AGMP 3rd Q 1995
MW-14, 9, 16,
Received 9-5-95

Analytical Technologies, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **508306**

August 30, 1995

Sparton Technology Inc.
4901 Rockaway Blvd. SE
Rio Rancho, NM 87114

Project Name/Number: AGMP-3Q95 080195

Attention: John M. Wakefield

On **08/01/95**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Combined Nitrate/Nitrite analyses was performed in lieu of Nitrate analyses due to hold time consideration. There will be no charge for these analyses.

Additionally TOX was observed and reported below the calculated MDL based on non-linearity of the instrument.

EPA method 9020 analyses were performed by Analytical Technologies, Inc., 5550 Morehouse Drive, San Diego, CA.

EPA method 150.1 analyses were performed by Analytical Technologies, Inc., Albuquerque, NM.

EPA method 8240 analyses were performed by Analytical Technologies, Inc., 225 Commerce Drive, Fort Collins, CO.

All other analyses were performed by Analytical Technologies, Inc., 11 East Olive Road, Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure

Analytical Technologies, Inc.

CLIENT	: SPARTON TECHNOLOGY	DATE RECEIVED	: 08/01/95
PROJECT #	: 080195		
PROJECT NAME	: AGMP-3Q95	REPORT DATE	: 08/30/95

ATI ID: 508306

	ATI SAN DIEGO AND PENSACOLA ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	508306-01	MW-14	AQUEOUS	08/01/95
02	508306-02	MW-9	AQUEOUS	08/01/95
03	508306-03	MW-16	AQUEOUS	08/01/95
04	508306-04	TRIP BLANK	AQUEOUS	07/24/95

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	4

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

ATI ID#: 508306
CLIENT: SPARTON TECHNOLOGY

METHOD	TEST	DATE ANALYZED	DETECTION LIMIT	ANALYST INITIALS
150.1	pH	08/01/95	-	PN
9020	TOTAL ORGANIC HALIDE	08/08/95	0.8 MG/L	MH
415.1	TOTAL ORGANIC CARBON	08/09/95	1 MG/L	DWB
325.2	CHLORIDE	08/11/95	2 MG/L	TT
120.1	CONDUCTIVITY	08/14/95	1 UMH/CM	RB
353.2	NITRITE-NITRATE, NITROGEN	08/14/95	1.1 MG/L (Sample 01) 0.3 MG/L (Sample 02) 5.0 MG/L (Sample 03)	TT
375.4	SULFATE	08/14/95	50 MG/L	SG
351.2	TOTAL KJELDAHL NITROGEN	08/10/95	0.5 MG/L (Samples 01,02) 2.0 MG/L (Sample 03)	TT
8240	VOLATILE ORGANICS	08/09/95 08/11/95	See Data Pages	JL
200.7	BORON	08/08/95	0.9 MG/L	JMP
	CHROMIUM	08/08/95	0.01 MG/L	
	MANGANESE	08/08/95	0.01 MG/L	
	SODIUM	08/08/95	0.2 MG/L	
	NICKEL	08/08/95	0.02 MG/L	

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

CLIENT	: SPARTON TECHNOLOGY	ATI I.D.	: 508306
PROJECT #	: 080195	DATE RECEIVED	: 08/01/95
PROJECT NAME	: AGMP-3Q95	DATE ANALYZED	: 08/01/95

PARAMETER	UNITS	01	02	03
PH (150.1)	UNITS	8.32	7.82	7.61

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : SPARTON TECHNOLOGY
PROJECT # : 080195
PROJECT NAME : AGMP-3Q95

ATI I.D. : 508306
SAMPLE MATRIX : AQUEOUS

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PH	UNITS	50830601	8.32	8.33	0.12	NA	NA	NA

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	508087
Client:	ANALYTICAL TECHNOLOGIES, INC.
Project Number:	508306
Project Name:	SPARTON
Project Location:	AGNP-3Q95
Test:	TOTAL ORGANIC CARBON
Analysis Method:	415.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	N/A
Matrix:	WATER
QC Level:	II

Lab Id:	001	Sample Date/Time:	01-AUG-95 1331
Client Sample Id:	508306-01	Received Date:	02-AUG-95
Batch: TOW045		Extraction Date:	N/A
Blank: A	Dry Weight %: N/A	Analysis Date:	09-AUG-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	2	1	
ANALYST	INITIALS	DWB		

