2652-SCU-008

0045518

MAXWELL
S-CUBED Division

SORRENTO VALLEY OFFIC
3398 Carmel Mountain Road., San Diego, CA 92121-109
P.O. Box 1620, La Jolla, CA 92038-162

November 9, 1991

NOV 1991
RECEIVED
OSM DMO

Ms. Jeanette Duncan
MSIN: T6-08
Office of Sample Management
Westinghouse Hanford Company
2355 Stevens Drive
Richland, WA 99352

Reference No. 32359-04

Dear Ms. Owens:

Enclosed are the results from the analysis of the soil samples received by S-Cubed on October 24, 1991. This shipment includes SDG 2652. The samples were analyzed for Metals, Anions, Ammonia, and Alkalinity.

The enclosed report contains a sample summary, narrative, copies of the chain-of-custody, and a full data package for each analysis. If you have any question about the data, please give me a call.

Sincerely,

John DeWald
Manager, Commercial Analysis Section

/alb

encl: a/s

OCT 1996
RECEIVED
LDMC

Westinghouse Hanford Company

Hanford Operations and Engineering Contractor for the US Department of Energy
P.O. Box 1970 Richland, Wa. 99352

NONCONFORMANCE REPORT

Page 1 of ____

No. B 06175

1. MFR/ORG: MAXWELL S-CUBED DIVISION

ITEM/MATERIAL NAME: EWIR: SAMPLE
PART NO.: N/A
DRAWING/SPEC. NO.:
REV.: N/A
PROGRAM/PROJECT: SITE-WIDE Background
P.O./W.O. NO.:
SYSTEM/END USE:
DATE: 01/28/92

UNUSUAL OCCURRENCE REPORT REQUIRED: ☒ YES ☒ NO

2. DESCRIPTION OF NONCONFORMANCE

LABORATORY IS PERFORMING INORGANIC ANALYSIS (SOIL) WITHOUT UTILIZING A SOLID MATRIX LCS FOR CLP METALS ANALYSIS.

EXAMPLES: SDG #2630 & 2633

NOTE: THE LAB INDICATES THAT ALL METAL ANALYSIS (CLP) HAVE BEEN PERFORMED WITHOUT A SOIL LCS.

3. REQUIREMENT VIOLATED

"ONE SOLID LCS MUST BE PREPARED & ANALYZED FOR EVERY GROUP OF SOLID SAMPLES IN A SAMPLE DELIVERY GROUP....."

DOCUMENT	REV	ZONE/PARA
CLP-SOW INORGANICS	2/88	PART E, Section V, Item #8

M.A. Beck — ORIGINATOR
12500/05M — ORGANIZATION
01/28/92 — DATE

4. ASME CODE ITEM(s) ☐ NO ☐ YES. NOTIFY AUTHORIZED INSPECTOR.

WHC QAR

5. CAUSE OF NONCONFORMANCE

☐ PROCEDURES ☐ PERSONNEL ☐ MATERIALS
☐ EQUIPMENT ☒ OTHERS

REMARKS: See 8A

PR-07, EQ-001-002

6. CORRECTIVE ACTION TO ELIMINATE CAUSE

- S³ has obtained and is currently using a solid LCS sample for the QC requirement (see S³ Letter to T. Washington 3/2

INITIATION DATE ____ SERIAL NO. ____

RESPONSIBLE ORG. REP. ____ TITLE ____ DATE ____

7. RECOMMENDED DISPOSITION ☒ ACCEPT ☐ REJECT ☐ REPAIR ☐ REWORK ☐ OTHER

8A. DISPOSITION JUSTIFICATION AND INSTRUCTIONS

S³ did perform the LCS at the required frequency using an aqueous standard prior to receiving and testing the solid LCS. The aqueous LCS results were evaluated in the applicable data packages and performance was documented with the validation paperwork.

8. ADDITIONAL REVIEWS REQUIRED (WHC ONLY) ☐ YES ☒ NO
IF YES, IDENTIFY:

9. SUPPLIER ENG. ____ SUPPLIER QA ____

10. DISPOSITION APPROVAL (WHC ONLY)

☒ APPROVED ☐ DISAPPROVED
☐ OTHER (SEE CONTINUATION SHEET)

J. Hoover — COGNIZANT ENGINEER — DATE 5/21/92
LW VANCE L. W. Vance — COGNIZANT QA ENGINEER — DATE 5/21/92
NA — AUTHORIZED INSPECTOR REVIEW — DATE

11. ADDITIONAL APPROVALS

NAME	TITLE	DATE	NAME	TITLE	DATE

12. DISPOSITION ACTION COMPLETE

L. W. Vance — NAME — 5/21/92 — DATE
QTY. ACCEPT: NA
QTY. REJ.: NA

FOLLOW ON NCR

QA LOG NO. QA-92-013

The issuance and acceptance of this request in no way limits or affects the warranty provisions of the order. This request shall not establish a precedent or obligation to accept similar conditions in the future.

FOLLOW-UP LEVEL A ☐ B ☐ C ☐

2310-104 (6-87)

MAXWELL
S-CUBED Division

SORRENTO VALLEY OFFICE
3398 Carmel Mountain Road., San Diego, CA 92121-10
P.O. Box 1620, La Jolla, CA 92038-16

March 27, 1992

Ted Washington
MSIN: T6-08
Office of Sample Management
Westinghouse Hanford Company
2355 Stevens Drive
Richland, WA 99352

Dear Mr. Washington:

We have recently been able to validate and confirm true values for the ERA solid LCS source using the CLP method. The validation study was performed by preparing and analyzing ten solid LCS samples using the CLP method and determining the average value obtained for each analyte and the appropriate windows of acceptability. This validation study was required by the solid LCS source since the certified true value determinations were based on the method 3050, SW-846 (see attached sheet).

Prior to the availability of validated solid LCS for CLP soil analysis, EPA-approved aqueous LCS spike solution was spiked into a clean, empty beaker and then prepared and analyzed by the CLP soil method. Thus quality control requirements for preparation and analysis are acceptable and confirm the reliability and validity of the associated samples using the available LCS at that time.

Sincerely,

Wipawan Nisamaneepong

Wipawan Nisamaneepong, Ph.D.
Inorganics Laboratory Manager

Telephone (619) 450-0060 • FAX (619) 755-0474 • Division Office

Instructions for the use of

PriorityPollutnT™/CLP Quality Control Standards

Inorganics in Soil **Caution:** Read instructions carefully before opening PriorityPollutnT™/CLP standards.

PriorityPollutnT™/CLP Quality Control Standards are designed to test your complete inorganic priority pollutant and CLP analysis procedure. The Trace Metals solid standard contains 24 trace metals (refer to the back of this sheet for a complete list). The Cyanide solid standard is designed for cyanide analysis, either a simple or a complex cyanide, or both, may be present.

I. Standard Preparation

The standards must be prepared by the following directions before analysis.

A. Trace Metals

Digest the standard using Method 3050, SW-846. This digestion is essentially a hot acid leach of the standard and is not a total digestion. The standard should then be analyzed by ICP and/or atomic absorption. Results different from the certified values will be obtained if a total digestion using hydrofluoric acid, perchloric acid or fusion is employed. Digest and analyze the sample for mercury using Method 7471, SW-846.

B. Cyanide

Prepare the standard using Method 9010 or 9012, SW-846. The preparation quoted is intended for use with an aqueous waste. The only required modification is to place 10 grams of the soil standard into the appropriate aliquot of water in the distillation flask (step 7.2.1). All other preparation steps should be followed. The digestate obtained is then analyzed for cyanide using Method 9010 (manual) or 9012 (automated), SW-846.

II. Standard Storage

Store the standards in a cool, dark place. The stability and certified values are unconditionally guaranteed for one year. Due to possible sample contamination, the guarantee is void after the standards are opened.

III. Standard Analysis

Remember ... PriorityPollutnT™/CLP standards are designed to help you evaluate the accuracy of your routine laboratory procedures. Therefore, analyze PriorityPollutnT™/CLP standards using your regular methods.

