



September 14, 2000

U.S. Army Engineer District, Alaska
Attn: Richard Jackson
P.O. Box 898
Anchorage, Alaska 99506-0898

Subject: Responses to Review Comments, Draft Work Plan - Building Sampling, Remedial Investigation/Feasibility Study, Northeast Cape, St. Lawrence Island, Alaska, Task Order No. 026, Contract No. DACA85-98-D-0007

Dear Rich:

The letter contains our responses to review comments received on the Draft Work Plan (dated August 4, 2000) for the subject project. Specifically, the government reviewers only commented on the portions of the Draft Work Plan that pertained to the sampling of building materials for asbestos, lead, and PCBs.

Listed below are the names of the reviewers, their comments (in italics), and our responses (in bold). We do not plan to prepare a Final Work Plan until all review comments have been received covering the entire plan. Therefore, assuming these responses are acceptable to the Alaska District, this letter will serve as an addendum to the existing Draft Work Plan for the purpose of performing the work scheduled to begin on September 18, 2000.

Comments from Hank Rominski

- Para 1.7.2 the Safety and Health Manager (developer of the plan) should be a CIH or CSP as required by the 385-1.*
Beth Darnell, CIH, is the Safety and Health Manager for the project.
- Lead sampling is for the composite environmental. The sampling described, if negative, will not meet the requirements for worker protection as defined by OSHA in 1926.62. Sampling should be conducted to meet OSHA requirements as well as EPA.*
The sampling activities to be performed in September 2000 are not subject to the regulations listed in 19 CFR 1926.62 (construction). Construction activities associated with the dismantling/demolition and removal of the site structures are subject to the regulations listed in 19 CFR 1926.62. The contractor (employer) tasked for the removal will need to complete an exposure assessment as described in paragraph (d) of the 19 CFR 1926.62.
- Para 3.2.4.2- Sampling according to NESHAPS protocol will not necessarily meet the requirements for worker protection. Sampling to determine if ACM is present according to OSHA must be accomplished*

The sampling activities to be performed in September are not subject to the regulations listed in 19 CFR 1926.1101 (construction), but rather 19 CFR 1910.1001 (general industry). Construction activities associated with the dismantling/demolition and removal of the site structures are subject to the regulations in 1926.62. By implementing workplace controls during sampling (e.g. adequately wet and respiratory protection) exposure to ACM can be minimized.

4. *Who will determine if the buildings are safe enough for entry and sampling? The procedure for this determination must be included.*

Field team members will make a visual inspection of all buildings prior to entry. If the condition of the building is such that it is deemed too dangerous to enter, the field team will note this in their field log and not enter the building. All buildings that are entered will be done so with extreme caution.

5. *It would be helpful if there was a directory for the SOPs.*

A Table of Contents will be provided for the SOPs in the Final Work Plan.

Comments from Sandra Kimbrell

1. *Names and qualifications of personnel, especially experience of the samplers at collecting these types of samples, must be provided prior to starting work.*

Names and qualifications of personnel will be provided in final work plan; resumes of individuals performing the September 2000 work are attached.

2. *Not all structures appear to be scheduled for sampling. Site 31 has three structures, not sure if all are painted, but only the main electronics center building is up for sampling. We have found at one site where a single structure tested significantly higher than all the other structures at the site (shop building at Collinson Pt). The Breezeway should be included in one of the samples.*

Composite samples for TCLP Pb and total PCB will be collected at the primary structure at each site. Each composite sample will serve to be representative of all the buildings at each site. This is similar methodology previously employed for the AC&W buildings at NE Cape, where only three buildings were sampled to be representative of all the buildings. If additional samples were required, a change in scope would be necessary due to increased labor and analysis costs.

3. *TCLP PCB is typically unnecessary.*

Composite samples will be submitted for total PCB analysis only. However, a sufficient amount of each building material will be collected to create a composite sample for TCLP analysis, if required, in the future.

