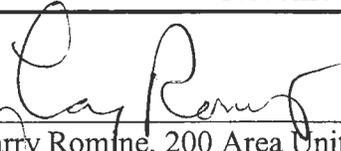
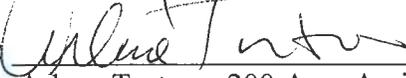


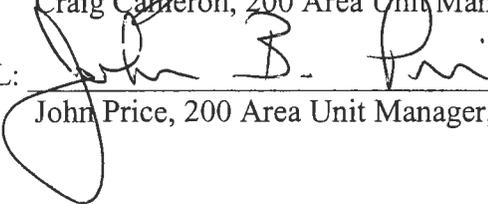
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Meeting Minutes Transmittal/Approval
Unit Managers' Meeting
200 Area Groundwater and Source Operable Units
1200 Jadwin Avenue, Richland, Washington
November 17, 2005

APPROVAL:  Date: 2-1-06
Larry Romine, 200 Area Unit Manager, DOE/RL

APPROVAL:  Date: 1/19/06
Arlene Tortoso, 200 Area Assistant Manager, DOE/RL

APPROVAL:  Date: 1/19/06
Craig Cameron, 200 Area Unit Manager, EPA

APPROVAL:  Date: 1/25/2006
John Price, 200 Area Unit Manager, Ecology

RECEIVED
FEB 06 2006

EDMC

**DISTRIBUTION
UNIT MANAGERS' MEETING,
200 AREA GROUNDWATER SOURCE OPERABLE UNITS**

DOE/RL

| | |
|----------------|-------|
| Bryan Foley | A6-38 |
| Larry Romine | RMIS |
| Arlene Tortoso | RMIS |

EPA

| | |
|---------------|-------|
| Craig Cameron | B1-46 |
|---------------|-------|

Ecology

| | |
|-----------------------|-------|
| Brenda Jentzen | RMIS |
| Tina Masterson-Heggen | H0-57 |
| John Price | H0-57 |
| Jennie Stults | H0-57 |
| Jean Vanni | H0-57 |

FH

| | |
|---------------------|-------|
| Lanny Dusek | RMIS |
| Gloria Cummins | RMIS |
| Bruce Ford | RMIS |
| Jane Borghese | E6-35 |
| Mark Byrnes | RMIS |
| Virginia Rohay | RMIS |
| L. Craig Swanson | RMIS |
| Mary Todd-Robertson | E6-35 |

CHG

| | |
|----------------|------|
| Curt Wittreich | RMIS |
|----------------|------|

PNNL

| | |
|-----------------|-------|
| Stuart Luttrell | K6-96 |
|-----------------|-------|

| | |
|---------------------------|-------|
| Administrative Record (2) | H6-08 |
|---------------------------|-------|

| | |
|------------------------|-------|
| Correspondence Control | A3-01 |
|------------------------|-------|

Please inform Dee Goodson – FH (373-4456)
of deletions or additions to the distribution list.

Meeting Minutes are attached. Minutes are comprised of the following:

| | |
|--------------|---|
| Attachment 1 | Attendance Record |
| Attachment 2 | Agenda |
| Attachment 3 | Groundwater Operable Units Status |
| Attachment 4 | Groundwater Operable Units Status Figures |
| Attachment 5 | Source Operable Units and Facilities Status |
| Attachment 6 | Agreements and Issue Resolution Meeting |
| Attachment 7 | Action Item List |

200 Area Unit Managers Status Meeting
November 17, 2005

Please print clearly and use black ink

| PRINTED NAME | ORGANIZATION | O.U. ROLE | TELEPHONE |
|-------------------|--------------|-----------------------|-----------|
| GLORIA Cummins | FH | FACILITATOR | 372-2484 |
| Arlene Tortoso | DOE | GW OU Lead | 373-9631 |
| John Price | Ecology | Proj. Mgr | 372-7921 |
| JACQUI STEA | Ecology | Hydrogeologist | |
| ROB PIERO | FH | | 373-3285 |
| Greg Thomas | FH | BDS Task Lead | 373-3907 |
| Leon Vanni | ECO | | 372-7930 |
| Virginia Rohay | FH | 200-PW-1 | 373-3803 |
| Dennis Fuller | SLT | | |
| Red Lobos | EPA | | |
| Craig Cameron | EPA | | |
| Stewart Luttrell | PNNL | | |
| Jim V. Boyer | FH | | |
| Beth Rochette | Ecology | 200 area Common | |
| Janice Williams | FH | GW Integration | 372-3553 |
| Stacey Cimprich | ORCA | ORCA | 963-0853 |
| Dave Erb | FH | 200 Areas Tech | 373-4457 |
| John Winterhalter | FH | EU | 372-8144 |
| Bryan Jolly | DOE | 200 Area | 376-7087 |
| Julie Robertson | FH | BC Crib # 200-UW-1 | 376-8162 |

200 AREA UNIT MANAGERS' MEETING AGENDA

1200 Jadwin/Rm 1-C1
November 17, 2005

GROUNDWATER OPERABLE UNITS STATUS (8:30-9:15)

SOURCE OPERABLE UNITS AND FACILITIES STATUS (9:15-9:45)

ISSUE RESOLUTION MEETING (10:00-11:30)

- (See Issues List)

General

- Outstanding Action Items
- Open for Regulatory Topics or Action Items
- Risk Assessment Configuration Management Board Update

200 AREA UNIT MANAGERS' MEETING GROUNDWATER OPERABLE UNITS STATUS

1200 Jadwin/Rm 1-C1
November 17, 2005

GROUNDWATER OPERABLE UNITS STATUS

200-UP-1 OU

- Rebound Study:
 - Study started January 26.
 - The first ten rounds of groundwater sampling were successfully implemented February 2, 9, 23, March 30, April 27, May 25, June 29, July 27, August 31, September 28, and October 26 (Attachment 4, Figures 1, 2, 3, and 4).
 - Tc-99 and uranium concentrations remain below interim remedial action objectives in all monitoring wells.
- RI/FS Work Plan:
 - DOE-RL/FH need Ecology's concurrence today to proceed with the additional drilling Ecology has requested in the 200-UP-1 RI/FS Work Plan. Drilling of 6 of these new wells is scheduled to start December 1, 2005. Also need follow-up letter giving DOE-RL/FH approval of the 200-UP-1 RI/FS Work Plan.
- RI Report:
 - On hold. Ecology noted in the September 200 Area UMM that they need the 200-UP-1 RI Report to contain a full RI/FS data set. Since 12 new groundwater monitoring wells identified in the RI/FS Work Plan still need to be installed and sampled prior to completing this data set, the 200-UP-1 RI Report has been put on hold.
- EPA requested a FY06 scope discussion be held with RL before next UMM.
- Ecology will set up meeting after Thanksgiving with RL to have a follow on meeting and to discuss risk calculation.

200-ZP-1 OU

- Remediation Treatment Status:
 - Between October 1 and October 31, 2005 the 200-ZP-1 pump-and-treat system our average pumping rate was 287 gpm (Attachment 4, Figure 5).
 - Seven of the nine extraction wells are currently online. We are currently pumping at 230 gpm.
- EPA requested that DOE-RL/FH investigate the potential for 200-ZP-1 to manage a greater capacity and if ETF can manage Tc-99.

- DNAPL Investigation Status:
 - We are currently working with the DNAPL contractor (Vista Engineering) regarding their need to hookup well 299-W15-6 to the 200-ZP-1 treatment system for a 3 month pumping test. Vista wants to see if CCL4 concentrations increase over time (suggesting DNAPL source). After this study is completed we will meet to discuss whether-or-not it makes sense to keep this well on line.
 - EPA requested that a discussion be held with DOE/RL-FH before taking the well off-line.
 - A question was raised regarding whether the SAP for four wells in the Low-Level Burial Grounds had been approved. EPA will check and noted that a discussion on carbon tetrachloride investigation is needed. DOE/RL took the action to set up the meeting.
 - Waiting for loading testing on Z-9 cover prior to perform thermal measurements beneath cover. Collecting Cold Creek fine grained samples in coming months (using casing driver).
- New Well Status:
 - Currently scheduled to drill 3 new wells in the Spring FY2006 and 3 new wells in FY2007 (if needed) to help define extent of deep CCL4 contamination detected in vicinity of Old Laundry Facility and T Plant.
- RI/FS Status:
 - RI Report preparation began October 1, 2005 and is on schedule.
 - Attachment 4, Figure 6 presents the final RI Report outline being used.
 - EPA has agreed that the 200-ZP-1 Baseline Risk Assessment will be performed during the preparation of the Feasibility Study as opposed to the RI Report. The RI Report will simply contain a summary of PNNL 14885, *Recent Site-Wide, Transport Modeling Related to Carbon Tetrachloride Plume at the Hanford Site*, September 2004.
 - Feasibility Study/Proposed Plan is scheduled to begin March 6, 2006.
- Tc-99 Investigation Status:
 - DQO interview process initiated on 9/28. Stakeholder workshop held on 11/16.
 - Well 299-W11-45 (C4948) ("T-2") reached a depth of 438 ft below ground surface on 11/11 (185 ft below the water table). Field screening results for Tc-99 are available for groundwater samples collected to 70 ft below the water table. These results indicate that the highest Tc-99 concentration is approximately 15,000 pCi/L at 30 ft. below the water table.
 - EPA stated that they want an RI Report on what is known about Tc-99 around T Plant.

