



# **Energy Northwest Environmental Services Lab**

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# ANALYSES AND PRICE LIST, JANUARY 2015 TO DECEMBER 2015

# **Drinking Water Analyses**

### **BACTERIOLOGICAL ANALYSES**

Parameter	<b>Analytical Method</b>	Price per sample
Coliform (Presence/Absence)	MMO-MUG	\$ 20.00
Coliform, Fecal	SM9221 B, C, E1	35.00
Coliform, Total	SM 9221 B,C,E1	40.00

# **DISINFECTION BY-PRODUCTS ANALYSES**

Parameter	<b>Analytical Method</b>	Price per sample
Haloacetic Acids (HAA5)	SM 6251B	\$ 165.00
Organic Carbon, Total	SM 5310C	42.00
Total Trihalomethanes (Total THM)	EPA 524.2	115.00
Packages		
TTHM + HAA5	EPA 524.2/SM 6251B	230.00

# INORGANIC CONTAMINANTS ANALYSES

Parameter	Analytical Method	Price per sample
Anions: Single Anion	EPA 300.0	\$ 20.00
Each Additional Anion		5.00
Alkalinity	SM 2320B/EPA 310.1	20.00
Ammonia	SM 4500 NH3	21.00
Asbestos	EPA 110.1/EPA 110.2	450.00
Chlorine, Total Residual	SM 4500Cl-F	15.00
Color	SM 2120B	10.00
Conductivity	SM 2510A/EPA 120.1	10.00
Cyanide, Tota <mark>l</mark>	SM4500CN- E	42.00
Dissolved Oxygen	SM4500O	12.00
Hardness	SM 2340B/EPA 200.8	42.00
Hydrogen Sulfide	SM 4500-S <sup>2-</sup> F	20.00
Mercury: CVAA	EPA 245.7	30.00
Mercury, Low Level	EPA 1631E	80.00
Metals/Cations: Single Metal/Cation	EPA 200.8/EPA 200.7	30.00
Each Additional Metal or Cation		12.00
pH	SM 4500H/EPA 150.1	10.00
Total Dissolved Solids	SM 2540C/EPA 160.1	20.00
Turbidity	SM 2130B/EPA 180.1	15.00
Volatile Suspended Solids	SM 2540E	35.00

Packages		
Lead & Copper	EPA 200.8	42.00
Nitrate/Nitrite (Nitrates)	EPA 300.0	25.00
Washington Complete IOC	Various	330.00

# ORGANIC COMPOUNDS ANALYSES

Parameter	<b>Analytical Method</b>	Price per sample
Semivolatile Organics- WA List	EPA 525.2/EPA 505	230.00
EDB/DBCP	EPA 504.1	110.00
Chlorinated Pesticides/PCB's	EPA 505	175.00
Herbicides Regulated & Unregulated	EPA 8151	175.00
Carbamates Regulated & Unregulated	EPA 531	175.00
Volatile Organics	EPA 524.2	184.00

# Waste Water Analyses

# BACTERIOLOGICAL ANALYSES

Parameter	<b>Analytical Method</b>	Price per sample
Biological Oxygen Demand	SM 5210B	\$ 52.00
Chemical Oxygen Demand	EPA 410.4	35.00
Coliform (Presence/Absence)	MMO-MUG	20.00

# INORGANIC CONTAMINANTS ANALYSES

Parameter	<b>Analytical Method</b>	Price per sample
Anions: Single Anion	EPA 300.0	\$ 20.00
Each Additional Anion		5.00
Alkalinity, Total	SM 2320B	20.00
Each Additional		3.50
Carbonate, Bicarbonate, Hydroxide		
Ammonia	SM 4500NH3	21.00
Asbestos	100.1	270.00
Chromium, Hexavalent	SM 3500Cr	60.00
Conductivity	SM 2510B	10.00
Cyanide, Total	EPA 335.4	42.00
Dissolved Oxygen	SM4500O	12.00
Fats, Oil, & Grease (HEM), Total	EPA 1664	65.00
Hardness	EPA 130.2/SM 2340B	42.00
Hydrogen Sulfide	SM 4500 S	20.00
Mercury: CVAA	EPA 245.7/SM 7471A	30.00
Mercury, Low Level	EPA 1631E	80.00
Metals/Cations: Single Metal/Cation	EPA 200.8/EPA 200.7	30.00
Each Additional Metal or Cation		12.00
Nitrate/Nitrites (Nitrates)	EPA 300.0	25.00
Nitrogen, Total $(NO_2 + NO_3 + TKN)$	Various	55.00
Nitrogen, Total Kjeldahl	SM 4500NH3/SM 4500NB	35.00
NWTPH-Dx	EPA 8015 MOD	95.00
NWTPH-Gx	EPA 8015 MOD	85.00
Organic Carbon, Total	SM 5310B/SM 5310C	42.00
Organic Halogens, Total (TOX)	EPA 9020	100.00

