URANOPHANE SYNTHESIS AND SOLUBILITY

CHEMICAL ANALYSES

Supplemental Material, Technical Activity
Supporting Documentation: Experimental Data
for Uranophane Synthesis and Solubility,
Chemical Analyses (01/15/2003 and
07/02/2003)

MEMORANDUM

TO: Jim Prikryl
Division 20 Bldg. 57

FROM: Mike Dammann

RE: Project No.: 06002.01.071
Task Order: #030520-13/24329
Samples Received: May 20, 2003

Analysis of Water samples for U by ICP/MS and Cations by ICP including Silicon .
Raw data and nuclear safety documentation for this project are archived in Division 01.

DATE: July 02, 2003

Enclosed, please find the sample results for the analyses referenced above.

The analyses performed comply with the SwRI Program Quality Plan, Document No. PQP-Nuclear Rev. 1, 10CFR 50 Appendix B, 10CFR 21, and 01-QPP-015 Revision 4.

If there are any questions, please feel free to contact me by voice mail at 522-5428 or by fax at 522-3649. I look forward to our continued analytical support of your projects.

Mike Dammann

Manager, Inorganic Group

Jo Ann Boyd

Manager, Div. 01 Quality Assurance

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
TASK ORDER: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
PROJECT#: 06002.01.071

FINAL REPORT

SOUTHWEST RESEARCH INSTITUTE
Client: Division 20
Task Order: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
Project#: 06002.01.071

METALS ANALYSIS

SOUTHWEST RESEARCH INSTITUTE
Client: Division 20
Task Order: 030520-13
SRR: 24329
SDG: 226202
CASE: CNWRA
VTSR: May 20, 2003
Project#: 06002.01.071

SAMPLE DATA

SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMD-0A

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226202

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	398	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.3	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
UMD-0A

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226202

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.05	<0.05	0.00%
Barium	<0.05	<0.05	0.00%
Beryllium	<0.05	<0.05	0.00%
Bismuth	<0.15	<0.15	0.00%
Boron	<0.25	<0.25	0.00%
Cadmium	<0.05	<0.05	0.00%
Calcium	398	392	1.41%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.05	<0.05	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.6	<0.6	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.05	<0.05	0.00%
Lithium	<0.05	<0.05	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.05	<0.05	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	<1	<1	0.00%
Selenium	<0.05	<0.05	0.00%
Silicon	32.3	32.4	0.10%
Silver	<0.05	<0.05	0.00%
Sodium	<1	<1	0.00%
Strontium	0.262	0.255	2.71%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Uranium	-----	-----	-----
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMD-0B

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226203

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	398	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.254	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.00489	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
UMD-0B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226203

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.5	20	97.3%
Antimony	<0.1	4.97	5.00	99.4%
Arsenic	<0.05	20.3	20	101.3%
Barium	<0.05	20.1	20	100.4%
Beryllium	<0.05	0.495	0.500	99.0%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.05	0.514	0.500	102.8%
Calcium	398	593	200	97.4%
Chromium	<0.05	1.97	2.00	98.4%
Cobalt	<0.05	5.02	5.00	100.4%
Copper	<0.05	2.48	2.50	99.0%
Iron	<0.6	11.2	10	112.0%
Lanthanum	NA	NA	NA	NA
Lead	<0.05	5.13	5.00	102.7%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	205	200	102.5%
Manganese	<0.05	5.08	5.00	101.6%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.87	5.00	97.3%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	<1	176	200	88.2%
Selenium	<0.05	20.9	20	104.7%
Silicon	32.4	74.1	40	104.3%
Silver	<0.05	0.522	0.500	104.4%
Sodium	<1	187	200	93.4%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.0	20	104.8%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	-----	-----	-----	-----
Vanadium	<0.05	5.05	5.00	101.1%
Yttrium	NA	NA	NA	NA
Zinc	<0.05	5.05	5.00	101.1%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMD-7A

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226204

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	400	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.255	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0250	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMD-7B

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226205

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	397	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.253	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0255	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-1

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226206

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.114	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	397	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.258	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.206	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226207

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.452	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	458	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.306	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.23	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
URSD-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226207

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	1.23	1.28	3.98%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226208

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.217	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	394	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.613	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
URSD-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226208

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	0.613	0.558	9.39%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226209

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.304	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	409	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.263	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.15	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226210

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.371	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	412	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.269	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.496	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-5

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226211

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.405	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	416	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.275	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.964	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-6

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226212

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.417	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	423	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.0	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.279	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.451	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226213

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.430	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	431	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.282	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.14	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226214

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.438	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	437	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.288	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.29	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0A-9

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226215

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.444	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	451	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.293	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	7.97	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226216

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.196	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	391	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.260	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.294	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226217

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.432	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	457	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.302	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.34	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-2

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226218

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.334	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	400	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.15	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226219

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.389	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	399	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.265	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.11	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-4

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226220

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.391	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	409	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.268	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.48	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-5

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226221

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.400	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	410	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.275	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.67	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226222

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.410	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	423	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.277	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.31	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226223

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.415	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	427	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.282	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.08	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-8

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226224

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.424	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	442	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.290	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.89	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-0B-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226225

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.431	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	450	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.294	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.40	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226226

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	374	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	29.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.220	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.10	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
URSD-1A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226226

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.05	<0.05	0.00%
Barium	<0.05	<0.05	0.00%
Beryllium	<0.05	<0.05	0.00%
Bismuth	<0.15	<0.15	0.00%
Boron	<0.25	<0.25	0.00%
Cadmium	<0.05	<0.05	0.00%
Calcium	374	373	0.20%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.05	<0.05	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.6	<0.6	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.05	<0.05	0.00%
Lithium	<0.05	<0.05	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.05	<0.05	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	<1	<1	0.00%
Selenium	<0.05	<0.05	0.00%
Silicon	29.5	29.2	0.80%
Silver	<0.05	<0.05	0.00%
Sodium	<1	<1	0.00%
Strontium	0.220	0.218	0.78%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Uranium	-----	-----	-----
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226227

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	358	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	1.33	1
Selenium	<0.05	0.05
Silicon	27.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.209	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.218	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
URSD-1A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226227

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.7	20	98.6%
Antimony	<0.1	4.97	5.00	99.3%
Arsenic	<0.05	20.4	20	101.9%
Barium	<0.05	20.5	20	102.6%
Beryllium	<0.05	0.488	0.500	97.7%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.05	0.516	0.500	103.1%
Calcium	358	553	200	97.7%
Chromium	<0.05	1.93	2.00	96.4%
Cobalt	<0.05	5.06	5.00	101.2%
Copper	<0.05	2.54	2.50	101.8%
Iron	<0.6	11.2	10	111.8%
Lanthanum	NA	NA	NA	NA
Lead	<0.05	5.16	5.00	103.2%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	205	200	102.4%
Manganese	<0.05	5.10	5.00	102.0%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.81	5.00	96.2%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	1.33	182	200	90.2%
Selenium	<0.05	20.9	20	104.6%
Silicon	27.7	69.1	40	103.4%
Silver	<0.05	0.514	0.500	102.7%
Sodium	<1	187	200	93.3%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.0	20	105.2%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	-----	-----	-----	-----
Vanadium	<0.05	5.09	5.00	101.8%
Yttrium	NA	NA	NA	NA
Zinc	<0.05	5.16	5.00	103.3%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-3

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226228

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	474	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	39.1	0.25
Silver	<0.05	0.05
Sodium	1.48	1
Strontium	0.274	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.108	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
URSD-1A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226228

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	-----	-----	-----	-----
Antimony	-----	-----	-----	-----
Arsenic	-----	-----	-----	-----
Barium	-----	-----	-----	-----
Beryllium	-----	-----	-----	-----
Bismuth	-----	-----	-----	-----
Boron	-----	-----	-----	-----
Cadmium	-----	-----	-----	-----
Calcium	-----	-----	-----	-----
Chromium	-----	-----	-----	-----
Cobalt	-----	-----	-----	-----
Copper	-----	-----	-----	-----
Iron	-----	-----	-----	-----
Lanthanum	-----	-----	-----	-----
Lead	-----	-----	-----	-----
Lithium	-----	-----	-----	-----
Magnesium	-----	-----	-----	-----
Manganese	-----	-----	-----	-----
Molybdenum	-----	-----	-----	-----
Nickel	-----	-----	-----	-----
Palladium	-----	-----	-----	-----
Phosphorus	-----	-----	-----	-----
Potassium	-----	-----	-----	-----
Selenium	-----	-----	-----	-----
Silicon	-----	-----	-----	-----
Silver	-----	-----	-----	-----
Sodium	-----	-----	-----	-----
Strontium	-----	-----	-----	-----
Sulfur	-----	-----	-----	-----
Thallium	-----	-----	-----	-----
Thorium	-----	-----	-----	-----
Tin	-----	-----	-----	-----
Titanium	-----	-----	-----	-----
Tungsten	-----	-----	-----	-----
Uranium	0.108	2.37	2.00	113.1%
Vanadium	-----	-----	-----	-----
Yttrium	-----	-----	-----	-----
Zinc	-----	-----	-----	-----
Zirconium	-----	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226229

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	439	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	2.07	1
Selenium	<0.05	0.05
Silicon	41.3	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0538	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-5

