Appendix G. Water Quality Sampling Constituents for the Bull Mountain Unit

Constituents for Gunnison County Surface Water (Based on COGCC Rule 910 – Table 910-1)[1]	
Inorganic	**Organic**
Metals Analysis	BTEX/Volatile Hydrocarbons
Arsenic B	enzene
Barium T	oluene
Calcium Et	hylbenzene
Chromium	m p Xylene
Iron o	Xylene
Magnesium T	otal Xylenes
Selenium	TVH (Total Volatile Hydrocarbons)
Sodium P	AH-Polynuclear Aromatic Hydrocarbons
Wet Chemistry	2-Methylnapthalene
Alkalinity as CaCO3	Acenaphthene
Bicarbonate as CaCO3	Acenaphthylene
Carbonate as CaCO3	Anthracene
Hydoxide as CaCO3	Benzo(a)anthracene
Total Alkalinity B	enzo(a)pyrene
Chloride B	enzo(b)fluoranthene
Conductivity @ 25C	Benzo(g,h,i)perylene
Flouride B	enzo(k)fluoranthene
pH (Field)	Chrysene
Sulfate D	ibenzo(a,h)anthracene
F	luoranthene
F	luorene
In	deno(1,2,3-cd)pyrene
	Naphthalene-
Ph	enanthrene
Py	rene
	TPH (Total Extractable Petroleum Hydrocarbons)
Constituents for COGCC Rule 608.b.(2) Compliance Coalbed Methane Sampling for Water Wells	
All major cations & anions	Specific conductance
Total Dissolved Solids	Field pH
Iron	Hydrogen sulfide (field test methodology)
Manganese	Presence of Bacteria (iron related, sulfate reducing, slime)
Selenium	Field observations (odor, water color, sediment, bubbles and effervescence)
Nitrates & Nitrites	Water well surveyed
Dissolved methane S	odium adsorption ratio
Fecal coliform	
Constituents for COGCC Rule 908.b.(9) Compliance for Flowback Pits	
All major cations & anions	Nitrates & Nitrites
Total Dissolved Solids	BTEX
Iron	pH
Manganese	Specific conductance
Selenium	

[1] Gunnison County does not provide the operator with what parameters of water quality needed to be reported.

The locations of the current (October 2011) water quality monitoring sites associated with the Bull Mountain Gap site are included on Figure G-1.

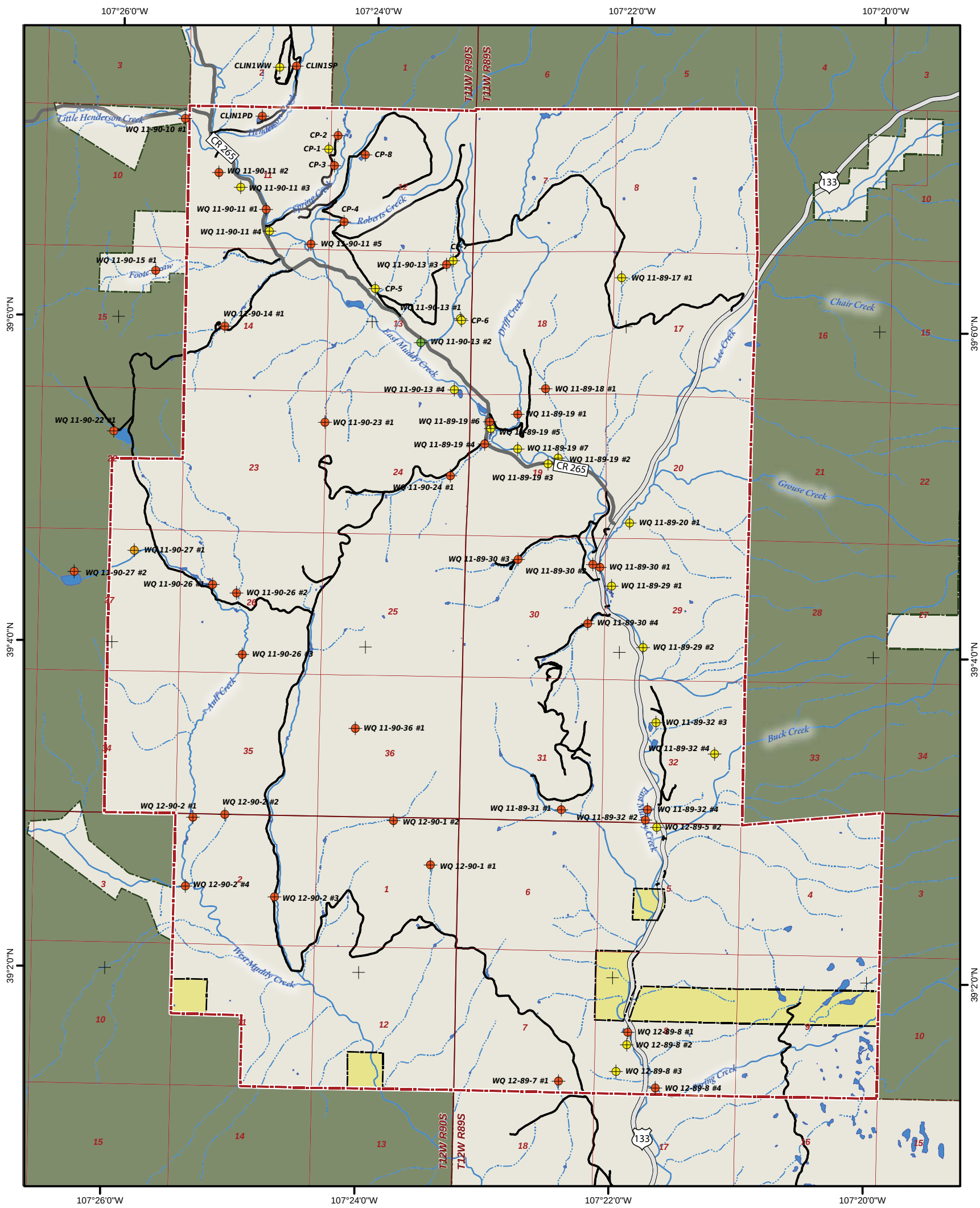

Figure G-1. Water Quality Test Sites

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PRELIMINARY