DEPARTMENT OF THE ARMY
CAMP STANLEY STORAGE ACTIVITY, MCAAP
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

18 October 2007

U-058-08

Mr. Sonny Rayos, P.G., Project Manager
Texas Commission on Environmental Quality
Team I, Corrective Action Section
Remediation Division
PO Box 13087
Austin, TX 78711-3087

Subject: Solid Waste Management Unit (SWMU) B-29 - Request for Additional Information, Camp Stanley Storage Activity, Boerne, TX, TCEQ SWR No. 69026, EPA ID No. TX2210020739

Dear Mr. Rayos:

The Camp Stanley Storage Activity (CSSA), McAlester Army Ammunition Plant, U.S. Army Field Support Command, Army Materiel Command, U.S. Army, is submitting this letter in response to the Texas Commission on Environment Quality (TCEQ) letter dated June 10, 2005 (Attachment 1), requesting additional information and approval for closure on SWMU B-29.

The TCEQ requested that CSSA elaborate on the treatment method wherein SWMU B-29 materials (classified as hazardous waste) were treated *in-situ* with agricultural grade phosphate. This method, as the report states, reduces the leachable metal concentration to Class 2 non-hazardous waste levels.

Listed below is the information you requested:

1. The full description of the actual method itself and whether this method is listed in "Table 1-Technology Codes and Description of Technology-Based Standards" of 40 CFR 268.

Response: The "stabilization" method used in treating the soil media is listed in Table 1 and is a process that reduces the mobility of the hazardous constituents of a waste or that makes the waste easier to handle. The most common stabilization agents added to waste streams are Portland cement, lime, fly ash, and cement kiln dust. These types of agents are used in "solidification" of the material to reduce contaminant leaching. "Stabilization" refers to processes that reduce risk posed by a waste by converting the contaminants into less soluble, mobile, or toxic forms. The physical nature of the waste is not necessarily changed. Phosphates, sulfides, carbonates, etc. can be used as treatment reagents (USEPA, 1997 Best Management Practices for Soils Treatment Technologies - EPA530-R-97-007) for hazardous constituents of a waste material. Excavated soils and waste material at SWMU B-29 were stockpiled within the site boundary for subsequent treatment. Excavated material was separated into four different waste streams based on the nature of the material and where it was excavated from within the site.

Soil composite samples were collected to characterize each waste stream. Two of the four waste streams exceeded non-hazardous Class 2 (Class 2) criteria for lead. Parsons used a chemical stabilization effort that employed agricultural phosphate to immobilize the lead vs. physical solidification with Portland cement.

2. The laboratory analytical results that show that the Universal Treatment Standards (Section 268.48) were met following treatment and prior to disposal as non-hazardous waste.

Response: The analytical results that show that the Universal Treatment Standards (Section 268.48) were met (though not required for wastes like those from SWMU B-29 being treated within an Area of Contamination concept) following treatment and prior to disposal as non-hazardous waste along with CSSA certification of treatment are attached. The hazardous concentrations are highlighted and the accompanying Class 2 concentrations for the post-treatment samples follow.

3. The Area of Contamination concept and how this concept applied to the remediation of SWMU B-29 waste materials.

Response: The Area of Contamination (AOC) concept is discussed in the TCEQ-approved CSSA RFI/IM Waste Management Plan dated May 16, 2006. An excerpt from CSSA's RFI/IM WMP is provided below:

> "Contained-in soils (i.e., soils containing hazardous waste) may be consolidated or treated *in-situ* within the Area of Contamination (AOC) (as defined by USEPA's *Management of Remediation Waste under RCRA,* EPA530-F-98-026, October 1998). According to the policy on AOC, consolidation and treatment can be conducted within the AOC without triggering land disposal restrictions or minimum technology requirements. The AOC policy is applicable to any hazardous remediation waste (including non-media wastes) that is in or on the land. CSSA will avail itself of this EPA policy until characterization sampling is complete."

The AOC is also explained in the SWMU B-29 Closure Report due to the fact that waste characterization results revealed hazardous waste at SWMU B-29 with respect to leachable lead. Since hazardous waste was present at the site, it is important to emphasize that the waste was never removed from the site and "placement" of the waste to another area never occurred. Since the waste was treated *in-situ*, land disposal restrictions are not applicable to this waste material. *In-situ* treatment of the hazardous waste reduced the leachable lead levels so that the waste met Class 2 criteria. Following treatment and additional sampling to verify the lead leachable levels were reduced to Class 2 criteria, the waste was disposed at a local off-post landfill.

CSSA appreciates your time and attention concerning this matter. If you need further information, please contact Glaré Sanchez, CSSA Environmental Program Manager, at (210) 698-5208.

Sincerely,

Jason D. Shirley
Installation Manager

Attachment

cc: Ms. Glaré Sanchez
CSSA

Mr. Greg Lyssy
EPA Region 6

Mr. Jorge Salazar
TCEQ Region 13

Ms. Julie Burdey
Parsons

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 10, 2005

LTC Jason D. Shirley
Installation Manager
Camp Stanley Storage Activity
25800 Ralph Fair Road
Boerne, TX 78015-4800

Re: Solid Waste Management Unit B-29 - Request for Additional Information;
Camp Stanley Storage Activity, Boerne, TX;
TCEQ SWR No. 69026;
EPA ID No. TX2210020739

Dear LTC Shirley:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the report entitled *Final Solid Waste Management Unit B-29* dated February 2005. Solid Waste Management Unit (SWMU) B-29 was a former quarry that was used for disposal of miscellaneous solid wastes, munitions and construction debris. Closure activities consisted of removal and disposal of wastes and collection of confirmation sampling to document attainment of risk reduction standard objective. The report concluded that the closure of SWMU B-29 was performed according to Risk Reduction Standard (RRS) No. 1.

The TCEQ has completed a review of the above-stated report. Based on the information contained in the report, TCEQ cannot approve, at this time, a RRS No. 1 closure. The TCEQ requests Camp Stanley to elaborate on the treatment method wherein B-29 materials (classified as hazardous waste) were treated *in-situ* with agricultural grade phosphate. This method, as the report states, reduces the leachable metal concentration to Class 2 non-hazardous waste levels. Please provide the TCEQ with the following information: (1) the full description of the actual method itself and whether this method is a listed in "Table 1 - Technology Codes and Description of Technology-Based Standards" of 40 Code of Federal Regulations §268, (2) the laboratory analytical results that shows that the Universal Treatment Standards (§268.48) were met following treatment and prior to disposal as non-hazardous waste, and (3) the Area of Contamination concept and how this concept applied to the remediation of B-29 waste materials.

Please prepare a written response to the above-stated request for additional information. An original and one copy of your written response must be submitted to the TCEQ at the letterhead address using mail code number MC-127. An additional copy should be submitted to the TCEQ Region 13 in San Antonio. Your response must be received within 90 days from the date of this letter.

To document compliance with the Texas Professional Geoscience Act, the Remediation Division will not review reports and documents received on or after September 1, 2004 that do not contain the seal of a Texas Professional Geoscientist for geoscience services and work. Reports and documents containing geoscience information that are not stamped with a Texas Professional Geoscience seal will be returned to the submitting party. For further information, please consult the webpage of the Texas Board of Professional Geoscience at http://www.tbpg.state.tx.us. Any inquiry regarding what constitute geoscience information or what information requires a Professional Geoscientist seal shall be made to the Board by calling 512.936.4400, in Austin, Texas.

Questions concerning this letter should be directed to my attention at 512.239-2371 or via email at srayos@tceq.state.tx.us.

Sincerely,

Sonny Rayos, P.G., Project Manager
Team I, Corrective Action Section
Remediation Division
Texas Commission on Environmental Quality

cc: Mr. Greg Lyssy, U.S. EPA Region 6, 1445 Ross Ave (6SF-LT), Dallas, TX 75202-2733
Ms. Julie Burdey, Parsons Engineering, 8000 Centre Park Drive, Suite 200, Austin, TX 78754
Waste Program Manager, TCEQ Region 13 Office, San Antonio, TX

PARSONS

8000 Centre Park Drive, Suite 200 • Austin, Texas • 78754 • (512) 719-6000 • Fax: (512) 719-6099 • www.parsons.com

May 19, 2004

Via e-mail
Sandy Quintanilla
Waste Management – Covel Gardens Landfill
8611 Covel Rd
San Antonio, TX 78252

Subject: Waste profiling of SWMU B-29 soils from
Camp Stanley Storage Activity, Boerne, TX
CG-25591 C-16

Dear Ms. Quintanilla:

This letter and associated enclosures provides profiling data for disposal of solid media generated from removal actions of the soils from the southern waste disposal area of Solid Waste Management Unit (SWMU) B-29. SWMU B-29 covers approximately 3.5 acres. The B-29 soils are characterized through four soil waste characterization samples identified as B29-WC01, B29-WC02, B29-TWC03, and B29-TWC04. Figure B29-2 shows the location of the site. Three samples were initially collected to characterize the soils (B29-WC01, B29-WC02, and B29-WC03), but the TCLP results for lead exceeded characteristic hazardous criteria of 40 CFR 261.24. Subsequently, the soils were treated in-situ by mixing a phosphate-enriched media with the soils to bind the lead. Samples B29-TWC03 and B29-TWC04 show TCLP lead results after the soils were treated with the phosphate-enriched media.

The waste characterization samples were taken after the treated soil was excavated and consist of compositing approximately five aliquots for each waste characterization sample. The soil samples, representing approximately 2,000 cubic yards of soil material, were analyzed for TPH and TCLP metals to determine proper waste classification. The treated analyses show the soil material meeting 40 CFR 268.40 and the underlying hazardous constituents, as defined in 40 CFR 268.2(i). Additionally, the treatment ood soil media meets State of Texas Class 2 Non-hazardous waste classification criteria per 30 TAC 335 subchapter R.

Analytical data packages and a completed WMI waste profile amendment form for waste generated from the SWMU B-29 soil is provided as an attachment. Due to non-detect on C-6 through C-12 TPH analyses there are no concerns for the waste material to contain VOCs or SVOCs above Class 2 non-hazardous waste criteria.

Parsons requests authorization for disposal of the soils at the Covel Gardens facility. Please let me know if you have any questions or comments. I can be reached at 512-719-6062.

Sincerely,

Julie Burdey
Project Manager

Attachments

xc : Brian Murphy, CSSA
Ken Rice, Parsons -Austin

WM.
WASTE MANAGEMENT

Certification of Treatment for Characteristic Wastes

Generator: Camp Stanley Storage Activity

Generating Location: Solid waste management unit B-29

Description of Waste: Soil media contaminated with lead

D-Codes that Apply: D008

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and the underlying hazardous constituents, as defined in 40 CFR 268.2(i) have been treated on-site to meet the 40 CFR 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment

Respectfully,

Brian K. Murphy Generator's Printed Name	Br K. M Generator's Signature
Environmental Officer Title	Camp Stanley Storage Activity Company Name
	19 May 04 Date

Waste Management Profile Amendment Request

Brian Murphy, CSSA Environmental Officer hereby requests an amendment to Profile/Approval

Number CG-25591 C-16 to include the following: SWMU B-29 soils

AMENDMENT REQUEST:
Soils from CSSA's SWMU B-29 (See attached letter for further description).

Disposal Frequency:

Ongoing☐ One Time☒ Event☐

Volume:

Drums_____ Cubic Yards 2000 Gallons_____ Pounds_____ Other_____

Attachments:

Analysis☒ (please complete section below) MSDS☐

Lab Name: APPL, Inc Lab ID#:: 43296, 44412 Date: 12/04/2003 & 5/5/2004

Other Information/Process Knowledge: Waste Characterization composite samples B29-WC01 through B29-WC03 and treated soil media samples B29-TWC-03 and B29-TWC-04 collected from stabilized soils (lead contaminated) which were generated at SWMU B-29.

GENERATOR CERTIFICATION:
By signing this form, the generator hereby certifies that the information provided in this document, the attached Waste Management Generator's Waste Profile Sheet, and all other attached documents contain true and accurate descriptions of this waste material. All new information regarding known or suspected hazards in the possession of the generator has been disclosed. Furthermore, the generator hereby certifies that this waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province and this waste does not contain regulated radioactive materials or regulated concentration of Polychlorinated Biphenyls (PCBs).

Generator Signature: B K. M **Date:** 19 May 04

Waste Management Approval: _____ **Date:** _____

SWMU B-29 Waste Characterization Results
Southern Disposal Area

	Sample ID	B29-WC01				B29-WC02				B29-WC03				B29-TWC03				B29-TWC04			
	Sample Date	12/04/03				12/04/03				12/04/03				05/05/04				05/05/04			
	Sample Type	N1				N1				N1				N1				N1			
	Beginning Depth	NA				NA				NA				NA				NA			
	Ending Depth	NA				NA				NA				NA				NA			
	Lab ID	AP62372				AP62373				AP62374				AP63436				AP63437			
	Soil Comparison Criteria	Results	Flags	Dilution	SQL	Results	Flags	Dilution	SQL	Results	Flags	Dilution	SQL	Results	Flags	Dilution	SQL	Results	Flags	Dilution	SQL
TCLP Texas 11 Metals SW1311/SW6010B (mg/L)																					
Antimony		0.232		1	0.050	0.137		1	0.050	0.158		1	0.050								
Arsenic		0.05		1	0.030	0.054		1	0.030	0.052		1	0.030								
Barium		0.6165	M	1	0.005	0.5828	M	1	0.005	0.569	M	1	0.005								
Beryllium		0.0002	U	1	0.005	0.0002	U	1	0.005	0.002	U	1	0.005								
Cadmium		0.0117		1	0.007	0.0107		1	0.007	0.011		1	0.007								
Chromium		0.005	F	1	0.010	0.008	F	1	0.010	0.005	F	1	0.010								
Lead		[redacted]				[redacted]				[redacted]				0.8695		1	0.025	0.034		1	0.025
Mercury		0.0001	U	1	0.000	0.0001	U	1	0.000	0.0001	U	1	0.0002								
Nickel		0.019		1	0.010	0.014		1	0.010	0.017		1	0.010								
Selenium		0.002	U	1	0.030	0.002	U	1	0.030	0.002	U	1	0.030								
Silver		0.095		1	0.010	0.0093	F	1	0.010	0.0095	F	1	0.010								
TPH (ug/kg)																					
>C12-C28		15,000.	U	1	54000	16,000.	U	1	53000	16,000.		1	54000								
C6-C12		15,000.	U	1	54000	16,000.	U	1	53000	16,000.	U	1	54000								

Tables present all laboratory results for analytes detected above the method detection limit.
All samples were analyzed by APPL Inc.
Referenced laboratory package numbers: APPL Inc.: 43296, 44412

Abbreviations and Notes:
Highlighted and boxed samples indicate results greater than Hazardous &/or Class 1 Standards.

