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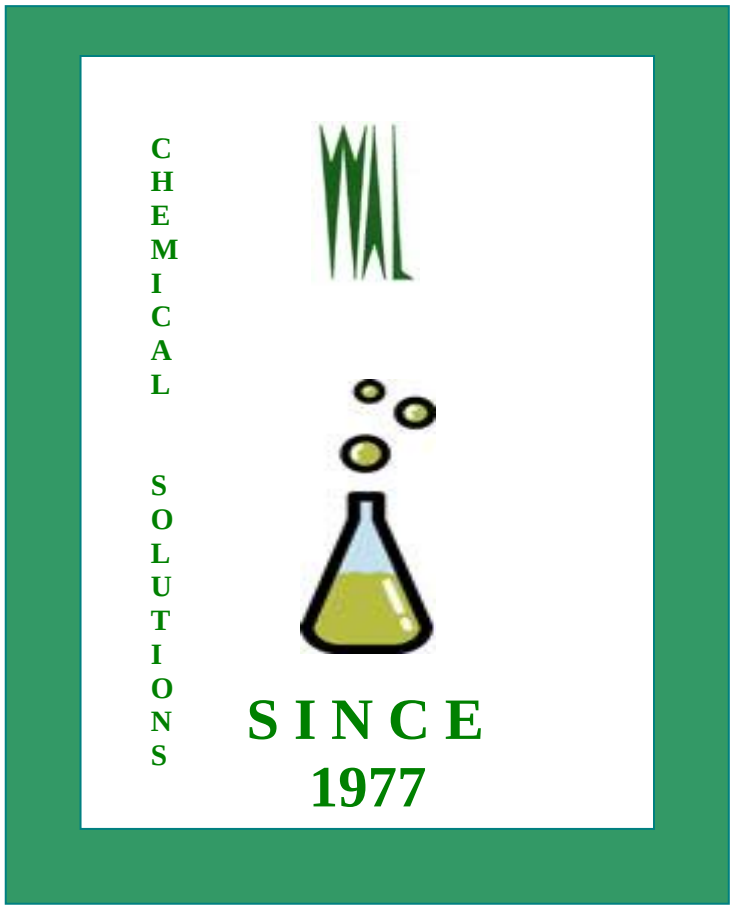
Wyoming Analytical Laboratories, Inc.
Prices as of Spring, 2009



This electronic price book is a general guideline to WAL prices. Please call for specific price quotes.

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GENERAL INFORMATION

1660 Harrison Street	625 Center Street	14335 West 44th Ave.
Laramie, WY 82070	Rock Springs, WY 82901	Golden, CO 80403
(307)742-7995	(307) 362-3176	(303) 278-2446
Fax: (307) 721-8956	Fax: (307) 362-3581	Fax: (303) 278-2439

Normally samples may be submitted to any of our locations.
Standard turn-around-times (TAT) are 10 working days, expedited TAT can usually be honored for a premium.
If you require a quick TAT, check with the lab facility to verify that the current work-load will allow for rush samples.
If the lab can honor your request for quick TAT, premiums can then be agreed upon .

Premiums for accelerated work are as follows:

For same day turnaround, add 300%

1 working day, add 100%	**2-3 working days, add 50%**
4-5 working days, add 30%	**6-7 working days, add 15%**

The Following terms and conditions will apply to all goods and services by
Wyoming Analytical Laboratories, Inc. (WAL)

Payment in full is due upon receipt of invoice, or as specified in prearranged terms

1. WAL reserves the right to terminate the customer's credit and refuse to perform additional services on a credit basis if any credit balance is outstanding for more than 60 days or when any amount exceeds the established line of credit.

2. Prices quoted to the customer will remain effective for 90 days unless otherwise stated in writing by WAL at the time of quotation.

3. Any schedule of fees and changes issued by WAL may be changed from time to time by WAL as to future services.

4. The analyses, opinions or interpretation of results by WAL, in response to a customer request upon observation of materials provided by the customer and express the best judgement of WAL. WAL will endeavor to perform its services and report accurate and complete results, all in accordance with standards and practices of the industry. WAL does not guarantee results and its sole liability will be to redo the test and render a new report to the customer any payment made by the customer for a report which does not meet industry standards or practices.

