

EM DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9105P141 Site Non-Site Specific
 Laboratory IT-Pittsburgh No. of Samples/Matrix 5/Water
 SOW # 10/86 (Rev. 2/88) Reviewer Org. QuantaLex, Inc.
 Sample Numbers SW01171WC, SW01172WC, FT00014REU2, FT00015REU2, FT00016REU2

Data Assessment Summary

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

WOODWARD-CLYDE
FEDERAL SERVICES

CONTRACTOR SAMPLERS D. Burgess, B. Singleton PROJECT # 4002-410

SITE CONTACT/PHONE Bruce LaRue (303) 988-5874

LAB/LOCATION WESTON GULF COAST UNIV. PK., IL

FT Corp / Export PA

C-O-C NUMBER WC-EX 00018

**EG&G ROCKY FLATS PLANT
CHAIN OF CUSTODY**

05/15/91

DATE/TIME	SAMPLE NUMBER	LOCATION	CONTAINER TYPE
5-22-91 17:14	50001172 AX	S00095	40 ML AG
19:10			1L GL
10:15			1L POLY
10:30			1L POLY
10:30			1L POLY
10:35			500 ML POLY
10:45			1L POLY
10:50			500 ML POLY

505 520-91

NUMBER OF CONTAINERS	MEDIA SOIL(S) WATER (W)	FILTERED=F POT DISS=P	TURN AROUND RUSH=R	OUT OF SPEC REPORTS REQUIRED	COOLED TO 4 C Y/N	Zn(C2H3O2)2	NAOH	HNO3	H2SO4	Na2S2O3
2 W					Y				X	
1 W					Y		X			
1 W		F			Y		X			
1 W					Y					
1 W					Y		X			
1 W					Y					
1 W					Y				X	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
VOA-CLP PRESERVED WITH HCL	BNA-CLP	PEST/PCB-CLP	TRIAZINES	OIL AND GREASE	METALS, Cs, Li, Sr, Sn, Mo	CN PRESERVED WITH C6H6	TSS, TDS, Cl, F, SO4, CO3, HCO3, NO3	Tot Phos, NO3/NO2, NH4	0-Phos 2 0 2	H2S	TOC DOC IF FILTERED	GROSS A/B	PU239/240, Am241	U233/234, 235, 238	Sr89/90, Cs137, Ra226, 228	H3	RADIATION SCREEN

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	LABORATORY USE ONLY	Y / N
<i>Edwards Bruneau</i>	5-22-91 1400	<i>Edwards Bruneau</i>	5-22-91 1400	PCKG REC'D/CUSTODY SEALS INTACT	Y
<i>Edwards Bruneau</i>	5-23-91 1400	<i>Edwards Bruneau</i>	5-23-91 1600	SAMPLE LABELS/COCs AGREE	Y
<i>Edwards Bruneau</i>	5-24-91 1600	<i>Al G. Roberts</i>	5-29-91 0800	TEMPERATURE WITHIN SPECIFICATION	5 c Y
				CORRECTED COPY ATTACHED	
REMARKS				OTHER PROBLEMS OR DISCREPANCIES	
SHIPMENT METHOD			Fed Ex		

000173

Action Items: 1) The %RSDs for Acetone, 2-Butanone and 2-Hexanone exceeded 50% in the 5/20/91 initial calibration while the %Ds for Bromomethane, Chloroethane, and Acetone exceeded 50% in the 5/28/91 continuing calibration. Therefore, the non-detected results for 2-Butanone, 2-Hexanone, Bromomethane, and Chloroethane in samples SW01171WC and SW01172WC and the non-detected result for Acetone in sample SW01171WC are rejected (R). The positive Acetone result in sample SW01172WC would be estimated had blank criteria been met (see Action Item 3). In addition, Bromomethane and Chloroethane's %RSD exceeded 30% in the 5/20/91 initial calibration.

2) The RRF for 2-Butanone was below 0.05 in the 5/30/91 initial and 6/2/91 continuing calibrations, while the %D for Bromomethane exceeded 50% in the 6/2/91 continuing calibration. Therefore, the non-detected results for 2-Butanone and Bromomethane in samples FT00014REU2, FT00015REU2, and FT00016REU2 are rejected (R).

3) As a result of method blank contamination, the positive results for Acetone in sample SW01172WC and the positive result for Methylene Chloride in sample FT00016REU2 are reported as undetected and estimated (J) according to the Functional Guidelines criteria (10x rule).

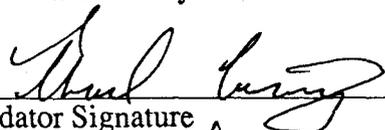
4) Calibration was not performed for the cis isomer of 1,2-Dichloroethene. Since a relative response factor (RRF) was not generated and the retention time (RT) was not verifiable, the exact concentration could not be determined and the positive result for this compound in sample FT00014REU2 is estimated (J).

Comments: 1) The %RSDs and/or %Ds for several compounds exceeded criteria in the various initial and continuing calibrations. No action is taken because there were no positive results for these compounds in the associated samples.

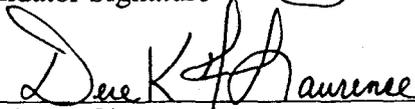
2) Instrument detection limits for instrument FIN2 were inserted from another case.

3) Samples SW001172WC, FT00014REU2, and FT00015REU2 each contained one TIC. In addition, a late eluting unidentified peak was evident in sample FT00016REU2's chromatogram.

Note: Data Summary Tables are attached.


