0080240

141768

100/300 AREA UNIT MANAGERS MEETING
APPROVAL OF MEETING MINUTES
September 11, 2008

APPROVAL: Mark A French Date 10/15/08
Mark French, DOE/RL (A3-04)
River Corridor Project Manager

APPROVAL: Briant A Charboneau Date 10/15/08
Briant Charboneau, DOE/RL (A6-33)
Groundwater Project Manager

APPROVAL: John B. Price Date 10-15-2008
John Price, Ecology (H0-57)
Environmental Restoration Manager

APPROVAL: Larry Gadbois Date 10-15-08
Larry Gadbois, Rod Lobos, or Laura
Buelow, EPA (B1-46)
100 Aggregate Area Unit Manager

APPROVAL: Alicia Boyd Date 10-15-2008
Alicia Boyd, EPA (B1-46)
300 Aggregate Area Unit Manager

100 & 300 AREA UNIT MANAGER MEETING MINUTES

Groundwater and Source Operable Units; Facility Deactivation, Decontamination, Decommission, and Demolition (D4); Interim Safe Storage (ISS); and Mission Completion

September 11, 2008

ADMINISTRATIVE

- Next Unit Manager Meeting (UMM) - The next meeting will be held October 9, 2008 at the Washington Closure Hanford (WCH) Office Building, 2620 Fermi Avenue, Room C209.
- Attendees/Delegations - Attachment A is the list of attendees. Representatives from each agency were present to conduct the business of the UMM. Attachment B documents any delegations received from the agencies.
- Approval of Minutes – The August 2008 meeting minutes were approved by the U.S. Environmental Protection Agency (EPA), Washington State Department of Ecology (Ecology), and U.S. Department of Energy, Richland Operations Office (RL).
- Action Item Status - Status of action items was performed, and updates provided (Attachment C).
    - Action: Ecology shall schedule a meeting with RL following a review of the well variances provided by RL as prescribed in Action Item 100-158.
- Agenda: Attachment D is the meeting agenda.

EXECUTIVE SESSION (Tri-Parties Only)

No issues were identified, no agreements were documented, and no action items were documented.

100-F & 100-IU-2/100-IU-6 AREAS (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. No issues were identified, no agreements were documented, and no action items were documented.

100-D & 100-H AREAS (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. Attachment 2 provides a status of information for soil remediation. No issues were identified, and no agreements were documented.

Action 1: RL shall schedule a meeting to discuss Ecology's comments on the Calendar Year (CY) 2007 100 Area Pump and Treat Report.

Action 2: RL and various contractors shall meet to discuss and assess waste sites upgradient of one specific well in the 100-H Area, and the groundwater monitoring data.

100-K AREA (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. No issues were identified, and no agreements were documented.

Action: RL shall provide EPA with the 118-K-1 burial ground remediation schedule to meet 2012.

100-N AREA (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. Attachment 3 provides a status or information for D4/ISS. No issues were identified, no agreements were documented, and no action items were documented.

100-B/C AREA (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. No issues were identified, and no agreements were documented.

Action: RL shall provide EPA with the schedule for strategy approach for 100-C-7 by September 30, 2008, as well as the remediation schedule for the remaining waste sites by the next UMM.

300 AREA – 618/10/11 (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. No issues were identified, and no action items were documented.

Agreement: RL provided an extension request to EPA (see Attachment 4) for additional time to respond to comments on the *Sampling and Analysis Plan for 618-10 and 618-11 Nonintrusive Sampling*, DOE/RL-2008-17. EPA approved the written extension request.

300 AREA - GENERAL (GROUNDWATER, SOILS, D4/ISS)

Attachment 1 provides a status or information for groundwater. Attachment 5 provides a status or information for D4/ISS. No issues were identified, and no action items were documented.

Agreement: Attachment 6 documents RL and EPA approval to remove the 337 building and the above-grade portion of the 337B building from the Action Memorandum #3 for the 300 Area. Any remaining activities at these two locations shall be performed under RL authority.

REGULATORY CLOSEOUT DCOUMENTS OVERALL SCHEDULE

Attachment 7 provides a status or information. No issues were identified, no agreements were documented, and no action items were documented.