5. WAL will hold in confidence all information it receives from the customer and the results of all tests and other services provided to the customer.

EXCEPT AS NOTED ABOVE, WAL MAKES NO REPRESENTATION OR WARRANTY, EXPRESS IMPLIED ORSTATUTORY, REGARDING ITS SERVICES, OBTAINED OR ITS REPORT

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COAL & FUELS

Sample Preparation – Coal	Method	Price
One-Stage Sample Preparation (Minimum Charge)	**D-2013**	**$ 10.00**
Two-Stage Sample Preparation (Minimum Charge)		**$ 13.00**
Ashing –60 mesh material		**$ 10.00**
Laboratory Preparation (crushing, pulverizing, blending, making composites, etc.)		**$45.00 per Hour**

Coal Analysis –	ASTM Method	Price
Proximate Analysis: moisture, ash, volatile matter, fixed carbon	**D-5142**	**$ 45.00**
Moisture & Ash	**D-5142**	**$ 37.00**
Moisture	**D-5142**	**$ 21.00**
Ash	**D-5142**	**$ 21.00**
Proximate, Ultimate, Btu (heating value)	**D-5142/D-5373**	**$158.00**
Proximate, Ultimate (does not include Btu)	**D-5142/D-5373**	**$126.00**
"Full Prox" (proximate, Btu & sulfur)		**$ 81.00**
"Short Prox" Analysis: moisture, ash, Btu, sulfur		**$ 56.00**
Ultimate Analysis: includes moisture, ash, carbon, hydrogen, sulfur, nitrogen, and oxygen (by difference)		**$113.00**
Carbon (C)	**D-5373**	**$ 31.00**
Hydrogen (H)	**D-5373**	**$ 31.00**
Nitrogen (N)	**D-5373**	**$ 31.00**
Carbon, Hydrogen, Nitrogen (CHN)	**D-5373**	**$63.00**
Mineral Carbon (carbonate C; inorganic C)		**$44.00**
Heating Value (calorific value, Btu/lb)	**D-5685**	**$35.00**
***Heating Value & Total Sulfur**	**D-5685 / D-4239**	**$40.00**
***Extra charge for heating value** when ash content exceeds 25%		**$10.00**
Free Swelling Index (FSI)	**D-720**	**$31.00**
Sodium in Ash (includes high temperature fusion and digestion)	**D-3682**	**$28.00**
Sulfur (Total)	**D-4239**	**$26.00**
Sulfur by Eschka	**D-3177A**	**$90.00**
Water or Acid Soluble Alkalies		**$74.00**
Hardgrove Grindability Index (HGI) with moisture value	**D-409**	**$77.00**
Loss on Ignition (LOI)		**$39.00**
Equilibrium Moisture (EqM)	**D-1412**	**$77.00**
Specific Gravity; Density		**$24.00**
Forms of Sulfur (Pyritic, Sulfate, Organic, Total)	**D-2492**	**$77.00**
Vitrinite Reflectance	**D-2798**	**$150.00**

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Coal Ash Analysis	ASTM Method	Price
Ash Fusion Temperatures:		
Reducing Atmosphere (4-pt. Ash Fusion)	D-1857	$ 50.00
Oxidizing Atmosphere	D-1857	$ 45.00
Oxidizing & Reducing Atmosphere (same sample)	D-1857	$ 85.00
Ash Analysis (elemental analysis of ash; reported as oxides		
SiO_2, TiO_2, Al_2O_3, Fe_2O_3, CaO, MgO, K_2O, Na_2O, SO_3, P_2O_5, MnO_2, SrO, BaO; Calculated T_{250}, Base/Acid Ratio, Silica Value	D-4326 (XRF) D-3682 (AA) D-6349 (ICP)	$165.00
Ash Viscosity Index (T_{250}) requires ash analysis		$165.00

