Appendix A

Acronyms, Glossary, and Metric Conversion Table

A-1.0 ACRONYMS

AIRNET	air monitoring network
AOC	area of concern
asl	above sea level
B&K	Brüel and Krajer
bgs	below ground surface
BV	background value
CMR	Chemistry and Metallurgy Research
CMS	corrective measures study
COPC	chemical of potential concern
D&D	decontamination and decommissioning
DL	detection limit
DOE	Department of Energy (US)
EP	extraction procedure
EPA	Environmental Protection Agency (US)
ER	environmental restoration
ER	Environmental Restoration Project (now Risk Reduction and Environmental Stewardship—Remediation Services)
EQL	estimated quantitation limit
eV	electron volt
FV	fallout value
FWO	Facility Waste Operations
FY	fiscal year
GCMS	gas chromatograph/mass spectrometer
GPS	global positioning system
HE	high explosive
HIR	historical investigation report
HSWA	Hazardous and Solid Waste Amendments of 1984
HWA	Hazardous Waste Act
IDW	investigation-derived waste
LANL	Los Alamos National Laboratory
LIR	Laboratory Implementation Requirement
LLW	low-level radioactive waste
MAP	mixed activation products

MDA	material disposal area
MFP	mixed fission products
MRAL	mobile radiological analysis laboratory
NIOSH- VOST	National Institute of Occupational Safety and Health-volatile organic sample train
NMED	New Mexico Environment Department
NMEID	New Mexico Environmental Improvement Department (Name of NMED before January 1, 1991)
NMHWA	New Mexico Hazardous Waste Act
OU	operable unit
PAR	photoacoustic radiometry
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PID	photoionization detector
PN	property number
ppb	parts per billion
ppbv	parts per billion by volume
PPE	personal protection equipment
ppm	parts per million
ppmv	parts per million by volume
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RDX	1,3,5-trinitro-1,3,5-triazacyclohexane
RFI	RCRA facility investigation
RRES-MAQ	Risk Reduction and Environmental Stewardship–Meteorology and Air Quality
RRES-RS	Risk Reduction and Environmental Stewardship–Remediation Services
SDGCMS	solvent desorption gas chromatograph/mass spectrometer
SOP	standard operating procedure
SOW	statement of work
SVOC	semivolatile organic compound
SWMU	solid waste management unit
SWO	Solid Waste Operations
TA	technical area
TAL	target analyte list (EPA)

TCA	1,1,1-trichloroethane
TCE	trichloroethene
TD	total depth
TDGCMS	thermal desorption gas chromatograph/mass spectrometer
TNT	trinitrotoluene
TRU	transuranic
TWISP	Transuranic Waste Inspection and Storage Project
UC	University of California
UTL	upper tolerance limit
VOC	volatile organic compound
WCSF	Waste Characterization Strategy Form
WFM	Waste Facility Management
WRS	Wilcoxon Rank Sum (test)
XRF	x-ray diffraction

A-2.0 GLOSSARY

background value (BV)—The upper tolerance limits (UTLs) of background sample results, calculated as the upper 95% confidence limit for the 95th percentile. When a UTL cannot be calculated, either the detection limit or the maximum reported value is used as a BV; BVs are used as simple threshold numbers to identify potentially contaminated site sample results that are greater than background levels in that geological sample medium (or group of media). Most inorganic chemicals and radionuclides have BVs.

calibration—Process used to identify the relationship between the true (reference) analyte concentration or other variable and the response of a measurement instrument, chemical analysis method, or other measurement systems.

chemical of potential concern (COPC)—A chemical detected at a site that has the potential to adversely affect human *receptors* because of its concentration, distribution, and mechanism of toxicity. A COPC remains a concern until *exposure* pathways and receptors are evaluated in a site-specific human health risk assessment.

data validation—Systematic process that applies a defined set of performance-based criteria to a body of data and may result in qualification of the data. The data validation process is performed independently of the analytical laboratory that generates the data set and occurs before conclusions are drawn from the data. The process may comprise a standardized data review (routine data validation) and/or a problem-specific data review (focused data validation).

detection limit (DL)—Minimum concentration that can be determined by a single measurement by an instrument; it implies a specified statistical confidence that the analytical concentration is greater than zero.

groundwater—Water in a subsurface saturated zone; water beneath the regional water table.

migration—The movement of inorganic and organic species through unsaturated or saturated materials.

model—Mathematical approximation of a physical, biological, or social system.

polychlorinated biphenyl (PCB)—Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances containing such substances. PCBs are colorless, odorless compounds that are chemically, electrically, and thermally stable and have proven to be toxic to both humans and animals.

quality assurance (QA)—All those planned and systematic actions necessary to provide adequate confidence that a facility, structure, system, or component will perform satisfactorily in service.

quality control (QC)—(1) All those actions necessary to control and verify the features and characteristics of a material, process, product, or service to specified requirements. QC is the process through which actual quality performance is measured and compared with standards. (2) All methods and procedures used to obtain accurate and reliable results from environmental sampling and analysis. Includes rules for when, where, and how samples are taken; sample storage, preservation and transport; and the use of blanks, duplicates, and split samples during the analysis.

radionuclide—Nuclide (species of atom) that exhibits radioactivity.

