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STATE OF WASHINGTON
DEPARTMENT OF HEALTH
DIVISION OF RADIATION PROTECTION
Airdustrial Center, Bldg. 5 • P.O. Box 47827 • Olympia, Washington 98504-7827

March 17, 1997

APR 1997 RECEIVED EDMC

R. Douglas Hildebrand
U.S. Department of Energy
Richland Operations Office
P. O. Box 550
Richland, Washington 99352

Dear Mr. Hildebrand:

Enclosed are the minutes of the November 21, 1996 Quality Assurance Task Force meeting. If you have any comments or corrections, please contact Drew Thatcher at (360) 586-8715.

We distributed the performance evaluation samples at the meeting. Results are still being sent in. We will have a report on them at the next meeting. We are planning to set up the next meeting in late May or early June. Stay tuned.

Sincerely,

John L. Erickson, Chair
Quality Assurance Task Force
for the Pacific Northwest

Enclosure

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MAR 24 1997
DOE-RL/DIS

MINUTES

ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE FOR THE PACIFIC NORTHWEST

November 21, 1996
Richland, Washington

ATTENDEES

Michael R. Ault, US Ecology
Bob Bryce, PNNL
Richard Burklin, Siemens Power Corp.
Curt Cannon, ATG Inc.
Allan Danielson, Washington State Department of Health
Larry P. Diediker, Rust Federal Services of Hanford
Roger Dirkes, PNNL
John Dorian, Rust Federal Services, Inc. - Northwest Operation
Evan Dresel, PNNL
John Erickson, Washington State Department of Health, Chair
Barb Gillespie, PNNL
John B. Hall, DOE/EAP
R Douglas Hildebrand, DOE/RL
George Hilton, Department of Health, Public Health Labs
Richard Jaquish, Washington State Department of Health
Austin Ray Johnson, Rust Federal Services - NW-NFM
Terry Liikala, PNNL
Debra McBaugh, Washington State Department of Health
John McDonald, Washington Public Power Supply System
Greg Patton, PNNL
John W. Schmidt, Rust Federal Services, Inc. - Northwest Operation
Joe Schroeder, ATG Inc.
Marina Silverstone, Department of Health, Public Health Labs
Ron Smith, PNNL
Drew Thatcher, Washington State Department of Health
Scott Van Verst, Washington State Department of Health
Jerry Yokel, Washington State Department of Ecology

John Erickson welcomed everyone and opened the meeting at 9:00 a.m. Individuals introduced themselves. A list (attached), including the new addresses of the individuals present, was passed around.

OVERVIEW OF RECENT CONTRACTOR CHANGES AT HANFORD

Dana Ward presented an overview of the new organizational flowchart as it relates to environmental monitoring. Please see attached flowchart for details. John Bates, of Fluor Daniel Hanford, Inc., is the point of contact for environmental safety and health. John Winterhalder of Rust Federal Services Hanford, reports to John Bates. The rest of the flowcharts are self explanatory.

1995 SURFACE ENVIRONMENTAL SURVEILLANCE PROJECT RESULTS

Roger Dirkes, representing the sitewide surface environmental surveillance project, presented an overall review of the monitoring results for 1995. As a brief summary, the following is included:

Air Monitoring - I-129 was higher than background at the perimeter at a small fraction of the DCG (100 mrem/y) All other radionuclides were not statistically different from background.

Columbia River - U, I-129, and H-3 were all statistically higher than upstream samples. Sources of uranium were the irrigation returns and 300 area.

Sediments - Co-60, Sr-90 and Pu-239 were all statistically higher at McNary Dam than upstream locations.

Seep Water - Tritium was statistically higher at the Hanford Townsite, Sr-90 was statistically higher at the 100-H area.

Food/farm products - nothing statistically higher than background.

TLDs - collocated with air sampling stations. The 100N area was statistically higher than other locations.

The maximally exposed individual was located at Ringold and received an estimated .02 mrem/y. The population dose was .3 person rem.

Further details may be found in the Hanford Site Environmental Report.