200-PO-1 OU

- The Sampling and Analysis Plan was transmitted to Ecology - awaiting approval. Ecology is waiting for legal review of approval letter and noted that they do not see the need to have a SAP and a separate monitoring plan.
- Ecology suggested creating a generic document for 200-PO-1 that meets both RCRA and CERCLA. Ecology is waiting on support from legal, to schedule a path forward meeting with DOE/RL.

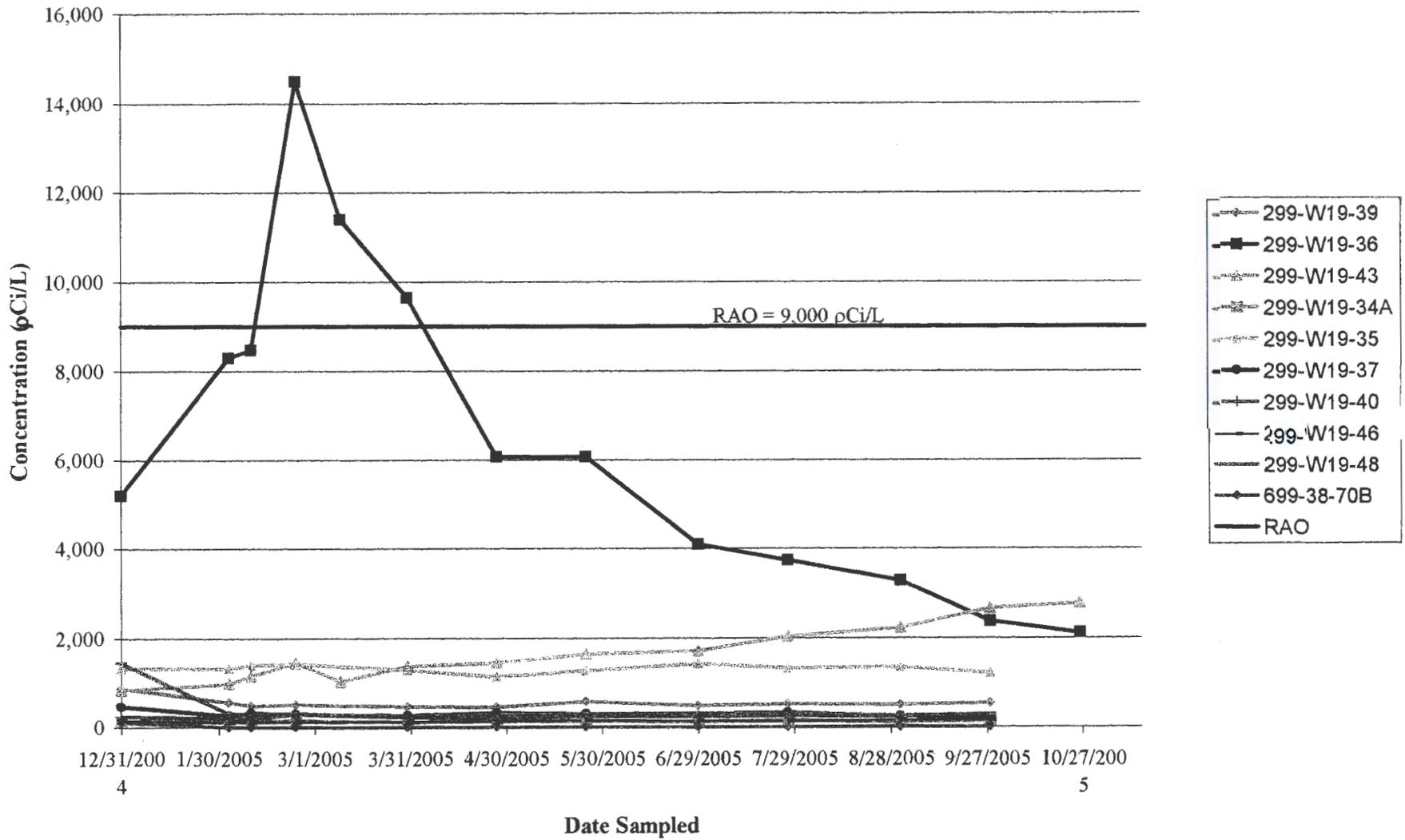
200-BP-5 OU

- The draft DQO report now is planned to be completed for Decision maker review in January 10, 2006. The additional time is needed to refine the BP-5 history, exclusion rationale, identify uncertainties, complete the preliminary conceptual model, integrate science and technology, and provide recommendations for the RI/FS.
- Ecology requested that it needs the current float on all groundwater OUs.

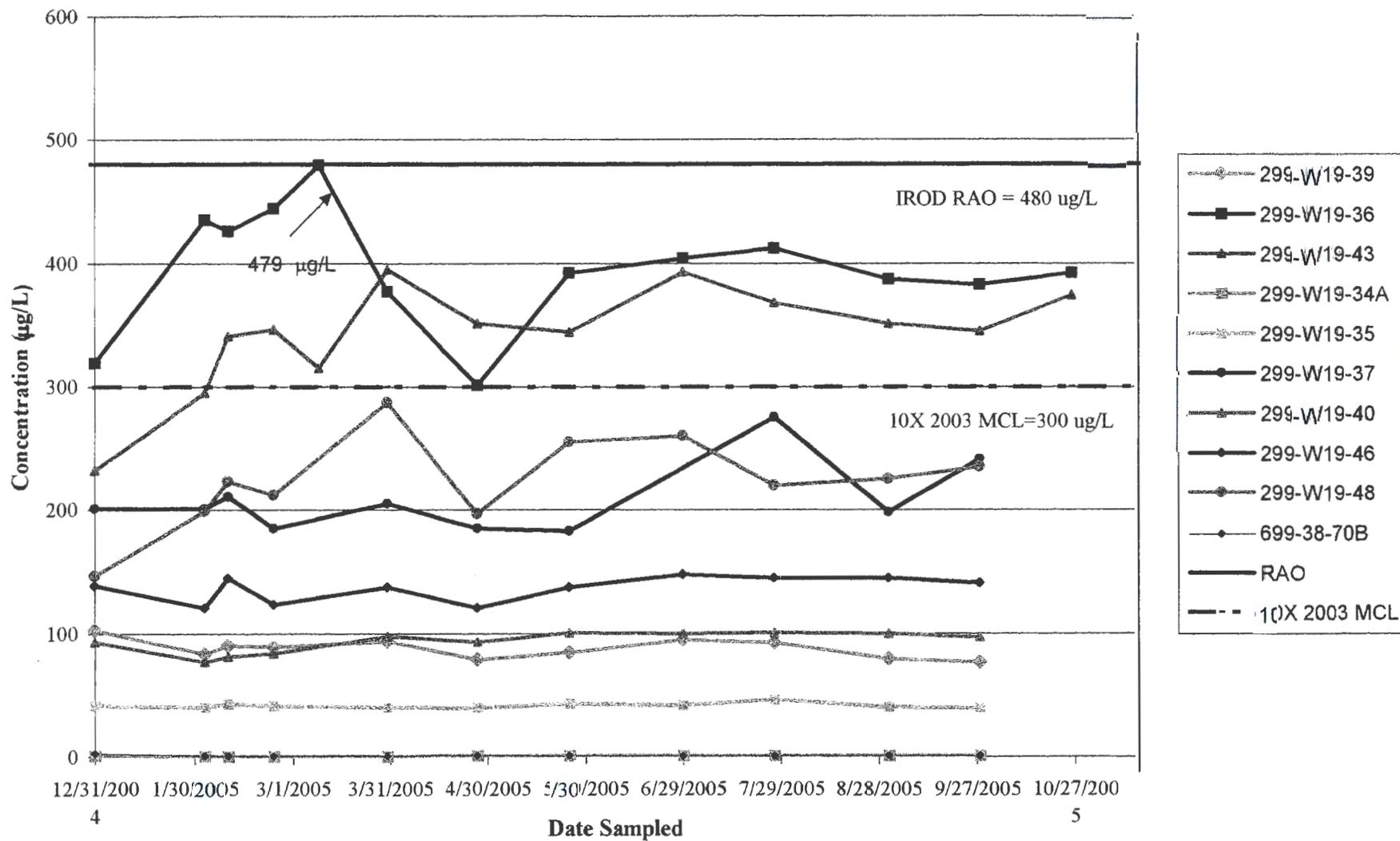
200-PW-1 (200-ZP-2) OU

- Soil Vapor Extraction System (SVE) Status:
 - The system was shutdown October 18, 2005 for the winter.
- The passive system remains operational.
- Monthly monitoring (Attachment 4, Figures 7-9)
 - Comparison of Maximum Carbon Tetrachloride Rebound Concentrations.
 - Monthly Carbon Tetrachloride Concentrations for monitoring wells update.
 - Soil Gas Vapor Concentrations at passive wells update.