DL	Dilution
FD1	Field Duplicate
MDL	Method Detection Limit
N1	Environmental Sample
NA	Not Available
RL	Reporting Limit
SQL	Sample Quantitation Limit

Data Qualifiers:
B-The analyte was found in an associated blank, as well as in the sample.
F- The analyte was positively identified, but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantitation is an estimation.
M - A matrix effect was present.
U - The analyte was analyzed for, but not detected. The associated numerical value is the MDL.

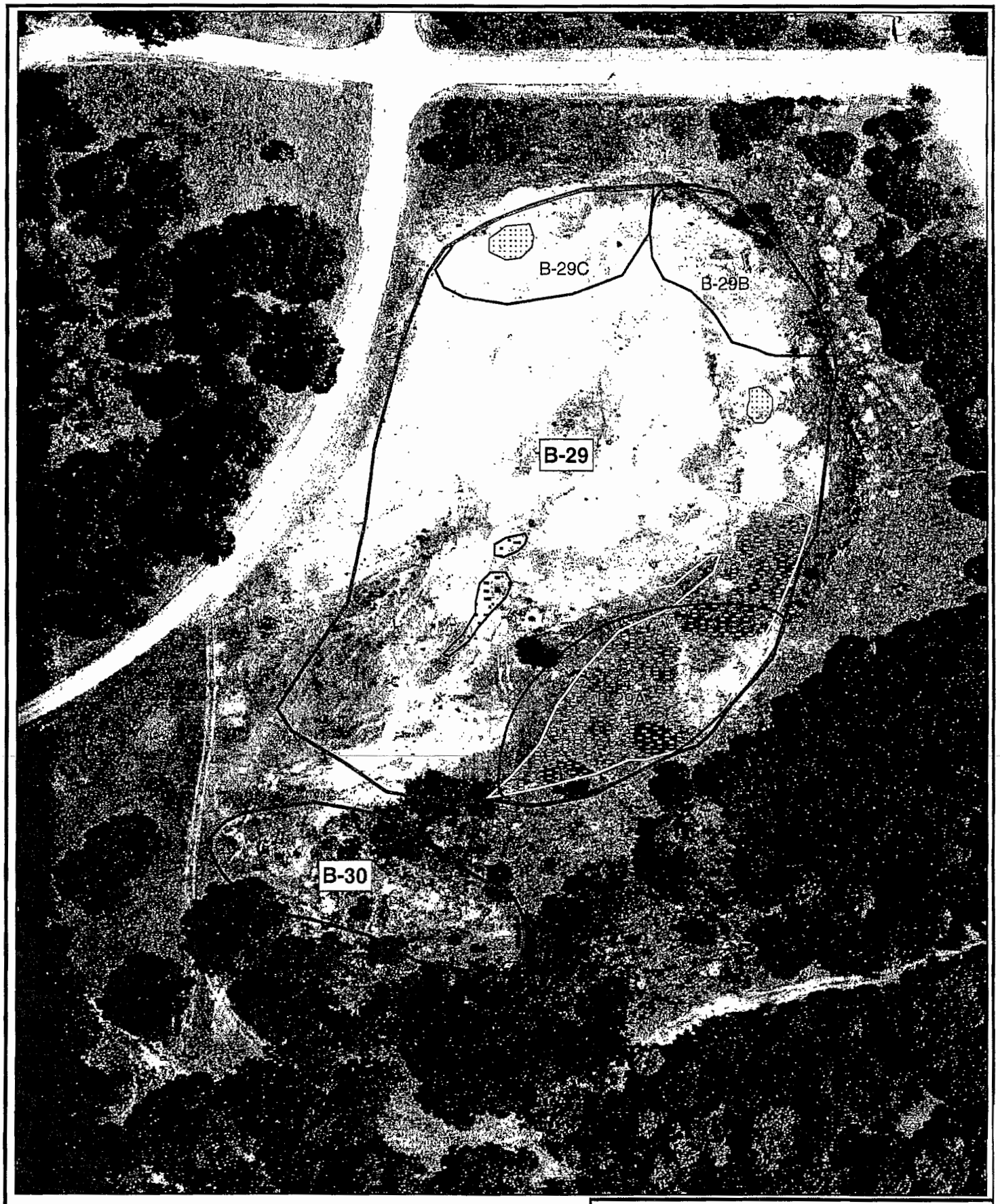


Figure B29-2

SWMU B-29 Site Map
Camp Stanley Storage Activity

PARSONS

J:\CSSA\environmental_files\gisdata\mxd\B29_site_map.mxd

Laboratory Report

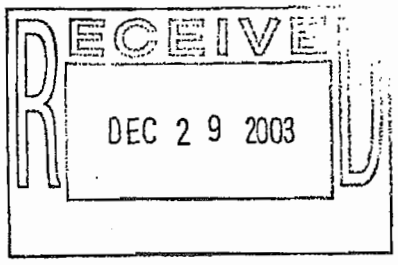
#3

Parsons

no DV

Camp Stanley Storage Activity

Contract #: F41624-01-D-8544, TO 0019



04 December 2003 Organics and Inorganics

APPL, Inc.

Summary Data Package
For

Contract #: F41624-01-D-8544, TO 0019

ARF 43296

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC

4203 West Swift ∇ Fresno, California 93722 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Case Narrative

ARF: 43296

Project: CSSA 743345.03

State Certification Number: CA1312

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sample Receipt Information:

The sample group was received December 6, 2003, at 2°C. The samples were assigned Analytical Request Form (ARF) number 43296. Field IDs were changed from "CL" to "WC" per Tammy Chang's fax. No other exceptions were noted.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
B29A-WC01	AP62370	Soil	12/4/03	12/6/03
B29A-WC02	AP62371	Soil	12/4/03	12/6/03
B29-WC01	AP62372	Soil	12/4/03	12/6/03
B29-WC02	AP62373	Soil	12/4/03	12/6/03
B29-WC03	AP62374	Soil	12/4/03	12/6/03
B30-WC01	AP62375	Soil	12/4/03	12/6/03
B30-WC02	AP62376	Soil	12/4/03	12/6/03
B30-WC03	AP62377	Soil	12/4/03	12/6/03

Sample moistures were determined by CLP3/90.

TX Method 1005
Total Petroleum Hydrocarbons

Sample Preparation

The sample was extracted, within holding time, according to TNRCC TX1005 method.

Analysis

The sample was analyzed according to TNRCC TX1005 method.

Quality Control/Assurance

Spike Recovery

Laboratory Control Spikes (LCS) and Spike Duplicates (LCSD) were used for quality assurance. All spike recoveries met acceptance criteria.

Method blank

The preparation blank contained no target analyte at or above reporting limits.

Surrogates

The surrogate recoveries met acceptance criteria.

Initial Continuing Calibration

All initial and continuing calibrations were performed according to the methods. All acceptance criteria were met.

Summary:

No problems were encountered. The data generated are acceptable.

EPA Method 6010B
TCLP Metals

Digestion Information:

The samples were leached according to EPA method 1311 and the leachates were digested according to EPA method 3010A. No exceptions were encountered. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed according to EPA Method 6010B using a Perkin Elmer Optima 4300 DV ICP Trace Analyzer. Due to high concentrations in samples B29-WC01 and B29-WC03, Lead is reported at a final dilution factor of ten.

Calibrations:

Calibrations were performed according to the method with no deviations from the initial calibration, the initial calibration verification and the continuing calibrations. The initial calibration verification is prepared from a second source standard.

Blanks:

No target metal was detected at or above the reporting level.

Spikes:

The Laboratory Control Spikes (LCS/LCSD) met acceptance criteria. No sample was designated for MS/MSD by the client.

Dilution Test and Post Spike:

The dilution test was performed on sample B30-WC02. The dilution test was applicable for Barium, since the undiluted values were more than 50 times the MDL. Barium had a 113%D. The dilution test was not applicable for Antimony, Arsenic, Beryllium, Cadmium, Chromium, Lead, Nickel, Silver, or Selenium. Antimony, Arsenic, Beryllium, Cadmium, Chromium, Lead, Nickel, Silver, and Selenium recovered the post-digestion spike within acceptable limits. Barium results are "M" flagged in accordance with the CSSA QAPP.

B30-WC02		
Sample AP62376		
Element	**% D**	**% Rec**
Ag	NA	94.4
As	NA	89.3
Ba	113	110
Be	NA	95.9
Cd	NA	86.7
Cr	NA	84.6
Ni	NA	84.0
Pb	NA	84.6
Sb	NA	92.9
Se	NA	96.9

Summary:

No other analytical exceptions are noted.

EPA Method 7471A
TCLP Mercury

Digestion Information:

The samples were leached according to EPA method 1311 and the leachates were digested according to EPA method 7470A. No exceptions were encountered. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed according to EPA method 7470A using a Perkin Elmer Cold Vapor Generator.

Calibrations:

Calibrations were performed according to the method with no deviations for the initial calibration, the initial calibration verification and the continuing calibrations. The ICV was prepared with a second source standard.

Blanks:

Mercury was not detected at or above the reporting level.

Spikes:

The Laboratory Control Spikes (LCS/LCSD) met acceptance criteria. No sample was designated for MS/MSD by the client.

Summary:

No analytical exceptions are noted.

CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Leonard Fong 12/23/03

Leonard Fong, Ph.D, Technical Director / Date

CHAIN OF CUSTODY

AND ARF

APPL - Analysis Request Form # 43296

Client: **Parsons**
Address: **8000 Centre Park Drive Ste 200**
Austin, TX 78754
Attn: **Tammy Chang**
Phone: **512-719-6092** Fax: **512-719-6099**
Job: **CSSA 743345.03**
PO #: **NA**
Chain of Custody (Y/N): **Y** # **120503APPFA**
RAD Screen (Y/N): **Y** pH (Y/N): **N**
Turn Around Type: **STD**

Received by: **EW**
Date Received: **12/6/03** Time: **17:50**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **Y**
Chest Temp(s): **2° HB 66636**
Color: **BlueGreen**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **DIANE ANDERSON**
QC Report Type: **AFCEE/TX**
Due Date: **12/18/03**

Comments:
Per fax from Tammy, change sample IDs.

*** *TCLP Metals* ***

Sample Distribution:
GC: 8-$TNRS
Metals: 8-$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), 8-$HGT
Wetlab: 8-MOIST

Charges:

Invoice To:

	Client ID	APPL ID	Sampled		Analyses Requested
1.	B29A-WC01	AP62370S	12/4/03	10:00	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST
2.	B29A-WC02	AP62371S	12/4/03	10:10	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST
3.	B29-WC01	AP62372S	12/4/03	11:00	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST
4.	B29-WC02	AP62373S	12/4/03	11:10	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST
5.	B29-WC03	AP62374S	12/4/03	11:20	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST
6.	B30-WC01	AP62375S	12/4/03	13:00	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST

APPL - Analysis Request Form # 43296

7.	B30-WC02	AP62376S	12/4/03	13:10	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST
8.	B30-WC03	AP62377S	12/4/03	13:20	$60LP(Ag,As,Ba,Be,Cd,Cr,Ni,Pb,Sb,Se,), $HGT, $TNRS, MOIST

Initials Date

APPL Sample Receipt Form

ARF# **43296**

Sample	Container Type	Count	Sample	Container Type	Count	Sample	Container Type	Count
AP62370	21 8oz Jar	1						
AP62371	21 8oz Jar	1						
AP62372	21 8oz Jar	1						
AP62373	21 8oz Jar	1						
AP62374	21 8oz Jar	1						
AP62375	21 8oz Jar	1						
AP62376	21 8oz Jar	1						
AP62377	21 8oz Jar	1						

PARSONS • 8000 CENTRE PARK DRIVE #200 • AUSTIN, TX 78754

Facsimile Cover Sheet

To Diane Anderson
Company: APPL
Phone: 559-275-2175
Fax: 559-275-4422

From: Tammy Chang
Company: Parsons
Phone: 512-719-6092
Fax: 512-719-6099

Job No.: 743345.03000

Date: December 9, 2003

Pages including cover: 3

Diane:

Please change all field IDs from "CL" to "WC". Such as sample B29A-CL01 should be B29A-WC01.