GROUNDWATER MONITORING RESULTS

Evan Dresel presented an overview of the groundwater plumes on the Hanford Site. This information can be found in the 1995 groundwater report. Evan also presented preliminary results of historical Co-60 concentrations. It appears that Co-60 concentrations at several locations were greater than background for numerous areas in the site. The conclusion is that at least a small fraction of the Co-60 was mobile.

TRITIUM PLUME IN 300 AREA

Terry Liikala of PNNL, presented the results of the 300 area plumes. Explanations were given as to how the North Richland well field is used by the city. Terry felt that the tritium plume would not impact the wellfield as the flow of groundwater is toward the northeast (away from the wellfield).

STATUS OF GROUNDWATER MONITORING CONSOLIDATION

Ron Smith presented the status of the groundwater monitoring consolidation. Ron utilized the handout from Dana Ward's presentation to explain how the work is being conducted. PNNL will be coordinating all groundwater monitoring at the Hanford Site for both Environmental Restoration (ER) and non-ER monitoring. PNNL plans to have the groundwater database on the WWW by the end of the year.

DISTRIBUTION OF PERFORMANCE EVALUATION SAMPLES

Dick Jaquish handed out the protocol for the 1996 performance evaluation sample (see attached). The protocol lists the requirements for analysis and reporting by the participating organizations. Performance evaluation samples were distributed to those participating organizations present.

The meeting was adjourned at noon on November 21, 1996.

ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE FOR THE PACIFIC NORTHWEST
November 21, 1996 MEETING
FEDERAL BUILDING, ROOM 147 - RICHLAND, WA
ATTENDANCE

NAME	ADDRESS	AFFILIATION	TELEPHONE NUMBER AND eMail ADDRESS
Rich Burklin	Siemens Power Corp 2101 Horn Rapids Road Richland, WA 99352	Siemens	509 375 8638
Bob Bryce	Battelle PO Box 900 Richland WA 99352	PNNL	509 372 2588
Evan Oresel	Battelle MS K6-96 PO Box 999 Richland WA 99353	PNNL	509 376-8341
Ron Smith	Battelle MSIN: K6-96 PO Box 999 Richland, WA 99352	PNNL	(509)-376-5831
R Douglas Hildebrand	Mail Stop H0-12 P.O. Box 550 Richland, WA 99352	DOE/RL	509-373-9626
Scott Van Verst	PO Box 47827 Olympia WA 98501-7827	DOH	360-586-3585
Barb Gillespie	P.O Box 999 K6-75 Richland, WA 99352	PNNL	(509)376-5802
John Hall	PO Box 550 Richland, WA 99352	DOE/RL	(509) 372-1677

ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE FOR THE PACIFIC NORTHWEST
November 21, 1996 MEETING
FEDERAL BUILDING, ROOM 147 - RICHLAND, WA
ATTENDANCE

NAME	ADDRESS	AFFILIATION	TELEPHONE NUMBER AND eMail ADDRESS
Allan Danielson	2 South 45th Ave Yakima, WA 98908	Dept of Health	(509) 377-3870 CCMAIL: Dept of Health-Richland
Greg Patton	P.O. Box 999 Battelle Blvd Richland, WA 99352	PNNL	(509) 376-2027 gw_patton@pnl.gov
Richard Jaquish	1906 Peachtree Lane Richland WA 99352	Dept. of Health	509-627-2540 REJAQUISH@AOL.COM
[illegible] Yokel	1315 N 4th Kennewick, WA 99336	Ecology	509-736-[illegible]
John E. McDonald	P.O. Box 968, MD 1025 Richland, WA 99352	Wa. Public Power Supply System ~~Wa. Public Power Supply~~	(509) 377-8137 JEMcDONALD@WNP2.COM
John J. Dorian	P.O. Box 650 H6-30 Richland, WA 99352	Rust Federal Services Northwest Operation	(509) 372-2604 john_j_dorian@rl.gov
John W Schmidt	PO Box 650 H6-20 Richland, WA 99352	Rust Federal Services, Inc. Northwest Operations	509-372-3080 john_w_schmidt@rl.gov
Larry P. Diediker	P.O. Box 700 H6-36 Richland, Wa. 99352	Rust Fed. Services of Hanford	509-373-1716 Larry_P_Diediker@rl.gov

ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE FOR THE PACIFIC NORTHWEST
November 21, 1996 MEETING
FEDERAL BUILDING, ROOM 147 - RICHLAND, WA
ATTENDANCE

NAME	ADDRESS	AFFILIATION	TELEPHONE NUMBER AND eMail ADDRESS
AUSTIN RAY JOHNSON	P.O. BOX 650 H6-20 RICHLAND, WA 99352	RUST FEDERAL SERVICES NORTHWEST OPERATIONS NEAR-FIELD MONITORING	(509) 372-3056 AUSTIN_R_JOHNSON@rl.gov
Curt Cannon	P.O. Box 969 Richland, WA. 99352	ATG Inc.	(509) 375-5160
Michael R. Ault	P.O. Box 638 Richland, WA 99352	US Ecology	(509) 377-2411
Terry Liikala	P.O. Box 999 Richland, WA	PNNL	(509) 376-4143 tl_liikala@pnl.gov
George Hilton	1610 NE 150th Street Shoreline, WA 98155	Dept. of Health, WA Public Health Labs	(206) 361-2991 ghh03@hub.doh.wa.gov
Marina Silverstone	1610 N.E. 150th Street Shoreline, WA 98155	Dept. of Health, WA Public Health Labs.	(206) 361-2899 mds03@hub.doh.wa.gov
ROGER DIRKES	PO 999 / Richland / WA 99352	PNNL	509/376-8177

OATF Mtg 11/21/96

Name	Org.	Phone #
Drew Hatcher	DOH	361-586-1715
Debra McBaugh	"	" " 3326
Rich Burklitt	Siemens	509 375-8638
Bob Bryce	PNNL	509 372 2588
Evan Onesel	PNNL	509 376-8341
Ron Smith	PNNL	(509)-376-5831
Barb Gillespie	PNNL	376-5802
Scott Van Verst	DOH	3605863585
Alan Danielson	DOH	509 377-3870
Roger Jones	PNNL	509 376-8177
Dick Jaquish	DOH	509-627-3540
Jerry Yokel	Ecology	509-736-3037
John McDonald	Supply System	509-377-8137
John Dorian	Rust Fed. Services, Inc. - NW	509 372-2664
John W Schmidt	" " NFM	509 372-3086
Larry P. Diediker	Rust FSH	509-373-1716
Austin Kay Johnson	Rust FS-NW-NFM	509-372-3056
Curt Cannon	ATG. Inc	(509) 375-5160
Joe Schroeder	ATG Inc	(509) 375-5160
Michael R. Ault	US Ecology	(509) 372 2411
Greg Patton	PNNL	(509) 376-2027
R Douglas Hildebrand	DOE/RL	509-373-9626
John B Hall	DOE/EMP	509-372-1677

FLUOR DANIEL HANFORD, INC.

Office of Environment, Safety, & Health
Environmental Protection

William Adair, Director
376-0428 / 85-5951 / H6-21
Lily Jugullon, Exec, Secretary
376-5869 (FAX 376-2816)

Environmental Policy & Planning

Ron Brunke
376-2663 / 85-7239 / H6-21

Julie Robertson
376-8162 / H6-21

Marsha Beery
1-360-493-0843, Lacey

Sonja Cooley
376-1739 / H6-21

Nancy Darling
1-360-438-1448, Lacey

Lorna Dittmer
376-3860 / H6-21

Ken Giese
366-8301 / H6-21

Debbie Moore
376-5112 / 85-3886 / H6-21

Sue Price, Manager Environmental Integraton
376-1653 / 85-2338 / H6-23
Lorraine Shapley, Sec. (376-[illegible])

Wayne Toebe
372-2359 / 85-9085 / H6-22

Charlotte Payne
376-8580 / H6-21

John Bates
376-2088 / H6-36

Jay Kapadia
376-4932 / H6-36

Tony Miskho
376-7313 / 85-9083 / H6-22

Tom Quayle
376-5223 / H6-21

Kirk Peterson
372-2364 / H6-36

Mike Stephenson
376-3870 / H6-21

Paula Davis-Vedder
376-2389 / H6-22

Fred A. Ruck III
376-9876 / 85-2333 / H6-22

Don Beagles
376-0842 / 85-3711/ H6-22

John Culmer
373-4942 / 85-9078 / H6-23

Craig Joseph
372-1375 / H6-21

Suzette Thompson
372-0958 / H6-22

Roni Swan
376-0967 / H6-21

Steve Szendre
376-7776 / 85-9075 / H6-22

RUST Federal Services
Hanford

Environmental Services

John Winterhalder — reports to John Bates
Dee Lowery, Secretary

Hazardous Waste Services
Rick Engelmann, Manager
D. A. Kane/I. K.Thomson, Secretaries