Validator Signature

7/26/91
Date


Reviewer Signature

7/22/91
Date

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE MM/DD/YY	BATCH NUMBER	SAMPLE MATRIX	LAB 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 IRE	2 SIG ERROR	UNIT OF MEASUREMENT	RETENTION TIME	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASON	QI RESULT	QI UNIT OF MEASUREMENT
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 71-43-2	MS 71-43-2	5	U	U	5.0000	UG/L	Benzene	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 71-43-2	MS 71-43-2	91	U	U	5.0000	%	Benzene	5.0000				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 71-43-2	MS 71-43-2	97	U	U	5.0000	%	Benzene	5.0000				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 71-43-2	MS 71-43-2	5	U	U	5.0000	UG/L	Bromodichloromethane	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 75-27-4	MS 75-27-4	5	U	U	5.0000	UG/L	Bromodichloromethane	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 75-27-4	MS 75-27-4	5	U	U	5.0000	UG/L	Bromodichloromethane	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL SU VOA-SUR2	MS 75-27-4	93	U	U	5.0000	%	Bromodichloromethane	5.0000				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL SU VOA-SUR2	MS 75-27-4	98	U	U	5.0000	%	Bromodichloromethane	5.0000				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 75-25-2	MS 75-25-2	5	U	U	5.0000	UG/L	Bromoform	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 75-25-2	MS 75-25-2	5	U	U	5.0000	UG/L	Bromoform	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 74-83-9	MS 74-83-9	10	U	U	10.0000	UG/L	Bromochloroethane	10.0000	R 41			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 74-83-9	MS 74-83-9	10	U	U	10.0000	UG/L	Bromochloroethane	10.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 75-15-0	MS 75-15-0	5	U	U	5.0000	UG/L	Carbon disulfide	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 75-15-0	MS 75-15-0	5	U	U	5.0000	UG/L	Carbon disulfide	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 56-25-5	MS 56-25-5	5	U	U	5.0000	UG/L	Carbon disulfide	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 56-25-5	MS 56-25-5	2	J	J	5.0000	UG/L	Carbon tetrachloride	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 108-90-7	MS 108-90-7	5	U	U	5.0000	UG/L	Carbon tetrachloride	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 108-90-7	MS 108-90-7	92	U	U	5.0000	%	Carbon tetrachloride	5.0000				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 108-90-7	MS 108-90-7	96	U	U	5.0000	%	Carbon tetrachloride	5.0000				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 75-00-3	MS 75-00-3	10	U	U	10.0000	UG/L	Chlorobenzene	10.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 75-00-3	MS 75-00-3	10	U	U	10.0000	UG/L	Chlorobenzene	10.0000	R 41			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 67-66-3	MS 67-66-3	2	J	J	5.0000	UG/L	Chlorobenzene	5.0000	A			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 67-66-3	MS 67-66-3	1	J	J	5.0000	UG/L	Chlorobenzene	5.0000	A			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 67-66-3	MS 67-66-3	2	J	J	5.0000	UG/L	Chlorobenzene	5.0000	A			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 74-87-3	MS 74-87-3	10	U	U	10.0000	UG/L	Chlorobenzene	10.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 74-87-3	MS 74-87-3	10	U	U	10.0000	UG/L	Chlorobenzene	10.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 74-87-3	MS 74-87-3	10	U	U	10.0000	UG/L	Chlorobenzene	10.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL TR 10061-01-5	MS 10061-01-5	5	U	U	5.0000	UG/L	cis-1,2-Dichloropropene	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 10061-01-5	MS 10061-01-5	5	U	U	5.0000	UG/L	cis-1,2-Dichloropropene	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 10061-01-5	MS 10061-01-5	5	U	U	5.0000	UG/L	cis-1,2-Dichloropropene	5.0000	V			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	05/28/91	05/28/91	VBLK-5-28-91 0958	VOCAPPTL MS 174-48-1	MS 174-48-1	5	U	U	5.0000	UG/L	Dibromodichloroethane	5.0000	V			

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE TIME MM/DD/HH	BATCH NUMBER	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB ID	LAB PANEL CODE	RS ID	CAS NUMBER	ANALYTICAL RESULT	RSLT QUA IRE	2 SIG ERROR	UNIT OF MEASU	RETEN TION TIME	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS	OU RESULT	OLI UNIT OF MEASU
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TK 124-48-1	5	U	UG/L	5.0000	V		Dibromochloroacethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 124-48-1	5	U	UG/L	5.0000	V		Dibromochloroacethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 100-41-4	5	U	UG/L	5.0000	V		Ethylbenzene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 100-41-4	5	U	UG/L	5.0000	V		Ethylbenzene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 100-41-4	5	U	UG/L	5.0000	V		Ethylbenzene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 75-09-2	5	U	UG/L	5.0000	V		Methylcyclohexane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 75-09-2	5	U	UG/L	5.0000	V		Methylcyclohexane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 75-09-2	5	U	UG/L	5.0000	V		Methylcyclohexane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 100-42-5	5	U	UG/L	5.0000	V		Styrene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 100-42-5	5	U	UG/L	5.0000	V		Styrene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 100-42-5	5	U	UG/L	5.0000	V		Styrene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 127-18-4	5	U	UG/L	5.0000	V		Tetrahaloethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 127-18-4	5	U	UG/L	5.0000	V		Tetrahaloethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 127-18-4	5	U	UG/L	5.0000	V		Tetrahaloethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 108-88-3	5	U	UG/L	5.0000	V		Toluene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 108-88-3	96	U	%	5.0000	V		Toluene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 108-88-3	90	U	%	5.0000	V		Toluene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 108-88-3	5	U	UG/L	5.0000	V		Toluene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 108-88-3	5	U	UG/L	5.0000	V		Toluene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	SU VOA-SURI 100	198		%				Toluene-D8				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	SU VOA-SURI 109	109		%				Toluene-D8				
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TK 1330-20-7	5	U	UG/L	5.0000	V		Total Xylenes	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 1330-20-7	5	U	UG/L	5.0000	V		Total Xylenes	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 10061-02-6	5	U	UG/L	5.0000	V		trans-1,3-Dichloropropene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 10061-02-6	5	U	UG/L	5.0000	V		trans-1,3-Dichloropropene	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 79-01-6	93	U	%	5.0000	V		Trichloroethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 79-01-6	5	U	UG/L	5.0000	V		Trichloroethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 79-01-6	2	J	UG/L	5.0000	A		Trichloroethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 79-01-6	97	U	%	5.0000	V		Trichloroethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 79-01-6	5	U	UG/L	5.0000	V		Trichloroethane	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TK	30	J	UG/L	5.0000	V	2.57	UNKNOWN	5.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 108-05-4	10	U	UG/L	10.0000	V		Vinyl acetate	10.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 108-05-4	10	U	UG/L	10.0000	V		Vinyl acetate	10.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 108-05-4	10	U	UG/L	10.0000	V		Vinyl acetate	10.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 75-01-4	10	U	UG/L	10.0000	V		Vinyl chloride	10.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	TR 75-01-4	10	U	UG/L	10.0000	V		Vinyl chloride	10.0000			
SW001172WC	05/22/91	P141 05/25/91	WATER	Q10523802A	ITPA	VOCCLPTCL	MS 75-01-4	10	U	UG/L	10.0000	V		Vinyl chloride	10.0000			

EM DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9105P141 Site Surface Water
 Laboratory ITAS - Pittsburgh No. of Samples/Matrix 6/Water
 SOW # 7/88 Reviewer Org. QuantaLex, Inc.
 Sample Numbers SW01171WC (total and soluble), SW01172WC (total and soluble), FT00017REU2, FT00018REU2