Thanks

Tammy

Camp Stanley Storage Activity Chain Of Custody

COC ID:	120503APPFA	Relinquish_Date:	12/5/2003	Cooler ID:	A
Project Locallon:	CSSA	Relinquished_By:	SE	LabCode:	APPF
Job Number:	743345.03	Relinquish_Time:	1:00 PM	Carrier:	FedEx
Creation Date:	12/5/2003	Collection Team:	SE_KC	Airbill Carrier:	829223975592

Sampler(s): Sue Elliott

Due on 12/27/03

LOCID: B29A-CL01 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 10:00 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29A-CL01_120403_N1000 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29A-CL02 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 10:10 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29A-CL02_120403_N1010 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29-CL01 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 11:00 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29-CL01_120403_N1100 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29-CL02 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 11:10 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29-CL02_120403_N1110 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29-CL03 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 11:20 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29-CL03_120403_N1120 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B30-CL01 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 13:00 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B30-CL01_120403_N1300 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

#43296

Relinquished by: Sue Elliott Date 12/5/03 Time 1300 Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____ Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____ Recieved by: _____ Date _____ Time _____

Camp Stanley Storage Activity Chain Of Custody

COC ID: 120503APPFA | Relinquish_Date: 12/5/2003 | Cooler ID: A
Project Location: CSSA | Relinquished_By: SE | LabCode: APPF | Sampler(s): Sam Elliott
Job Number: 743345.03 | Relinquish_Time: 1:00 PM | Carrier: FedEx
Creation Date: 12/5/2003 | Collection Team: SE_KC | Airbill Carrier: 829223975592

LOCID: B30-CL02 | LOGDATE: 12/4/2003 1 | MATRIX: SO | TBLOT:
SBD: 0 | LOGTIME: 13:10 | SACODE: N | SMCODE: G | ABLOT:
SED: 0 | FLDSAMPID B30-CL02_120403_N1310 | EBLOT:
Containers: 1
Remarks:

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B-30-CL03 | LOGDATE: 12/4/2003 1 | MATRIX: SO | TBLOT:
SBD: 0 | LOGTIME: 13:20 | SACODE: N | SMCODE: G | ABLOT:
SED: 0 | FLDSAMPID B-30-CL03_120403_N1320 | EBLOT:
Containers: 1
Remarks:

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

FROM PARSONS

Relinquished by: S Elliott Date 12/5/03 Time 1300 | Relinquished by: Date Time | Relinquished by: Date Time
Recieved by: Date Time | Recieved by: Date Time | Recieved by: Date Time

Camp Stanley Storage Activity Chain Of Custody

COC ID: 120503APPFA | Relinquish_Date: 12/5/2003 | Cooler ID: A
Project Location: CSSA | Relinquished_By: SE | LabCode: APPF
Job Number: 743345.03 | Relinquish_Time: 1:00 PM | Carrier: FedEx
Creation Date: 12/5/2003 | Collection Team: SE_KC | Airbill Carrier: 829223975592

Sampler(s): Sam Elliott

LOCID: B29A-CL01 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 10:00 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29A-CL01_120403_N1000 EBLOT:
Remarks: Containers: 1

Analysis Required:			
SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Banum (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29A-CL02 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 10:10 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29A-CL02_120403_N1010 EBLOT:
Remarks: Containers: 1

Analysis Required:			
SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29-CL01 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 11:00 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29-CL01_120403_N1100 EBLOT:
Remarks: Containers: 1

Analysis Required:			
SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29-CL02 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 11:10 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29-CL02_120403_N1110 EBLOT:
Remarks: Containers: 1

Analysis Required:			
SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B29-CL03 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 11:20 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B29-CL03_120403_N1120 EBLOT:
Remarks: Containers: 1

Analysis Required:			
SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: B30-CL01 LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 13:00 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B30-CL01_120403_N1300 EBLOT:
Remarks: Containers: 1

Analysis Required:			
SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

Relinquished by: S. Elliott Date 12/5/03 Time 1300
Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____
Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____
Recieved by: _____ Date 12/6/03 Time 1750

Camp Stanley Storage Activity Chain Of Custody

COC ID:	120503APPFA	Relinquish_Date:	12/5/2003	Cooler ID:	A
Project Location:	CSSA	Relinquished_By:	SE	LabCode:	APPF
Job Number:	743345.03	Relinquish_Time:	1:00 PM	Carrier:	FedEx
Creation Date:	12/5/2003	Collection Team:	SE_KC	Airbill Carrier:	829223975592

Sampler(s): Sam Elliott

Sam Elliott

LOCID: **B30-CL02** LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 13:10 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B30-CL02_120403_N1310 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

LOCID: **B-30-CL03** LOGDATE: 12/4/2003 1 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 13:20 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B-30-CL03_120403_N1320 EBLOT:
Remarks:

Containers: 1

Analysis Required:

SW6010B	TCLP-Silver (Ag)	SW6010B	TCLP-Arsenic (As)
SW6010B	TCLP-Barium (Ba)	SW6010B	TCLP-Beryllium (Be)
SW6010B	TCLP-Cadmium (Cd)	SW6010B	TCLP-Chromium (Cr)
SW6010B	TCLP-Nickel (Ni)	SW6010B	TCLP-Lead (Pb)
SW6010B	TCLP-Antimony (Sb)	SW6010B	TCLP-Selenium (Se)
SW7470A	TCLP-Mercury (Hg)	TX1005	TOTAL PETROLEUM HY

Relinquished by: S. Elliott Date 12/5/03 Time 1300
Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____
Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____
Recieved by: _____ Date 12/6/03 Time 1250

COOLER RECEIPT FORM

Project: CSSA 743345.03 Date Received: 12/6/03 Number of Coolers: 1

1. Did cooler come with a shipping slip (air bill, etc.)? YES NO NA
   If yes; enter carrier name Fed Ex enter air bill numbers: 1) 8292 2597 5592
   2) ______ 3) ______
2. If cooler belongs to APPL, has it been logged into the ice chest database? YES NO NA
3. Were custody seals on outside of cooler? YES NO NA
   How many? 2 Date on seal? 12/05/03 Name on seal? See below
4. Were custody seals unbroken and intact at the time of arrival? YES NO NA
5. Were samples screened for radioactivity? YES NO NA
6. Was a chain of custody received? YES NO NA
7. Were the custody papers filled out properly? YES NO NA
8. Were the custody papers signed in the appropriate places? YES NO NA
9. Was the project identifiable from custody papers? YES NO NA
10. Was a sufficient amount of holding time remaining to analyze the samples? YES NO NA
11. Is location where sample was taken listed on the COC? YES NO NA
12. If required, was enough ice used? Type of ice: Wet Ice YES NO NA
13. Shuttle temp(s): 1) 2° 2) ____ 3) ____ Serial number of certified thermometer used: HB 606036
14. Was a temperature blank included in the cooler? YES NO NA
15. Describe type of packing in cooler: Sample, Wet Ice
16. Were all containers sealed in separate bags? YES NO NA
17. Did all containers arrive unbroken and were labels in good condition? YES NO NA
18. Were all container labels complete (ID, date, time, signature, preservative, etc.)? YES NO NA
19. Did all container labels agree with custody papers? YES NO NA
20. Were correct containers used for the tests indicated? YES NO NA
21. Were correct preservatives added to the samples? YES NO NA
22. Was a sufficient amount of sample sent for tests indicated? YES NO NA
23. Were bubbles present in volatile samples? YES NO NA
    If yes, list by sample ID. The following VOAs were received with air bubbles:
    Larger than a pea: ______
    Smaller than a pea: ______

Signature of personnel receiving samples: [signature]

Second reviewer: [signature]

Comments: ______

PARSONS

Parsons
8000 Centre Park Dr., Ste. 200
Austin, Texas 78754
512/719-6000 Fax: 512/719-6042

Sample ID

Date 12/5/03

Time

Analysis

Sampler [signature]

Preservative

Name of project manag

Name of client notified

Information given to clie

(Initials): ______

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62370**	Project:	CSSA 743345.03
Client ID:	B29A-WC01	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:31	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:18	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:28	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:30:17	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:44:53	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:15:13	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62371**	Project:	CSSA 743345.03
Client ID:	B29A-WC02	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:36	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:27	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:25	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:30:10	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:36	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:15:10	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	AP62372	Project:	CSSA 743345.03
Client ID:	B29-WC01	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:40	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:24	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:31	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:30:03	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:38	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:15:08	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62373**	Project:	CSSA 743345.03
Client ID:	B29-WC02	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:43	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:22	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:38	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:29:56	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:51	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:15:05	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62374**	Project:	CSSA 743345.03
Client ID:	B29-WC03	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:45	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:50	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:37	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:29:54	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:49	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:15:03	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62375**	Project:	CSSA 743345.03
Client ID:	B30-WC01	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:49	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:40	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:34	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:30:13	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:41	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:14:59	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62376**	Project:	CSSA 743345.03
Client ID:	B30-WC02	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:51	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:48	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:35	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:30:07	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:44	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	Extraction	12/16/2003 08:45:54	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:14:53	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

Chain of Custody

		Client:	Parsons
ARF:	43296	ATTN:	Tammy Chang
Sample Number:	**AP62377**	Project:	CSSA 743345.03
Client ID:	B30-WC03	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	BlueGreen	12/06/2003 17:50:00	Williams, Eric	Container Received
	Wetlab	12/11/2003 08:28:54	Parmeter, Aileen	Key #7 -> Aileen Parmeter
	BlueGreen	12/11/2003 11:29:45	Parmeter, Aileen	Aileen Parmeter -> Key #7
	Metals	12/15/2003 09:20:32	Vang, Shawnle	Key #2 -> Shawnle Vang
	BlueGreen	12/15/2003 17:30:00	Vang, Shawnle	Shawnle Vang -> Key #2
	Extraction	12/16/2003 08:45:46	Schwartz, Simonne	Eric Williams -> Simonne Schwartz
	BlueGreen	12/16/2003 12:14:56	Schwartz, Simonne	Simonne Schwartz -> Eric Williams

TNRCC Method 1005
Total Petroleum Hydrocarbons

TNRCC Method 1005
Total Petroleum Hydrocarbons
AFCEE Forms

AFCEE
ORGANIC ANALYSES DATA PACKAGE

Analytical Method: TX1005
Lab Name: APPL, Inc
Base/Command: CSSA

AAB #: 031603-71284
Contract #: F41624-01-D-8544, TO 0019
Prime Contractor: Parsons Engineering Science, Inc.

Field Sample ID	Lab Sample ID
B29A-WC01	AP62370
B29A-WC02	AP62371
B29-WC01	AP62372
B29-WC02	AP62373
B29-WC03	AP62374
B30-WC01	AP62375
B30-WC02	AP62376
B30-WC03	AP62377

Comments: ARF: 43296

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Diane Anderson

Date: _____ Title: Project Manager

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29A-WC01 Lab Sample ID: AP62370 Matrix: Soil
% Solids: 91.8 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	16000	54000	16000	1		U
C6-C12	16000	54000	16000	1		U
Surrogate: 1-Chlorooctane		70-130	119	1		
Surrogate: o-Terphenyl		70-130	112	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29A-WC02 Lab Sample ID: AP62371 Matrix: Soil
% Solids: 94.3 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	15000	53000	15000	1		U
C6-C12	15000	53000	15000	1		U
Surrogate: 1-Chlorooctane		70-130	107	1		
Surrogate: o-Terphenyl		70-130	100	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC01 Lab Sample ID: AP62372 Matrix: Soil
% Solids: 94 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	15000	53000	15000	1		U
C6-C12	15000	53000	15000	1		U
Surrogate: 1-Chlorooctane		70-130	110	1		
Surrogate: o-Terphenyl		70-130	100	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC02 Lab Sample ID: AP62373 Matrix: Soil
% Solids: 91.8 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	16000	54000	16000	1		U
C6-C12	16000	54000	16000	1		U
Surrogate: 1-Chlorooctane		70-130	111	1		
Surrogate: o-Terphenyl		70-130	102	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC03 Lab Sample ID: AP62374 Matrix: Soil
% Solids: 90.7 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	16000	55000	16000	1		U
C6-C12	16000	55000	16000	1		U
Surrogate: 1-Chlorooctane		70-130	99.3	1		
Surrogate: o-Terphenyl		70-130	91.3	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC01 Lab Sample ID: AP62375 Matrix: Soil
% Solids: 94.5 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	15000	53000	137566	1		
C6-C12	15000	53000	15000	1		U
Surrogate: 1-Chlorooctane		70-130	113	1		
Surrogate: o-Terphenyl		70-130	108	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC02 Lab Sample ID: AP62376 Matrix: Soil
% Solids: 95.8 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 16-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	15000	52000	78288	1		
C6-C12	15000	52000	15000	1		U
Surrogate: 1-Chlorooctane		70-130	107	1		
Surrogate: o-Terphenyl		70-130	101	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: TX1005 Preparatory Method: TX1005 AAB #: 031603-71284
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC03 Lab Sample ID: AP62377 Matrix: Soil
% Solids: 89.6 Initial Calibration ID: 031212
Date Received: 06-Dec-03 Date Prepared: 16-Dec-03 Date Analyzed: 17-Dec-03
Concentration Units: ug/kg

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
>C12-C28	16000	56000	56920	1		
C6-C12	16000	56000	16000	1		U
Surrogate: 1-Chlorooctane		70-130	109	1		
Surrogate: o-Terphenyl		70-130	96.2	1		

Comments: ARF: 43296 The RL and MDL were Moisture Corrected on this form.