Miscellaneous Analysis	Method	Price
Sieve Analysis: ASTM D4749		
Dry Samples Weighing < 50 pounds	D-4749	$ 30.00 +$ 6.50/screen
Wet Samples Weighing < 50 pounds	D-4749	$ 50.00 + $ 7.50/screen
Dry Samples Weighing > 50 pounds	D-4749	$ 95.00 + $15.00/screen
Wet Samples Weighing > 50 pounds	D-4749	$120.00 + $20.00/screen
Washability (500 grams or less) various gravities available	D-4371	$75.00
Washability (Large Scale Samples)	D-4371	Inquire
Laboratory Hourly Rate		$ 50.00
Sample Collection		Inquire
Bias Tests, Lab Audits, Consultations, etc., …		Inquire

Trace Elements in Coal (All elements require digestion at $15.00 per sample)	Method	Price
As, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Sb, V, Zn, per element		$ 15.00
Other Elements Available	XRF	Inquire
Bromide (Br)	XRF	$ 20.00
Chloride (Total)	XRF	$ 20.00
Fluoride (F)	D-3761	$ 20.00
Mercury (Hg)	Cold vapor\ICP	$ 30.00
TRI (Toxic Release Inventory) Trace Metals: Al, Sb, As, Ba, Cd, Cr, Co, CU, Pb, Mn, Mo, Ni, Se, Ag, Tl, Th, V, Zn, Be, Hg, Cl, F	ICP or ICP/MS	$300.00

Coal samples received for analysis will be discarded after 30 days, unless other instructions are received.
A shipping fee will be charged for any samples returned by customer request.
When submitting samples for analysis, please include a list of sample identifications and state the specific analyses to be performed.

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BIOMASS: Wood, Pulp, Paper, Etc.

Sample Preparation - Biomass		Price
Biomass Sample Preparation Fee (minimum charge)		**$20.00**
Ashing Fee		**$ 10.00**
Crushing, Pulverizing, Blending, Splitting		**$45.00/hour**

Analysis		Price
Short Proximate Analysis: moisture, ash, Btu, sulfur		**$ 65.00**
Proximate Analysis: moisture, ash, volatile matter, fixed carbon		**$ 55.00**
Ultimate Analysis: moisture, ash, carbon, hydrogen, sulfur, nitrogen, oxygen		**$140.00**
Proximate, Ultimate, Btu,		**$165.00**
Proximate, Btu, Sulfur		**$80.00**
Btu (Heating Value), Only		**$50.00**
Moisture		**$25.00**
Ash		**$25.00**
Moisture and Ash		**$48.00**
Sulfur (S)		**$30.00**
Chlorine (Cl)		**$35.00**
Fluorine (F)		**$35.00**
Mercury (Hg)		**$35.00**
Bromide (Br)		**$35.00**
Ash Analysis: SiO_2, TiO_2, Al_2O_3, Fe_2O_3, CaO, MgO, K_2O, Na_2O, SO_3, P_2O_5, MnO_2, SrO, BaO; calculated values for T_{250}, Base/Acid Ratio, Silica Value).		**$185.00**
Ash Fusion Temperatures:		
Reducing Atmosphere (4-pt. ash fusion)		**$65.00**
Oxidizing Atmosphere		**$55.00**
Reducing and Oxidizing Atmosphere (Same Sample)		**$95.00**
Miscellaneous		
Bulk Density (g/cc)		**$40.00**
Sieve Analysis: 5 screens		**$55.00**
Sieve Analysis: greater than 50 lbs, or wet samples		**Inquire**
RCRA Analysis: 8 Metals (Ag, As, Ba, Cd, Cr, Hg, Pb, Se)		**$168.00**
TCLP Extraction		**$90.00**

Cogeneration Fuel Analysis is done by modified ASTM and /or EPA Methods.

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ELEMENTAL ANALYSIS

By X-Ray Fluorescence Spectrometry (XRF)

X-Ray Fluorescence Spectrometry (XRF) allows direct analysis of solid samples. The method gives a highly accurate analysis of major and minor components, and is also capable of determining trace elements down to 5 to 10 ppm. XRF is also a very effective way to do a complete elemental scan of an unknown sample; it is able to scan all elements heavier than Sodium.