IV. Certified Results

The ERA certified and advisory range of values are included. The advisory range is the range of values that an experienced laboratory can expect to attain using the most precise methods and equipment. Certified and advisory values for ERA inorganic quality control standards are based on analytical results from applicable EPA reference methods. Certified values represent 100% recoveries for the analyses. Since many inorganic analytical methods do not yield 100% recoveries, especially for soil samples, ERA advisory ranges reflect typical recoveries from samples for the applicable EPA methodologies. The advisory ranges for these standards are wider than for ERA aqueous standards due to the variability of the SW-846 preparation methods.

SW-846

Inorganics in Soil has been prepared using a cleaned, dried and sieved topsoil substrate. The final product was digested by a variety of methods, including the recommended 3050 (SW-846), to evaluate the effect of digestion variability on the results the laboratory should obtain. The certified values and advisory ranges shown on the accompanying certification sheet were arrived at after extensive evaluation of the experimental results. It should be noted that antimony and molybdenum are especially difficult to quantitatively recover using Method 3050. Low recoveries may also be experienced for arsenic, selenium, silver, thallium and vanadium. The advisory ranges for these elements have been adjusted to reflect this fact.

Experiments conducted by ERA using a "weak acid" digestion with only hydrochloric acid significantly improved the recovery of antimony. Digestion of Inorganics in Soil by a closed vessel microwave methodology also decreased the recovery of silver to <10% of the certified value. High recoveries of the metals native to the soil matrix (e.g. aluminum, calcium, manganese, iron and magnesium) indicate a too vigorous digestion procedure. In general, it should be noted that Method 3050 is not an extremely rugged methodology and close attention should be paid to the procedure to insure recovery of the listed elements within the advisory ranges. ERA stresses that it is the responsibility of the individual laboratory to determine acceptable levels of performance for a particular analytical result depending on the intended use of the data.

* CLP

V. Safety

ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. If you need a Material Safety Data Sheet for any ERA product, please call toll-free at 1-800-ERA-0122.

MAXWELL
S-CUBED Division

FAX

TO:	M. Beck
FROM:	J. Goodin
DATE:	January 22, 1992
FAX NO:	(509) 373-3992
Pages to follow:	0

At S-Cubed, we do not have access to the EPA's solid LCS sample described in the CLP protocols because we are not currently under CLP contract with them for inorganic analysis. It might be possible to obtain some other solid reference material, but we have not yet found one containing all or even most of the metals. In the Quality Assurance Project Plan for Westinghouse Hanford Company, no solid LCS is specified and no solid LCS is discussed in the SW-846 (RCRA) methods. The LCS is used to determine laboratory consistency, for which purpose the liquid LCS is sufficient and allows us to monitor all of the metals of interest. We have recently analyzed a purchased solid reference standard, containing five of the metals, and would be glad to furnish you with these results. I hope that this explanation will satisfy your client. If you have any other questions or comments, please call me at (619) 587-8409.

CORRESPONDENCE DISTRIBUTION COVERSHEET

To: Distribution

From: Environmental Quality Assurance
H4-16 / 6-8557 / 6-9490

Subject: DISTRIBUTION OF NCR #B06175 (EQA-92-013)

INTERNAL DISTRIBUTION

Approval	Date	Name	Location	W/att
		M. A. Beck	T6-08	
		J. H. Kessner	T6-08	
		J. D. Hoover	H4-57	
		L. W. Vance	H4-16	
		APA	B5-20	
		QUEST	L4-86	
		EQA File	H4-16	

Jeanette
Fancy
Ford
Jeff

MAY 1992
RECEIVED
J.H. KESSNER

MAXWELL
S-CUBED Division

SORRENTO VALLEY OFFICE
3398 Carmel Mountain Road., San Diego, CA 92121-1095
P.O. Box 1620, La Jolla, CA 92038-1620

NARRATIVE

DATE: November 9, 1991
REFERENCE NO.: 32359-04, SDG 2652-

CLP METALS + MO, TI, ZR

The samples were analyzed according to the 2/88 CLP Inorganics Statement of Work and method 6010. GFAA dilutions were required for samples 2652-1 through 2652-10 at a dilution factor of 11 for As, Se, Pb, and Tl. There were significant levels of several analytes detected in the samples.

The quality control results were generally acceptable. The final portion of the ICP run is problematic due to instrument failure, therefore, the last of the run is not used and there are no recoveries for the final ICSA, ICSAB, and CRI. The initial statement meets all criteria, thus the 2652 data for this run is utilized. CCV recoveries for Ti are between 68-82%. There are hits in most of the samples. The Se was diluted out of the matrix spike sample during analysis, thus no recovery. Sb and Hg show recoveries for the matrix spike ouside CLP percent recovery windows. Sb is within the window for the post-digestion spike. Duplicate values for Pb are out of criteria due to soil matrix.

SAMPLE SUMMARY

S-Cubed Reference No. 32359-04, SDG No. 2652, Project Name: Site Wide Soil

Sample ID	S-Cubed Sample No	Date Received	Sample Type	Analysis									
				A	B	C	D	E	F	G	H	I	J
BO14F5	2652-1	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14F6	2652-2	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14F7	2652-3	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G0	2652-4	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G2	2652-5	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G3	2652-6	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G4	2652-7	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G5	2652-8	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G6	2652-9	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14J7	2652-10	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1

Analysis Key:

A=Ti
B=Zr
C=OCPCLP
D=TOC
E=ICPCLP-M
F=FURNCLP
G=HGCLP
H=ANIONS
I=N-NH3
J=ALK

Westinghouse Hanford Company	CHAIN OF CUSTODY Priority Samples Project 91-075

Custody Form Initiator C. D. Kramer

Company Contact Chris Kramer Telephone (509) 376-4186

Project Designation/Sampling Locations Site-wide Background - Site #5 (Pit 21) Collection Date 10/21/91

Ice Chest No. RM 35 Field Logbook No. WHC-N-438

Bill of Lading/Airbill No. 247425370 5 Offsite Property No. W92-0-0014 #5

Method of Shipment Emery

Shipped to S-Cubed San Diego, CA

Possible Sample Hazards/Remarks None

Sample Identification

B014F5 (3) 120-ml jars
B014F6
B014F7
B014G0
B014G2
B014G3
B014G4
B014G5
B014G6

B014J7 0 jars - Sample no. to be used for reporting additional prep blank. Blank generated at S-Cubed - not enclosed.

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
C. D. Kramer C. D. Kramer	Elaine Walters	10/24/91 10:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

1E

A-6000-407 (12/90)

Chest RM 35

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Priority Samples Project 91-075

PART I: FIELD SECTION

Collector C. Kramer Date Sampled 10/21/91 Time ____ hours

Company Contact Chris Kramer Telephone (509) 376-4186

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B014F5	(3) 120-ml	Soil	See attached Tables A-1, A-2
B014F6			Each sample is to be analyzed
B014F7			for all analytes by the method
B014G0			shown except for fluoride.
B014G2			Fluoride may be done by
B014G3			ion chromatography.
B014G4			
B014G5			
B014G6			
B014J7	0 jars	None	Additional prep blank for
			all analyses. This sample
			number is to be used for
			reporting this request.

Field Information** Site-wide Background, Site #5 - Pit 21

Special Handling and/or Storage Sieve samples. Use the less-than 2 mm size fraction in analytical aliquots. Exclude stones, etc. larger than 2 mm.

Possible Sample Hazards None.

PART II: LABORATORY SECTION

Received by ____ Title ____ Date ____

Analysis Required ____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

1F

A-6000-406 (05/90)

Signature Security Next Day Delivery

Contractor	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT)
Westinghouse Hanford Co.		~~W91-0-0579~~ W92-0-0014 #5

PART I – TO BE COMPLETED BY ORIGINATOR

Department	Section	Unit
Env. Engineering	Technical Baseline	

The following items are to be shipped from ☒ Contractor ☐ Vendor

Routing Emery ☒ Contractor ☐ Vendor

Shipped to	Off-site Custodian
S-Cubed 3398 Carmel Mt. Rd. San Diego, CA 92121-1098	John Dewald Full Title Project Coordinator

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 Weight 45 lb	Poly Ice Chest ~~(RM #A-1)~~ RM 35 Glass jars of soil packed in vermiculite and blue ice. Sampl. nos - B014F5, B014F6, B014F7, B014G0 thru B014G6 except - B014G1	

☐ Classified ☐ Unclassified ☐ Shipped Under DOE Contract ☐ Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Program not available on site.