MISSION COMPLETION PROJECT

Attachment 8 provides a status or information. No issues were identified, no agreements were documented, and no action items were documented.

5-YEAR RECORD OF DECISION ACTION ITEM UPDATE

Attachment 9 provides a status or information. An updated action item list will be provided at the next UMM. No issues were identified, no agreements were documented, and no action items were documented.

ANNUAL INSTITUTIONAL CONTROLS EVALUATION

Attachment 10 documents the annual assessment of institutional controls for the River Corridor. No issues were identified, and no agreements were documented.

Action: RL shall provide EPA with a copy of the other IC assessments performed this year across the Hanford Site.

Attachment A

100/300 AREA UNIT MANAGER MEETING
ATTENDANCE AND DISTRIBUTION
September 11, 2008

NAME	E-MAIL ADDRESS	MSIN	COMP	SIGNATURE
Cook, Sylvia	Original +1 copy	H6-08	ADREC	
Charboneau, Briant L	Briant_L_Charboneau@rl.gov	A6-33	DOE	
Clark, Clifford E	Clifford_E_Cliff_Clark@rl.gov	A5-15	DOE	
French, Mark	Mark_S_French@rl.gov	~~A6-38~~ A3-04	DOE	
Guercia, Rudolph F	Rudolph_F_Rudy_Guercia@rl.gov	A3-04	DOE	
Hake, Naomi M	Naomi_M_Hake@rl.gov	A3-04	DOE	
Hanson, James P	James_P_ Hanson@rl.gov	A5-13	DOE	
Mastren, Vanessa A	Vanessa_A_Mastren@rl.gov	A3-04	DOE	
Post, Thomas	Thomas_C_Post@rl.gov	A3-04	DOE	
Sands, John P	John_P_Sands@rl.gov	A3-04	DOE	
Sinton, Gregory L	Gregory_L_Sinton@rl.gov	A6-38	DOE	
Smith, Chris	Douglas_C_Chris_Smith@rl.gov	A3-04	DOE	
Thompson, Mike	K_M_Mike_Thompson@rl.gov	A6-38	DOE	
Weil, Stephen	Stephen_R_Weil@rl.gov	A5-16	DOE	
Zeisloft, Jamie	Jamie_Zeisloft@rl.gov	A3-04	DOE	
Ayres, Jeffrey M	JAYR461@ECY.WA.GOV	H0-57	ECO	
Bond, Fredrick	FBON461@ECY.WA.GOV	H0-57	ECO	
Goswami, Dib	DGOS461@ECY.WA.GOV	H0-57	ECO	
Huckaby, Alisa D	AHUC461@ECY.WA.GOV	H0-57	ECO	
Jones, Mandy	MJON461@ECY.WA.GOV	H0-57	ECO	
Price, John	JPRI461@ECY.WA.GOV	H0-57	ECO	
Rochette, Elizabeth	BROC461@ECY.WA.GOV	H0-57	ECO	
Shea, Jacqueline	JASH461@ECY.WA.GOV	H0-57	ECO	
Smith-Jackson, Noe'l	NSMI461@ECY.WA.GOV	H0-57	ECO	
Vanni, Jean	Jvan461@ECY.WA.GOV	H0-57	ECO	
Whalen, Cheryl	CWHA461@ECY.WA.GOV	H0-57	ECO	
Buelow, Laura	BUELOW.LAURA@EPA.GOV	B1-46	EPA	
Boyd, Alicia	BOYD.ALICIA@EPA.GOV	B1-46	EPA	
Einan, Dave	EINAN.DAVID@EPA.GOV	B1-46	EPA	
Faulk, Dennis A	FAULK.DENNIS@EPA.GOV	B1-46	EPA	