Coal / Petroleum Products	Method	Price
Sample Preparation		**$ 15.00**
Chlorine (Cl)		**$ 30.00**
Bromine (Br)		**$ 30.00**
Iodine (I)		**$ 30.00**
Sulfur (S)		**$ 35.00**
Other Elements		**Inquire**

Analysis of Coal Ash and Fly Ash	Method	Price
Preparation of Ash		**$ 35.00**
Elemental Analysis: (reported as the oxides) SiO_3, TiO_2, Al_2O_3, Fe_2,O_3, CaO, MgO, K_2O, Na_2O, P_2O_5, MnO_2, SrO, BaO, SO_3; Alkalies as Na_2O; Calculated Base/Acid Ratio, Silica Ratio, and T_{250}.	**ASTM D-4326**	**$185.00**

Petroleum Coke		Price
Sample Preparation		**$ 35.00**
Silicon (Si), Calcium (Ca), Iron (Fe), Nickel (Ni), Vanadium (V), Sulfur (S) Includes Preparation Fee		**$130.00**
Individual Elements for Above List + Sample Preparation Fee		**$ 35.00**
Other Elements by Request		**Inquire**

Petroleum Products		Price
Sample Preparation		**$ 35.00**
Vanadium (V), Nickel (Ni), Iron (Fe), per element		**$ 20.00**
Sulfur (S)		**$ 35.00**
Other Elements by Request		**Inquire**

Rock, Soil and Clay		Price
Elemental Analysis (reported as the oxides) SiO_3, Al_2O_3, Fe_2O_3, CaO, MgO, Na_2O, K_2O, TiO_2, MnO_2, P_2O_5, SrO, BaO; (also includes **loss on ignition** and **moisture**)		**$195.00**
Single Elements from List + $35.00 Prep Fee		**$35.00**

Qualitative Scan		Price
Qualitative Scan for Major and Minor Elements		**$ 95.00**
Quantification of Elements Found		**$150.00**

Silica and Alkali Reactivity		Price
ASTM C-289		**$110.00**

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Coal / Biomass / Cogeneration — Chain of Custody / Service Request

Wyoming Analytical Laboratories, Inc.

1660 Harrison Street
Laramie, WY 82070
(307) 742-7995
Fax: (307) 721-8956

625 Center Street
Rock Springs, WY 82901
(307) 362-3176
Fax: (307) 362-3581

1511 Washington Ave
Golden, CO 80401
(303) 278-2446
Fax: (303) 278-2439

Project:	**Billing Information**
Send Report to:	Name:
Address:	Company Name:
City: State: Zip:	Address:
Phone:	City: State: Zip:
Fax:	Phone: Fax:
E-mail:	**E-mail Results: Yes / No**
PO Number:	**Fax Results: Yes / No**

Sample Identification	**Proximate**	**Ultimate**	**Heating Value**	**Sulfur**	**Short Prox**	**Ash Fusibility**		**Total number of Samples _____ Date/Time**	**Special Instructions**

Matrix: **C**-Coal; **X**-other, (please specify)_____

Sample Transfer Record (1)

Relinquished by: _____
Signature: _____
Date: _____

Received by: _____
Signature: _____
Date: _____

Sample Transfer Record (2)

Relinquished by: _____
Signature: _____
Date: _____

Received by: _____
Signature: _____
Date: _____

Please make photocopies of this form to accompany coal samples submitted to WAL for analysis.

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CONTAINERS, PRESERVATIVES & HOLDING TIMES

Metals

Analyte	Method	Container	Preservative	Holding Time
Metals, dissolved				
Metals	SW-846 / 600 series	1 - 250mL poly	Field filter	180/28 days
8 RCRA, 13 Priority Pollutants	SW-846 / 600 series	1 - 500mL poly	Field filter	180/28 days
23 HSL	SW-846 / 600 series	1 -1L poly	Filed filter	180/28 days
Hexavalent Chromium	SM3500 CR-D	1 - 500mL poly	4°C	24 hours
Metals, total, total recoverable				
Metals	SW-846 / 600 series	1-250mL poly	2mL 1:1 HNO_3	180/28 days
8 RCRA, 13 Priority Pollutants	SW-846 / 600 series	1-500mL poly	2mL 1:1 HNO_3	180/28 days
23 HSL	SW-846 / 600 series	1-1L poly	5mL 1:1 HNO_3	180/28 days

