MCHB-TS-EGW

EXECUTIVE SUMMARY
OPERATIONAL RANGE ASSESSMENT PROGRAM
PHASE II ASSESSMENT REPORT
FORT GORDON, GEORGIA
NO. 38-EH-053B-08

1.0 PURPOSE.

The purpose of the investigation was to determine whether there has been a release or a substantial threat of a release of munitions constituents of concern (MCOC) via the ground-water or surface water pathways to an off range area that may pose an unacceptable risk to human health or the environment from training operations as per Department of Defense Instruction 4715.14, Operational Range Assessments.

2.0 CONCLUSIONS.

2.1 Surface Water Systems.

MCOC at concentrations above reference were detected at the sample points downstream of the range complex. Some of the elevated concentrations were likely due to releases from the range complex. No explosives or perchlorate were detected in any surface water or sediment samples.

One MCOC, arsenic, was elevated above human health criteria for the consumption of aquatic organisms in Spirit Creek, but the source of the arsenic was not the range complex. One MCOC, lead, was elevated above the chronic state aquatic standard in South Prong and Marcum Creeks, and the likely source of the lead was the small arms range. None of the releases are having a deleterious effect on the aquatic environment, since the benthic macroinvertebrate data indicate aquatic health is unchanged or slightly improved in all five watersheds downstream of the range complex.

2.2 Ground Water Systems.

On the basis of the sampling data collected during this study, ground water downgradient of the range complex does not currently contain MCOC that pose an unacceptable risk to off range receptors. Ground water in the Boggy Gut Creek drainage basin had slightly elevated lead levels.

Two upgradient wells, SWMU21-2 and the Range Control well, contained perchlorate. The Range Control well also had concentrations of lead above the Federal action level.

Based on the grain size of the fault zone material, ground water in the Belair Fault is estimated to move at a rate about one order of magnitude faster than ground water in the rest of the

Cretaceous aquifer. Rates of movement in the fault zone are between 1,000 and 10,000 feet/year.

2.3 Summary.

On the basis of the surface water and ground-water systems data collected during this investigation, MCOC are unlikely to pose an unacceptable risk to off-range receptors.

3.0 RECOMMENDATION.

Assign the Fort Gordon active ranges to the unlikely category.

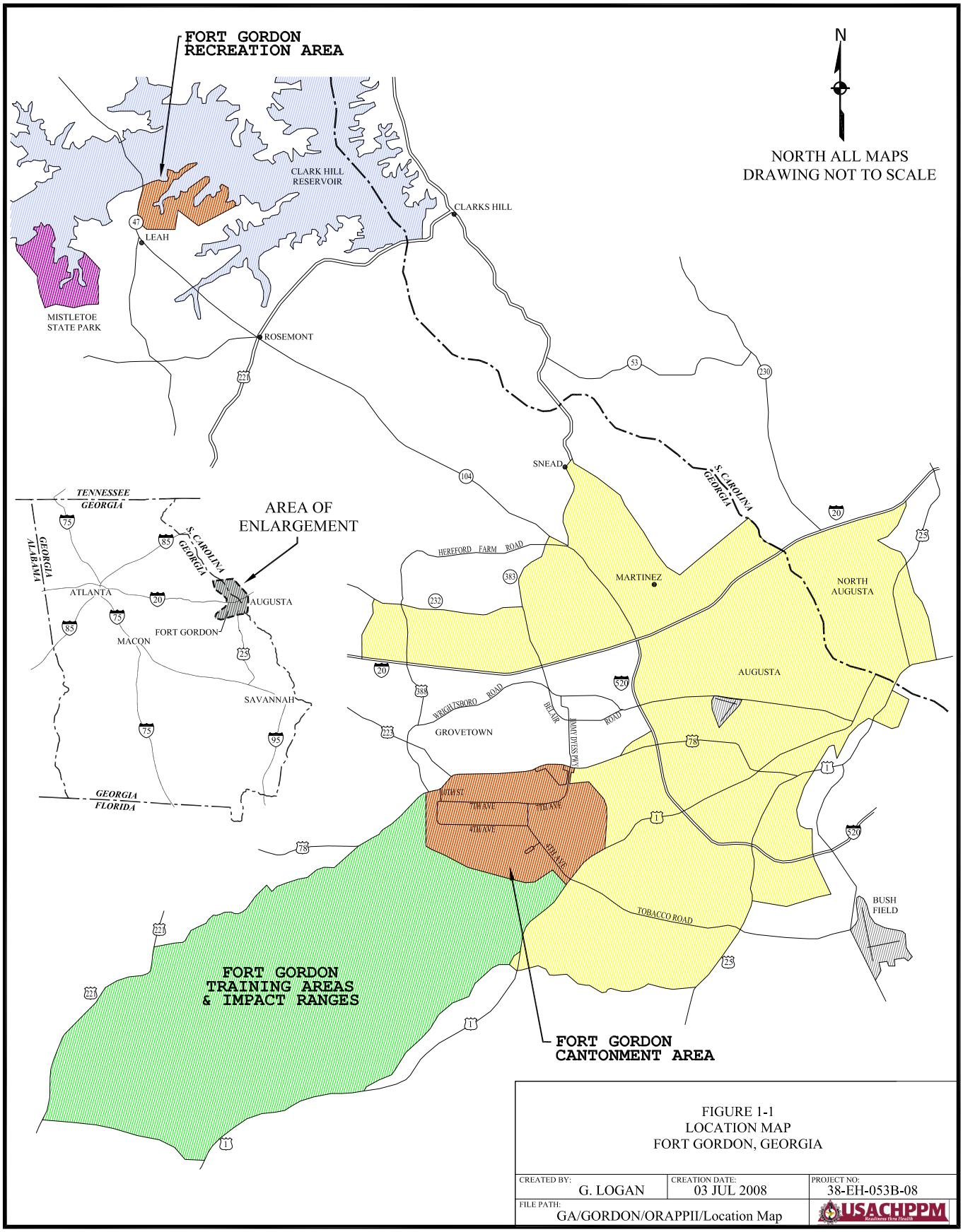

FIGURE 1-1
LOCATION MAP
FORT GORDON, GEORGIA

CREATED BY:	CREATION DATE:	PROJECT NO:
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FILE PATH: GA/GORDON/ORAPPII/Location Map		USACHPPM