200-UP-1 Rebound Study, Technetium-99 (pCi/L)



200-UP-1 Rebound Study, Uranium Concentrations



Nitrate - Rebound Study 200-UP-1

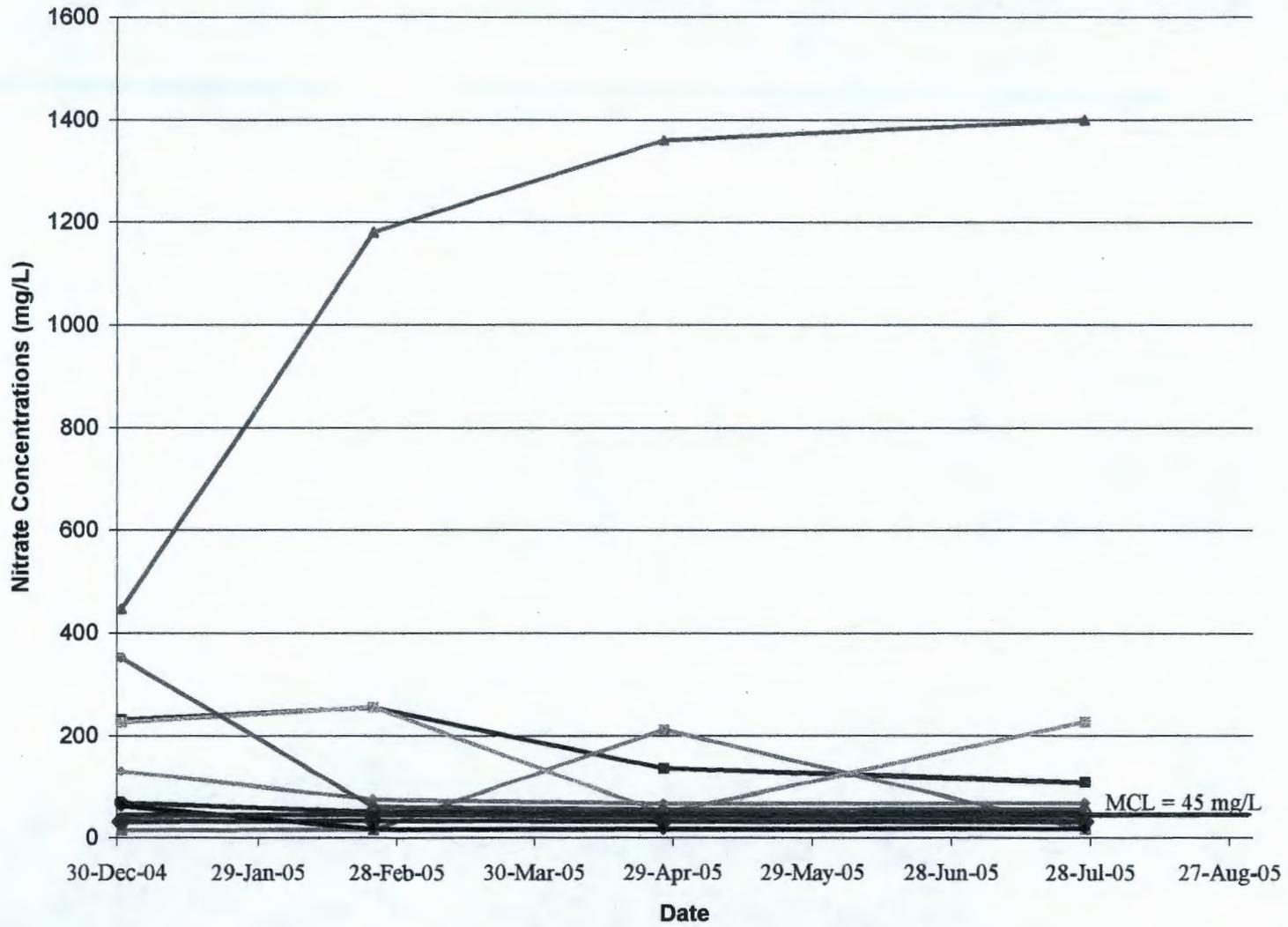
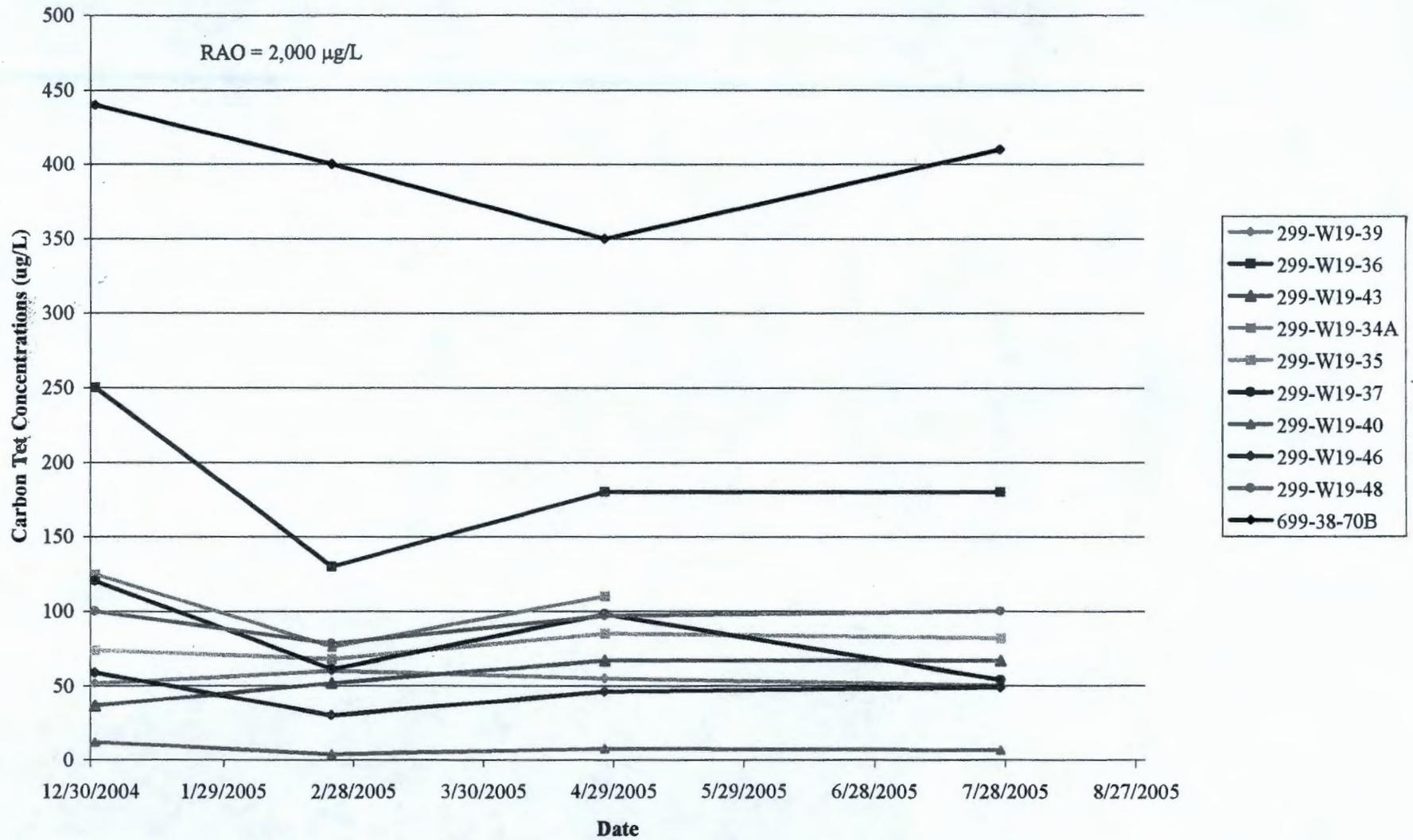
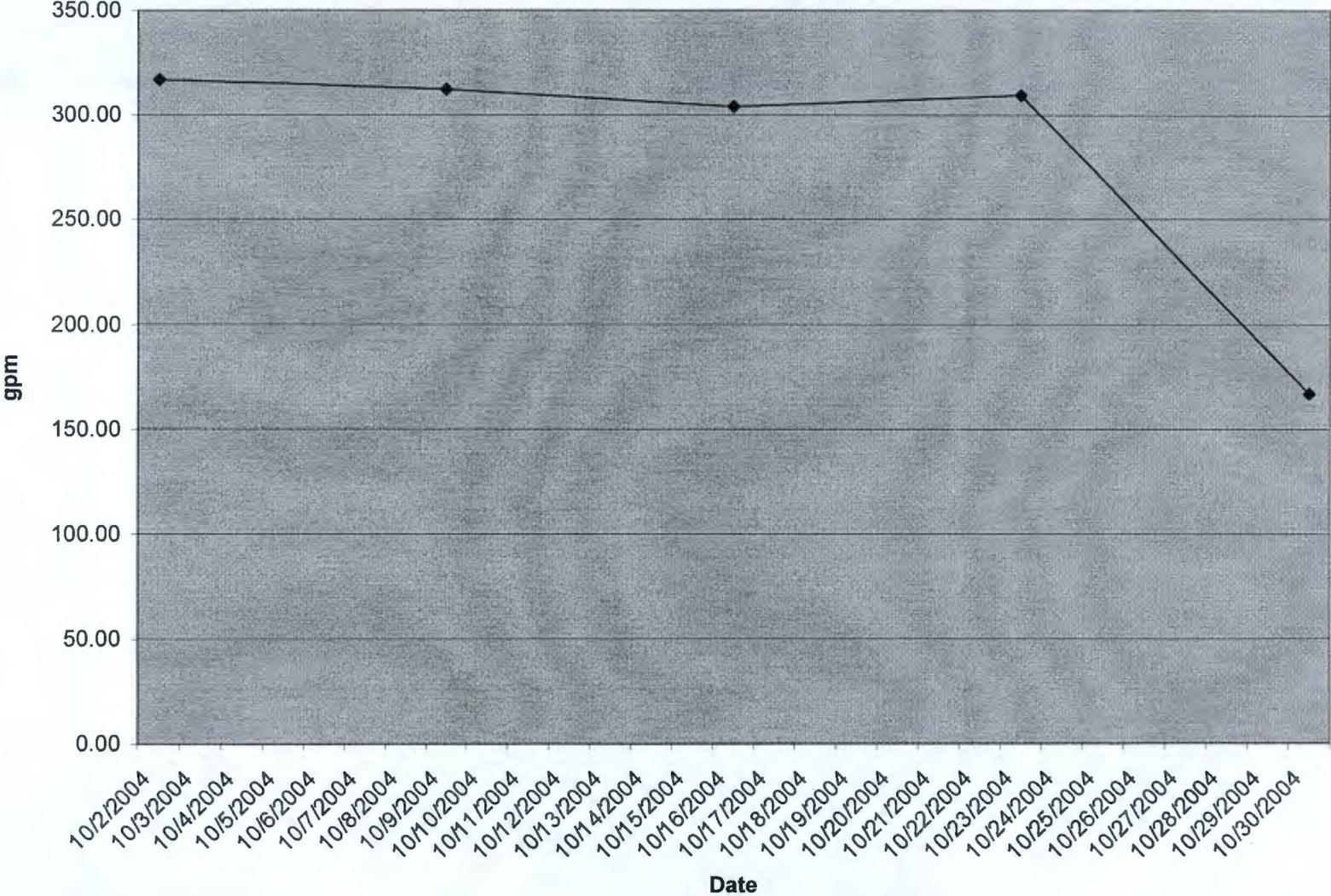