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>A</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>Action Item 1</u>
3. Blanks	<u>A</u>	<u>A</u>	<u>V</u>	<u>A</u>	<u>Action Items 2-6</u>
4. ICP Interference Check Sample	<u>A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>Action Items 7-9</u>
5. Matrix Spike Sample Results	<u>A</u>	<u>A</u>	<u>A</u>	<u>V</u>	<u>Action Items 10-12</u>
6. Duplicate Sample Results	<u>V</u>	<u>V</u>	<u>A</u>	<u>V</u>	<u>Action Item 13</u>
7. Lab Control Sample Results	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
8. Method of Standard Addition	<u>N/A</u>	<u>A</u>	<u>N/A</u>	<u>N/A</u>	<u>Action Item 14</u>
9. Serial Dilution	<u>V</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>X</u>	<u>X</u>	<u>V</u>	<u>X</u>	<u>Comments 1-5</u>
12. Overall Assessment	<u>A</u>	<u>A</u>	<u>A</u>	<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.

N/A = Not applicable.

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 Results Summary Tables).

Action Items: 1) All Copper non-detects are estimated and undetected (UJ) because the CRDL check sample recovery criteria were not met.

2) The Aluminum and Antimony values for FT00017REU2 and FT00018REU2 are estimated and undetected (UJ) because analyte values > IDL were found in the blanks.

3) All Chromium, Molybdenum, and Vanadium values are estimated and undetected (UJ) because analyte values > IDL were found in the blanks.

4) The Selenium values for SW01171WC (total) and SW01172WC (soluble) are estimated and undetected (UJ) because Selenium values > IDL were found in the blanks.

5) The Silver values for FT00017REU2, FT00018REU2, and SW01171WC (total) are estimated and undetected (UJ) because Silver values > IDL were found in the blanks.

6) The Cyanide non-detects for SW01171WC (total) and SW01172WC (total) are estimated and undetected (UJ) because of negative bias as indicated in the blanks.

7) The Antimony, Manganese, Tin, and Zinc values for SW01171WC (total and soluble) and SW01172WC (total and soluble) are estimated and undetected (UJ) because of possible Calcium interference as indicated in the ICP Interference Check Sample.

8) The Strontium values for SW01171WC (total and soluble) and SW01172WC (total) are estimated (J) because of possible Calcium interference as indicated in the ICP Interference Check Sample.

9) The Silver non-detects for SW01171WC (soluble) and SW01172WC (total and soluble) are rejected (R) because of possible Calcium interference as indicated in the ICP Interference Check Sample.

10) All Iron values are estimated (J) because pre-digestion matrix spike recovery criteria were not met.

11) The Selenium values for FT00017REU2, FT00018REU2, and SW01171WC (soluble) are estimated (J) because pre-digestion matrix spike recovery criteria were not met.

Action Items (cont.): 12) The Tin non-detects for FT00017REU2 and FT00018REU2 are rejected (R)

because pre-digestion matrix spike recovery criteria were not met.

13) All Mercury values are estimated, and non-detects are estimated and undetected (UJ) because duplicate sample precision criteria were not met.

14) The Selenium value for SW01172WC (total) is estimated (J) because the MSA correlation coefficient was less than 0.995.

Comments: 1) Several soluble values are greater than their corresponding total values.

2) A post-digestion spike concentration of 6.0 ug/L was used for Lead. To be compliant with SOW 7/88, the spike concentration should have been 20.0 ug/L.

3) The Arsenic, Selenium, and Thallium raw data were rounded to whole numbers.

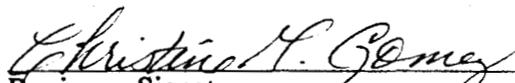
4) The Cyanide results are unverifiable because the laboratory was unable to supply QuantaLx with the equation that the Lachet system uses to convert the raw data into concentrations.

5) The Cesium IDL used to validate and report all non-detects was changed from 112 ug/L to 110 ug/L due to significant figure discrepancy.

Note: Data Summary Tables are attached.


Validator Signature

15 July 1991
Date


Reviewer Signature

7/15/91
Date

PROJECT NUMBER	SAMPLE COLLECTION DATE	BATCH NUMBER	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB ID	SAMPLE PREP DATE	SAMPLE ANALYSIS DATE	TIME	BLANK SAMPLE NUMBER	LAB TEST PANEL CODE	RS ID	CAS NUMBER	ANALYTICAL RESULT	RESLT QUA	2 SIG	UNIT OF MEASUR	RETEN	PARAMETER NAME	INSTRUMENT LIMIT	REASONS	QI	QI UNIT	QI QUA	QI FREER	
	MM/DD/YYYY					MM/DD/YYYY	MM/DD/YYYY	MM/DD/YYYY						IFE	ERROR		TIME		LA	1	2	3	4	REASLT	
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		82.20	B	UG/L	200,000	7	Aluminum	60,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		30.90	BN	UG/L	60,000	7	Antimony	20,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2.00	UN	UG/L	10,000	7	Arsenic	10,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		175.00	B	UG/L	5,000	7	Barium	5,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		1.00	U	UG/L	5,000	7	Beryllium	5,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2.00	U	UG/L	5,000	7	Cadmium	5,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		95100.00	UN	UG/L	500,000	7	Calcium	500,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		112.00	UN	UG/L	100,000	7	Cesium	100,000	7			UG/L	U	
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		13.40	U	UG/L	10,000	7	Chromium	10,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		3.00	U	UG/L	30,000	7	Cobalt	30,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		11.00	U	UG/L	25,000	7	Copper	25,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		40.80	B	UG/L	100,000	7	Iron	100,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		8.30	U	UG/L	3,000	7	Lead	3,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		17400.00	B	UG/L	100,000	7	Lithium	100,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		28.00	UN	UG/L	500,000	7	Magnesium	500,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		0.20	UN	UG/L	15,000	7	Manganese	15,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2.80	BN	UG/L	200,000	7	Mercury	200,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		3.00	U	UG/L	40,000	7	Molybdenum	40,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2130.00	B	UG/L	500,000	7	Nickel	500,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2.00	BN	UG/L	5,000	7	Potassium	5,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		3.80	BN	UG/L	10,000	7	Selenium	10,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		39300.00	UN	UG/L	500,000	7	Silver	500,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		538.00	U	UG/L	200,000	7	Sodium	200,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		1.00	U	UG/L	10,000	7	Strontium	10,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		10.00	UN	UG/L	200,000	7	Thallium	200,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		207.90	B	UG/L	50,000	7	Tin	50,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		5.00	B	UG/L	20,000	7	Vanadium	20,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		83.80	B	UG/L	200,000	7	Zinc	200,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		27.00	BN	UG/L	60,000	7	Aluminum	60,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2.00	UN	UG/L	10,000	7	Antimony	10,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		178.00	B	UG/L	200,000	7	Arsenic	200,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		1.00	U	UG/L	5,000	7	Barium	5,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		2.00	U	UG/L	5,000	7	Beryllium	5,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		95800.00	UN	UG/L	500,000	7	Cadmium	500,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		112.00	UN	UG/L	100,000	7	Calcium	100,000	7			UG/L	U	
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		12.80	U	UG/L	10,000	7	Cesium	10,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		3.00	U	UG/L	50,000	7	Chromium	50,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		11.00	U	UG/L	25,000	7	Cobalt	25,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9		16.70	B	UG/L	100,000	7	Copper	100,000	7			U		
FT00017REU2	05/29/91	P141 05/31/91	WATER	Q1.0527004A	06/06/91	06/11/91				SWRCLPTC TR9	TR9							Iron							