Bill of Lading # 247425370 5

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
M K Lawrence	10/23/91 910767	10/23/91

Location of Property (Area & Bldg.)	Contact	Phone
Background Site #5	C. D. Kramer	376-4186

Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned
10-23-91	EK16A/81223 PK1BB	NA

Originated By	Date	Authorized By	Date
C. D. Kramer 10:20	10/23/91	M.K. [illegible]	[illegible]

Signature and Name of Property Control	Custodian Date	Property Management Approval	Date
		[illegible]	10/23/91

PART II – TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
[illegible]				
Date [illegible]				

DISTRIBUTION

By Originator	Shipping Operation – Sign all Copies and Forward to:
White, Green, Yellow, Pink – Property Management Goldenrod – Retain	White – Property Management Green – Property Control Custodian (Issuing Office) Yellow – Retain Pink – Originator

1G

54-3000-479 (09/89)

EMERY WORLDWIDE — A CF Company

SIGNATURE AND TALLY RECORD

60029-45 (8/99) Litho USA

DATE: 10-23-91 SHIPMENT NO.: 247425370 5
SHIPPER: WESTINGHOUSE SHIPPING DEPT (509) 376-6665
REFERENCE NO.: W92-0-0014 #5

SHIPPER NAME AND ADDRESS
WESTINGHOUSE SHIPPING DEPT (509) 376-6665
62-06 US DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD COMPANY
2355 STEVENS DRIVE 1163 BUILDING
PO BOX 1970
RICHLAND WA 99352

CONSIGNEE NAME AND ADDRESS
JOHN DEWALD
S-CUBED
3398 CARMEL MT. RD
SAN DIEGO CA 92121-1095

Pieces	Weight	Description/Marks	Emery Authorization No.
1	45 LBS	W92-0-0014#5 ICE CHEST RW35, SOIL SAMPLES	

EACH PERSON HANDLING OR TAKING CUSTODY OF THIS SHIPMENT MUST SIGN AND COMPLETE THE INFORMATION BELOW

Name of Person/Company	Transship Point/Destination	Signature of Person Accepting Custody	Time/Date
1.			
2.			
3.			
4.			1000AM 10-24
5. DPHILIP EMPEL	SAN		
6.			
7.			
8.			

SPECIAL HANDLING INSTRUCTIONS

CONSIGNEE COPY

14

56

FORM OF PAYMENT

CASH ☐ GBL CBL ☐ FCCOD ☐

PPD ☒ COL ☐ OTH ☐ COMAT ☐

EMERY WORLDWIDE

A CF Company

SERVICES

UNITED STATES / CANADA: ☐ Same Day ☐ ☒ AM ☐ PM ☐ Second Day ☐ Saturday Delivery

INTERNATIONAL: Express ☐ Preferred ☐ Standard ☐ Business Documents ☐ Customs Clearance ☐ Delivery ☐

PULL FOR SHPT. NO. TAB

Shipper's Account Number: E 850281585

Date: 10-23-91 | Origin: PSC | Shipment Number: 247425370 5

From:
WESTINGHOUSE SHIPPING DEPT (509) 376-6665
US DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD
BLDG 1163
2355 STEVENS DRIVE
RICHLAND WA

To:
JOHN DEWALD
S-CUBED
3398 CARMEL MT. RD
SAN DIEGO CA

Tariff Dest. | Gateway

Check to Shipper $

Hold for Pick Up ☐ Canada ☐

EMERY WORLDWIDE will collect consignee's check made payable only to the shipper for the value of the goods in the amount shown above.

Customer's Reference Number: W81223 PK18B W92-0-0014#5 [illegible]

Consignee's Account Number: E

Zip: 92121-1095

Description: 1 ICE CHEST RM 38 SOIL SAMPLES W92-0-0014#5

Total Pieces: 1 | Total Weight (In Lbs): 45

FOR INFORMATION OR RATES CALL 1-800 HI EMERY (1-800-443-6379)

Declared Value $

2474253705

TODSR ☐ Haz Mat. ☐ Edit ☐

OVERNIGHT DELIVERY
SIGNATURE SECURITY SERVICE

Envelope 9K12 | Pack 12X15

Shipper's Signature X [signature]

International Shipments: Area Domicile ☐ | Commodity Code | Third party Account Number: E

Third party Account Number: Third party Account Number

International Customs Value | International Insurance

Total Transportation Charges | Other Charges/Advance at Origin: OCAO $

Base Charge: 10/24/91

SAN-A

Terms and Conditions on Back

CONSIGNEE — PACKAGE COPY — 4

PLEASE TYPE OR USE BALL POINT PEN. BEAR DOWN FIRMLY! KEEP MARKS WITHIN BOXES TO ASSURE ACCURACY

FORM NO. 60001-46

11

MAXWELL S-CUBED Division

Lot No. 2652

Sample Log-In Sheet

DC No. ____-____-____

Date Received 10-24-91 Date Sampled 10-21-91

Client Code WHC

Time Received 1030

Received by (Sig.) Elaine Walters

Airbill No. 2474 2537 0 5

Charge No. 32359-04

Custody Seals Present/Intact (Y) N

Chain of Custody Present (Y) N

Client Forms Present (Y) N

Reporting Format: Summ. CLP Summ. (Full CLP) Disk 10 day

Turnaround Req'd: 45d 21d 14d 48hr Other ____

Quality Control Req'd: Level 1(Low) (2(CLP)) 3(RCRA) 4(Other)

Case No./Proj. Code Site wide Inc SDG No. 2652

S-Cubed No.	Sample Identification	Samp. Type	No. Cont.	Samp. Cond.	Samp. Stor.	A	B	C	D	E	F	G	H		All Info Agree	Notes
2652-1	B014F5	S	3	OK	WA	X	X	X	X	X	X	X	X		y	
-2	B014F6															
-3	B014F7															
-4	B014G0															
-5	B014G2															
-6	B014G3															
-7	B014G4															H Si I
-8	B014G5															G ALK H
-9	B014G6															F ANIONS E
-10	B014J7 *		0	OK	—											E N-NH3 G
																D HGCLP E
																C FURNCLP D
																B ICPCLP-M Ti, Zr, Mo
	* extra Blank															A ICPCLP C A B J

Container Types

Water ____

Soil 4oz amber

S = Soil/Sediment/Sludge
W = Aqueous
NAL = Non-Aqueous Liquid
NSS = Non-Soil Solid

Water MS, MSD ____

Soil MS, MSD ____

SDG Complete (Y) N

Review JD 10/28/91

SC-03, Rev. 7/91

14

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-1

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-1

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6420			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	4.1			F
7440-39-3	Barium	47.4			P
7440-41-7	Beryllium	0.71			P
7440-43-9	Cadmium	0.31	U		P
7440-70-2	Calcium	8010			P
7440-47-3	Chromium	14.0			P
7440-48-4	Cobalt	6.7			P
7440-50-8	Copper	9.8			P
7439-89-6	Iron	15900			P
7439-92-1	Lead	5.0		*	F
7439-95-4	Magnesium	4730			P
7439-96-5	Manganese	273			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	12.3			P
7440-09-7	Potassium	901			P
7782-49-2	Selenium	4.5	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	276	B		P
7440-28-0	Thallium	3.4	U		F
7440-62-2	Vanadium	34.4			P
7440-66-6	Zinc	32.6			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F5

002

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-1

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-1

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	723			P
7440-67-7	Zirconium	10.2	U		P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F5

002A

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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-2

