

ERB Acronym and Glossary – B

Acronym	Glossary	Definition
B	data qualifiers - metals analysis - B	Indicates analyte result between the instrument detection limit and contract required detection limit.
B	data qualifiers - organic analysis - B	The analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified Target Compound List (TCL) compound.
Ba	Barium	The heaviest of the stable alkaline earths, it is a soft, silver-grey metal. It is used in various alloys, paints, soap, paper, rubber, ceramics, glass, insecticides, oil and gas well drilling muds, fireworks, lubricating oil, and steel hardening. It is naturally abundant in nature and is found in plant and animal tissue. Ingestion of barium or some of its compounds can cause muscular problems, and it can accumulate in the skeleton.
BAA	Broad Agency Announcement	to contracting mechanism used to solicit new proposals for fundamental research or innovative technologies.
BACT	Best Available Control Technology	means an emission limitation that will achieve the lowest achievable emission rate for the source to which it is applied. Subject to subdivision (b), "lowest achievable emission rate," as used in this section, means the more stringent of the following:
BADCAT	Bay Area Defense Conversion Action Team	was formed to accelerate the environmental cleanup and civilian re-use of closed military bases in the San Francisco Bay Area.
BADT	Best Available Demonstrated Technology	A technology demonstrated in full-scale commercial operation to have been shown to have statistically better performance than other technologies.
BAEF	Bay Area Economic Forum	a public-private partnership of senior business, government, university, labor and community leaders, develops and implements projects that support the vitality and competitiveness of the regional economy, and enhance the quality of life of the region's residents.
BAF	Bioaccumulation Factor	Concentration of a chemical in living tissue divided by its concentration in the animal's diet
BC	Blind Copy	blind carbon copy. If you add a recipient's name to this box in a message, a copy of the message is sent to that recipient, and the recipient's name is not visible to other recipients of the message. If the Bcc box isn't visible when you create a new message, you can add it.
BCDP	Base Catalyzed Decomposition Process	The technology involves a two-stage process to remove chlorinated organics from soil and dechlorinate them to reduce their toxicity. Contaminated soil is screened, processed with a crusher and pug mill, and mixed with sodium bicarbonate. The mixture is heated to about 350° C (660° F) in a rotary reactor to volatilize the contaminants (Stage 1). The volatilized contaminants are captured, condensed, and treated (Stage 2) by reaction with sodium hydroxide and a hydrogen donor oil in the presence of a catalyst.
BCF	Bioconcentration Factor	Provides a measure of the extent of chemical partitioning at equilibrium between biological medium

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		such as fish tissue or plant tissue and an external medium such as water. The higher the BCF, the greater the accumulation in living tissue is likely to be.
BCP	BRAC Cleanup Plan	The road map for expeditious cleanup of military facilities necessary to facilitate conveyance of property to communities for redevelopment.
BCT	BRAC Cleanup Team	Acts as the primary forum in which issues affecting base closures; wherein; the execution of cleanup to facilitate reuse will be addressed
BD/DR	Building Demolition/Debris Removal	solid waste, largely inert waste, resulting from the demolition or razing of buildings, of roads, or other structures, i.e., concrete, rock, brick, bituminous concrete, wood, and masonry, composition roofing and roofing paper, steel, plaster, etc.
BDAT	Best Demonstrated Available Technology	As identified by EPA, the most effective, commercially available means of treating specific types of hazardous waste. The BDATs may change with advances in treatment technologies.
Be	Beryllium	A greyish-white metal occurring naturally in certain rocks, soils and volcanic dust. A major emission source to the environment is through the fly ash from combustion of coal and fuel oil, which can contain the metal. It is used in nuclear reactors, radio and television tubes, fluorescent tubes and powders. It is discharged by machine shops, ceramic and propellant plants, and foundries. In the environment, it ultimately accumulates in sediments. Beryllium can cause severe dermatitis problems and can be toxic if inhaled. It is a Group B2, animal carcinogen
BEC	BRAC Environmental Coordinator	The DoD representative on the Base Closure Team; has responsibility and implementation authorities for environmental cleanup programs related to the transfer of the installation's real property.
Benthos	Benthic Organism	A form of aquatic plant or animal life that is found on or near the bottom of a stream, lake, ocean or other water body.
BEP	bis(2-ethylhexyl)phthalate	A phthalate chemical used in plastics to enhance pliability, also sometimes also known as DEHP. Phthalates are generally listed as hazardous substances.
bgs	below ground surface	This phrase generally pertains to ground water level where the upper surface of the ground water is some distance below ground surface.
BHC	Benzene Hexachloride (Lindane)	A chemical that is used as a pesticide (may be restricted) . Toxic by inhalation, ingestion, and skin absorption.
BIOPLUME	Computer model to predict the maximum extent of existing plumes	A two-dimensional, finite difference model for simulating the biodegradation of hydrocarbons in groundwater. The Bioplume III model simulates both aerobic and anaerobic biodegradation processes in addition to advection, dispersion, sorption and ion exchange.
BLM	Bureau of Land Management	an agency within the US Department of the Interior, administers 261 million acres of America's public lands.
BMD	Benchmark Dose	This is the dose which corresponds with a given