pH	SM 4500H	10.00
Phosphorus, Orthophosphate	SM 4500PE	20.00
Phosphorus, Total	SM 4500PE	30.00
Reactive Sulfides (solids/liquids)	SW 846 CH7	12.00
Total Dissolved Solids	SM 2540C	20.00
Total Suspended Solids	SM 2540D	15.50
Turbidity	SM 2130B	15.00
Volatile Suspended Solids	SM 2540E	35.00

# **ORGANIC COMPOUNDS ANALYSES**

Parameter	<b>Analytical Method</b>	Price per sample
Carbamate Pesticides	EPA 8318	160.00
EDB	EPA 8011	110.00
Organochlorine Pesticides	EPA 8081A/EPA 8270C	175.00
Organophosphorus Pesticides	EPA 8141A/EPA 8270C	160.00
PCB's	EPA 8082	125.00
Phenols	EPA 8270C	165.00
Semivolatile Organics	EPA 8270C	340.00
Volatile Organics	EPA 8260B	165.00

# Soil Analyses

Many of the Waste Water parameters are also available for soil. Please call to inquire about these capabilities

# **Hazardous Waste Analyses**

Parameter	<b>Analytical Method</b>	Price per sample
TCLP		
Extraction	EPA 1311	\$ 85.00
Single Metal/Cation	EPA 6020/ EPA 1311	87.00
RCRA 8 Metals (Ag, As, Ba, Cd, Cr, Hg, Pb, Se)	EPA 6020/EPA 1311	170.00
Volatiles	EPA 8260B/EPA 1311	230.00
Semivolatiles	EPA 8270C/EPA 1311	305.00
Pesticides	EPA 8081A/EPA 1311	208.00
Herbicides	EPA 8151A/EPA 1311	208.00
Full List *	Various	1010.00

<sup>\*</sup>Includes RCRA 8 Metals, Volatiles, Semivolatiles, Pesticides, and Herbicides.

# **Used Oil Analyses**

Parameter	<b>Analytical Method</b>	Price per sample
Crackle		\$ 2.50
Direct Reading Ferrography	SALI	47.50
Flash Point (Pensky Martens)	ASTM D-93	45.00
Membrane Patch Colorimetry	SALI	75.00
Oxidation/Condition by FTIR	SALI	84.00
Particle Count	SALI	30.00
Remaining Useful Life (RULER)	ASTM D-6971	75.00
Total Acid or Base Number	Titra-Lube	50.00

Viscosity, Brookfield	ASTM D-445	80.00
Viscosity, Kinnematic	ASTM D-445	50.00
Water by Karl Fisher	ASTM E-1064	60.00
Wear Metals (21) by ICP-OED	SALI	176.00

## **Material Quality Assurances**

Parameter	<b>Analytical Method</b>	Price per sample
Anions (6) by Ion Chromatography	EPA 300.0	\$ 100.00
Complete Analysis with QC	Various	700.00
Embrittling Metals (11) by ICP-MS	SW 846 6020	250.00
Polymer Composition by FTIR	SALI	220.00
Preparation by Oxygen Bomb or Leach	SALI	50.00

# **Cooling System Analyses**

Parameter	<b>Analytical Method</b>	Price per sample
Additives	Various	Call
Aerobic Plate Counts	SALI	\$ 22.00
ATP	SALI	25.00
Corrosion Coupons	SALI	35.00
Sulfate Reducing Bacteria	SALI	30.00