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-2

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8600			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	5.2			F
7440-39-3	Barium	78.0			P
7440-41-7	Beryllium	0.92			P
7440-43-9	Cadmium	0.31	U		P
7440-70-2	Calcium	15500			P
7440-47-3	Chromium	19.0			P
7440-48-4	Cobalt	8.6			P
7440-50-8	Copper	14.5			P
7439-89-6	Iron	20100			P
7439-92-1	Lead	5.4		*	F
7439-95-4	Magnesium	5520			P
7439-96-5	Manganese	339			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	13.9			P
7440-09-7	Potassium	1550			P
7782-49-2	Selenium	4.5	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	785			P
7440-28-0	Thallium	3.4	U		F
7440-62-2	Vanadium	42.8			P
7440-66-6	Zinc	44.1			P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F6

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-2

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-2

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	1050			P
7440-67-7	Zirconium	10.2	U		P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F6

003A

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-3

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE_ SAS No.: _____ SDG No.: 2652

Matrix (soil/water): SOIL_ Lab Sample ID: 2652-3

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7210			P
7440-36-0	Antimony	5.8	U	N	P
7440-38-2	Arsenic	5.3			F
7440-39-3	Barium	70.1			P
7440-41-7	Beryllium	0.72			P
7440-43-9	Cadmium	0.31	U		P
7440-70-2	Calcium	10900			P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	7.3			P
7440-50-8	Copper	14.5			P
7439-89-6	Iron	16700			P
7439-92-1	Lead	7.0		*	F
7439-95-4	Magnesium	4750			P
7439-96-5	Manganese	298			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	13.4			P
7440-09-7	Potassium	1180			P
7782-49-2	Selenium	4.5	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	535			P
7440-28-0	Thallium	3.4	U		F
7440-62-2	Vanadium	37.0			P
7440-66-6	Zinc	37.9			P

Color Before: BROWN Clarity Before: _____ Texture: FINE

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
BO_14F7

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-3

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-3

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	716			P
7440-67-7	Zirconium	10.3	U		P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F7

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-4

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-4

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7600			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	4.3			F
7440-39-3	Barium	65.2			P
7440-41-7	Beryllium	0.71			P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	19300			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	7.4			P
7440-50-8	Copper	13.6			P
7439-89-6	Iron	16300			P
7439-92-1	Lead	4.2		*	F
7439-95-4	Magnesium	4410			P
7439-96-5	Manganese	279			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	11.5			P
7440-09-7	Potassium	1010			P
7782-49-2	Selenium	4.4	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	256	B		P
7440-28-0	Thallium	3.3	U		F
7440-62-2	Vanadium	37.3			P
7440-66-6	Zinc	35.5			P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14GO

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-4

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-4

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	743			P
7440-67-7	Zirconium	10.1	U		P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
80 14GO

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-5

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-5

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6590			P
7440-36-0	Antimony	5.6	U	N	P
7440-38-2	Arsenic	2.5			F
7440-39-3	Barium	55.3			P
7440-41-7	Beryllium	0.60			P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	3820			P
7440-47-3	Chromium	10.6			P
7440-48-4	Cobalt	6.1			P
7440-50-8	Copper	8.1			P
7439-89-6	Iron	14100			P
7439-92-1	Lead	4.3		*	F
7439-95-4	Magnesium	3020			P
7439-96-5	Manganese	229			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	7.9			P
7440-09-7	Potassium	1090			P
7782-49-2	Selenium	4.4	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	178	B		P
7440-28-0	Thallium	3.3	U		F
7440-62-2	Vanadium	31.1			P
7440-66-6	Zinc	32.2			P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G2

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-5

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-5

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	729			P
7440-67-7	Zirconium	10.1	U		P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G2

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-6

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-6

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6640			P
7440-36-0	Antimony	5.6	U	N	P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	52.2			P
7440-41-7	Beryllium	0.70			P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	8260			P
7440-47-3	Chromium	14.3			P
7440-48-4	Cobalt	6.4			P
7440-50-8	Copper	13.1			P
7439-89-6	Iron	15900			P
7439-92-1	Lead	3.9		*	F
7439-95-4	Magnesium	4730			P
7439-96-5	Manganese	263			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	11.7			P
7440-09-7	Potassium	910			P
7782-49-2	Selenium	4.4	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	330	B		P
7440-28-0	Thallium	3.3	U		F
7440-62-2	Vanadium	34.6			P
7440-66-6	Zinc	32.5			P

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G3

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-6

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-6

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	757			P
7440-67-7	Zirconium	10.1	U		P

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G3

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-7

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-7

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6610			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	2.3	U		F
7440-39-3	Barium	62.4			P
7440-41-7	Beryllium	0.72			P
7440-43-9	Cadmium	0.31	U		P
7440-70-2	Calcium	9040			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	6.9			P
7440-50-8	Copper	10.3			P
7439-89-6	Iron	15000			P
7439-92-1	Lead	5.0		*	F
7439-95-4	Magnesium	4710			P
7439-96-5	Manganese	273			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	14.0			P
7440-09-7	Potassium	1110			P
7782-49-2	Selenium	4.5	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	344	B		P
7440-28-0	Thallium	3.4	U		F
7440-62-2	Vanadium	29.4			P
7440-66-6	Zinc	35.6			P

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO 14G4

008

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-7

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-7

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	701			P
7440-67-7	Zirconium	10.2	U		P

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G4

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-8

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-8

Level (low/med): LOW Date Received: 10/24/91

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9780			P
7440-36-0	Antimony	6.1	U	N	P
7440-38-2	Arsenic	5.6			F
7440-39-3	Barium	106			P
7440-41-7	Beryllium	0.97			P
7440-43-9	Cadmium	0.32	U		P
7440-70-2	Calcium	13300			P
7440-47-3	Chromium	20.1			P
7440-48-4	Cobalt	10.6			P
7440-50-8	Copper	28.4			P
7439-89-6	Iron	22500			P
7439-92-1	Lead	7.5		*	F
7439-95-4	Magnesium	6970			P
7439-96-5	Manganese	506			P
7439-97-6	Mercury	0.11	U	N	CV
7440-02-0	Nickel	16.1			P
7440-09-7	Potassium	1600			P
7782-49-2	Selenium	4.8	U	N	F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	721			P
7440-28-0	Thallium	3.6	U		F
7440-62-2	Vanadium	50.2			P
7440-66-6	Zinc	52.8			P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G5

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-8

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE_ SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL_ Lab Sample ID: 2652-8

Level (low/med): LOW Date Received: 10/24/91

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.5	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	823			P
7440-67-7	Zirconium	10.8	U		P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

BO_14G5

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-9

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-9

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6900			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	2.3			F
7440-39-3	Barium	64.3			P
7440-41-7	Beryllium	0.72			P
7440-43-9	Cadmium	0.31	U		P
7440-70-2	Calcium	12200			P
7440-47-3	Chromium	15.7			P
7440-48-4	Cobalt	7.4			P
7440-50-8	Copper	13.1			P
7439-89-6	Iron	16100			P
7439-92-1	Lead	3.8		*	F
7439-95-4	Magnesium	4700			P
7439-96-5	Manganese	282			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	12.5			P
7440-09-7	Potassium	1000			P
7782-49-2	Selenium	4.5	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	210	B		P
7440-28-0	Thallium	3.4	U		F
7440-62-2	Vanadium	37.4			P
7440-66-6	Zinc	36.7			P

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO 14G6

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-9

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-9

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	757			P
7440-67-7	Zirconium	10.3	U		P

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

BO_14G6

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-10

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-10

Level (low/med): LOW Date Received: 10/24/91

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.2	U		P
7440-36-0	Antimony	5.6	U	N	P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	4.1	U		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	107	U		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	1.6	U		P
7440-50-8	Copper	1.8	U		P
7439-89-6	Iron	9.4	B		P
7439-92-1	Lead	1.1	U	*	F
7439-95-4	Magnesium	249	U		P
7439-96-5	Manganese	0.60	U		P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	3.2	U		P
7440-09-7	Potassium	130	U		P
7782-49-2	Selenium	4.4	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	98.7	U		P
7440-28-0	Thallium	3.3	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	5.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
BO_14J7

FORM I - IN

011

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-10

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-10

Level (low/med): LOW Date Received: 10/24/91

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	U		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	1.0	U		P
7440-67-7	Zirconium	10.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
80_14J7

FORM I - IN

011A
7/88

MAXWELL
S-CUBED Division

SORRENTO VALLEY OFFICE
3398 Carmel Mountain Road., San Diego, CA 92121-1095
P.O. Box 1620, La Jolla, CA 92038-1620

NARRATIVE

DATE: November 9, 1991
REFERENCE NO.: 32359-04, SDG 2652

SILICA

The samples were analyzed according to Method 370.1 for dissolved silica. There were no difficulties with the analysis. There were moderate levels detected in the samples.