Figure 3. Carbon Tetrachloride Rebound Study, 200-UP-1



200-ZP-1 Pumping Rate



1.0 200-ZP-1 REMEDIAL INVESTIGATION REPORT OUTLINE

| |
|--|
| 1. Introduction |
| 1.1. Purpose |
| 1.2. Supporting Documents and Remedial Investigation Basis |
| 1.3. Data Evaluation Methodology |
| 1.4. Background for the 200-ZP-1 Operable Unit |
| 2. Remedial Investigation Approach |
| 2.1. Groundwater Monitoring |
| 2.2. Defining Three Dimensional Distribution of COCs |
| 2.3. Collecting Modeling Input Parameters for Soil |
| 2.4. Collecting Modeling Input Parameters for Water |
| 3. Other Supporting Studies Performed Outside the 200-ZP-1 RI/FS Process |
| 3.1. Special CCL4 Studies |
| 3.2. RCRA Groundwater Monitoring |
| 3.3. Interim Action Pump and Treat Performance |
| 3.4. Contaminant Migration Modeling for the Central Plateau Closure Plan |
| 3.5. Summary of Vadose Zone Results Pertinent to 200-ZP-1 |
| 4. Remedial Investigation Results |
| 4.1. Hydrogeologic Framework |
| 4.2. Contaminants of Concern Evaluation Based on Section 2.1 |
| 4.3. Operable Unit Contamination |
| 4.4. Results from 3-Dimensional Distribution of the COCs |
| 4.5. Modeling Input Parameters for Soil |
| 4.6. Modeling Input Parameters for Water |
| 5. Groundwater Contaminant Fate and Transport Modeling |
| 5.1. (To be prepared by PNNL)-support Human Health |
| 5.2. Support Ecological Risk Evaluation |
| 6. Risk Evaluation |
| 6.1. Overview of Human Health Evaluation |
| 6.2. Ecological |
| 7. Conclusions |
| 7.1. Summary |
| 7.2. General Conclusions |
| 7.3. Path Forward |
| 7.4. Post-Record of Decision Activities |
| Appendix A Data Evaluation and Data Summary Tables |
| Appendix B Quality Assurance Data |
| Appendix C Modeling Data |
| |

The following approach will be used for the Ecological Risk Evaluation:

There are no direct exposure pathways from Central Plateau groundwater to ecological receptors; the main concern regarding ecological exposures is at the Columbia River. A simple bounding analysis of ecological risks is proposed to include three exposure scenarios. First, the groundwater concentrations at the OU will be compared to applicable ecological indicator concentrations that are protective of aquatic and riparian organisms. This comparison based on no dilution will be the worst case condition and will indicate if there is any potential for ecological effects from the OU. Two dilution scenarios will also be explored to determine the more likely impact of groundwater contaminants on the OU. These dilution scenarios will address a mass-balance dilution of groundwater in the hyporheic zone and a mass-balance dilution in the Columbia River. Each of these dilution scenarios will also be compared to applicable ecological indicator concentrations for aquatic and riparian organisms. While this bounding analysis does not account for contributions of multiple groundwater OUs, it should provide information to understand which contaminants and OU are more likely to present ecological risks to the Columbia River.

The following approach will be used for the Human Health Evaluation:

Given the uncertainties about the current understanding of past and continuing sources from the vadose zone to groundwater for the key COCs (carbon tetrachloride, technetium-99, and uranium) within the ZP-1 operable unit and the ongoing drilling and field characterization that will update current understanding of existing plume behavior, an agreement was reached with EPA to defer detailed modeling and analysis of the baseline risk as outlined above until the current characterization efforts and re-interpretation of plume behavior are updated. Information from recent characterization efforts that are expected to be completed in the coming months will be included to the extent possible in a baseline risk assessment developed as part of the planned Feasibility Study of selected remedial alternatives planned later in FY 2006.

Per agreement with EPA, discussion of risk in this RI report will be limited to the following two risk areas.

- * Discussion of preliminary risks associated with the carbon tetrachloride plume based on information developed in a previous modeling study of the CCL4 plume in PNNL 14855, *Recent Site-Wide, transport Modeling Related to Carbon Tetrachloride Plume at the Hanford Site*, September 2004.
- * Discussion of preliminary estimates of existing risks based on current interpretations of other contaminant plumes (i.e. iodine-129, technetium-99, and uranium) that originate within the ZP-1 OU and exceed drinking standards as developed in the Annual Groundwater Monitoring Report for FY 2005 (in preparation).