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226230

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	455	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.3	0.25
Silver	<0.05	0.05
Sodium	1.70	1
Strontium	0.264	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.0233	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-6

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226231

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	397	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	37.1	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.238	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.397	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226232

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	412	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.239	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.06	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-1A-8

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226233

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	403	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.9	0.25
Silver	<0.05	0.05
Sodium	2.29	1
Strontium	0.237	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.633	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
URSD-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226233

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	-----	-----	-----	-----
Antimony	-----	-----	-----	-----
Arsenic	-----	-----	-----	-----
Barium	-----	-----	-----	-----
Beryllium	-----	-----	-----	-----
Bismuth	-----	-----	-----	-----
Boron	-----	-----	-----	-----
Cadmium	-----	-----	-----	-----
Calcium	-----	-----	-----	-----
Chromium	-----	-----	-----	-----
Cobalt	-----	-----	-----	-----
Copper	-----	-----	-----	-----
Iron	-----	-----	-----	-----
Lanthanum	-----	-----	-----	-----
Lead	-----	-----	-----	-----
Lithium	-----	-----	-----	-----
Magnesium	-----	-----	-----	-----
Manganese	-----	-----	-----	-----
Molybdenum	-----	-----	-----	-----
Nickel	-----	-----	-----	-----
Palladium	-----	-----	-----	-----
Phosphorus	-----	-----	-----	-----
Potassium	-----	-----	-----	-----
Selenium	-----	-----	-----	-----
Silicon	-----	-----	-----	-----
Silver	-----	-----	-----	-----
Sodium	-----	-----	-----	-----
Strontium	-----	-----	-----	-----
Sulfur	-----	-----	-----	-----
Thallium	-----	-----	-----	-----
Thorium	-----	-----	-----	-----
Tin	-----	-----	-----	-----
Titanium	-----	-----	-----	-----
Tungsten	-----	-----	-----	-----
Uranium	0.633	11.3	10.0	106.7%
Vanadium	-----	-----	-----	-----
Yttrium	-----	-----	-----	-----
Zinc	-----	-----	-----	-----
Zirconium	-----	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-1

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226234

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.191	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	398	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	31.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.322	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-10

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226235

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.500	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	510	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	40.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.336	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	9.22	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-2

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226236

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.344	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	393	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	30.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.269	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.821	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-3

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226237

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.404	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	410	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.268	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.941	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-4

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226238

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.422	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	416	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.2	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.277	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.56	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-5

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226239

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.427	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	425	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.282	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.17	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-6

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226240

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.441	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	435	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.6	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.290	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.35	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226241

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.449	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	450	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.299	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.01	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-8

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226242

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.469	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	474	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	37.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.309	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.08	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
URSD-7A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226242

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.05	<0.05	0.00%
Barium	0.469	0.468	0.09%
Beryllium	<0.05	<0.05	0.00%
Bismuth	<0.15	<0.15	0.00%
Boron	<0.25	<0.25	0.00%
Cadmium	<0.05	<0.05	0.00%
Calcium	474	480	1.28%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.05	<0.05	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.6	<0.6	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.05	<0.05	0.00%
Lithium	<0.05	<0.05	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.05	<0.05	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	<1	<1	0.00%
Selenium	<0.05	<0.05	0.00%
Silicon	37.5	37.6	0.36%
Silver	<0.05	<0.05	0.00%
Sodium	<1	<1	0.00%
Strontium	0.309	0.312	1.00%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Uranium	-----	-----	-----
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7A-9

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226243

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.483	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	488	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	38.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.321	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.05	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
URSD-7A-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226243

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.8	20	98.9%
Antimony	<0.1	5.00	5.00	100.0%
Arsenic	<0.05	20.5	20	102.6%
Barium	0.483	20.9	20	102.0%
Beryllium	<0.05	0.495	0.500	99.1%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.05	0.524	0.500	104.7%
Calcium	488	691	200	101.3%
Chromium	<0.05	1.95	2.00	97.7%
Cobalt	<0.05	5.14	5.00	102.8%
Copper	<0.05	2.53	2.50	101.2%
Iron	<0.6	11.2	10	112.3%
Lanthanum	NA	NA	NA	NA
Lead	<0.05	5.22	5.00	104.5%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	204	200	102.2%
Manganese	<0.05	5.16	5.00	103.3%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.91	5.00	98.1%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	<1	176	200	88.2%
Selenium	<0.05	21.0	20	104.8%
Silicon	38.8	81.1	40	105.9%
Silver	<0.05	0.463	0.500	92.6%
Sodium	<1	186	200	93.0%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.2	20	105.9%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Uranium	-----	-----	-----	-----
Vanadium	<0.05	5.14	5.00	102.8%
Yttrium	NA	NA	NA	NA
Zinc	<0.05	5.23	5.00	104.7%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-1

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226244

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.190	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	412	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.267	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.394	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-10

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226245

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.516	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	502	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	39.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.324	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	3.94	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-2

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226246

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.356	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	416	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	32.7	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.268	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	0.826	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-3

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226247

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.438	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	423	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	33.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.274	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.21	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-4

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226248

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.462	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	433	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	34.3	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.283	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.57	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
URSD-7B-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226248

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	1.57	1.60	1.89%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-5

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226249

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.468	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	444	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.1	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.289	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.62	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226250

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.478	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	455	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	35.8	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.298	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.61	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226251

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.479	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	463	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.299	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.76	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-7

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226251

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.479	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	463	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.5	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.299	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	2.76	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
URSD-7B-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 05/20/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 226251

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	-----	-----	-----	-----
Antimony	-----	-----	-----	-----
Arsenic	-----	-----	-----	-----
Barium	-----	-----	-----	-----
Beryllium	-----	-----	-----	-----
Bismuth	-----	-----	-----	-----
Boron	-----	-----	-----	-----
Cadmium	-----	-----	-----	-----
Calcium	-----	-----	-----	-----
Chromium	-----	-----	-----	-----
Cobalt	-----	-----	-----	-----
Copper	-----	-----	-----	-----
Iron	-----	-----	-----	-----
Lanthanum	-----	-----	-----	-----
Lead	-----	-----	-----	-----
Lithium	-----	-----	-----	-----
Magnesium	-----	-----	-----	-----
Manganese	-----	-----	-----	-----
Molybdenum	-----	-----	-----	-----
Nickel	-----	-----	-----	-----
Palladium	-----	-----	-----	-----
Phosphorus	-----	-----	-----	-----
Potassium	-----	-----	-----	-----
Selenium	-----	-----	-----	-----
Silicon	-----	-----	-----	-----
Silver	-----	-----	-----	-----
Sodium	-----	-----	-----	-----
Strontium	-----	-----	-----	-----
Sulfur	-----	-----	-----	-----
Thallium	-----	-----	-----	-----
Thorium	-----	-----	-----	-----
Tin	-----	-----	-----	-----
Titanium	-----	-----	-----	-----
Tungsten	-----	-----	-----	-----
Uranium	2.76	48.1	40.0	113.4%
Vanadium	-----	-----	-----	-----
Yttrium	-----	-----	-----	-----
Zinc	-----	-----	-----	-----
Zirconium	-----	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-8

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226252

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.491	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	469	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	36.9	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.305	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	1.86	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
URSD-7B-9