4. *The makeup of the composite samples should also account for the relative amounts of painted and unpainted surfaces.*

The composite samples will be representative of all building materials, both painted and unpainted.

5. *The containers for the building samples are not given, except for the asbestos to be double bagged.*

All samples collected will be double bagged.

6. *The description of what will be sampled for asbestos seems vague. Will reports be provided from the field that show the building layouts, areas to be inspected, types of PACM, homogeneous areas prior to sampling? This work seems open ended. Based on Table 2-2, only 10 samples are scheduled and only for site 31. What about the other structures at sites 32-34. Are they already adequately characterized?*

In 1990, URS performed a site inspection of the White Alice Communications System (WACS) under Navy CLEAN contract N62474-89-D-9295, task CTO #0019. During this inspection, asbestos samples were collected from the WACS and the site was thought to have been adequately characterized. As detailed in section 3.2.4.2 of the Draft Work Plan, the inspection of the WACS area is being conducted to confirm the results found during the 1990URS investigation (previously identified ACM will not be resampled). Any PACM identified during the September 2000 investigation that was not previously sampled will be sampled and analyzed for asbestos. Table 2-2 will be corrected in the Final Work Plan to reflect that a total of 10 samples may be collected where additional PACM is identified (inclusive of sites 31, 32, 33 and 34). The technical memorandum that will be prepared for the September 2000 fieldwork will include building layouts and areas that were inspected and sampled.

7. *Will air monitoring be done during asbestos sampling?*

Air monitoring for asbestos will not be performed during sampling. The only on-site air monitoring instrumentation available for fibrous materials cannot distinguish between ACM and non-ACM fibers. Additionally, due to site logistics results for off-site analysis of air samples collected during sampling would not be available until after the fieldwork is completed. By implementing workplace controls during sampling (e.g. adequately wet and respiratory protection) exposure to ACM can be minimized.

8. *Provide current lab certifications for the analyses to be performed by each lab.*

Lab certifications for analysis to be performed are attached.

9. *The test method for asbestos was not given.*

Asbestos will be analyzed using method EPA 600.

10. *Job hazard analysis was not provided for the work to be done.*

Please refer to Section 5.0 Northeast Cape Site Health and Safety Plan Addendum.

Please call if you have any questions or comments.

Sincerely,



Gary R. Busse, P.E.
Project Manager

Attachments

**MONTGOMERY WATSON**

September 14, 2000

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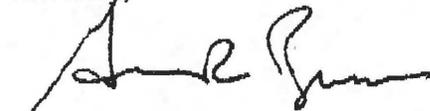
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Sincerely,



Gary R. Busse, P.E.
Project Manager

Attachments

**MONTGOMERY WATSON**

BONNIE G. McLEAN
Senior Environmental Scientist

EDUCATION:

B.A., Geography, Environmental Studies, California State University, Fresno (1975)
M.S., Environmental Science, University of Alaska Anchorage (1991)

SUMMARY:

Ms. McLean is a senior environmental scientist specializing in hazardous waste site investigation and remedial assessments at Montgomery Watson's Anchorage office. Ms. McLean also serves as the region's health and safety officer. Her experience with industrial and hazardous waste projects includes preparation of health and safety plans, asbestos and lead-based paint inspection, design and sampling plans for hazardous waste site investigations, ADEC underground storage tank projects, and hazardous waste remediation projects. Ms. McLean has served as the federal costing officer and mobilization supervisor and field and site safety supervisor for related field work at EPA CERCLA sites in Utah and California and numerous USAED and FAA sites throughout Alaska. Ms. McLean also coordinates field logistics and supervises DSHA/EPA/ADEC training requirements and field operations for Montgomery Watson's Anchorage office.