The quality control results were acceptable.

AMMONIA

The samples were analyzed according to Method 350.3. There were no difficulties with the analysis. There were low levels detected in the samples.

The quality control results were acceptable.

ALKALINITY

The samples were analyzed according to Method 310.1. There were no difficulties with the analysis. There were significant levels detected in the samples.

The quality control results were generally acceptable. MS results are outside 75-125% window.

ANIONS

The samples were analyzed according to Method 300.0. There were no difficulties with the analysis. Dilutions were required for several samples for the analysis of Cl and SO4. There were low levels detected in most samples.

The quality control results were acceptable. SOF

SILICA ANALYSIS

LAB:	S-CUBED	DATA REVIEWER:	CW 11/8/91
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIDE SOIL	CHARGE NO:	32359-04
LOT:	2652	DATE RECEIVED:	10/24/91
FILE:	SI1024	DATE PREP:	11/06/91
DISK:	SI1023	DATE ANALYZED:	11/06/91
METHOD:	370.1	MATRIX:	SOIL
RESULTS:	UNIT AS MG/KG		

LAB ID	CONCENTRATION
2652-1	19.6
2652-2	20.4
2652-3	24.8
2652-4	9.63
2652-5	14.9
2652-6	5.53
2652-7	20.0
2652-8	46.8
2652-9	8.82
2652-10	< 5 **

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.045 L (Leaching Volume)}}{\text{0.009 kg (Sample Weight)}}$$

AMMONIA ANALYSIS

LABORATORY:	S-CUBED	DATA REVIEWER:	CN 11/8/91
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIDE SOIL	CHARGE #:	32359-04
LOT #:	2652	DATE RECEIVED:	10/24/91
FILE#:	NH31024	DATE PREP:	11/01/91
DISK:	NH31024	DATE ANALYZED:	11/01/91
METHOD NO.	350.3	MATRIX:	SOIL

RESULTS: UNIT AS MG/KG DRY WEIGHT

LAB ID	CONCENTRATION
2652 -1	1.25
2652 -2	1.85
2652 -3	1.64
2652 -4	8.57
2652 -5	7.23
2652 -6	< 0.15
2652 -7	< 0.15
2652 -8	0.84
2652 -9	0.96
2652 -10	< 0.15 **

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.050 L (Leaching Volume)}}{\text{0.01 kg (Sample Weight)}}$$

ALKALINITY ANALYSIS

LAB:	S-CUBED	DATA REVIEWER:	11/8/91
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIDE SOIL	CHARGE #:	32359-04
LOT #:	2652	DATE RECIEVED:	10/24/91
FILE #:	ALK1024	DATE PREP:	11/04/91
DISK #:	ALK1016	DATE ANALYZED:	11/06/91
METHOD NO.:	EPA 310.1	MATRIX:	SOIL

RESULTS: RESULTS AS DRY WEIGHT - MG/KG

LAB ID	CONCENTRATION
2652 - 1	240
2652 - 2	7190
2652 - 3	4730
2652 - 4	2860
2652 - 5	800
2652 - 6	257
2652 - 7	569
2652 - 8	2050
2652 - 9	1990
2652 - 10	< 5 **

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.025 L (Leaching Volume)}}{\text{0.005 kg (Sample Weight)}}$$

ANIONS ANALYSIS

LABORATORY:	S-CUBED	DATA REVIEWER:	
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIPE SOIL.	CHARGE #:	32359-04
LOT #:	2652	DATE RECEIVED:	10/24/91
FILE#:	ANI1024	DATE PREP:	11-04/05-91
DISK:	ANI1017	DATE ANALYZED:	11-04/05-91
METHOD NO.	300.0	MATRIX:	SOIL

RESULTS: UNIT AS MG/KG DRY WEIGHT

	LAB ID	F	CL	NO2	NO3	PO4	SO4
	2652 -1	1.37	2.41	< 0.2	2.90	< 0.5	8.60
	2652 -2	5.45	8.51	< 0.2	1.70	< 0.5	40.1
	2652 -3	1.08	11.6	4.86	3.13	< 0.5	42.8
	2652 -4	0.53	13.4	< 0.2	6.76	< 0.5	125
	2652 -5	0.28	3.40	< 0.2	2.35	3.14	11.6
	2652 -6	0.53	2.07	< 0.2	1.07	< 0.5	1.26
	2652 -7	1.19	1.80	< 0.2	1.06	< 0.5	3.07
	2652 -8	1.22	3.20	< 0.2	1.30	< 0.5	11.9
	2652 -9	0.54	2.01	< 0.2	2.02	< 0.5	1.70
**	2652 -10	< 0.1	< 0.1	< 0.2	< 0.5	< 0.5	< 0.5

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.045 L (Leaching Volume)}}{\text{0.009 kg (Sample Weight)}}$$

SILICA ANALYSIS

LAB:	S-CUBED	LOT:	2652
CLIENT:	WHC	FILE:	SI1024
CASE:	SITE WIDE SOIL	DISK:	SI1023

PERCENT MOISTURE

LAB ID	% MOISTURE	% SOLID
2652-1	1.79	98.21
2652-2	1.92	98.08
2652-3	2.90	97.10
2652-4	0.86	99.14
2652-5	0.48	99.52
2652-6	0.46	99.54
2652-7	2.30	97.70
2652-8	7.52	92.48
2652-9	2.5~~5~~3 pg/g	97.4~~5~~7 pg/g
2652-10	100	0

VALIDATION SUMMARY

OSM RCRA DATA ASSESSMENT all soils

DATE 2/10/92 mas SAMPLES/MATRIX B014F5 B014F6 B014G2

REVIEWED BY Mark A. Beck B014G0 B014G3 B014G4

LABORATORY Maxwell-S-Cubed B014G5 B014G6 B014J7

CASE # Site Wide Soil

SDG # ~~266~~ 2652

DATA ASSESSMENT SUMMARY

QUALITY CONTROL CHECK	ANALYSIS ammonia by 350.3	silica by 370.1	alkalinity by 310.1	anions by 300.0
1. Holding Times	M		O	O
2. Matrix Spikes	O		X	O
3. Duplicates	O		O	O
4. Blanks	O		O	O
5. Calibration/LCS	O		O	O
6. Other	O		O	O
7.				
8.				
9.				
10.				

O = data had no problems
X = minor problems, data may be qualified
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: The data are acceptable with the attached qualifiers.

NOTES: "anions" includes: fluoride, chloride, nitrite, nitrate, phosphate, and sulfate.

o Refer to the corresponding attachments for explanation of any problems. The correspondence between WMC and S-Cubed sample numbers can be found in the attached "sample summary".

RCRA QC

Name Mark A. Beck Date 2/10/92 MAB

QC Check: Holding Times

COMMENTS: Holding time requirements were met for silica, ammonia, alkalinity, fluoride, chloride and sulfate. Holding times were missed by nitrite, nitrate and phosphate.

ACTION: Qualify all nitrite, nitrate and phosphate result as estimated.

sample #	constituent	value/qual	sample #	constituent	value/qual
all	nitrite (NO_2^-)	UJ or J			
	nitrate (NO_3^-)	UJ or J			
	phosphate HPO_4^{-2}	UJ or J			

RCRA QC

Name Mark A. Beck Date 2/10/92 mab

QC Check: Matrix Spikes

COMMENTS: all matrix spikes were appropriate, and all were within control limits, except for alkalinity, which was biased high.

ACTION: Qualify all alkalinity results as estimated ~~(J)~~ if above the IDL.

sample #	constituent	value/qual	sample #	constituent	value/qual
all except B014J7	alkalinity	J			

RCRA QC

Name Mark A. Beck Date 2/10/92 mab

QC Check: Duplicates

COMMENTS: appropriate duplicate analyses were run for all analyte. All duplicate analyses had acceptable % differences.