Lab Name: Southwest Research Institute

Lab Code: SwRI

Matrix: Water

Lab System ID: 226253

Client: Division 20

Date Received: 05/20/03

Project No.: 20.06002.01.071

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	0.499	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	485	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	38.4	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	0.315	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	4.00	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.1	20	95.6%
Antimony	4.96	5.00	99.2%
Arsenic	20.1	20	100.3%
Barium	19.9	20	99.7%
Beryllium	0.495	0.500	99.0%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.512	0.500	102.3%
Calcium	204	200	101.9%
Chromium	1.97	2.00	98.7%
Cobalt	5.04	5.00	100.8%
Copper	2.43	2.50	97.3%
Iron	10.9	10	108.8%
Lanthanum	NA	NA	NA
Lead	5.12	5.00	102.5%
Lithium	NA	NA	NA
Magnesium	205	200	102.5%
Manganese	5.08	5.00	101.5%
Molybdenum	NA	NA	NA
Nickel	4.90	5.00	98.1%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	167	200	83.4%
Selenium	20.6	20	103.0%
Silicon	41.9	40	104.7%
Silver	0.508	0.500	101.6%
Sodium	177	200	88.3%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	20.7	20	103.7%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	0.197	0.200	98.5%
Vanadium	5.03	5.00	100.6%
Yttrium	NA	NA	NA
Zinc	5.12	5.00	102.5%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.3	20	96.7%
Antimony	4.93	5.00	98.6%
Arsenic	20.2	20	101.0%
Barium	20.4	20	101.9%
Beryllium	0.488	0.500	97.5%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.518	0.500	103.5%
Calcium	202	200	101.0%
Chromium	1.94	2.00	96.8%
Cobalt	5.05	5.00	101.1%
Copper	2.50	2.50	99.9%
Iron	10.8	10	108.1%
Lanthanum	NA	NA	NA
Lead	5.08	5.00	101.6%
Lithium	NA	NA	NA
Magnesium	205	200	102.5%
Manganese	5.09	5.00	101.9%
Molybdenum	NA	NA	NA
Nickel	4.84	5.00	96.8%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	172	200	86.0%
Selenium	20.4	20	101.8%
Silicon	41.7	40	104.2%
Silver	0.496	0.500	99.2%
Sodium	180	200	89.9%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.0	20	104.8%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	0.203	0.200	101.5%
Vanadium	5.06	5.00	101.2%
Yttrium	NA	NA	NA
Zinc	5.15	5.00	103.0%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.6	20	97.9%
Antimony	4.94	5.00	98.7%
Arsenic	20.2	20	101.0%
Barium	20.5	20	102.7%
Beryllium	0.488	0.500	97.7%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.518	0.500	103.6%
Calcium	197	200	98.6%
Chromium	1.94	2.00	97.0%
Cobalt	5.10	5.00	102.1%
Copper	2.53	2.50	101.1%
Iron	11.1	10	110.7%
Lanthanum	NA	NA	NA
Lead	5.17	5.00	103.4%
Lithium	NA	NA	NA
Magnesium	200	200	100.1%
Manganese	5.10	5.00	102.0%
Molybdenum	NA	NA	NA
Nickel	4.84	5.00	96.8%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	169	200	84.6%
Selenium	20.6	20	103.1%
Silicon	41.6	40	103.9%
Silver	0.460	0.500	92.1%
Sodium	179	200	89.5%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.0	20	104.8%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Uranium	0.195	0.200	97.5%
Vanadium	5.06	5.00	101.3%
Yttrium	NA	NA	NA
Zinc	5.14	5.00	102.8%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	0.208	0.200	104.0%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	-----	-----	-----
Antimony	-----	-----	-----
Arsenic	-----	-----	-----
Barium	-----	-----	-----
Beryllium	-----	-----	-----
Bismuth	-----	-----	-----
Boron	-----	-----	-----
Cadmium	-----	-----	-----
Calcium	-----	-----	-----
Chromium	-----	-----	-----
Cobalt	-----	-----	-----
Copper	-----	-----	-----
Iron	-----	-----	-----
Lanthanum	-----	-----	-----
Lead	-----	-----	-----
Lithium	-----	-----	-----
Magnesium	-----	-----	-----
Manganese	-----	-----	-----
Molybdenum	-----	-----	-----
Nickel	-----	-----	-----
Palladium	-----	-----	-----
Phosphorus	-----	-----	-----
Potassium	-----	-----	-----
Selenium	-----	-----	-----
Silicon	-----	-----	-----
Silver	-----	-----	-----
Sodium	-----	-----	-----
Strontium	-----	-----	-----
Sulfur	-----	-----	-----
Thallium	-----	-----	-----
Thorium	-----	-----	-----
Tin	-----	-----	-----
Titanium	-----	-----	-----
Tungsten	-----	-----	-----
Uranium	0.209	0.200	104.5%
Vanadium	-----	-----	-----
Yttrium	-----	-----	-----
Zinc	-----	-----	-----
Zirconium	-----	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	<1.5	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	<1.5	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.05	0.05
Barium	<0.05	0.05
Beryllium	<0.05	0.05
Bismuth	<0.15	0.15
Boron	<0.25	0.25
Cadmium	<0.05	0.05
Calcium	<1.5	1.5
Chromium	<0.05	0.05
Cobalt	<0.05	0.05
Copper	<0.05	0.05
Iron	<0.6	0.6
Lanthanum	<0.05	0.05
Lead	<0.05	0.05
Lithium	<0.05	0.05
Magnesium	<0.5	0.5
Manganese	<0.05	0.05
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<1	1
Selenium	<0.05	0.05
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<1	1
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Uranium	<0.001	0.001
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	-----	-----
Antimony	-----	-----
Arsenic	-----	-----
Barium	-----	-----
Beryllium	-----	-----
Bismuth	-----	-----
Boron	-----	-----
Cadmium	-----	-----
Calcium	-----	-----
Chromium	-----	-----
Cobalt	-----	-----
Copper	-----	-----
Iron	-----	-----
Lanthanum	-----	-----
Lead	-----	-----
Lithium	-----	-----
Magnesium	-----	-----
Manganese	-----	-----
Molybdenum	-----	-----
Nickel	-----	-----
Palladium	-----	-----
Phosphorus	-----	-----
Potassium	-----	-----
Selenium	-----	-----
Silicon	-----	-----
Silver	-----	-----
Sodium	-----	-----
Strontium	-----	-----
Sulfur	-----	-----
Thallium	-----	-----
Thorium	-----	-----
Tin	-----	-----
Titanium	-----	-----
Tungsten	-----	-----
Uranium	<0.001	0.001
Vanadium	-----	-----
Yttrium	-----	-----
Zinc	-----	-----
Zirconium	-----	-----

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

SRR: 24329

TO: 030520-13

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	-----	-----
Antimony	-----	-----
Arsenic	-----	-----
Barium	-----	-----
Beryllium	-----	-----
Bismuth	-----	-----
Boron	-----	-----
Cadmium	-----	-----
Calcium	-----	-----
Chromium	-----	-----
Cobalt	-----	-----
Copper	-----	-----
Iron	-----	-----
Lanthanum	-----	-----
Lead	-----	-----
Lithium	-----	-----
Magnesium	-----	-----
Manganese	-----	-----
Molybdenum	-----	-----
Nickel	-----	-----
Palladium	-----	-----
Phosphorus	-----	-----
Potassium	-----	-----
Selenium	-----	-----
Silicon	-----	-----
Silver	-----	-----
Sodium	-----	-----
Strontium	-----	-----
Sulfur	-----	-----
Thallium	-----	-----
Thorium	-----	-----
Tin	-----	-----
Titanium	-----	-----
Tungsten	-----	-----
Uranium	<0.001	0.001
Vanadium	-----	-----
Yttrium	-----	-----
Zinc	-----	-----
Zirconium	-----	-----

NA- Not Applicable.

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SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP Include Si	Uranium by ICP/MS									intact
URSD-OA-1	5-20-03	1000	W		1	✓	✓									✓
URSD-OA-2					1	✓	✓									
URSD-OA-3					1	✓	✓									
URSD-OA-4					1	✓	✓									
URSD-OA-5					1	✓	✓									
URSD-OA-6					1	✓	✓									
URSD-OA-7					1	✓	✓									
URSD-OA-8					1	✓	✓									
URSD-OA-9					1	✓	✓									
URSD-OA-10					1	✓	✓									

REMARKS

Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC - Jim Prikryl x5667

Nuclear Safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C

Therm #: 026

Comments:

325/300

Relinquished by (Print/Signature)	Date	Time
James D. Ryan	5/20/03	1405
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**

SwRI Project#:

Received by SwRI Lab: (Signature)

Date	Time
5/20/03	1405

Samples Disposed:

Date	Time

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

Shipper Name/Address: Jim Prikryl, CNWRA, Div. 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP Include Si	Uranium by ICP/MS									Intact
URSD-OB-1	5/20/03	1000	W		1	✓	✓									✓
URSD-OB-2					1	✓	✓									
URSD-OB-3					1	✓	✓									
URSD-OB-4					1	✓	✓									
URSD-OB-5					1	✓	✓									
URSD-OB-6					1	✓	✓									
URSD-OB-7					1	✓	✓									
URSD-OB-8					1	✓	✓									
URSD-OB-9					1	✓	✓									
URSD-OB-10					1	✓	✓									

REMARKS

Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC - Jim Prikryl x5667

Nuclear safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
- A – Air
- B – Biota
- D - Dust
- E – Emission/Stack
- P – Product
- S – Soil
- SED – Sediment
- T - Tissue
- W - Water
- WP - Wipe

Sample Types:
- D - Duplicate
- ER – Equipment Rinsate
- FB – Field Blank
- FD – Field Duplicate
- MS – Matrix Spike
- MSD – Matrix Spike Dup
- TB – Trip Blank

Temp: 22°C

Therm #: 026

Comments: 325/301

Relinquished by (Print/Signature)	Date	Time
James D. Rigl	5/20/03	1405
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 5/20/03 Time: 1405

Samples Disposed: Date: Time:

Samples Disposed by:

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other:

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICP/MS									
URSD-7A-1	5/20/03	1000	W		1	✓	✓									
URSD-7A-2					1	✓	✓									
URSD-7A-3					1	✓	✓									
URSD-7A-4					1	✓	✓									
URSD-7A-5					1	✓	✓									
URSD-7A-6					1	✓	✓									
URSD-7A-7					1	✓	✓									
URSD-7A-8					1	✓	✓									
URSD-7A-9					1	✓	✓									
URSD-7A-10					1	✓	✓									

intact

REMARKS
Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC Jim Prikryl x 5667

Nuclear safety related - use appropriate QA procedures

20 06002.01.071

Matrix Types:
- A – Air
- B – Biota
- D - Dust
- E – Emission/Stack
- P – Product
- S – Soil
- SED – Sediment
- T - Tissue
- W - Water
- WP - Wipe

Sample Types:
- D - Duplicate
- ER – Equipment Rinsate
- FB – Field Blank
- FD – Field Duplicate
- MS – Matrix Spike
- MSD – Matrix Spike Dup
- TB – Trip Blank