MONTGOMERY WATSON EXPERIENCE:

Industrial and Hazardous Waste

- Supervising field team leader for over 30 FAA sites throughout Alaska involving fuel, PCB, and dioxin contamination. Developed sampling protocol so exacting it reduced remediation costs for dioxins by \$500,000.
- Developed work plan and supervised field team (including local Native hires) in removing buried potentially PCB-filled transformers located within 50 feet of village water source. Was commended by ADEC for this effort.
- Field team leader during a surprise EPA raid on the North Slope that resulted in high compliance requirement marks.
- Continuing as field team leader on two St. Lawrence Island USAED Former Used Defense Sites (FUDS) for the last 6 years. Obtained funds to train and subcontract local village residents in the cleanup of these abandoned sites.
- Project manager and field team leader throughout a 3-year study and confirmation sampling activities during remediation construction activities at BPXA Cordova Roundhouse Site. Two projects were awarded ADEC's first "Beyond Compliance" award.
- Mentored IRA Council in developing remediation plan for DOD.

- Supervised soil gas screening survey, hydropunch sampling, soilbore screening and sampling, and monitoring well placement and construction on a remote oil production location. Activities included maintaining shipping samples to laboratories within tight holding time limitations via non-traditional methods.
- Liaison between Montgomery Watson environmental (MWA) and construction (MWCI).
- Served as field team supervisor in the Prudhoe Bay/Eastern Operation Area sampling program to meet regulatory requirements for characterization closeout of reserve pits and pit berms. This was accomplished under extreme cold weather conditions for 4 months.
- Field team supervisor for activities on a remote island which included electromagnetic survey, site characteristics, surface soil samples, maintenance of records and samples, evaluation of sample data, and proposed Phase II borehole sampling plan remediation design.
- Partner on field activities at oil production facility which included aquifer pump test, borehole soil sampling, extraction well construction, air sparging, and air sampling of bioventing extraction system.
- Responsible for various fieldwork during 2 months of a site characterization study at an EPA Superfund site in Salt Lake City, Utah. Supervised and performed surface, soil-gas, and water quality sampling according to EPA procedures. Maintained all sampling and monitoring equipment and supervised the identification, and chain-of-custody log for, 150 hazardous waste drums collected. Activities included designing and supervising construction of an EPA-approved vehicle and drill rig decontamination pad.
- Served as field and site safety supervisor for remedial investigation sampling of a produced water spill at an oil facility in Kenai. Prepared the work plan and supervised surface sampling. Additional work at the same site included supervision of sub-surface fuel spill sampling.
- Continues as project manager/field team leader on Gambell, St. Lawrence Island FUDS remedial investigation and cleanup. This 5 year ongoing project village logistical and community relations successes benefiting USAED. This continuum of expertise and commitment resulted in this project being offered by USAED as one of their most successful projects in 1997.
- Assisted the lead project engineer in placement of several pumps and transducer probes to conduct aquifer pump tests at Trading Bay oil production facilities.
- Field and site safety supervisor for sampling activities on two North Slope projects. Conducted soil and gravel sampling needed to establish baseline information for a baseline characterization study and conducted sampling for a bioassay study. An ADEC field audit was completed during this study and all sampling, QA/QC, and chain-of-custody procedures were conducted in accordance with ADEC guidelines.
- Completed asbestos site surveys and sampling involving various structures, pipes, and type vessels for several public and private agencies. Evaluated ACM contamination, quantified

ACM, and proposed initial control and final abatement solutions. Performed inventory for demolition and abatement, cost proposals and disposal design.

- Completed lead-based paint, PCB-contaminated paint, and asbestos inspection inventories, demolition and removal plans, and health and safety plans for remote sites throughout Alaska.
- Completed site investigations and cold weather sampling at a long-time drum collection point at Beluga River facility and proposed disposal criteria for hazardous and toxic wastes.
- Supervised the drilling of ADEC-required borings, of soil and water sampling, and the construction of permanent groundwater monitoring wells. Commended by ADEC for excellence in field sampling and construction procedures.
- Designed and supervised Phase II sampling of a cold weather surface, sub-surface, groundwater, and hazardous waste drum industrial site. Evaluated the contamination and proposed the remediation design and disposal of the hazardous waste.