ACTION: none - none needed.

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA QC

Name Mark A. Beck Date 2/10/92 MAB

QC Check: Blanks

COMMENTS: Appropriate blanks were run for all analytes. All blanks were free from contamination.

ACTION: none - none needed.

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA QC

Name Mark A. Beck Date 2/14/92 [illegible]

QC Check: Calibration/LCS

COMMENTS: All methods were calibrated ~~with~~ appropriately. All LCS, CCV, and ICV had recoveries within acceptable limits.

ACTION: none - none needed.

sample #	constituent	value/qual	sample #	constituent	value/qual

RCRA QC

Name Mark A. Beck Date 2/10/92 mab

QC Check: Other

COMMENTS: none -

ACTION: none - none ~~next~~ needed

sample #	constituent	value/qual	sample #	constituent	value/qual

SAMPLE SUMMARY

S-Cubed Reference No. 32359-04, SDG No. 2652, Project Name: Site Wide Soil

Sample ID	S-Cubed Sample No	Date Received	Sample Type	Analysis									
				A	B	C	D	E	F	G	H	I	J
BO14F5	2652-1	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14F6	2652-2	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14F7	2652-3	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G0	2652-4	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G2	2652-5	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G3	2652-6	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G4	2652-7	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G5	2652-8	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14G6	2652-9	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1
BO14J7	2652-10	10/24/91	SOIL	1	1	1	1	1	1	1	1	1	1

Analysis Key:

A=Ti
B=Zr
C=OCPCLP
D=TOC
E=ICPCLP-M
F=FURNCLP
G=HGCLP
H=ANIONS
I=N-NH3
J=ALK

SILICA ANALYSIS

LAB:	S-CUBED	DATA REVIEWER:	ω N 11/8/91
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIDE SOIL	CHARGE NO:	32359-04
LOT:	2652	DATE RECEIVED:	10/24/91
FILE:	SI1024	DATE PREP:	11/06/91
DISK:	SI1023	DATE ANALYZED:	11/06/91
METHOD:	370.1	MATRIX:	SOIL
RESULTS:	UNIT AS MG/KG		

LAB ID	CONCENTRATION
2652-1	19.6
2652-2	20.4
2652-3	24.8
2652-4	9.63
2652-5	14.9
2652-6	5.53
2652-7	20.0
2652-8	46.8
2652-9	8.82
2652-10	< 5 **

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.045 L (Leaching Volume)}}{\text{0.009 kg (Sample Weight)}}$$

2/10/92
ma

AMMONIA ANALYSIS

LABORATORY:	S-CUBED	DATA REVIEWER:	aN 11/8/91
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIDE SOIL	CHARGE #:	32359-04
LOT #:	2652	DATE RECEIVED:	10/24/91
FILE#:	NH31024	DATE PREP:	11/01/91
DISK:	NH31024	DATE ANALYZED:	11/01/91
METHOD NO.	350.3	MATRIX:	SOIL

RESULTS: UNIT AS MG/KG DRY WEIGHT

LAB ID	CONCENTRATION
2652 -1	1.25
2652 -2	1.85
2652 -3	1.64
2652 -4	8.57
2652 -5	7.23
2652 -6	< 0.15
2652 -7	< 0.15
2652 -8	0.84
2652 -9	0.96
2652 -10	< 0.15 **

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.050 L (Leaching Volume)}}{\text{0.01 kg (Sample Weight)}}$$

2/10/92
mab

ALKALINITY ANALYSIS

LAB:	S-CUBED	DATA REVIEWER:	aN 11/8/91
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIDE SOIL	CHARGE #:	32359-04
LOT #:	2652	DATE RECIEVED:	10/24/91
FILE #:	ALK1024	DATE PREP:	11/04/91
DISK #:	ALK1016	DATE ANALYZED:	11/06/91
METHOD NO.:	EPA 310.1	MATRIX:	SOIL

RESULTS: RESULTS AS DRY WEIGHT - MG/KG

LAB ID	CONCENTRATION
2652 - 1	240 J
2652 - 2	7190
2652 - 3	4730
2652 - 4	2860
2652 - 5	800
2652 - 6	257
2652 - 7	569
2652 - 8	2050
2652 - 9	1990 J
2652 - 10	< 5 **

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.025 L (Leaching Volume)}}{\text{0.005 kg (Sample Weight)}}$$

2/10/92
mas

ANIONS ANALYSIS

LABORATORY:	S-CUBED	DATA REVIEWER:	
CLIENT:	WHC	PROJECT REVIEWER:	
CASE:	SITE WIPE SOIL	CHARGE #:	32359-04
LOT #:	2652	DATE RECEIVED:	10/24/91
FILE#:	ANI1024	DATE PREP:	11-04/05-91
DISK:	ANI1017	DATE ANALYZED:	11-04/05-91
METHOD NO.	300.0	MATRIX:	SOIL

RESULTS: UNIT AS MG/KG DRY WEIGHT

	LAB ID	F	CL	NO2	NO3	PO4	SO4
	2652 -1	1.37	2.41	< 0.2 uJ	2.90 J	< 0.5 uJ	8.60
	2652 -2	5.45	8.51	< 0.2 uJ	1.70	< 0.5	40.1
	2652 -3	1.08	11.6	4.86 J	3.13	< 0.5	42.8
	2652 -4	0.53	13.4	< 0.2 uJ	6.76	< 0.5 uJ	125
	2652 -5	0.28	3.40	< 0.2	2.35	3.14 J	11.6
	2652 -6	0.53	2.07	< 0.2	1.07	< 0.5 uJ	1.26
	2652 -7	1.19	1.80	< 0.2	1.06	< 0.5	3.07
	2652 -8	1.22	3.20	< 0.2	1.30	< 0.5	11.9
	2652 -9	0.54	2.01	< 0.2	2.02 J	< 0.5	1.70
**	2652 -10	< 0.1	< 0.1	< 0.2 uJ	< 0.5 uJ	< 0.5 uJ	< 0.5

COMMENTS:

** Extra lab blank is calculated from:

$$\frac{\text{Method Detection Limit (mg/L) X 0.045 L (Leaching Volume)}}{\text{0.009 kg (Sample Weight)}}$$

2/10/92
mas.

OSM INORGANIC DATA ASSESSMENT

DATE JA 2/9/92

REVIEWED BY JA Lerch

LABORATORY S3

CASE # SITE

SDG # 2652

SAMPLES/MATRIX B014F5 B014G3 all Soil

B014F6 B014G4

B014F7 B014G5

B014G0 B014G6

B014G2 B014J7

DATA ASSESSMENT SUMMARY

	ICP	AA	Hg	CN
1. Calibrations (Form II)	X	O	O	
2. Blanks (III)	O	X	O	
3. ICS (IV)	M			
4. Matrix Spike (V)	X	M	X	
5. Duplicate Analysis (VI)	O	X	O	
6. LCS (VII)	O	O		
7. Serial Dilution (IX)	O			
8. GFAA		~~X O~~ JA 2/9/92		
9. Holding Times (XIV)	O	O	O	
10. Other QC	see attachment			

O = data had no problems
X = data qualified due to minor problems
M = data qualified due to major problems/some data may be unusable

OVERALL ASSESSSMENT: major problem w/ICP-ICS; Se results unusable due to low spike recovery; all other results acceptable w/qualifiers

NOTES: CN not requested; non-CLP analytes (Ti, Mo, Zr) also evaluated in this package

o Refer to the corresponding attachments for explanation of any problems.

