

ER DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9009P047 Site Surface Water
 Laboratory IT - Pittsburgh No. of Samples/Matrix 9/Water
 SOW # 10/86 (Rev. 2/88) Reviewer Org. TechLaw, Inc.
 Sample Numbers SW00344WC, SW00345WC, SW00352WC, SW00353WC, SW00354WC, SW00355WC, SW90115WC, SW90116WC, SW90119WC

Data Assessment Summary

	VOA	Comments
1. Holding Times	<u>V</u>	
2. GC/MS Tune/Instr. Perf.	<u>X</u>	<u>Comment 1</u>
3. Calibrations	<u>V</u>	
4. Blanks	<u>A</u>	<u>Action Item 1</u>
5. Surrogates	<u>V</u>	
6. Matrix Spike/Dup.	<u>V</u>	
7. Other QC	<u>X</u>	<u>Comments 2,3</u>
8. Internal Standards	<u>V</u>	
9. Compound Identification	<u>A</u>	<u>Action Item 2; Comment 4</u>
10. System Performance	<u>V</u>	
11. Overall Assessment	<u>A</u>	<u>Data acceptable with qualifications.</u>

V = Data had no problems.
 A = Data acceptable but qualified due to problems.
 R = Data rejected.
 X = Problems, but do not affect data.

Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged. (Refer to attached Data Summary Tables.)

1 REVIEWED FOR CLASSIFICATION/LICEN
 By [Signature] 009p047v/voa
 Date 10/28/91 H-0004-00007B

Action Items: 1) As a result of method blank contamination, the positive result for Acetone in sample SW90115WC and the positive result for Tetrachloroethene in sample SW00345WC are reported as undetected and estimated (J) according to the Functional Guidelines criteria (5x and 10x rules).

2) The positive result for 1,1,2-Trichloroethane reported in sample SW00344WC was not confirmed by the mass spectrum. As a result, 1,1,2-Trichloroethane is reported as undetected and estimated (J) on the Data Summary Table for this sample.

Comments: 1) The incorrect BFB injection date for the 10/1/90 (2319) BFB tune was transcribed onto Form 5.

2) The dilution of sample SW00344WC, analyzed on 10/2/90, appears to have been inadvertently contaminated with the matrix spike compounds as all five compounds were found in this dilution. An aliquot from both collection vials of sample SW00344WC was analyzed in order to evaluate this problem. Only the result which exceeded calibration in the original sample analysis was used from the 10/2/90 dilution. No action is necessary.

3) The laboratory provided instrument detection limits demonstrating that the instruments were sensitive below the Contract Required Detection Limits.

4) One TIC was reported in sample SW00353WC.

Note: Data Summary Tables are attached.

Micia Whitenall
Validator Signature

12/18/90
Date

William T. Fee
Reviewer Signature

12/17/90
Date

0474

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-IT0093 (1 of 2)

PROJECT NO.

A002-110

ANALYSES

SAMPLERS: (Signature)

Mary J. Mills

CEP VOA	OIL AND GREASE	TOTAL METALS - TOTAL	TOTAL METALS - DISS	MAJOR IONS - TSS, TDS	NITRATE/NITRITE/AMMONIA	CYANIDE
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NUMBER OF CONTAINERS

REMARKS
(Sample preservation, handling procedures, etc.)

For IT CORP

DATE	TIME	SAMPLE NUMBER	AA	AD	BA	BB	BF	BH	BP
9/26/90	0900	SW90119WC	AA	X					
	0900		AA	X					
	0940	SW00355WC	AA	X					
	0940		AA	X					
	0942		AD	X					
	0943		BA	X					
	0944		BB	X					
	0945		BF	X					
	0946		BH	X					
	0947		BP	X					
	1120	SW00345WC	AA	X					
	1130		AA	X					
	1131		AD	X					
	1132		BA	X					
	1133		BB	X					
	1134		BF	X					
	1135		BH	X					
9/26/90	1136		BP	X					

Matrix - WATER-SW

All samples stored on ice.

OUT OF SPEC
REPORTING
REQUIRED

300

BWC 9-26-90

Contact personnel:
BRUCE LARUE

TOTAL NUMBER OF CONTAINERS 18

RELINQUISHED BY: (Signature) Mary J. Mills

DATE/TIME 9/24/90 1315

RECEIVED BY: (Signature) Bruce Larue

RELINQUISHED BY: (Signature) Bruce Larue

DATE/TIME 9/26/90 1540

RECEIVED BY: (Signature) S. D. M. Eley

METHOD OF SHIPMENT: FED X

SHIPPED BY: (Signature) BWC

COURIER: (Signature)

RECEIVED FOR LAB BY: (Signature) Glenn A. Peterson 9/28/90 1100

Relinquished by: S. D. M. Eley 9/28/90 1600

U475

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC - ET 0093 (2 of 2)

PROJECT NO.

4002-410

ANALYSES

SAMPLERS: (Signature)

Gregory J. Miller

RAD SCREEN

NUMBER OF CONTAINERS

REMARKS
(Sample preservation, handling procedures, etc.)

For ITCORP

DATE

TIME

SAMPLE NUMBER

9/26/90 0900 SW90119WC CV

9/26/90 0952 SW90355WC CV

9/26/90 1141 SW90345WC CV

Matrix - WATER-SW

All samples stored on ice.

OUT OF SPEC REPORTING REQUIRED

STD TURNAROUND

300

Contact personnel:

BRUCE LARUE

TOTAL NUMBER OF CONTAINERS

3

RELINQUISHED BY:

Gregory J. Miller

DATE/TIME

9/24/90 1315

RECEIVED BY:

Bruce Larue

RELINQUISHED BY:

Bruce Larue

DATE/TIME

9/26/90 1540

RECEIVED BY:

S.W. McElroy

METHOD OF SHIPMENT:

FED EX

SHIPPED BY:

BWC

COURIER:

(Signature)

RECEIVED FOR LAB BY:

Alan G. Peterson

DATE/TIME

9/28/90 1100

Relinquished by: S.W. McElroy 9/28/90 1600
Did not receive Rad Screen Bottles - GP

ER DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9009P047 Site Surface Water
 Laboratory ITAS - Pittsburgh No. of Samples/Matrix 12/Water
 SOW # 7/88 Reviewer Org. QuantaLex, Inc.

Sample Numbers SW00344WC (total and soluble), SW00345WC (total and soluble), SW00352WC (total and soluble), SW00353WC (total and soluble), SW00354WC (total and soluble) and SW00355WC (total and soluble)

Data Assessment Summary

	ICP	AA	Hg	CN	Comments
1. Holding Times	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
2. Calibrations	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
3. Blanks	<u>A</u>	<u>A</u>	<u>V</u>	<u>A</u>	<u>Action Items 1-18</u>
4. ICP Interference Check Sample	<u>A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>Action Items 19-22</u>
5. Lab Control Sample Results	<u>V</u>	<u>V</u>	<u>V</u>	<u>X</u>	<u>Comment 1</u>
6. Duplicate Sample Results	<u>V</u>	<u>A</u>	<u>V</u>	<u>V</u>	<u>Action Item 23</u>
7. Matrix Spike Sample Results	<u>V</u>	<u>A</u>	<u>V</u>	<u>V</u>	<u>Action Items 24-26</u>
8. Method of Standard Addition	<u>N/A</u>	<u>V</u>	<u>N/A</u>	<u>N/A</u>	
9. Serial Dilution	<u>A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
10. Sample Verification	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
11. Other QC	<u>V</u>	<u>A</u>	<u>V</u>	<u>X</u>	<u>Comment 2</u> <u>Data valid, or</u> <u>acceptable</u> <u>with qualifications</u>
12. Overall Assessment	<u>A</u>	<u>A</u>	<u>V</u>	<u>A</u>	

V = Data had no problems.

A = Data acceptable but qualified due to problems.

R = Data rejected.

X = Problems, but do not affect data.

N/A = Not applicable.

Data Quality: Data contained in this batch were reviewed and found to be valid, or acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged. (Refer to attached Results Summary Tables).

- Action Items:** 1) The Aluminum values for SW00344WC (soluble), SW00345WC (total and soluble), SW00353WC (total and soluble), SW00354WC (soluble) and SW00355WC (soluble) are estimated (J), and the non-detect for SW00352WC (soluble) is rejected (R) because of negative bias indicated in the blanks.
- 2) All Antimony values except SW00345WC (soluble), SW00354WC (total and soluble), SW00355WC (total and soluble) are estimated and undetected (UJ) because Antimony values > IDL were found in the blanks.
- 3) The Antimony non-detect for SW00345WC (soluble) is rejected (R) because of negative bias indicated in the blanks.
- 4) The Cadmium non-detects SW00354WC (soluble) and SW00355WC (soluble) are rejected (R) because of negative bias indicated in the blanks.
- 5) All Chromium values are estimated (J), and the non-detects are rejected (R) because of negative bias indicated in the blanks.
- 6) The Cobalt non-detects for SW00344WC (total and soluble), SW00345WC (total), SW00352WC (total), and SW00353WC (total) are rejected (R) because of negative bias indicated in the blanks.
- 7) The Copper non-detects for SW00344WC (soluble), SW00345WC (total and soluble), SW00352WC (total and soluble) and SW00353WC (total and soluble) are rejected (R) because of negative bias indicated in the blanks.
- 8) The Iron values for SW00344WC (total), SW00345WC (total and soluble), SW00353WC (soluble) and SW00355WC (total) are estimated (J), and the non-detects for SW00344WC (soluble), SW00352WC (soluble), SW00354WC (soluble) and SW00355WC (soluble) are rejected (R) because of negative bias indicated in the blanks.
- 9) The Nickel and Silver values for SW00344WC (total) are estimated (J), and the non-detects for SW00344WC (soluble), SW00345WC (total and soluble), SW00352WC (total) and SW00353WC (total and soluble) are rejected (R) because of negative bias indicated in the blanks.
- 10) The Vanadium values for SW00344WC (total and soluble), SW00345WC (total and soluble), SW00352WC (total), and SW00353WC (total and soluble) are estimated (J), and the non-detects for SW00352WC (soluble) is rejected (R) because of negative bias indicated in the blanks.

- Action Items (cont.):** 11) The Zinc values for SW00345WC (soluble) and SW00352WC (soluble) are estimated and undetected (UJ) because Zinc values > IDL were found in the blanks.
- 12) The Molybdenum values for SW00344WC (total and soluble), SW00345WC (total and soluble), SW00352WC (total and soluble) and SW00353WC (total and soluble) are estimated and undetected (UJ) because Molybdenum values > IDL were found in the blanks.
- 13) The Tin values for SW00344WC (total and soluble), SW00345WC (total and soluble), SW00352WC (total and soluble) and SW00353WC (total and soluble) are estimated and undetected (UJ) because Tin values > IDL were found in the blanks.
- 14) The Lithium values for SW00345WC (total and soluble) are estimated and undetected (UJ) because Lithium values > IDL were found in the blanks.
- 15) The Cesium non-detects for SW00344WC (total and soluble), SW00345WC (total and soluble), SW00352WC (total), SW00353WC (total), SW00354WC (total) and SW00355WC (total) are rejected (R) because of negative bias indicated in the blanks.
- 16) The Arsenic non-detects for SW00344WC (soluble), SW00345WC (soluble), SW00352WC (soluble), SW00354WC (soluble) and SW00355WC (soluble) are rejected (R) because of negative bias indicated in the blanks.
- 17) The Arsenic value for SW00353WC (soluble) is estimated (J) because of negative bias indicated in the blanks.
- 18) The Cyanide non-detects for SW00344WC (total), SW00345WC (total), SW00352WC (total), SW00353WC (total), SW00354WC (total) and SW00355WC (total) are rejected (R) because of negative bias indicated in the blanks.
- 19) The Antimony, Cobalt, Manganese, Nickel, Silver, Tin and Vanadium values for SW00354WC (total and soluble) and SW00355WC (total and soluble) are rejected (R) because interference was indicated in the ICP interference check sample.
- 20) The Cadmium values for SW00354WC (total) and SW00355WC (total) are estimated (J) because possible interference was indicated in the ICP interference check sample.

Action Items (cont.): 21) The Zinc values for SW00354WC (soluble) and SW00355WC (soluble) are rejected (R) because interference was indicate in the ICP interference check sample.

22) The Copper values for SW00354WC (total and soluble) and SW00355WC (total) are rejected (R) because interference was indicated in the ICP interference check sample.

23) The Selenium values for SW00354WC (soluble), SW00352WC (soluble), SW00355WC (soluble) are estimated (J), and non-detects for SW00353WC (soluble), SW00344WC (soluble) and SW00345WC (soluble) are estimated and undetected (UJ) because duplicate precision sample criteria were not met.

24) The Selenium value for SW00352WC (total) and SW00355WC (total) are estimated (J), and the non-detects for SW00344WC (total), SW00345WC (total), SW00353WC (total) and SW00354WC (total) are estimated and undetected (UJ) because the pre-digestion matrix spike recovery criteria were not met.

25) All Thallium non-detects are estimated and undetected (UJ) because the pre-digestion matrix spike recovery criteria were not met.

26) The Zinc values for SW00344WC (total), SW00345WC (total), SW00352WC (total), SW00353WC (total), SW00354WC (total) and SW00355WC (total) are estimated (J) because the serial dilution criteria were not met.

Comments: 1) The laboratory did not report a laboratory control sample for Cyanide.

2) The laboratory did not report an IDL or CRDL for Cyanide on EPA Form X.

Note: Data Summary Tables are attached.