TPH Extractables

Initial Calibration

Lab Name: APPL, Inc. SDG No: ~~31212~~ 43296

Case No: 43296 Initial Cal. Date: ~~43296~~ ~~03-12-14~~ rp 12-14-03

Matrix: Soil Instrument: FID02 rp 12-23-03 Initials: SS

1212070.D 1212071.D 1212072.D 1212073.D 1212074.D 1212076.D 1212077.D 1212078.D 1212080.D

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD		
1	S	1-Chloroocatane(S)	38249	31466	34044	33013	37213	35586	33736	35958	46998		36251	13	S	
2	S	Ortho-TerphenylS)	36046	33813	32783	31817	35781	35504	33545	37256	49158		36189	14	S	
3	HT	C6-C12		27458	24182	22064	22587	20567	19360	20522	25177		22740	12	HT	
4	HT	>C12-C28		32993	24260	21586	21017	20374	19232	20561	27032		23382	20	HT	
5																

TPH Extractables

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No: 43296
Date Analyzed: 12/16/2003
Instrument: FID02,14 rp 12-23-03
Initial Cal. Date: 12/12/2003
Data File: 1212095.D

		Compound	MEAN	CCRF	%D		%Drift
1	S	1-Chloroocatane(S)	36251	41136	13	S	
2	S	Ortho-TerphenylS)	36189	37659	4.1	S	
3	HT	C6-C12	22740	25094	10	HT	
4	HT	>C12-C28	23382	22350	4.4	HT	
5							
6							
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32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.9		

TPH Extractables

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No: 43296
Date Analyzed: 12/17/2003
Instrument: FID02_14 mp 12-23-03
Initial Cal. Date: 12/12/2003
Data File: 1212107.D

		Compound	MEAN	CCRF	%D		%Drift
1	S	1-Chloroocatane(S)	36251	34507	4.8	S	
2	S	Ortho-TerphenylS)	36189	31532	13	S	
3	HT	C6-C12	22740	21803	4.1	HT	
4	HT	>C12-C28	23382	19959	15	HT	
5							
6							
7							
8							
9							
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11							
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32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			9.2		

TPH Extractables

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No: 43296
Date Analyzed: 12/17/2003
Instrument: FID02,14 rp 12-23-03
Initial Cal. Date: 12/12/2003
Data File: 1212118.D

		Compound	MEAN	CCRF	%D		%Drift
1	S	1-Chloroocatane(S)	36251	32150	11	S	
2	S	Ortho-TerphenylS)	36189	26000	28	S	#
3	HT	C6-C12	22740	21738	4.4	HT	
4	HT	>C12-C28	23382	18961	19	HT	
5					$\bar{X}$=15.6		
6							
7							
8							
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36							
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38							
39							
40							
		Average			15.6		

AFCEE
ORGANIC ANALYSES DATA SHEET 6
BLANK

Analytical Method: TX1005
Lab Name: APPL, Inc
Concentration Units: ug/kg
Initial Calibration ID: 031212

AAB #: 031603-71284
Contract #: F41624-01-D-8544, TO 0019
Method Blank ID: 031603-BLK1 AS
np 1223-03

Analyte	Method Blank	RL	Q
>C12-C28	< RL	50000	
C6-C12	< RL	50000	
Surrogate: 1-Chlorooctane	105	70-130	
Surrogate: o-Terphenyl	98.1	70-130	

Comments: ARF: 43296, Sample: AP62370

AFCEE
ORGANIC ANALYSES DATA SHEET 7.
LABORATORY CONTROL SAMPLE

Analytical Method: TX1005
AAB #: 031603-71284
Lab Name: APPL, Inc
Contract #: F41624-01-D-8544, TO 0019
LCS ID: 031603 LCS
Initial Calibration ID: 031212
Concentration Units: ug/kg

Analyte	Expected	Found	% R	Control Limits	Q
>C12-C28	50000	50900	102	75-130	
C6-C12	50000	55400	111	75-130	
Surrogate: 1-Chlorooctane	2500	2150	86.0	70-130	
Surrogate: o-Terphenyl	2500	1920	76.8	70-130	

Comments: ARF: 43296, Sample: AP62370

Laboratory Control Spike Recovery Duplicate
TPH Soil

APPL ID: **031216S-62370 LCS - 71284**
Batch ID: $TNRS-031603

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Level ug/kg	SPK Result ug/kg	SPK % Recovery	Recovery Limits
>C12-C28	50000	48900	97.8	75-130
C6-C12	50000	56300	113	75-130
Surrogate: 1-Chlorooctane	2500	2210	88.4	70-130
Surrogate: o-Terphenyl	2500	1970	78.8	70-130

AAB# 031603-71284
Cont # F41624-01-D-8544, TO 0019
Init Calib ID: 031212
LCSD ID: 031216A5-LCSD

Comments:

Primary	SPK
Extraction Date :	12/16/03
Analysis Date :	12/16/03
Instrument :	FID02
Run :	98
Initials :	SS

Printed: 12/23/03 12:20:03 PM

AFCEE
ORGANIC ANALYSES DATA SHEET 9
HOLDING TIMES

Analytical Method: TX1005 AAB#: 031603-71284

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Field Sample ID	Date Collected	Date Received	Date Extracted	Max. Holding Time Ext	Time Held Ext	Date Analyzed	Max. Holding Time A	Time Held Anal.	Q
B29-WC01	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B29-WC02	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B29-WC03	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B29A-WC01	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B29A-WC02	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B30-WC01	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B30-WC02	04-Dec-03	06-Dec-03	16-Dec-03	14	12	16-Dec-03	40	12	
B30-WC03	04-Dec-03	06-Dec-03	16-Dec-03	14	12	17-Dec-03	40	13	

Comments: ARF: 43296

Injection Log

Directory: G:\FID02\DATA\031212\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	67	121267.D	1	FL MARKER	Water	14 Dec 2003 10:45
2	69	121269.D	1	C-35 MARKER	Water	14 Dec 2003 12:25
3	70	1212070.D	1	TNRCC 20/1000 12/12/03	Water	14 Dec 2003 13:15
4	71	1212071.D	1	TNRCC 50/1000	Water	14 Dec 2003 14:06
5	72	1212072.D	1	TNRCC 75/1000	Water	14 Dec 2003 14:58
6	73	1212073.D	1	TNRCC 100/1000	Water	14 Dec 2003 15:49
7	74	1212074.D	1	TNRCC 200/1000	Water	14 Dec 2003 16:40
9	76	1212076.D	1	TNRCC 400/1000	Water	14 Dec 2003 18:21
10	77	1212077.D	1	TNRCC 600/1000	Water	14 Dec 2003 19:11
11	78	1212078.D	1	TNRCC 800/1000	Water	14 Dec 2003 20:00
13	80	1212080.D	1	TNRCC 1000/1000	Water	14 Dec 2003 21:39
14	95	1212095.D	1	TNRCC 100/1000 12/16/03	Water	16 Dec 2003 15:12
15	96	1212096.D	1000	031216AS BLK 10/10	Soil	16 Dec 2003 16:01
16	97	1212097.D	1000	031216AS LCS 10/10	Soil	16 Dec 2003 16:49
17	98	1212098.D	1000	031216AS LCSD 10/10	Soil	16 Dec 2003 17:38
18	99	1212099.D	1000	AP62370S 10/10	Soil	16 Dec 2003 18:26
19	100	1212100.D	1000	AP62371S 10/10	Soil	16 Dec 2003 19:15
20	1	1212101.D	1000	AP62372S 10/10	Soil	16 Dec 2003 20:03
21	2	1212102.D	1000	AP62373S 10/10	Soil	16 Dec 2003 20:53
22	3	1212103.D	1000	AP62374S 10/10	Soil	16 Dec 2003 21:42
23	4	1212104.D	1000	AP62375S 10/10	Soil	16 Dec 2003 22:32
24	5	1212105.D	1000	AP62376S 10/10	Soil	16 Dec 2003 23:20
25	7	1212107.D	1	TNRCC 100/1000 12/16/03	Water	17 Dec 2003 00:57
26	8	1212108.D	1000	AP62377S 10/10	Soil	17 Dec 2003 01:45
27	18	1212118.D	1	TNRCC 100/1000 12/16/03	Water	17 Dec 2003 09:52

METALS
EPA SW846 - 6010B

APPL, INC.

METALS
EPA SW846 - 6010B
Forms

APPL, INC.

AFCEE
INORGANIC ANALYSES DATA PACKAGE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
Base/Command: CSSA

AAB #: 031217A-71366
Contract #: F41624-01-D-8544, TO 0019
Prime Contractor: Parsons Engineering Science, Inc.

Field Sample ID	Lab Sample ID
B29A-WC01	AP62370
B29A-WC02	AP62371
B29-WC01	AP62372
B29-WC02	AP62373
B29-WC03	AP62374
B30-WC01	AP62375
B30-WC02	AP62376
B30-WC03	AP62377

Comments: ARF: 43296

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Diane Anderson

Date: _____ Title: Project Manager

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29A-WC01 Lab Sample ID: AP62370 Matrix: Soil
% Solids: 91.8 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.130	1	
Arsenic (As)	0.002	0.03	0.065	1	
Barium (Ba)	0.0003	0.005	1.6040	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0188	1	
Chromium (Cr)	0.001	0.01	0.007	1	F
Lead (Pb)	0.0012	0.025	0.2114	1	
Nickel (Ni)	0.001	0.01	0.017	1	
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0106	1	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29A-WC02 Lab Sample ID: AP62371 Matrix: Soil
% Solids: 94.3 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.130	1	
Arsenic (As)	0.002	0.03	0.054	1	
Barium (Ba)	0.0003	0.005	1.3220	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0169	1	
Chromium (Cr)	0.001	0.01	0.011	1	
Lead (Pb)	0.0012	0.025	0.2029	1	
Nickel (Ni)	0.001	0.01	0.015	1	
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0108	1	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC01 Lab Sample ID: AP62372 Matrix: Soil
% Solids: 94.0 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.232	1	
Arsenic (As)	0.002	0.03	0.050	1	
Barium (Ba)	0.0003	0.005	0.6165	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0117	1	
Chromium (Cr)	0.001	0.01	0.005	1	F
Lead (Pb)	0.0012	0.025	7.7900	1	R
Nickel (Ni)	0.001	0.01	0.019	1	
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0950	1	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC01 Lab Sample ID: AP62372 Matrix: Soil
% Solids: 94.0 Initial Calibration ID: 031222
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 22-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Lead (Pb)	0.0120	0.25	8.8920	10	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC02 Lab Sample ID: AP62373 Matrix: Soil
% Solids: 91.8 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.137	1	
Arsenic (As)	0.002	0.03	0.054	1	
Barium (Ba)	0.0003	0.005	0.5828	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0107	1	
Chromium (Cr)	0.001	0.01	0.008	1	F
Lead (Pb)	0.0012	0.025	1.9600	1	
Nickel (Ni)	0.001	0.01	0.014	1	
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0093	1	F

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC03 Lab Sample ID: AP62374 Matrix: Soil
% Solids: 90.7 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.158	1	
Arsenic (As)	0.002	0.03	0.052	1	
Barium (Ba)	0.0003	0.005	0.5690	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0110	1	
Chromium (Cr)	0.001	0.01	0.005	1	F
Lead (Pb)	0.0012	0.025	3.9070	1	R
Nickel (Ni)	0.001	0.01	0.017	1	
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0095	1	F

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC03 Lab Sample ID: AP62374 Matrix: Soil
% Solids: 90.7 Initial Calibration ID: 031222
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 22-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Lead (Pb)	0.0120	0.25	4.3840	10	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC01 Lab Sample ID: AP62375 Matrix: Soil
% Solids: 94.5 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.130	1	
Arsenic (As)	0.002	0.03	0.062	1	
Barium (Ba)	0.0003	0.005	0.5332	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0049	1	F
Chromium (Cr)	0.001	0.01	0.005	1	F
Lead (Pb)	0.0012	0.025	0.1012	1	
Nickel (Ni)	0.001	0.01	0.008	1	F
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0097	1	F

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC02 Lab Sample ID: AP62376 Matrix: Soil
% Solids: 95.8 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.120	1	
Arsenic (As)	0.002	0.03	0.076	1	
Barium (Ba)	0.0003	0.005	0.5201	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0045	1	F
Chromium (Cr)	0.001	0.01	0.006	1	F
Lead (Pb)	0.0012	0.025	0.0920	1	
Nickel (Ni)	0.001	0.01	0.012	1	
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0103	1	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A AAB #: 031217A-71366
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC03 Lab Sample ID: AP62377 Matrix: Soil
% Solids: 89.6 Initial Calibration ID: 031220
Date Received: 06-Dec-03 Date Prepared: 17-Dec-03 Date Analyzed: 20-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Antimony (Sb)	0.001	0.05	0.099	1	
Arsenic (As)	0.002	0.03	0.045	1	
Barium (Ba)	0.0003	0.005	0.3198	1	M
Beryllium (Be)	0.0002	0.005	0.0002	1	U
Cadmium (Cd)	0.0003	0.007	0.0036	1	F
Chromium (Cr)	0.001	0.01	0.017	1	
Lead (Pb)	0.0012	0.025	0.0696	1	
Nickel (Ni)	0.001	0.01	0.005	1	F
Selenium (Se)	0.002	0.03	0.002	1	U
Silver (Ag)	0.0002	0.01	0.0074	1	F

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B

AAB #: 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Date of Initial Calibration: 20-Dec-03

Initial Calibration ID: 031220

Instrument ID: PE ICAP

Concentration Units (mg/L or mg/kg) mg/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	r	Q
Ag	0.0010	696.7	0.5	226504.9	1.0	438064.9	0.9999	
As	0.0035	8.5	1.0	1983.3	2.0	3972.5	1.0000	
Ba	0.0050	2000.3	1.0	365926.9	2.0	699369.2	0.9998	
Be	0.0020	59.0	1.0	30219.8	2.0	62405.9	0.9999	
Cd	0.0050	733.7	1.0	134303.0	2.0	253876.4	0.9997	
Cr	0.0050	448.5	1.0	82142.6	2.0	159598.7	0.9999	
Ni	0.0050	315.1	1.0	58628.3	2.0	113202.8	0.9999	
Pb	0.0030	22.8	1.0	17744.1	2.0	34277.9	0.9999	
Sb	0.0050	34.8	1.0	7626.3	2.0	15057.7	1.0000	
Se	0.0050	21.1	1.0	3677.0	2.0	7161.3	0.9999	

r = correlation coefficient

Comments:

AFCEE FORM I-3

AFCEE
INORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B

AAB #: 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Date of Initial Calibration: 22-Dec-03

Initial Calibration ID: 031222

Instrument ID: PE ICAP

Concentration Units (mg/L or mg/kg) mg/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	r	Q
Pb	0.0030	104.5	1.0	19521.9	2.0	37596.9	0.9999	

r = correlation coefficient

Comments:

AFCEE FORM I-3

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B

AAB #: 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE ICAP

Initial Calibration ID:031220

2nd Source ID: ICV 12/20/03 12:22

ICV ID: ICV 12/20/03 12:22

CCV #1 ID: CCV 12/20/03 12:32

CCV #2 ID: CCV 12/20/03 13:02

Concentration Units (mg/L or mg/kg):mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Ag	0.500	0.516	3.3%	0.500	0.516	3.3%	0.500	0.515	2.9%	0.516	3.2%	
As	1.000	1.078	7.8%	1.000	1.078	7.8%	1.000	1.036	3.6%	1.034	3.4%	
Ba	1.000	1.080	8.0%	1.000	1.080	8.0%	1.000	1.041	4.1%	1.046	4.6%	
Be	1.000	0.998	0.2%	1.000	0.998	0.2%	1.000	0.986	1.4%	1.010	1.0%	
Cd	1.000	1.061	6.1%	1.000	1.061	6.1%	1.000	1.053	5.3%	1.053	5.3%	
Cr	1.000	1.052	5.2%	1.000	1.052	5.2%	1.000	1.020	2.0%	1.026	2.6%	
Ni	1.000	1.085	8.5%	1.000	1.085	8.5%	1.000	1.038	3.8%	1.049	4.9%	
Pb	1.000	1.074	7.4%	1.000	1.074	7.4%	1.000	1.043	4.3%	1.054	5.4%	
Sb	1.000	1.047	4.7%	1.000	1.047	4.7%	1.000	0.984	1.6%	0.994	0.6%	
Se	1.000	1.048	4.8%	1.000	1.048	4.8%	1.000	1.036	3.6%	1.051	5.1%	

Comments:

AFCEE FORM I-4 Page ____ of ____

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B

AAB #: 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE ICAP

Initial Calibration ID: 031220

2nd Source ID: ICV 12/20/03 12:22

ICV ID: ICV 12/20/03 12:22

CCV #1 ID: CCV 12/20/03 13:56

CCV #2 ID: CCV 12/20/03 14:42

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Ag	0.500	0.516	3.3%	0.50	0.516	3.3%	0.500	0.516	3.3%	0.513	2.6%	
As	1.000	1.078	7.8%	1.00	1.078	7.8%	1.000	1.020	2.0%	0.999	0.1%	
Ba	1.000	1.080	8.0%	1.00	1.080	8.0%	1.000	1.055	5.5%	1.047	4.7%	
Be	1.000	0.998	0.2%	1.00	0.998	0.2%	1.000	1.036	3.6%	1.027	2.7%	
Cd	1.000	1.061	6.1%	1.00	1.061	6.1%	1.000	1.040	4.0%	1.036	3.6%	
Cr	1.000	1.052	5.2%	1.00	1.052	5.2%	1.000	1.026	2.6%	1.020	2.0%	
Ni	1.000	1.085	8.5%	1.00	1.085	8.5%	1.000	1.054	5.4%	1.057	5.7%	
Pb	1.000	1.074	7.4%	1.00	1.074	7.4%	1.000	1.055	5.5%	1.053	5.3%	
Sb	1.000	1.047	4.7%	1.00	1.047	4.7%	1.000	0.995	0.5%	1.005	0.5%	
Se	1.000	1.048	4.8%	1.00	1.048	4.8%	1.000	1.041	4.1%	1.046	4.6%	

Comments:

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B

AAB #: 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE ICAP

Initial Calibration ID: 031222

2nd Source ID: ICV 12/22/03 14:14

ICV ID: ICV 12/22/03 14:14

CCV #1 ID: CCV 12/22/03 14:22

CCV #2 ID: CCV 12/22/03 14:46

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Pb	1.000	1.054	5.4%	1.000	1.054	5.4%	1.000	1.018	1.8%	1.026	2.6%	

Comments:

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B

AAB #: 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE ICAP

Initial Calibration ID: 031222

2nd Source ID: ICV 12/22/03 14:14

ICV ID: ICV 12/22/03 14:14

CCV #1 ID: CCV 12/22/03 16:05

CCV #2 ID:

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Pb	1.000	1.054	5.4%	1.000	1.054	5.4%	1.000	1.028	2.8%			

Comments:

AFCEE FORM I-4 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 6010B AAB #: 031217A-71366

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 12/20/03 12:27 Initial Calibration ID: 031220

CCB #1 ID: CCB 12/20/03 12:37 CCB #2 ID: CCB 12/20/03 13:07 CCB #3 ID: CCB 12/20/03 14:01

Method Blank ID: 031217A-BLK Initial Calibration ID: 031220

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Ag	<RL	<RL	<RL	<RL	<RL	0.01	
As	<RL	<RL	<RL	<RL	<RL	0.03	
Ba	<RL	<RL	<RL	<RL	<RL	0.005	
Be	<RL	<RL	<RL	<RL	<RL	0.005	
Cd	<RL	<RL	<RL	<RL	<RL	0.007	
Cr	<RL	<RL	<RL	<RL	<RL	0.01	
Ni	<RL	<RL	<RL	<RL	<RL	0.01	
Pb	<RL	<RL	<RL	<RL	<RL	0.025	
Sb	<RL	<RL	<RL	<RL	<RL	0.05	
Se	<RL	<RL	<RL	<RL	<RL	0.03	

Comments:

AFCEE FORM I-5 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 6010B AAB #: 031217A-71366

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 12/20/03 12:27 Initial Calibration ID: 031220

CCB #1 ID: CCB 12/20/03 14:47 CCB #2 ID: CCB #3 ID:

Method Blank ID: 031217A-BLK Initial Calibration ID: 031220

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Ag	<RL	<RL			<RL	0.01	
As	<RL	<RL			<RL	0.03	
Ba	<RL	<RL			<RL	0.005	
Be	<RL	<RL			<RL	0.005	
Cd	<RL	<RL			<RL	0.007	
Cr	<RL	<RL			<RL	0.01	
Ni	<RL	<RL			<RL	0.01	
Pb	<RL	<RL			<RL	0.025	
Sb	<RL	<RL			<RL	0.05	
Se	<RL	<RL			<RL	0.03	

Comments:

AFCEE FORM I-5 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 6010B

AAB #: ~~#REF!~~ VP 12-23-03 031217A-71366

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 12/22/03 14:17

Initial Calibration ID: 031222

CCB #1 ID: CCB 12/22/03 14:27

CCB #2 ID: CCB 12/22/03 14:51

CCB #3 ID: CCB 12/22/03 16:10

Method Blank ID: 031217A-BLK

Initial Calibration ID: 031220

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Pb	<RL	<RL	<RL	<RL	<RL	0.025	

Comments:

AFCEE FORM I-5 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 6
LABORATORY CONTROL SAMPLE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
LCS ID: 031217A LCS
Concentration Units: mg/L

AAB #: 031217A-71366
Contract #: F41624-01-D-8544, TO 0019
Initial Calibration ID: 031220

Analyte	Expected	Found	% R	Control Limits	Q
Antimony (Sb)	0.250	0.252	100.8	75-125	
Arsenic (As)	0.250	0.262	104.8	75-125	
Barium (Ba)	0.2500	0.2749	110.0	75-125	
Beryllium (Be)	0.0500	0.0521	104.2	75-125	
Cadmium (Cd)	0.0500	0.0550	110.0	75-125	
Chromium (Cr)	0.250	0.272	108.8	75-125	
Lead (Pb)	0.2500	0.2741	109.6	75-125	
Nickel (Ni)	0.250	0.275	110.0	75-125	
Selenium (Se)	0.250	0.269	107.6	75-125	
Silver (Ag)	0.1000	0.1038	103.8	75-125	

Comments: ARF: 43296, Sample: AP62370

Laboratory Control Spike Recovery Duplicate

METALS

AAB# 031217A-71366
Cont # F41624-01-D-8544, TO 0019
Init Calib ID: 031220

APPL Inc.
1203 West Swift Avenue
Fresno, CA 93722

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010B	Antimony (Sb)	0.250	0.252	100.8	75-125	12/17/03	12/20/03	031217A – LCSD
EPA 6010B	Arsenic (As)	0.250	0.266	106.4	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Barium (Ba)	0.250	0.271	108.4	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Beryllium (Be)	0.05	0.052	104.0	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Cadmium (Cd)	0.05	0.055	110.0	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Chromium (Cr)	0.250	0.271	108.4	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Lead (Pb)	0.250	0.271	108.4	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Nickel (Ni)	0.250	0.272	108.8	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Selenium (Se)	0.250	0.269	107.6	75-125	12/17/03	12/20/03	031217A
EPA 6010B	Silver (Ag)	0.1	0.101	101.0	75-125	12/17/03	12/20/03	031217A

Comments:

AFCEE
INORGANIC ANALYSES DATA SHEET 8
HOLDING TIMES

Analytical Method: EPA 6010B AAB#: 031217A-71366

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Field Sample ID	Date Collected	Date Received	Date Analyzed	Max. Holding Time (days)	Time Held (days)	Q
B29-WC01	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B29-WC02	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B29-WC03	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B29A-WC01	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B29A-WC02	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B30-WC01	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B30-WC02	04-Dec-03	06-Dec-03	20-Dec-03	180	16	
B30-WC03	04-Dec-03	06-Dec-03	20-Dec-03	180	16	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 8
HOLDING TIMES

Analytical Method: EPA 6010B AAB#: 031217A-71366

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Field Sample ID	Date Collected	Date Received	Date Analyzed	Max. Holding Time (days)	Time Held (days)	Q
B29-WC01	04-Dec-03	06-Dec-03	22-Dec-03	180	18	
B29-WC03	04-Dec-03	06-Dec-03	22-Dec-03	180	18	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 9
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 6010B

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Instrument ID #: PE ICAP ICAL ID: 031220

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
Calib Blank 1	20-Dec-03	12:04	20-Dec-03	12:04
STD 1	20-Dec-03	12:09	20-Dec-03	12:09
STD 2	20-Dec-03	12:13	20-Dec-03	12:13
STD 3	20-Dec-03	12:18	20-Dec-03	12:18
ICV	20-Dec-03	12:22	20-Dec-03	12:22
ICB	20-Dec-03	12:27	20-Dec-03	12:27
CCV	20-Dec-03	12:32	20-Dec-03	12:32
CCB	20-Dec-03	12:37	20-Dec-03	12:37
ICSA	20-Dec-03	12:41	20-Dec-03	12:41
ICSAB	20-Dec-03	12:57	20-Dec-03	12:57
CCV	20-Dec-03	13:02	20-Dec-03	13:02
CCB	20-Dec-03	13:07	20-Dec-03	13:07
031217A-BLK	20-Dec-03	13:12	20-Dec-03	13:12
031217A-LCS	20-Dec-03	13:16	20-Dec-03	13:16
031217A-LCSD	20-Dec-03	13:21	20-Dec-03	13:21
AP62370S01	20-Dec-03	13:26	20-Dec-03	13:26
AP62371S01	20-Dec-03	13:32	20-Dec-03	13:32
AP62372S01	20-Dec-03	13:38	20-Dec-03	13:38
AP62373S01	20-Dec-03	13:44	20-Dec-03	13:44
AP62374S01	20-Dec-03	13:50	20-Dec-03	13:50
CCV	20-Dec-03	13:56	20-Dec-03	13:56
CCB	20-Dec-03	14:01	20-Dec-03	14:01
AP62375S01	20-Dec-03	14:06	20-Dec-03	14:06
AP62376S01	20-Dec-03	14:19	20-Dec-03	14:19
AP62377S01	20-Dec-03	14:24	20-Dec-03	14:24
AP62376S01-1/5	20-Dec-03	14:30	20-Dec-03	14:30
AP62376S01-A	20-Dec-03	14:37	20-Dec-03	14:37
CCV	20-Dec-03	14:42	20-Dec-03	14:42
CCB	20-Dec-03	14:47	20-Dec-03	14:47

AFCEE
INORGANIC ANALYSES DATA SHEET 9
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 6010B

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Instrument ID #: PE ICAP ICAL ID: 031222

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
Calib Blank 1	22-Dec-03	13:53	22-Dec-03	13:53
STD 1	22-Dec-03	13:58	22-Dec-03	13:58
STD 2	22-Dec-03	14:03	22-Dec-03	14:03
STD 3	22-Dec-03	14:07	22-Dec-03	14:07
ICV	22-Dec-03	14:12	22-Dec-03	14:12
ICB	22-Dec-03	14:17	22-Dec-03	14:17
CCV	22-Dec-03	14:22	22-Dec-03	14:22
CCB	22-Dec-03	14:27	22-Dec-03	14:27
ICSA	22-Dec-03	14:35	22-Dec-03	14:35
ICSAB	22-Dec-03	14:41	22-Dec-03	14:41
CCV	22-Dec-03	14:46	22-Dec-03	14:46
CCB	22-Dec-03	14:51	22-Dec-03	14:51
AP62372S01-1/10	22-Dec-03	14:57	22-Dec-03	14:57
AP62374S01-1/10	22-Dec-03	15:04	22-Dec-03	15:04
CCV	22-Dec-03	16:05	22-Dec-03	16:05
CCB	22-Dec-03	16:10	22-Dec-03	16:10

APPL, Inc.
Analysis listing PE ICAP
12/20/03

Sample ID	Date	Time	Batch ID	Diluted To Vol.
Calib Blank 1	12/20/2003	12:04:32 PM		
STD 1	12/20/2003	12:09:14 PM		
STD 2	12/20/2003	12:13:58 PM		
STD 3	12/20/2003	12:18:57 PM		
ICV	12/20/2003	12:22:17 PM		
ICB	12/20/2003	12:27:18 PM		
CCV	12/20/2003	12:32:01 PM		
CCB	12/20/2003	12:37:00 PM		
ICSA	12/20/2003	12:41:43 PM		
ICSAB	12/20/2003	12:57:03 PM		
CCV	12/20/2003	1:02:10 PM		
CCB	12/20/2003	1:07:10 PM		
031217A-BLK	12/20/2003	1:12:04 PM	031217A-3010A	
031217A-LCS	12/20/2003	1:16:50 PM	031217A-3010A	
031217A-LCSD	12/20/2003	1:21:48 PM	031217A-3010A	
AP62370S01	12/20/2003	1:26:44 PM	031217A-3010A	
AP62371S01	12/20/2003	1:32:42 PM	031217A-3010A	
AP62372S01	12/20/2003	1:38:41 PM	031217A-3010A	
AP62373S01	12/20/2003	1:44:40 PM	031217A-3010A	
AP62374S01	12/20/2003	1:50:39 PM	031217A-3010A	
CCV	12/20/2003	1:56:36 PM		
CCB	12/20/2003	2:01:35 PM		
AP62375S01	12/20/2003	2:06:18 PM	031217A-3010A	
AP62376S01	12/20/2003	2:19:01 PM	031217A-3010A	
AP62377S01	12/20/2003	2:24:59 PM	031217A-3010A	
AP62376S01-1/5	12/20/2003	2:30:56 PM	031217A-3010A	5
AP62376S01-A	12/20/2003	2:37:41 PM	031217A-3010A	
CCV	12/20/2003	2:42:40 PM		
CCB	12/20/2003	2:47:40 PM		