Gadbois, Larry E	GADBOIS.LARRY@EPA.GOV	B1-46	EPA	
Lobos, Rod	LOBOS.ROD@EPA.GOV	B1-46	EPA	
Black, Dale	Dale_G_Black@rl.gov	E6-35	FH	
Borghese, Jane V	Jane_V_Borghese@rl.gov	E6-35	FH	
Day, Roberta E	Roberta_E_Day@rl.gov	E6-35	FH	
Fabre, Russel J	Russel_J_Fabre@rl.gov	E6-35	FH	
Hinds, Cory	Cory.Hinds@CH2M.com			
Horton, Duane G.	Duane_G_Horton@rl.gov	E6-35	FH	
Piippo, Rob	Robert_E_Piippo@rl.gov	H8-12	FH	
Petersen, Scott	Scott_W_Petersen@rl.gov	E6-35	FH	
Robertson, Julie	Julie_R_Robertson@rl.gov	E6-35	FH	
Shattuck, Ann F	Ann_F_Shattuck@rl.gov	E6-35	FH	
Shrimpton, David J	David_J_Shrimpton@rl.gov	E6-44	FH	
Triner, Glen C	Glen_C_Triner@rl.gov	E6-44	FH	
Winterhalder, John A	John_A_Winterhalder@rl.gov	E6-35	FH	
Dresel, Evan	Evan.dresel@pnl.gov		PNNL	
Fruchter, Jonathan S	john.fruchter@pnl.gov	K6-96	PNNL	
Hartman, Mary J	Mary_J_Hartman@rl.gov	~~E6-35~~	~~PNNL~~ FH	
Peterson, Robert E	robert.peterson@pnl.gov	K6-75	PNNL	
Cimon, Shelley	scimon@oregontrail.net		Oregon	
Lilligren, Sandra	sandral@nezperce.org		TRIBES	
Bignell, Dale	Dale.Bignell@wch-rcc.com	H4-25	WCH	
Buckmaster, Mark A	mark.buckmaster@wch-rcc.com	X9-08	WCH	
Carlson, Richard A	richard.carlson@wch-rcc.com	X4-08	WCH	
Capron, Jason	jmcapron@wch-rcc.com	H4-23	WCH	
Cathel, Robert L	rlcathel@wch-rcc.com	H4-21	WCH	
Cearlock, Christopher S	cscearlo@wch-rcc.com	H4-22	WCH	
Clark, Steven W	steven.clark@wch-rcc.com	H4-23	WCH	
Darby, John W	john.darby@wch-rcc.com	L6-06	WCH	
Dieterle, Steven E	steven.dieterle@wch-rcc.com	L1-04	WCH	
Donnelly, Jack W	jack.donnelly@wch-rcc.com	H4-22	WCH	
Fancher, Jonathan D (Jon)	jon.fancher@wch-rcc.com	X9-07	WCH	
Faulk, Darrin E	defaulk@wch-rcc.com	L6-06	WCH	
Fletcher, Jill E	jfletcher@wch-rcc.com	H4-22	WCH	
Hadley, Karl A	karl.hadley@wch-rcc.com	T2-04	WCH	
Hedel, Charles W	charles.hedel@wch-rcc.com	H4-22	WCH	

Hulstrom, Larry C	larry.hulstrom@wch-rcc.com	H4-22	WCH	
Jacques, Duane	idjacque@wch-rcc.com	H4-22	WCH	
Johnson, Wayne	Wayne.johnson@wch-rcc.com	H4-22	WCH	
Landon, Roger J	roger.landon@wch-rcc.com	H4-21	WCH	
Lerch, Jeffrey A	jeffrey.lerch@wch-rcc.com	H4-22	WCH	
Little, Nelson C	nclittle@wch-rcc.com	X3-16	WCH	
Miller, Larry R (Rex)	rex.miller@wch-rcc.com	X4-08	WCH	
Obenauer, Dale F	dale.obenauer@wch-rcc.com	X3-16	WCH	
Parnell, Scott E	scott.parnell@wch-rcc.com	L1-09	WCH	
Proctor, Megan	Megan.Proctor@wch-rcc.com	L1-07	WCH	
Saueressig, Daniel G	Daniel.Saueressig@wch-rcc.com	X5-50	WCH	
Strom, Dean N	dean.strom@wch-rcc.com	X3-40	WCH	
Yasek, Donna	Donna.yasek@wch-rcc.com	L1-07	WCH	
Danielson, Al	al.danielson@dohwa.gov		WDOH	