Pamela C. McCallan
Reviewer Signature

Jan. 14, 1991
Date

PROJECT SAMPLE NO.	COLLECTION		SAMPLE		LAB		SAMPLE ANALYSIS		LAB TEST		CAS	ANALYTIC	QUAL.	2 SIG	UNIT	RETURN	REASON	
	DATE	TIME	MATRIX	NUMBER	ID	LAB	DATE	TIME	NUMBR	CODE							NUMBR	RESLT
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/08/90	10/09/90	PBW	SMETCLPTC	TR 57-12-5	2.00	U		UG/L			10.0000	R 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-89-6	61.10	B		UG/L			100.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-92-1	1.00	U		UG/L			3.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-93-2	23.10	B		UG/L			100.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-95-4	38300.00			UG/L			5000.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-96-5	59.00	U		UG/L			15.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-97-6	0.20	U		UG/L			0.2000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-98-7	11.20	U		UG/L			200.0000	IA 7
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-02-0	7.60	B		UG/L			40.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-09-7	938.00	B		UG/L			5000.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/05/90	PBW	SMETCLPTC	TR 7782-49-2	2.00	UN		UG/L			5.0000	IA 12
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-22-4	3.40	B		UG/L			10.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-23-5	38600.00			UG/L			5000.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-24-6	898.00			UG/L			200.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-28-0	2.00	UWN		UG/L			10.0000	IA 12
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-31-5	39.00	U		UG/L			200.0000	IA 7
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-62-2	10.60	B		UG/L			50.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-56-6	494.00	B		UG/L			20.0000	IA 17
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7429-90-5	61.70	B		UG/L			200.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-36-0	16.10	U		UG/L			60.0000	IA 7
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-38-2	2.00	U		UG/L			10.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-39-3	191.00	B		UG/L			200.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-41-7	1.00	U		UG/L			5.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-43-9	2.00	U		UG/L			5.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-70-2	103000.00			UG/L			5000.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/07/90	PBW	SMETCLPTC	TR 7440-46-2	92.0	U		UG/L			1000.0000	R 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-47-3	10.90	U		UG/L			10.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-48-4	3.00	U		UG/L			50.0000	R 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-50-8	2.00	U		UG/L			25.0000	R 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/08/90	10/09/90	PBW	SMETCLPTC	TR 7439-89-6	30.60	U		UG/L			10.0000	IA 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-92-1	1.00	B		UG/L			3.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-93-2	7.70	U		UG/L			100.0000	IA 7
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-95-4	17300.00			UG/L			5000.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-96-5	4.70	B		UG/L			15.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/22/90	10/22/90	PBW	SMETCLPTC	TR 7439-97-6	0.20	U		UG/L			0.2000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7439-98-7	6.50	U		UG/L			200.0000	IA 7
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-02-0	4.00	U		UG/L			40.0000	R 8
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR 7440-09-7	1110.00	B		UG/L			5000.0000	V
SW00344WC	09/25/90		WATER	Q01000901A	ITPA	10/13/90	11/05/90	PBW	SMETCLPTC	TR 7782-49-2	2.00	UN		UG/L			5.0000	IA 12

PROJECT SAMPLE NO.	SAMPLE COLLECTION		SAMPLE MATRIX		LAB SAMPLE NUMBER		LAB ANALYSIS		LAB TRUST		CAS NUMBER	ANALYTIC RESULT	QUALIFIER	3 SIG FIGS	UNIT OF MEASURE	RETURN TIME	INSTRUMENT REASONS	
	DATE	TIME	BATCH NUMBER	NUMBER	LAB ID	DATE	TIME	ITEM	PANEL	CODE							ID	NUMBER
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-22-4	3.00	U		UG/L		Silver	10.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-23-5	30600.00			UG/L		Sodium	5000.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7440-24-6	511.00			UG/L		Strontium	200.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-28-0	24.10	UWN		UG/L		Thallium	10.0000 JA 12
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7440-31-5	24.10	U		UG/L		Tin	200.0000 JA 7
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-62-2	5.70	B		UG/L		Vanadium	50.0000 JA 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-66-6	339.00	E		UG/L		Zinc	20.0000 JA 17
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7429-90-5	139.00	B		UG/L		Aluminum	200.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-36-0	11.20	U		UG/L		Antimony	60.0000 JA 7
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-38-2	2.00	U		UG/L		Arsenic	10.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-39-3	127.00	B		UG/L		Barium	200.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-41-7	1.00	U		UG/L		Beryllium	5.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-43-9	2.00	U		UG/L		Calcium	5.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-70-2	86800.00			UG/L		Cadmium	5000.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7440-46-2	92.0	U		UG/L		Cesium	1000.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-47-3	8.40	B		UG/L		Chromium	10.0000 JA 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-48-4	3.00	U		UG/L		Cobalt	50.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-50-8	2.00	U		UG/L		Copper	25.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	57-12-5	2.00	U		UG/L		Cyanide	10.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7439-89-6	162.00			UG/L		Iron	100.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7439-92-1	1.00	UW		UG/L		Lead	3.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7439-93-2	17.60	B		UG/L		Lithium	100.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7439-95-4	24500.00			UG/L		Magnesium	5000.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7439-96-5	37.80			UG/L		Manganese	15.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7439-97-6	0.20	U		UG/L		Mercury	0.2000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7439-98-7	7.10	U		UG/L		Molybdenum	200.0000 JA 7
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-02-0	4.00	U		UG/L		Nickel	40.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7782-49-2	3380.00	B		UG/L		Potassium	5000.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-22-4	2.00	BN		UG/L		Selenium	5.0000 JA 12
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-28-0	3.00	U		UG/L		Silver	10.0000 R 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-23-5	51700.00			UG/L		Sodium	5000.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7440-24-6	589.00			UG/L		Strontium	200.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7440-28-0	2.00	UWN		UG/L		Thallium	10.0000 JA 12
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETNOCLF TR	7440-31-5	29.70	U		UG/L		Tin	200.0000 JA 7
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-62-2	5.50	B		UG/L		Vanadium	50.0000 JA 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-66-6	13.80	BE		UG/L		Zinc	20.0000 JA 17
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000902A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7439-90-5	111.00	B		UG/L		Aluminum	200.0000 JA 8
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000904A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-36-0	11.00	U		UG/L		Antimony	60.0000 JA 7
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000904A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-38-2	2.00	U		UG/L		Arsenic	10.0000 V
SW000345WC	09/26/90		P047	09/27/90	WATER	Q01000904A	ITPA	10/13/90	11/04/90	SMETCLPTC TR	7440-39-3	143.00	B		UG/L		Barium	200.0000 V

PROJECT SAMPLE NO.	COLLECTION		SAMPLE		LAB		SAMPLE ANALYSIS		LAB TEST		RESULT	UNIT	RETURN	INSTRUMENT			
	DATE	TIME	BATCH NUMBER	MATRIX	LAB NUMBER	ID	DATE	TIME	PANEL	RS				CAS	ANALYTIC	QUAL	REASON
	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-41-7	1.00	U	UG/L	5.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-43-9	2.00	U	UG/L	5.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-70-2	90200.00	U	UG/L	5000.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-46-2	92.0	U	UG/L	1000.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-47-3	7.60	B	UG/L	10.0000	JA
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-48-4	3.00	U	UG/L	50.0000	R
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-50-8	2.00	U	UG/L	25.0000	R
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	10/09/90	SMETCLPTC	TR	57-12-5	2.00	U	UG/L	10.0000	R
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7439-89-6	1290.00	U	UG/L	100.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7439-92-1	1.00	U	UG/L	3.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETNOCLP	TR	7439-93-2	14.50	B	UG/L	100.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7439-95-4	23200.00	U	UG/L	5000.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7439-96-5	773.00	U	UG/L	15.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	10/22/90	SMETCLPTC	TR	7439-97-6	0.20	U	UG/L	0.2000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETNOCLP	TR	7439-98-7	6.80	U	UG/L	200.0000	JA
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-02-0	4.00	U	UG/L	40.0000	R
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-09-7	2970.00	B	UG/L	5000.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/05/90	SMETCLPTC	TR	7782-49-2	2.00	UN	UG/L	5.0000	JA
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-22-4	3.00	U	UG/L	10.0000	R
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-23-5	45100.00	U	UG/L	5000.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETNOCLP	TR	7440-24-6	570.00	U	UG/L	200.0000	V
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-28-0	2.00	U	UG/L	10.0000	JA
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETNOCLP	TR	7440-31-5	33.80	U	UG/L	200.0000	JA
SW00353WC	09/25/90		P047	09/27/90	WATER	Q01009004A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-62-2	6.10	B	UG/L	50.0000	JA
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-66-6	31.40	E	UG/L	20.0000	JA
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7429-90-5	236.00	U	UG/L	200.0000	V
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/03/90	SMETCLPTC	TR	7440-38-2	2.00	U	UG/L	60.0000	R
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-41-7	1.00	U	UG/L	10.0000	V
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-43-9	2.30	B	UG/L	5.0000	V
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-70-2	284000.00	U	UG/L	5000.0000	V
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/07/90	SMETNOCLP	TR	7440-46-2	92.0	U	UG/L	1000.0000	R
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-47-3	30.30	U	UG/L	10.0000	R
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7440-50-8	2.00	U	UG/L	10.0000	R
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	57-12-5	2.00	U	UG/L	25.0000	R
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7439-89-6	207.00	U	UG/L	10.0000	V
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/04/90	SMETCLPTC	TR	7439-92-1	2.30	B	UG/L	3.0000	V
SW00354WC	09/25/90		P047	09/27/90	WATER	Q0100905A	ITPA	10/13/90	11/08/90	SMETNOCLP	TR	7439-93-2	304.00	U	UG/L	100.0000	V

PROJECT SAMPLE NO.	DATE	COLLECTION TIME	LAB ID	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB DATE	ANALYSIS DATE	SAMPLE ITEM	BATCH NUMBER	LAB TEST PANEL	CAS NO	ANALYTIC RESULT	QUAL	3 SIG	UNIT	RETURN-TION	PARAMETER NAME	INSTRUMENT	REASONS
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7439-95-4	84800.00			UG/L		Magnesium	5000.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7439-96-5	8.10	B		UG/L		Manganese	15.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/22/90	10/22/90	P047 09/27/90	PBW	SMETCLPTC TR 7439-97-6	0.20	U		UG/L		Mercury	0.2000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETNOCLP TR 7439-98-7	21.20	B		UG/L		Molybdenum	200.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-02-0	19.00	B		UG/L		Nickel	40.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-09-7	52600.00			UG/L		Potassium	5000.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7782-49-2	2.00	UWN		UG/L		Selenium	5.0000	JA 12	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-22-4	4.50	B		UG/L		Silver	10.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETNOCLP TR 7440-24-6	23300.00			UG/L		Sodium	5000.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETNOCLP TR 7440-28-0	2.00	UWN		UG/L		Strontium	200.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETNOCLP TR 7440-31-5	76.30	B		UG/L		Thallium	10.0000	JA 12	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETNOCLP TR 7440-32-2	17.10	B		UG/L		Tin	200.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000905A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-66-6	224.00	E		UG/L		Vanadium	50.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7429-90-5	95.9			%		Zinc	20.0000	JA 17	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7429-90-5	151.5990	B		UG/L		Aluminum	200.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7429-90-5	142.00	B		UG/L		Aluminum	200.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7440-36-0	101.5			UG/L		Antimony	60.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-36-0	43.00			UG/L		Antimony	60.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7440-38-2	97.5			UG/L		Arsenic	10.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7440-38-2	2.0000	U		UG/L		Arsenic	10.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-38-2	2.0000	U		UG/L		Arsenic	10.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7440-39-3	153.5890	B		UG/L		Barium	200.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7440-39-3	90.8			UG/L		Barium	200.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-39-3	151.00	B		UG/L		Barium	200.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7440-41-7	1.0000	U		UG/L		Beryllium	5.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-41-7	1.00	U		UG/L		Beryllium	5.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7440-41-7	95.6			UG/L		Beryllium	5.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7440-43-9	2.5430	B		UG/L		Cadmium	5.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-43-9	2.00	B		UG/L		Cadmium	5.0000	R 9	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7440-43-9	89.0			UG/L		Cadmium	5.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7440-70-2	306179.606			UG/L		Calcium	5000.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-70-2	297000.00			UG/L		Calcium	1000.0000	V	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/07/90	P047 09/27/90	PBW	SMETNOCLP D 7440-46-2	92.0000	U		UG/L		Cerium	1000.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/07/90	P047 09/27/90	PBW	SMETNOCLP SI 7440-46-2	120.0			UG/L		Cerium	1000.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/07/90	P047 09/27/90	PBW	SMETNOCLP TR 7440-46-2	92.0	U		UG/L		Cerium	1000.0000	R 8	
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC D 7440-47-3	35.8020			UG/L		Chromium	10.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC SI 7440-47-3	93.0			UG/L		Chromium	10.0000		
SW00354WC	09/25/90		ITPA	WATER	Q01000906A	10/13/90	11/04/90	P047 09/27/90	PBW	SMETCLPTC TR 7440-47-3	30.30			UG/L		Chromium	10.0000	R 9	

PROJECT SAMPLE NO.	SAMPLE COLLECTION DATE	LAB ID	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB ID	DATE	ANALYSIS TIME	BLANK	SAMPLE NUMBER	PANEL CODR	LAB TEST	RS ID	CAS NUMBER	ANALYTIC RESULT	QUALIFIER	% ERROR	UNIT OF MEASUREMENT	REASON FOR DETECTION LIMIT	PARAMETER NAME
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7440-48-4	89.7			%			Cobalt
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7440-48-4	8.60				UG/L		Cobalt
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7440-50-8	2.60				UG/L		Copper
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7440-50-8	3.3500				UG/L		Copper
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7440-50-8	95.3			%			Copper
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	57-12-5	103.0			%			Cyanide
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	57-12-5	2.00				UG/L		Cyanide
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7439-89-6	47.6080				UG/L		Iron
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7439-89-6	48.00				UG/L		Iron
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7439-89-6	95.0			%			Iron
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7439-92-1	109.5			%			Iron
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7439-92-1	1.0000				UG/L		Lead
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7439-92-1	98.8			%			Lead
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7439-93-2	313.6800				UG/L		Lithium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7439-93-2	305.00				UG/L		Lithium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7439-95-4	81455.8650				UG/L		Lithium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7439-95-4	79900.00				UG/L		Magnesium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7439-96-5	90.8			%			Magnesium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7439-96-5	5.4820				UG/L		Manganese
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7439-96-5	5.30				UG/L		Manganese
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/22/90	10/22/90	PBW	SMETCLPTC	SI	7439-97-6	98.0			%			Mercury
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/22/90	10/22/90	PBW	SMETCLPTC	D	7439-97-6	0.2000				UG/L		Mercury
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/22/90	10/22/90	PBW	SMETCLPTC	TR	7439-97-6	0.20				UG/L		Mercury
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF	SI	7439-98-7	94.6			%			Molybdenum
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF	TR	7439-98-7	21.60				UG/L		Molybdenum
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7440-02-0	90.9			%			Nickel
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7440-02-0	22.0960				UG/L		Nickel
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7440-02-0	19.40				UG/L		Nickel
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7440-09-7	57800.00				UG/L		Potassium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7440-09-7	56575.1840				UG/L		Potassium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/05/90	PBW	SMETCLPTC	TR	7782-49-2	2.00				UG/L		Selenium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	10/22/90	PBW	SMETCLPTC	SI	7782-49-2	40.0			%			Selenium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	10/22/90	PBW	SMETCLPTC	D	7782-49-2	5.6880				UG/L		Selenium
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	D	7440-22-4	6.6320				UG/L		Silver
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	SI	7440-22-4	101.2			%			Silver
SW000355WC	09/26/90	P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC	TR	7440-22-4	5.20				UG/L		Silver