Comparison of Maximum Carbon Tetrachloride Rebound Concentrations
Monitored at 200-PW-1 Soil Vapor Extraction Sites
FY 2001 - FY 2005

| 200-PW-1 (200-ZP-2) | | July 2001 - June 2002 | | July 2002 - September 2003 | | July 2002 (Z-9) or October 2003 (Z-1A) - March 2004 | | July 2002 (Z-9) or April 2004 (Z-1A) - September 2004 | | October 2004 - June 2005 | | July 2005 - October 2005 | |
|-----------------------------|------|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|
| Location (Well or Probe) | Site | Maximum Rebound Carbon Tetrachloride (ppmv) | months* of rebound | Maximum Rebound Carbon Tetrachloride (ppmv) | months* of rebound | Maximum Rebound Carbon Tetrachloride (ppmv) | months* of rebound | Maximum Rebound Carbon Tetrachloride (ppmv) | months* of rebound | Maximum Rebound Carbon Tetrachloride (ppmv) | months* of rebound | Maximum Rebound Carbon Tetrachloride (ppmv) | months* of rebound |
| 79-03/ 5 ft | Z-18 | | | | | | | | | | | | |
| 79-08/ 5 ft | Z-1A | | | | | | | | | | | | |
| 79-11/ 5 ft | Z-1A | | | | | | | | | | | | |
| 86-05/ 5 ft | Z-9 | | | | | | | | | | | | |
| 86-05-01/ 5 ft | Z-9 | | | | | | | | | | | | |
| 86-08/ 5 ft | Z-9 | | | | | | | | | | | | |
| 87-05/ 5 ft | Z-1A | | | | | | | | | | | | |
| 87-09/ 5 ft | Z-1A | | | | | | | | | | | | |
| 94-02/ 5 ft | Z-9 | | | | | | | | | | | | |
| 95-11/ 5 ft | Z-9 | | | | | | | | | | | | |
| 95-12/ 5 ft | Z-9 | | | | | | | | | | | | |
| 95-14/ 5 ft | Z-9 | | | | | | | | | | | | |
| CPT-13A/ 9 ft | Z-1A | | | | | | | | | | | | |
| CPT-16/ 10 ft | Z-9 | | | | | | | | | | | | |
| CPT-17/ 10 ft | Z-9 | 3.2 | 6 | 6.6 | 15 | 9.0 | 21 | 9.9 | 27 | 11.4 | 5 | 2.5 | 4 |
| CPT-18/ 15 ft | Z-9 | 1.4 | 6 | 2.4 | 15 | 2.4 | 21 | 2.5 | 27 | 3.1 | 5 | 0 | 4 |
| CPT-4A/ 25 ft | Z-1A | 3.4 | 10 | | | | | | | | | | |
| CPT-4E/ 25 ft | Z-1A | 2.6 | 12 | 1.3 | 0 | | | 2.4 | 0 | 2.4 | 9 | 1.5 | 0 |
| CPT-18/ 25 ft | Z-9 | 1.1 | 6 | 2 | 15 | 2.6 | 21 | 3.6 | 27 | 4.4 | 5 | 1.6 | 4 |
| CPT-31/ 25 ft | Z-12 | | | | | | | | | | | | |
| CPT-32/ 25 ft | Z-1A | 13.0 | 12 | 8.3 | 6 | 6 | 6 | | | 8.6 | 9 | | |
| CPT-30/ 28 ft | Z-18 | 0 | 12 | 0 | 6 | 0 | 6 | | | 1.6 | 9 | 1.2 | 1 |
| CPT-13A/ 30 ft | Z-1A | 2.6 | 12 | 1.6 | 6 | 2 | 6 | 1.9 | 0 | 8.3 | 9 | 3.9 | 1 |
| CPT-7A/ 32 ft | Z-1A | 5.6 | 12 | 3.9 | 6 | 9.5 | 6 | 1.9 | 0 | 4.4 | 9 | 2.3 | 1 |
| CPT-27/ 33 ft | Z-9 | 1.5 | 6 | 1.7 | 15 | 2.7 | 21 | 2.7 | 27 | 8.4 | 5 | 1.8 | 4 |
| CPT-1A/ 35 ft | Z-12 | 11.3 | 12 | 22.0 | 15 | 18.3 | 6 | 18.0 | 0 | 14.0 | 9 | 17.2 | 1 |
| CPT-28/ 40 ft | Z-9 | | | | | | | | | 5.4 | 0 | | |
| CPT-33/ 40 ft | Z-18 | 2.3 | 12 | | | | | | | 3.9 | 9 | | |
| CPT-34/ 40 ft | Z-18 | 2.2 | 12 | 1.6 | 0 | | | 1.8 | 0 | 3.0 | 9 | 2.0 | 1 |
| CPT-21A/ 45 ft | Z-9 | | | | | | | | | 7.9 | 0 | 167 | 4 |
| W15-220ST/ 52 ft | Z-9 | | | 1.5 | 1 | | | | | | | | |
| CPT-9A/ 60 ft | Z-9 | 45.3 | 6 | 35.9 | 15 | 35.9 | 21 | 35.9 | 27 | 32.4 | 5 | 29.2 | 4 |
| CPT-28/ 60 ft | Z-9 | 56.5 | 6 | | | | | | | 68.3 | 0 | | |
| CPT-C3872 / 61 ft | Z-1A | | | | | | | | | 15.5 | 9 | 4.0 | 1 |
| CPT-16/ 65 ft | Z-9 | not measured | | 4.2 | 15 | | | 4.2 | 27 | 6.7 | 5 | 5.5 | 3 |
| CPT-21A/ 65 ft | Z-9 | 133 | 6 | 90.0 | 15 | 150 | 21 | 150 | 27 | 170 | 0 | | |
| CPT-1A/ 68 ft | Z-12 | 5.5 | 12 | | | | | | | 13.7 | 9 | | |
| CPT-30/ 68 ft | Z-18 | | | | | | | | | | | | |
| CPT-13A/ 70 ft | Z-1A | | | | | | | | | | | | |
| CPT-24/ 70 ft | Z-9 | | | 4.7 | 15 | | | 9.1 | 27 | | | 3.9 | 3 |
| CPT-32/ 70 ft | Z-1A | 7.7 | 12 | | | | | | | 5 | 9 | | |
| W15-219SST/ 70 ft | Z-9 | | | 1.9 | 1 | | | 5.7 | 22 | | | | |
| CPT-4A/ 75 ft | Z-1A | 7.1 | 3 | | | | | | | | | | |
| CPT-18/ 75 ft | Z-9 | | | 4.5 | 15 | | | 8.3 | 27 | | | 0 | 3 |
| CPT-31/ 76 ft | Z-12 | | | | | | | | | | | | |
| CPT-33/ 80 ft | Z-18 | | | | | | | | | | | | |
| W15-82/ 83 ft | Z-9 | 66.7 | 6 | 85.8 | 15 | 85.8 | 21 | 85.8 | 27 | 95.8 | 5 | 8.1 | 4 |
| CPT-21A/ 86 ft | Z-9 | 186 | 6 | 206 | 15 | 244 | 21 | 244 | 27 | 209 | 5 | 223 | 4 |
| CPT-34/ 86 ft | Z-18 | | | | | | | | | | | | |
| W15-95L/ 86 ft | Z-9 | | | | | | | | | | | | |
| W15-218SST/ 86 ft | Z-9 | | | 1.6 | 2 | | | | | | | | |
| CPT-28/ 87 ft | Z-9 | 229 | 6 | 235 | 15 | 258 | 21 | 258 | 27 | 246 | 5 | 245 | 4 |
| CPT-4B/ 90 ft | Z-1A | 3.2 | 10 | | | | | | | | | | |
| CPT-1A/ 91 ft | Z-12 | 10.7 | 10 | | | | | | | | | | |
| CPT-4A/ 91 ft | Z-1A | 7.5 | 2 | | | | | | | | | | |
| CPT-9A/ 91 ft | Z-9 | 74.3 | 6 | | | | | | | | | | |
| W15-85/ 91 ft | Z-9 | | | | | | | | | | | | |
| W18-252SST/ 100 | Z-1A | | | | | | | | | | | | |
| W18-152/ 101 ft | Z-12 | 25.7 | 12 | 20.7 | 6 | 12.4 | 6 | | | 16.0 | 9 | 13 | 1 |
| W18-8U/ 103 ft | Z-9 | | | | | | | | | | | 10.4 | 4 |
| CPT-4E/ 103 ft | Z-1A | 16.1 | 12 | | | | | | | | | | |
| W18-167/ 106 ft | Z-1A | 297 | 12 | 243 | 6 | 266 | 6 | | | 196.0 | 9 | 63.1 | 1 |
| CPT-4F/ 109 ft | Z-1A | | | | | | | | | 11.9 | 9 | | |
| W18-165/ 109 ft | Z-1A | 278 | 12 | 328 | 6 | 205 | 6 | | | 35.2 | 9 | 65.1 | 1 |
| W15-217/ 114 ft | Z-9 | 93.6 | 6 | 444 | 15 | 458 | 21 | 467 | 27 | 374 | 5 | 16.1 | 4 |
| CPT-24/ 114 ft | Z-9 | | | 27.8 | 15 | | | 15.3 | 27 | | | 23.9 | 3 |
| W15-220SST/ 118 | Z-9 | | | 27.5 | 3 | | | 26.0 | 27 | | | 25.2 | 3 |
| W18-158L/ 120 ft | Z-1A | 163 | 3 | | | | | | | | | | |
| W15-219SST/ 130 | Z-9 | | | 23.1 | 1 | | | 0 | 22 | | | | |
| W18-249/ 130 ft | Z-18 | 196 | 12 | 46.3 | 6 | 41.0 | 6 | | | 64.9 | 9 | 22.5 | 1 |
| W18-248/ 131 ft | Z-1A | 306 | 12 | 182 | 6 | 180 | 6 | | | 249 | 9 | 67.0 | 1 |
| W15-95L/ 144 ft | Z-9 | 31.8 | 6 | 25.1 | 15 | 40.3 | 21 | 40.3 | 27 | 26.7 | 5 | 15.9 | 4 |
| W15-219SST/ 155 | Z-9 | | | 6.8 | 1 | | | 9.5 | 22 | | | | |
| W15-220L/ 163 ft | Z-9 | | | ----- | 15 | | | 8 | 27 | | | 13.2 | 3 |
| W15-219L/ 175 ft | Z-9 | | | ----- | 15 | | | 23 | 27 | | | 1.9 | 3 |
| W15-9L/ 176 ft | Z-9 | 16.9 | 6 | 13.1 | 15 | 13.1 | 21 | 13.1 | 27 | 2.1 | 5 | 4.0 | 4 |
| W15-84L/ 180 ft | Z-9 | not measured | | 25.9 | 15 | 25.9 | 21 | 25.9 | 27 | 23.0 | 5 | 0 | 3 |
| W15-8L/ 182 ft | Z-9 | | | | | | | | | | | | |
| W15-220SST/ 185 | Z-9 | | | ----- | 1 | | | | | | | | |
| W18-7/ 197 ft | Z-1A | | | | | | | | | | | | |
| W18-12/ 198 ft | Z-18 | | | | | | | | | | | | |
| W18-6L/ 208 ft | Z-1A | | | | | | | | | | | | |
| W15-46/ 217 ft | Z-9 | | | | | | | | | | | 3.0 | 4 |