Attachment B

Attachment C

100/300 Area UMM
Action List
September 11, 2008

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status
O	300-008	RL	T. Post	100/300 Area	RL shall develop the instructions for documenting D4 completions in the 100 and 300 Areas where no known waste site is under the building, and no releases to soil are documented or expected based on existing data. These instructions shall be added into the respective Removal Action Work Plans after review and approval from the respective lead regulatory agency for the specific Removal Action Work Plans in the 100 and 300 Areas.	Open: 4/12/07; Action: Ongoing action, and are still under development. Instructions are developed and is complete for the 300 Area. RL will submit a TPA Section 9.0 document change notice for the 100 Area. This remains an ongoing task.
O	100-149	RL	J. Hanson	100-H	RL/Fluor Hanford Inc. (FH) will review the extraction network for the 100-H pump and treat system, and provide recommendations to Ecology for optimization.	Open: 1/10/08; Action: At the 8/14/08 UMM, additional discussions with Ecology are necessary on the 100-HR-3 optimization, as well as the long-term remedial alternatives. Item remains open.
X	100-152	RL	N. Hake	100-N	RL will schedule a meeting with Ecology on coordinating between D4 and FR activities at the 100-N Area.	Open: 1/10/08; Action: Item closed at the 8/14/08 UMM.
X	100-153	RL	C. Smith	100 Area	RL shall schedule a meeting with EPA and Ecology to discuss potential additional institutional controls at specific waste sites (e.g., concrete or other physical markers at 118-B-1 burial ground).	Open: 1/10/08; Action: RL has set up a meeting with EPA for June 16, 2008. Item closed at the 9/11/08 UMM.

100/300 Area UMM
Action List
September 11, 2008

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status
O	300-009	RL	M. French	300 Area	RL shall brief EPA and Ecology on alternative exposure scenarios for the 300 Area.	Open: 1/10/08; Action: RL met with EPA, and based on input received, RL will provide an update after further internal discussion.
X	100-158	RL	J. Hanson	General	Ecology will schedule a meeting with RL to discuss well variances, and RL will provide information to Ecology beforehand.	Open: 4/10/08; Action: RL provided Ecology 3 binders of variances. Item closed at the 9/11/08 UMM.
O	100-159	RL	J. Hanson	General	RL shall follow-up with Ecology and EPA on well sampling backlog, and discuss recommended actions.	Open: 6/12/08; Action: RL reported the backlog is being worked, and plan to have backlog worked off by 9/30/08.
X	100-160	RL	J. Hanson	General	RL shall schedule a meeting with Ecology and EPA to discuss the final Remedial Investigation/Feasibility Study (RI/FS) Work Plan outline. This meeting is to be a stand-alone meeting, separate from the systematic planning meeting on June 18, 2008.	Open: 6/12/08; Action: Item closed at the 8/14/08 UMM.
X	100-161	RL	N. Hake	100-N	RL shall provide Ecology with any documentation for petroleum sites at 100-N that indicates radioactivity.	Open: 6/12/08; Action: This item is being elevated to the IAMIT level for resolution, and as such this item was closed at the 9/11/08 UMM.

100/300 Area UMM
Action List
September 11, 2008

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status
O	100-162	RL	M. French	Col. River	RL shall provide Ecology and EPA with a task level/critical path schedule for the Remedial Investigation for the Columbia River. RL shall provide the schedule to Ecology and EPA by the next UMM.	Open: 8/14/08; Action: EPA requested the schedule as well on 9/11/08. Action item updated to reflect this point. RL shall provide the schedules by the week of 9/15/08.
O	100-163	RL	T. Post	100-D	RL shall provide Ecology with a status on the 100-D Orphan Site Evaluation Report.	Open: 8/14/08; Action:
O	100-164	RL	T. Post	100-D	RL shall meet with Ecology to discuss options and path-forward for waste sites 100-D-31, 100-D-63, 100-D-73, and 100-D-77.	Open: 8/14/08; Action: RL stated a meeting is scheduled for the week of 9/15/08.
O	100-165	ECY	J. Price	General	Ecology shall schedule a meeting with RL following a review of the well variances provided by RL as prescribed in Action Item 100-158.	Open: 9/11/08; Action:
O	100-166	RL	M. French	General	RL shall schedule a meeting to discuss Ecology's comments on the Calendar Year (CY) 2007 100 Area Pump and Treat Report.	Open: 9/11/08; Action:
O	100-167	RL	M. French	100-H	RL and various contractors shall meet to discuss and assess waste sites upgradient of one specific well in the 100-H Area, and the groundwater monitoring data.	Open: 9/11/08; Action:
O	100-168	RL	M. French	100-K	RL shall provide EPA with the 118-K-1 burial ground remediation schedule to meet 2012.	Open: 9/11/08; Action:

100/300 Area UMM
Action List
September 11, 2008

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status
O	100-169	RL	M. French	100-B/C	RL shall provide EPA with the schedule for strategy approach for 100-C-7 by September 30, 2008, as well as the remediation schedule for the remaining waste sites by the next UMM.	Open: 9/11/08; Action:
O	100-170	RL	M. French	General	RL shall provide EPA with a copy of the other IC assessments performed this year across the Hanford Site.	Open: 9/11/08; Action:

Attachment D

100/300 Area Unit Manager Meeting
September 11, 2008
Washington Closure Hanford Building
2620 Fermi Avenue, Richland, WA 99354
Room C209; 1:00-4:30 p.m.

1:00 - 1:45 p.m. **Executive Session (Tri-Parties Only):**

- D4 and Field Remediation Authorities/Schedule Disconnect at 100-N Area
- Petroleum Sites at 100-N Area
- Issuance of Explanation of Significant Differences

1:45 p.m. - 1:50 p.m. **Administrative:**

- Approval and signing of previous meeting minutes (August 2008)
- Update to Action Items List
- Next UMM (10/9/2008, Room C209)

1:50 - 4: 00 p.m. **Open Session: Project Area Updates - Groundwater, Field Remediation, D4/ISS:**

- 100-F & 100-IU-2/6 Areas (Greg Sinton/Chris Smith)
- 100-D & 100-H Areas (Jim Hanson/Tom Post/Vanessa Mastren)
- 100-K Area (Jim Hanson)
- 100-N Area (Naomi Hake)
- 100-B/C Area (Greg Sinton)
- 300 Area - 618-10/11 exclusively (Chris Smith)
- 300 Area (Jim Hanson/Chris Smith/Rudy Guercia)
- Regulatory Closeout Documents Overall Schedule (Chris Smith)
- Mission Completion Project (Jamie Zeisloft/John Sands)
- 5-Year Record of Decision Action Item Update (Jim Hanson/Alicia Boyd)

4:00 - 4:15 p.m. **Special Topics/Other**

- Annual Institutional Control Evaluation (John Sands)

4:15 - 4:30 p.m. **Adjourn**

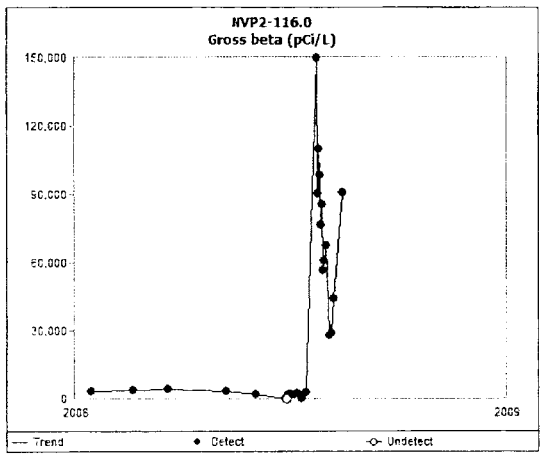
Attachment 1

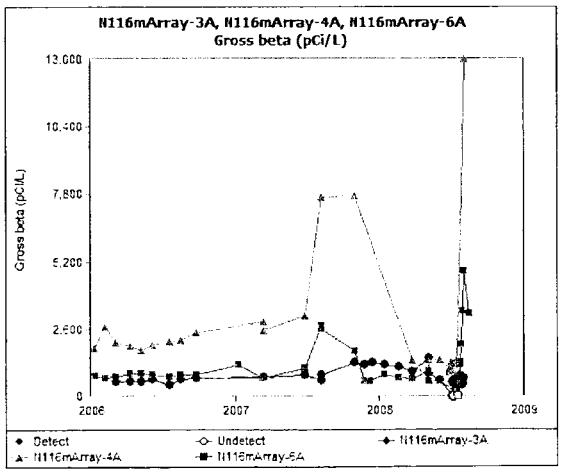
100/300 Areas Unit Managers Meeting, September 11, 2008