PROJECT SAMPLE NO.	SAMPLE COLLECTION		SAMPLE		LAB TEST		CAS		ANALYTIC RESULT	QUALITY	% ERROR	UNIT OF MEASUREMENT	RETRIBUTION	INSTRUMENT DETECTION LIMIT REASONS				
	DATE	TIME	BATCH NUMBER	MATRIX	LAB SAMPLE NUMBER	LAB SAMPLE NUMBER	LAB TEST	IS ID						NUMBER	1	2	3	4
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC TR	7440-23-5	34.8000	0.00	UG/L	Sodium	5000.0000	V
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC D	7440-23-5	34.8887	0.57	UG/L	Sodium	5000.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF SI	7440-24-6	92.8		%	Strontium	200.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF TR	7440-24-6	2360.00		UG/L	Strontium	200.0000	V
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF D	7440-24-6	2405.9950		UG/L	Strontium	200.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC TR	7440-28-0	2.00		UWN	Thallium	10.0000	JA 12
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC D	7440-28-0	2.0000		U	Thallium	10.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF SI	7440-28-0	66.0		N	Thallium	10.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF TR	7440-31-5	76.40		B	Tin	200.0000	R 9
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF D	7440-31-5	74.5260		B	Tin	200.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETNOCLF SI	7440-31-5	83.8		%	Tin	200.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC TR	7440-62-2	17.60		B	Vanadium	50.0000	R 9
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC SI	7440-62-2	93.6		%	Vanadium	50.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC D	7440-62-2	18.8170		B	Vanadium	50.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC TR	7440-66-6	71.30		B	Zinc	20.0000	JA 17
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC SI	7440-66-6	95.0		%	Zinc	20.0000	
SW00355WC	09/26/90		P047	09/27/90	WATER	Q01000906A	ITPA	10/13/90	11/04/90	PBW	SMETCLPTC D	7440-66-6	71.5730		UG/L	Zinc	20.0000	

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PROJECT SAMPLE NO.	DATE	TIME	COLLECTION	SAMPLE				SAMPLE ANALYSIS				LAB TEST	CAS	ANALYTIC RESULT	RELAT. ERROR	UNIT	RETEN-TION	INSTRUMENT	REASONS	
				BATCH NUMBER	MATRIX	LAB SAMPLE NUMBER	LAB DATE	DATE	TIME	PREP	DATE									DATE
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7429-90-5	-26.600	B	UG/L		200.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-36-0	-10.000	B	UG/L		60.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-38-2	1.000	U	UG/L		10.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-39-3	-1.500	B	UG/L		200.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-41-7	1.000	U	UG/L		5.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-43-9	-2.200	B	UG/L		5.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-70-2	25.100	B	UG/L		5000.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETNOCL	TR	7440-46-2	-100.000	B	UG/L		1000.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-47-3	-9.800	B	UG/L		10.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-48-4	-5.200	B	UG/L		50.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-50-8	-10.900	B	UG/L		25.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7439-89-6	14.000	U	UG/L		100.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7439-92-1	1.000	U	UG/L		3.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETNOCL	TR	7439-93-2	2.000	U	UG/L		100.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7439-95-4	-39.200	B	UG/L		5000.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7439-96-5	1.000	U	UG/L		15.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7439-97-6	0.200	U	UG/L		0.2000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETNOCL	TR	7439-98-7	-2.500	B	UG/L		200.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-02-0	-6.400	B	UG/L		40.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-09-7	-103.300	B	UG/L		5000.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7782-49-2	2.000	U	UG/L		5.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-22-4	-5.100	B	UG/L		10.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-23-5	17.900	B	UG/L		5000.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETNOCL	TR	7440-24-6	1.000	U	UG/L		200.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-28-0	2.000	U	UG/L		10.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETNOCL	TR	7440-31-5	7.000	U	UG/L		200.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-62-2	-4.100	B	UG/L		50.0000	
PBW	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-66-6	2.600	B	UG/L		20.0000	
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7429-90-5	44.90	B	UG/L		200.0000	IA 8
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-36-0	17.00	U	UG/L		60.0000	IA 7
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/03/90		DMETCLPT	TR	7440-38-2	1.00	U	UG/L		10.0000	R 8
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-39-3	23.100	U	UG/L		200.0000	V
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-41-7	1.00	U	UG/L		5.0000	V
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-43-9	2.00	U	UG/L		5.0000	V
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-70-2	130000.00	U	UG/L		5000.0000	V
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETNOCL	TR	7440-46-2	92.0	U	UG/L		1000.0000	R 8
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-47-3	8.10	B	UG/L		10.0000	IA 8
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-48-4	3.00	U	UG/L		50.0000	R 8
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7440-50-8	2.00	U	UG/L		25.0000	R 8
SW00344WC	09/25/90			P047F	09/27/90	WATER	PBW	ITPA	10/12/90	11/04/90		DMETCLPT	TR	7439-89-6	14.00	U	UG/L		100.0000	R 8

PROJECT SAMPLE NO.	DATE	TIME	COLLECTION	SAMPLE				SAMPLE				LAB ID	DATE	TIME	METH	LAB TEST	RS	CAS	ANALYTIC RESULT	QUAL	2510	UNIT	REFIN-	DETECTION	REASONS
				MONODY	FRDM	BATCHI	NUMBER	MATRIX	LAB	SAMPLE	NUMBER														
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-92-1	1.00	UW	UG/L			3.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/08/90			DMETNOCL	TR	7439-93-2	22.10	B	UG/L			100.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7439-95-4	38800.00		UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-96-5	47.00	U	UG/L			13.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/08/90			DMETCLPT	TR	7439-97-6	0.20	U	UG/L			0.2000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7439-98-7	8.40	U	UG/L			200.0000	JA	7
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-02-0	4.00	U	UG/L			40.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/03/90			DMETCLPT	TR	7782-49-2	2.00	U*	UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-22-4	3.00	U	UG/L			5.0000	JA	11
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7440-23-5	39600.00		UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7440-24-6	903.00		UG/L			200.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7440-31-5	2.00	UWN	UG/L			10.0000	JA	12
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-32-2	7.10	B	UG/L			200.0000	JA	7
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-33-3	39.50	U	UG/L			50.0000	JA	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-36-6	456.00	B	UG/L			20.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7429-90-5	37.30	B	UG/L			200.0000	JA	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000801A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-36-0	7.00	U	UG/L			60.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/03/90			DMETCLPT	TR	7440-38-2	1.00	U	UG/L			10.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-39-3	196.00	B	UG/L			200.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-41-7	1.00	U	UG/L			5.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-43-9	2.00	U	UG/L			5.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-70-2	103000.00		UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/07/90			DMETNOCL	TR	7440-46-2	92.0	U	UG/L			1000.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-47-3	5.00	U	UG/L			10.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-48-4	3.00	U	UG/L			50.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-50-8	2.00	U	UG/L			25.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-89-6	26.40	B	UG/L			100.0000	JA	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-92-1	1.00	UW	UG/L			3.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/08/90			DMETNOCL	TR	7439-93-2	7.30	U	UG/L			100.0000	JA	7
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-95-4	18000.00		UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-96-5	4.00	B	UG/L			15.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7439-97-6	0.20	U	UG/L			0.2000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7439-98-7	2.80	U	UG/L			200.0000	JA	7
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-02-0	4.00	U	UG/L			40.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-09-7	1890.00	B	UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/03/90			DMETCLPT	TR	7782-49-2	2.00	U*	UG/L			5.0000	JA	11
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-22-4	3.00	U	UG/L			10.0000	R	8
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETCLPT	TR	7440-23-5	32400.00		UG/L			5000.0000	V	
SW00344WC	09/25/90			09/25/90		P047E	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90			DMETNOCL	TR	7440-24-6	527.00		UG/L			200.0000	V	

PROJECT SAMPLE NO.	COLLECTION TIME		SAMPLE MATRIX		LAB SAMPLE NUMBER		LAB ID		PREP DATE		ANALYSIS DATE		SAMPLE TIME		LAB TEST PANEL		CAS NUMBER	ANALYTIC RESULT	QUAL. ERROR	UNIT OF MEASURE	RETURN TIME	INSTRUMENT DETECTION LIMIT		REASONS	
	DATE	TIME	BATCH NUMBER	MATRIX	LAB NUMBER	MATRIX	LAB ID	DATE	DATE	TIME	TIME	TIME	TIME	TIME	TIME	TIME						TIME	TIME		TIME
SW00345WC	09/25/90		P047F	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-28-0	2.00	UWN	UG/L	Thallium	10.0000		IA	12				
SW00345WC	09/26/90		P047F	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-31-5	20.10	U	UG/L	Tin	200.0000		IA	7				
SW00345WC	09/26/90		P047F	09/27/90	WATER	Q01000802A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-62-2	2.70	B	UG/L	Vanadium	50.0000		IA	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-66-6	11.70	U	UG/L	Zinc	20.0000		IA	7				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7429-90-5	10.00	U	UG/L	Aluminum	200.0000		R	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-36-0	8.20	U	UG/L	Antimony	60.0000		IA	7				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-38-2	1.00	U	UG/L	Arsenic	10.0000		R	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-39-3	121.00	B	UG/L	Barium	200.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-41-7	1.00	U	UG/L	Beryllium	5.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-43-9	2.00	U	UG/L	Cadmium	5.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-70-2	82800.00	U	UG/L	Calcium	5000.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/07/90	PBW	DMETCPLT	TR	7440-46-2	92.0	U	UG/L	Cesium	1000.0000		V				56	
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-47-3	5.00	U	UG/L	Chromium	10.0000		R	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-48-4	3.00	U	UG/L	Cobalt	50.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-50-8	2.00	U	UG/L	Copper	50.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7439-89-6	14.00	U	UG/L	Iron	100.0000		R	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7439-92-1	1.00	U	UG/L	Lead	3.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/08/90	PBW	DMETCPLT	TR	7439-93-2	17.80	B	UG/L	Lithium	100.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7439-95-4	24200.00	U	UG/L	Magnesium	5000.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7439-96-5	17.70	U	UG/L	Manganese	15.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7439-97-6	0.20	U	UG/L	Mercury	0.2000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7439-98-7	2.90	U	UG/L	Molybdenum	200.0000		IA	7				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-02-0	4.00	U	UG/L	Nickel	40.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-09-7	3230.00	B	UG/L	Potassium	5000.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/03/90	PBW	DMETCPLT	TR	7782-49-2	2.00	B*	UG/L	Selenium	5.0000		IA	11				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-22-4	3.00	U	UG/L	Silver	10.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-23-5	50700.00	U	UG/L	Sodium	5000.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-24-6	579.00	UWN	UG/L	Strontium	200.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-28-0	2.00	U	UG/L	Thallium	10.0000		IA	12				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-31-5	22.50	U	UG/L	Tin	200.0000		IA	7				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-62-2	2.00	U	UG/L	Vanadium	50.0000		R	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000803A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-66-6	4.40	U	UG/L	Zinc	20.0000		IA	7				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7429-90-5	13.70	B	UG/L	Aluminum	200.0000		IA	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-36-0	11.70	U	UG/L	Antimony	60.0000		IA	7				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/03/90	PBW	DMETCPLT	TR	7440-38-2	1.00	B	UG/L	Arsenic	10.0000		IA	8				
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-39-3	136.00	B	UG/L	Barium	200.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-41-7	1.00	U	UG/L	Beryllium	5.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-43-9	2.00	U	UG/L	Cadmium	5.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCPLT	TR	7440-70-2	87800.00	U	UG/L	Calcium	5000.0000		V					
SW00352WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/07/90	PBW	DMETCPLT	TR	7440-46-2	92.0	U	UG/L	Cesium	1000.0000		V					56

PROJECT SAMPLE NO.	DATE	COLLECTION TIME	SAMPLE BATCH NUMBER	MATRIX	LAB SAMPLE NUMBER	LAB ID	DATE	PREP DATE	ANALYSIS TIME	BLANK SAMPLE NUMBER	LAB TEST PANEL	ES ID	CAS NUMBER	ANALYTIC RESULT	QUALIFIER	RSLT ERROR	UNIT OF MEASURE	RETURN TIME	PARAMETER NAME	LIMIT	INSTRUMENT	REASONS
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-47-3	5.00	U		UG/L			Chromium	10.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-48-4	3.00	U		UG/L			Cobalt	50.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-50-8	2.00	U		UG/L			Copper	25.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-89-6	64.10	B		UG/L			Iron	100.0000	JA	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-92-1	1.00	U		UG/L			Lead	3.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-93-2	13.90	B		UG/L			Lithium	100.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-95-4	23.00	U		UG/L			Magnesium	5000.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-96-5	741.00	U		UG/L			Manganese	15.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-97-6	0.20	U		UG/L			Mercury	0.2000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-98-7	4.10	U		UG/L			Molybdenum	200.0000	JA	7
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-02-0	4.00	U		UG/L			Nickel	40.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-09-7	2950.00	B		UG/L			Potassium	5000.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7782-49-2	2.00	U*		UG/L			Selenium	5.0000	JA	11
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-22-4	3.00	U		UG/L			Silver	10.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-23-5	46200.00			UG/L			Sodium	5000.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-24-6	563.00			UG/L			Strontium	200.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-28-0	2.00	U		UG/L			Thallium	10.0000	JA	12
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-31-5	21.60	U		UG/L			Tin	200.0000	JA	7
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-62-2	2.20	B		UG/L			Vanadium	20.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7429-90-5	113.00	B		UG/L			Aluminum	200.0000	JA	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-36-0	46.00	U		UG/L			Antimony	60.0000	R	9
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-38-2	1.00	U		UG/L			Arsenic	10.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-39-3	234.00	U		UG/L			Barium	200.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-41-7	1.00	U		UG/L			Beryllium	5.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-43-9	2.00	U		UG/L			Cadmium	5.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-70-2	271000.00	U		UG/L			Calcium	5000.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-46-2	92.0	U		UG/L			Cesium	1000.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-47-3	26.90	B		UG/L			Chromium	10.0000	R	9
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-48-4	7.00	B		UG/L			Cobalt	50.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-50-8	3.00	B		UG/L			Copper	25.0000	R	9
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-89-6	14.00	U		UG/L			Iron	100.0000	R	8
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-92-1	1.20	B		UG/L			Lead	3.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-93-2	298.00	U		UG/L			Lithium	100.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-95-4	81400.00	U		UG/L			Magnesium	5000.0000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-96-5	2.80	B		UG/L			Manganese	15.0000	R	9
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-97-6	0.20	U		UG/L			Mercury	0.2000	V	
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7439-98-7	19.30	B		UG/L			Molybdenum	200.0000	R	9
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-02-0	15.90	B		UG/L			Nickel	40.0000	R	9
SW000333WC	09/25/90		P047F	09/27/90	WATER	Q01000804A	ITPA	10/12/90	11/04/90	PBW	DMETCLPT	TR 7440-09-7	51600.00	U		UG/L			Potassium	5000.0000	V	