* - based on location (Z-1A/18/12 or Z-9) of monitoring point; specific points may be beyond SVE zone of influence during particular operating configurations
 - Z-18 and Z-12 wells off-line Oct 96 - Apr 98
 - CPT-1A, CPT-9A, and possibly CPT-7A appeared to be beyond SVE zone of influence in Oct 96 based on differential pressure (BHI-01105, p. 6-1)
 - CPT-9A, CPT-21A, CPT-28 beyond SVE zone of influence in May 96 based on CCl4 concentrations and airflow modeling based on measured vacuums (BHI-01105, p. 6-1)

Carbon Tetrachloride Rebound Concentrations
Monitored at 200-PW-1 Soil Vapor Extraction Sites
October 2004 - October 2005

| 200-PW-1 (200-ZP-2) | | 11/17/2004 | 12/28/2004 | 01/19/2005 | 02/24/2005 | 03/10/2005 | 03/18/2005 | 05/05/2005 | 05/26/2005 | 06/23/2005 | 08/04/2005 | 08/19/2005 | 09/26/2005 | 10/25/2005 |
|--|------|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Location (Well or Probe) /feet bgs | Site | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) | CCI4 (ppmv) |
| CPT-17/ 10 ft | Z-9 | 5.5 | 5.3 | 6.4 | 7.1 | | 11.4 | | | | 2.5 | 2.1 | --- | --- |
| CPT-18/ 15 ft | Z-9 | 0 | 1.5 | 3.1 | 0 | | 0 | | | | 0 | 0 | 0 | 0 |
| CPT-4E/ 25 ft | Z-1A | | | | | | | 2.4 | 1.9 | 1.8 | 1.5 | 1.3 | 0 | |
| CPT-16/ 25 ft | Z-9 | 1.1 | 4.4 | 2.3 | 2.0 | | 2.0 | | | | 1.2 | 1.0 | 1.2 | 1.6 |
| CPT-32/ 25 ft | Z-1A | 0 | 1.7 | 2.7 | 5.5 | | 8.0 | 8.6 | 6.6 | 6.8 | | | | |
| CPT-30/ 28 ft | Z-1A | 0 | 1.3 | 1.5 | 1.6 | | 0 | 0 | 0 | 0 | | | | 1.2 |
| CPT-13A/ 30 ft | Z-1A | 3.0 | 0 | 7.1 | 2.5 | | 8.3 | 6.6 | 1.5 | 3.6 | 3.9 | 3.3 | 3.2 | 3.6 |
| CPT-7A/ 32 ft | Z-1A | 1.5 | 2.2 | 3.9 | 2.9 | | 4.4 | 3.2 | 2.6 | 2.4 | 2.3 | 2.2 | 2.1 | 2.3 |
| CPT-27/ 33 ft | Z-9 | 1.3 | 8.4 | 2.2 | 3.2 | | 2.2 | | | | 1.2 | 1.0 | 1.0 | 1.8 |
| CPT-1A/ 35 ft | Z-12 | 4.7 | 14.0 | 13.2 | 11.3 | | 4.3 | 6.0 | 11.1 | 9.2 | 6.6 | 6.6 | 9.2 | 17.2 |
| CPT-28/ 40 ft | Z-9 | | | | | | | | | 5.4 | | | | |
| CPT-33/ 40 ft | Z-18 | | | | | | | 3.9 | 1.1 | 1.9 | | | | |
| CPT-34/ 40 ft | Z-18 | | | | | | | 3.0 | 1.1 | 1.9 | 2.0 | 1.7 | 1.4 | 1.8 |
| CPT-21A/ 45 ft | Z-9 | | | | | | | | 7.4 | 7.9 | 167 | 153 | 147 | 151 |
| CPT-9A/ 50 ft | Z-9 | 39.4 | 48.4 | 48.4 | 46.4 | | 50.8 | 50.3 | 53.9 | 49.7 | 50.6 | 44.0 | 51.8 | 52.8 |
| CPT-9A/ 60 ft | Z-9 | 32.4 | 27.5 | 29.2 | 30.6 | | 30.7 | 11.6 | 31.8 | 30.5 | 18.3 | 18.0 | 29.2 | 25.5 |
| CPT-28/ 60 ft | Z-9 | | | | | | | 68.3 | 68.0 | 60.0 | | | | |
| CPT-C3872 / 61 ft | Z-1A | 1.1 | 4.4 | 5.9 | 7.6 | | 9.9 | 11.8 | 14.6 | 15.5 | | | | 4.0 |
| CPT-9A/ 64 ft | Z-9 | 20.1 | 2.8 | 26.1 | 19.8 | | 35.4 | 31.5 | 39.1 | 36.8 | 38.3 | 36.6 | 38.6 | 38.6 |
| CPT-16/ 65 ft | Z-9 | 3.5 | 6.7 | 4.9 | 5.1 | | 5.2 | | | | 4.7 | 4.3 | 5.5 | |
| CPT-21A/ 65 ft | Z-9 | 79.9 | 146 | 143 | 161 | | 166 | 170 | 153 | 147 | | | | |
| CPT-1A/ 68 ft | Z-12 | | | | | | | 6.2 | 13.7 | 2.0 | | | | |
| CPT-24/ 70 ft | Z-9 | | | | | | | | | | 3.9 | 3.6 | 3.8 | |
| CPT-32/ 70 ft | Z-1A | | | | | | | 5.5 | 3.4 | 4.5 | | | | |
| W15-219SST/ 70 ft | Z-9 | | | | | | | | | | | | | |
| CPT-18/ 75 ft | Z-9 | | | | | | | | | | 0 | 0 | 0 | |
| W15-82/ 83 ft | Z-9 | --- | --- | --- | 95.8 | 30.6 | --- | | | | 1.7 | 4.9 | 7.6 | 8.1 |
| CPT-21A/ 86 ft | Z-9 | 179 | 184 | 191 | 209 | | 208 | 205 | 204 | 196 | 223 | 187 | 209 | 208 |
| CPT-28/ 87 ft | Z-9 | 231 | 223 | 227 | 245 | | 246 | 244 | 238 | 232 | 245 | 216 | 230 | 241 |
| W18-152/ 101 ft | Z-12 | 10.4 | 12.3 | 14.6 | 13.3 | | 16.0 | 14.8 | 13.2 | 13.4 | | | | 12.7 |
| W15-8U/ 103 ft | Z-9 | | | | | | | | | | 0 | 1.3 | 6.8 | 10.4 |
| W18-167/ 106 ft | Z-1A | --- | --- | --- | 37.4 | | 20.4 | 26.7 | 20.2 | 196.0 | | | | 63.1 |
| CPT-4F/ 109 ft | Z-1A | | | | | | | 7.8 | 7.7 | 11.9 | | | | |
| W18-165/ 109 ft | Z-1A | --- | --- | --- | 35.2 | | 15.0 | 22.2 | 30.8 | 10.4 | | | | 65.1 |
| W15-217/ 114 ft | Z-9 | --- | --- | --- | 39.6 | | 374 | | | | 11.2 | 0 | 15.9 | 16.1 |
| CPT-24/ 118 ft | Z-9 | | | | | | | | | | 20.4 | 14.7 | 23.9 | |
| W15-220SST/ 118 ft | Z-9 | | | | | | | | | | 23.1 | 21.3 | 25.2 | |
| W18-249/ 130 ft | Z-18 | --- | 51.5 | 52.2 | 33.7 | | 64.9 | 55.3 | 36.5 | 36.8 | | | | 22.5 |
| W15-219SST/ 130 ft | Z-9 | | | | | | | | | | | | | |
| W18-248/ 131 ft | Z-1A | --- | --- | --- | 70.5 | | 249 | 173 | 169 | 155 | | | | 67.0 |
| W15-95L/ 144 ft | Z-9 | --- | --- | --- | 26.7 | | 24.8 | | | | 2.4 | 15.9 | 15.8 | 15.8 |
| W15-219SST/ 155 ft | Z-9 | | | | | | | | | | | | | |
| W15-220L/ 163 ft | Z-9 | | | | | | | | | | 13.2 | 12.9 | 12.0 | |
| W15-219L/ 175 ft | Z-9 | | | | | | | | | | 0 | 0 | 1.9 | |
| W15-9L/ 176 ft | Z-9 | --- | --- | --- | 2.1 | | --- | | | | 0 | 0 | 1.6 | 4.0 |
| W15-84L/ 180 ft | Z-9 | 22.0 | 18.0 | 22.0 | 16.1 | 23.0 | --- | | | | --- | --- | --- | |
| W15-46/ 217 ft | Z-9 | | | | | | | | | | 0 | 0 | 1.9 | 3.0 |
| | | (h) Depths to probes measured through existing tubing. 60 ft deep probe confirmed and sampled. The other two depths measured (50 ft and 64 ft) could not be correlated to original depths (70 and 91 ft); these two probes were sampled also. | | | | | | | | | | | | |
| | | (i) Unable to sample; tubing will be installed | | | | | | | | | | | | |
| | | (j) Unable to sample before removal of tubing to support cross-well seismic investigation. | | | | | | | | | | | | |
| | | (k) Sampled on 3/10/05 prior to removal of tubing to support Vista Engineering cross-well seismic investigation. | | | | | | | | | | | | |
| | | (m) Unable to sample; well in use by Vista Engineering | | | | | | | | | | | | |
| | | (n) Unable to sample; aboveground tubing needs to be repaired. | | | | | | | | | | | | |