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		statistical likelihood of health impairment in the exposed population.
BMP	Best Management Practice	Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.
BMP	Bi-Metallic Process	Nanoscale particles made from a combination of two metals, one of which typically is zerovalent iron; the second metal acts as a catalyst and enhances the reactivity of the iron.
BNA	Base Neutral Acid Compound	See Semi-Volatile Organic Compound (SVOC).
BNA	Base-Neutral and Acid-Extractable organic compounds - now SVOCs	A priority pollutant.
BNP	bimetallic nanoscale particle	Any nanoscale (10-9 m diameter) particle comprised of 2 metals. In remediation scenarios, this term generally refers to iron particles coated or "doped" with a catalyst, commonly palladium, at a rate of less than 0.1% total particle weight. These particles are also referred to as palladized iron particles.
BOD	Biochemical Oxygen Demand	A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.
BOD	Biological Oxygen Demand	An indirect measure of the concentration of biologically degradable material present in organic wastes. It usually reflects the amount of oxygen consumed in five days by biological processes breaking down organic waste.
BP	Boiling Point	The temperature at which a liquid changes its phase to a vapor or gas. This is the temperature at which a liquid's vapor pressure is equal to the surrounding atmospheric pressure, so the liquid rapidly volatilizes.
Br	Bromine	A halogen that can substitute for hydrogen in many organic compounds, generally making the resultant compound more toxic.
BRAC	Base Realignment and Closure	Refers to policy, procedures, authorities, and responsibilities for closing or realigning military installations across the Department of Defense. Includes environmental restoration activities.
BSL	BTAG Screening Level	Biological Technical Advisory Group's simplified risk assessment that can be conducted with limited data and uses conservative assumptions to minimize the chances of concluding that there is no risk when, in fact, a risk exists.
BTAG	Biological Technical Assistance Group	was founded to provide The Department of the Army (DA) Environmental program managers with technical support addressing ecological, biological, and chemical issues at Army environmental sites.
BTEX	Benzene, Toluene, Ethyl benzene and Xylene	(sometimes pronounced "bee-tex") is an acronym for Benzene, Toluene, Ethylbenzene, Xylenes which are major components of gasoline and indicators of light-hydrocarbon contamination. BTEX is often analyzed in conjunction with TPH.
BTU	British Thermal Unit	a unit of heat equal to the amount of heat required to raise one pound of water one degree Fahrenheit at one

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		atmosphere pressure; equivalent to 251.997 calories
BTX	Benzene, Toluene and Xylene	may pose potential health risks to children when exposed. The Voluntary Children's Chemical; Evaluation Program (VCCEP) is investigating the effects of these chemical to this specific population.
BUMED	Bureau of Medicine and Surgery	the headquarters command for the Navy medical department
BW	Body Weight, kg	the weight of a person's body

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	background correction	In data analysis, a technique to compensate for variable background contribution to the instrument signal and the determination of trace metals.
	background level	1) Naturally occurring levels: ambient concentrations of chemicals present in the environment that have not been influenced by humans; 2) Anthropogenic levels: concentrations of chemicals that are present in the environment due to human-made, non-site sources.
	backwashing	Reversing the flow of water back through the filter media to remove the entrapped solids.
	bacteria	(Singular: bacterium) Microscopic living organisms ubiquitous in the environment, that can aid in pollution control by metabolizing organic matter in sewage, oil spills or other pollutants. However, bacteria in soil, water or air can also cause human, animal and plant health problems.
	baghouse filter	Large fabric bag, usually made of glass fibers, used to eliminate intermediate and large (greater than 20 microns in diameter) particles. This device operates like the bag of an electric vacuum cleaner, passing the air and smaller particles while entrapping the larger ones.
	bailer	A long pipe with a valve at the lower end, used to remove slurry from the bottom or side of a well as it is being drilled or to obtain a water sample from a developed well.
	barrier coating	A layer of a material that obstructs or prevents passage of something through a surface that is to be protected, e.g. grout, caulk, or various sealing compounds; sometimes used with polyurethane membranes to prevent corrosion or oxidation of metal surfaces, chemical impacts on various materials, or, for example, to prevent radon infiltration through walls, cracks, or joints in a house.
	base	Substances that (usually) liberate OH anions when dissolved in water. Bases 1) react with acids to form salts; 2) have a pH greater than 7.0; 3) turn litmus paper blue; and 4) may be corrosive to tissue. A strong base is called alkaline or caustic. Examples are lye and DRANO.
	baseline risk assessment	An analysis of the potential adverse health effects