PROJECT SAMPLE NO.	DATE	COLLECTION TIME	LAB ID	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB DATE	PREP DATE	ANALYSIS DATE	HELM	BLANK	SAMPLE NUMBER	CAS NUMBER	ANALYTIC RESULT	QUALIFIER	REASON	INSTRUMENT	LIMIT	REASONS
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/03/90		PBW		TR 7782-49-2	3.00	BWV			Selenium	5.0000	JA 11 14
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-22-4	3.50	B			Silver	10.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-23-5	335000.00				Sodium	5000.0000	V
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-24-6	2210.00				Strontium	200.0000	V
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-28-0	2.00	UWVN			Thallium	10.0000	JA 12
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETNOCL TR 7440-31-5	70.70				Tin	200.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-62-2	16.00	B			Vanadium	50.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000805A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-66-6	116.00				Zinc	20.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7429-90-5	96.6				Aluminum	200.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7429-90-5	106.3120	B			Aluminum	200.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7429-90-5	107.00	B			Aluminum	200.0000	JA 8
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-36-0	43.00				Antimony	60.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-36-0	103.5				Antimony	60.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-36-0	44.3390	B			Antimony	60.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/03/90		PBW		DMETCLPT D 7440-38-2	1.0000	B			Antimony	10.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/03/90		PBW		DMETCLPT SI 7440-38-2	95.0				Arsenic	10.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/03/90		PBW		DMETCLPT TR 7440-38-2	1.00	U			Arsenic	10.0000	R 8
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-39-3	151.00	B			Barium	200.0000	V
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-39-3	149.1630	B			Barium	200.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-39-3	92.1				Barium	200.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-41-7	1.0000	U			Beryllium	5.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-41-7	1.00	U			Beryllium	5.0000	V
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-41-7	97.9				Beryllium	5.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-43-9	2.0000	U			Cadmium	5.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-43-9	94.7				Cadmium	5.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-43-9	2.00	U			Cadmium	5.0000	R 8
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-70-2	293000.00				Calcium	5000.0000	V
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-70-2	293348.324				Calcium	5000.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/07/90		PBW		DMETNOCL SI 7440-46-2	110.0				Cesium	1000.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/07/90		PBW		DMETNOCL TR 7440-46-2	92.0	U			Cesium	1000.0000	V
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETNOCL D 7440-46-2	92.0000	U			Cesium	1000.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-47-3	28.0560				Chromium	10.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-47-3	27.20				Chromium	10.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-47-3	95.0				Chromium	10.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-48-4	7.60	B			Cobalt	50.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-48-4	6.4820	B			Cobalt	50.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-48-4	90.9				Cobalt	50.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT TR 7440-50-8	5.9000	B			Copper	25.0000	
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT D 7440-50-8	5.90	B			Copper	25.0000	R 9
SW003534WC	09/25/90		PTPA	WATER	Q01000806A	10/12/90	11/04/90		PBW		DMETCLPT SI 7440-50-8	97.8				Copper	25.0000	

PROJECT SAMPLE NO.	SAMPLE COLLECTION		SAMPLE ANALYSIS		LAB TEST		CAS NUMBER	ANALYTIC RESULT	RSLT QUAL	2SD ERROR	UNIT OF MEASUREMENT	RETURN TIME	INSTRUMENT DETECTION LIMIT REASONS				
	DATE	TIME	LAB ID	PREP DATE	LAB PANEL	RS ID							Y	1	2	3	4
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETNOCL SI 7440-31-5	85.8			%			200.0000			
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETNOCL TR 7440-31-5	67.20			UG/L			200.0000	R	9	
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETCLPT SI 7440-62-2	94.9			%			50.0000			
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETCLPT TR 7440-62-2	15.90	B		UG/L			50.0000	R	9	
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETCLPT D 7440-62-2	15.9750	B		UG/L			50.0000			
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETCLPT SI 7440-66-6	96.2			%			20.0000			
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETCLPT TR 7440-66-6	10.10			UG/L			20.0000	R	9	
SW00355WC	09/26/90		TPA	10/12/90	11/04/90	PBW	DMETCLPT D 7440-66-6	11.0170	B		UG/L			20.0000			
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0435

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC - IT 0093 (2 of 2)

PROJECT NO. 4002-410			ANALYSES				NUMBER OF CONTAINERS	REMARKS (Sample preservation, handling procedures, etc.)
SAMPLERS: (Signature) Gregory J. Miller			RAD SCREEN					
DATE	TIME	SAMPLE NUMBER						
9/24/90	8900	SW90119WC CV				1	For <u>ITCORP</u> Matrix - WATER-SW All samples stored on ice. OUT OF SPEC REPORTING REQUIRED STD TURNAROUND 300 Contact personnel: <u>BRUCE LARUE</u>	
	8952	SW90355WC CV				1		
9/24/90	1141	SW90345WC CV				1		
BWL 9-26-90								

TOTAL NUMBER OF CONTAINERS

3

RELINQUISHED BY: (Signature) Gregory J. Miller	DATE/TIME 9/24/90 1315	RECEIVED BY: (Signature) Bruce Larue	RELINQUISHED BY: (Signature) Bruce Larue	DATE/TIME 9/26/90 1500	RECEIVED BY: (Signature) S.W. McElroy
METHOD OF SHIPMENT: FED EX		SHIPPED BY: (Signature) BWL	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature) S.W. McElroy 20/2/90 0900 9/28/90 1100	

Relinquished by: S.W. McElroy 9/28/90 1600
Did not receive Rad Screen Bottles - GP

ER DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9009P047 Site Surface Water
 Laboratory ITAS - Pittsburgh No. of Samples/Matrix 6/Water
 Method Standard Methods Reviewer Org. QuantaLex, Inc.
 Sample Numbers SW00344WC, SW00345WC, SW00352WC, SW00353WC, SW00354WC, SW00355WC

Data Assessment Summary

	Silica	F	Phos.	Alkal.	Cl	Nitrate/ Nitrite	Sulfide/Oil/Grease Sulfate Grav.	Comments
1. Holding Times	<u>V</u>	<u>V</u>	<u>A</u>	<u>A</u>	<u>V</u>	<u>A</u>	<u>V</u>	<u>Action Items 1-4</u>
2. Calibrations	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>A</u>	<u>Action Item 5</u>
3. Blanks	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
4. Lab Control Sample Results	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>V</u>	<u>V</u>	<u>N/A</u>	<u>N/A</u>	
5. Duplicate Sample Results	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
6. Matrix Spike Sample Results	<u>V</u>	<u>V</u>	<u>V</u>	<u>N/A</u>	<u>N/A</u>	<u>V</u>	<u>V</u>	<u>N/A</u>
7. Sample Verification	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
8. Other QC	<u>V</u>	<u>V</u>	<u>V</u>	<u>X</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>Comments 1-2</u> <u>Data valid or acceptable</u>
9. Overall Assessment	<u>V</u>	<u>V</u>	<u>A</u>	<u>A</u>	<u>V</u>	<u>A</u>	<u>V</u>	<u>A</u> <u>with qualifications</u>

V = Data had no problems.

A = Data acceptable but qualified due to problems.

R = Data rejected.

X = Problems, but do not affect data.

N/A = Not applicable.

Data Quality: Data contained in this batch were reviewed and found to be valid or acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged. (Refer to attached Results Summary Tables).

Action Items: 1) All Nitrite and o-Phosphate non-detects are rejected (R) because holding times were grossly exceeded.

2) The Nitrite value for SW00344WC is estimated (J) because the holding time was exceeded.

3) The ortho-phosphate values for SW00354WC and SW00355WC are estimated (J) because holding times were exceeded.

4) All Alkalinity values are estimated (J) because holding times were exceeded.

5) All Oil/Grease values are estimated (J) because initial calibration verification was outside control limits.

Comments: 1) No duplicate or matrix spike were analyzed for Oil/Grease; data was not affected.

2) All Carbonate non-detects are reported to the detection limit; correct values appear on the Summary Table.

Note: Data Summary Tables are attached.

Richard Kately for Paul Gonyea
Reviewer Signature

12/21/90
Date

SAMPLE COLLECTION			SAMPLE ANALYSIS			LAB TEST			RETESTION			INSTRUMENT				
PROJECT	DATE	TIME	LAB	DATE	TIME	PANEL	RS	CAS	ANALYT	QUA	UNIT	RETESTION	PARAMETER	NAME	DETECTION	REASONS
SW000345WC	MM/DD/YY	HH:	MM/DD/YY	MM/DD/YY	HH:	NUMB	ID	NUMBER	RESULT	IPBE	OF	TIME	NAME	NAME	LIMIT	REASONS
SW000345WC	MM/DD/YY	HH:	MM/DD/YY	MM/DD/YY	HH:	NUMB	ID	NUMBER	RESULT	IPBE	OF	TIME	NAME	NAME	LIMIT	REASONS
SW000345WC	09/25/90	09:26:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-33-3	440	440	U	MG/L	10.0	TOTAL DISSOLVED SOLIDS	TOTAL DISSOLVED SOLIDS	10.0	V
SW000345WC	09/25/90	09:26:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-33-3	440	440	U	MG/L	0.01	TOTAL PHOSPHATE	TOTAL PHOSPHATE	0.01	V
SW000345WC	09/25/90	09:26:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-32-2	4	4	U	MG/L	4.0	TOTAL SUSPENDED SOLIDS	TOTAL SUSPENDED SOLIDS	4.0	V
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-13-9	300	300	U	MG/L	1.0	BICARBONATE	BICARBONATE	1.0	JA 2
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 3812-32-6	1.0	1.0	U	MG/L	1.0	CARBONATE	CARBONATE	1.0	JA 2
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 3812-32-6	1.0	1.0	U	MG/L	0.2	CHLORIDE	CHLORIDE	0.2	V
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 16887-00-6	54	54	U	MG/L	0.1	FLUORIDE	FLUORIDE	0.1	V
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 16887-00-6	54	54	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	V
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-28-6	4.5	4.5	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	V
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 14797-65-0	0.02	0.02	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	R 2
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-30-0	0.6	0.6	U	MG/L	0.2	OIL & GREASE	OIL & GREASE	0.2	V
SW00032WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 56-38-2	0.01	0.01	U	MG/L	0.01	ORTHOPHOSPHATE	ORTHOPHOSPHATE	0.01	R 2
SW00032WC	09/25/90	09:25:00	ITPA	10/04/90	10:04:00	MB 10/04/90	TR 10-89-9	5.8	5.8	U	MG/L	0.4	SILICA	SILICA	0.4	V
SW00032WC	09/25/90	09:25:00	ITPA	10/04/90	10:04:00	MB 10/04/90	TR 14808-79-8	63	63	U	MG/L	2.0	SULFATE	SULFATE	2.0	V
SW00032WC	09/25/90	09:25:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-33-3	470	470	U	MG/L	10.0	TOTAL DISSOLVED SOLIDS	TOTAL DISSOLVED SOLIDS	10.0	V
SW00032WC	09/25/90	09:25:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 14265-44-2	0.01	0.01	U	MG/L	0.01	TOTAL PHOSPHATE	TOTAL PHOSPHATE	0.01	V
SW00032WC	09/25/90	09:25:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-32-2	5	5	U	MG/L	4.0	TOTAL SUSPENDED SOLIDS	TOTAL SUSPENDED SOLIDS	4.0	V
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-13-9	300	300	U	MG/L	1.0	BICARBONATE	BICARBONATE	1.0	JA 2
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 3812-32-6	1.0	1.0	U	MG/L	1.0	CARBONATE	CARBONATE	1.0	JA 2
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 16887-00-6	51	51	U	MG/L	0.2	CHLORIDE	CHLORIDE	0.2	V
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 16887-00-6	51	51	U	MG/L	0.1	FLUORIDE	FLUORIDE	0.1	V
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-28-6	1.9	1.9	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	V
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 14797-65-0	0.02	0.02	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	R 2
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-30-0	0.6	0.6	U	MG/L	0.2	OIL & GREASE	OIL & GREASE	0.2	V
SW00033WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 56-38-2	0.01	0.01	U	MG/L	0.01	ORTHOPHOSPHATE	ORTHOPHOSPHATE	0.01	R 2
SW00033WC	09/25/90	09:25:00	ITPA	10/04/90	10:04:00	MB 10/04/90	TR 10-89-9	6.9	6.9	U	MG/L	0.4	SILICA	SILICA	0.4	V
SW00033WC	09/25/90	09:25:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-33-3	449	449	U	MG/L	2.0	SULFATE	SULFATE	2.0	V
SW00033WC	09/25/90	09:25:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 14265-44-2	0.01	0.01	U	MG/L	0.01	TOTAL DISSOLVED SOLIDS	TOTAL DISSOLVED SOLIDS	0.01	V
SW00033WC	09/25/90	09:25:00	ITPA	10/02/90	10:02:00	MB 10/02/90	TR 10-32-2	4	4	U	MG/L	4.0	TOTAL SUSPENDED SOLIDS	TOTAL SUSPENDED SOLIDS	4.0	V
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-13-9	310	310	U	MG/L	1.0	BICARBONATE	BICARBONATE	1.0	JA 2
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 3812-32-6	0	0	U	MG/L	1.0	CARBONATE	CARBONATE	1.0	JA 2
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 16887-00-6	93	93	U	MG/L	0.2	CHLORIDE	CHLORIDE	0.2	V
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 16887-00-6	93	93	U	MG/L	0.1	FLUORIDE	FLUORIDE	0.1	V
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-28-6	340	340	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	V
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 14797-65-0	0.02	0.02	U	MG/L	0.02	NITRATE/NITRITE	NITRATE/NITRITE	0.02	R 2
SW00034WC	09/25/90	09:25:00	ITPA	10/03/90	10:03:00	MB 10/03/90	TR 10-30-0	0.6	0.6	U	MG/L	0.2	OIL & GREASE	OIL & GREASE	0.2	V