Water Quality and Hydrology

- Responsible for field activities and data compilation for the Municipality of Anchorage Solid Waste Services Landfill Water Quality Monitoring Program. During the past 10 years, Ms. McLean has had the primary ongoing responsibility of monitoring, sampling, and documentation of fieldwork. Sampling sites for this project include wells, leachate subdrains, pump stations, and surface sites as directed by EPA RCRA. Sampling techniques include conventional bailing, dedicated position displacement, and air bladder pumps. She has contributed technical data toward the placement, construction, permit requirements, and frost-heave calculations for new monitoring wells.
- Completed a hydrologic surface water investigation in the Mat-Su Borough and Anchorage Hillside/Huffman Road area.
- Field team leader for the water quality study involving Northstar and Liberty Island pipeline EPA construction permitting.
- Field team leader for NPDES compliance monitoring for multiple years at Endicott Island.

Training Development

- Developed, prepared, and presented training programs covering all aspects of hazardous waste fieldwork for BPXA, Alaska Village Initiatives, Alaska Railroad and Montgomery Watson.
- Prepared mentoring program for hazardous waste field support with local Native cooperation at remote site, which allowed the corporation to obtain 8(a) status and USAED cleanup contract.
- Developed internal training program.

BONNIE G. McLEAN

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Asbestos

- Responsible for collection and data compilation of ACM samples for USAED at numerous remote sites.
- Completed investigations, sampling, and remediation plan for USAF.
- Conducted remedial training for BPX (Alaska) Hazwaste Technicians on the North Slope

Lead-Based/PCB Paint

- Field team supervisor for activities conducted on a remote island which included sampling, data compilation and remedial demolition design for USAED.
- Designed and conducted surveys on abandoned and in-use military sites.
- Performed cost preparation of demolishing and abatement.

U.S. ARMY RESERVES:

- Served as First Sergeant of a combat engineering battalion, supervising a 152-member unit. Served as primary instructor of the military occupational skills course for a nuclear biological and chemical (NBC) non-commissioned officer qualification. Supervised other instructors and revised material for an 11-state area in all NBC courses.

SPECIAL TRAINING AND CERTIFICATION:

- ADEC UST Qualified Person, 18 ACC 78.995(87)
- EPA/AHERA - Asbestos Inspection Certification
- EPA/AHERA - Asbestos Abatement Design Certification
- Asbestos Abatement Certification, State of Alaska, Expires 2000
- EPA Lead Abatement for Supervisor/Contractor Certification
- EPA Lead Base Paint Abatement Project Design Certification
- EPA Lead Base Paint Inspector Certification (EPA/OSHA)
- Toxic and Hazardous Site Workers Training Course (OSHA, 8 hr. Annual Review)
- Toxic and Hazardous Waste Operation, (OSHA 40 hours)
- 40 CFR 172, Subpart H (200) (DOT)
- 40 CFR 262, Standards Applicable to Generators of Hazardous Waste
- 40 CFR 268, Land Disposal Restrictions (LDR)
- 29 CFR 1910.120, OSHA, First Responder
- Toxic and Hazardous Waste Supervisor (OSHA 8 hours)
- Soil and Groundwater Remediation, Alaska Department of Environmental Conservation
- Nuclear, Chemical, and Biological Technical Operations (128 hours), U.S. Army
- Heavy Equipment Operator, (120 hours), U.S. Army
- Leaking Underground Storage Tanks and Underground Tanks, (16 hours) UAF
- American Red Cross First Aid and Adult CPR, currently certified

**MONTGOMERY WATSON****DOUGLAS S. QUIST**
Chemist III

EDUCATION:

B.S., Chemistry, University of Alaska Anchorage

SUMMARY:

Mr. Quist is a professional chemist with seven years experience in the operation of mobile field laboratories, sample field screening, risk assessment, regulatory compliance, and various types of research and permitting associated with contaminated sites.