100-NR-2 Groundwater OU - Russ Fabre

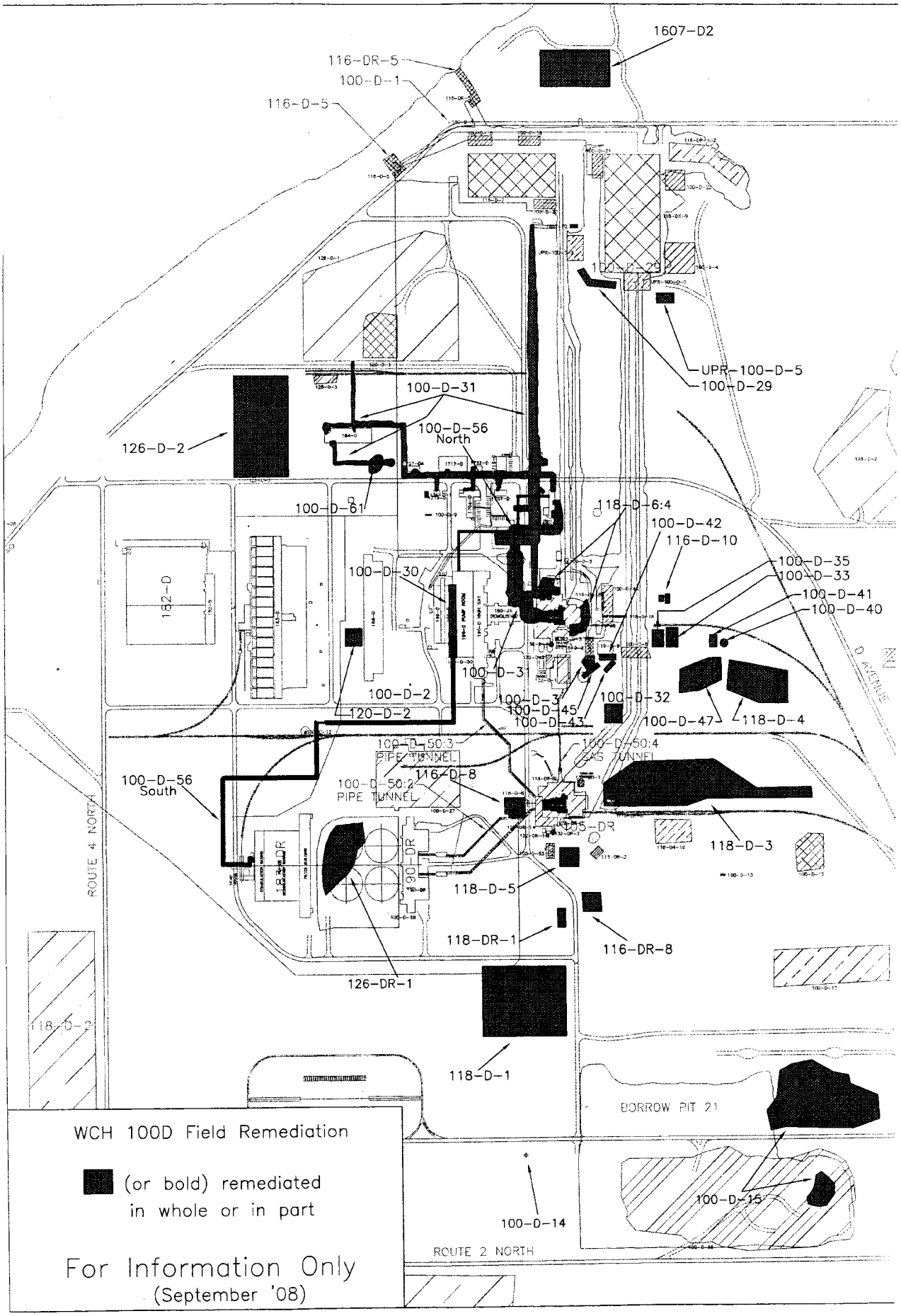
In July, gross beta concentrations increased sharply in wells and aquifer tubes associated with the apatite barrier. The highest beta level in a well was 51,000 pCi/L in well 199-N-162 on July 15. The concentration dropped dramatically during the week following that, and was just 97.7 pCi/L on August 6.