SAMPLE COLLECTION		SAMPLE ANALYSIS				LAB TEST				RSLT		UNIT		RETE-		INSTRUMENT										
PROJECT	SAMPLEN	DATE	TIME	ATCH	NUMBE	MATRUX	LAB	SAMPLE	NUMB	ID	LAB	PANEL	RS	CAS	ANALYTI	RESUL	IFIE	QUA	2 SIG	OF	MEASU	TIME	PARAMETER	NAME	LIMIT	REASONS
SW00355WC		MM/DD/YY	HH:	MM/DD/YY	MM/DD/YY	HH:	MM/DD/YY	MM/DD/YY	HH:	ANK	SAMPLE	NUMB	CODE	ID	NUMBER	RESULT				%			TOTAL	PHOSPHATE	0.01	
		09/26/90		P047 09/27/90		WATER	Q01000906	MS		ITPA		WPQL	S	14265-44-2	105											
		09/26/90		P047 09/27/90		WATER	Q01000906			ITPA		WPQL	TR	14265-44-2	0.05											
		09/26/90		P047 09/27/90		WATER	Q01000906	DUP		ITPA		WPQL	D	14265-44-2	0.05											
		09/26/90		P047 09/27/90		WATER	Q01000906	DUP		ITPA		WPQL	D	10-32-2	7											
		09/26/90		P047 09/27/90		WATER	Q01000906			ITPA		WPQL	TR	10-32-2	7											

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Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-1T0091 (10F2)

PROJECT NO.
4002-410

ANALYSES

SAMPLERS: (Signature)

Jaure Early

DATE	TIME	SAMPLE NUMBER	BOT CODE	TLC VOACGP	Oil Grease	CLP Total Metal	CLP Dissolved Metal	MAI IONS TSS	Nitrate/Nitrite	Cyanide	NUMBER OF CONTAINERS
9/25/90	1022	SW00353 WC	AA1	✓							1
	1022		AA2	✓							1
	1025		AD	✓							1
	1027		BA		✓						1
	1030		BB			✓					1
	1033		BF				✓				1
	1035		BH					✓			1
	1037		BP						✓		1
	1255	SW00344 WC	AA1	✓							1
	1255		AA2	✓							1
	1257		AD	✓							1
	1259		BA		✓						1
	1303		BB			✓					1
	1304		BF				✓				1
	1305		BH					✓			1
	1307		BP						✓		1
9/25/90	1017	SW00115 WC	AA1	✓							1
	1017		AA2	✓							1

REMARKS
(Sample preservation, handling procedures, etc.)

For IT LOPD

Matrix - Water - SW

All samples stored on ice.

OUT OF SPEC
REPORTING
REQUIRED

STD TURNAROUND

300

Contact personnel:

Bruce LaRue

~~9/26/90 218~~

TOTAL NUMBER OF CONTAINERS 18

RELINQUISHED BY: (Signature) <i>Jaure Early</i>	DATE/TIME 9/25/1500	RECEIVED BY: (Signature) <i>[Signature]</i>	RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE/TIME 9/25/1600	RECEIVED BY: (Signature) <i>[Signature]</i>
METHOD OF SHIPMENT: FED EX		SHIPPED BY: (Signature) <i>[Signature]</i>	COURIER: (Signature) <i>[Signature]</i>	RECEIVED FOR LAB BY: (Signature) <i>[Signature]</i>	DATE/TIME 9/27/90 1100

Relinquished By: S.W. McElroy 9/24/90 1600

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-IT0091 (20F2)

PROJECT NO.

4002-410

ANALYSES

SAMPLERS: (Signature)

Paul Early

DATE

TIME

SAMPLE NUMBER

BOT CODE

Rad Screen

MS 10/10

NUMBER OF CONTAINERS

REMARKS
(Sample preservation, handling procedures, etc.)

For *IT Corp*

9/25/90

1047

SW00333WC

CV

✓

1

1

1318

SW00334WC

CV

✓

1

9/25/90

1020

SW90115WC

CV

X

1

Matrix - Water - SW

All samples stored on ice.

OUT OF SPEC
REPORTING
REQUIRED
STD TURNAROUND
30C

Contact personnel:

Bruce LaRue

TOTAL NUMBER OF CONTAINERS

3

RELINQUISHED BY: (Signature)

Paul Early

DATE/TIME

9/25/1500

RECEIVED BY: (Signature)

David Hurn

RELINQUISHED BY: (Signature)

David Hurn

DATE/TIME

9/26/1600

RECEIVED BY: (Signature)

Shirley E. Elay

METHOD OF SHIPMENT:

FED EX

SHIPPED BY: (Signature)

DWB

COURIER: (Signature)

RECEIVED FOR LAB BY: (Signature) DATE/TIME

Shirley E. Elay 2012/90 0900/1100

Relinquished By: *Shirley E. Elay* 9/25/90 1600
Did not receive Rad Screen Bottles - GP

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
 Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-IT0092(10F2)

PROJECT NO.				ANALYSES							REMARKS (Sample preservation, handling procedures, etc.)
4002-410				CLP - YOA	Oil & GREASE	Total METALS	Dissolved Metals	Major Ions: F&S	Nitrate & Nitrite	CYANIDE	
DATE	TIME	SAMPLE NUMBER	ETI Code								
9-25-90	1015	SW00354 WC	AA1	X							1
	1015		AAE	X							1
	1016		AD	X							1
	1017		BA		X						1
	1018		BB			X					1
	1019		BF				X				1
	1020		BH					X			1
	1021		BP						X		1
	0930	SW90116 WC	AA1	X							1
	0930	"	AA2	X							1
	1315	SW00352 WC	AA1	X							1
	1315		AA2	X							1
	1316		AD	X							1
	1317		BA		X						1
	1318		BB			X					1
	1319		BF				X				1
	1320		BH					X			1
9/26/90	1321		BP						X		1

For I.T. CORP.

Matrix - WATER (SW)

All samples stored on ice.

out of spec. reporting requested.

STD TURNAROUND

30c

Contact personnel:
 BRUCE
 LA RUE

TOTAL NUMBER OF CONTAINERS 18

RELINQUISHED BY: (Signature) <i>Gregory J. Miller</i>	DATE/TIME 9/25/1530	RECEIVED BY: (Signature) <i>[Signature]</i>	RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE/TIME 9/26/1600	RECEIVED BY: (Signature) <i>S.W. McEley</i>
METHOD OF SHIPMENT: FED EX		SHIPPED BY: (Signature) <i>[Signature]</i>	COURIER: (Signature) <i>[Signature]</i>	RECEIVED FOR LAB BY: (Signature) <i>S.W. McEley</i>	DATE/TIME 9/27/1100

Relinquished By: S.W. McEley 9/27/90 1600

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-1T0092 (2CF2)

PROJECT NO.

4002-410

ANALYSES

SAMPLERS: (Signature)

Greg T. Miller

DATE

TIME

SAMPLE NUMBER

Btl. Code

Rad Screen

NUMBER OF CONTAINERS

REMARKS
(Sample preservation, handling procedures, etc.)

For I.T. Corp

9-25-90	1026	SW00354WC	CV	X	1
"	0930	SW90116WC	CV	X	1
9/25/90	1326	SW00352WC	CV	X	1

Matrix - WATER (SW)

All samples stored on ice.

out of spec.
reporting requested

STD TURNAROUND

300

Contact personnel:

BRUCE

LA RNE

TOTAL NUMBER OF CONTAINERS

3

RELINQUISHED BY: (Signature)

Greg T. Miller

DATE/TIME

9/25/90 1530

RECEIVED BY: (Signature)

Donna H. ...

RELINQUISHED BY: (Signature)

Donna H. ...

DATE/TIME

9/26/90 1600

RECEIVED BY: (Signature)

S.K. M. Ely

METHOD OF SHIPMENT:

FED EX

SHIPPED BY: (Signature)

DUB

COURIER: (Signature)

RECEIVED FOR LAB BY: (Signature)

Shirley Peters
201290 0900 9/27/90 1100

Relinquished by: *S.K. M. Ely* 9/28/90 1600
Did not received Rad Screen Bottles - GAP

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-IT0093 (1 of 2)

PROJECT NO.			ANALYSES								REMARKS (Sample preservation, handling procedures, etc.)
SAMPLERS: (Signature)			CLP	VOA	OIL AND GREASE	TOTAL METALS	TOTAL METALS - DISS	MAJOR IONS, TSS, JDS	NITRATE/NITRITE, ASX	CYANIDE	
DATE	TIME	SAMPLE NUMBER	AA	AD	BA	BB	BF	BH	BP		
9/26/90	0900	SW90119WC	AA	X							1
	0900		AA	X							1
	0940	SW90355WC	AA	X							1
	0940		AA	X							1
	0942		AD	X							1
	0943		BA	X							1
	0944		BB	X							1
	0945		BF	X							1
	0946		BH	X							1
	0947		BP	X							1
	1120	SW90345WC	AA	X							1
	1130		AA	X							1
	1131		AD	X							1
	1132		BA	X							1
	1133		BB	X							1
	1134		BF	X							1
	1135		BH	X							1
9/26/90	1136		BP	X							1
<i>RWC 9-26-90</i>											
										TOTAL NUMBER OF CONTAINERS	18
RELINQUISHED BY: (Signature)			DATE/TIME	RECEIVED BY: (Signature)			RELINQUISHED BY: (Signature)			DATE/TIME	RECEIVED BY: (Signature)
<i>Susan J. Mills</i>			9/26/90 1315	<i>Bruce Larue</i>			<i>Bruce Larue</i>			9/26/90 1540	<i>S.A.M. Eley</i>
METHOD OF SHIPMENT:				SHIPPED BY: (Signature)			COURIER: (Signature)			RECEIVED FOR LAB BY: (Signature)	
<i>FED EX</i>				<i>RWC</i>						<i>Shawn A. Peterson</i> 9/27/90 1100	

For IT CORP

Matrix - WATER-SW

All samples stored on ice.

OUT OF SPEC REPORTING REQUIRED

300

Contact personnel:
BRUCE LARUE

Relinquished by: *S.A.M. Eley* 9/28/90 1600

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC - IT 0093 (2 of 2)

PROJECT NO. 4002-410			ANALYSES				NUMBER OF CONTAINERS	REMARKS (Sample preservation, handling procedures, etc.)
SAMPLERS: (Signature) <i>Gregory J. Miller</i>			RAD SCREEN					
DATE	TIME	SAMPLE NUMBER						
9/26/90	0900	SW90119WC CV				1	For <u>ITCORP</u> Matrix - <u>WATER-SW</u> All samples stored on ice. <u>OUT OF SPEC REPORTING REQUIRED</u> <u>STD TURNAROUND</u> <u>300</u> Contact personnel: <u>BRUCE LARUE</u>	
9/26/90	0952	SW90355WC CV				1		
9/26/90	1141	SW90345WC CV				1		
<i>BWL 9-26-90</i>								

TOTAL NUMBER OF CONTAINERS **3**

RELINQUISHED BY: (Signature) <i>Gregory J. Miller</i>	DATE/TIME 9/24/90 1315	RECEIVED BY: (Signature) <i>Bruce Larue</i>	RELINQUISHED BY: (Signature) <i>Bruce Larue</i>	DATE/TIME 9/26/90 1500	RECEIVED BY: (Signature) <i>S. W. McElroy</i>
METHOD OF SHIPMENT: <u>FED EX</u>		SHIPPED BY: (Signature) <u>BWL</u>	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature) <i>Alvin G. Peterson</i>	DATE/TIME 9/27/90 1100

Relinquished by: *S. W. McElroy* 9/28/90 1600
Did not receive Rad Screen Bottles - GP

ER DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

File No. 9009N023 SDG No. RF 023 Site Surface Water
 Laboratory TMA/Norcal No. of Samples/Matrix 24/Water
 QLI No. 335 Reviewer Org. QuantaLex, Inc.
 Sample Numbers SW00337WC, SW00326WC, SW00350WC, SW00348WC, SW00353WC, SW00344WC,
SW00354WC, SW00352WC, SW00355WC, SW00345WC, SW00356WC, SW80048WC, SW80049WC,
SW00380WC, SW00360WC, SW00361WC, SW00364WC, SW00406WC, SW00363WC, SW00410WC,
SW00402WC, SW00408WC, SW80050WC, SW80051WC

Alpha Spectrometric Analyses
Data Assessment Summary

	Iso-U _s	Iso-Pu _s	Am ²⁴¹	Comments
1. Holding Times	<u>V</u>	<u>V</u>	<u>V</u>	
2. Initial Calibrations	<u>V</u>	<u>V</u>	<u>V</u>	<u>Action Item 1</u>
3. Laboratory Blanks	<u>R</u>	<u>V</u>	<u>R</u>	<u>Action Item 2; Comment 1</u>
4. Lab Replicates	<u>V</u>	<u>R</u>	<u>V</u>	<u>Action Item 3</u>
5. Lab Control Samples	<u>A</u>	<u>V</u>	<u>V</u>	<u>Action Item 4; Comment 2</u>
6. Resolution	<u>V</u>	<u>V</u>	<u>V</u>	
7. Recovery Factors	<u>V</u>	<u>V</u>	<u>V</u>	<u>Action Item 5</u>
8. Sample Calculations	<u>V</u>	<u>V</u>	<u>V</u>	<u>Comment 3</u>
9. Overall Assessment	<u>R</u>	<u>R</u>	<u>R</u>	

V = Data had no problems.
 A = Data acceptable but qualified due to problems.
 R = Data rejected.
 X = Problems, but do not affect data.

