	5.37		0.000	18534971	108662684	2	
12	5.67		0.000	45474909	649323957	3	
13	6.40		0.000	6294953	142009797	4	
14	6.90		0.000	17874653	182889518	2	
15	7.27		0.000	34914577	700333475	3	
16	8.17		0.000	2543071	66412103	4	
17	8.63		0.000	3147384	162887406	4	
18	14.73		0.000	2220	29772	4	
		Totals	28.806	132362115	2040553331		

File: 95042141.D14 Sample: S95T000335



Data Reprocessed On 04/21/1995 12:11:18

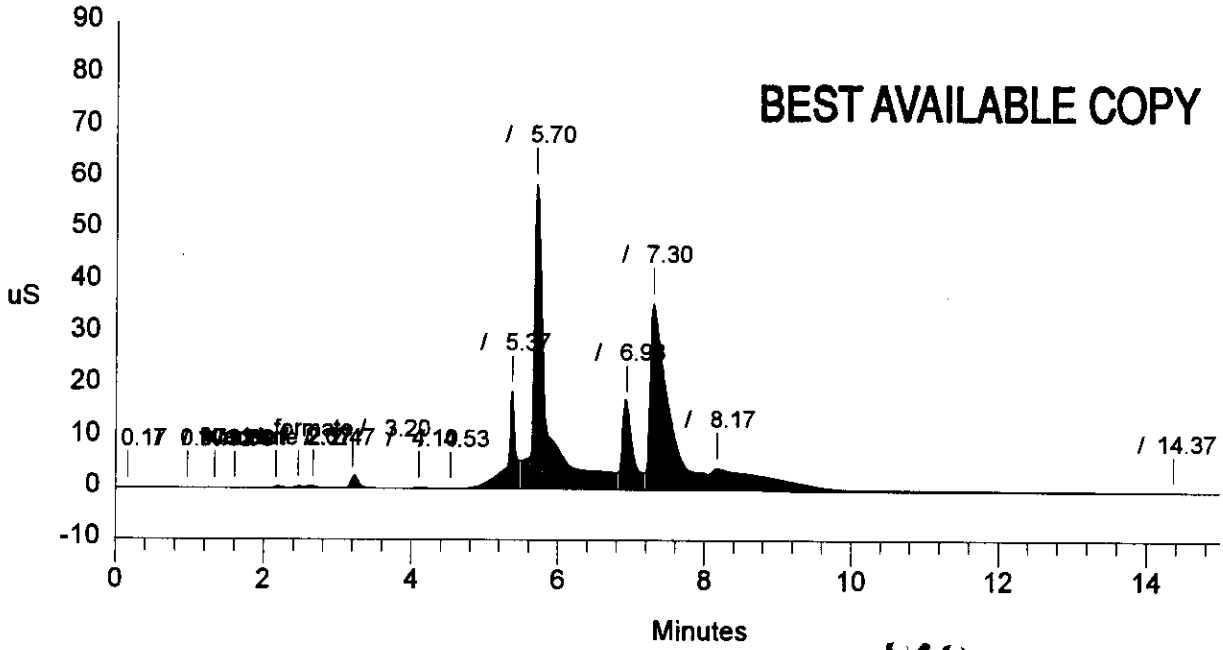
Sample Name: S95T000335 DUP Date: 04/21/1995 10:53:50
Data File : C:\DX\DATA\95042141.D15
Method : C:\DX\METHOD\ACE.MET
ACI Address: 1 System: 2 Inject#: 15 Detector:CDM-2
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	4500	5Hz	0.00	15.00	0

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.17		0.000	492	3120	1	
2	0.97		0.000	41740	226568	1	
3	1.33		0.000	47623	888607	2	
4	1.60		0.000	20206	408165	2	
5	2.17	fluoride	0.749	218752	1732984	1	-1.52
6	2.47	acetate	6.922	299465	1971758	2	-1.33
7	2.67		0.000	374868	2988942	2	
8	3.20	formate	20.141	1995602	17466204	2	-2.14
9	4.10		0.000	109931	1038810	2	
10	4.53		0.000	919	2944	1	
11	5.37		0.000	18787644	148076774	2	
12	5.70		0.000	58962138	769991681	2	
13	6.93		0.000	17035762	171905287	2	
14	7.30		0.000	35891705	618285002	3	
15	8.17		0.000	2927093	242656181	4	
16	14.37		0.000	1733	49880	1	
		Totals	27.812	136715674	1977692906		

File: 95042141.D15 Sample: S95T000335 DUP



BEST AVAILABLE COPY