RCRA facility investigation (RFI)—The investigation that determines if a *release* has occurred and the nature and extent of the contamination at a hazardous waste facility. The RFI is generally equivalent to the remedial investigation portion of the Comprehensive Environment Response, Compensation, and Liability Act (CERCLA) process.

receptor—A person, plant, animal, or geographical location that is exposed to a chemical or physical agent released to the environment by human activities**.**

regional aquifer—Geologic material(s) or unit(s) of regional extent whose saturated portion yields significant quantities of water to wells, contains the regional zone of saturation, and is characterized by the regional water table or potentiometric surface.

release—Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of hazardous waste or hazardous constituents into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles that contain any hazardous wastes or hazardous constituents).

Resource Conservation and Recovery Act (RCRA)—The Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976. (40 CFR 270.2)

sample—Portion of a material (e.g., rock, soil, water, air), which, alone or in combination with other samples, is expected to be representative of the material or area from which it is taken. Samples are typically sent to a laboratory for analysis or inspection or are analyzed in the field. When referring to samples of environmental media, the term “field sample” may be used.

sediment—(1) A mass of fragmented inorganic solid that comes from the weathering of rock and is carried or dropped by air, water, gravity, or ice; or a mass that is accumulated by any other natural agent and that forms in layers on the earth’s surface such as sand, gravel, silt, mud, fill, or loess. (2) A solid material that is not in solution and either is distributed through the liquid or has settled out of the liquid.

standard operating procedure (SOP)—Document that details the method for an operation, *analysi*s, or action with thoroughly prescribed techniques and steps, and is officially approved as the method for performing certain routine or repetitive tasks.

stratigraphy — The science dealing with the succession, age, composition, and history of strata.

target analyte—Element, chemical, or parameter, the concentration, mass, or magnitude of which is designed to be quantified by use of a particular test method.

technical area (TA)—The Laboratory established technical areas as administrative units for all its operations.

topography—Physical configuration of the land surface in an area.

total propagated uncertainty (TPU)—The range of concentrations (expressed as plus or minus the measured concentration) that include the theoretical or true concentration of an analyte with a specific degree of confidence. Radiochemical results are required to be accompanied by sample-specific uncertainty bounds (TPU) that reflect the 67% confidence level (1-sigma TPU). The TPU includes not only the measurement or counting error but also the technique-specific error term that includes uncertainty values for each contributing measurement process and a sample-specific contribution reflecting specific chemical recoveries, detectors used, etc. All radiochemical result uncertainties incorporate terms for technique-related and sample-specific measurement errors.

tuff—compacted deposit of volcanic ash and dust that contains rock and mineral fragments accumulated during an eruption.

US Department of Energy (DOE)—Federal agency that sponsors energy research and regulates nuclear materials for weapons production.

US Environmental Protection Agency (EPA)—Federal agency responsible for enforcing environmental laws. While state regulatory agencies may be authorized to administer some of this responsibility, the EPA retains oversight authority to ensure protection of human health and the environment.

vadose zone—The unsaturated zone. Portion of the subsurface above the water table in which pores are not fully saturated.

welded tuff—A volcanic deposit hardened by the action of heat, pressures from overlying material, and hot gases.

A-3.0 METRIC CONVERSION TABLE

Metric to US Customary Unit Conversions

Multiply SI (Metric) Unit	by	To Obtain US Customary Unit
kilometers (km)	0.622	miles (mi)
kilometers (km)	3281	feet (ft)
meters (m)	3.281	feet (ft)
meters (m)	39.37	inches (in.)
centimeters (cm)	0.03281	feet (ft)
centimeters (cm)	0.394	inches (in.)
millimeters (mm)	0.0394	inches (in.)
micrometers or microns (µm)	0.0000394	inches (in.)
square kilometers (km^2)	0.3861	square miles (mi^2)
hectares (ha)	2.5	acres
square meters (m^2)	10.764	square feet (ft^2)
cubic meters (m^3)	35.31	cubic feet (ft^3)
kilograms (kg)	2.2046	pounds (lb)
grams (g)	0.0353	ounces (oz)
grams per cubic centimeter (g/cm^3)	62.422	pounds per cubic foot (lb/ft^3)
milligrams per kilogram (mg/kg)	1	parts per million (ppm)
micrograms per gram (µg/g)	1	parts per million (ppm)
liters (l)	0.26	gallons (gal.)
milligrams per liter (mg/l)	1	parts per million (ppm)
degrees Celsius (°C)	9/5 + 32	degrees Fahrenheit (°F)