Temp: 22°C
Therm #: 026

Comments:
325/301

Relinquished by (Print/Signature)	Date	Time
James O. Pyle	5/20/03	1405
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:
Received by SwRI Lab: (Signature)
Date: 5/20/03 Time: 1405
Samples Disposed: Date / Time
Samples Disposed by:

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other:

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICP/MS								intact	REMARKS
URSD-7B-1	5/20/03	1000	W		1	✓	✓									POC Jim Prikryl
URSD-7B-2					1	✓	✓									x5667
URSD-7B-3					1	✓	✓									
URSD-7B-4					1	✓	✓									Nuclear safety
URSD-7B-5					1	✓	✓									related - use
URSD-7B-6					1	✓	✓									appropriate QA
URSD-7B-7					1	✓	✓									procedures.
URSD-7B-8					1	✓	✓									
URSD-7B-9					1	✓	✓									
URSD-7B-10					1	✓	✓									20.06002.01.071

REMARKS
Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C

Therm #: 026

Comments: 325/301

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	5/20/03	1405
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature) [signature]

Date: 5/20/03 Time: 1405

Samples Disposed: Date | Time

Samples Disposed by:

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other:

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICP/MS								intact
URSD-1A-1	5/20/03	1000	W		1	✓	✓								
URSD-1A-2					1	✓	✓								
URSD-1A-3					1	✓	✓								
URSD-1A-4					1	✓	✓								
URSD-1A-5					1	✓	✓								
URSD-1A-6					1	✓	✓								
URSD-1A-7					1	✓	✓								
URSD-1A-8					1	✓	✓								

REMARKS

Preservation
- a = HCl to pH <2
- ~~b = HNO_3 to pH <2~~
- ~~c = H_2SO_4 to pH <2~~
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC Jim Prikryl x 5667

Nuclear safety related - use appropriate QA procedures

20.06002.01.071

Matrix Types:
- A – Air
- B – Biota
- D - Dust
- E – Emission/Stack
- P – Product
- S – Soil
- SED – Sediment
- T - Tissue
- W - Water
- WP - Wipe

Sample Types:
- D - Duplicate
- ER – Equipment Rinsate
- FB – Field Blank
- FD – Field Duplicate
- MS – Matrix Spike
- MSD – Matrix Spike Dup
- TB – Trip Blank

Temp: 22°C

Therm #: 026

Comments:

325/303

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	5/20/03	1405
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 20 May 03 Time: 1405

Samples Disposed: Date Time

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☒ 3 Weeks
- ☐ Other: _____

SwRI Contact: Mike Damanow

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP including Si	Uranium by ICP/MS									REMARKS
UMD-0A	5/20/03	1000	W		1	✓	✓									POC Jim Prikryl x5667
UMD-0B					1	✓	✓									
UMD-7A					1	✓	✓									
UMD-7B					1	✓	✓									Nuclear safety related - use appropriate QA procedures.

intact.

Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22°C

Therm #: 026

Comments:

325/298

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	5/20/03	1405
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date	Time
5/20/03	1405

Samples Disposed: Date | Time

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, BldG 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID: /

Requested Turnaround:
- [x] 2 Weeks
- [ ] 3 Weeks
- [ ] Other:

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Uranium by ICP-MS									
FU-1	1/28/03	1000	W		1	✓									
FU-2					1	✓									
FU-3					1	✓									
FU-4					1	✓									
FU-5					1	✓									
FU-6					1	✓									
FU-7					1	✓									
FU-8					1	✓									
FU-9					1	✓									
FU-10					1	✓									

*Note- U concentration range is between 0.001 and 1.0 ppm

REMARKS

Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

POC- Jim Prikryl x5667

Not nuclear safety related

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 22.0°C

Therm #: 026

Comments:

325/285 Rec'd. intact.

Relinquished by (Print/Signature)	Date	Time
James O. Prikryl	1/28/03	1315
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 1/28/03 Time: 1315

Samples Disposed: Date / Time

Samples Disposed by:

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Pikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- [x] 2 Weeks
- [ ] 3 Weeks
- [ ] Other: _____

SwRI Contact: Mike Damann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Uranium by ICP/MS										REMARKS
									* see note on page 1							
FU-11	1/28/03	1000	W		1	✓										POC - Jim Pikryl x5667
FU-12					1	✓										
FU-13					1	✓										
FU-14					1	✓										
FU-15					1	✓										Not nuclear safety related
FU-16					1	✓										
FU-17					1	✓										
FU-18					1	✓										

Preservation
- a = HCl to pH <2
- b = HNO_3 to pH <2
- c = H_2SO_4 to pH <2
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

20-06002.01.071

Matrix Types:
- A – Air
- B – Biota
- D - Dust
- E – Emission/Stack
- P – Product
- S – Soil
- SED – Sediment
- T - Tissue
- W - Water
- WP - Wipe

Sample Types:
- D - Duplicate
- ER – Equipment Rinsate
- FB – Field Blank
- FD – Field Duplicate
- MS – Matrix Spike
- MSD – Matrix Spike Dup
- TB – Trip Blank

Temp: 22.0°C

Therm #: 026

Comments:
325/285 Rec'd. intact

Relinquished by (Print/Signature)	Date	Time
James D. Pikryl	1/28/03	1315
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**
Received by (Print/Signature)	**Date**	**Time**
Relinquished by (Print/Signature)	**Date**	**Time**

SwRI Project#:

Received by SwRI Lab: (Signature)

Date	Time
1/28/03	1315

Samples Disposed: Date | Time

Samples Disposed by:

SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/28/03

Matrix: Water

Project No.: 20.06002.01.071

Work Order: 23725

Expected

Sample ID	Lab System ID	Uranium Results (ug/L)
Prep Blank	----	<0.200
Lab Control	----	51.4
True Value	----	50.0
Recovery	----	103%
FU-1	219526	708
Duplicate result	219526	729
RPD	219526	2.92%
Spike result	219526	758
Spike added	219526	50.0
Recovery	219526	100%
FU-10	219527	0.440
FU-11	219528	<0.200
FU-12	219529	0.419
FU-13	219530	717
FU-14	219531	192
FU-15	219532	72.1
FU-16	219533	23.1
FU-17	219534	4.23
FU-18	219535	1.21
FU-2	219536	198
FU-3	219537	72.3
FU-4	219538	22.2
FU-5	219539	4.37
FU-6	219540	1.26
FU-7	219541	3.16
FU-8	219542	1.31
FU-9	219543	0.398

792

Reporting Limit: 0.200 ug/L

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MEMORANDUM

TO: Jim Prikryl
Division 20 Bldg. 57

FROM: Mike Dammann

RE: Project No.: 06002.01.071
Work Order: #23725
Samples Received: January 28, 2003

Analysis of liquid samples by ICP.
Raw data for this project
are archived in Division 01.

DATE: February 14, 2003

Enclosed, please find the sample results for the analyses referenced above.

If there are any questions, please feel free to contact me by voice mail at 522-5428 or by fax at 522-3649. I look forward to our continued analytical support of your projects.

Mike Dammann

Manager, Inorganic Group

SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/28/03

Matrix: Water

Project No.: 20.06002.01.071

Work Order: 23725

Sample ID	Lab System ID	Uranium Results (ug/L)
Prep Blank	----	<0.200
Lab Control	----	51.4
True Value	----	50.0
Recovery	----	103%
FU-1	219526	708
Duplicate result	219526	729
RPD	219526	2.92%
Spike result	219526	758
Spike added	219526	50.0
Recovery	219526	100%
FU-10	219527	0.440
FU-11	219528	<0.200
FU-12	219529	0.419
FU-13	219530	717
FU-14	219531	192
FU-15	219532	72.1
FU-16	219533	23.1
FU-17	219534	4.23
FU-18	219535	1.21
FU-2	219536	198
FU-3	219537	72.3
FU-4	219538	22.2
FU-5	219539	4.37
FU-6	219540	1.26
FU-7	219541	3.16
FU-8	219542	1.31
FU-9	219543	0.398

Reporting Limit: 0.200 ug/L

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MEMORANDUM

TO: Jim Prikryl
Division 20 Bldg. 57

FROM: Mike Dammann

RE: Project No.: 06002.01.071
Task Order: #030115-2/23658
Samples Received: January 15, 2003

Analysis of Water samples by ICP and Silicon.
Raw data and nuclear safety documentation for this project are archived in Division 01.

DATE: March 11, 2003

Enclosed, please find the sample results for the analyses referenced above.

The analyses performed comply with the SwRI Program Quality Plan, Document No. PQP-Nuclear Rev. 1, 10CFR 50 Appendix B, 10CFR 21, and 01-QPP-015 Revision 4.

If there are any questions, please feel free to contact me by voice mail at 522-5428 or by fax at 522-3649. I look forward to our continued analytical support of your projects.