The highest gross beta level anywhere was in aquifer tube NVP2-116.0, with a maximum of 150,000 pCi/L on July 24. The graph below shows data through August 15. Other nearby aquifer tubes also showed beta increases, but levels were lower overall (see graph). Note that the tubes showed similar (but lower) peaks following injections in 2007, and levels subsequently declined. Concentrations in these aquifer tubes are higher than in wells because, 1) the short screened interval of the tubes have the potential to sample a discrete high concentration interval and, 2) the tubes are located outside of the radial extent of treatment but within the radial extent of the high ionic strength injection solution.





Attachment 2


1607-D2
116-DR-5
100-D-1
116-D-5
UPR-100-D-5
100-D-29
100-D-31
100-D-56 North
126-D-2
100-D-61
118-D-6:4
100-D-42
116-D-10
100-D-35
100-D-33
100-D-41
100-D-40
100-D-30
182-D
100-D-3
100-D-2
120-D-2
100-D-32
100-D-47
118-D-4
100-D-50:3 PIPE TUNNEL
100-D-50:4 GAS TUNNEL
116-D-8
100-D-50:2 PIPE TUNNEL
100-D-56 South
ROUTE 4 NORTH
118-D-3
118-D-5
118-DR-1
116-DR-8
126-DR-1
118-D-1
BORROW PIT 21
100-D-15
100-D-14
ROUTE 2 NORTH
D AVENUE
WCH 100D Field Remediation
(or bold) remediated in whole or in part
For Information Only
(September '08)

Attachment 3

(3)

100 Area D4/ISS Status
September 11, 2008

100/300 Area Combined Unit Manager Meeting

Completed Activities

- 105B Reactor roof repair subcontractor demobilization
- 105N in basin video and radiological characterization to capture current radiological / visual conditions and compare to information contained in as-left documents. No anomalies were discovered
- Backfill operations at 1705N/NA, 1706N, 1712N, 1714N/NA/NB, and 105NB
- 181N, 181NE – Two-day stakeholder workshop
- 184N size reduction and above grade waste loadout. Only some large equipment is currently in the 100-N container transfer area awaiting shipment to ERDF
- 184N below grade removal and waste loadout
- Post Demolition Summary Reports – 163N & 183N

NCES-PAS Subcontractor Activities

105-N/109-N – Subcontractor activities in 109-N complete. Work continues to remove various refrigerant containing appliances from 105-N. Asbestos abatement is working in 105-N and is approaching 50% completion. Waste load out to ERDF continues at the approximate rate of four cans per day.

Proposed work through 10/30/08

- 105N subcontractor hazardous material removal
- 107N mobilization; hazardous material removal; and, Chemical Annex characterization and demolition
- 182N scaffold erection and Class I asbestos abatement
- 184NA below grade demolition
- 1330N below grade demolition
- 1802N below grade demolition and waste load out
- Remove & ship nine fuel casks from 1524N pad to ERDF for macroencapsulation
- Post removal characterization of 184N to include:
    - LARADS/GPERS analysis
    - GPS survey
    - Visual evaluation
- D4 Facility Completion Reports – 163N & 183N
- Characterization activities:
    - Mobile Offices
    - 107 Chemical Annex
    - 1112NA
    - 1119N
    - 1120N
    - 1310N
    - 1322N

Attachment 4

(4)

WRITTEN REQUEST FOR ADDITIONAL TIME FOR RL
TO RESPOND TO EPA COMMENTS ON
DOE/RL-2008-27, Draft A, *Sampling and Analysis Plan for 618-10 and 618-11 Nonintrusive Sampling*

DOE received EPA's comments on the subject document on August 15, 2008. DOE is hereby requesting in writing a 30-day extension to respond to EPA's comments. DOE shall submit comments to EPA no later than October 15, 2008.

DOE and EPA have met to discuss and clarify the comments. DOE's intends to use this additional time to continue some discussions on several of the comments, and prepare final responses.

