

**SOUTHWEST RESEARCH INSTITUTE  
NUCLEAR PROJECT**

**CLIENT: Div. 20**

**TASK ORDER: 031106-11**

**SRR: 25199**

**SDG: 237566**

**CASE: CNWRA**

**VTSR: November 06, 2003**

**PROJECT#: 06002.01.141**

**FINAL REPORT**

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

Sample ID

16P-1003-FUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237566

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	9.37	0.1
Fluoride	2.61	0.1
Nitrate-N	1.17	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0248	0.01
Sulfate	52.9	1.0

# ***SOUTHWEST RESEARCH INSTITUTE***

## **DUPLICATE SUMMARY**



Sample ID

16P-1003-FUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237566

Analysis	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD
Bromide	<0.1	<0.1	0.00%
Chloride	9.37	9.45	0.85%
Fluoride	2.61	2.78	6.31%
Nitrate-N	1.17	1.14	2.60%
Nitrite-N	<0.1	<0.1	0.00%
Phosphate-P	0.0248	0.0274	9.96%
Sulfate	52.9	52.7	0.38%

# ***SOUTHWEST RESEARCH INSTITUTE***

## **MATRIX SPIKE SUMMARY**

Sample ID  
**16P-1003-FUA-1**

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237566

<b>Analysis</b>	<b>Sample Result (mg/L)</b>	<b>Spike Result (mg/L)</b>	<b>Spike Added (mg/L)</b>	<b>Recovery</b>
<b>Bromide</b>	<0.1	3.78	4.00	94.5%
<b>Chloride</b>	9.37	11.0	2.00	81.5%
<b>Fluoride</b>	2.61	3.58	1.00	97.0%
<b>Nitrate-N</b>	1.17	2.03	0.904	95.1%
<b>Nitrite-N</b>	<0.1	0.954	1.00	95.4%
<b>Phosphate-P</b>	0.0248	0.243	0.200	109%
<b>Sulfate</b>	52.9	89.0	40.0	90.3%

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

Sample ID

**16P-1003-UFUA-1**

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237567

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	9.45	0.1
Fluoride	2.76	0.1
Nitrate-N	1.17	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0306	0.01
Sulfate	51.8	1.0

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

Sample ID  
**19D-1003-FUA-1**

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237568

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	8.30	0.1
Fluoride	3.90	0.1
Nitrate-N	<0.1	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0163	0.01
Sulfate	26.2	1.0

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**



Sample ID  
**19D-1003-UFUA-1**

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237569

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	8.18	0.1
Fluoride	3.88	0.1
Nitrate-N	<0.1	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0333	0.01
Sulfate	26.3	1.0

# **SOUTHWEST RESEARCH INSTITUTE**

## **SAMPLE ANALYSIS DATA SHEET**

**190007**

Sample ID

19IM1-25-1003-FUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237570

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	5.92	0.1
Fluoride	2.15	0.1
Nitrate-N	0.728	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0412	0.01
Sulfate	15.8	0.1

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

**1910003**

Sample ID

19IM1-25-1003-UFUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237571

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	5.67	0.1
Fluoride	2.15	0.1
Nitrate-N	0.461	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0550	0.01
Sulfate	15.5	0.1

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**



Sample ID

19IM2-25-1003-FUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237572

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	5.69	0.1
Fluoride	2.15	0.1
Nitrate-N	0.467	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0412	0.01
Sulfate	16.1	0.1

# **SOUTHWEST RESEARCH INSTITUTE**

## **SAMPLE ANALYSIS DATA SHEET**

**010010**

Sample ID

19IM2-25-1003-UFUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237573

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	5.62	0.1
Fluoride	2.12	0.1
Nitrate-N	0.462	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0396	0.01
Sulfate	16.1	0.1

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

040011

Sample ID

7SC-24-1003-FUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237574

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	17.3	0.1
Fluoride	0.784	0.1
Nitrate-N	<0.1	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	<0.01	0.01
Sulfate	125	1.0

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

**010012**

Sample ID

7SC-24-1003-UFUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237575

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	17.3	0.1
Fluoride	0.777	0.1
Nitrate-N	<0.1	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	<0.01	0.01
Sulfate	125	1.0

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

**010013**

Sample ID

7SC-24-1003-FUA-2

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237576

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	17.4	0.1
Fluoride	0.740	0.1
Nitrate-N	<0.1	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	0.0115	0.01
Sulfate	126	1.0

# ***SOUTHWEST RESEARCH INSTITUTE***

## **SAMPLE ANALYSIS DATA SHEET**

**010014**

Sample ID

99Q-1003-FUA-1

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: 11/06/03

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: 237577

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	5.03	0.1
Fluoride	<0.1	0.1
Nitrate-N	0.454	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	<0.01	0.01
Sulfate	<0.1	0.1

# ***SOUTHWEST RESEARCH INSTITUTE***

## **LABORATORY CONTROL SAMPLE**

**030015**

Sample ID

LCSW

Lab Name: Southwest Research Institute

Client: Division 20

Lab Code: SwRI

Date Received: NA

Matrix: Water

Project No.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: NA

Analysis	Sample Result (mg/L)	True Value (mg/L)	Recovery
Bromide	393	400	98.3%
Chloride	204	200	102%
Fluoride	99.8	100	99.8%
Nitrate-N	88.7	90.4	98.1%
Nitrite-N	99.3	100	99.3%
Phosphate-P	2.40	2.31	104%
Sulfate	389	400	97.3%

NA- Not Applicable.

# **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.: 20.06002.01.141

Task Order: 031106-11

SRR: 25199

Lab System ID: NA

Analysis	Sample Result (mg/L)	Reporting Limit (mg/L)
Bromide	<0.1	0.1
Chloride	<0.1	0.1
Fluoride	<0.1	0.1
Nitrate-N	<0.1	0.1
Nitrite-N	<0.1	0.1
Phosphate-P	<0.01	0.01
Sulfate	<0.1	0.1

NA- Not Applicable.