APPL, Inc.
Analysis listing PE ICAP
12/22/03

Sample ID	Date	Time	Batch ID	Diluted To Vol.
Calib Blank 1	12/22/2003	1:53:38 PM		
STD 1	12/22/2003	1:58:21 PM		
STD 2	12/22/2003	2:03:04 PM		
STD 3	12/22/2003	2:07:55 PM		
ICV	12/22/2003	2:12:56 PM		
ICB	12/22/2003	2:17:57 PM		
CCV	12/22/2003	2:22:42 PM		
CCB	12/22/2003	2:27:42 PM		
ICSA	12/22/2003	2:35:40 PM		
ICSAB	12/22/2003	2:41:32 PM		
CCV	12/22/2003	2:46:43 PM		
CCB	12/22/2003	2:51:41 PM		
AP62372S01-1/10	12/22/2003	2:57:39 PM	031217A-3010A	10
AP62374S01-1/10	12/22/2003	3:04:38 PM	031217A-3010A	10
AP62418S01	12/22/2003	3:11:29 PM	031216A-3050B	
AP62419S01	12/22/2003	3:18:25 PM	031216A-3050B	
AP62420S01	12/22/2003	3:24:26 PM	031216A-3050B	
AP62421S01	12/22/2003	3:31:24 PM	031216A-3050B	
AP62422S01	12/22/2003	3:38:28 PM	031216A-3050B	
AP62423S01	12/22/2003	3:45:22 PM	031216A-3050B	
AP62424S01	12/22/2003	3:52:14 PM	031216A-3050B	
AP62425S01	12/22/2003	3:59:06 PM	031216A-3050B	
CCV	12/22/2003	4:05:58 PM		
CCB	12/22/2003	4:10:57 PM		
AP62425S01-1/5	12/22/2003	4:15:40 PM	031216A-3050B	5
AP62425S01-A	12/22/2003	4:20:25 PM	031216A-3050B	
RINSE	12/22/2003	4:25:29 PM		
031202A-BLK	12/22/2003	4:30:16 PM	031202A-3010A	
031202A-LCS	12/22/2003	4:34:59 PM	031202A-3010A	
031202A-LCSD	12/22/2003	4:39:55 PM	031202A-3010A	
AP61769W12	12/22/2003	4:44:53 PM	031202A-3010A	
RINSE	12/22/2003	4:51:38 PM		
031218A-BLK	12/22/2003	4:56:25 PM	031218A-3050B	
031218A-LCS	12/22/2003	5:01:10 PM	031218A-3050B	
CCV2	12/22/2003	5:06:07 PM		
CCB2	12/22/2003	5:11:07 PM		
031218A-LCSD	12/22/2003	5:15:54 PM	031218A-3050B	
AP60608S01	12/22/2003	5:32:09 PM	031218A-3050B	
AP60609S01	12/22/2003	5:38:10 PM	031218A-3050B	
AP60610S01	12/22/2003	5:44:17 PM	031218A-3050B	
AP60610S01-MS	12/22/2003	5:51:12 PM	031218A-3050B	
AP60610S01-MSD	12/22/2003	5:56:21 PM	031218A-3050B	
AP60611S01	12/22/2003	6:01:59 PM	031218A-3050B	
AP60612S01	12/22/2003	6:08:51 PM	031218A-3050B	
AP60613S01	12/22/2003	6:15:43 PM	031218A-3050B	
AP60614S01	12/22/2003	6:22:36 PM	031218A-3050B	

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: Parsons

ARF No.: 43296 SDG: 43296

ICP ID Number: PE ICAP ICS Source: Environmental Express

Concentration Units: ug/L

12/20/03

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R
Silver		1000	2.5	1015.0	101.5
Aluminum	200000	200000	198400.0	206200.0	103.1
Arsenic		500	0.3	491.7	98.3
Barium		500	0.6	510.2	102.0
Beryllium		500	-0.2	504.1	100.8
Calcium	200000	200000	191700.0	204500.0	102.3
Cadmium		1000	-2.2	974.8	97.5
Chromium		500	0.8	488.7	97.7
Iron	200000	200000	183700.0	189200.0	94.6
Magnesium	200000	200000	192100.0	202900.0	101.5
Nickel		1000	2.0	957.9	95.8
Lead		1000	8.8	983.7	98.4
Antimony		500	1.5	481.4	96.3
Selenium		500	-6.2	478.1	95.6

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: Parsons

ARF No.: 43296 SDG: 43296

ICP ID Number: PE ICAP ICS Source: Environmental Express

Concentration Units: ug/L

12/22/03

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R
Aluminum	200000	200000	196800.0	207900.0	104
Calcium	200000	200000	194500.0	206500.0	103
Iron	200000	200000	180000.0	189800.0	94.9
Magnesium	200000	200000	196200.0	205000.0	103
Lead		1000	4.6	971.0	97.1

MERCURY
EPA SW846
7470A
TCLP

APPL, INC.

MERCURY
EPA SW846
7470A
TCLP
AFCEE Forms

APPL, INC.

AFCEE
INORGANIC ANALYSES DATA PACKAGE

Analytical Method: EPA 7470A
Lab Name: APPL, Inc
Base/Command: CSSA

AAB #: 031218A-71293
Contract #: F41624-01-D-8544, TO 0019
Prime Contractor: Parsons Engineering Science, Inc.

Field Sample ID	Lab Sample ID
B29A-WC01	AP62370
B29A-WC02	AP62371
B29-WC01	AP62372
B29-WC02	AP62373
B29-WC03	AP62374
B30-WC01	AP62375
B30-WC02	AP62376
B30-WC03	AP62377

Comments: ARF: 43296

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Diane Anderson

Date: _____ Title: Project Manager

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29A-WC01 Lab Sample ID: AP62370 Matrix: Soil
% Solids: 91.8 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29A-WC02 Lab Sample ID: AP62371 Matrix: Soil
% Solids: 94.3 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC01 Lab Sample ID: AP62372 Matrix: Soil
% Solids: 94.0 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE FORM I-2

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC02 Lab Sample ID: AP62373 Matrix: Soil
% Solids: 91.8 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-WC03 Lab Sample ID: AP62374 Matrix: Soil
% Solids: 90.7 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC01 Lab Sample ID: AP62375 Matrix: Soil
% Solids: 94.5 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC02 Lab Sample ID: AP62376 Matrix: Soil
% Solids: 95.8 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 7470A Preparatory Method: 1311/7470A AAB #: 031218A-71293
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B30-WC03 Lab Sample ID: AP62377 Matrix: Soil
% Solids: 89.6 Initial Calibration ID: 031219
Date Received: 06-Dec-03 Date Prepared: 18-Dec-03 Date Analyzed: 19-Dec-03
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Mercury (Hg)	0.0001	0.0002	0.0001	1	U

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 3
MERCURY INITIAL MULTIPOINT CALIBRATION

Analytical Method: 7470A

AAB #: 031218A-71293

Lab Name: APPL, Inc

Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE300

Date of Initial Calibration: 19-Dec-03

Initial Calibration ID. 031219

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	r	Q
Mercury	0.0002	0.002	0.0005	0.005	0.001	0.010	0.002	0.022	0.005	0.057	0.99952	

r = correlation coefficient

Comments:

AFCEE FORM I-3A

AFCEE
INORGANIC ANALYSES DATA SHEET 3
MERCURY INITIAL MULTIPOINT CALIBRATION

Analytical Method: 7470A AAB #: 031218A-71293

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE300 Date of Initial Calibration: 19-Dec-03

Initial Calibration ID: 031219 Concentration Units (mg/L or mg/kg) mg/L

Analyte	Std 6	RF 6									r	Q
Mercury	0.01	0.122									0.99952	

r = correlation coefficient

Comments:

AFCEE FORM I-3A

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 7470A AAB #: 031218A-71293

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE300 Initial Calibration ID: 031219

2nd Source ID: ICV 12/19/03 11:24 ICV ID: ICV 12/19/03 11:24

CCV #1 ID: CCV 12/19/03 11:27 CCV #2 ID: CCV 12/19/03 11:39

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Mercury (Hg)	0.00400	0.00414	3.5%	0.00400	0.00414	3.5%	0.00500	0.00484	3.2%	0.00483	3.4%	

Comments:

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AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 7470A

AAB #: 031218A-71293

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544, TO 0019

Instrument ID: PE300

Initial Calibration ID: 031219

2nd Source ID: ICV 12/19/03 11:24

ICV ID: ICV 12/19/03 11:24

CCV #1 ID: CCV 12/19/03 11:47

CCV #2 ID:

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Mercury (Hg)	0.00400	0.00414	3.5%	0.00400	0.00414	3.5%	0.00500	0.00485	3.0%			

Comments:

AFCEE FORM I-4 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 7470A AAB #: 031218A-71293

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 12/19/03 11:26 Initial Calibration ID: 031219

CCB #1 ID: CCB 12/19/03 11:29 CCB #2 ID: CCB 12/19/03 11:41 CCB #3 ID: CCB 12/19/03 11:49

Method Blank ID: 031218A-BLK Initial Calibration ID: 031219

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Mercury (Hg)	<RL	<RL	<RL	<RL	<RL	0.0002	

Comments:

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AFCEE
INORGANIC ANALYSES DATA SHEET 6
LABORATORY CONTROL SAMPLE

Analytical Method: EPA 7470A
Lab Name: APPL, Inc
LCS ID: 031218A LCS
Concentration Units: mg/L

AAB #: 031218A-71293
Contract #: F41624-01-D-8544, TO 0019
Initial Calibration ID: 031219

Analyte	Expected	Found	% R	Control Limits	Q
Mercury (Hg)	0.0040	0.0041	102.5	85-115	

Comments: ARF: 43296, Sample: AP62370

Laboratory Control Spike Recovery Duplicate

METALS

AAB # 031218A-71293
Contract # F41624-01-D-8544, TO 0019
Init. Calib. ID: 031219

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 7470A	Mercury (Hg)	0.004	0.004	100.0	85-115	12/18/03	12/19/03	031218A - LCSD

Comments:

AFCEE
INORGANIC ANALYSES DATA SHEET 8
HOLDING TIMES

Analytical Method: EPA 7470A AAB#: 031218A-71293

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Field Sample ID	Date Collected	Date Received	Date Analyzed	Max. Holding Time (days)	Time Held (days)	Q
B29-WC01	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B29-WC02	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B29-WC03	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B29A-WC01	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B29A-WC02	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B30-WC01	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B30-WC02	04-Dec-03	06-Dec-03	19-Dec-03	28	15	
B30-WC03	04-Dec-03	06-Dec-03	19-Dec-03	28	15	

Comments: ARF: 43296

AFCEE
INORGANIC ANALYSES DATA SHEET 9
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 7470A ICAL ID: 031219

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544, TO 0019

Instrument ID #: PE300

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
Calib Blank	19-Dec-03	11:13	19-Dec-03	11:13
0.0002 ppm Hg	19-Dec-03	11:14	19-Dec-03	11:14
0.0005 ppm Hg	19-Dec-03	11:15	19-Dec-03	11:15
0.0010 ppm Hg	19-Dec-03	11:17	19-Dec-03	11:17
0.0020 ppm Hg	19-Dec-03	11:18	19-Dec-03	11:18
0.005 ppm Hg	19-Dec-03	11:20	19-Dec-03	11:20
0.010 ppm Hg	19-Dec-03	11:21	19-Dec-03	11:21
ICV	19-Dec-03	11:24	19-Dec-03	11:24
ICB	19-Dec-03	11:26	19-Dec-03	11:26
CCV	19-Dec-03	11:27	19-Dec-03	11:27
CCB	19-Dec-03	11:29	19-Dec-03	11:29
031218A-BLK	19-Dec-03	11:30	19-Dec-03	11:30
031218A-LCS	19-Dec-03	11:31	19-Dec-03	11:31
031218A-LCSD	19-Dec-03	11:33	19-Dec-03	11:33
AP62370S01	19-Dec-03	11:34	19-Dec-03	11:34
AP62371S01	19-Dec-03	11:36	19-Dec-03	11:36
AP62372S01	19-Dec-03	11:37	19-Dec-03	11:37
AP62373S01	19-Dec-03	11:38	19-Dec-03	11:38
CCV 12-18-03 SV	19-Dec-03	11:39	19-Dec-03	11:39
CCB 12-18-03 SV	19-Dec-03	11:41	19-Dec-03	11:41
AP62374S01	19-Dec-03	11:42	19-Dec-03	11:42
AP62375S01	19-Dec-03	11:43	19-Dec-03	11:43
AP62376S01	19-Dec-03	11:44	19-Dec-03	11:44
AP62377S01	19-Dec-03	11:46	19-Dec-03	11:46
CCV 12-18-03 SV	19-Dec-03	11:47	19-Dec-03	11:47
CCB 12-18-03 SV	19-Dec-03	11:49	19-Dec-03	11:49

Hg Run Log 12-19-03

Sample_ID	EL	Sam_Date	Sam_Time	Mean_SA	Batch_ID	Dilu
Calib Blank	Hg	12/19/03	11:13:17			
0.2 12-18-03 SV	Hg	12/19/03	11:14:28			
0.5	Hg	12/19/03	11:15:40			
1	Hg	12/19/03	11:17:12			
2	Hg	12/19/03	11:18:43			
5	Hg	12/19/03	11:20:16			
10	Hg	12/19/03	11:21:48			
ICV 12-18-03 SV	Hg	12/19/03	11:24:26	4.140598		
ICB 12-18-03 SV	Hg	12/19/03	11:26:09	-0.01777		
CCV 12-18-03 SV	Hg	12/19/03	11:27:22	4.840125		
CCB 12-18-03 SV	Hg	12/19/03	11:29:06	0.011132		
031218A-BLK	Hg	12/19/03	11:30:18	-0.038126	031218A-7470A	
031218A-LCS	Hg	12/19/03	11:31:27	4.095551	031218A-7470A	
031218A-LCSD	Hg	12/19/03	11:33:10	4.100933	031218A-7470A	
AP62370S01	Hg	12/19/03	11:34:52	-0.029456	031218A-7470A	
AP62371S01	Hg	12/19/03	11:36:03	-0.108463	031218A-7470A	
AP62372S01	Hg	12/19/03	11:37:16	-0.066804	031218A-7470A	
AP62373S01	Hg	12/19/03	11:38:26	-0.019016	031218A-7470A	
CCV 12-18-03 SV	Hg	12/19/03	11:39:37	4.830159		
CCB 12-18-03 SV	Hg	12/19/03	11:41:21	-0.042561		
AP62374S01	Hg	12/19/03	11:42:33	-0.017272	031218A-7470A	
AP62375S01	Hg	12/19/03	11:43:43	-0.064636	031218A-7470A	
AP62376S01	Hg	12/19/03	11:44:53	-0.079137	031218A-7470A	
AP62377S01	Hg	12/19/03	11:46:06	-0.027188	031218A-7470A	
CCV 12-18-03 SV	Hg	12/19/03	11:47:16	4.851462		
CCB 12-18-03 SV	Hg	12/19/03	11:49:02	-0.043433		

Laboratory Report

Parsons

Camp Stanley Storage Activity

Contract #: F41624-01-D-8544, TO 0019

5 May 2004 Inorganics

APPL, Inc.