Comments:

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	508087
Client:	ANALYTICAL TECHNOLOGIES, INC.
Project Number:	508306
Project Name:	SPARTON
Project Location:	AGNP-3Q95
Test:	TOTAL ORGANIC CARBON
Analysis Method:	415.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	N/A
Matrix:	WATER
QC Level:	II

Lab Id:	002	Sample Date/Time:	01-AUG-95 1338
Client Sample Id:	508306-02	Received Date:	02-AUG-95
Batch: TOW045		Extraction Date:	N/A
Blank: A	Dry Weight %: N/A	Analysis Date:	09-AUG-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	2	1	
ANALYST	INITIALS	DWB		

Comments:

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession:	508087
Client:	ANALYTICAL TECHNOLOGIES, INC.
Project Number:	508306
Project Name:	SPARTON
Project Location:	AGNP-3Q95
Test:	TOTAL ORGANIC CARBON
Analysis Method:	415.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	N/A
Matrix:	WATER
QC Level:	II

Lab Id:	003	Sample Date/Time:	01-AUG-95 1416
Client Sample Id:	508306-03	Received Date:	02-AUG-95
Batch: TOW045		Extraction Date:	N/A
Blank: A	Dry Weight %: N/A	Analysis Date:	09-AUG-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	2	1	
ANALYST	INITIALS	DWB		

Comments:

Analytical Technologies, Inc.

"Method Report Summary"

Accession Number: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: TOTAL ORGANIC CARBON

Client Sample Id:	Parameter:	Unit:	Result:
508306-01	TOTAL ORGANIC CARBON	MG/L	2
508306-02	TOTAL ORGANIC CARBON	MG/L	2
508306-03	TOTAL ORGANIC CARBON	MG/L	2

Analytical Technologies, Inc.

"QC Report"

Title: Water Blank
Batch: TOW045
Analysis Method: 415.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method: N/A

Blank Id: A Date Analyzed: 09-AUG-95 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
TOTAL ORGANIC CARBON	MG/L	ND	1
ANALYST	INITIALS	DWB	

Comments:

Analytical Technologies, Inc.

"QC Report"

Title: Water Reagent
Batch: TOW045
Analysis Method: 415.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method: N/A

RS Date Analyzed: 09-AUG-95 RS Date Extracted: N/A
RSD Date Analyzed: 09-AUG-95 RSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	RSD Conc	RSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	<1	6.9	103	6.7	100	3	30	71-127

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Analytical Technologies, Inc.

"QC Report"

Title: Water Matrix
Batch: TOW045
Analysis Method: 415.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method: N/A

Dry Weight %: N/A
Sample Spiked: 508087-1

MS Date Analyzed: 09-AUG-95
MSD Date Analyzed: 09-AUG-95

MS Date Extracted: N/A
MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	1.8	8.8	104	8.8	104	0	30	51-135

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Analytical Technologies, Inc.

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG = MICROGRAMS
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/M3 = MILLIGRAM PER CUBIC METER.
PPMV = PART PER MILLION BY VOLUME.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

ND = NOT DETECTED ABOVE REPORTING LIMIT.

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

ATI/GC/FID
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

ATI/GC/FIX
ATI GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

ATI/GC/FPD
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

ATI/GC/PID
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

ATI/GC/TCD
ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

LJT = LISA THOMASON
KW = KAREN WADSWORTH
SW = STEVE WILHITE
SJF = STEVE FILOROMO
PL = PAUL LESCHENSKY
RW = ROBERT WOLFE
BV = BEN VAUGHN
KS = KENDALL SMITH
KK = KERRY KUST
DWB = DAVID W. BOWERS
RP = ROB PEREZ

Analytical Technologies, Inc.