Integration Team
- Jack Sonnichsen
- Sam Clifford
- Mike Cline
- D Jensen
- Ana Sherwood

Project Services Team
- Roger Bowman
- Jason Adler
- Joe Coenenberg
- Dorothy Korematsu-Olund
- Scott Luke
- Nina Menard
- Andrea Prignano
- Dan Sauerressing
- Chris Strand
- Joel Williams

Air & Water Services
Eric Greager, Manager
K. F. Clouse/L. A. Dougherty, Secretaries

Integration Team
- Larry Diediker
- Barry Curn
- Bill Davis
- Don Fritz
- Brian Gleckler
- Bill Green
- Gary Wells

Project Services Team
- Jeff Luke
- Tom Frazier
- Bob Haggard
- Stan Hill
- Nancy Homan
- Russ Johnson
- Larry Kamberg
- Gail Laws
- Jon Perry

Environmental Management Services
Arlene Weiner
S. L. Mincey/S. R. Szabo, Secretaries

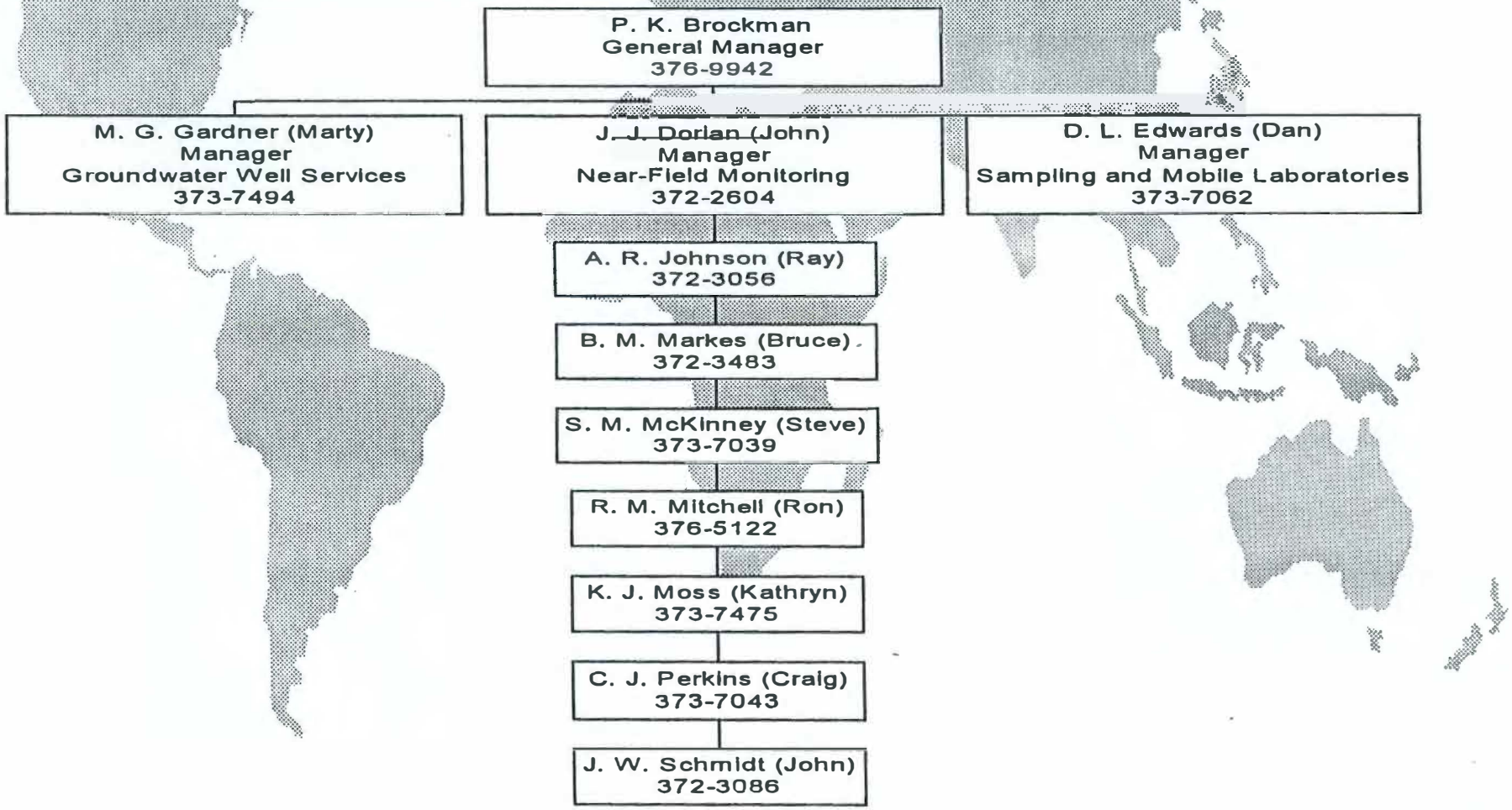
Reports Team
- Jerry Skolrud
- Dale Black
- Tara Burdin
- John Dawson
- Diane Zalcudek