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE TIME MM/DD/YYYY HH	BATCH NUMBER	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB ID	SAMPL PREP DATE TIME MM/DD/YYYY HH	BLANK SAMPLE NUMBER	LAB TEST PANEL CODE	RS CAS NUMBER	ANALYTICAL RESULT	ROLL OVER	2 SIG ERROR	UNIT OF MEASUREMENT	RETURN TIME	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS	OU RESULT	OU UNIT OF MEASUREMENT
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		1.00	U	UG/L			Lead	3.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		9.30	B	UG/L			Lithium	100.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		17500.00	U	UG/L			Magnesium	5000.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		1.00	U	UG/L			Manganese	15.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/12/91 06/12/91		SM2CALPTA TR0		0.20	UN*	UG/L			Mercury	0.2000	A, 11		U
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		2.90	BN	UG/L			Molybdenum	200.0000	A, 7		U
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		3.00	U	UG/L			Nickel	40.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		2160.00	B	UG/L			Potassium	5000.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		1.00	BWN	UG/L			Selenium	3.0000	A, 12, 14		U
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		3.40	BN	UG/L			Silver	10.0000	A, 7		U
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		39600.00	U	UG/L			Sodium	5000.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		537.00	U	UG/L			Strontium	200.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		1.00	U	UG/L			Thallium	10.0000	V		
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		10.00	UN	UG/L			Tin	200.0000	A, 13		U
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		4.10	B	UG/L			Vanadium	30.0000	A, 7		U
FT0001 8REU2	05/29/91	P141 05/31/91	WATER	Q10527005A		06/06/91 06/11/91		SM2CALPTA TR0		120.00	U	UG/L			Zinc	20.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		20.900	B	UG/L			Aluminum	200.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		6.000	U	UG/L			Antimony	60.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		2.000	U	UG/L			Arsenic	10.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		2.000	U	UG/L			Berium	200.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		1.000	U	UG/L			Beryllium	5.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		2.000	U	UG/L			Cadmium	5.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		6.500	B	UG/L			Calcium	5000.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		6.300	B	UG/L			Cesium	1000.0000	V	36 110	U/L
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		3.000	U	UG/L			Chromium	10.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		11.000	U	UG/L			Cobalt	50.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		6.000	B	UG/L			Copper	25.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		7.000	U	UG/L			Cyanide	10.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		2.000	U	UG/L			Iron	100.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		2.000	U	UG/L			Lithium	100.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		21.100	B	UG/L			Magnesium	5000.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		1.000	U	UG/L			Manganese	15.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		0.200	U	UG/L			Mercury	0.2000	V		
PBW		P141	WATER	PBW		06/13/91 06/13/91		DM2CALPTA TR0		0.200	U	UG/L			Mercury	0.2000	V		
PBW		P141	WATER	PBW		06/13/91 06/13/91		DM2CALPTA TR0		0.200	U	UG/L			Mercury	0.2000	V		
PBW		P141	WATER	PBW		06/12/91 06/12/91		DM2CALPTA TR0		2.000	U	UG/L			Molybdenum	200.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		3.000	U	UG/L			Nickel	40.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		194.400	B	UG/L			Potassium	5000.0000	V		
PBW		P141	WATER	PBW		06/06/91 06/11/91		DM2CALPTA TR0		1.000	U	UG/L			Selenium	5.0000	V		