Water

Analyte	Method	Container	Preservative	Holding Time
Alkalinity / CO_2 / HCO_3 or Acidity	310.1 or 305.1	1 - 125mL poly	4°C	14 days
Ammonia	SM4500-NH3F	1 - 500mL poly	4°C, 2mL 1:1 H2SO4	28 days
Anions - NO_2, NO_3, PO, SO_4, Br, Cl	300 (IC method)	1 - 125mL poly	4°C	2/28 days
BOD	405.1	1 - 1L poly	4°C	48 hours
BTEX / MTBE / Purgeable Aromatics	8020 / 624	2 - 40mL vials	4°C, 0.5mL 1:1 HCl	14 days
Carbamates	632	1 - 1L amber	4°C	7 days
COD	410.4	1 - 125mL amber	4°C, 2mL 1:1 H_2SO_4	28 days
Coliform – Fecal & Total (drinking water)	Colilert	1 - 110mL, sterile	4°C -$Na_2S_2O_3$	24 hours
Color	110.2	1 - 125mL amber	4°C	48 hours
Cyanide – Total, WAD, Amenable	335.1 /.2 / 9010	1 - 1L poly	4°C, 10mL 10N NaOH	14 days
Dissolved Oxygen	360.1	BOD Bottle	4°C	24 hours
Flashpoint	1010 / ASTM D-93	1 - 250mL amber	4°C	28 days
Fluoride	340.2	1 - 125mL poly	4°C	28 days
Formaldehyde	8315	1 - 1L amber	4°C	3 days
Glycol / Alcohol	8015	1 - 20mL vial	4°C	14 days
Herbicides	8150	1 - 80oz amber	4°C	7 days
Ignitability	1010	1 - 250mL glass	4°C	28 days
Langelier Index	SM2330B	1 - 1L poly	4°C	ASAP
Nitrate/Nitrite		1 - 125mL poly	4°C, H_2SO_4	28 days
Odor	140.1	1 - 1L amber	4°C	48 hours
Oil & Grease	1664	1 - 1L amber	4°C, 5mL 1:1 H_2SO_4	28 days
Pesticides / PCBs	8080/608 or 8140	1 - 80oz amber	4°C	7 days
PCB Screen	8080 mod.	1 - 125mL amber	4°C	7 days
pH – corrosivity	150.1	1 - 125mL poly	4°C	ASAP
Phenols,Total	420.1	1 - 1L amber	4°C, 5mL 1:1 H_2SO_4	28 days
Phenols	8040	1 - 80oz amber	4°C	7 days
Purgeable Halocarbons	8260 / 624	2 - 40mL vials	4°C	14 days
Reactivity – CN, Sulfide	SW846	1 - 250mL poly	4°C, 2mL 10N Zn acetate	7 days
Residual Chlorine	330.5	1 - 250mL amber	4°C	24 hours
Semi-volatiles (BNA/PNA)	8270 / 625	1 - 80oz amber	4°C	5 days
Specific Conductance	120.1 / 9050	1 - 125mL poly	4°C	28 days
Sulfide	376.1 / 9030	1 - 500mL poly	4°C, 5mL10N Zn acetate	7 days
Sulfite	377.1	1 - 500mL poly	4°C, 0.5g Zn acetate, 5mL EDTA	7 days
Surfactants (MBAS)	425.1	1 -1L poly	4°C	48 hours
TCLP BNA, Pest, Herb, Metals	1311 / SW846	1 - 80oz amber	4°C	14 days
TCLP Metals	1311/ 6010,7470	1 - 1L poly	4°C	180/28 days
TCLP VOA	1311 / 8260	1 - 250mL amber	4°C	14 days
TEPH (Diesel) Fuel ID / DRO	8015 mod	1 - 1L amber	4°C	7 days
TVPH (Gasoline)	8015 mod	2 - 40mL vials	4°C, 0.5mL 1:1 HCl	14 days
Total Organic Carbon-TOC	9060 / 415.1	1 - 125mL amber	4°C, 2mL 1:1 H_2SO_4	28 days
Total Organic Halogens-TOX	9020	1 - 500mL amber	4°C, 3mL 1:1 H_2SO_4	28 days
Total Halogens – TX (oil)	9020 mod	1 - 20mL vial	4°C	none
TRPH	418.1	1 - 1L amber	4°C, 5mL 1:1 HCl	28 days
TS/TDS/TSS	160.1 / .2	1 - 500mL poly	4°C	7 days
Turbidity	180.1	1 - 125mL poly	4°C	48 hours
VOAs	8260 / 624	2 - 40mL vials	4°C, 0.5mL 1:1 HCl	14 days