Mike Dammann
for MD.
Manager, Inorganic Group

Jo Ann Boyd
Manager, Div. 01 Quality Assurance

SOUTHWEST RESEARCH INSTITUTE
NUCLEAR PROJECT
CLIENT: Division 20
WORK ORDER: 23658/030115-2
SDG: 218741
VTSR: January 15, 2003
PROJECT#: 06002.01.071

FINAL REPORT

SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218741

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.39	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	399	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.4	0.25
Silver	<0.05	0.05
Sodium	10.2	0.25
Strontium	0.256	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
CAT-0A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218741

Work Order: 23658

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.1	<0.1	0.00%
Barium	1.39	1.39	0.01%
Beryllium	<0.025	<0.025	0.00%
Bismuth	<0.1	<0.1	0.00%
Boron	<0.5	<0.5	0.00%
Cadmium	<0.025	<0.025	0.00%
Calcium	399	400	0.18%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.025	<0.025	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.5	<0.5	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.1	<0.1	0.00%
Lithium	<0.025	<0.025	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.025	<0.025	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	NA	NA	NA
Selenium	<0.1	<0.1	0.00%
Silicon	31.4	31.5	0.17%
Silver	<0.05	<0.05	0.00%
Sodium	NA	NA	NA
Strontium	0.256	0.256	0.04%
Sulfur	<0.25	0.256	200%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218742

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.727	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	452	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	33.9	0.25
Silver	<0.05	0.05
Sodium	3.13	0.25
Strontium	0.292	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.196	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218742

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.6	20.0	97.8%
Antimony	<0.1	5.10	5.00	102.1%
Arsenic	<0.1	20.8	20.0	103.9%
Barium	0.727	21.0	20.0	101.2%
Beryllium	<0.025	0.510	0.500	101.9%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.025	0.499	0.500	99.8%
Calcium	452	652	200	100.0%
Chromium	<0.05	2.02	2.00	101.2%
Cobalt	<0.025	5.03	5.00	100.6%
Copper	<0.05	2.56	2.50	102.3%
Iron	<0.5	10.7	10.0	106.7%
Lanthanum	NA	NA	NA	NA
Lead	<0.1	5.11	5.00	102.2%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	205	200	102.6%
Manganese	<0.025	5.07	5.00	101.4%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.95	5.00	99.1%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	NA	NA	NA	NA
Selenium	<0.1	21.4	20.0	107.1%
Silicon	33.9	76.3	40.0	105.9%
Silver	<0.05	0.512	0.500	102.4%
Sodium	NA	NA	NA	NA
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.5	20.0	107.5%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	<0.05	5.06	5.00	101.3%
Yttrium	NA	NA	NA	NA
Zinc	0.196	5.25	5.00	101.1%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218743

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.555	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	406	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.1	0.25
Silver	<0.05	0.05
Sodium	2.31	0.25
Strontium	0.260	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.157	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
CAT-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218743

Work Order: 23658

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	NA	NA	NA
Antimony	NA	NA	NA
Arsenic	NA	NA	NA
Barium	NA	NA	NA
Beryllium	NA	NA	NA
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	NA	NA	NA
Calcium	NA	NA	NA
Chromium	NA	NA	NA
Cobalt	NA	NA	NA
Copper	NA	NA	NA
Iron	NA	NA	NA
Lanthanum	NA	NA	NA
Lead	NA	NA	NA
Lithium	NA	NA	NA
Magnesium	NA	NA	NA
Manganese	NA	NA	NA
Molybdenum	NA	NA	NA
Nickel	NA	NA	NA
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	<0.5	<0.5	0.00%
Selenium	NA	NA	NA
Silicon	NA	NA	NA
Silver	NA	NA	NA
Sodium	2.31	2.21	4.20%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	NA	NA	NA
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Vanadium	NA	NA	NA
Yttrium	NA	NA	NA
Zinc	NA	NA	NA
Zirconium	NA	NA	NA

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218743

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	NA	NA	NA	NA
Antimony	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lanthanum	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Lithium	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA
Nickel	NA	NA	NA	NA
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	<0.5	89.8	100	89.8%
Selenium	NA	NA	NA	NA
Silicon	NA	NA	NA	NA
Silver	NA	NA	NA	NA
Sodium	2.31	91.9	100	89.6%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	NA	NA	NA	NA
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA
Yttrium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218744

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.58	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	10.4	0.25
Strontium	0.269	0.05
Sulfur	0.274	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218745

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.717	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.4	0.25
Silver	<0.05	0.05
Sodium	2.76	0.25
Strontium	0.266	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.093	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218746

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.807	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	418	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	1.99	0.25
Strontium	0.271	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.197	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218747

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.597	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	426	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	2.07	0.25
Strontium	0.274	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218748

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.664	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	431	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.6	0.25
Silver	<0.05	0.05
Sodium	2.42	0.25
Strontium	0.279	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.051	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218749

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.40	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	432	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.6	0.25
Silver	<0.05	0.05
Sodium	10.1	0.25
Strontium	0.279	0.05
Sulfur	0.302	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.081	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218750

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.43	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	438	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	33.0	0.25
Silver	<0.05	0.05
Sodium	10.5	0.25
Strontium	0.284	0.05
Sulfur	0.329	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.068	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218751

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	489	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	1.36	0.5
Selenium	<0.1	0.1
Silicon	27.9	0.25
Silver	<0.05	0.05
Sodium	0.731	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218752

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	467	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	0.537	0.5
Selenium	<0.1	0.1
Silicon	39.2	0.25
Silver	<0.05	0.05
Sodium	1.46	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218753

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	430	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	2.04	0.5
Selenium	<0.1	0.1
Silicon	41.2	0.25
Silver	<0.05	0.05
Sodium	1.22	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218754

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	451	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	35.5	0.25
Silver	<0.05	0.05
Sodium	1.95	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218755

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	394	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	0.682	0.5
Selenium	<0.1	0.1
Silicon	37.5	0.25
Silver	<0.05	0.05
Sodium	0.693	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218756

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	391	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	0.561	0.5
Selenium	<0.1	0.1
Silicon	33.8	0.25
Silver	<0.05	0.05
Sodium	2.48	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
CAT-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218756

Work Order: 23658

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.1	<0.1	0.00%
Barium	<0.025	<0.025	0.00%
Beryllium	<0.025	<0.025	0.00%
Bismuth	<0.1	<0.1	0.00%
Boron	<0.5	<0.5	0.00%
Cadmium	<0.025	<0.025	0.00%
Calcium	391	392	0.44%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.025	<0.025	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.5	<0.5	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.1	<0.1	0.00%
Lithium	<0.025	<0.025	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.025	<0.025	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	0.561	0.558	0.56%
Selenium	<0.1	<0.1	0.00%
Silicon	33.8	33.7	0.39%
Silver	<0.05	<0.05	0.00%
Sodium	2.48	2.51	1.02%
Strontium	<0.05	<0.05	0.00%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218756

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	NA	NA	NA	NA
Antimony	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lanthanum	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Lithium	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA
Nickel	NA	NA	NA	NA
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	0.561	90.0	100	89.4%
Selenium	NA	NA	NA	NA
Silicon	NA	NA	NA	NA
Silver	NA	NA	NA	NA
Sodium	2.48	89.4	100	87.0%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	NA	NA	NA	NA
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA
Yttrium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218757

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.30	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	401	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.2	0.25
Silver	<0.05	0.05
Sodium	10.7	0.25
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.067	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-7B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218757

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.3	20.0	96.7%
Antimony	<0.1	5.08	5.00	101.7%
Arsenic	<0.1	20.7	20.0	103.3%
Barium	1.30	21.3	20.0	99.8%
Beryllium	<0.025	0.509	0.500	101.9%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.025	0.499	0.500	99.8%
Calcium	401	597	200	98.0%
Chromium	<0.05	2.02	2.00	101.2%
Cobalt	<0.025	5.00	5.00	100.1%
Copper	<0.05	2.52	2.50	100.6%
Iron	<0.5	10.6	10.0	106.1%
Lanthanum	NA	NA	NA	NA
Lead	<0.1	5.06	5.00	101.2%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	204	200	102.1%
Manganese	<0.025	5.04	5.00	100.7%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.94	5.00	98.7%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	NA	NA	NA	NA
Selenium	<0.1	21.3	20.0	106.3%
Silicon	31.2	72.5	40.0	103.3%
Silver	<0.05	0.505	0.500	100.9%
Sodium	NA	NA	NA	NA
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.3	20.0	106.5%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	<0.05	5.03	5.00	100.6%
Yttrium	NA	NA	NA	NA
Zinc	0.067	5.15	5.00	101.7%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218758

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.653	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	430	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.2	0.25
Silver	<0.05	0.05
Sodium	2.59	0.25
Strontium	0.286	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.095	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218759

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.626	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	401	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.5	0.25
Silver	<0.05	0.05
Sodium	2.93	0.25
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.128	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218760

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.55	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	397	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.2	0.25
Silver	<0.05	0.05
Sodium	10.2	0.25
Strontium	0.264	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.064	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218761

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.650	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	408	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.8	0.25
Silver	<0.05	0.05
Sodium	2.90	0.25
Strontium	0.270	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.077	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218762

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.646	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.8	0.25
Silver	<0.05	0.05
Sodium	1.81	0.25
Strontium	0.271	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.114	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218763

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.623	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	433	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.4	0.25
Silver	<0.05	0.05
Sodium	2.10	0.25
Strontium	0.276	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.059	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218764

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.615	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	447	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	2.41	0.25
Strontium	0.288	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.104	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218765