ANALYTICAL SCHEDULE

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 508306 ATI I.D.: 5080
Project Name: SPARTON

Analysis	Technique/Description
EPA 9020 (TOTAL ORGANIC HALIDE)	TOTAL ORGANIC HALIDE ANALYZER

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 508306 ATI I.D.: 50808
Project Name: SPARTON

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	508306-01	WATER	01-AUG-95	08-AUG-9
2	508306-02	WATER	01-AUG-95	08-AUG-9
3	508306-03	WATER	01-AUG-95	08-AUG-9

Parameter	Units	1	2	3
TOTAL ORGANIC HALIDES	MG/L	0.39	0.78	4.9

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

DUP/MS

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 508306 ATI I.D. : 5080
Project Name: SPARTON

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Re
TOTAL ORGANIC HALIDES	508085-01	MG/L	0.39	0.47	19@R	10	10	96

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

BLANK SPIKE

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 508306 ATI I.D. : 5083
Project Name: SPARTON

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
TOTAL ORGANIC HALIDES	58131	MG/L	<0.008	0.095	0.10	95

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration
RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

Analytical Technologies, Inc.

DATE LISTING FOR INORGANICS FOR PROJECT ID ANATEC01 11-AUG-95 PAGE 1
FOR ACCESSIONS RECEIVED WITHIN THE LAST 90 DAYS
ACCESSION # 508085

Project Id: ANATEC01 Proj Name : SPARTON
Proj Num : 508306 Accession : 508085

Test: EPA 9020 (TOTAL ORGANIC HALIDE)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	WATER	508306-01	01-AUG-95	08-AUG-95	09-AUG-95	N/A
2	WATER	508306-02	01-AUG-95	08-AUG-95	09-AUG-95	N/A
3	WATER	508306-03	01-AUG-95	08-AUG-95	09-AUG-95	N/A

Analytical Technologies, Inc.

ANALYTICAL TECHNOLOGIES, INC.
SAN DIEGO
FLAGS

INORGANICS

FLAG	MESSAGE DESCRIPTION
B	ABSOLUTE VALUE OF ANALYTE CONCENTRATION IS < CRDL BUT ≥ THE IDL
BB	RESULT BETWEEN IDL AND LOQ
D	POST DIGESTION SPIKE FOR GFAA OUTSIDE LIMITS AFTER 1:25 DILUTION. SAMPLE REPORTED AT ORIGINAL CONCENTRATION.
E	ESTIMATED VALUE DUE TO INTERFERENCE
M	DUPLICATE INJECTION PRECISION NOT MET
N	SPIKED SAMPLE RECOVERY NOT WITHIN CONTROL LIMITS
S	REPORTED VALUE WAS DETERMINED BY METHOD OF STANDARD ADDITIONS
U	COMPOUND WAS ANALYZED FOR BUT NOT DETECTED
W	POST DIGESTION SPIKE OUT OF CONTROL LIMITS; SAMPLE ABSORBANCE < 50% OF SPIKE ABSORBANCE FOR GF/AA
X	ABSOLUTE VALUE OF ANALYTE CONCENTRATION IS LESS THAN 3 TIMES THE MDL
*	DUPLICATE ANALYSIS NOT WITHIN CONTROL LIMITS
+	CORRELATION COEFFICIENT FOR MSA IS LESS THAN 0.995
*H	RESULTS OUTSIDE OF LIMITS DUE TO SAMPLE MATRIX INTERFERENCE
*Q	INSUFFICIENT SAMPLE FOR ANALYSIS
*R	DATA IS NOT USABLE
*V	SAMPLE RESULT IS >4X SPIKED CONCENTRATION, THEREFORE SPIKE IS NOT DETECTABLE
*Y	RESULT NOT ATTAINABLE DUE TO SAMPLE MATRIX INTERFERENCE
@C	*VARIABLE MESSAGE*
@H	DETECTION LIMIT ELEVATED DUE TO MATRIX INTERFERENCE
@Q	DETECTION LIMIT ELEVATED DUE TO LIMITED SAMPLE FOR ANALYSIS
@R	RPD LIMIT IS 67% FOR INORGANIC RESULTS LESS THAN TEN TIMES THE REPORTING DETECTION LIMIT
@S	RPD: ONE RESULT ABOVE AND ONE RESULT BELOW REPORTING LIMIT (RL). RESULT ABOVE SHOULD BE < 5 TIMES RL TO BE IN CONTROL.
@V	PRE-DIGEST SPIKE OUT OF LIMITS. POST DIGESTION SPIKE YIELDED ACCEPTABLE RESULTS
@W	DETECTION LIMIT ELEVATED DUE TO REDUCED SAMPLE WEIGHT
@Y	ION BALANCE OUTSIDE OF ATI'S ACCEPTANCE LIMITS; REANALYSIS CONFIRMED ORIGINAL RESULT
@X	RESULTS VERIFIED BY REDIGESTION AND REANALYSIS