INORGANIC QC - Calibrations

Name JA Lerch Date 2/9/92

COMMENTS: - all ICV recoveries within limits; CCV recovery low for Sb, Ag; All other TAL CCV results ok; non-CLP (Ti, Mo, Zr) - Ti recoveries low - analytical sequence ok; Hg cc ok

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
- all samples run prior to out of control std, results acceptable					

INORGANIC QC - Blanks

Name JA Lerch Date 2/9/92

COMMENTS: Pb detected in blanks at levels <CRDL; non-CLP analytes ok

ACTION: qualify results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Pb	acceptable			

INORGANIC QC - ICS

Name JA Lerch Date 2/9/92

COMMENTS: - all initial ICS solution recoveries ok; major problems w/final ICS recoveries - indication of instrument instability
- it appears problem occured after WHC analysis

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	ICP ~~analyte~~ analytes	J, UJ			

INORGANIC QC - Matrix Spike

Name JA Lerch JL Date 2/9/92

COMMENTS: 2652-1S — Sb recovery low; Se recovery very low, Hg recovery high; all other TAL recoveries ok; non-CLP analyte recoveries ok

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Se	R			
	Hg	UJ			
	Sb	UJ			

INORGANIC QC - Duplicate Analysis

Name JA Lerch Date 2/9/92

COMMENTS: 2652-1D — Pb dup RPD high; all other RPD's ok for TAL and non-CLP analytes

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual	sample #	constituent	value/qual
all	Pb	J			
with the following exception:					
2652-10	Pb	UJ			

INORGANIC QC - LCS

Name JA Lerch Date 2/9/92

COMMENTS: -all ~~solid~~ aqueous LCS results within control limits; solid LCS not performed (standard unavailable to S^3)

effect on sample results minimal

ACTION: S^3 has been contacted to obtain an acceptable solid LCS

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Serial Dilution

Name JA Lerch Date 2/9/92

COMMENTS: 2652-1L - all dilution % diff results within applicable limits for TAL and non-CLP analytes

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - Holding Times

Name JA Lerch Date 2/9/92

COMMENTS: all ICP, GFAA, and Hg holding times met

ACTION: none

sample #	constituent	value/qual	sample #	constituent	value/qual

INORGANIC QC - GFAA

Name JA Lerch Date 2/9/92

COMMENTS: -no MSA required or performed
-GFAA sequence requirements met
- analytical spikes low for As, Tl, Se, Pb (see below)

ACTION: qualify associated results as per OSM guidelines

sample #	constituent	value/qual
2652-1	As	J
	Se	UJ
	Tl	UJ
	Pb	J
2652-2	Se	UJ
	Tl	UJ
	Pb	J
2652-3	Tl	UJ
	Pb	J
2652-4	Tl	UJ
	Pb	J
2652-5	Se	UJ
	Pb	J
2652-6	Se	UJ
	Tl	
	Pb	J
2652-7	Se	UJ
	Tl	UJ
	Pb	J
2652-8	Tl	UJ
	Pb	J
2652-9	Se	UJ
	Tl	UJ
	Pb	J
2652-10	As	UJ
	Se	UJ
	Tl	UJ
	Pb	UJ

INORGANIC QC - other

Name JA Lerch Date 2/9/92

COMMENTS: Major problems with ICP analysis (see ICS attach pg 3); all other ICP QC appears to be unaffected - full extent of effect on sample results unknown - all

~~ACTION:~~ ICP results estimated

sample #	constituent	value/qual	sample #	constituent	value/qual

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-1

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-1

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6420	J		P
7440-36-0	Antimony	5.7	UJ	N	P
7440-38-2	Arsenic	4.1	J		F
7440-39-3	Barium	47.4	J		P
7440-41-7	Beryllium	0.71	J		P
7440-43-9	Cadmium	0.31	UJ		P
7440-70-2	Calcium	8010	J		P
7440-47-3	Chromium	14.0	J		P
7440-48-4	Cobalt	6.7	J		P
7440-50-8	Copper	9.8	J		P
7439-89-6	Iron	15900	J		P
7439-92-1	Lead	5.0	J	*	F
7439-95-4	Magnesium	4730	J		P
7439-96-5	Manganese	273	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	12.3	J		P
7440-09-7	Potassium	901	J		P
7782-49-2	Selenium	4.5	~~UJ~~ R	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	276	~~B~~ J		P
7440-28-0	Thallium	3.4	UJ		F
7440-62-2	Vanadium	34.4	J		P
7440-66-6	Zinc	32.6	J		P

JJ 2/9/92

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F5

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-1

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE_ SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL_ Lab Sample ID: 2652-1

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	723	J		P
7440-67-7	Zirconium	10.2	UJ		P

JJ 2/9/92

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F5

FORM I - IN

002A
7/88

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-2

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-2

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8600	J		P
7440-36-0	Antimony	5.7	UJ	N	P
7440-38-2	Arsenic	5.2			F
7440-39-3	Barium	78.0	J		P
7440-41-7	Beryllium	0.92	J		P
7440-43-9	Cadmium	0.31	UJ		P
7440-70-2	Calcium	15500	J		P
7440-47-3	Chromium	19.0	J		P
7440-48-4	Cobalt	8.6	J		P
7440-50-8	Copper	14.5	J		P
7439-89-6	Iron	20100	J		P
7439-92-1	Lead	5.4	J	*	F
7439-95-4	Magnesium	5520	J		P
7439-96-5	Manganese	339	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	13.9	J		P
7440-09-7	Potassium	1550	J		P
7782-49-2	Selenium	4.5	~~UJ~~ R	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	785	J		P
7440-28-0	Thallium	3.4	UJ		F
7440-62-2	Vanadium	42.8	J		P
7440-66-6	Zinc	44.1	J		P

JJ 2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F6

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-2

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-2

Level (low/med): LOW Date Received: 10/24/91

% Solids: 98.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	1050	J		P
7440-67-7	Zirconium	10.2	UJ		P

2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F6

003A

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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-3

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-3

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7210	J		P
7440-36-0	Antimony	5.8	UJ	N	P
7440-38-2	Arsenic	5.3			F
7440-39-3	Barium	70.1	J		P
7440-41-7	Beryllium	0.72	J		P
7440-43-9	Cadmium	0.31	UJ		P
7440-70-2	Calcium	10900	J		P
7440-47-3	Chromium	16.8	J		P
7440-48-4	Cobalt	7.3	J		P
7440-50-8	Copper	14.5	J		P
7439-89-6	Iron	16700	J		P
7439-92-1	Lead	7.0	J	*	F
7439-95-4	Magnesium	4750	J		P
7439-96-5	Manganese	298	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	13.4	J		P
7440-09-7	Potassium	1180	J		P
7782-49-2	Selenium	4.5	R	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	535	J		P
7440-28-0	Thallium	3.4	UJ		F
7440-62-2	Vanadium	37.0	J		P
7440-66-6	Zinc	37.9	J		P

JT 2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F7

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-3

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-3

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	716	J		P
7440-67-7	Zirconium	10.3	UJ		P

2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14F7

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-4

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-4

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7600	J		P
7440-36-0	Antimony	5.7	UJ	N	P
7440-38-2	Arsenic	4.3			F
7440-39-3	Barium	65.2	J		P
7440-41-7	Beryllium	0.71	J		P
7440-43-9	Cadmium	0.30	UJ		P
7440-70-2	Calcium	19300	J		P
7440-47-3	Chromium	14.6	J		P
7440-48-4	Cobalt	7.4	J		P
7440-50-8	Copper	13.6	J		P
7439-89-6	Iron	16300	J		P
7439-92-1	Lead	4.2	J	*	F
7439-95-4	Magnesium	4410	J		P
7439-96-5	Manganese	279	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	11.5	J		P
7440-09-7	Potassium	1010	J		P
7782-49-2	Selenium	4.4	~~J~~ R	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	256	BJ		P
7440-28-0	Thallium	3.3	UJ		F
7440-62-2	Vanadium	37.3	J		P
7440-66-6	Zinc	35.5	J		P

2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14GO

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-4

Lab Name: S_CUBED_____ Contract: 32359-04__

Lab Code: S3____ Case No.: SITE_ SAS No.: _____ SDG No.: 2652__

Matrix (soil/water): SOIL_ Lab Sample ID: 2652-4____

Level (low/med): LOW__ Date Received: 10/24/91

% Solids: _99.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	743	J		P
7440-67-7	Zirconium	10.1	UJ		P

