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US ARMY INSTITUTE OF PUBLIC HEALTH
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MCHB-IP-RDE

19 SEP 2011

MEMORANDUM FOR Office of the Command Surgeon (LTC (b) (6)), U.S.
Central Command, 7115 South Boundary Boulevard, MacDill Air Force Base, FL
33621-5101

SUBJECT: Deployment Occupational and Environmental Health Surveillance Sample
Report, Airborne Volatile Organic Compounds, Wilson, Afghanistan, 10 May 2011,
U_AFG_WILSON_IP_A17_20110510

1. The enclosed report details the assessment of volatile organic compound air samples collected by 3d Brigade Combat Team, 10th Mountain Division personnel, Wilson, Afghanistan, 10 May 2011.
2. None of the chemicals detected in the samples were identified as potential hazards.

FOR THE DIRECTOR:

(b) (6)

Encl

Portfolio Director, Health Risk Management

CF: (w/encl)

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U.S. ARMY PUBLIC HEALTH COMMAND

5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403

**Deployment Occupational and Environmental Health Surveillance Sample Report,
U_AFG_WILSON_IP_A17_20110510
Health Risk Management Portfolio**

Airborne Volatile Organic Compounds, Wilson, Afghanistan

Prepared by (b) (6)
Deployment Environmental Surveillance Program

CHPPM/PHC FORM 433-E (MCHB-CS-IP), SEP 10

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Preventive Medicine Surveys: 40-5f1

ACKNOWLEDGEMENTS

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**DEPLOYMENT OCCUPATIONAL AND ENVIRONMENTAL
HEALTH SURVEILLANCE SAMPLE REPORT
AIRBORNE VOLATILE ORGANIC COMPOUNDS
WILSON, AFGHANISTAN
10 MAY 2011
U_AFG_WILSON_IP_A17_20110510**

1 References

See Appendix A for a list of references.

2 Purpose

This report provides the U.S. Army Public Health Command (USAPHC), Army Institute of Public Health (AIPH) assessment of the laboratory analytical results and exposure information associated with the samples collected by 3d Brigade Combat Team, 10th Mountain Division on 10 May 2011 at Wilson, Afghanistan according to the U.S. Department of Defense deployment occupational and environmental health (DOEH) surveillance requirements. The assessment serves several purposes. It identifies DOEH hazards that may be related to acute health effects that could occur in personnel during their deployment. It provides an official record of observed exposure conditions for use in future site evaluations. It identifies whether or not there is a potential for chronic health concerns which may require additional characterization. Finally, this report includes preventive steps to reduce or eliminate occupational and environmental exposures, and surveillance and/or sampling recommendations, as necessary.

3 Scope

The assessment of sample results and exposure information in this report follows the process published in the USAPHC Provisional (Prov) Technical Guide (TG) 230 "Environmental Health Risk Assessment and Chemical Exposure Guidelines for Deployed Military Personnel, June 2010 Revision." The assessment is based on limited data representing a specific time period and assesses short-term exposure risks only. Therefore, this report cannot be used alone to estimate the risk of chronic health effects from exposures. In addition, this assessment does not address all DOEH hazards to which U.S. personnel may be exposed.

4 Laboratory Analysis

These deployment air samples were analyzed at the USAPHC, AIPH laboratory for a standard set of volatile organic compounds (VOCs). The complete analytical sample results can be viewed in the Defense Occupational and Environmental Health Readiness System-Environmental Health (DOEHRS-EH). Log into the DOEHRS-EH and search for the samples using the DOEHRS sample identification numbers (IDs) provided in Table 1.

Table 1. Sample Identification Information

DOEHRS-EH Sample ID	Sample ID Reported on Field Data Sheet	Sample Site	Date and Time Sample Collected	Sampling Duration	Sample Invalid (Yes/No) Reason for Invalid Sample
00004NLA	AFG_WILSON_11130_TO17	Burn Pit - Fenceline	2011/05/10 1034	480.0 minutes	No
00004NLD	AFG_WILSON_11130_TO17	Burn Pit	2011/05/10 1034	480.0 minutes	No

5 Exposure Setting

Table 2 contains information about the sampling location, environmental conditions, and associated potential population exposure. The information was provided on the field data sheets and/or exposure assessment worksheet submitted with the samples unless otherwise noted. Correction and clarification of exposure assumptions by the sampling unit is encouraged.

Table 2. Exposure Information

Questions About Exposure	Information Provided and Assumptions
Why was this sample/sample set collected?	Routine sampling of ambient air exposure pathway.
What population is exposed and how?	Personnel working at the camp completing missions and tasks outside. However, it is assumed personnel will not spend 24 hours per day outside.
What is the timeframe under consideration?	Although personnel will be deployed to this location for approximately 1 year, only the 8 hours sampled on 10 May 2011 is being assessed.
Where was the sample/sample set collected?	The sample set was collected from adjacent to the burn pit. The camp population areas are not in this area.
What is known about location, activity, setting and potential sources of contamination that may affect exposure?	The sample set was collected during an active burn of the burn pit. The majority of the camp personnel are not in the area sampled.

6 Prescreen

None of the chemicals detected in the samples were identified as potential hazards because their concentrations were not greater than USAPHC (Prov) TG 230 military exposure guidelines (MEGs). The prescreening is conducted as described in USAPHC (Prov) TG 230, section 3.4.3. The sample results were compared to MEGs on 21 June 2011.

7 Limitations

7.1 Field Data Quality

Field data provided with the samples were adequate.

None of the samples were invalid.

7.2 Sample Receipt at USAPHC Laboratory

The sample set was received at the USAPHC at a temperature of 25 degrees Celsius. The samples were packaged correctly.

7.3 Laboratory Data Quality

No laboratory data quality issues associated with this sample set were identified.

8 Recommendations

Maintain communication with USAPHC, AIPH POCs and continue standard surveillance of airborne VOCs in accordance with defined Occupational and Environmental Health Site Assessment (OEHSA) Exposure Pathways and sampling plans for your location.

If an OEHSA and/or specific sampling plans have not yet been completed for Wilson, Afghanistan, collect ambient VOC air samples from sites that best represent exposures at least once every 6 days to better characterize conditions over time.

9 Points of Contact

The USAPHC, AIPH POCs for this assessment are Ms. (b) (6) and
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LTC, MS
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Appendix A

References

Department of Defense. 2004. Department of Defense Directive 6490.02E, *Comprehensive Health Surveillance*. <http://www.dtic.mil/whs/directives/corres/pdf/649002Ep.pdf>

Department of Defense. 2006. Department of Defense Instruction 6490.03, *Deployment Health*. <http://www.dtic.mil/whs/directives/corres/pdf/649003p.pdf>

Department of the Army. 2006. Field Manual 5-19, *Composite Risk Management*. <https://rdl.train.army.mil/soldierPortal/atia/adlsc/view/public/23137-1/FM/5-19/TOC.HTM>

U.S. Army Public Health Command (Provisional). 2010. Technical Guide 230, *Chemical Exposure Guidelines for Deployed Military Personnel*. <http://phc.amedd.army.mil/PHC%20Resource%20Library/TG230.pdf>