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: Group of Single Wetchem
QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 508306-01			Lab ID: 001		
CHLORIDE (325.2)	MG/L	41	2	CKW22A	
CONDUCTIVITY (120.1)	UMH/CM	870	1	CDW049	
NITRITE-NITRATE, NITROGEN (353.2)	MG/L	28	1.1	N3W55B	+
SULFATE (375.4)	MG/L	170	50	SEW073	+
TOTAL KJELDAHL NITROGEN (351.2)	MG/L	ND	0.5	TAW33G	
Comments:					
Client ID: 508306-02			Lab ID: 002		
CHLORIDE (325.2)	MG/L	18	2	CKW22A	
CONDUCTIVITY (120.1)	UMH/CM	850	1	CDW049	
NITRITE-NITRATE, NITROGEN (353.2)	MG/L	11	0.3	N3W55B	+
SULFATE (375.4)	MG/L	180	50	SEW073	+
TOTAL KJELDAHL NITROGEN (351.2)	MG/L	ND	0.5	TAW33G	
Comments:					
Client ID: 508306-03			Lab ID: 003		
CHLORIDE (325.2)	MG/L	71	2	CKW22A	
CONDUCTIVITY (120.1)	UMH/CM	1300	1	CDW049	
NITRITE-NITRATE, NITROGEN (353.2)	MG/L	ND	5	N3W55B	*
SULFATE (375.4)	MG/L	180	50	SEW073	+
TOTAL KJELDAHL NITROGEN (351.2)	MG/L	51	2.0	TAW33G	+
Comments:					

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: Group of Single Wetchem

Client ID:	Lab ID:	Matrix:	Date/Time Sampled:	Date Received:
508306-01	001	WATER	01-AUG-95 1331	02-AUG-95
508306-02	002	WATER	01-AUG-95 1338	02-AUG-95
508306-03	003	WATER	01-AUG-95 1416	02-AUG-95

Analytical Technologies, Inc.

"Method Report Summary"

Accession Number: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: Group of Single Wetchem

Client Sample Id:	Parameter:	Unit:	Result:
508306-01	CHLORIDE (325.2)	MG/L	41
	CONDUCTIVITY (120.1)	UMH/CM	870
	NITRITE-NITRATE, NITROGEN (353.2)	MG/L	28
	SULFATE (375.4)	MG/L	170
508306-02	CHLORIDE (325.2)	MG/L	18
	CONDUCTIVITY (120.1)	UMH/CM	850
	NITRITE-NITRATE, NITROGEN (353.2)	MG/L	11
	SULFATE (375.4)	MG/L	180
508306-03	CHLORIDE (325.2)	MG/L	71
	CONDUCTIVITY (120.1)	UMH/CM	1300
	SULFATE (375.4)	MG/L	180
	TOTAL KJELDAHL NITROGEN (351.2)	MG/L	51

Analytical Technologies, Inc.

"WetChem Quality Control Report"

Parameter:	CHLORIDE-A	CONDUCT'Y	NO2NO3	SULFATE	TKN ALP
Batch Id:	CKW22A	CDW049	N3W55B	SEW073	TAW33G
Blank Result:	<2	<1	<0.1	<10	<0.5
Anal. Method:	325.2	120.1	353.2	375.4	351.2
Prep. Method:	N/A	N/A	N/A	N/A	N/A
Analysis Date:	11-AUG-95	14-AUG-95	14-AUG-95	14-AUG-95	10-AUG-95
Prep. Date:	11-AUG-95	14-AUG-95	14-AUG-95	14-AUG-95	09-AUG-95
Sample Duplication					
Sample Dup:	507394-15	508087-1	508087-3	508087-2	508082-9
Rept Limit:	<2	<1	<5*	<50+	<0.5
Sample Result:	86.8	872	<5	181	0.6
Dup Result:	86.6	873	<5	180	0.7
Sample RPD:	0	0	N/C	1G	0.1G
Max RPD:	13	4	5	50	0.5
Dry Weight%	N/A	N/A	N/A	N/A	N/A
Matrix Spike					
Sample Spiked:	507394-15	N/A	508087-3	508087-2	508082-9
Rept Limit:	<2	N/A	<5*	<100+	<0.5
Sample Result:	86.8		<5	181	0.6
Spiked Result:	103.7		56	412	4.4
Spike Added:	20.0F		50	200	4.0
% Recovery:	85		112	116	95
% Rec Limits:	77-130		85-118	51-151	71-124
Dry Weight%	N/A		N/A	N/A	N/A
ICV					
ICV Result:	55.4	1413	2.04	19.3	10.15
True Result:	55.0	1413	2.00	20.0	10.00
% Recovery:	101	100	102	97	102
% Rec Limits:	90-110	90-110	90-110	90-110	90-110
LCS					
LCS Result:		313			9.85
True Result:		303			10.00
% Recovery:		103			99
% Rec Limits:		84-110			81-117