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION		BATCH NUMBER	SAMPL MATERIAL	LAB SAMPLE NUMBER	LAB ID	SAMPL PREP DATE	SAMPL ANALYSIS DATE	BLANK SAMPLE NUMBER	LAB TEST PANEL CODE	RS ID	CAS NUMBER	ANALYT RESULT	RSLT QTY	2 SIG ERROR	UNIT OF MEASU TIME	RETE N	PARAMETER NAME	INSTRUMENT LIMIT	REASONS				QU UNIT OF MEASU PER
	DATE	TIME																		1	2	3	4	
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/13/91	06/13/91		SWRCLPTC TR9			0.20	UN*	UGL			Mercury	200.0000	1A	11			
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/12/91	06/12/91		SWRCLPTC TR9			0.20	UN*	UGL			Mercury	200.0000	1A	11			
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523805A		06/06/91	06/11/91		SWRCLPTC TR9			5.70	BN	UGL			Molybdenum	200.0000	1A	7	9		U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			3.90	BN	UGL			Molybdenum	200.0000	1A	7	9		U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523805A		06/06/91	06/11/91		SWRCLPTC TR9			6.20	B	UGL			Nickel	40.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			4.40	B	UGL			Nickel	40.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/06/91	06/11/91		SWRCLPTC TR9			46.5000.00		UGL			Potassium	5000.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			467.00.00		UGL			Potassium	5000.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			3.00	BN	UGL			Selenium	5.0000	1A	12			
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/06/91	06/11/91		SWRCLPTC TR9			2.50	BN	UGL			Selenium	5.0000	1A	7			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523805A		06/06/91	06/11/91		SWRCLPTC TR9			2.10	BN	UGL			Silver	10.0000	1A	7			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			2.00	UN	UGL			Silver	10.0000	1A	9	13		
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/06/91	06/11/91		SWRCLPTC TR9			413000.00		UGL			Sodium	5000.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523805A		06/06/91	06/11/91		SWRCLPTC TR9			407.000.00		UGL			Sodium	5000.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			23.50.00		UGL			Strontium	200.0000	1A	9			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/06/91	06/11/91		SWRCLPTC TR9			23.60.00		UGL			Strontium	200.0000	1A	9			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			1.00	U	UGL			Thallium	10.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523805A		06/06/91	06/11/91		SWRCLPTC TR9			1.00	U	UGL			Thallium	10.0000	V				
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			35.90	BN	UGL			Tin	200.0000	1A	9			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/06/91	06/11/91		SWRCLPTC TR9			34.00	BN	UGL			Tin	200.0000	1A	9			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523805A		06/06/91	06/11/91		SWRCLPTC TR9			6.20	B	UGL			Vanadium	50.0000	1A	7	9		U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			5.00	B	UGL			Vanadium	50.0000	1A	7	9		U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523803A		06/06/91	06/11/91		SWRCLPTC TR9			33.70		UGL			Zinc	20.0000	1A	9			U
SW01171WC	05/22/91		P141 05/25/91	WATER	Q10523801A		06/06/91	06/11/91		SWRCLPTC TR9			35.80		UGL			Zinc	20.0000	1A	9			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SWRCLPTC TR9			351		UGL			Lithium	200.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SWRCLPTC TR9			128.00	B	UGL			Aluminum	200.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804A		06/06/91	06/11/91		SWRCLPTC S1			97.4		%			Aluminum	200.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SWRCLPTC D			170.0500	B	UGL			Aluminum	200.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804A		06/06/91	06/11/91		SWRCLPTC TR9			172.00	B	UGL			Aluminum	200.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SWRCLPTC S1			59.4	N	%			Antimony	60.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804A		06/06/91	06/11/91		SWRCLPTC TR9			80.40	N	%			Antimony	60.0000	1A	7	9		U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SWRCLPTC S2			62.2		%			Antimony	60.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SWRCLPTC TR9			78.3000		UGL			Antimony	60.0000	1A	9			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804A		06/06/91	06/11/91		SWRCLPTC S1			72.30	N	UGL			Antimony	10.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SWRCLPTC TR9			83.0		%			Arsenic	10.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SWRCLPTC TR9			2.00	U	UGL			Arsenic	10.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804A		06/06/91	06/11/91		SWRCLPTC D			2.0000	U	UGL			Arsenic	10.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SWRCLPTC TR9			2.00	U	UGL			Arsenic	10.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SWRCLPTC D			187.2250	B	UGL			Arsenic	200.0000	V				U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804A		06/06/91	06/11/91		SWRCLPTC TR9			192.00	B	UGL			Barium	200.0000	V				U

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE TIME MM/DD/HH	BATCH NUMBER	SAMPLE MATRIX	LAB SAMPLE NUMBER	LAB ID	SAMPLE PREP DATE TIME MM/DD/HH	LAB TEST PANEL CODE	LAB TEST ID	CAS NUMBER	ANALYTICAL RESULT	RESLT QUA	UNIT OF MEASU	RETEA TION TIME	LAB PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS	QUA RESULT	QU UNIT OF MEASU
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	974	179.00	B	%		Barium	200.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG			U	UG/L		Beryllium	200.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG		1.0000	U	UG/L		Beryllium	5.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG		1.00	U	UG/L		Beryllium	5.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	963	2.0000	U	UG/L		Beryllium	5.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	2.00	2.00	U	UG/L		Cadmium	5.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	985	2.00	U	UG/L		Cadmium	5.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	311.081481	311.081481	U	UG/L		Cadmium	5000.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	318000.00	318000.00	U	UG/L		Calcium	5000.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	298000.00	298000.00	U	UG/L		Calcium	5000.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	112.00	112.00	UN	UG/L		Cesium	1000.0000	Y	56 110	UG/L U
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	112.00	112.00	UN	UG/L		Cesium	1000.0000	Y	56 110	UG/L U
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	136.5	136.5	N	%		Cesium	1000.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	101.0	101.0		%		Cesium	1000.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S2	TRG	24.6420	24.6420		UG/L		Chromium	10.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	92.9	92.9		UG/L		Chromium	10.0000	7 9		U
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	22.40	22.40		UG/L		Chromium	10.0000	7 9		U
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	25.50	25.50		UG/L		Chromium	10.0000	7 9		U
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	4.00	4.00	B	UG/L		Cobalt	50.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	4.0280	4.0280	B	UG/L		Cobalt	50.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	96.6	96.6	B	%		Cobalt	50.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	5.40	5.40		UG/L		Copper	50.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	11.0000	11.0000	U	UG/L		Copper	25.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	11.00	11.00	U	UG/L		Copper	25.0000	5		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	98.6	98.6		%		Copper	25.0000	5		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	2.50	2.50	U	UG/L		Cyanide	10.0000	5 8		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	7.1429	7.1429	U	UG/L		Cyanide	10.0000	5 8		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	94.0	94.0		%		Iron	100.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	23.90	23.90	B	UG/L		Iron	100.0000	14 12		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC D	TRG	80.6070	80.6070	B	UG/L		Iron	100.0000	14 12		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	79.10	79.10	B	UG/L		Iron	100.0000	14 12		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	78.5	78.5		%		Iron	100.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC S1	TRG	105.0	105.0		%		Lead	3.0000	Y		
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	1.00	1.00	UW	UG/L		Lead	3.0000			
SW01172WC	05/22/91	P141 05/25/91	WATER	Q10523806A		06/06/91 06/11/91	SMARTCPLC TRG	TRG	1.00	1.00	U	UG/L		Lead	3.0000	Y		