Data Quality: Data contained in this batch for isotopic uranium and plutonium were reviewed and found to be rejected.

Data contained in this batch for americium were reviewed and found to be rejected. (Refer to attached Data Summary Tables).

Action Items: 1) **Initial Calibrations:** The last calibration efficiency summary was received in October 1990. The detector efficiency values used to calculate the results for the isotopic uranium analysis of the laboratory control sample (LCS) and sample SW00363WC differed by more than five percent from the calibration values obtained on September 20, 1990. Therefore, the results for the LCS and SW00363WC were flagged A, Acceptable. The detector efficiency values used to calculate the result for the isotopic plutonium analysis of sample SW00406WC differed by more than five percent from the calibration value obtained on September 20, 1990. Therefore, the result for sample SW00406WC was flagged A, Acceptable. Because the majority of the calibration results were valid, the overall initial calibration results were flagged V, Valid.

2) **Laboratory Blanks:** The Minimum Detectable Activity (MDA) for the americium laboratory blank exceeded the Required Detection Limit (RDL); thus the results were flagged R, Rejected. The laboratory blank activities and MDAs for 234 uranium and 238 uranium reported by the laboratory exceeded the respective RDLs. The laboratory states in the case narrative that a suspected error in the analysis was the cause for the blank contamination; however, the laboratory did not reanalyze the blank or explain how this error impacted the samples in this Sample Delivery Group (SDG). Therefore, the isotopic uranium laboratory blank result was flagged R, Rejected.

3) **Laboratory Replicates:** The laboratory sample and its replicate for the isotopic plutonium analysis were outside the 3 sigma control limit of the weighted average; thus, the results were flagged R, Rejected.

4) **Laboratory Control Sample (LCS):** The low level LCS results for 234 uranium, 235 uranium and 238 uranium exceeded the 3 sigma control limit. The high level LCS was within 3 sigma control limits of the expected value; therefore, this result was flagged A, Acceptable.

5) **Recovery Factors:** The laboratory reported a recovery factor of 16.1% for the americium analysis of the laboratory blank. This recovery factor result was flagged A, Acceptable. The majority of the recovery factors reported in this (SDG) were valid. Therefore, the overall recovery factor results were flagged V, valid.

Comments: 1) Laboratory Blank: The MDA for the americium blank exceeded the RDL.
2) Laboratory Control Samples (LCS): The MDAs for the americium LCSs exceeded the respective RDLs.
3) Sample Calculations: The MDAs for samples SW00344WC, SW00364WC, SW00402WC and SW80051WC exceeded the RDLs for the americium analysis.

Note: Data Summary Tables are attached.

Jinda M. Scovel
Reviewer Signature

4/17/91
Date

**Radiochemical Data Completeness
Checklist for Alpha Spectrometric Analyses
of Soil and Water**

- A. Yes Case Narrative
Yes Abnormalities explained
Yes Matrix Problems explained
Yes Instrument problems explained
Yes Improper collection, storage, preservation, container explained
Yes Hold times were met, explained if not met
- B. Yes Efficiency, Background, and Calibrations Data Package
Yes ID of each Detector
No Dates of last efficiency check including: spectra and/or channel by channel printout, certificates and DPMs of check sources; counts obtained; count durations; and channels selected for ROIs
Yes Proper channel numbers of isotopes of interest, based on calibration data of Pu, Am, and U standards
Yes Total memory (channels per detector)
Yes Energy range of the alpha detection system (KeV)
Yes Gain (KeV/channel) of the alpha detection system
No Dates of last background spectra including: spectra and/or channel by channel printout; count durations; counts obtained; and channels selected for ROIs
- C. Yes Reagent Blanks Data Package
Yes ID of each detector used
Yes Analyst initials
Yes Date reagent blanks were analyzed
Yes ID of samples analyzed with the reagent blanks
Yes Type of method blank used, MDA of method
Yes Volume of aliquot for reagent blanks
- D. Yes Replicate Sample Data Package
Yes ID of each detector used
Yes Analyst Initials
Yes Date sample and replicates were analyzed
Yes Sample IDs, values obtained for sample and replicates
Yes Count Durations of sample and replicates
Yes Volume of aliquot for sample and replicates
Yes Calculated uncertainties and MDAs
- E. Yes Lab Control Samples (LCSs) Data Package
Yes ID of each detector used
Yes Analyst initials
Yes Date LCSs were analyzed
Yes ID of LLCs and HLCs
Yes Values obtained for LCSs with uncertainty and MDA
Yes True value of LCSs with uncertainty
Yes ID of samples analyzed with the LCSs

- F. Yes Resolution
Yes System gain (in KeV/Channel)
Yes FWHM (in channels)
Yes Counts in peak channel for HLCS
- G. Yes Internal Recovery Factors
Yes Efficiency factor provided for each detector used
Yes ID of each detector used
Yes Net counts obtained for each isotopic tracer used
Yes Count duration
Yes ID, FWHM, and DPM value of each isotopic tracer
Yes Calculated Chemical Recovery
- H. Yes Sample Data Package
Yes Printed report of results for samples and reruns
Yes Computer calculations sheet including: sample IDs, detector IDs, isotopes of interest, counts obtained for samples, background counts obtained, isotopic tracer counts obtained, count durations, DPMs of tracer used, aliquots of sample and tracer, detector efficiency, chemical recovery, activities obtained for samples, uncertainties, and MDAs
- I. Yes Minimum Detectable Activity
Yes Background Measurements including: counts and count durations of samples and backgrounds taken during the same weekly time period
Yes Date of analysis
Yes Background CPM
Yes MDA calculated for each isotopic analysis for the sample

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE MM/DD/YY	SAMPLE TIME HH:MM	BATCH NUMBER	SAMPLER MATRIX	LAB SAMPLE NUMBER	LAB ID	LAB PANEL CODE	LAB TEST CODE	BLANK SAMPLE NUMBER	RSI ID	CAS	ANALYTICAL RESULT	RESL QUA	SIG ERROR	UNIT OF MEASUREMENT	RETURN TIME	PARAMETER NAME	INSTRUMENT	REASONS				QUANTITY	UNIT OF MEASUREMENT
																			1	2	3	4		
SW00326WC	09/19/90	0000-0520-002	0000-0520-002	WATER	0520-002	TMA3	012990	012990		TR 14596-10-2	0.2176	0.08573	PC/L	Am241	0.05	Am241	0.05	R	21	36				
SW00326WC	09/19/90	0000-0520-002	0000-0520-002	WATER	0520-002	TMA3	012990	012990		TR 10-12-8	0.2703	0.11648	PC/L	Am241	0.05	Am241	0.05	R	21	36				
SW00326WC	09/19/90	0000-0520-002	0000-0520-002	WATER	0520-002	TMA3	121990	121990		TR 11-08-5	2.004	0.35206	PC/L	U 233	1.99	U 233	1.99	R	99	21	32			
SW00326WC	09/19/90	0000-0520-002	0000-0520-002	WATER	0520-002	TMA3	121990	121990		TR 10-11-7	1.548	0.30352	PC/L	U 235	2.41	U 235	2.41	R	99	21	32			
SW00326WC	09/19/90	0000-0520-002	0000-0520-002	WATER	0520-002	TMA3	121990	121990		TR 7440-61-1	8.527	3.50448	PC/L	Am241	0.09	Am241	0.09	R	21	36				
SW00326WC	09/19/90	0000-0520-001	0000-0520-001	WATER	0520-001	TMA3	012990	012990		TR 14596-10-2	0.02339	0.0153608	PC/L	Am241	0.09	Am241	0.09	R	21	36				
SW00326WC	09/19/90	0000-0520-001	0000-0520-001	WATER	0520-001	TMA3	012990	012990		TR 10-12-8	0.02044	0.060113	PC/L	Am241	0.09	Am241	0.09	R	99	21	32			
SW00326WC	09/19/90	0000-0520-001	0000-0520-001	WATER	0520-001	TMA3	012990	012990		TR 11-08-5	8.136	1.623076	PC/L	U 233	2.18	U 233	2.18	R	99	21	32			
SW00326WC	09/19/90	0000-0520-001	0000-0520-001	WATER	0520-001	TMA3	121990	121990		TR 10-11-7	1.132	0.28884	PC/L	U 238	2.18	U 238	2.18	R	99	21	32			
SW00326WC	09/19/90	0000-0520-001	0000-0520-001	WATER	0520-001	TMA3	121990	121990		TR 7440-61-1	2.852	0.8	PC/L	Am241	0.07	Am241	0.07	R	21	36				
SW00326WC	09/19/90	0000-0520-001	0000-0520-001	WATER	0520-001	TMA3	121990	121990		TR 14596-10-2	0.051	0.015357	PC/L	Am241	0.08	Am241	0.08	R	99	21	32			
SW00326WC	09/19/90	0000-0520-006	0000-0520-006	WATER	0520-006	TMA3	012590	012590		TR 10-12-8	0.6029	0.055488	PC/L	Am241	0.08	Am241	0.08	R	99	21	32			
SW00326WC	09/19/90	0000-0520-006	0000-0520-006	WATER	0520-006	TMA3	012590	012590		TR 11-08-5	3.976	0.962979	PC/L	U 233	2.13	U 233	2.13	R	99	21	32			
SW00326WC	09/19/90	0000-0520-006	0000-0520-006	WATER	0520-006	TMA3	122690	122690		TR 10-11-7	2.767	0.21912	PC/L	U 235	2.58	U 235	2.58	R	99	21	32			
SW00326WC	09/19/90	0000-0520-006	0000-0520-006	WATER	0520-006	TMA3	122690	122690		TR 7440-61-1	3.337	0.91949	PC/L	Am241	0.08	Am241	0.08	R	99	21	32			
SW00326WC	09/19/90	0000-0520-010	0000-0520-010	WATER	0520-010	TMA3	012690	012690		TR 14596-10-2	0.01777	0.005488	PC/L	Am241	0.05	Am241	0.05	R	21	36				
SW00326WC	09/19/90	0000-0520-010	0000-0520-010	WATER	0520-010	TMA3	012690	012690		TR 10-12-8	0.07525	0.005488	PC/L	Am241	0.05	Am241	0.05	R	21	36				
SW00326WC	09/19/90	0000-0520-010	0000-0520-010	WATER	0520-010	TMA3	012690	012690		TR 11-08-5	2.021	0.65528	PC/L	U 233	2.05	U 233	2.05	R	99	21	32			
SW00326WC	09/19/90	0000-0520-010	0000-0520-010	WATER	0520-010	TMA3	122690	122690		TR 10-11-7	2.659	0.211892	PC/L	U 238	2.48	U 238	2.48	R	99	21	32			
SW00326WC	09/19/90	0000-0520-004	0000-0520-004	WATER	0520-004	TMA3	122690	122690		TR 7440-61-1	1.933	0.50916	PC/L	Am241	0.05	Am241	0.05	R	99	21	32			
SW00326WC	09/19/90	0000-0520-004	0000-0520-004	WATER	0520-004	TMA3	012490	012490		TR 10-12-8	0.03577	0.007048	PC/L	Am241	0.02	Am241	0.02	R	21	36				
SW00326WC	09/19/90	0000-0520-004	0000-0520-004	WATER	0520-004	TMA3	012490	012490		TR 11-08-5	9.654	0.47864	PC/L	U 233	2.05	U 233	2.05	R	99	21	32			
SW00326WC	09/19/90	0000-0520-004	0000-0520-004	WATER	0520-004	TMA3	122490	122490		TR 10-11-7	0.5318	0.104484	PC/L	U 235	2.48	U 235	2.48	R	99	21	32			
SW00326WC	09/19/90	0000-0520-004	0000-0520-004	WATER	0520-004	TMA3	122490	122490		TR 7440-61-1	9.724	0.46696	PC/L	Am241	0.05	Am241	0.05	R	99	21	32			
SW00326WC	09/19/90	0000-0520-003	0000-0520-003	WATER	0520-003	TMA3	012490	012490		TR 14596-10-2	0.04823	0.009457	PC/L	Am241	0.03	Am241	0.03	R	21	36				
SW00326WC	09/19/90	0000-0520-003	0000-0520-003	WATER	0520-003	TMA3	012490	012490		TR 10-12-8	0.105	0.006814	PC/L	Am241	0.05	Am241	0.05	R	99	21	32			
SW00326WC	09/19/90	0000-0520-003	0000-0520-003	WATER	0520-003	TMA3	122490	122490		TR 11-08-5	0.573	0.332012	PC/L	U 233	1.91	U 233	1.91	R	99	21	32			
SW00326WC	09/19/90	0000-0520-003	0000-0520-003	WATER	0520-003	TMA3	122490	122490		TR 10-11-7	0.0	0.0	PC/L	U 235	2.32	U 235	2.32	R	99	21	32			
SW00326WC	09/19/90	0000-0520-003	0000-0520-003	WATER	0520-003	TMA3	122490	122490		TR 7440-61-1	4.108	0.207156	PC/L	Am241	0.01	Am241	0.01	R	21	36				
SW00326WC	09/19/90	0000-0520-008	0000-0520-008	WATER	0520-008	TMA3	012590	012590		TR 14596-10-2	0.1487	0.016357	PC/L	Am241	0.07	Am241	0.07	R	99	21	32			
SW00326WC	09/19/90	0000-0520-008	0000-0520-008	WATER	0520-008	TMA3	012590	012590		TR 10-12-8	0.524	0.153233	PC/L	Am241	0.07	Am241	0.07	R	99	21	32			
SW00326WC	09/19/90	0000-0520-008	0000-0520-008	WATER	0520-008	TMA3	122590	122590		TR 11-08-5	13.2	2.19912	PC/L	U 233	2.69	U 233	2.69	R	99	21	32			
SW00326WC	09/19/90	0000-0520-008	0000-0520-008	WATER	0520-008	TMA3	122590	122590		TR 10-11-7	6.947	0.96508	PC/L	Am241	0.07	Am241	0.07	R	99	21	32			
SW00326WC	09/19/90	0000-0520-008	0000-0520-008	WATER	0520-008	TMA3	122590	122590		TR 7440-61-1	11.33	1.9698	PC/L	U 235	2.30	U 235	2.30	R	99	21	32			
SW00326WC	09/19/90	0000-0520-008	0000-0520-008	WATER	0520-008	TMA3	122590	122590		TR 14596-10-2	0.05411	0.006114	PC/L	Am241	0.15	Am241	0.15	R	21	36				
SW00326WC	09/19/90	0000-0520-005	0000-0520-005	WATER	0520-005	TMA3	012590	012590		TR 10-12-8	0.07495	0.0073618	PC/L	Am241	0.10	Am241	0.10	R	99	21	32			
SW00326WC	09/19/90	0000-0520-005	0000-0520-005	WATER	0520-005	TMA3	012590	012590		TR 11-08-5	3.321	0.96688	PC/L	U 233	2.15	U 233	2.15	R	99	21	32			
SW00326WC	09/19/90	0000-0520-005	0000-0520-005	WATER	0520-005	TMA3	122590	122590		TR 10-11-7	2.792	0.222068	PC/L	U 235	2.60	U 235	2.60	R	99	21	32			
SW00326WC	09/19/90	0000-0520-005	0000-0520-005	WATER	0520-005	TMA3	122590	122590		TR 7440-61-1	6.918	1.425312	PC/L	U 238	2.15	U 238	2.15	R	99	21	32			