Analytical Technologies, Inc.

----- Common Footnotes Wet Chem -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
ND = NOT DETECTED ABOVE REPORTING LIMIT.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO THE MATRIX (PRE-DIGESTION) SPIKE BEING OUTSIDE ACCEPTANCE LIMITS.
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE.
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX (DILUTION PRIOR TO PREPARATION).
P = ANALYTICAL (POST-DIGESTION) SPIKE
I = DUPLICATE INJECTION
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
H = SAMPLE AND/OR DUPLICATE IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE RESULTS EXCEED THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL" SAMPLE IS NON-HOMOGENOUS.
(*) = DETECTION LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN.

(CA) = SEE CORRECTIVE ACTIONS FORM.

SW-846, 3RD EDITION, SEPTEMBER 1986 AND REVISION 1, JULY 1992.
EPA 600/4-79-020, REVISED MARCH 1983.
STANDARD METHODS, 17TH ED., 1989
NIOSH MANUAL OF ANALYTICAL METHODS, 3RD EDITION.
ANNUAL BOOK OF ASTM STANDARDS, VOLUME 11.01, 1991.

1. COLIFORM. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES.

2. PH. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND THE DUPLICATE ANALYSIS.

3. FLASHPOINT. FLASHPOINT PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS. IF FLASHPOINT IS LESS THAN 25 DEGREES CELSIUS, THE DETECTION LIMIT BECOMES THE INITIAL STARTING TEMPERATURE.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION).

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

DPH = DOLLY P. HWANG	SG = SCOTT GRESHAM	RB = REBECCA BROWN
TT = TONY TINEO	NSB = NANCY S. BUTLER	FB = FREDDIE BROWN
MM = MARY MOLONEY	CF = CHRISTINE FOSTER	

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: Group of Single Metals
QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 508306-01			Lab ID:001		
BORON (200.7)	MG/L	1.6	0.09	O0W171	
CHROMIUM (200.7)	MG/L	1.0	0.01	H0W171	
MANGANESE (200.7)	MG/L	ND	0.01	G0W171	
SODIUM (200.7)	MG/L	76	0.2	10W171	
NICKEL (200.7)	MG/L	ND	0.02	E0W171	
Comments:					
Client ID: 508306-02			Lab ID:002		
BORON (200.7)	MG/L	1.3	0.09	O0W171	
CHROMIUM (200.7)	MG/L	ND	0.01	H0W171	
MANGANESE (200.7)	MG/L	0.02	0.01	G0W171	
SODIUM (200.7)	MG/L	90	0.2	10W171	
NICKEL (200.7)	MG/L	ND	0.02	E0W171	
Comments:					
Client ID: 508306-03			Lab ID:003		
BORON (200.7)	MG/L	2.2	0.09	O0W171	
CHROMIUM (200.7)	MG/L	0.57	0.01	H0W171	
MANGANESE (200.7)	MG/L	0.02	0.01	G0W171	
SODIUM (200.7)	MG/L	92	0.2	10W171	
NICKEL (200.7)	MG/L	0.05	0.02	E0W171	
Comments:					

Analytical Technologies, Inc.