PROJECT SAMPLE NUMBER	SAMPLE DATE	COLLECTION TIME	BATCH	SAMPL MATERIAL	LAB SAMPLE NUMBER	LAB ID	PREP DATE	ANALYSIS DATE	BLANK SAMPLE NUMBER	LAB TEST CODE	CAS NUMBER	ANALYTICAL RESULT	RSL OIA RFE	2 SIG ERROR	UNIT OF MEASU	RETEN TION TIME	PARAMETER NAME	INSTRUMENT LIMIT	REASONS 1 2 3 4	OIA RESULT	OIA UNIT OF MEASU	RER
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		1.000	B		UG/L		Lead	3.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTNOCLP D		363.4640			UG/L		Lithium	100.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTNOCLP S1		105.1			%		Lithium	100.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTNOCLP TR6		376.00			UG/L		Lithium	100.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		7950.00			UG/L		Magnesium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		8228.7580			UG/L		Magnesium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTCLPTA TR6		85900.00			UG/L		Magnesium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC S1		95.0			%		Manganese	15.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTA TR6		5.30	B		UG/L		Manganese	15.0000	JA 9			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTCLPTC TR6		6.50	B		UG/L		Manganese	15.0000	JA 9			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		6.5510	B		UG/L		Manganese	15.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		0.5080	*		UG/L		Mercury	0.2000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC S1		139.4	N		%		Mercury	0.2000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		0.80	UN*		UG/L		Mercury	0.2000	JA 11			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		0.20	N*		UG/L		Mercury	0.2000	JA 11 12			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTNOCLP D		6.1780	B		UG/L		Methylcobaltin	200.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTNOCLP S2		91.2			%		Methylcobaltin	200.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTNOCLP TR6		6.00	BN		UG/L		Methylcobaltin	200.0000	JA 7 9			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTNOCLP S1		74.0	N		%		Methylcobaltin	200.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTNOCLP TR6		6.40	BN		UG/L		Methylcobaltin	200.0000	JA 7 9			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		5.20	B		UG/L		Nickel	40.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		74.560	B		UG/L		Nickel	40.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		8.10	B		UG/L		Nickel	40.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC S1		97.1			%		Nickel	40.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTCLPTA TR6		68800.00			UG/L		Potassium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		63400.00			UG/L		Potassium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		66197.7040			UG/L		Potassium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC S1		41.5	N		%		Selenium	5.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		6.6520			UG/L		Selenium	5.0000	JA 7			U
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTCLPTA TR6		9.00	SN		UG/L		Selenium	5.0000	JA 7			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		7.90	+N		UG/L		Selenium	5.0000	JA 16 12			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		2.0000	U		UG/L		Silver	10.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC S1		11.7	N		%		Silver	10.0000				
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		2.00	UN		UG/L		Silver	10.0000	R 9 13			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTCLPTA TR6		423000.00			UG/L		Sodium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC TR6		463000.00			UG/L		Sodium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTCLPTA TR6		441284.888			UG/L		Sodium	5000.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523806A		06/06/91	06/11/91		SMRTCLPTC D		2530.00			UG/L		Strontium	200.0000	V			
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802A		06/06/91	06/11/91		SMRTNOCLP TR6		2461.3150			UG/L		Strontium	200.0000	V			

WOODWARD-CLYDE
FEDERAL SERVICES

PROJECT # 4002-410

SAMPLERS D. Burgess, B. Singleton

CONTRACTOR

SITE CONTACT/PHONE Bruce LaRue (303) 966-5674

LAB/LOCATION WESTON-GULF COAST UNIV. PK-1L

IT Corp / Export PA

C-O-C NUMBER WC-EX0008

EG&G ROCKY FLATS PLANT
CHAIN OF CUSTODY

05/15/91

DATE/TIME	SAMPLE NUMBER	LOCATION	CONTAINER TYPE
5-22-91 0820	SWP 171WC	SWP 94	40 ML AG
5-22-91 0820			1L GL
5-22-91 0820			1L POLY
5-22-91 0825			1L POLY
5-22-91 0825			1L POLY
5-22-91 0825			1L POLY
5-22-91 0825			500 ML POLY
5-22-91 0825			1L POLY
5-22-91 0825			500 ML POLY

NUMBER OF CONTAINERS
MEDIA SOIL(S) WATER (W)
FILTERED=F POT DISS=P
TURN AROUND RUSH=R
OUT OF SPEC REPORTS REQUIRED

COOLED TO 4 C Y/N

Zn(C2H3O2)2

NAOH

HNO3

H2SO4

Na2S2O3

LABORATORY USE ONLY	DATE/TIME	Y / N
VOA-CLP	5-22-91 1400	Y
BNA-CLP	5-22-91 1400	Y
PEST/PCB-CLP	5-22-91 1400	Y
TRIAZINES	5-22-91 1400	Y
OIL AND GREASE	5-22-91 1400	Y
METALS, CS, LI, SR, SM, MO	5-22-91 1400	Y
CN	5-22-91 1400	Y
TSS, TDS, CI, F, SO4, CO3, HCO3, NO3	5-22-91 1400	Y
Tot Phos, NO3/NO2, NH4	5-22-91 1400	Y
0-Phos	5-22-91 1400	Y
H2S	5-22-91 1400	Y
TOC	5-22-91 1400	Y
GROSS A/B	5-22-91 1400	Y
PU239/240, Am241	5-22-91 1400	Y
U233/234, 235, 238	5-22-91 1400	Y
Sr89/90, Cs137, Ra226, 228	5-22-91 1400	Y
RADIATION SCREEN	5-22-91 1400	Y

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	LABORATORY USE ONLY	Y / N
[Signature]	5-22-91 1400	[Signature]	5-22-91 1400	PCKG REC'D/CUSTODY SEALS INTACT	Y
[Signature]	5-22-91 1400	[Signature]	5-22-91 1600	SAMPLE LABELS/COCs AGREE	Y
[Signature]	5-22-91 1600	[Signature]	5-22-91 0800	TEMPERATURE WITHIN SPECIFICATION 5°C	Y
				CORRECTED COPY ATTACHED	
				OTHER PROBLEMS OR DISCREPANCIES	

REMARKS

SHIPMENT METHOD Fed Ex

000570

WOODWARD-CLYDE
FEDERAL SERVICES

PROJECT # 4002-410

SAMPLERS *D. Burgess, B. Singleton*

SITE CONTACT/PHONE Bruce LaRue (303) 966-5874

LAB/LOCATION WESTON-GUILF COAST UNIV. PK-11

IT Corp / Export PA

C-O-C NUMBER *WC-EX 9008*

EG&G ROCKY FLATS PLANT
CHAIN OF CUSTODY

05/15/91

DATE/TIME	SAMPLE NUMBER	LOCATION	CONTAINER TYPE
5-22-91 14:14	<i>S201172ax</i>	<i>S20095</i>	40 ML AG
5-22-91 14:18			11 GL
5-22-91 14:25			11 POLY
5-22-91 14:30			11 POLY
5-22-91 14:35			11 POLY
5-22-91 14:40			500 ML POLY
5-22-91 14:45			11 POLY
5-22-91 14:50			500 ML POLY

525 522-91

RELINQUISHED BY	DATE/TIME	RECEIVED BY
<i>B. Singleton</i>	5-22-91 1400	<i>Edmunds Bunker</i>
<i>Edmunds Bunker</i>	5-23-91 1400	<i>Edmunds Bunker</i>
<i>Edmunds Bunker</i>	5-24-91 1600	<i>A. G. Adams</i>