Mr. Quist has extensive remote-site field logistics experience, including field screening for PCBs, herbicides, pesticides, and petroleum hydrocarbons. He has been the chief field chemist for remedial investigations involving various suspect and known contaminants including miscellaneous petroleum hydrocarbons, PCBs, VOCs, SVOCs, BNAs, PAHs, and metals. Mr. Quist has performed sampling and analysis of air, surface water, groundwater, soil and sediments.

Mr. Quist has proved successful in detailed research for a variety of applications. He has extensive experience with Potential Responsible Party (PRP) searches involving historical land use, right-of-way, and easement issues. He has also merged his technical expertise and research skills to develop site-specific alternative risk-based cleanup levels for both diesel fuel and gasoline on behalf of the Alaska District Army Corps of Engineers. These risk-based cleanup levels were based on information from the U.S. Environmental Protection Agency (EPA) and State of Alaska Department of Environmental Conservation (ADEC) that had not been previously been integrated.

Mr. Quist not only has the practical technical skills to support field investigations, but is also an excellent communicator. He is adept with the many roles that public relations require and has the unique ability to reach a wide audience, ranging from the technical to the layman. Much of Mr. Quist's public relations experience has been with audiences for whom English is a second or third language. He has facilitated and led public meetings and informative seminars for a variety of clients including the Alaska District Corps of Engineers, United State Air Force, Solid Waste Association of North America (SWANA), and the United States Agency for International Development (USAID).

Mr. Quist, a lifelong Alaskan, is also on the forefront of new media technology and has developed guidelines for electronic deliverables for the Alaska District Army Corps of Engineers. These guidelines were adopted as the de facto standard for the Alaska District and have been informally adopted by other districts as well.

MONTGOMERY WATSON EXPERIENCE:

- **West Bank Water Resources Phase II (West Bank, Israel); Field Chemist.** Mr. Quist served as a Field Chemist for the United States Agency for International Development (USAID). He developed and implemented a sampling program for a baseline water resource/quality survey of the West Bank; the first of it's kind in the region. His role required a high level of coordination between both the Palestinian National Authority, United States Agency for International Development and numerous subcontractors throughout the region and in the United States.
- **Gambell and NE Cape FUDS (St. Lawrence Island, AK); Field Chemist.** Field chemist for the United States Army Corps of Engineers remedial investigation at Gambell and NE Cape on St. Lawrence Island, Alaska. Sampled and performed field screening of various soils using photoionization, infrared spectroscopy and ENSYS test kits for Petroleum Hydrocarbons, and HAZCAT field characterization for various waste streams.

His review and subsequent classification of sensitive Dioxin data in the project earned a letter of recognition from the Corps of Engineers.

- **Cordova Roundhouse Remediation, British Petroleum Exploration, Alaska; Field Chemist.** Mr. Quist served as field chemist in the 50-day remediation phase of the project and was responsible for soil and water sampling and review of laboratory data.

His coordination of mobile-field and fixed-base laboratories utilized in the project earned a letter of recognition from British Petroleum.

- **FAA Air Navigation Facility, Summit.** Performed field tests for fuels and herbicides to delineate area of contamination and guide excavation. Screened field samples collected and prepared laboratory samples.
- **Cape Chiniak FUDS RI; Project Chemist and Field Laboratory Manager.** Project chemist and field laboratory manager for the United States Army Corps of Engineers remedial investigation at Cape Chiniak, Kodiak, Alaska. Sampled and performed field screening of various soils using photoionization, infrared spectroscopy and ENSYS test kits for Petroleum Hydrocarbons, Polychlorinated biphenyls and Gasoline Range Organics.
- **Little Navy Annex FUDS RI; Project Chemist and Field Laboratory Manager.** Project chemist and field laboratory manager for the United States Army Corps of Engineers remedial investigation at Little Navy, Kodiak, Alaska. Sampled and performed field screening of various soils using photoionization, infrared spectroscopy and ENSYS test kits for Petroleum Hydrocarbons, Polychlorinated biphenyls and Gasoline Range Organics.
- **Bruhn Point Landfill FUDS RI; Project Chemist and Field Laboratory Manager.** Project chemist and field laboratory manager for remedial investigation at Bruhn Point Landfill, on Kodiak. Sampled and performed field screening of various soils using photoionization.