NEPA Team
- Gloria Cummins
- Chuck Eccleston
- Jamie Granger
- John Gould
- Mike Jansky
- Kim Welsch

Support Services
- Charlotte Hays
- Arlene Lane
- JoAnn McCoy
- John McDonald
- Bob Upchurch

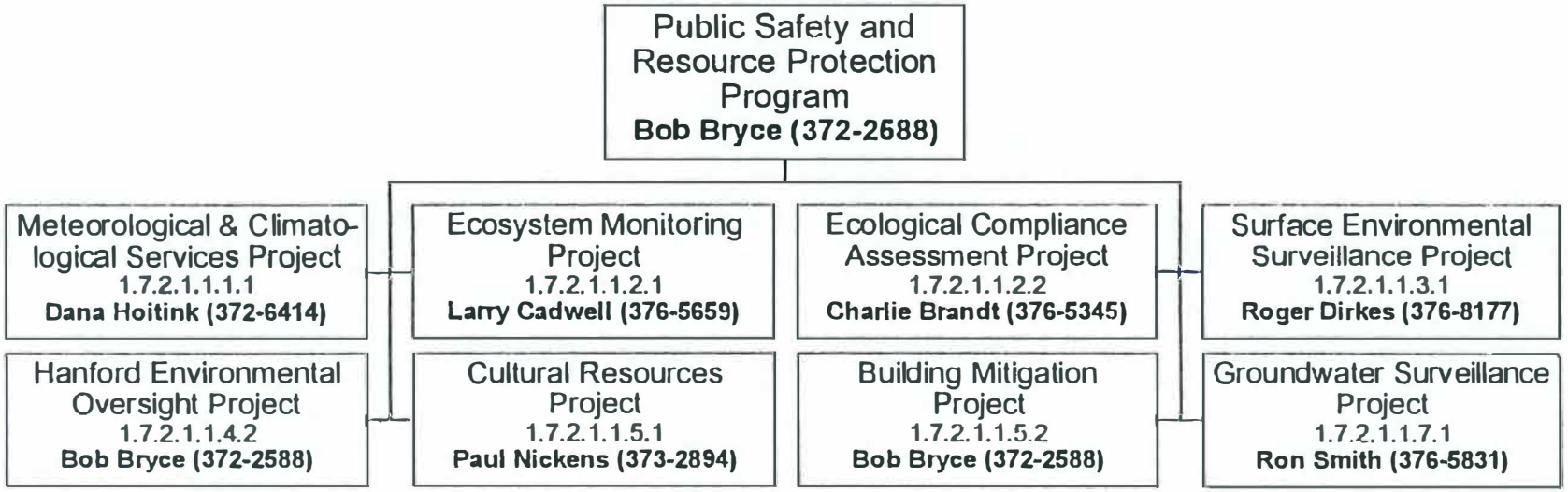
Rust Federal Services, Inc.