NUMBER OF CONTAINERS
MEDIA SOIL(S) WATER (W)
FILTERED-F POT DISS-P
TURN AROUND RUSH-R
OUT OF SPEC REPORTS REQUIRED

COOLED TO 4 C Y/N
Zn(C2H3O2)2
NAOH
HNO3
H2SO4
Na2S2O3

PRESERVATIVE

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
VOA-CLP # <i>PREPARED WITH #</i>	BNA-CLP	PEST/PCB-CLP	TRIAZINES	OIL AND GREASE	METALS, CS, LI, SF, SN, MO	CN	TSS, TDS, CI, F, SO4, CO3, HCO3, & NO3	Tot Phos, NO3/NO2, # <i>4</i>	0-Phos	H2S	TOC	GROSS A/B	U233/234, 235, 238	Sr89/90, Cs137, Ra226, 228	H3		

LABORATORY USE ONLY	DATE/TIME	Y/N
PCKG REC'D/CUSTODY SEALS INTACT	5-22-91 1400	Y
SAMPLE LABELS/COCs AGREE	5-23-91 1600	Y
TEMPERATURE WITHIN SPECIFICATION	5-23-91 0800	Y
CORRECTED COPY ATTACHED		
OTHER PROBLEMS OR DISCREPANCIES		

REMARKS SHIPMENT METHOD *Fed Ex*

986447.00

Mike Abel, Dave McClellan

PROJECT NO. 304982

CONTRACTOR Riedel ~~IT CORPORATION~~ SAMPLERS Dennis Pountius 303-966-5536

SITE CONTACT/PHONE GARY LIPP/LEON KLOTZ 303-966-6079

LAB/LOCATION ITAS Pittsburgh

C-O-C NUMBER RE00003

EG&G ROCKY FLATS PLANT
CHAIN OF CUSTODY

DATE	TIME	SAMPLE NUMBER	LOCATION	CONTAINER TYPE	NUMBER OF CONTAINERS	MEDIA WATER	FILTERED	TURN AROUND RUSH = R	OUT OF SPEC REPORTS REQUIRED
5-29-91	1330	FT 00014	A51	40ml vial	2	✓			
5-29-91	1345	FT 00015	A52	40ml vial	2	✓			
5-29-91	1400	FT 00016	A53	40ml vial	2	✓			
5-29-91	1330	PT 00017	A51	1-L poly	1	✓			
5-29-91	1400	PT 00018	A53	1-L poly	1	✓			

VOA-CLP	TSS, TDS, CL, F, S04, CO3, HCO3	NO3/NO2	METALS, Cs, Li, Sr, Sn, Mo, Si	o-Phos	CN	GROSS A/B	U233/234, 235, 238	Sr89/90, Cs137, Ra226, 228	H3	Pu239/240, Am241
X	X	X	X	X						

COOLED TO 4° C	NAOH	HN03	H2SO4	HCL	RADIATION SCREEN
✓	✓	✓	✓	✓	

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	LABORATORY USE ONLY	Y/N
<i>Dennis Pountius</i>	5-29-91 1525	<i>Ryan Mitchell</i>	5-29-91 1525	PCKG REC'D/CUSTODY SEALS INTACT	K
<i>Ryan Mitchell</i>	5-29-91 1630	<i>R. a. Peters</i>	5/29/91 2010	SAMPLE LABELS/COCs AGREE	Y
				TEMPERATURE WITHIN SPECIFICATION 6 °C	Y

REMARKS Rad screen results

SHIPMENT METHOD FedEx

Airbill 0462276299

EM DEPARTMENT DATA ASSESSMENT
SUMMARY REPORT FORM

Batch No. 9105P141 Site Surface Water
 Laboratory ITAS - Pittsburgh No. of Samples/Matrix 2/Water
 Method Standard Methods Reviewer Org. QuantaLex, Inc.
 Sample Numbers SW01171WC, SW01172WC

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>V</u>	<u>V</u>	<u>A</u>	<u>V</u>	<u>V</u>	<u>Action Item 1</u>
2. Calibrations	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
3. Blanks	<u>V</u>	<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>V</u>	<u>N/A</u>	<u>V</u>	<u>V</u>	<u>N/A</u>	<u>N/A</u>	<u>V</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>	<u>V</u>	
6. Matrix Spike Sample Results	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>X</u>	<u>Comment 1</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>	<u>V</u>	
8. Other QC	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	<u>V</u>	
9. Overall Assessment	<u>V</u>	<u>V</u>	<u>A</u>	<u>V</u>	<u>V</u>	<u>A</u>	<u>V</u>	<u>V</u>	<u>Data valid or 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.

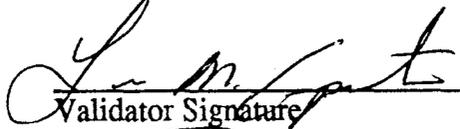
N/A = Not applicable.

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).

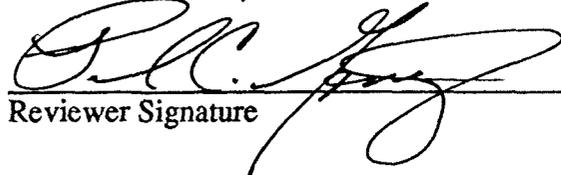
Action Items: 1) All Nitrite and o-Phosphate values are estimated (J) because holding times were grossly exceeded.

Comments: 1) A laboratory duplicate and matrix spike were not analyzed for Oil/Grease; data not affected.

Note: Data Summary Tables are attached.