Summary Data Package
For

Contract #: F41624-01-D-8544, TO 0019

ARF 44412

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

4203 West Swift ∇ Fresno, California 93722 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Case Narrative

ARF: 44412

Project: CSSA 743345.03000

State Certification Number: CA1312

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sample Receipt Information:

The sample group was received May 7, 2004, at 3°C. The samples were assigned Analytical Request Form (ARF) number 44412. No exceptions were noted.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
B29-TWC-03	AP69436	SOIL	05/05/04	05/07/04
B29-TWC-04	AP69437	SOIL	05/05/04	05/07/04

EPA Method 6010B
TCLP Lead

Digestion Information:

The samples were leached according to EPA method 1311 and the leachates were digested according to EPA method 3010A. No exceptions were encountered. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed according to EPA Method 6010B using a Perkin Elmer ICAP Optima 4300 DV Analyzer.

Calibrations:

Calibrations were performed according to the method with no deviations from the initial calibration, the initial calibration verification and the continuing calibrations. The initial calibration verification is prepared from a second source standard.

Blanks:

Lead was not detected at or above the reporting level.

Spikes:

The Laboratory Control Spike (LCS/LCSD) met acceptance criteria. No sample was designated for MS/MSD analysis.

Dilution Test:

A dilution test was performed on both samples. The dilution test was applicable since the concentration of Lead was greater than 50 times the MDL in both samples. For sample B29-TWC03 Lead had a 11.9%D. For sample B29-TWC04 Lead had a 28%D. The samples were "M" flagged in accordance with the CSSA QAPP

Summary:

No other analytical exceptions are noted.

CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Leonard Fong, Ph.D, Laboratory Director / Date

CHAIN OF CUSTODY

AND ARF

APPL - Analysis Request Form

44412

Client: Parsons
Address: 8000 Centre Park Drive Ste 200
Austin, TX 78754
Attn: Tammy Chang
Phone: 512-719-6092 Fax: 512-719-6099
Job: 743345.03 CSSA
PO #: NA
Chain of Custody (Y/N): Y #
RAD Screen (Y/N): Y pH (Y/N): N
Turn Around Type: 3 DAY

Received by: CM
Date Received: 5/7/04 Time: 10:15
Delivered by: FED EX
Shuttle Custody Seals (Y/N): N
Chest Temp(s): 3° HB 120751
Color: BLUE
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: DIANE ANDERSON
QC Report Type: AFCEE/TX
Due Date: 5/10/04

Comments:

CSSA

Sample Distribution:
Metals: 2-$60LP(Pb)

Charges:

Invoice To:

	Client ID	APPL ID	Sampled		Analyses Requested
1.	B29-TWC-03	AP69436S	5/5/04	18:00	$60LP(Pb)
2.	B29-TWC-04	AP69437S	5/5/04	18:15	$60LP(Pb)

Initials _____ Date _____

APPL Sample Receipt Form

ARF# 44412

Sample	Container Type	Count	Sample	Container Type	Count	Sample	Container Type	Count
AP69436	20 4oz Jar	1						
AP69437	20 4oz Jar	1						

Camp Stanley Storage Activity Chain Of Custody

COC ID:
Project Location: CSSA
Job Number: 743345.03
Creation Date: 5/5/2004

Relinquish_Date: 5/6/2004
Relinquished_By: KRR
Relinquish_Time: 3:00 PM
Collection Team: KRR

Cooler ID:
LabCode: APPF
Carrier: FedEx
Airbill Carrier: 829223976750

Sampler(s): Ken Rue / [signature]

LOCID: B29-TWC-03 LOGDATE: 5/5/2004 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 18:00 SACODE: N SMCODE: CS ABLOT:
SED: 0 FLDSAMPID B29-TWC-03_050504_N1800 EBLOT:
Containers: 1
Remarks:
Analysis Required: SW6010B TCLP-Lead (Pb)

LOCID: B29-TWC-04 LOGDATE: 5/5/2004 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 18:15 SACODE: N SMCODE: CS ABLOT:
SED: 0 FLDSAMPID B29-TWC-04_050504_N1815 EBLOT:
Containers: 1
Remarks:
Analysis Required: SW6010B TCLP-Lead (Pb)

LOCID: B33-TWC-01 LOGDATE: 5/5/2004 MATRIX: SO TBLOT:
SBD: 0 LOGTIME: 18:30 SACODE: N SMCODE: G ABLOT:
SED: 0 FLDSAMPID B33-TWC-01_050504_N1830 EBLOT:
Containers: 1
Remarks:
Analysis Required: SW6010B TCLP-Lead (Pb)

Relinquished by: [signature] Date 5/6/04 Time 15:00
Recieved by: _____ Date _____ Time _____

Relinquished by: _____ Date _____ Time _____
Recieved by: _____ Date _____ Time _____

Relinquished by: [signature] Date _____ Time _____
Recieved by: [signature] Date 5/7/04 Time 1015

COOLER RECEIPT FORM

Project: 743345.03 CSSA Date Received: 5-7-04 Number of Coolers: 1

1. Did cooler come with a shipping slip (air bill, etc.)? YES NO NA
   If yes; enter carrier name FEDEX enter air bill numbers:1) 8892 2297 6750
   2)_____ 3)_____
2. If cooler belongs to APPL, has it been logged into the ice chest database? YES ~~NO~~ NA
3. Were custody seals on outside of cooler? YES ~~NO~~ NA
4. How many?_____ Date on seal? _____ Name on seal? _____
5. Were custody seals unbroken and intact at the time of arrival? YES NO ~~NA~~
6. Were samples screened for radioactivity? ~~YES~~ NO NA
7. Was a chain of custody received? ~~YES~~ NO NA
8. Were the custody papers filled out properly? ~~YES~~ NO NA
9. Were the custody papers signed in the appropriate places? ~~YES~~ NO NA
10. Was the project identifiable from custody papers? ~~YES~~ NO NA
11. Was a sufficient amount of holding time remaining to analyze the samples? ~~YES~~ NO NA
12. Is location where sample was taken listed on the COC? ~~YES~~ NO NA
13. If required, was enough ice used? Type of ice: WET ICE ~~YES~~ NO NA
14. Shuttle temp(s):1) 3°C 2)_____ 3)_____ Serial number of certified thermometer used: HB120751
15. Was a temperature blank included in the cooler? YES ~~NO~~ NA
16. Describe type of packing in cooler: Samples & WET ICE
17. Were all containers sealed in separate bags? YES NO NA
18. Did all containers arrive unbroken and were labels in good condition? YES NO NA
19. Were all container labels complete (ID, date, time, signature, preservative, etc.)? YES NO NA
20. Did all container labels agree with custody papers? YES NO NA
21. Were correct containers used for the tests indicated? YES NO NA
22. Were correct preservatives added to the samples? YES NO ~~NA~~
23. Was a sufficient amount of sample sent for tests indicated? YES NO NA
24. Were bubbles present in volatile samples? YES NO ~~NA~~
    If yes, list by sample ID. The following VOAs were received with air bubbles:
    Larger than a pea: _____
    Smaller than a pea: _____

Signature of personnel receiving samples: _____

Second reviewer: _____

Comments: _____

_____

_____

Name of project manager notified_____ Date and Time of notification_____

Name of client notified_____ Date and Time of notification_____

Information given to client_____ By whom (Initials):_____

Chain of Custody

		Client:	Parsons
ARF:	44412	ATTN:	Tammy Chang
Sample Number:	**AP69436**	Project:	743345.03 CSSA
Client ID:	B29-TWC-03	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	Blue	05/07/2004 10:15:00	Moua, Chue	Container Received
	Blue	05/07/2004 14:38:42	Schoenau, Elisabeth	Elisabeth Schoenau -> Key #2
	Metals	05/07/2004 15:10:39	Vang, Shawnle	Key #2 -> Shawnle Vang
	Spent	05/13/2004 16:38:46	Vang, Shawnle	Shawnle Vang -> Key #2

Chain of Custody

		Client:	Parsons
ARF:	44412	ATTN:	Tammy Chang
Sample Number:	**AP69437**	Project:	743345.03 CSSA
Client ID:	B29-TWC-04	PO:	NA

Container	Moved To	Date - Time	User Name	Reason For Move
S01	Blue	05/07/2004 10:15:00	Moua, Chue	Container Received
	Blue	05/07/2004 14:38:48	Schoenau, Elisabeth	Elisabeth Schoenau -> Key #2
	Metals	05/07/2004 15:10:48	Vang, Shawnle	Key #2 -> Shawnle Vang
	Blue	05/13/2004 16:37:50	Vang, Shawnle	Shawnle Vang -> Key #2

METALS
EPA SW846 - 6010B

APPL, INC.

METALS
EPA SW846 - 6010B
Forms

APPL, INC.

AFCEE
INORGANIC ANALYSES DATA PACKAGE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
Base/Command: CSSA

AAB #: 040511A-75532
Contract #: F41624-01-D-8544, TO 0019
Prime Contractor: Parsons Engineering Science, Inc.

Field Sample ID	Lab Sample ID
B29-TWC-03	AP69436

Comments: ARF: 44412

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Diane Anderson Name: DIANE ANDERSON

Date: 18 May 2004 Title: Project Manager

AFCEE
INORGANIC ANALYSES DATA PACKAGE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
Base/Command: CSSA

AAB #: 040510A-75533
Contract #: F41624-01-D-8544, TO 0019
Prime Contractor: Parsons Engineering Science, Inc.

Field Sample ID	Lab Sample ID
B29-TWC-04	AP69437

Comments: ARF: 44412

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Diane Anderson Name: DIANE ANDERSON

Date: 18 May 2004 Title: Project Manager

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A rp 5-18-04 AAB #: 040511A-75532
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-TWC-03 Lab Sample ID: AP69436 Matrix: Soil
% Solids: NA Initial Calibration ID: 040511A
Date Received: 07-May-04 Date Prepared: 11-May-04 Date Analyzed: 11-May-04
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Lead (Pb)	0.0012	0.025	0.6695	1	M

Comments: ARF: 44412

AFCEE
INORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: EPA 6010B Preparatory Method: 1311/3010A rps-18-04 AAB #: 040510A-75533
Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019
Field Sample ID: B29-TWC-04 Lab Sample ID: AP69437 Matrix: Soil
% Solids: NA Initial Calibration ID: 040511
Date Received: 07-May-04 Date Prepared: 10-May-04 Date Analyzed: 11-May-04
Concentration Units: mg/L

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Lead (Pb)	0.0012	0.025	0.0340	1	M

Comments: ARF: 44412

AFCEE
INORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B

AAB #: 040511A-75532

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544 TO 0019

Date of Initial Calibration: 11-May-04

Initial Calibration ID: 040511A

Instrument ID: PB ICAP

Concentration Units (mg/L or mg/kg) mg/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	r	Q
Pb	0.0030	65.9	1.0	19944.1	2.0	37121.0	0.9996	

r = correlation coefficient

Comments:

AFCEE FORM I-3

AFCEE
INORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 6010B

AAB #: 040510A-75533

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544 TO 0019

Date of Initial Calibration: 11-May-04

Initial Calibration ID: 040511

Instrument ID: PE ICAP

Concentration Units (mg/L or mg/kg) mg/L

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	r	Q
Pb	0.0030	68.2	1.0	20003.1	2.0	38338.6	0.9999	

r = correlation coefficient

Comments:

AFCEE FORM I-3

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B

AAB #: 040511A-75532

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544 TO 0019

Instrument ID: PE ICAP

Initial Calibration ID: 040511A

2nd Source ID: ICV 5/11/04 13:15

ICV ID: ICV 5/11/04 13:15

CCV #1 ID: CCV 5/11/04 13:28

CCV #2 ID: CCV 5/11/04 13:50

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Pb	1.0	1.022	2.2%	1.0	1.022	2.2%	1.0	1.033	3.3%	1.046	4.6%	

Comments: _____

AFCEE FORM I-4 Page ____ of ____

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B AAB #: 040511A-75532

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Instrument ID: PE ICAP Initial Calibration ID: 040511A

2nd Source ID: ICV 5/11/04 13:15 ICV ID: ICV 5/11/04 13:15

CCV #1 ID: CCV 5/11/04 16:35 CCV #2 ID: CCV 5/11/04 17:20

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Pb	1.0	1.022	2.2%	1.0	1.022	2.2%	1.0	1.007	0.7%	1.005	0.5%	

Comments:

AFCEE FORM I-4 Page ____ of ____

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B

AAB #: 040510A-75533

Lab Name: APPL, Inc.