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		(current or future) caused by contaminant releases from a site in the absence of any actions to control or mitigate these releases. According to EPA, the baseline risk assessment can be used to determine whether: 1) A release or threatened release poses an unacceptable risk to human health or the environment that warrants remedial action, and 2) A site presents an imminent and substantial endangerment. The primary purpose is to provide risk managers with an understanding of the actual and potential risks to human health and the environment posed by the site and the uncertainties associated with the assessment.
	bed load	Sediment particles resting on or near the channel bottom that are pushed or rolled along by the flow of water.
	bedrock	Any solid rocks exposed at the surface or overlain by unconsolidated materials.
	bench-scale test	Laboratory testing of potential cleanup technologies. Contaminated media from the site are generally used to determine the applicability of a technology to a specific site. See Pilot Tests and Treatability Studies.
	benthic region	The bottom layer of a body of water.
	bentonite	Clay made of decomposed volcanic ash which is used to seal wells (hole plug).
	bias	Consistent deviation of measured values from the true value, caused by systematic errors in a procedure.
	bicarbonates	Metal + HCO ₃ , e.g. NaHCO ₃ . Can raise the pH to a high concentration which may be corrosive.
	bioaccumulants	Substances that increase in concentration in living organisms as they take in contaminated air, water, or food because the substances are very slowly metabolized or excreted. See Biological Magnification.
	bioassay	Study of living organisms to measure the effect of a substance, factor, or condition by comparing before-and-after exposure or other data.
	bioaugmentation	The addition of microbe cultures to groundwater or soil to enhance biodegradation.
	bioavailability	A general term to describe the accessibility of contaminants to ecological populations. Bioavailability consists of: 1) a physical aspect related to phase distribution and mass transfer, and 2) a physiological aspect related to the suitability of the contaminant as a substrate.
	biobarrier	An In Situ remediation technology consisting of a trench filled with biological medium to encourage the growth of bacteria capable of degrading contaminants.
	biocide	A chemical poison used to kill bacteria and small animals and plants. Biocides are commonly used in paint for ships and in piping systems that are constantly exposed to water.
	bioconcentration	The accumulation of a chemical in tissues of an organism (such as a fish) to levels greater than in the surrounding medium in which the organism lives.

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	biodegradable	Capable of decomposing under natural conditions.
	biodegradation	1) The reduction in concentration of a chemical or physical agent through naturally occurring microbial activity. 2) The process of an organic molecule becoming transformed by biological means.
	biodegradation rate	The mass of contaminant metabolized by microorganisms per unit time. In soil contamination this is normalized to the mass of soil and usually is expressed as mg contaminant degraded/kg soil/day (mg/kg/day).
	biodiversity	Refers to the variety and variability among living organisms and the ecological complexes in which they occur. Diversity can be defined as the number of different items and their relative frequencies. For biological diversity, these items are organized at many levels, ranging from complete ecosystems to the biochemical structures that are the molecular basis of heredity. Thus, the term encompasses different ecosystem, species, and genes.
	biogenic	Term applied to chemicals (commonly PAH) formed by modern biological processes or by diagenetic processes (e.g., oxidation of organic matter) in recent sediments
	biological additive	Microbiological cultures, enzymes, or nutrient additives that are deliberately introduced into a discharge for the specific purpose of encouraging biodegradation to mitigate the effects of the discharge.
	biological magnification	Refers to the process whereby certain substances such as pesticides or heavy metals move up the food chain, work their way into rivers or lakes, and are eaten by aquatic organisms such as fish, which in turn are eaten by large birds, animals or humans. The substances become concentrated in tissues or internal organs as they move up the chain. See Bioaccumulants.
	biological oxidation	Decomposition of complex organic materials by microorganisms. Occurs in self-purification of water bodies and in activated sludge wastewater treatment.
	biological treatment	A treatment technology that uses bacteria to consume waste.
	biomarkers	Chemicals in petroleum, coal, or sediments whose structure can be unequivocally linked to a naturally occurring biochemical. Useful in fingerprinting because of their source specificity and resistance to weathering.
	biomass	All of the living material in a given area; often refers to vegetation.
	biome	The entire community of living organisms in a single major ecological area. See Biotic Community.
	biomonitoring	1) The use of living organisms to test the suitability of effluents for discharge into receiving waters and to test the quality of such waters downstream from the discharge. 2) Analysis of blood, urine, tissues, etc., to measure chemical exposure in humans or animals.
	biopile	Soil pile constructed to allow aerobic bioremediation by aeration, possibly supplemented with water and nutrients.