Drinking Water

Analyte	EPA Method	Container	Preservative	Holding Time
VOC / Trihalomethanes	524.2	4-40mL vials	4°C 20mg ascorbic acid, add	14 days
SOC	525.1	1-1L amber	4°C 55mg Na_2SO_3 +HCl	7 days
Nitrogen / Phosphorus Pesticides	507	1-1L amber	4°C 80mg $Na_2S_2O_3$	7 days
Pesticides / PCBs	508	1-1L amber	4°C 80mg $Na_2S_2O_3$	7 days
Herbicides	515	1-1L amber	4°C 80mg $Na_2S_2O_3$	14 days
EDB / DBCP	504	2-40mL vials	4°C 3mg $Na_2S_2O_3$	28 days
Carbamates	531.1	1-125mL amber	4°C 10mg $Na_2S_2O_3$+MCAA	28 days
Diquat	549	1-500mLpolyamber	4°C 50mg $Na_2S_2O_3$	7 days
Endothal	548	1-125mL amber	4°C	7 days
Glyphosate	547 mod	1-125mL amber	4°C, 12mg $Na_2S_2O_3$	14 days
Lead and Copper Rule	239.2 / 200.7	1-1L poly	5mL 1:1 HNO_3 (unpreserved if a private residence)	180 days

Soil

Analyte	Method	Container	Preservative	Holding Time
Anions - Br, Cl, No_2, NO_3, PO_4, SO_4	300.0	1-2oz.wm	4°C	28 days
BTEX / MTBE / Purgeable Aromatics	8020	2-2oz wm	4°C	14 days
Corrosivity / pH	150.1	1-2oz wm	4°C	14 days
Cyanide	335.2	1-2oz wm	4°C	28 days
Extractable Organic Halogens – EOX	9020 mod	1-2oz wm	4°C	28 days
Herbicides	8150	1-4oz wm	4°C	14 days
Ignitability / Flashpoint	1010 / ASTM D93	1-8oz wm	4°C	28 days
Oil and Grease	413.1	1-4oz wm	4°C	28 days
Paint Filter Test	9095	1-4oz wm	4°C	28 days
Pesticides / PCBs	8080 or 8140	1-4oz wm	4°C	14 days
Phenols (Total)	420.1	1-4oz wm	4°C	14 days
Reactivity	SW846	1-2oz wm	4°C	28 days
Semi-volatiles (BNA, PNA)	8270	1-4oz wm	4°C	14 days
TCLP Volatiles	1311 / 8260	1-4oz wm	4°C	14 days
TCLP BNA, Pest, Herb	1311/ 8270,8080,8150	1-6oz wm	4°C	14 days
TCLP Metals	1311 / 6010,7470	1-4oz wm	4°C	180 days
TEPH (Diesel) / Fuel ID / DRO	8015 mod	1-2oz wm	4°C	14 days
Total Metals	6010 / 7471	1-2oz wm	4°C	80/28 days
TRPH	418.1	1-4oz wm	4°C	28 days
TVPH (Gasoline)	8015 mod	1-2oz wm	4°C	14 days
VOA or Purgeable Halocarbons	8260 or 8010	1-2oz wm	4°C	14 days

(*wm = wide-mouthed, glass jar)*

Radiochemistry

Analyte	Method	Container	Preservative	Holding Time
Gross Alpha, Beta	EPA 900.0	1 - 1L poly	5mL 1:1 HNO_2	180 days
Ra-226	SM7500 RaB mod	1 - 1L poly	5mL 1:1 HNO_2	180 days
Ra-228	EPA Ra 05	1 - 1L poly	5mL 1:1 HNO_3	180 days
Uranium	ASTM D2907	1 - 1L poly	5mL 1:1 HNO_3	180 days
Radon	EPA 600 / 2-87 / 082	2 - 40mL vials	4°C	48 hours