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.52	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	432	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	10.1	0.25
Strontium	0.281	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.225	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218766

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.678	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	432	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.5	0.25
Silver	<0.05	0.05
Sodium	2.53	0.25
Strontium	0.280	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.137	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-0A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218767

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	409	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.251	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-0B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218768

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	405	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.249	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-7A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218769

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.6	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-7B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218770

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	398	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.253	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.4	20.0	97.1%
Antimony	5.12	5.00	102.4%
Arsenic	20.9	20.0	104.4%
Barium	20.4	20.0	101.8%
Beryllium	0.518	0.500	103.5%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.516	0.500	103.1%
Calcium	199	200	99.7%
Chromium	2.06	2.00	102.9%
Cobalt	5.11	5.00	102.1%
Copper	2.53	2.50	101.3%
Iron	10.9	10.0	109.3%
Lanthanum	NA	NA	NA
Lead	5.15	5.00	103.1%
Lithium	NA	NA	NA
Magnesium	204	200	102.0%
Manganese	5.12	5.00	102.3%
Molybdenum	NA	NA	NA
Nickel	5.05	5.00	100.9%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	82.1	100	82.1%
Selenium	21.6	20.0	108.1%
Silicon	41.4	40.0	103.5%
Silver	0.519	0.500	103.8%
Sodium	86.2	100	86.2%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.7	20.0	108.4%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Vanadium	5.09	5.00	101.8%
Yttrium	NA	NA	NA
Zinc	5.22	5.00	104.4%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.3	20.0	96.5%
Antimony	5.09	5.00	101.7%
Arsenic	20.7	20.0	103.4%
Barium	20.2	20.0	100.9%
Beryllium	0.512	0.500	102.4%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.505	0.500	101.1%
Calcium	199	200	99.6%
Chromium	2.04	2.00	102.0%
Cobalt	5.05	5.00	101.0%
Copper	2.52	2.50	100.8%
Iron	9.58	10.0	95.8%
Lanthanum	NA	NA	NA
Lead	5.11	5.00	102.3%
Lithium	NA	NA	NA
Magnesium	204	200	102.0%
Manganese	5.07	5.00	101.5%
Molybdenum	NA	NA	NA
Nickel	4.99	5.00	99.9%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	81.3	100	81.3%
Selenium	21.4	20.0	107.2%
Silicon	41.3	40.0	103.3%
Silver	0.506	0.500	101.1%
Sodium	85.5	100	85.5%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.4	20.0	106.8%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Vanadium	5.05	5.00	101.0%
Yttrium	NA	NA	NA
Zinc	5.15	5.00	103.0%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	<0.5	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	<0.5	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☐ 3 Weeks
- ☒ Other: 4 weeks

SwRI Contact: Mike Damann

Analyses Requested

* Note - cations of particular interest and their range of concentration are listed below to assist in ICP calibration -

U - 0.001 to 2.0 ppm
Si - 25 to 45 ppm
Ca - 350 - 550 ppm
Na - 0.2 to 5.0 ppm
K - 0.2 to 5.0 ppm

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ~~ICP~~ ICP, include Si	Uranium by ICP/MS									REMARKS
CAT-OA-1	10/7/02	0900	W		1	✓	✓									POC Jim Prikryl
CAT-OA-2					1	✓	✓									x 5667
CAT-OA-3					1	✓	✓									
CAT-OA-4					1	✓	✓									Nuclear safety
CAT-OA-5					1	✓	✓									related - use
CAT-OA-6					1	✓	✓									appropriate QA
CAT-OA-7					1	✓	✓									procedures.
CAT-OA-8					1	✓	✓									
CAT-OA-9					1	✓	✓									
CAT-OA-10					1	✓	✓									

Preservation
- a = HCl to pH <2
- ~~b = HNO3 to pH <2~~
- ~~c = H2SO4 to pH <2~~
- d = NaOH to pH >12
- e = Cool (4°C±2°C)
- f = Other (specify)

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 20°C
Therm #: 026

Comments:
325/210 Rec'd. intact

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	1/15/03	1355
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#: 20.06002.01.071

Received by SwRI Lab: (Signature)

Date	Time
1/15/03	1355

Samples Disposed: Date / Time

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☐ 3 Weeks
- ☒ Other: 4 weeks

SwRI Contact: Mike Dunnann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP including Si	Uranium by ICP/MS									REMARKS
								* see note on page 1								Preservation a = HCl to pH <2 b = HNO_3 to pH <2 c = H_2SO_4 to pH <2 d = NaOH to pH >12 e = Cool (4°C±2°C) f = Other (specify)
CAT-7B-1	10/17/02	0900	W		1	✓	✓									POC - Jim Prikryl
CAT-7B-2					1	✓	✓									x5667
CAT-7B-3					1	✓	✓									
CAT-7B-4					1	✓	✓									Nuclear safety
CAT-7B-5					1	✓	✓									related - use
CAT-7B-6					1	✓	✓									appropriate QA
CAT-7B-7					1	✓	✓									procedures
CAT-7B-8					1	✓	✓									
CAT-7B-9					1	✓	✓									
CAT-7B-10					1	✓	✓									20,06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 20°C

Therm #: 026

Comments:
325/210 Rec'd. intact.

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	1/15/03	13:55
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 1/15/03 Time: 1355

Samples Disposed: Date: Time:

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA-Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☐ 3 Weeks
- ☒ Other: 4 weeks

SwRI Contact: Mike Dunnavan

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Cations by ICP include Si	Uranium by ICP/MS									REMARKS
CAT-1A-2	10/17/02	0900	W		1	✓	✓									POC - Jim Prikryl
CAT-1A-3					1	✓	✓									x5667
CAT-1A-4					1	✓	✓									
CAT-1A-5					1	✓	✓									Nuclear safety
CAT-1A-6					1	✓	✓									related - use
CAT-1A-8					1	✓	✓									appropriate QA
UMB-0A					1	✓	✓									procedures.
UMB-0B					1	✓	✓									
UMB-7A					1	✓	✓									
UMB-7B	—	—	—		1	✓	✓									

* See Note on page 1

Preservation
- **a** = HCl to pH <2
- **b** = HNO_3 to pH <2
- **c** = H_2SO_4 to pH <2
- **d** = NaOH to pH >12
- **e** = Cool (4°C±2°C)
- **f** = Other (specify)

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 20°C

Therm #: 026

Comments: 325/210 Rec'd. intact

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	1/15/03	1355
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 1/15/03 Time: 1355

Samples Disposed: Date: Time:

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☐ 3 Weeks
- ☒ Other: 4 weeks

SwRI Contact: Mike Damanow

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Anions by IC										REMARKS
AN-OA-1	10/17/02	0900	W		1	✓										POC - Jim Prikryl
AN-OA-2					1	✓										x5667
AN-OA-3					1	✓										
AN-OA-4					1	✓										Nuclear safety
AN-OA-5					1	✓										related - use
AN-OA-6					1	✓										appropriate QA
AN-OA-7					1	✓										procedures
AN-OA-8					1	✓										
AN-OA-9					1	✓										
AN-OA-10	—	—	—		1	✓										20.06002.01.071

Preservation
- **a** = HCl to pH <2
- **b** = HNO_3 to pH <2
- **c** = H_2SO_4 to pH <2
- **d** = NaOH to pH >12
- **e** = Cool (4°C±2°C)
- **f** = Other (specify)

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 20 °C

Therm #: 026

Comments:
325/210 Rec'd. intact

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	1/15/03	1355
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#: 20.06002.01.071

Received by SwRI Lab: (Signature)

Date: 1/15/03 Time: 1355

Samples Disposed: Date / Time

Samples Disposed by:

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☐ 3 Weeks
- ☒ Other: 4 weeks

SwRI Contact: Mike Dumanow

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Anions by IC										REMARKS
AN-7B-1	10/17/02	0900	W		1	✓										POC - Jim Prikryl
AN-7B-2					1	✓										x5667
AN-7B-3					1	✓										
AN-7B-4					1	✓										Nuclear safety
AN-7B-5					1	✓										related - use
AN-7B-6					1	✓										appropriate QA
AN-7B-7					1	✓										procedures.
AN-7B-8					1	✓										
AN-7B-9					1	✓										
AN-7B-10					1	✓										

Preservation
- **a** = HCl to pH <2
- **b** = HNO_3 to pH <2
- **c** = H_2SO_4 to pH <2
- **d** = NaOH to pH >12
- **e** = Cool (4°C±2°C)
- **f** = Other (specify)

20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 20°C

Therm #: 024

Comments:
325/210 Rec'd. intact

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	1/15/03	1355
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time
Received by (Print/Signature)	Date	Time
Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 1/15/03 Time: 1355

Samples Disposed: Date: Time:

Samples Disposed by:

SAMPLE LIST/CHAIN OF CUSTODY

Southwest Research Institute
Chemistry and Chemical Engineering Division
6220 Culebra Road
San Antonio, Texas 78238-5166

Shipper Name/Address: Jim Prikryl
CNWRA, Div 20, Bldg 57

Client:

Client Purchase Order/Other ID:

Site/Zone ID:

Requested Turnaround:
- ☐ 2 Weeks
- ☐ 3 Weeks
- ☒ Other: 4 weeks

SwRI Contact: Mike Dunann

Analyses Requested

Sample ID	Sample Collection Date (mm/dd/yy)	Sample Collection Time	Matrix Type	Sample Type	# of Containers	Anions by IC										REMARKS
AN-1A-2	10/7/02	0900	W		1	✓										POC - Jim Prikryl
AN-1A-3					1	✓										x2667
AN-1A-4					1	✓										
AN-1A-5					1	✓										Nuclear safety
AN-1A-6					1	✓										related - use
AN-1A-7					1	✓										appropriate QA
UMB-0C					1	✓										procedures.
UMB-0D					1	✓										
UMB-7C					1	✓										
UMB-7D					1	✓										20.06002.01.071

Matrix Types:
- **A** – Air
- **B** – Biota
- **D** - Dust
- **E** – Emission/Stack
- **P** – Product
- **S** – Soil
- **SED** – Sediment
- **T** - Tissue
- **W** - Water
- **WP** - Wipe

Sample Types:
- **D** - Duplicate
- **ER** – Equipment Rinsate
- **FB** – Field Blank
- **FD** – Field Duplicate
- **MS** – Matrix Spike
- **MSD** – Matrix Spike Dup
- **TB** – Trip Blank

Temp: 20°C

Therm #: 026

Comments:
375/210 Rec'd intact

Relinquished by (Print/Signature)	Date	Time
James D. Prikryl	1/15/03	1355

Received by (Print/Signature)	Date	Time

Relinquished by (Print/Signature)	Date	Time

Received by (Print/Signature)	Date	Time

Relinquished by (Print/Signature)	Date	Time

SwRI Project#:

Received by SwRI Lab: (Signature)

Date: 1/15/03 Time: 1355

Samples Disposed: Date: Time:

Samples Disposed by:

Div 01 COC Form 01-01-001, Rev 4/02

SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218741

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.39	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	399	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.4	0.25
Silver	<0.05	0.05
Sodium	10.2	0.25
Strontium	0.256	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
CAT-0A-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218741

Work Order: 23658

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.1	<0.1	0.00%
Barium	1.39	1.39	0.01%
Beryllium	<0.025	<0.025	0.00%
Bismuth	<0.1	<0.1	0.00%
Boron	<0.5	<0.5	0.00%
Cadmium	<0.025	<0.025	0.00%
Calcium	399	400	0.18%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.025	<0.025	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.5	<0.5	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.1	<0.1	0.00%
Lithium	<0.025	<0.025	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.025	<0.025	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	NA	NA	NA
Selenium	<0.1	<0.1	0.00%
Silicon	31.4	31.5	0.17%
Silver	<0.05	<0.05	0.00%
Sodium	NA	NA	NA
Strontium	0.256	0.256	0.04%
Sulfur	<0.25	0.256	200%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218742

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.727	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	452	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	33.9	0.25
Silver	<0.05	0.05
Sodium	3.13	0.25
Strontium	0.292	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.196	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-0A-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218742

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.6	20.0	97.8%
Antimony	<0.1	5.10	5.00	102.1%
Arsenic	<0.1	20.8	20.0	103.9%
Barium	0.727	21.0	20.0	101.2%
Beryllium	<0.025	0.510	0.500	101.9%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.025	0.499	0.500	99.8%
Calcium	452	652	200	100.0%
Chromium	<0.05	2.02	2.00	101.2%
Cobalt	<0.025	5.03	5.00	100.6%
Copper	<0.05	2.56	2.50	102.3%
Iron	<0.5	10.7	10.0	106.7%
Lanthanum	NA	NA	NA	NA
Lead	<0.1	5.11	5.00	102.2%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	205	200	102.6%
Manganese	<0.025	5.07	5.00	101.4%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.95	5.00	99.1%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	NA	NA	NA	NA
Selenium	<0.1	21.4	20.0	107.1%
Silicon	33.9	76.3	40.0	105.9%
Silver	<0.05	0.512	0.500	102.4%
Sodium	NA	NA	NA	NA
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.5	20.0	107.5%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	<0.05	5.06	5.00	101.3%
Yttrium	NA	NA	NA	NA
Zinc	0.196	5.25	5.00	101.1%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218743

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.555	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	406	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.1	0.25
Silver	<0.05	0.05
Sodium	2.31	0.25
Strontium	0.260	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.157	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
CAT-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218743

Work Order: 23658

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	NA	NA	NA
Antimony	NA	NA	NA
Arsenic	NA	NA	NA
Barium	NA	NA	NA
Beryllium	NA	NA	NA
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	NA	NA	NA
Calcium	NA	NA	NA
Chromium	NA	NA	NA
Cobalt	NA	NA	NA
Copper	NA	NA	NA
Iron	NA	NA	NA
Lanthanum	NA	NA	NA
Lead	NA	NA	NA
Lithium	NA	NA	NA
Magnesium	NA	NA	NA
Manganese	NA	NA	NA
Molybdenum	NA	NA	NA
Nickel	NA	NA	NA
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	<0.5	<0.5	0.00%
Selenium	NA	NA	NA
Silicon	NA	NA	NA
Silver	NA	NA	NA
Sodium	2.31	2.21	4.20%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	NA	NA	NA
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Vanadium	NA	NA	NA
Yttrium	NA	NA	NA
Zinc	NA	NA	NA
Zirconium	NA	NA	NA

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-0A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218743

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	NA	NA	NA	NA
Antimony	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lanthanum	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Lithium	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA
Nickel	NA	NA	NA	NA
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	<0.5	89.8	100	89.8%
Selenium	NA	NA	NA	NA
Silicon	NA	NA	NA	NA
Silver	NA	NA	NA	NA
Sodium	2.31	91.9	100	89.6%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	NA	NA	NA	NA
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA
Yttrium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218744

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.58	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	10.4	0.25
Strontium	0.269	0.05
Sulfur	0.274	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218745

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.717	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.4	0.25
Silver	<0.05	0.05
Sodium	2.76	0.25
Strontium	0.266	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.093	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218746

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.807	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	418	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	1.99	0.25
Strontium	0.271	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.197	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218747

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.597	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	426	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	2.07	0.25
Strontium	0.274	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218748

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.664	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	431	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.6	0.25
Silver	<0.05	0.05
Sodium	2.42	0.25
Strontium	0.279	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.051	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218749

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.40	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	432	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.6	0.25
Silver	<0.05	0.05
Sodium	10.1	0.25
Strontium	0.279	0.05
Sulfur	0.302	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.081	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-0A-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218750

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.43	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	438	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	33.0	0.25
Silver	<0.05	0.05
Sodium	10.5	0.25
Strontium	0.284	0.05
Sulfur	0.329	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.068	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218751

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	489	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	1.36	0.5
Selenium	<0.1	0.1
Silicon	27.9	0.25
Silver	<0.05	0.05
Sodium	0.731	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218752

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	467	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	0.537	0.5
Selenium	<0.1	0.1
Silicon	39.2	0.25
Silver	<0.05	0.05
Sodium	1.46	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218753

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	430	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	2.04	0.5
Selenium	<0.1	0.1
Silicon	41.2	0.25
Silver	<0.05	0.05
Sodium	1.22	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218754

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	451	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	35.5	0.25
Silver	<0.05	0.05
Sodium	1.95	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218755

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	394	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	0.682	0.5
Selenium	<0.1	0.1
Silicon	37.5	0.25
Silver	<0.05	0.05
Sodium	0.693	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218756

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	391	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	0.561	0.5
Selenium	<0.1	0.1
Silicon	33.8	0.25
Silver	<0.05	0.05
Sodium	2.48	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

DUPLICATE SUMMARY

Sample ID
CAT-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218756

Work Order: 23658

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Aluminum	<0.5	<0.5	0.00%
Antimony	<0.1	<0.1	0.00%
Arsenic	<0.1	<0.1	0.00%
Barium	<0.025	<0.025	0.00%
Beryllium	<0.025	<0.025	0.00%
Bismuth	<0.1	<0.1	0.00%
Boron	<0.5	<0.5	0.00%
Cadmium	<0.025	<0.025	0.00%
Calcium	391	392	0.44%
Chromium	<0.05	<0.05	0.00%
Cobalt	<0.025	<0.025	0.00%
Copper	<0.05	<0.05	0.00%
Iron	<0.5	<0.5	0.00%
Lanthanum	<0.05	<0.05	0.00%
Lead	<0.1	<0.1	0.00%
Lithium	<0.025	<0.025	0.00%
Magnesium	<0.5	<0.5	0.00%
Manganese	<0.025	<0.025	0.00%
Molybdenum	<0.05	<0.05	0.00%
Nickel	<0.05	<0.05	0.00%
Palladium	<0.1	<0.1	0.00%
Phosphorus	<0.25	<0.25	0.00%
Potassium	0.561	0.558	0.56%
Selenium	<0.1	<0.1	0.00%
Silicon	33.8	33.7	0.39%
Silver	<0.05	<0.05	0.00%
Sodium	2.48	2.51	1.02%
Strontium	<0.05	<0.05	0.00%
Sulfur	<0.25	<0.25	0.00%
Thallium	<0.1	<0.1	0.00%
Thorium	<0.1	<0.1	0.00%
Tin	<0.05	<0.05	0.00%
Titanium	<0.05	<0.05	0.00%
Tungsten	<0.1	<0.1	0.00%
Vanadium	<0.05	<0.05	0.00%
Yttrium	<0.05	<0.05	0.00%
Zinc	<0.05	<0.05	0.00%
Zirconium	<0.05	<0.05	0.00%