Contract #: F41624-01-D-8544 TO 0019

Instrument ID: PE ICAP

Initial Calibration ID: 040511

2nd Source ID: ICV 5/11/04 10:18

ICV ID: ICV 5/11/04 10:18

CCV #1 ID: CCV 5/11/04 10:35

CCV #2 ID: CCV 5/11/04 11:10

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Pb	1.0	1.007	0.7%	1.0	1.007	0.7%	1.0	1.023	2.3%	1.038	3.8%	

Comments:

AFCEE FORM I-4 Page ____ of ____

AFCEE
INORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 6010B AAB #: 040510A-75533

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Instrument ID: PE ICAP Initial Calibration ID: 040511

2nd Source ID: ICV 5/11/04 10:18 ICV ID: ICV 5/11/04 10:18

CCV #1 ID: CCV 5/11/04 12:19 CCV #2 ID:

Concentration Units (mg/L or mg/kg): mg/L

Analyte	2nd Source Calibration Verification			Initial Calibration Verification			Continuing Calibration Verification					Q
	Expected	Found	%D	Expected	Found	%D	Expected	Found 1	%D	Found 2	%D	
Pb	1.0	1.007	0.7%	1.0	1.007	0.7%	1.0	1.019	1.9%			

Comments:

AFCEE FORM I-4 Page ____ of ____

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 6010B AAB #: 040511A-75532

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 5/11/04 13:24 Initial Calibration ID: 040511A

CCB #1 ID: CCB 5/11/04 13:33 CCB #2 ID: CCB 5/11/04 13:55 CCB #3 ID: CCB 5/11/04 16:40

Method Blank ID: 040511A-BLK Initial Calibration ID: 040511A

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Pb	<RL	<RL	<RL	<RL	<RL	0.025	

Comments:

AFCEE FORM I-5 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 6010B AAB #: 040511A-75532

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 5/11/04 13:24 Initial Calibration ID: 040511A

CCB #1 ID: CCB 5/11/04 17:27 CCB #2 ID:

Method Blank ID: 040511A-BLK Initial Calibration ID: 040511A

RP 5-18-04

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Pb	<RL	<RL			<RL	0.025	

Comments:

AFCEE FORM I-5 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 5
BLANKS

Analytical Method: 6010B AAB #: 040510A-75533

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Concentration Units (mg/L or mg/kg): mg/L

Initial Calibration Blank ID: ICB 5/11/04 10:31 Initial Calibration ID: 040511

CCB #1 ID: CCB 5/11/04 10:44 CCB #2 ID: CCB 5/11/04 11:15 CCB #3 ID: CCB 5/11/04 12:23

Method Blank ID: 040510A-BLK Initial Calibration ID: 040511

Analyte	Initial Calibration Blank	Continuing Calibration Blank			Method Blank	RL	Q
		1	2	3			
Pb	<RL	<RL	<RL	<RL	<RL	0.025	

Comments:

AFCEE FORM I-5 Page ___ of ___

AFCEE
INORGANIC ANALYSES DATA SHEET 6
LABORATORY CONTROL SAMPLE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
LCS ID: 040511A LCS
Concentration Units: mg/L

AAB #: 040511A-75532
Contract #: F41624-01-D-8544, TO 0019
Initial Calibration ID: 040511A

Analyte	Expected	Found	% R	Control Limits	Q
Lead (Pb)	0.2500	0.2658	106	75-125	

Comments: ARF: 44412, Sample: AP69436

AFCEE
INORGANIC ANALYSES DATA SHEET 6
LABORATORY CONTROL SAMPLE DUPLICATE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
LCS ID: 040511A LCSD
Concentration Units: mg/L

AAB #: 040511A-75532
Contract #: F41624-01-D-8544, TO 0019
Initial Calibration ID: 040511A

rp 5-18-04

Analyte	Expected	Found	% R	Control Limits	Q
Lead (Pb)	0.2500	0.2618	105	75-125	

Comments: ARF: 44412, Sample: AP69436

AFCEE
INORGANIC ANALYSES DATA SHEET 6
LABORATORY CONTROL SAMPLE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
LCS ID: 040510A LCS
Concentration Units: mg/L

AAB #: 040510A-75533
Contract #: F41624-01-D-8544, TO 0019
Initial Calibration ID: 040511

Analyte	Expected	Found	% R	Control Limits	Q
Lead (Pb)	0.2500	0.2636	105	75-125	

Comments: ARF: 44412, Sample: AP69437

AFCEE
INORGANIC ANALYSES DATA SHEET 6
LABORATORY CONTROL SAMPLE DUPLICATE

Analytical Method: EPA 6010B
Lab Name: APPL, Inc
LCS ID: 040510A LCSD
Concentration Units: mg/L

AAB #: 040510A-75533
Contract #: F41624-01-D-8544, TO 0019
Initial Calibration ID: 040511

RPS-18-04

Analyte	Expected	Found	% R	Control Limits	Q
Lead (Pb)	0.2500	0.2785	111	75-125	

Comments: ARF: 44412, Sample: AP69437

AFCEE
INORGANIC ANALYSES DATA SHEET 8
HOLDING TIMES

Analytical Method: EPA 6010B AAB#: 040511A-75532

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Field Sample ID	Date Collected	Date Received	Date Analyzed	Max. Holding Time (days)	Time Held (days)	Q
B29-TWC-03	05-May-04	07-May-04	11-May-04	180	6	

Comments: ARF: 44412

AFCEE
INORGANIC ANALYSES DATA SHEET 8
HOLDING TIMES

Analytical Method: EPA 6010B AAB#: 040510A-75533

Lab Name: APPL, Inc Contract #: F41624-01-D-8544, TO 0019

Field Sample ID	Date Collected	Date Received	Date Analyzed	Max. Holding Time (days)	Time Held (days)	Q
B29-TWC-04	05-May-04	07-May-04	11-May-04	180	6	

Comments: ARF: 44412

AFCEE
INORGANIC ANALYSES DATA SHEET 9
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 6010B

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Instrument ID #: PE ICAP ICAL ID: 040511

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
Calib Blank 1	11-May-04	9:58	11-May-04	9:58
STD 1	11-May-04	10:03	11-May-04	10:03
STD 2	11-May-04	10:08	11-May-04	10:08
STD 3	11-May-04	10:13	11-May-04	10:13
ICV	11-May-04	10:18	11-May-04	10:18
ICB	11-May-04	10:31	11-May-04	10:31
CCV	11-May-04	10:35	11-May-04	10:35
CCB	11-May-04	10:44	11-May-04	10:44
ICSA	11-May-04	10:59	11-May-04	10:59
ICSAB	11-May-04	11:05	11-May-04	11:05
CCV	11-May-04	11:10	11-May-04	11:10
CCB	11-May-04	11:15	11-May-04	11:15
040510A-BLK	11-May-04	11:19	11-May-04	11:19
040510A-LCS	11-May-04	11:26	11-May-04	11:26
040510A-LCSD	11-May-04	11:32	11-May-04	11:32
AP69437S01	11-May-04	11:37	11-May-04	11:37
AP69437S01-1/5	11-May-04	11:44	11-May-04	11:44
CCV	11-May-04	12:19	11-May-04	12:19
CCB	11-May-04	12:23	11-May-04	12:23

AFCEE
INORGANIC ANALYSES DATA SHEET 9
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 6010B

Lab Name: APPL, Inc. Contract #: F41624-01-D-8544 TO 0019

Instrument ID #: PE ICAP ICAL ID: 040511A

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
Calib Blank 1	11-May-04	12:55	11-May-04	12:55
STD 1	11-May-04	13:00	11-May-04	13:00
STD 2	11-May-04	13:05	11-May-04	13:05
STD 3	11-May-04	13:10	11-May-04	13:10
ICV	11-May-04	13:15	11-May-04	13:15
ICB	11-May-04	13:24	11-May-04	13:24
CCV	11-May-04	13:28	11-May-04	13:28
CCB	11-May-04	13:33	11-May-04	13:33
ICSA	11-May-04	13:38	11-May-04	13:38
ICSAB	11-May-04	13:45	11-May-04	13:45
CCV	11-May-04	13:50	11-May-04	13:50
CCB	11-May-04	13:55	11-May-04	13:55
CCV	11-May-04	16:35	11-May-04	16:35
CCB	11-May-04	16:40	11-May-04	16:40
040511A-BLK	11-May-04	16:45	11-May-04	16:45
040511A-LCS	11-May-04	16:52	11-May-04	16:52
040511A-LCSD	11-May-04	16:57	11-May-04	16:57
AP69436S01	11-May-04	17:02	11-May-04	17:02
AP69436S01-1/5	11-May-04	17:08	11-May-04	17:08
CCV	11-May-04	17:20	11-May-04	17:20
CCB	11-May-04	17:27	11-May-04	17:27

APPL, Inc.
Analysis listing PE ICAP
05/11/04

Sample ID	Date	Time	Batch ID	Diluted To Vol.
Calib Blank 1	5/11/04	9:58:58 AM		
STD 1	5/11/04	10:03:40 AM		
STD 2	5/11/04	10:08:24 AM		
STD 3	5/11/04	10:13:21 AM		
ICV	5/11/04	10:18:21 AM		
ICB	5/11/04	10:31:10 AM		
CCV	5/11/04	10:35:53 AM		
CCB	5/11/04	10:44:44 AM		
ICSA	5/11/04	10:59:07 AM		
ICSAB	5/11/04	11:05:06 AM		
CCV	5/11/04	11:10:14 AM		
CCB	5/11/04	11:15:13 AM		
040510A-BLK	5/11/04	11:19:57 AM	040510A-3010A	
040510A-LCS	5/11/04	11:26:52 AM	040510A-3010A	
040510A-LCSD	5/11/04	11:32:02 AM	040510A-3010A	
AP69437S01	5/11/04	11:37:12 AM	040510A-3010A	
AP69437S01-1/5	5/11/04	11:44:07 AM	040510A-3010A	
~~AP69437S01-A~~	~~5/11/04~~	~~11:50:55 AM~~	~~040510A-3010A~~	-
CCV	5/11/04	12:19:04 PM		
CCB	5/11/04	12:23:52 PM		
Calib Blank 1	5/11/04	12:55:49 PM		
STD 1	5/11/04	1:00:31 PM		
STD 2	5/11/04	1:05:15 PM		
STD 3	5/11/04	1:10:12 PM		
ICV	5/11/04	1:15:13 PM		
ICB	5/11/04	1:24:05 PM		
CCV	5/11/04	1:28:49 PM		
CCB	5/11/04	1:33:47 PM		
ICSA	5/11/04	1:38:30 PM		
ICSAB	5/11/04	1:45:44 PM		
CCV	5/11/04	1:50:48 PM		
CCB	5/11/04	1:55:45 PM		
CCV	5/11/04	4:35:50 PM		
CCB	5/11/04	4:40:47 PM		
040511A-BLK	5/11/04	4:45:32 PM	040511A-3010A	
040511A-LCS	5/11/04	4:52:20 PM	040511A-3010A	
040511A-LCSD	5/11/04	4:57:23 PM	040511A-3010A	
AP69436S01	5/11/04	5:02:34 PM	040511A-3010A	
AP69436S01-1/5	5/11/04	5:08:36 PM	040511A-3010A	5
~~AP69436S01-A~~	~~5/11/04~~	~~5:15:23 PM~~	~~040511A-3010A~~	-
CCV	5/11/04	5:20:24 PM		
CCB	5/11/04	5:27:00 PM		
~~Calib Blank 1~~	~~5/11/04~~	~~5:31:32 PM~~	-	-
~~STD 1~~	~~5/11/04~~	~~5:36:14 PM~~	-	-

A.P.P.L. INC.

9

ICP SERIAL DILUTION

CLIENT SAMPLE NO.

B298-TWC03
np 5-18-04

Lab Name: APPL Inc. Contract: F41624-01-D-85544, TO 0019

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 44412

Matrix (soil/water): Soil Level (low/med): _____

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Lead	669.50		749.20		11.9		M

FORM IX - IN ILM02.0

A.P.P.L. INC.
9
ICP SERIAL DILUTION

CLIENT SAMPLE NO.

B29B-TWC04
rp 5-18-04

Lab Name: APPL Inc. Contract: F41624-01-D-85544, TO 0019

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 44412

Matrix (soil/water): Soil Level (low/med): _____

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Lead	34.03		43.56		28.0		M

FORM IX - IN ILM02.0

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: F41624-01-D-8544 TO 0019

ARF No.: 44412 SDG: 44412

ICP ID Number: PE ICAP ICS Source: Environmental Express

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A 10:59	Initial Found Sol. AB 11:05	%R
Aluminum	200000	200000	204800.0	228600.0	114.3
Calcium	200000	200000	205300.0	229900.0	115.0
Iron	200000	200000	188800.0	212200.0	106.1
Magnesium	200000	200000	206600.0	227700.0	113.9
Lead		1000	0.9	1064.0	106.4

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: F41624-01-D-8544 TO 0019

ARF No.: 44412 SDG: 44412

ICP ID Number: PE ICAP ICS Source: Environmental Express

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A 13:38	Initial Found Sol. AB 13:45	%R
Aluminum	200000	200000	194600.0	233300.0	116.7
Calcium	200000	200000	191600.0	233400.0	116.7
Iron	200000	200000	185400.0	220200.0	110.1
Magnesium	200000	200000	188000.0	231100.0	115.6
Lead		1000	4.1	1107.0	110.7