- **Long Island FUDS RI; Field Chemist.** Field chemist for the United States Army Corps of Engineers remedial investigation at Long Island in Alaska (Kodiak). Sampled and performed field screening of various soils using photoionization, infrared spectroscopy and ENSYS test kits for Petroleum Hydrocarbons and Polychlorinated biphenyls.

Quist helped coordinate the investigative derived waste (IDW) removal for the Kodiak Island RIs. He categorized all IDW containers according to applicable, relevant and appropriate requirements (ARARs) for federal, state, and local regulations. Both RCRA and non-RCRA waste products were involved in this removal effort.

- **Sample Identification, Data Management, and Data Validation Development.** Quist designed a system for sample identification in the field, which affords better data management in the office. He also helped design a comprehensive, consistent, and more manageable set of data qualifiers for use in data validation.
- **U.S. Coast Guard, Kodiak Island, Alaska; Project Chemist.** Quist performed on-site enzyme linked immuno-sorbent assay (ELISA) screening of suspected petroleum contaminated soils for an underground storage tank removal and closure project at the USCG facility in Kodiak. All sites were successfully closed.
- **The Presidio of San Francisco.** Performed data validation for numerous tank removals at the historic Presidio of San Francisco. Montgomery Watson has been responsible for full-service restoration and program management, including more than 300 underground storage tanks.

GENERAL TECHNICAL EXPERTISE:

- **Chemist, Field Screening.** Trained chemist in the use of Enzyme Linked Immuno-Sorbent Assay (ELISA) screening methodology for a variety of constituents including Petroleum products, BTEX, PCBs, Herbicides and Pesticides.
- **Sample Identification, Data Management, and Data Validation Development.** Mr. Quist designed a system for sample identification in the field, which affords better data management in the office. He also helped design a comprehensive, consistent, and more manageable set of data qualifiers for use in data validation.
- **Risk Based Concentration Calculations.** Developed alternative risk-based cleanup levels for Diesel fuel and Gasoline (for both carcinogenic and non carcinogenic exposure) using the EPA's Region III RBC equations and EPA's Guidance for Data Usability in Superfund Risk Assessment. These alternative cleanup levels were accepted by both the Alaska District Army Corps of Engineers and the Alaska Department of Environmental Conservation as legitimate cleanup levels.

- **Records Search/PRP Identification.** Responsible for records search and PRP identification for remediation related projects throughout Alaska. Resourceful and experienced in the use of Archives (state and federal), agency records (state and federal), utility and industry files; native corporation files, and photograph interpretation (aerial and historic).
- **Permit Procurement.** Acquired all necessary letters of non-objection/approval from the appropriate federal, state and local agencies as required to gain a right of entry permit at a former FAA site. The site in question is owned by the Alaska Department of Transportation and Public Facilities and the project managed by the U.S. Corps of Engineers, Alaska Region.

SPECIALIZED TRAINING:

40-hour HAZWOPER Supervisor

40-hour Hazardous Waste Operations and Emergency Response training

National Safety Council Certification of First Aid

Red Cross Adult Cardiopulmonary Resuscitation Certification

Hazardous Material, Substances and Wastes Compliance



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS

HTRW CENTER OF EXPERTISE

12802 WEST CENTER ROAD

OMAHA, NEBRASKA 68144-3869

August 11, 2000

Hazardous, Toxic and Radioactive Waste
Center of Expertise

Severn Trent Laboratories - Alaska
5761 Silverado Way, Suite N
Anchorage, AK 99518-1657

Gentlemen:

This correspondence addresses the recent evaluation of Severn Trent Laboratories - Alaska of Anchorage, Alaska by the U.S. Army Corps of Engineers (USACE) for chemical analysis in support of the USACE Hazardous, Toxic and Radioactive Waste Program.