PROJECT SAMPLE NUMBER	SAMPLE DATE MM/DD/YYYY	COLLECTION TIME HH:MM	BATCH NUMBER	SAMPL. WATER	LAB SAMPLE NUMBER	LAB ID	PREP DATE MM/DD/YYYY	ANALYSES DATE MM/DD/YYYY	BLANK SAMPLE NUMBER	TEST PANEL CODE	LAB ID	CAS NUMBER	ANALYT RESULT	RSLT QUA FRIE	2 SIG ERROR	UNIT OF MEASU	RETEN TION TIME	PARAMETER NAME	INSTRUMENT LIMIT	REASONS					OLI UNIT OF MEASU RER
																				1	2	3	4	5	
SW000402WC	10/03/90		0000-0520-023	WATER	0520-023	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.00	0.0167	0.0	PC/L	Am241	.015	R	21	36				
SW000402WC	10/03/90		0000-0520-023	WATER	0520-023	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	5.005	275576	0.0	PC/L	U 233	.212	R	99	21	32			
SW000402WC	10/03/90		0000-0520-023	WATER	0520-023	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.0	270972	0.0	PC/L	U 238	.257	R	99	21	32			
SW000402WC	10/03/90		0000-0520-023	WATER	0520-023	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	3.185	270972	0.0	PC/L	U 238	.212	R	99	21	32			
SW000406	10/03/90		0000-0520-018	WATER	0520-018	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	1.079	2056946	0.0	PC/L	Am241	.004	R	30					
SW000406	10/03/90		0000-0520-018	WATER	0520-018	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	1.079	10633	0.0	PC/L	U 233	.126	R	99	21	32			
SW000406	10/03/90		0000-0520-018	WATER	0520-018	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.0267	0641116	0.0	PC/L	U 238	.152	R	99	21	32			
SW000406	10/03/90		0000-0520-018	WATER	0520-018	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.0269	052592	0.0	PC/L	Am241	.005	R	21	36	53	.017		
SW000406	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.03796	065925	0.0	PC/L	Am241	.009	R	21	36				
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-12-8	0.05015	0659053	0.0	PC/L	Am241	.005	R	30					
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	2.505	743481	0.0	PC/L	U 233	.198	R	99	21	32			
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	1.542	202468	0.0	PC/L	U 238	.240	R	99	21	32			
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	2.717	745188	0.0	PC/L	U 238	.198	R	99	21	32			
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	0.007491	064441	0.0	PC/L	Am241	.005	R	21	36	53	.004		
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.0827	066994	0.0	PC/L	U 233	.205	R	99	21	32			
SW000408WC	10/03/90		0000-0520-024	WATER	0520-024	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	1.098	43264	0.0	PC/L	U 238	.248	R	99	21	32			
SW000410WC	10/03/90		0000-0520-020	WATER	0520-020	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.0	104238	0.0	PC/L	U 238	.205	R	99	21	32			
SW000410WC	10/03/90		0000-0520-020	WATER	0520-020	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	1.713	560756	0.0	PC/L	Am241	.006	R	21	36	53	.007		
SW000410WC	10/03/90		0000-0520-020	WATER	0520-020	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.03105	0660838	0.0	PC/L	Am241	.007	R	30					
SW000410WC	10/03/90		0000-0520-012	WATER	0520-012	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-12-8	0.08188	0664347	0.0	PC/L	U 233	.324	R	99	21	32			
SW000410WC	10/03/90		0000-0520-012	WATER	0520-012	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	1.042	570164	0.0	PC/L	U 235	.592	R	99	21	32			
SW000410WC	10/03/90		0000-0520-012	WATER	0520-012	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.8414	1654632	0.0	PC/L	Am241	.011	R	21	36	53	.004		
SW000410WC	10/03/90		0000-0520-012	WATER	0520-012	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	0.973	567028	0.0	PC/L	U 238	.324	R	99	21	32			
SW000410WC	10/03/90		0000-0520-012	WATER	0520-012	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.000876	0668659	0.0	PC/L	Am241	.008	R	30					
SW000410WC	10/03/90		0000-0520-013	WATER	0520-013	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-12-8	0.02492	0648663	0.0	PC/L	U 238	.110	R	99	21	32			
SW000410WC	10/03/90		0000-0520-013	WATER	0520-013	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	1.177	892828	0.0	PC/L	U 233	.133	R	99	21	32			
SW000410WC	10/03/90		0000-0520-013	WATER	0520-013	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.0	65586	0.0	PC/L	U 235	.110	R	99	21	32			
SW000410WC	10/03/90		0000-0520-013	WATER	0520-013	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	0.2354	0641972	0.0	PC/L	Am241	.009	R	21	36	53	.005		
SW000410WC	10/03/90		0000-0520-021	WATER	0520-021	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.008359	0665342	0.0	PC/L	Am241	.009	R	21	36	53	.005		
SW000410WC	10/03/90		0000-0520-021	WATER	0520-021	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-12-8	0.03146	0646276	0.0	PC/L	Am241	.009	R	30					
SW000410WC	10/03/90		0000-0520-021	WATER	0520-021	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	0.9373	976048	0.0	PC/L	U 233	.180	R	99	21	32			
SW000410WC	10/03/90		0000-0520-021	WATER	0520-021	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.04688	0920612	0.0	PC/L	U 235	.180	R	99	21	32			
SW000410WC	10/03/90		0000-0520-021	WATER	0520-021	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	0.7745	9764596	0.0	PC/L	Am241	.014	R	21	36	53	.019		
SW000410WC	10/03/90		0000-0520-022	WATER	0520-022	TMAJF	01/03/90	01/03/90		TRADIS	TR	14596-10-2	0.13	01532	0.0	PC/L	Am241	.014	R	30					
SW000410WC	10/03/90		0000-0520-022	WATER	0520-022	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-12-8	0.2538	01532	0.0	PC/L	U 238	.188	R	99	21	32			
SW000410WC	10/03/90		0000-0520-022	WATER	0520-022	TMAJF	01/03/90	01/03/90		TRADIS	TR	11-08-5	8523	411796	0.0	PC/L	U 233	.229	R	99	21	32			
SW000410WC	10/03/90		0000-0520-022	WATER	0520-022	TMAJF	01/03/90	01/03/90		TRADIS	TR	10-11-7	0.9827	8970884	0.0	PC/L	U 235	.189	R	99	21	32			
SW000410WC	10/03/90		0000-0520-022	WATER	0520-022	TMAJF	01/03/90	01/03/90		TRADIS	TR	7440-61-1	7.305	33104	0.0	PC/L	U 238	.189	R	99	21	32			

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE MM/DD/YY	SAMPLE MATRIX	SAMPLE NUMBER	LAB ID	SAMPLE PREP DATE MM/DD/YY	SAMPLE ANALYSIS DATE MM/DD/YY	BLANK SAMPLE NUMBER	LAB TEST PANEL CODE	RS ID	CAS NUMBER	ANALYTICAL RESULT	RSLT QUA IFE	2 SIG ERROR	UNIT OF MEASU TIME	RETEN TION TIME	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS 1 2 3 4	Q/L UNIT OF O/A MEASU FIER
BLANK			0000-0520-029	TMA#	01/03/91	0000-0520-029	0000-0520-029	TRADR			3.295	432		PCL		U 238	0.0		
BLANK			0000-0520-029	TMA#	01/03/91	0000-0520-029	0000-0520-029	TRADR			.048	.055		PCL		U 235	0.0		
BLANK			0000-0520-029	TMA#	01/03/91	0000-0520-029	0000-0520-029	TRADR			2.924	426		PCL		U 234	0.0		
BLANK			0000-0520-029	TMA#	01/06/91	0000-0520-029	0000-0520-029	TRADR			.005	.008		PCL		Pu239	.01		
BLANK			0000-0520-029	TMA#	01/18/91	0000-0520-029	0000-0520-029	TRADR			.066	.067		PCL		Am241	.09		

ER DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9009N023 Site Surface Water
 Laboratory TMA/Norcal No. of Samples/Matrix 25/Water
 QLI# R00335 Reviewer Org. QuantaLex, Inc.

Sample Numbers SW00337WC, SW00326WC, SW00350WC, SW00348WC, SW00353WC, SW00344WC,
SW00354WC, SW00352WC, SW00355WC, SW00345WC, SW00356WC, SW80048WC, SW80049WC,
SW00380WC, SW00360WC, SW00361WC, SW00364WC, SW00406WC, SW00363WC, SW00410WC,
SW80050WC, SW80051WC, SW00402WC, SW00408WC, NP50186WC

Data Assessment Summary

Gross $\alpha + \beta$ Analysis
by Gas Proportional Counters

Comments

1. Holding Times	<u>V</u>	<u></u>
2. Initial Calibrations	<u>V</u>	<u></u>
3. Continuing Calibrations	<u>V</u>	<u></u>
4. Laboratory Blanks	<u>V</u>	<u></u>
5. Lab Replicates	<u>V</u>	<u></u>
6. Lab Control Samples	<u>V</u>	<u></u>
7. Size of Aliquot	<u>V</u>	<u>See Comment 1</u>
8. Self-Absorption Factors	<u>V</u>	<u></u>
9. Sample Calculations	<u>V</u>	<u></u>
10. Overall Assessment	<u>V</u>	<u>See Comment 2</u>

V = Data had no problems.

A = Data acceptable but qualified due to problems.

R = Data rejected.

X = Problems, but do not affect data.

Data Quality: Data contained in this batch were reviewed and found to be valid. (Refer to attached Data Summary Tables).

Action Items: None.

Comments: 1) Minimum Detectable Activities (MDAs): The MDA for samples SW00337WC, SW00353WC, SW00344WC, SW00354WC, SW00352WC, SW00355WC, SW00345WC, SW00356WC, SW80048WC, SW00408WC, and the replicate of SW00345WC exceeded the Required Detection Level (RDL) for the Gross alpha analysis due to heavy dissolved solids in the sample matrices. The MDA for sample SW00354WC and its replicate and SW00355WC exceeded the RDL for the Gross beta analysis due to heavy dissolved solids in the sample matrices.

2) Overall Assessment: The 2σ values reported on the Data Summary Tables differ from the values calculated on the Gross Alpha-Gross Beta printouts from the counter. However, the values were not significantly different. No explanation of the difference was given in the case narrative.

Note: Data Summary Tables are attached.

Nikki Wilson
Reviewer Signature

3/19/21
Date

**Radiochemical Data Completeness
Checklist for Radiometric and Gross α & β Analyses
of Soil and Water by Gas Proportional Counters**

- A. Yes Case Narrative
- Yes Abnormalities explained
 - Yes Matrix Problems explained
 - Yes Instrument problems explained
 - Yes Improper collection, storage, preservation, container explained
 - Yes Hold times met, explained if not met
- B. Yes Initial and Continuing Calibration Data Package
- Yes Detector ID
 - Yes Date and Time calibrated, calibration check, Analyst initials
 - Yes Radionuclide Standard Name, NIST certification and expiration dates, and DPM value
 - Yes Aliquots of standards used
 - Yes Raw tapes from counters showing alpha and beta counts obtained and count durations for each weight of salt
 - Yes Weights of salts
 - Yes Efficiencies
 - Yes Alpha/Beta crosstalk values
 - Yes Best fit curve coefficients
 - Yes Carrier weights added to planchets, if applicable
 - Yes Reliability check source name, NIST certification, expiration and DPM activity
 - Yes Raw tapes from counters showing alpha and beta counts obtained and count durations for reliability checksource
 - Yes Efficiency checksource name, NIST certification, expiration, and DPM activity
 - Yes Raw tapes from counters showing alpha and beta counts obtained and count duration for checksource
 - Yes Efficiency obtained for checksource
 - Yes Results of lab statistical test used to evaluate reliability and efficiency checks
 - Yes Background counts obtained and count duration for each detector
 - Yes Results of lab statistical test used to evaluate the instrument background
- C. Yes Reagent Blanks Data Package
- Yes ID of each detector used
 - Yes Analyst initials
 - Yes Date reagent blanks were analyzed
 - Yes ID of samples analyzed with the reagent blanks
 - Yes Type of method blank used, MDA of method
 - Yes Volume of aliquot for reagent blanks
- D. Yes Replicate Sample Data Package
- Yes ID of each detector used
 - Yes Analyst Initials
 - Yes Date sample and replicates were analyzed
 - Yes Sample IDs, values obtained for sample and replicates
 - Yes Count Duration of sample and replicates
 - Yes Volume of aliquot for sample and replicates
 - Yes Calculated uncertainties and MDAs