Validator Signature

7/26/91
Date


Reviewer Signature

7/24/91
Date

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE TIME	BATCH NUMBER	SAMPLER MATRIX	LAB SAMPLE NUMBER	LAB NO	SAMPLER PREP DATE TIME	BLANK SAMPLE NUMBER	LAB TEST CODE	RS ID	CAS NUMBER	ANALYTICAL RESULT	RSLT QUA	2 SIG	UNIT OF MEASUREMENT	RETEM	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS				QLI UNIT OF MEASUREMENT	QLI QUA
																		1	2	3	4		
MB 05/28/91	P141	MB 05/28/91	WATER	MB 05/28/91		05/28/91			TR0		10	U		MGL		TOTAL DISSOLVED SOLID	10.0						
MB 05/28/91	P141	MB 05/28/91	WATER	MB 05/28/91		05/28/91			TR0		4	U		MGL		TOTAL DISSOLVED SOLID	10.0						
MB 05/29/91	P141	MB 05/29/91	WATER	MB 05/29/91		05/29/91			TR0		1	U		MGL		BICARBONATE	1.0						
MB 05/29/91	P141	MB 05/29/91	WATER	MB 05/29/91		05/29/91			TR0		1	U		MGL		CARBONATE	1.0						
MB 05/30/91	P141	MB 05/30/91	WATER	MB 05/30/91		05/30/91			TR0		0.4	U		MGL		SILICA	0.4						
MB 05/31/91	P141	MB 05/31/91	WATER	MB 05/31/91		05/31/91			TR0		0.01	U		MGL		ORTHOPHOSPHATE	0.01						
MB 06/03/91	P141	MB 06/03/91	WATER	MB 06/03/91		06/03/91			TR0		2	U		MGL		SULFATE	2.0						
MB 06/03/91	P141	MB 06/03/91	WATER	MB 06/03/91		06/03/91			TR0		0.01	U		MGL		TOTAL PHOSPHATE	0.01						
MB 06/04/91	P141	MB 06/04/91	WATER	MB 06/04/91		06/04/91			TR0		0.1	U		MGL		FLUORIDE	0.1						
MB 06/04/91	P141	MB 06/04/91	WATER	MB 06/04/91		06/04/91			TR0		0.2	U		MGL		NITRATE/NITRITE	0.02						
MB 06/05/91	P141	MB 06/05/91	WATER	MB 06/05/91		06/05/91			TR0		0.2	U		MGL		OIL & GREASE	0.2						
MB 06/11/91	P141	MB 06/11/91	WATER	MB 06/11/91		06/11/91			TR0		0.4	U		MGL		CHLORIDE	0.2						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		05/25/91			TR0		360	U		MGL		BICARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		05/25/91			TR0		1	U		MGL		CARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/11/91			TR0		76	U		MGL		CHLORIDE	0.2						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/04/91			TR0		0.6	U		MGL		FLUORIDE	0.1						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/04/91			TR0		300	U		MGL		NITRATE/NITRITE	0.02						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/05/91			TR0		0.09	U		MGL		NITRITE	0.02						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		05/31/91			TR0		0.4	U		MGL		OIL & GREASE	0.2						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		05/30/91			TR0		7.2	U		MGL		ORTHOPHOSPHATE	0.01						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/05/91			TR0		65	U		MGL		SILICA	0.4						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		05/28/91			TR0		1	U		MGL		SULFATE	2.0						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/05/91			TR0		3400	U		MGL		TOTAL DISSOLVED SOLID	10.0						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		06/05/91			TR0		0.03	U		MGL		TOTAL PHOSPHATE	0.01						
SW01171WC	P141 05/25/91	Q10523601	WATER	Q10523601		05/28/91			TR0		8	U		MGL		TOTAL SUSPENDED SOLI	4.0						
SW01171WC	P141 05/25/91	Q10523602	WATER	Q10523602		05/29/91			TR0		270	U		MGL		BICARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523604 MS	WATER	Q10523604 MS		05/29/91			D		78	U		MGL		BICARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523603 DUP	WATER	Q10523603 DUP		05/29/91			D		270	U		MGL		BICARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523602	WATER	Q10523602		05/29/91			TR0		1	U		MGL		CARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523604 MS	WATER	Q10523604 MS		05/29/91			D		1	U		MGL		CARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523603 DUP	WATER	Q10523603 DUP		05/29/91			D		78	U		MGL		CARBONATE	1.0						
SW01171WC	P141 05/25/91	Q10523602	WATER	Q10523602		06/11/91			TR0		110	U		MGL		CHLORIDE	0.2						
SW01171WC	P141 05/25/91	Q10523603 DUP	WATER	Q10523603 DUP		06/11/91			TR0		120	U		MGL		CHLORIDE	0.2						
SW01171WC	P141 05/25/91	Q10523604 MS	WATER	Q10523604 MS		06/11/91			D		104	U		MGL		CHLORIDE	0.2						
SW01171WC	P141 05/25/91	Q10523603 DUP	WATER	Q10523603 DUP		06/04/91			D		1.2	U		MGL		FLUORIDE	0.1						
SW01171WC	P141 05/25/91	Q10523604 MS	WATER	Q10523604 MS		06/04/91			D		103	U		MGL		FLUORIDE	0.1						
SW01171WC	P141 05/25/91	Q10523602	WATER	Q10523602		06/04/91			TR0		1.2	U		MGL		FLUORIDE	0.1						

PROJECT SAMPLE NUMBER	SAMPLE COLLECTION DATE MM/DD/YY	TIME HH	BATCH NUMBER	SAMPL MATRIX	LAB SAMPLE NUMBER	LAB ID	PREP DATE MM/DD/YY	ANALYSIS TIME HH	BLANK SAMPLE NUMBER	LAB TEST PANEL CODE	RS ID	CAS NUMBER	ANALYTICAL RESULT	RESLT QUA FRE	2 SIG ERROR	UNIT OF MEASU	REFER TIME	PARAMETER NAME	INSTRUMENT DETECTION LIMIT	REASONS				CLI UNIT CF	CLI QUA
																				1	2	3	4		
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		4.30			MGL		NITRATE/NITRITE	0.02						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		4.40			MGL		NITRATE/NITRITE	0.02						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						S		93			%		NITRATE/NITRITE	0.02						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		0.12			MGL		NITRITE	0.02						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		0.12			MGL		NITRITE	0.02						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						S		83			%		NITRITE	0.02						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		0.4			MGL		OIL & GREASE	0.3						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						S		94			%		ORTHOPHOSPHATE	0.01						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		0.01			MGL		ORTHOPHOSPHATE	0.01						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		0.01			MGL		ORTHOPHOSPHATE	0.01						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						S		6.4			MGL		SILICA	0.4						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		97			%		SILICA	0.4						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						D		6.4			MGL		SILICA	0.4						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						S		93			%		SULFATE	2.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						D		170			MGL		SULFATE	2.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		170			MGL		SULFATE	2.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		1			MGL		SULFIDE	2.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						TRP		1			MGL		SULFIDE	2.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						S		78			%		SULFIDE	2.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		3800			MGL		TOTAL DISSOLVED SOLID	10.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		3700			MGL		TOTAL DISSOLVED SOLID	10.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						S		93			%		TOTAL PHOSPHATE	0.01						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		0.04			MGL		TOTAL PHOSPHATE	0.01						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523802						TRP		0.05			MGL		TOTAL PHOSPHATE	0.01						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523804 MS						TRP		24			MGL		TOTAL SUSPENDED SOLI	4.0						
SW01172WC	05/22/91		P141 05/25/91	WATER	Q10523803 DUP						D		27			MGL		TOTAL SUSPENDED SOLI	4.0						

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