Your laboratory is now validated for the parameters listed below:

METHOD	PARAMETERS	MATRIX ⁽¹⁾
8021B	Aromatic Volatile Organics	Water ⁽²⁾
8021B	Aromatic Volatile Organics	Solids
8081A	Organochlorine Pesticides	Water ⁽²⁾
8081A	Organochlorine Pesticides	Solids
8082	Polychlorinated Biphenyls	Water ⁽²⁾
8082	Polychlorinated Biphenyls	Solids ⁽²⁾
8270C/SIM	Polynuclear Aromatic Hydrocarbon	Water ⁽²⁾
8270C/SIM	Polynuclear Aromatic Hydrocarbon	Solids
8270C	Semivolatile Organics	Water ⁽²⁾
8270C	Semivolatile Organics	Solids ⁽²⁾
AK101/102/103	TPH - GRO/DRO/RRO ⁽³⁾	Water
AK101/102/103	TPH - GRO/DRO/RRO ⁽³⁾	Solids
8260B	Volatile Organics	Water ⁽²⁾
8260B	Volatile Organics	Solids

- Remarks:
- 1) 'Solids' includes soils, sediments, and solid waste.
 - 2) The laboratory has successfully analyzed a performance evaluation sample for this method/matrix.
 - 3) Approval for this parameter is based on review of SOPs only.

- 2 -

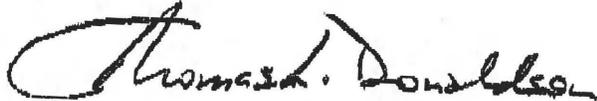
Enclosed for your information is a copy of the Laboratory Inspection and Evaluation Report. Your laboratory has responded to the deficiencies as noted in the report. No further responses are necessary.

Based on the successful analysis of the performance evaluation samples and the results of the laboratory inspection, your laboratory will be validated for sample analysis by the methods listed above. The period of validation is 24 months and expires on August 11, 2002.

The USACE reserves the right to conduct additional laboratory inspections or to suspend validation status for any or all of the listed parameters if deemed necessary. It should be noted that your laboratory may not subcontract USACE analytical work to any other laboratory location without the approval of this office. This laboratory validation does not guarantee the delivery of any analytical samples from a USACE Contracting Officer Representative.

Any questions or comments can be directed to John Nebelsick at (402) 697-2572. General questions regarding laboratory validation may be directed to the Laboratory Validation Coordinator at (402) 697-2574.

Sincerely,



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

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
HTRW CENTER OF EXPERTISE
12885 WEST CENTER ROAD
OMAHA, NEBRASKA 68144-2829

February 2, 2000

Hazardous, Toxic and Radioactive Waste
Center of Expertise

Quanterra Environmental Services
880 Riverside Parkway
West Sacramento, California 95605

Gentlemen:

This correspondence addresses the recent evaluation of Quanterra Environmental Services of West Sacramento, California by the U.S. Army Corps of Engineers (USACE) for chemical analysis in support of the USACE Hazardous, Toxic and Radioactive Waste Program.

Your laboratory is now validated for the parameters listed below:

METHOD	PARAMETERS	MATRIX ⁽¹⁾
300 series	Anions ⁽⁴⁾	Water ⁽²⁾
8021B	Aromatic Volatile Organics	Water ⁽²⁾
8021B	Aromatic Volatile Organics	Solids
9010B/9012A	Cyanide	Water ⁽²⁾
9013	Cyanide	Solids
8290	Dioxins/Furans ⁽⁵⁾	Water
8290	Dioxins/Furans ⁽⁵⁾	Solids
8330	Explosives	Water ⁽²⁾
8330	Explosives	Solids ⁽²⁾
8151A	Herbicides	Water ⁽²⁾
8151A	Herbicides	Solids
8081A	Organochlorine Pesticides	Water ⁽²⁾
8081A	Organochlorine Pesticides	Solids
8082	Polychlorinated Biphenyls	Water ⁽²⁾
8082	Polychlorinated Biphenyls	Solids ⁽²⁾
8310	Polynuclear Aromatic Hydrocarbons	Water ⁽²⁾
8310	Polynuclear Aromatic Hydrocarbons	Solids
8270C	Semivolatile Organics	Water ⁽²⁾
8270C	Semivolatile Organics	Solids ⁽²⁾
SW-846	TAL Metals ⁽³⁾	Water ⁽²⁾
SW-846	TAL Metals ⁽³⁾	Solids ⁽²⁾