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-1A-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218756

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	NA	NA	NA	NA
Antimony	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Cobalt	NA	NA	NA	NA
Copper	NA	NA	NA	NA
Iron	NA	NA	NA	NA
Lanthanum	NA	NA	NA	NA
Lead	NA	NA	NA	NA
Lithium	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA
Manganese	NA	NA	NA	NA
Molybdenum	NA	NA	NA	NA
Nickel	NA	NA	NA	NA
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	0.561	90.0	100	89.4%
Selenium	NA	NA	NA	NA
Silicon	NA	NA	NA	NA
Silver	NA	NA	NA	NA
Sodium	2.48	89.4	100	87.0%
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	NA	NA	NA	NA
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA
Yttrium	NA	NA	NA	NA
Zinc	NA	NA	NA	NA
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218757

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.30	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	401	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.2	0.25
Silver	<0.05	0.05
Sodium	10.7	0.25
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.067	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

MATRIX SPIKE SUMMARY

Sample ID
CAT-7B-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218757

Work Order: 23658

Analysis	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Recovery
Aluminum	<0.5	19.3	20.0	96.7%
Antimony	<0.1	5.08	5.00	101.7%
Arsenic	<0.1	20.7	20.0	103.3%
Barium	1.30	21.3	20.0	99.8%
Beryllium	<0.025	0.509	0.500	101.9%
Bismuth	NA	NA	NA	NA
Boron	NA	NA	NA	NA
Cadmium	<0.025	0.499	0.500	99.8%
Calcium	401	597	200	98.0%
Chromium	<0.05	2.02	2.00	101.2%
Cobalt	<0.025	5.00	5.00	100.1%
Copper	<0.05	2.52	2.50	100.6%
Iron	<0.5	10.6	10.0	106.1%
Lanthanum	NA	NA	NA	NA
Lead	<0.1	5.06	5.00	101.2%
Lithium	NA	NA	NA	NA
Magnesium	<0.5	204	200	102.1%
Manganese	<0.025	5.04	5.00	100.7%
Molybdenum	NA	NA	NA	NA
Nickel	<0.05	4.94	5.00	98.7%
Palladium	NA	NA	NA	NA
Phosphorus	NA	NA	NA	NA
Potassium	NA	NA	NA	NA
Selenium	<0.1	21.3	20.0	106.3%
Silicon	31.2	72.5	40.0	103.3%
Silver	<0.05	0.505	0.500	100.9%
Sodium	NA	NA	NA	NA
Strontium	NA	NA	NA	NA
Sulfur	NA	NA	NA	NA
Thallium	<0.1	21.3	20.0	106.5%
Thorium	NA	NA	NA	NA
Tin	NA	NA	NA	NA
Titanium	NA	NA	NA	NA
Tungsten	NA	NA	NA	NA
Vanadium	<0.05	5.03	5.00	100.6%
Yttrium	NA	NA	NA	NA
Zinc	0.067	5.15	5.00	101.7%
Zirconium	NA	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-10

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218758

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.653	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	430	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.2	0.25
Silver	<0.05	0.05
Sodium	2.59	0.25
Strontium	0.286	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.095	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218759

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.626	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	401	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.5	0.25
Silver	<0.05	0.05
Sodium	2.93	0.25
Strontium	0.262	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.128	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-3

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218760

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.55	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	397	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.2	0.25
Silver	<0.05	0.05
Sodium	10.2	0.25
Strontium	0.264	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.064	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-4

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218761

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.650	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	408	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.8	0.25
Silver	<0.05	0.05
Sodium	2.90	0.25
Strontium	0.270	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.077	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-5

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218762

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.646	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	30.8	0.25
Silver	<0.05	0.05
Sodium	1.81	0.25
Strontium	0.271	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.114	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-6

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218763

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.623	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	433	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.4	0.25
Silver	<0.05	0.05
Sodium	2.10	0.25
Strontium	0.276	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.059	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-7

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218764

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.615	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	447	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.4	0.25
Silver	<0.05	0.05
Sodium	2.41	0.25
Strontium	0.288	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.104	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-8

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218765

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	1.52	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	432	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.9	0.25
Silver	<0.05	0.05
Sodium	10.1	0.25
Strontium	0.281	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.225	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
CAT-7B-9

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218766

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	0.678	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	432	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.5	0.25
Silver	<0.05	0.05
Sodium	2.53	0.25
Strontium	0.280	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	0.137	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-0A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218767

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	409	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.251	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-0B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218768

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	405	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.1	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.249	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-7A

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218769

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	413	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	32.6	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.261	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

SAMPLE ANALYSIS DATA SHEET

Sample ID
UMB-7B

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 01/15/03

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: 218770

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	398	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	31.6	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	0.253	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.4	20.0	97.1%
Antimony	5.12	5.00	102.4%
Arsenic	20.9	20.0	104.4%
Barium	20.4	20.0	101.8%
Beryllium	0.518	0.500	103.5%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.516	0.500	103.1%
Calcium	199	200	99.7%
Chromium	2.06	2.00	102.9%
Cobalt	5.11	5.00	102.1%
Copper	2.53	2.50	101.3%
Iron	10.9	10.0	109.3%
Lanthanum	NA	NA	NA
Lead	5.15	5.00	103.1%
Lithium	NA	NA	NA
Magnesium	204	200	102.0%
Manganese	5.12	5.00	102.3%
Molybdenum	NA	NA	NA
Nickel	5.05	5.00	100.9%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	82.1	100	82.1%
Selenium	21.6	20.0	108.1%
Silicon	41.4	40.0	103.5%
Silver	0.519	0.500	103.8%
Sodium	86.2	100	86.2%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.7	20.0	108.4%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Vanadium	5.09	5.00	101.8%
Yttrium	NA	NA	NA
Zinc	5.22	5.00	104.4%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

LABORATORY CONTROL SAMPLE

Sample ID
LCSW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Aluminum	19.3	20.0	96.5%
Antimony	5.09	5.00	101.7%
Arsenic	20.7	20.0	103.4%
Barium	20.2	20.0	100.9%
Beryllium	0.512	0.500	102.4%
Bismuth	NA	NA	NA
Boron	NA	NA	NA
Cadmium	0.505	0.500	101.1%
Calcium	199	200	99.6%
Chromium	2.04	2.00	102.0%
Cobalt	5.05	5.00	101.0%
Copper	2.52	2.50	100.8%
Iron	9.58	10.0	95.8%
Lanthanum	NA	NA	NA
Lead	5.11	5.00	102.3%
Lithium	NA	NA	NA
Magnesium	204	200	102.0%
Manganese	5.07	5.00	101.5%
Molybdenum	NA	NA	NA
Nickel	4.99	5.00	99.9%
Palladium	NA	NA	NA
Phosphorus	NA	NA	NA
Potassium	81.3	100	81.3%
Selenium	21.4	20.0	107.2%
Silicon	41.3	40.0	103.3%
Silver	0.506	0.500	101.1%
Sodium	85.5	100	85.5%
Strontium	NA	NA	NA
Sulfur	NA	NA	NA
Thallium	21.4	20.0	106.8%
Thorium	NA	NA	NA
Tin	NA	NA	NA
Titanium	NA	NA	NA
Tungsten	NA	NA	NA
Vanadium	5.05	5.00	101.0%
Yttrium	NA	NA	NA
Zinc	5.15	5.00	103.0%
Zirconium	NA	NA	NA

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	<0.5	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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SOUTHWEST RESEARCH INSTITUTE

BLANK SUMMARY

Sample ID
PBW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.071

Lab System ID: NA

Work Order: 23658

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Aluminum	<0.5	0.5
Antimony	<0.1	0.1
Arsenic	<0.1	0.1
Barium	<0.025	0.025
Beryllium	<0.025	0.025
Bismuth	<0.1	0.1
Boron	<0.5	0.5
Cadmium	<0.025	0.025
Calcium	<0.5	0.5
Chromium	<0.05	0.05
Cobalt	<0.025	0.025
Copper	<0.05	0.05
Iron	<0.5	0.5
Lanthanum	<0.05	0.05
Lead	<0.1	0.1
Lithium	<0.025	0.025
Magnesium	<0.5	0.5
Manganese	<0.025	0.025
Molybdenum	<0.05	0.05
Nickel	<0.05	0.05
Palladium	<0.1	0.1
Phosphorus	<0.25	0.25
Potassium	<0.5	0.5
Selenium	<0.1	0.1
Silicon	<0.25	0.25
Silver	<0.05	0.05
Sodium	<0.25	0.25
Strontium	<0.05	0.05
Sulfur	<0.25	0.25
Thallium	<0.1	0.1
Thorium	<0.1	0.1
Tin	<0.05	0.05
Titanium	<0.05	0.05
Tungsten	<0.1	0.1
Vanadium	<0.05	0.05
Yttrium	<0.05	0.05
Zinc	<0.05	0.05
Zirconium	<0.05	0.05

NA- Not Applicable.

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