## Radiological Analyses

Parameter	Analytical Method	Price per sample
Gamma Isotopic Analysis	SM 7120B	\$ 105.00
Gross Alpha	SM 7110B/EPA 900.0	95.00
Gross Beta	SM 7110B/EPA 900.0	95.00
Gross Alpha/Beta	SM 7110B/EPA 900.0	110.00
I-131	SM 7500I	125.00
Radium-228	EPA 904.0	95.00
Tritium	$SM 7500 ^{3}H B$	90.00
Uranium, Natural	EPA 200.8	30.00

### **List of Anions**

Bromide, Chloride, Fluoride, Nitrate, Nitrite, Ortho-Phosphate, Total-Phosphate, Sulfate

#### **List of Metals/Cations**

Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gold, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Platinum, Potassium, Selenium, Silicon (dissolved only), Silver, Sodium, Sulfur, Strontium, Thallium, Tin, Titanium, Uranium, Vanadium, Yttrium, Zinc, Zirconium

### List of RCRA (8) Metals

Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver

### **List of Priority Pollutant (13) Metals**

Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Zinc

### Additional Information

## **Sample Turn Around**

Energy Northwest Environmental Services Analytical Laboratory does not guarantee a set turn-around time to anyone except those who are paying additional rush fees. Samples to be analyzed for more than one contaminant will have the turn-around time associated with the longest analysis. It is not our policy to write partial reports. Standard completion times for other samples vary according to the number and nature of the tests required, and normally ranges from 10 to 14 working days. Priority turn-around times can be provided for most tests. Contact the laboratory for priority availability and pricing.

#### **Pricing**

Necessary sample bottles and preservation are included in the listed prices. In our local area, bottle delivery and sample pick-up is provided free of charge. Discounts are provided to Energy Northwest member utilities.

### **Rush Charges**

Energy Northwest Environmental Services Analytical Laboratory must be notified of and approve all rush order requests prior to receiving samples. Without prior approval, we cannot guarantee turnaround times. Although Energy Northwest Environmental Services Analytical Laboratory meets most rush requests, should a guaranteed time be missed, there will be no rush fees charged. Please call for availability and pricing before shipping rush samples. Rush projects are reported by 5 pm on the day requested and will be billed at the following rates:

10 -14 Working Days		
7-10 Days	Listed Price	
6 Day	Add 25%	
5 Day	Add 35%	
4 Day	Add 50%	
3 Day	Add 60%	
2 Day	Add 75%	
Next Day	Add 100%	
Same Day	Add 200%	

#### **Analytical Methods**

ASTM: American Society for Testing and Materials ASTM Standards

EPA: Environmental Protection Agency Methods and Guidance for Analysis of Water

NWTPH: Washington State Department of Ecology methods

SALI: Energy Northwest Supplemental Analytical Laboratory Instructions

SM: Standard Methods for the Examination of Water and Wastewater

SW 846: Environmental Protection Agency *Test Methods for Evaluating Solid Waste Physical/Chemical Methods* 

The methods listed are those most commonly used, selected to conform to regulatory requirements and accepted scientific practices. An individual sample may contain materials interfering with a specific method listed above and preventing determination of the tested parameter. In these cases, with approval of our customers our analysts can usually provide accurate results using an alternate method. Any alternate methods used will be listed on the sample report.

### **Subcontracted Analyses**

The Energy Northwest Environmental Services Analytical Laboratory offers sample tracking, shipping, results reporting and invoicing for several analyses that are not cost-effective to perform in our facility. Only cooperating laboratories with appropriate accreditations are used, and they have been selected based on both price and quality of service. In periods of unusually high sample loads or instrumentation difficulties, our cooperating laboratories also may perform some analyses we usually provide.

### **Additional Capabilities**

Along with the listed chemical tests, we offer other specialized services. Environmental sampling, identification of unknowns, analysis of non-standard chemicals or matrices, thermal testing, individual agricultural chemicals and analytical method development are some of the available services. Call to request a quote for any of your requirements not included in this price list.

#### Note on our commitment to the environment

Energy Northwest is committed to protecting the environment for current and future generations. As part of that commitment, we have developed, implemented, and maintain a comprehensive Environmental Management System (EMS). Our EMS was designed to meet the rigorous requirements of the globally recognized International Organization for Standardization (ISO) 14001 standard with additional emphasis on compliance, pollution prevention, and communication.