

MEMORANDUM FOR Commander, U.S. Army Engineer District, Huntsville, ATTN:
CEHNC-OE-CX (Deborah Walker), 4820 University Square, Huntsville, AL, 35807

SUBJECT: Laboratory Assessment of GPL Laboratories, LLLP, Fredrick, MD for the Various
Military Munitions SI Phase FUDS Projects

1. This correspondence addresses the recent laboratory assessment of GPL Laboratories, LLLP of Fredrick, MD by the USACE HTRW Center of Expertise for compliance with the DOD QSM Policy (9/30/2005). Technical assistance was requested by your office in July 2005 to evaluate GPL Laboratories for compliance with Draft Version 3 (March 2005) of the DOD QSM.
2. The laboratory was assessed for the parameter(s) listed below:

<u>METHOD</u> ⁽¹⁾	<u>PARAMETER</u>	<u>MATRIX</u> ⁽⁴⁾
3535/8330	Explosives	Water ⁽²⁾
8330A	Explosives	Soil ⁽²⁾
3010A/6010C	Metals ⁽³⁾	Water ⁽²⁾
3050B/6010C	Metals ⁽³⁾	Soil ⁽²⁾
3010A/6020	Metals ⁽³⁾	Water ⁽²⁾
3050B/6020	Metals ⁽³⁾	Soil ⁽²⁾
7470A	Mercury	Water ⁽²⁾
7471A	Mercury	Soil ⁽²⁾
3020C/8270C	Polynuclear Aromatic Hydrocarbons	Water ⁽²⁾
3540C/8270Cs	Polynuclear Aromatic Hydrocarbons	Soil ⁽²⁾
3020C/8270C Modified	White Phosphorus	Water
3040C/8270C Modified	White Phosphorus	Soil

- Remarks: 1) Analytical methods include sample preparation and measurement methods.
- 2) The laboratory has successfully analyzed a Proficiency Testing (PT) sample for this method/matrix.
 - 3) Metals (TAL except mercury): Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc.
 - 4) Water and soil matrices; "soil" includes sediments and other solids.

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3. Enclosed for your information and use is a copy of the Laboratory Inspection and Evaluation Report. An on-site inspection of GPL Laboratories was performed by Dr. Thomas Georgian on 28 to 29 July 2005. The laboratory has been provided a copy of the report, and has satisfactorily responded to the deficiencies noted in the report.

4. Based upon the successful analysis of NELAC Proficiency Testing (PT) samples, the evaluation of the laboratory's supporting documentation, and an on-site inspection of the laboratory, the laboratory has been determined to be compliant with the DOD Quality Systems Manual for Environmental Laboratories (Draft Version 3) for the methods/matrices shown in paragraph 2. However, it should be noted that a number of variances to the DOD QSM were discussed and approved for GPL Laboratories for your project. The approved variances to the DOD QSM are summarized below:

a. For methods in which multiple MDLs for analytes are being simultaneously reported, the ratio of the spiking concentration to the calculate method detection limit (MDL) may be greater than five for water and ten for soils for some of the analyes provided that acceptable MDL check samples are analyzed for these analytes. (Variance for QSM Box D-18.)

b. The greater of three times the standard deviation or one half the average peak width may be used to establish the retention time windows for HPLC methods provided that the retention time window thus established does not overlap with the nearest evaluating peak. (Variance for QSM Table B-2.)

c. One half the reporting limit (rather than two times the MDL) may be used as the acceptance limit for instrument blank contamination for ICP Methods 6010 and 6020. (Variance for QSM Table B-6 and B-7.)

d. Plus or minus one half the reporting limit (rather than plus or minus two times the MDL) may be used as the acceptance range for the ICS-A solution for Methods 6010 and 6020. (Variance for QSM Table B-6 and B-7.)

e. Instrument detection limits (IDLs) for Methods 6010 and 6020 need not be less than the corresponding MDLs. (Variance for QSM Table B-6 and B-7.)

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5. It is your responsibility to provide final correspondence to the laboratory regarding their DOD QSM Compliance, and to determine ongoing compliance on an annual basis, in accordance with your project needs for analytical capacity, and associated business processes prescribed in the HQ policy letter. This laboratory assessment is not considered valid beyond two years from the date of this letter. You are also urged to forward a copy of this correspondence to appropriate Project Management staff for their files. A record of this assessment will be posted on our website so that other USACE Districts can be informed of the laboratory's status.

6. Any questions or comments can be directed to Dr. Thomas Georgian at 402-697-2567

Encl
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Marcia C. Davies, Ph.D.
Director, USACE Hazardous,
Toxic and Radioactive Waste
Center of Expertise