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: Group of Single Metals

Client Id:	Lab Id:	Matrix:	Date/Time Sampled:	Date Received:
508306-01	001	WATER	01-AUG-95 1331	02-AUG-95
508306-02	002	WATER	01-AUG-95 1338	02-AUG-95
508306-03	003	WATER	01-AUG-95 1416	02-AUG-95

Analytical Technologies, Inc.

"Method Report Summary"

Accession Number: 508087
Client: ANALYTICAL TECHNOLOGIES, INC.
Project Number: 508306
Project Name: SPARTON
Project Location: AGNP-3Q95
Test: Group of Single Metals

Client Sample Id:	Parameter:	Unit:	Result:
508306-01	BORON (200.7)	MG/L	1.6
	CHROMIUM (200.7)	MG/L	1.0
	SODIUM (200.7)	MG/L	76
508306-02	BORON (200.7)	MG/L	1.3
	MANGANESE (200.7)	MG/L	0.02
	SODIUM (200.7)	MG/L	90
508306-03	BORON (200.7)	MG/L	2.2
	CHROMIUM (200.7)	MG/L	0.57
	MANGANESE (200.7)	MG/L	0.02
	SODIUM (200.7)	MG/L	92
	NICKEL (200.7)	MG/L	0.05

Analytical Technologies, Inc.

"Metals Quality Control Report"

Parameter:	BORON	CHROMIUM	MANGANESE	SODIUM	NICKEL
Batch Id:	O0W171	H0W171	G0W171	10W171	E0W171
Blank Result:	<0.09	<0.01	<0.01	<0.2	<0.02
Anal. Method:	200.7	200.7	200.7	200.7	200.7
Prep. Method:	EPA 600	EPA 600	EPA 600	EPA 600	EPA 600
Analysis Date:	08-AUG-95	08-AUG-95	08-AUG-95	08-AUG-95	08-AUG-95
Prep. Date:	07-AUG-95	07-AUG-95	07-AUG-95	07-AUG-95	07-AUG-95
Sample Duplication					
Sample Dup:	507553-2	507553-2	507553-2	507553-2	507553-2
Rept Limit:	<0.09	<0.01	<0.01	<0.2	<0.02
Sample Result:	2.1	2.0	2.0	63	2.0
Dup Result:	2.1	2.0	2.0	65	2.0
Sample RPD:	0	0	0	3	0
Max RPD:	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A
Matrix Spike					
Sample Spiked:	507553-2	507553-2	507553-2	507553-2	507553-2
Rept Limit:	<0.09	<0.01	<0.01	<0.2	<0.02
Sample Result:	<0.09	<0.01	<0.01	41	<0.02
Spiked Result:	2.1	2.0	2.0	63	2.0
Spike Added:	2.0	2.0	2.0	20	2.0
% Recovery:	105	100	100	110	100
% Rec Limits:	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A
ICV					
ICV Result:	5.1	4.9	4.9	10	4.9
True Result:	5.0	5.0	5.0	10	5.0
% Recovery:	102	98	98	100	98
% Rec Limits:	90-110	90-110	90-110	90-110	90-110
LCS					
LCS Result:	2.1	2.1	2.1	24	2.0
True Result:	2.0	2.0	2.0	20	2.0
% Recovery:	105	105	105	120	100
% Rec Limits:	80-120	80-120	80-120	80-120	80-120

Analytical Technologies, Inc.

"Quality Control Comments"

Batch Id:	Comments:
O0W171	ANALYST: JMP
O0W171	The results reported under "Sample Duplication" are the MS/MSD.
H0W171	ANALYST: JMP
H0W171	The results reported under "Sample Duplication" are the MS/MSD.
G0W171	ANALYST: JMP
G0W171	The results reported under "Sample Duplication" are the MS/MSD.
10W171	ANALYST: JMP
10W171	The results reported under "Sample Duplication" are the MS/MSD.
E0W171	ANALYST: JMP
E0W171	The results reported under "Sample Duplication" are the MS/MSD.

Analytical Technologies, Inc.

----- Common Footnotes Metals -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS.
J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM.
S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.

FROM ANALYSIS REPORT:
RL= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.
Q= QUALIFIER (FOOTNOTE)

FROM QUALITY CONTROL REPORT:
RPD= RELATIVE PERCENT DEVIATION.
RPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS RUN BASIS.