**Carbon Tetrachloride Concentrations
Monitored at 200-PW-1 Passive Soil Vapor Extraction Wells
October 2004 - October 2005**

| 200-PW-1 (200-ZP-2) | 10/11/2004 | 11/15/2004 | 12/29/2004 | 1/21/2005 | 2/28/2005 | 3/18/2005 | 5/5/2005 | 5/31/2005 | 6/22/2005 | 8/17/2005 | 9/26/2005 | 10/19/2005 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Location (Well or Probe) /feet bgs | CCl4 (ppmv) |
| W18-6L/ 208 ft | 8.6 | 20.3 | 21.2 | 21.1 | 18.4 | 22.9 | 23.2 | 17.0 | 13.4 | 15.0 | 24.4 | 19.8 |
| W18-7/ 197 ft | 18.6 | 21.6 | 20.8 | 6.8 | 24.6 | 23.1 | 21.9 | 5.0 | 19.0 | 0 | 0 | 0 |
| W18-10L/ 183 ft | 4.3 | 4.0 | 10.0 | 5.9 | 11.6 | 12.2 | 7.6 | 2.8 | 2.3 | 0 | 9.2 | 8.4 |
| W18-11L/ 199 ft | 0 | 4.8 | 6.9 | 2.5 | 2.8 | 7.3 | 6.7 | 1.6 | 2.0 | 1.2 | 9.0 | 0 |
| W18-12/ 198 ft | 1.4 | 1.7 | 8.1 | 0 | 5.2 | 9.9 | 5.6 | 0 | 0 | 1.9 | 2.4 | 0 |
| W18-246L/ 170 ft | 14.7 | 21.1 | 20.7 | 16.8 | 19.7 | 22.0 | 21.1 | 8.1 | 9.8 | 25.3 | 9.5 | 13.0 |
| W18-247L/ 167 ft | 0 | 0 | 4.6 | 0 | 4.4 | 6.4 | 6.4 | 0 | 9.3 | 7.8 | 2.2 | 0 |
| W18-252L/ 175 ft | 0 | 13.3 | 16.8 | 1.4 | 14.4 | 18.0 | 11.3 | 0 | 14.8 | 0 | 16.9 | 0 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

sample C...
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200 AREA UNIT MANAGERS' MEETING SOURCE OPERABLE UNITS AND FACILITIES STATUS

1200 Jadwin/Rm 1-C1
November 17, 2005

SOURCE OPERABLE UNITS STATUS

Hydrogeologist, Jacqueline Shea, was introduced by Ecology.

200-PW-1, 200-PW-3, & 200-PW-6

- Pre-job planning is continuing for the Z-9 slant borehole to be drilled in FY06.
- Depth-discrete groundwater sampling is being conducted in three wells in November.
- Additional shallow soil vapor sampling is being conducted, as part of the dispersed carbon tetrachloride vadose zone plume investigation, in the vicinity of PFP in late November.
- The Sampling and Analysis Plan for Step II of the dispersed carbon tetrachloride vadose zone plume investigation includes vadose zone soil vapor sampling in the vicinity of Trench 4 in the 218-W-4C Burial Ground. In February 2005, EPA expressed a preference to conduct this sampling directly through the trench floor after the drums of retrievably stored waste have been removed. The drums are scheduled to be removed by 12/31/06.
- EPA agreed that the Step II data could be provided in February after the drums have been removed. EPA indicated that the data are only needed to support the proposed plan, due 9/30/07, and do not need to be included in the Remedial Investigation (RI) Report.
- EPA also accepted having the Baseline Risk Assessment and associated modeling in the RI. EPA stated that it expects the RI information will be included in the Feasibility Study (FS). EPA needs a copy of the report to provide comments.
- A proposal to have a DOE/EPA concurrent review of the RI was discussed.
- Vista Engineering is preparing to conduct a cross-well seismic investigation in the 216-Z-1A area and to conduct vadose zone drilling and sampling in the 216-Z-9 area.

200-TW-2 & 200-PW-5 (no change)

200-CW-1 & 200-CW-3 (no change)

200-PW-2 & 200-PW-4

- FH review of the FS was initiated on 11/9/05. The FH review of the PP is planned to start 11/21/05.
- The final waste shipment from 216-S-7 was made on 10/27.

200-CS-1

- FS cost estimates and closure plans were started the first week in November for a Draft A submittal on March 31, 2006.
- John Price (Ecology) stated that the FS can be finished without additional data collection and DOE/FH concurred.

200-CW-5, CW-2, CW-4, & SC-1

- Mr. Riggsby's to supply either the document number or the document that evaluated the possibility of recovering the uranium disposed in the 216-U-10 Pond.
- Remaining comments on the 216-U-10 Pond and the 216-Z Ditches on hold pending the outcome of ROD strategy

Ecological Risk Assessment

- An action was taken for DOE/FH to set up a meeting with EPA and Ecology to conduct and overview of Ecological Risk Assessment reports.

200-IS-1 & 200-ST-1

- Collaborative DQO process ongoing. Steps 1, 2, 3, and 4 finished Step 5 approximately 40 percent complete.