Rust Federal Services, Inc.
(Northwest Operations)

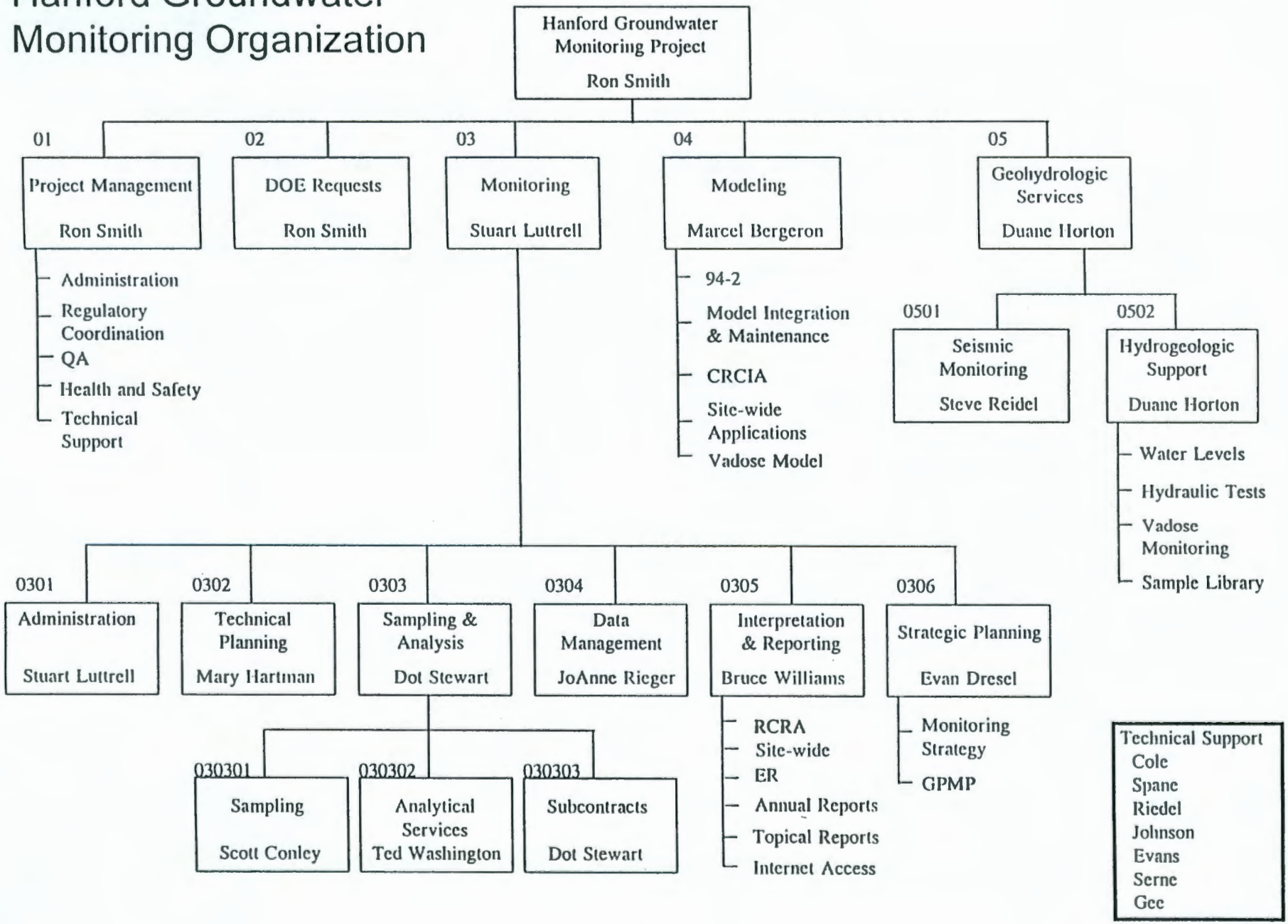


Nick Specialist need to read

Pacific Northwest National Laboratory	8500-00 Public Safety and Resource Protection Program WBS 1.7.2.1.1	1.0 Work Breakdown Structure



Hanford Groundwater Monitoring Organization



November 21, 1996

Washington Department of Health
ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE
1996 INTERCOMPARISON STUDY
Analysis Protocol

SAMPLE DESCRIPTION

Hanford Soil Log Number: **R96-240-02** Reference Date: **August 27, 1996 12:00 PST**

This environmental reference sample consists of soil collected from the 100 Area on the Hanford site. The soil had been contaminated with liquid effluents from the single-pass reactors. The reactors have been shut down since the early 1970's which provides an indication of the age of the contaminants.