2/9/92

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

80_14GO

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-5

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-5

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6590	J		P
7440-36-0	Antimony	5.6	UJ	N	P
7440-38-2	Arsenic	2.5			F
7440-39-3	Barium	55.3	J		P
7440-41-7	Beryllium	0.60	J		P
7440-43-9	Cadmium	0.30	UJ		P
7440-70-2	Calcium	3820	J		P
7440-47-3	Chromium	10.6	J		P
7440-48-4	Cobalt	6.1	J		P
7440-50-8	Copper	8.1	J		P
7439-89-6	Iron	14100	J		P
7439-92-1	Lead	4.3	J	*	F
7439-95-4	Magnesium	3020	J		P
7439-96-5	Manganese	229	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	7.9	J		P
7440-09-7	Potassium	1090	J		P
7782-49-2	Selenium	4.4	UJ	R N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	178	UJ		P
7440-28-0	Thallium	3.3	U		F
7440-62-2	Vanadium	31.1	J		P
7440-66-6	Zinc	32.2	J		P

2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G2

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-5

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-5

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	729	J		P
7440-67-7	Zirconium	10.1	UJ		P

JE 12/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

BO_14G2

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-6

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE_ SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL_ Lab Sample ID: 2652-6

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6640	J		P
7440-36-0	Antimony	5.6	UJ	N	P
7440-38-2	Arsenic	2.2	U		F
7440-39-3	Barium	52.2	J		P
7440-41-7	Beryllium	0.70	J		P
7440-43-9	Cadmium	0.30	UJ		P
7440-70-2	Calcium	8260	J		P
7440-47-3	Chromium	14.3	J		P
7440-48-4	Cobalt	6.4	J		P
7440-50-8	Copper	13.1	J		P
7439-89-6	Iron	15900	J		P
7439-92-1	Lead	3.9	J	*	F
7439-95-4	Magnesium	4730	J		P
7439-96-5	Manganese	263	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	11.7	J		P
7440-09-7	Potassium	910	J		P
7782-49-2	Selenium	4.4	~~J~~ R	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	330	~~B~~ J		P
7440-28-0	Thallium	3.3	UJ		F
7440-62-2	Vanadium	34.6	J		P
7440-66-6	Zinc	32.5	J		P

JJ 2/9/92

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G3

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-6

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-6

Level (low/med): LOW Date Received: 10/24/91

% Solids: 99.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	757	J		P
7440-67-7	Zirconium	10.1	UJ		P

JJ 2/9/92

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

BO_14G3

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007A

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-7

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-7

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6610	J		P
7440-36-0	Antimony	5.7	UJ	N	P
7440-38-2	Arsenic	2.3	U		F
7440-39-3	Barium	62.4	J		P
7440-41-7	Beryllium	0.72	J		P
7440-43-9	Cadmium	0.31	UJ		P
7440-70-2	Calcium	9040	J		P
7440-47-3	Chromium	14.6	J		P
7440-48-4	Cobalt	6.9	J		P
7440-50-8	Copper	10.3	J		P
7439-89-6	Iron	15000	J		P
7439-92-1	Lead	5.0	J	*	F
7439-95-4	Magnesium	4710	J		P
7439-96-5	Manganese	273	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	14.0	J		P
7440-09-7	Potassium	1110	J		P
7782-49-2	Selenium	4.5	UR	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	344	B J		P
7440-28-0	Thallium	3.4	UJ		F
7440-62-2	Vanadium	29.4	J		P
7440-66-6	Zinc	35.6	J		P

JJ 2/9/92

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO 14G4

FORM I - IN

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-7

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-7

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	701	J		P
7440-67-7	Zirconium	10.2	UJ		P

12/9/92

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G4

FORM I - IN

003A
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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-8

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-8

Level (low/med): LOW Date Received: 10/24/91

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9780	J		P
7440-36-0	Antimony	6.1	UJ	N	P
7440-38-2	Arsenic	5.6			F
7440-39-3	Barium	106	J		P
7440-41-7	Beryllium	0.97	J		P
7440-43-9	Cadmium	0.32	UJ		P
7440-70-2	Calcium	13300	J		P
7440-47-3	Chromium	20.1	J		P
7440-48-4	Cobalt	10.6	J		P
7440-50-8	Copper	28.4	J		P
7439-89-6	Iron	22500	J		P
7439-92-1	Lead	7.5	J	*	F
7439-95-4	Magnesium	6970	J		P
7439-96-5	Manganese	506	J		P
7439-97-6	Mercury	0.11	UJ	N	CV
7440-02-0	Nickel	16.1	J		P
7440-09-7	Potassium	1600	J		P
7782-49-2	Selenium	4.8	R	N	F
7440-22-4	Silver	1.1	UJ		P
7440-23-5	Sodium	721	J		P
7440-28-0	Thallium	3.6	UJ		F
7440-62-2	Vanadium	50.2	J		P
7440-66-6	Zinc	52.8	J		P

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

BO_14G5

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-8

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE_ SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL_ Lab Sample ID: 2652-8

Level (low/med): LOW Date Received: 10/24/91

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.5	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	823	J		P
7440-67-7	Zirconium	10.8	UJ		P

JJ 2/9/92

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

BO_14G5

FORM I - IN

OVA A

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-9

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-9

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6900	J		P
7440-36-0	Antimony	5.7	UJ	N	P
7440-38-2	Arsenic	2.3			F
7440-39-3	Barium	64.3	J		P
7440-41-7	Beryllium	0.72	J		P
7440-43-9	Cadmium	0.31	UJ		P
7440-70-2	Calcium	12200	J		P
7440-47-3	Chromium	15.7	J		P
7440-48-4	Cobalt	7.4	J		P
7440-50-8	Copper	13.1	J		P
7439-89-6	Iron	16100	J		P
7439-92-1	Lead	3.8	J	*	F
7439-95-4	Magnesium	4700	J		P
7439-96-5	Manganese	282	J		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	12.5	J		P
7440-09-7	Potassium	1000	J		P
7782-49-2	Selenium	4.5	~~UR~~	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	210	~~B~~ J		P
7440-28-0	Thallium	3.4	UJ		F
7440-62-2	Vanadium	37.4	J		P
7440-66-6	Zinc	36.7	J		P

JJ 2/9/92

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO 14G6

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-9

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-9

Level (low/med): LOW Date Received: 10/24/91

% Solids: 97.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	757	J		P
7440-67-7	Zirconium	10.3	UJ		P

2/9/92

Color Before: GREY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:
BO_14G6

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010A
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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-10

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-10

Level (low/med): LOW Date Received: 10/24/91

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.2	UJ		P
7440-36-0	Antimony	5.6	UJ	N	P
7440-38-2	Arsenic	2.2	UJ		F
7440-39-3	Barium	4.1	UJ		P
7440-41-7	Beryllium	0.20	UJ		P
7440-43-9	Cadmium	0.30	UJ		P
7440-70-2	Calcium	107	UJ		P
7440-47-3	Chromium	0.70	UJ		P
7440-48-4	Cobalt	1.6	UJ		P
7440-50-8	Copper	1.8	UJ		P
7439-89-6	Iron	9.4	~~B~~ J		P
7439-92-1	Lead	1.1	UJ	*	F
7439-95-4	Magnesium	249	UJ		P
7439-96-5	Manganese	0.60	UJ		P
7439-97-6	Mercury	0.10	UJ	N	CV
7440-02-0	Nickel	3.2	UJ		P
7440-09-7	Potassium	130	UJ		P
7782-49-2	Selenium	4.4	~~U~~ R	N	F
7440-22-4	Silver	1.0	UJ		P
7440-23-5	Sodium	98.7	UJ		P
7440-28-0	Thallium	3.3	UJ		F
7440-62-2	Vanadium	2.0	UJ		P
7440-66-6	Zinc	5.0	UJ		P

2/9/92

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2652-10

Lab Name: S_CUBED Contract: 32359-04

Lab Code: S3 Case No.: SITE SAS No.: SDG No.: 2652

Matrix (soil/water): SOIL Lab Sample ID: 2652-10

Level (low/med): LOW Date Received: 10/24/91

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-98-7	Molybdenu	1.4	UJ		P
7439-93-2	Lithium				NR
7440-32-6	Titanium	1.0	UJ		P
7440-67-7	Zirconium	10.0	UJ		P

JJ 2/19/92

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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