SW-846, 3rd Edition, September 1986 and Revision 1, July 1992.
EPA 600/4-79-020, Revised March 1983.
NIOSH Manual of Analytical Methods, 3rd Edition.

GJ = GARY JACOBS
JLH = JAMES L. HERED
JR = JOHN REED
JMP = JACQUELINE M. PRICE

Analytical Technologies, Inc.

VOLATILE ORGANICS

Modified Method 8240

Lab Name: Analytical Technologies, Inc.
Client Name: ATI-NM
Client Project ID: Sparton -- 508306
Lab Sample ID: 95-08-014-01

Sample ID: 508306-01

Date Collected: 08/01/95
Date Analyzed: 08/09/95

Sample Matrix: Water
Sample Volume: 5 mL

Analyte	Results (ug/L)	Detection Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	5
Acetone	ND	10
Carbon disulfide	ND	5
1,1-Dichloroethene	29	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	2 J	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	9	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	410 E	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
Tetrachloroethene	2 J	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

SURROGATE RECOVERIES

Analyte	% Recovery	%Rec Limits
1,2-Dichloroethane-d4	96	76 - 114
Toluene-d8	104	88 - 110
Bromofluorobenzene	106	86 - 115

ND = Not Detected
J = Estimated value, analyte found below detection limit
E = Exceeds calibration range, see dilution

Analytical Technologies, Inc.

VOLATILE ORGANICS

Modified Method 8240

Lab Name: Analytical Technologies, Inc.
Client Name: ATI-NM
Client Project ID: Sparton -- 508306
Lab Sample ID: 95-08-014-01 DL

Sample ID: 508306-01 DL

Date Collected: 08/01/95
Date Analyzed: 08/09/95

Sample Matrix: Water
Sample Volume: 1 mL

Analyte	Results (ug/L)	Detection Limit (ug/L)
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	25
Acetone	ND	50
Carbon disulfide	ND	25
1,1-Dichloroethene	27	25
1,1-Dichloroethane	ND	25
cis-1,2-Dichloroethene	ND	25
trans-1,2-Dichloroethene	ND	25
Chloroform	ND	25
1,2-Dichloroethane	ND	25
2-Butanone	ND	50
1,1,1-Trichloroethane	9 J	25
Carbon tetrachloride	ND	25
Vinyl acetate	ND	50
Bromodichloromethane	ND	25
1,2-Dichloropropane	ND	25
cis-1,3-Dichloropropene	ND	25
Trichloroethene	470	25
Dibromochloromethane	ND	25
1,1,2-Trichloroethane	ND	25
Benzene	ND	25
trans-1,3-Dichloropropene	ND	25
Bromoform	ND	25
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
Tetrachloroethene	ND	25
1,1,2,2-Tetrachloroethane	ND	25
Toluene	ND	25
Chlorobenzene	ND	25
Ethylbenzene	ND	25
Styrene	ND	25
Total Xylenes	ND	25

SURROGATE RECOVERIES

Analyte	% Recovery	%Rec Limits
1,2-Dichloroethane-d4	99	76 - 114
Toluene-d8	103	88 - 110
Bromofluorobenzene	106	86 - 115

ND = Not Detected
J = Estimated value, analyte found below detection limit
DL = Dilution

Analytical Technologies, Inc.

VOLATILE ORGANICS

Modified Method 8240

Lab Name: Analytical Technologies. Inc.
Client Name: ATI-NM
Client Project ID: Sparton -- 508306
Lab Sample ID: 95-08-014-02

Sample ID: 508306-02

Date Collected: 08/01/95
Date Analyzed: 08/09/95

Sample Matrix: Water
Sample Volume: 5 mL

Analyte	Results (ug/L)	Detection Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	17 B	5
Acetone	ND	10
Carbon disulfide	ND	5
1,1-Dichloroethene	43	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	2 J	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	52	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	440 E	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
Tetrachloroethene	2 J	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

SURROGATE RECOVERIES

Analyte	% Recovery	%Rec Limits
1,2-Dichloroethane-d4	91	76 - 114
Toluene-d8	109	88 - 110
Bromofluorobenzene	100	86 - 115

ND = Not Detected
B = Analyte found in Blank
J = Estimated value. analyte found below detection limit
E = Exceeds calibration range. see dilution