Preparation of the sample was a joint effort of the Public Health Laboratories and the Division of Radiation Protection. Gamma screening of the samples by the Public Health Laboratory indicates that the total activity of the gamma-emitting radionuclide does not exceed 200 pCi/g. The sample was collected in June 1996 and was processed by the Department of Health on the Hanford site. Treatment consisted of air drying at 90-100 °F for several days and mixing with a power mixer followed by sieving. The sample was not pulverized but was screened through a U.S.A. Standard Testing Sieve, ASTM Specification E-11, opening 2.0 mm (# 10). Aliquots of 420 ± 11 grams were packaged into steel cans and sealed.. The sample probably contains non-gamma emitting radionuclides, but this study will include only analysis of gamma emitters. Each participant will receive two cans of sample. If you need additional cans of sample, please contact us.

ANALYTICAL INSTRUCTIONS

1. Transfer an aliquot of the Hanford Soil to a gamma-counting container that you normally usé for soil. Use the sample volume you routinely for counting soil samples.

3. Determine the counting time necessary to provide an LLD of 0.1 pCi/g for ^{137}Cs.

2. Analyze the sample three times.

4. Calculate the results and report the concentrations for all gamma-emitting radionuclides with concentrations above the MDA.

5. Determine the 2-sigma counting and the 2-sigma propagated uncertainty.

6. Record results on the Data Sheet and also complete the Supplemental Report Sheet.

7. If the sample is to be analyzed by a contract laboratory, be sure to provide these Analytical Instructions to that laboratory.

8. Retain the sample for a future study that will involve non-gamma emitting radionuclides.

REPORTING RESULTS

Record results on the attached data sheet and mail the sheet and supplemental report sheet to:

Richard Jaquish
Washington Department of Health
1906 Peachtree Lane
Richland, WA 99352

We have set a target date for receiving data of **February 28, 1997**.

Washington Department of Health
ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE
1996 INTERCOMPARISON STUDY

Supplemental Report Sheet

Please provide the following information regarding the analysis of the reference soil sample.

1. Type and size(percent) of gamma detector used to count the sample.

2. Calibration source used to calibrate your spectrometer (Amersham mixed gamma source, etc.)

3. Media in which calibration source was prepared (water or soil). If the calibration source was prepared in water, was a soil density correction factor (mass attenuation coefficient) used?

4. Counting geometry used to count the sample? (500 ml Marinelli, etc.)

5. Factors were included in the total propagated error determination?(i.e., counting error, weighing error, calibration source error, calibration preparation errors, sample positioning error, etc.)

6. Name of the laboratory if the sample was analyzed by a contract laboratory,

7. Other information or comments.

0441127

WASHINGTON DEPARTMENT OF HEALTH

1996 ENVIRONMENTAL RADIATION QUALITY ASSURANCE TASK FORCE INTERCOMPARISON

DATA SHEET

Hanford Soil Sample R96-240-02

Company Name: _____ Contact Person: _____ Phone: _____

		Radionuclide	Activity (pCi/g)	Counting Error (2 Sigma)	Total Propagated Error	Minimum Detectable Activity	Sample Weight Counted
Radionuclide #1(List)							
	Analysis #1						
	Analysis #2						
	Analysis #3						
Radionuclide #2(List)							
	Analysis #1						
	Analysis #2						
	Analysis #3						
Radionuclide #3(List)							
	Analysis #1						
	Analysis #2						
	Analysis #3						
Radionuclide #4(List)							
	Analysis #1						
	Analysis #2						
	Analysis #3						
Radionuclide #5(List)							
	Analysis #1						
	Analysis #2						
	Analysis #3						
Radionuclide #6(List)							
	Analysis #1						
	Analysis #2						
	Analysis #3						