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USEFUL CONVERSIONS AND DEFINITIONS

Water related conversions:

1 ppm (liquid) = 1 mg/L = 1000 µg/L = 1000 ppb (liquid)
1 ppm (solid) = 1 mg/kg = 1000 µg/kg = 1000 ppb (solid)
1% = 10,000 ppm
1 gallon water = 231 cubic inches = 8.333 pounds

Water Hardness is given by the following formula:
Hardness, as mg/L $CaCO_3$ = 2.497 x Ca, mg/L + 4.115 x Mg, mg/L
1 mg/L $CaCO_3$ = 0.058 grains/Gallon (US)

Definitions

Metals, Analyte types

Dissolved Analyte – The concentration of analyte in an aqueous sample that will pass through a 0.45 µm membrane filter assembly prior to sample acidification.

Suspended Analyte – Those elements which are retained by a 0.45 um membrane filter.

Total – The concentration determined on an unfiltered sample following vigorous digestion

Total Recoverable Analyte – The concentration of analyte determined either by "direct analysis" of an unfiltered, acid-preserved drinking water sample with turbidity of <1 NTU, or by analysis of the solution extract of a solid sample or an unfiltered aqueous sample following digestion by refluxing with hot dilute mineral acid(s) as specified in the method.

P**otentially Dissolved Analyte –** The concentration of analyte in an acidified aqueous sample that will pass through a 0.45 µm membrane filter after acidification for 8 – 9 hours. (This definition is only used by State of Colorado.)

TCLP – Toxicity Characterization Leaching Procedure (EPA SW-846 1311) – this is a leach procedure that is designed to give the mobile fraction of the metals in the sample and not the content of the metals in the sample. It is often incorrectly used to refer to the 8 RCRA metals that are most commonly extracted with this procedure.

Data Quality Objective (DQO) – Client-defined quality parameters, such as project-specific detection levels, RPD.

F**ield Reagent Blank (FRB)** – An aliquot of reagent water or other blank matrix that is placed in a sample container in the laboratory and treated as a sample in all respects, including shipment to the sampling site, exposure to the sampling site conditions, storage, preservation, and all analytical procedures. The purpose of the FRB is to determine if method analytes or other interferences are present in the field environment.

Laboratory control sample (LCS): A volume of reagent water spiked with known concentrations of analytes and carried through the preparation and analysis procedure as a sample. It is used to monitor loss/recovery values.

Laboratory Duplicates (LD1 and LD2) – Two aliquots of the same sample taken in the laboratory and analyzed separately with identical procedures. Analyses of LD1 and LD2 indicate precision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Laboratory Fortified Sample Matrix (LFM) – An aliquot of an environmental sample to which known quantities of the method analytes are added in the laboratory. The LFM is analyzed exactly like a sample, and its purpose is to determine whether the sample matrix contributes bias to the analytical results. The background concentrations of the analytes in the sample matrix must be determined in a separate aliquot and the measured values in the LFM corrected for background concentrations.

Laboratory Reagent Blank (LRB) – An aliquot of reagent water or other blank matrices that are treated exactly as a sample including exposure to all glassware, equipment, solvents, reagents, and internal standards that are used with other samples. The LRB is used to determine if method analytes or other interferences are present in the laboratory environment, reagents, or apparatus

Method blank: A volume of reagent water processed through each sample preparation procedure.

Method detection limit (MDL) – The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample in a given matrix containing the analyte which has been processed through the preparative procedure.

Quality Control Sample (QCS) – A solution of method analytes of known concentrations which is used to fortify an aliquot of LRB or sample matrix. The QCS is obtained from a source external to the laboratory and different from the source of calibration standards. It is used to check either laboratory or instrument performance.

Sample holding time – The storage time allowed between sample collection and sample analysis when the designated preservation and storage techniques are employed.

Sensitivity – The slope of the analytical curve, *i.e.* functional relationship between emission intensity and concentration.

Water Sample – a sample taken from one of the following sources: drinking, surface, ground, storm runoff, industrial or domestic wastewater