

H0115-T/W



a division of Recra Environmental, Inc.

Virtual Laboratories Everywhere

0049017

**Recra LabNet Philadelphia
Analytical Report**

Client : TNU-HANFORD
RFW# : 9710L066
SDG# : H0115

W.O. # : 10985-001-001-9999-00
Date Received: 10-30-97

INORGANIC CASE NARRATIVE

1. This narrative covers the analysis of 1 water sample.
2. The sample was prepared and analyzed in accordance with the method checked on the attached glossary.
3. Sample holding time as required by the method and/or contract was not met as the sample was received past hold.
4. The cooler temperature was recorded on the chain-of-custody.
5. The method blank was within method criteria.
6. The Laboratory Control Samples (LCS) were within the laboratory control limits. The duplicate LCS was within the 20% Relative Percent Difference (RPD) control limit.
7. The matrix spike recovery was within the 75-125% control limits.
8. The replicate analysis was within the 20% RPD control limit.

for 
 J. Michael Taylor
 Vice President and Laboratory Manager
 Lionville Analytical Laboratory

12-5-97
 Date

njpl10-066

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 13 pages.

WET CHEMISTRY METHODS GLOSSARY FOR ANALYSIS OF WATER SAMPLES

	<u>EPA 600</u>	<u>SW846</u>	<u>OTHER</u>
Acidity	__305.1		
__Alkalinity __Bicarbonate __Carbonate	__310.1		
BOD	__405.1		__5210B (b)
Ion Chromatography:			
__Bromide __Chloride __Fluoride	__300.0	__9056	
__Nitrite __Nitrate __Phosphate	__300.0	__9056	
__Sulfate __Formate __Acetate __Oxalate	__300.0	__9056	
Chloride	__325.2	__9251	
Chlorine Residual	__330.5 (mod)		
Cyanide Amenable to Chlorination	__335.2	__9010A	
Cyanide (Total)	__335.2	__9010A __9012	__ILM04.0 (e)
Cyanide, Weak Acid Dissociable			__412 (a) __4500CN-I (b)
COD	__410.4 (mod)		__5220 C (b)
Color	__110.2		
Corrosivity (by Coupon)		__1110 (mod)	
Chromium VI		__7196A	__3500Cr-D (b)
Fluoride	__340.2		
Hardness, Calcium	__215.2		
Hardness, Total	__130.2		
Iodide			__ASTM D19P202 (1)
Surfactant	__425.1		
__Nitrate-Nitrite __Nitrate __Nitrite	__353.2		
Ammonia	__350.3		
Total __Kjeldahl Nitrogen __Organic Nitrogen	__351.4		
Total __Organic __Inorganic Carbon	__415.1	__9060	
Oil and Grease	__413.1	__9070	
__pH __pH, Paper	__150.1	__9040A __9041A	
Petroleum Hydrocarbons, Total Recoverable	__418.1		
Phenol	__420.1 __420.2	__9065 __9066	
__Ortho Phosphate __Total Phosphate	__365.2		__4500-P B __C
Salinity			__210A (a) __2520B (b)
Settleable Solids	__160.5		
Sulfide	__376.2 __376.1	__9030A	
Reactive __Cyanide __Sulfide		__Sec 7.3	
Silica	__370.1		
Sulfite	__377.1		
Sulfate	__375.4	__9038	
Specific Conductance	__120.1	__9050	
Specific Gravity			__213E (a)
__TCLP __TCLV		__1311	
Synthetic Precipitation Leach		__1312	
Total __Dissolved __Suspended __Solids	160 __.1 __.2 __.3		
Total Organic Halides	__450.1	__9020B	
Turbidity	__180.1		
Volatile Solids __Total __Dissolved __Suspended	__160.4		
Other: _____		Method: _____	

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.

MS = Matrix Spike.

MSD = Matrix Spike Duplicate.

REP = Sample Replicate

LC = Laboratory Control Sample.

NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.
2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).
3. Test Methods for Evaluating Solid Waste (USEPA SW-846).
 - a. Standard Methods for the Examination of Water and Waste, 16 ed., (1989).
 - b. Standard Methods for the Examination of Water and Waste, 17 ed., (1983)
 - c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd. Ed. (1986)
 - d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965)
 - e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.
 - f. Code of Federal Regulations.

RFW 21-21L-034/D-06/96

Recra LabNet - Lionville

INORGANICS DATA SUMMARY REPORT 12/03/97

CLIENT: TNU-HANFORD
WORK ORDER: 10985-001-001-9999-00

RECRA LOT #: 9710L066

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
=====	=====	=====	=====	=====	=====	=====
-001	BOM773	Chromium VI	0.044	MG/L	0.020	1.0

Recra LabNet - Lionville Laboratory
 INORGANIC ANALYTICAL DATA PACKAGE FOR
 TNU-HANFORD

DATE RECEIVED: 10/30/97

RFW LOT # :9710L066

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOM773						
CHROMIUM VI	001	W	97LV1043	10/28/97	11/05/97	11/05/97
CHROMIUM VI	001 REP	W	97LV1043	10/28/97	11/05/97	11/05/97
CHROMIUM VI	001 MS	W	97LV1043	10/28/97	11/05/97	11/05/97

LAB QC:

CHROMIUM VI	MB1	W	97LV1043	N/A	11/05/97	11/05/97
CHROMIUM VI	MB1 BS	W	97LV1043	N/A	11/05/97	11/05/97
CHROMIUM VI	MB1 BSD	W	97LV1043	N/A	11/05/97	11/05/97

DASH	SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY
01A	B0M773 (F)	RECRA	WB073
01B-W	B0M773 MS	RECRA	WB073
01C-W	B0M773 DUP	RECRA	WB073

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>[Signature]</i>	10/29/97	RECRA LABNET	10/29/97	<i>[Signature]</i>	10/30/97

7.2

Collector D R BREWINGTON (RFS)	Company Contact	Telephone No.	Project Coordinator FORD, BH	Data Turnaround 45 Days
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Project Designation 100-KR4IAM(1) GW SAMPLING, FY98	Sampling Location Hanford	SAF No. C98-008
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Ice Chest No. SML 399	Field Logbook No. Lum SML HS	Method of Shipment Green Truck
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Shipped To TMA/WESTON	Offsite Property No. NA	Bill of Lading/Air Bill No. NA
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POSSIBLE SAMPLE HAZARDS/REMARKS NA	Preservation	None	Cool 4C																
	Type of Container	G/P	P																
	No. of Container(s)	1	1																

Special Handling and/or Storage 4C	Volume	20ml	500ml																
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SAMPLE ANALYSIS SDG H0115		Activity Scan	Chromium Hex - 7196 (F)																
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Sample No.	Matrix *	Sample Date	Sample Time																
BOM773 (F)	Water	10-28-97	0935		X														
BOM774	Water	10-28-97	0935	X															

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS TOTAL ACTIVITY EXEMPT	Matrix *
Relinquished By D R BREWINGTON (RFS)	Date/Time 10-28-97	Received By R. J. Steffler	Date/Time 10-28-97 1158
Relinquished By R. J. Steffler	Date/Time	Received By G. S. ...	Date/Time 10-29-97 1115
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Fax copies of log-in to DL Stewart (372-1704) & JM Duncan (372-9052)

- S - Soil
- SE - Sediment
- SO - Solid
- SL - Sludge
- W - Water
- O - Oil
- A - Air
- DS - Drum Solids
- DL - Drum Liquids
- T - Tissue
- WI - Wipe
- L - Liquid
- V - Vegetation
- X - Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time