- E. Yes Lab Control Samples (LCSs) Data Package
Yes ID of each detector used
Yes Analyst initials
Yes Date LCSs were analyzed
Yes ID of LCS
Yes Values obtained for LCSs with uncertainty and MDA
Yes True value of LCSs with uncertainty
Yes ID of samples analyzed with the LCSs
- F. Yes Minimum Detectable Activity
Yes Background measurements including: counts and count durations of samples and backgrounds taken during the same weekly time period
Yes Date of analysis
Yes Background CPM
Yes MDA calculated for both gross alpha and gross beta analysis of the sample
- G. Yes Size of Aliquot in Gross α & β Determination Data Package
Yes Sample ID
Yes Calculated volume of sample to deliver 150mgs solids
Yes Raw data supporting efficiency factor and efficiency factor used
- H. Yes Sample Data Package
Yes Printed report of results for sample, reruns
Yes Raw Data from counter, copies of notebook pages
Yes Manual/Computer calculations
Yes Sample ID, Detector ID, obtained sample and background counts and count durations observed, aliquot of sample, weight of solids counted, detector efficiency, activities, uncertainties, and MDAs

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE TIME MM/DD/YY	BATCH NUMBER	LAB SAMPLE NUMBER	LAB ID	LAB PREP DATE TIME MM/DD/YY	SAMPLE ANALYSES DATE TIME MM/DD/YY	BLANK SAMPLE NUMBER	LAB TEST PANEL CODE	LAB ID	CAS NUMBER	ANALYTICAL RESULT	RSLT QUA FFE	UNIT OF MEASU	RETEK TMON TIME	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS				QUA UNIT OF MEASU	
																	1	2	3	4		
NP00186WC	10/03/90	0000-0520-025	0520-025	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2500	1.70	PCOL	GrAlph	1.70	V							
SW00020WC	09/19/90	0000-0520-025	0520-025	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	7.805	1.69	PCOL	GrBeta	1.69	V							
SW00032WC	09/19/90	0000-0520-002	0520-002	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2.356	1.56	PCOL	GrAlph	1.56	V							
SW00033WC	09/19/90	0000-0520-001	0520-001	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	6.902	1.65	PCOL	GrBeta	1.65	V							
SW00034WC	09/19/90	0000-0520-006	0520-006	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	6.491	1.71	PCOL	GrBeta	1.71	V							
SW00044WC	09/25/90	0000-0520-006	0520-006	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	6.136	1.71	PCOL	GrBeta	1.71	V							
SW00045WC	09/25/90	0000-0520-010	0520-010	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	7.436	1.66	PCOL	GrBeta	1.66	V							
SW00048WC	09/24/90	0000-0520-004	0520-004	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	1.191	1.71	PCOL	GrBeta	1.71	V							
SW00050WC	09/24/90	0000-0520-003	0520-003	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	1.038	1.66	PCOL	GrBeta	1.66	V							
SW00051WC	09/24/90	0000-0520-003	0520-003	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	7.707	1.62	PCOL	GrBeta	1.62	V							
SW00052WC	09/24/90	0000-0520-003	0520-003	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	1.353	1.41	PCOL	GrAlph	1.41	V							
SW00053WC	09/25/90	0000-0520-008	0520-008	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	8.395001	1.88	PCOL	GrBeta	1.88	V							
SW00054WC	09/25/90	0000-0520-008	0520-008	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	4.132	2.88	PCOL	GrAlph	2.88	V							
SW00055WC	09/25/90	0000-0520-005	0520-005	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	12.12	1.65	PCOL	GrBeta	1.65	V							
SW00056WC	09/25/90	0000-0520-005	0520-005	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	7.082	1.64	PCOL	GrBeta	1.64	V							
SW00057WC	09/25/90	0000-0520-007	0520-007	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	39.3	17.01	PCOL	GrAlph	17.01	V							
SW00058WC	09/26/90	0000-0520-009	0520-009	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	68.28	8.67	PCOL	GrBeta	8.67	V							
SW00059WC	09/26/90	0000-0520-009	0520-009	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	73.59	21.67	PCOL	GrBeta	21.67	V							
SW00060WC	10/01/90	0000-0520-011	0520-011	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2.815	4.214	PCOL	GrAlph	4.214	V							
SW00061WC	10/01/90	0000-0520-015	0520-015	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	12.69	2.76	PCOL	GrBeta	2.76	V							
SW00062WC	10/01/90	0000-0520-016	0520-016	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2.217	1.99	PCOL	GrAlph	1.99	V							
SW00063WC	10/01/90	0000-0520-016	0520-016	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	3.58	1.29	PCOL	GrBeta	1.29	V							
SW00064WC	10/01/90	0000-0520-019	0520-019	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	4.036	1.70	PCOL	GrBeta	1.70	V							
SW00065WC	10/01/90	0000-0520-019	0520-019	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	5.837	7.00	PCOL	GrBeta	7.00	V							
SW00066WC	10/01/90	0000-0520-017	0520-017	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	1.086	1.19	PCOL	GrBeta	1.19	V							
SW00067WC	10/01/90	0000-0520-014	0520-014	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2.594	1.16	PCOL	GrBeta	1.16	V							
SW00068WC	10/01/90	0000-0520-014	0520-014	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	1.994	1.07	PCOL	GrBeta	1.07	V							
SW00069WC	10/01/90	0000-0520-023	0520-023	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	1.752	1.43	PCOL	GrBeta	1.43	V							
SW00070WC	10/01/90	0000-0520-018	0520-018	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2.762	1.94	PCOL	GrBeta	1.94	V							
SW00071WC	10/01/90	0000-0520-018	0520-018	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	3.398	1.91	PCOL	GrBeta	1.91	V							
SW00072WC	10/01/90	0000-0520-024	0520-024	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	2.815	2.77	PCOL	GrBeta	2.77	V							
SW00073WC	10/01/90	0000-0520-024	0520-024	TMAJ	12/03/90	0520-29	0520-29	TRA05	TR 10-78-6	5.103	1.68	PCOL	GrBeta	1.68	V							

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION		LAB ID	LAB SAMPLE NUMBER	SAMPL MATRIX	BATCH NUMBER	SAMPL ANALYSIS DATE	SAMPL PREP DATE	LAB ID	LAB TEST PANEL CODE	RS ID	CAS NUMBER	ANALYT RESULT	RSL 2 SIG ERROR RFE	UNIT OF MEASU	RETEH TION TIME	PARAMETER NAME	INSTRUMEN T DETECTION LIMIT	REASONS				QLI LIMIT	QLI OF MEASU RER
	DATE	TIME																	MM/DD/YY	MM/DD/YY	MM/DD/YY	MM/DD/YY		
SW00410WC	10/05/90		0000-0000-000	0000-0000-000	WATER	0000-0000-000	12/05/90	12/05/90	TMAJ	TRAD8	TR	10-78-4	2.063	1.59024	PCL		GrAlph	1.72	V					
SW00410WC	10/05/90		0000-0000-000	0000-0000-000	WATER	0000-0000-000	12/05/90	12/05/90	TMAJ	TRAD8	TR	10-80-0	5.631	1.39352	PCL		GrBeta	1.78	V					
SW80048WC	09/28/90		0000-0000-012	0000-0000-012	WATER	0000-0000-012	01/28/90	01/28/90	TMAJ	TRAD8	TR	10-78-4	2.079	3.4986	PCL		GrAlph	4.73	V	36				
SW80048WC	09/28/90		0000-0000-012	0000-0000-012	WATER	0000-0000-012	01/28/90	01/28/90	TMAJ	TRAD8	TR	10-80-0	11.26	2.6656	PCL		GrBeta	3.29	V					
SW80049WC	09/28/90		0000-0000-013	0000-0000-013	WATER	0000-0000-013	12/28/90	12/28/90	TMAJ	TRAD8	TR	10-78-4	5.428	1.19176	PCL		GrAlph	1.75	V					
SW80049WC	09/28/90		0000-0000-013	0000-0000-013	WATER	0000-0000-013	12/28/90	12/28/90	TMAJ	TRAD8	TR	10-80-0	10.282	9.5972	PCL		GrBeta	1.60	V					
SW80050WC	10/05/90		0000-0000-021	0000-0000-021	WATER	0000-0000-021	12/05/90	12/05/90	TMAJ	TRAD8	TR	10-78-4	-2.7104	754404	PCL		GrAlph	1.41	V					
SW80050WC	10/05/90		0000-0000-021	0000-0000-021	WATER	0000-0000-021	12/05/90	12/05/90	TMAJ	TRAD8	TR	10-80-0	5.965	963332	PCL		GrBeta	1.58	V					
SW80051WC	10/05/90		0000-0000-022	0000-0000-022	WATER	0000-0000-022	12/05/90	12/05/90	TMAJ	TRAD8	TR	10-78-4	3.021	2.04624	PCL		GrAlph	2.22	V	36				
SW80051WC	10/05/90		0000-0000-022	0000-0000-022	WATER	0000-0000-022	12/05/90	12/05/90	TMAJ	TRAD8	TR	10-80-0	6.048	1.410416	PCL		GrBeta	1.76	V					

Rocky Flats Analytical Report	RF023	January 18, 1990
Pond Samples		TMA/Norcal

Data Report _____ page 2

TMA I. D.	0000-0520-007		0000-0520-008		0000-0520-009
Cust. I.D.	SW00354WC		SW00352WC		SW00355WC
Coll. Date	25-SEP-90		25-SEP-90		26-SEP-90

Analysis	pCi/L +/- 2sig		pCi/L +/- 2sig		pCi/L +/- 2sig	
Gross Alpha	39.300	17.011	4.152	2.883	73.590	21.678
Gross Beta	68.280	8.648	12.120	1.653	88.560	9.694
U-233,234	33.390	4.763	13.200	2.199	43.040	6.313
U-235	1.192	0.529	0.691	0.397	2.093	0.704
U-238	19.180	2.962	11.330	1.970	28.260	4.341
Sr-89,90	0.519	0.314	0.231	0.176	0.442	0.616
Pu-239,240	0.004	0.008	0.052	0.015	0.011	0.008
Am-241	0.019	0.010	0.015	0.010	0.021	0.008
Cs-137	-0.210	0.162	-0.355	0.175	0.021	0.201
Tritium						
Ra-226						
Cm-244						

TMA I. D.	0000-0520-010		0000-0520-011		0000-0520-012
Cust. I.D.	SW00345WC		SW00356WC		SW80048WC
Coll. Date	26-SEP-90		28-SEP-90		28-SEP-90

Analysis	pCi/L +/- 2sig		pCi/L +/- 2sig		pCi/L +/- 2sig	
Gross Alpha	1.191	2.454	2.815	4.214	2.029	3.499
Gross Beta	5.003	1.330	12.690	2.764	11.260	2.666
U-233,234	2.021	0.655	1.316	0.572	1.042	0.570
U-235	0.266	0.211	0.000	0.130	0.084	0.165
U-238	1.933	0.651	0.932	0.452	0.973	0.567
Sr-89,90	0.067	0.149	0.708	0.288	0.459	0.202
Pu-239,240	0.008	0.006	0.000	0.005	0.008	0.006
Am-241	0.013	0.007	0.000	0.005	0.003	0.006
Cs-137	-0.153	0.170	-0.232	0.180	-0.163	0.141
Tritium						
Ra-226						
Cm-244						

Rocky Flats Analytical Report	RF034	June 28, 1991
Tritium in Water		TMA/Norcal

Table 2. Data Summary (cont.)

TMA I. D.	0000-0520-006		0000-0520-007		0000-0520-008
Cust. I.D.	SW00344WC		SW00354WC		SW00352WC
Coll. Date	25-SEP-90		25-SEP-90		25-SEP-90
Analysis	pCi/L +/- 2sig		pCi/L +/- 2sig		pCi/L +/- 2sig
Tritium	234.101 172.650		1668.056 219.897		235.635 173.733
TMA I. D.	0000-0520-009		0000-0520-010		0000-0520-011
Cust. I.D.	SW00355WC		SW00345WC		SW00356WC
Coll. Date	26-SEP-90		26-SEP-90		28-SEP-90
Analysis	pCi/L +/- 2sig		pCi/L +/- 2sig		pCi/L +/- 2sig
Tritium	1772.100 224.272		92.317 169.417		147.306 172.230
TMA I. D.	0000-0520-012		0000-0520-013		0000-0520-014
Cust. I.D.	SW80048WC		SW80049WC		SW00380WC
Coll. Date	28-SEP-90		28-SEP-90		1-OCT-90
Analysis	pCi/L +/- 2sig		pCi/L +/- 2sig		pCi/L +/- 2sig
Tritium	118.581 171.568		36.617 162.071		141.005 168.865
TMA I. D.	0000-0520-015		0000-0520-016		0000-0520-017
Cust. I.D.	SW00360WC		SW00361WC		SW00364WC
Coll. Date	1-OCT-90		1-OCT-90		1-OCT-90
Analysis	pCi/L +/- 2sig		pCi/L +/- 2sig		pCi/L +/- 2sig
Tritium	61.868 164.600		63.319 168.465		74.150 168.705

9160247946

Woodward-Clyde Consultants

Stanford Place 3, Suite 1000 4582 South Ulster Street Parkway
Denver, Colorado 80237 (303) 694-2770

Chain of Custody Record

WC-N0133

PROJECT NO. ADD 410			ANALYSES				NUMBER OF CONTAINERS	REMARKS (Sample preservation, handling procedures, etc.)
SAMPLERS: (Signature) Gregory J. Mills			TOTAL	PERC	DN	CO		
DATE	TIME	SAMPLE NUMBER						
9/26/90	0950	SW00355WC	CB	X			1	For <u>NORCAL</u> Matrix - WATER-SW 9/26/90 DTP All samples stored on ice. OUT OF SPEC REPORTING REQUIRED STD TURNAROUND Contact personnel: BRUCE LARUE
	0949		CB	X			1	
	0948		CB	X			1	
	0951		CU	X			1	
	1137	SW00345WC	CB	X			1	
	1138		CB	X			1	
	1139		CB	X			1	
9/26/90	1140		CU	X			1	

TOTAL NUMBER OF CONTAINERS 8

RELINQUISHED BY: (Signature) Gregory J. Mills	DATE/TIME 9/26/90 1315	RECEIVED BY: (Signature) Bruce Larue	RELINQUISHED BY: (Signature) Bruce Larue	DATE/TIME 9/26/90 1550	RECEIVED BY: (Signature)
METHOD OF SHIPMENT: FED EX		SHIPPED BY: (Signature) BWL	COURIER: (Signature)		RECEIVED FOR LAB BY: (Signature) Kermit Polun
					DATE/TIME 9-28-90 0910