200-LW-1/200-LW-2

- RI Report is on schedule to support the 2/28/2006 TPA Milestone date.

200-MW-1

- RI Report is on schedule to support the 4/30/2006 TPA Milestone date.

200-UR-1 (no change)

200-SW-1/2

- Phase-1 geophysical investigations involving EM, magnetometer and GPR surveys were completed in September on the eight, older/inactive burial grounds (~64 acres total) in 200 East and West Areas. An investigations summary report (draft) was developed in October. Final report comments are being dispositioned; document should be formally issued by late November.
- Observed field demonstration of TRU waste drums that were exposed as part of the *Treatability Study Test Plan for the 200 Area Burial Grounds 218-E-12B Project*.
- Historical records for the 22 Bin 3A and Bin 3B waste sites have been assembled for each burial ground, and (where possible) on per trench and per waste package basis. Data quality ratings have been assigned for currently obtained data to support the

development of a historical records database and to support the upcoming mini-DQO session for non-intrusive investigations.

- DQO planning sessions have continued. DOQ workshops are scheduled for the period of November 28 – December 15, 2005.
- White paper on non-intrusive radiological survey techniques has been drafted to support mini-DQO; comments on paper have been submitted and are being dispositioned. Recent tractor-based radiological survey maps and data have assembled for each of the Bin 3B burial grounds.
- Data Management Plan – annotated outline has been drafted; informal/collaborative review with RL and Ecology task leads will be requested in late November.

BC Cribs and Trenches

- FFS and PP, Draft A, formal comments were transmitted by EPA on 8/4/05. Responses to EPA comments were transmitted 9/8/05. DOE met with EPA on 11/2/05 to continue discussions regarding remedy selection.
- Mark Benecke (FH) will set up a meeting with Rob Lobos (Ecology) to discuss the extent of surface contamination and what was done.
- Dennis Faulk (EPA) stated he would like further information provided in the SAP to EPA, on the results of the High Resolution Resistivity (HRR) data collection. It was noted that FH still needs to validate the results and an action was taken to do so.

200-UW-1

- Time Critical Removal Action (TCRA) memorandum to accelerate removal of piping and interferences associated with installing the proposed barriers on high-risk waste sites 216-U-8 and 216-U-12 was approved by Ecology on 11/8/05.
 - Sampling and Analysis Plan (SAP) final comments are being incorporated. Approval is expected by 12/1/05
 - Removal Action Work Plan (RAWP) reviewed comments by Ecology are expected by 11/17/05.
 - Field work to commence in late December (approximately 30 days after TCRA and SAP are approved to allow for ERDF waste profiling).
- Record of Decision (ROD) and Responsiveness Summary in final draft preparation by Ecology before beginning Tri-party review. Delay of approval beyond 10/19/05, compresses RDR/RAWP preparation and approval schedule.
 - Ecology noted two items:
 - Ecology has written a response to DOE and EPA on the critical path and the concern needs to be reviewed by Ecology attorneys.
 - Ecology needs results of crib results to add to responsiveness summary.
 - DOE took an action to finish the SAP and meet with the lead agency.
 - TPA Change Request for reclassifying Crib 216-U-12 to a Past Practice unit is in public comment period 10/5/05 – 11/21/05.

- Explanation of Significant Difference (ESD) to be used to update the ROD with reclassification information for Crib 216-U-12.
 - EPA noted that it needs to see the ROD.
- Haul Road construction into borrow area began on 10/24 and is expected to be completed by mid-December 2005.

FACILITIES STATUS

- **Facility Binning** – EPA noted that the RCRA/CERCLA integration effort needed to be pushed forward to facilitate Facility Binning and that Nick Ceto (EPA) would contact Jane Hedges (Ecology) to discuss.
- **B-Plant Stack** – Downgrade of this stack to a minor emission unit was approved by EPA and WDOH, and lastly requires a significant modification to the Air Operating Permit (AOP) prior to full implementation. The public comment period ended 11/9/05. As of 11/2/05, two comments had been received. WDOH will assist Ecology in comment resolution.
- **PUREX Stack** – Downgrade of this stack to a minor emission unit is under review by EPA and WDOH. A deep bed filter/aerosol test was performed the week of 8/29/05 to provide a current basis for the request. The test results support the downgrade request and are being documented in a report to be transmitted to the regulatory agencies near the end of November 2005.
- **209E, B-Plant, U-Plant, PUREX and REDOX Ventilation** – Transition from continuous ventilation to intermittent ventilation first discussed with WDOH on 5/19/05. A Notice of Construction (NOC) application for 209E was transmitted to WDOH 10/28/05
- **B-Plant Stack ALARACT Demonstration** – On 11/1/05, WDOH requested an ALARACT demonstration [WAC 246-247-080(1)] for pre-filter change out activities (due to WDOH 1/29/06)
- **212N Facility** - On 10/10/05, WDOH submitted a letter to RL expressing a desire to resume discussions on potential releases in order to estimate doses to the public and to implement a program to monitor emissions based on present and future facility uses.
- **Characterization and Stabilization NOC** – NOC conditions and limitations have been finalized and approved.

**Issue Resolution Meeting
DRAFT Agreements and Issues List
November 17, 2005
200 Area Unit Managers' Meeting**

Issue: Assigning New WIDS Entries (e.g., Pipelines) to OUs – (Ecology)

Issue Statement: Ecology noted that ORP/CH2M Hill are having pipelines added to WIDS; Ecology feels a strategy is needed for pipelines that are not assigned to soil site OUs.

Issue Actions: Ecology will also discuss the concern with Tank Farms. Parties need to work on a strategy. Specific actions were captured in the Action Item List to support reaching resolution at or shortly following the next UMM.

Issue Status: Issue initially raised at the June 16, 2005 UMM Source OU Status Meeting. DOE, Ecology, and EPA need to discuss actions and responsibilities. Specific preliminary actions were assigned during the August 18, 2005 UMM.

Issue Resolution: TBD

**200 Area Unit Managers' Meeting
OPEN ACTION ITEMS & TRACKING**

| Action # | Action/Subject | Assigned To | Owed To | Assigned Date | Original Due Date | Adjusted Due Date | Date Complete | Status |
|----------|---|------------------|-------------|---------------|-------------------|-------------------|---------------|---------------------------------------|
| 41 | Reconstruct Agreements for ZP-1 Expansion. | FH - Byrnes | DOE-RL | 01/20/05 | 02/17/05 | 11/17/05 | | Revise RDRA Document |
| 41a | Provide addendum to RDRA for next UMM | FH - Byrnes | DOE-RL | 11/17/05 | 12/15/05 | | | Mark Byrnes will send redline |
| 53 | Review original TPA and early change packages for better understanding on requirements for 2008 M-015 milestone; mock up change package to provide clarification of requirements to meet 2008 milestone to be included in next modification to M-015-00C. | All - Williams | All | 02/17/05 | TBD | 11/17/05 | 11/22/05 | Close on 11/22/05. Superseded by AIP. |
| 53a | Provide clarification wording for M-015 completion criteria at next meeting. Discuss TPA Milestone wording for M-15-00C Draft A of RI/FS. | All - Williams | All | 04/21/05 | 07/30/05 | 11/17/05 | 11/22/05 | Close on 11/22/05. Superseded by AIP. |
| 60 | Finalize Central Plateau Facility Binning Report, DOE/RL-2005-54 | RL/FH - Dusek | EPA/Ecology | 04/21/05 | 05/19/05 | 12/20/05 | | RL working through Ecology comments. |
| 60a | Respond to Jennie Stults question of facilities withing TSD boundaries and WMAs are included in the Facility Binning Report | RL/FH - Austin | Ecology | 10/20/05 | 11/17/05 | | 11/17/05 | Closed by email |
| 64 | Determine solution to adding pipelines not associated with an OU into WIDS with only a TBD in the OU field versus needing to link them to Waste Management Areas (WMAs). | All - Price | All | 08/18/05 | 09/15/05 | 12/15/05 | | Need to approve MP-14 |
| 64a | Discuss with ORP (Janet Badden of CH2M) drafting necessary TPA changes. | Ecology - Stults | All | 08/18/05 | 09/15/05 | 10/20/05 | | See action 64 status |
| 65 | Schedule 200-PO-1 Regulatory Path forward meeting with Ecology | DOE - Tortoso | Ecology | 9/15/2005 | 10/20/2005 | | | Waiting on Ecology legal. |
| 66 | Schedule meeting on 200-UP-1 RI Report Historical Data Analysis & COPCs | Ecology | RL | 10/20/05 | 11/17/05 | | | |