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	bioreactor	A container or area in which a biological reaction or biological activity takes place.
	bioreclamation	The process of making a contaminated site usable again through biological processes.
	bioremediation	1) Use of living organisms to clean up oil spills or remove other pollutants from soil, groundwater, or wastewater. 2) Use of organisms such as non-harmful insects to remove agricultural pests or counteract diseases of trees, plants, and garden soil.
	biosensor	A device that uses living organisms, such as enzymes, tissues, microbes, and antibodies, to produce reactions, which are then analyzed to detect the presence of a chemical or chemical reaction.
	bioslurping	A technology application that teams vacuum-assisted free-product recovery with bioventing to simultaneously recover free product and remediate the vadose zone.
	biosparging	Introduction of air in the saturated zone to promote bioremediation
	biosphere	The portion of Earth and its atmosphere that can support life.
	biostimulation	The addition of nutrients or cofactors to increase biodegradation rates.
	biota	The animal and plant life of a given region.
	biotechnology	Techniques that use living organisms or parts of organisms to produce a variety of products (from medicines to industrial enzymes) to improve plants or animals or to develop microorganisms to remove toxic compounds from bodies of water, or act as pesticides.
	biotic community	A naturally occurring assemblage of plants and animals that live in the same environment and are mutually sustaining and interdependent. See Biome.
	biotic layer	A layer in a landfill cap to prevent animals from burrowing through the cap.
	biotransformation	Conversion of a substance into other compounds by organisms; includes biodegradation.
	bioventing	The process of aerating vadose zone soils by means of installed vents to stimulate in situ biological activity and optimize biodegradation of organic compounds with some volatilization occurring.
	bioventing	A remediation process/technology that supplies indigenous microorganisms with oxygen to support in situ degradation of hydrocarbon contaminants.
	bitumen	A mixture of hydrocarbon compounds soluble in carbon disulfide.
	blank	An artificial sample designed to monitor the introduction of artifacts into the sampling and analytical process. For aqueous samples, reagent water is used as a blank matrix; however, a universal blank matrix does not exist for solid samples, but sometimes clean sand is used as a blank matrix. The blank is taken through all appropriate steps of the process. A reagent blank is an aliquot of analyte-free water or solvent analyzed with the analytical batch. Field blanks are aliquots of analyte-

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		free water or solvents brought to the field in sealed containers and transported back to the laboratory with the sample containers. Trip blanks and equipment blanks are two specific types of field blanks. Trip blanks are not opened in the field. They are used to monitor sample contamination originating from transport, shipping, and site conditions. Equipment blanks are opened in the field and the contents poured over or through the sampling equipment, collected in a sample container, and returned to the laboratory as a sample. Equipment blanks monitor sampling device cleanliness and decontamination effectiveness.
	blood borne pathogens	Pathogenic microorganisms that are present in human blood and can cause diseases in humans. These pathogens include hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
	bloom	A proliferation of algae and/or higher aquatic plants in a body of water; often related to pollution, especially when pollutants accelerate growth.
	blower	A unit of rotating mechanical equipment used to increase the pressure in a gas stream and providing a total pressure rise of more than 4 inches of water and less than 14.7 psi.
	boom	A floating device used to contain oil on a body of water.
	borehole	A hole cut into the ground by means of a drilling rig or an auger.
	borehole video	Images recorded by a custom made video camera lowered into a subsurface test hole (borehole).
	bottom ash	The non-airborne combustion residue from burning pulverized coal in a boiler which falls to the bottom of the boiler and is removed mechanically. Bottom Ash is a concentration of the non-combustible materials, which may include toxic compounds.
	BRAC environmental funding	Includes all NAVFAC centrally-managed environmental projects, except NEPA, that are funded through the BRAC account such as environmental studies, clean up, compliance, and restoration. For Marine Corps installations, it includes funding for only restoration work.
	brackish	Mixed fresh and salt water.
	brine mud	Waste material, often associated with well-drilling or mining, composed of mineral salts or other inorganic compounds.
	brownfields	Abandoned, idled, or under-used industrial and commercial facilities/sites where expansion or redevelopment is complicated by real or perceived environmental contamination.
	Brunswick	Naval Air Station Brunswick is located in Brunswick, Maine.
	buffer	A substance that reduces the change in pH that would otherwise be produced by adding acids or bases to a solution. A pH stabilizer.
	business	The activities of those engaged in the purchase or sale

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		of commodities or in related financial transactions.
	by-product	Material, other than the principal product, generated as a consequence of an industrial process.