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9060	Total Organic Carbon	Water ⁽²⁾
9060	Total Organic Carbon ⁽⁵⁾	Solids
Mod 8015	Total Petroleum Hydrocarbons-DRO ⁽⁵⁾	Water
Mod 8015	Total Petroleum Hydrocarbons-DRO ⁽⁵⁾	Solids
Mod 8015	Total Petroleum Hydrocarbons-GRO ⁽⁵⁾	Water
Mod 8015	Total Petroleum Hydrocarbons-GRO ⁽⁵⁾	Solids
8260B	Volatile Organics	Water ⁽²⁾
8260B	Volatile Organics	Solids

- Remarks:
- 1) 'Solids' includes soils, sediments, and solid waste.
 - 2) The laboratory has successfully analyzed a performance evaluation sample for this method/matrix.
 - 3) **TAL Metals:** Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc.
 - 4) **Anions:** Chloride, fluoride, sulfate, nitrate, nitrite, and ortho-phosphate.
 - 5) Approval for this parameter is based on review of SOPs only.

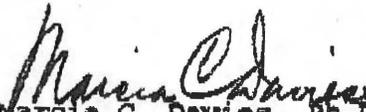
Based on review of the Laboratory Quality Management Plan, acceptable Standard Operating Procedures, and the successful analysis of the performance evaluation samples, your laboratory will be validated for sample analysis by the methods listed above. The period of validation is 24 months and expires on January 26, 2002.

The Chemistry Branch of the Hazardous, Toxic, and Radioactive Waste Center of Expertise may schedule and conduct an on-site audit at any time during the 24-month validation period to evaluate lab performance if deemed necessary. The USACE reserves the right to suspend validation status for any or all of the listed parameters if deemed necessary. It should be noted that your laboratory may not subcontract USACE analytical work to any other laboratory location without the approval of this office. This laboratory validation does not guarantee the delivery of any analytical samples from a USACE Contracting Officer Representative.

- 3 -

Any questions or comments can be directed to John Nebelsick at (402) 697-2572. General questions regarding laboratory validation may be directed to the Laboratory Validation Coordinator at (402) 697-2574.

Sincerely,


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

United States Department of Commerce
National Institute of Standards and Technology

NVLAP[®]

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation



SOLAR ENVIRONMENTAL SERVICES, INC.
ANCHORAGE, AK

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

March 31, 2001

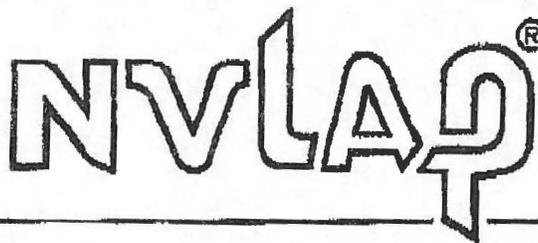
Effective through

David F. Alderman

For the National Institute of Standards and Technology

NVLAP Lab Code: 102006-0

National Institute
of Standards and Technology



National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation



Page: 1 of 1

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 102006-0

SOLAR ENVIRONMENTAL SERVICES, INC.

1131 E. 76th Avenue, Suite 102

Anchorage, AK 99518

Ms. Gracita O. Torrijos

Phone: 907-349-7705 Fax: 907-349-7944

E-Mail: sesenvir@alaska.net

URL: <http://www.alaska.net/~sesenvir>

NVLAP Code

Designation

18/A01

EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

March 31, 2001

Effective through

David F. Alderman

For the National Institute of Standards and Technology