With EPA concurrence, agreement to this request will be sought at the September 11, 2008 Unit Managers Meeting.

Attachment 5

(5)

300 Area D4 Status
September 11, 2008
100/300 Area Combined Unit Manager Meeting

Ongoing Hazardous Material Removal

- **324**
- **327**
- **308**

Ready for Demolition:

- **337**
- **337B**
- **MO-036**

Demolition Activities:

- **321** – Loadout underway
- **323** – Loadout underway
- **3718A, B, C, E, G and N, 3727, 3728, 3721** – Continue loadout

60-Day Project Look Ahead

- Begin hazardous material removal at 309

Attachment 6

Control Number:	NPL Agreement/Change Control Form	Date Submitted:
NPL-140	X Change ____ Agreement ___ Information Operable Unit(s): 300 Area Removal Action	9/11/08 Date Approved: 9/11/08

Document Number/Title:	Date Document Last Issued:
Action Memorandum #3 for the 300 Area	December 17, 2007
Originator: Megan Proctor	**Phone:** 372-9930

Summary Discussion:

Action Memorandum #3 for the 300 Area documents the non-time-critical removal action for approximately 110 facilities located in the southern portion of the 300 Area on the Hanford Site. One of the expectations outlined in the action memorandum is that facilities found to be free of CERCLA hazardous constituents will be excluded from the CERCLA removal action, and will be addressed under DOE authority. The facilities listed below are currently included in the 110 facilities to be addressed under Action Memorandum #3:

337 – Technical Management Center
337 B – High-bay and Service Wing

The 337 Building is free of CERLCA hazardous constituents and therefore should be addressed under DOE authority.

The 337B Building is free of CERCLA hazardous constituents; excluding an asbestos-lined tank that sits roughly 60 feet below grade at the lowest point. Asbestos abatement and tank removal would pose enormous risk to worker safety and could possibly impact a culturally sensitive area. The above-grade portion of 337B will be explosively demolished. The asbestos-lined tank will be maintained in a safe configuration and will be addressed under a future CERCLA decision document (e.g., new action memorandum or new Record of Decision). If the tank remains in place any necessary provisions (i.e., institutional controls) will be detailed in the appropriate CERCLA documentation.

Justification and Impact of Change:

Approval of this change designates exclusion of the 337 Building and the above-grade portion of the 337B Building from the non-time-critical removal action described in *Action Memorandum #3 for the 300 Area.*

Removal activities performed to date have been performed in accordance with the Removal Action Work Plan for the 300 Area (DOE/RL-2004-77). Upon approval of this agreement, all further removal activities for the facilities listed above, with the exception of the below-grade portion of 337B, will be performed under DOE authority.

DOE Project Manager:	**Date:** 9/10/08
EPA Project Manager: Alicia F Boyd	**Date:** 9/10/08

Per Action Plan for Implementation of the Hanford Consent Order and Compliance Agreement Section 9.3

Attachment 7

Mission Completion
Sample Design and Cleanup Verification
for the September 2008 UMM

AREA	DOE-RL/REGULATOR DELIVERABLE	START	FINISH
100-BC			
	RL/Regulator Review of Draft A WI for 100-B-21:3	7/31/08 (A)	9/19/2008
	RL/Regulator Sign Rev. 0 WI for 100-B-21:3	10/6/2008	10/8/2008
100-D			
	RL/Regulator Sign Rev. 0 Closure Document for 100-D-3	5/8/2008 (A)	9/25/2008
	RL/Regulator Review Draft A WI for 118-D-4	8/6/08 (A)	9/19/2008
	Regulator Review Draft A WI for 1607-D2:2	8/7/2008 (A)	9/20/2008
	Regulator Review Draft A WI for 100-D-47	8/7/2008 (A)	9/20/2008
	Regulator Review Draft A WI for 100-D-56 South	8/19/08 (A)	10/2/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-47	8/23/2008 (A)	10/9/2008
	RL/Regulator Review Draft A WI for 100-D-32	9/4/2008 (A)	10/18/2008
	RL/Regulator Sign Rev. 0 100-D-31:6 WI	9/8/2008	9/18/2008
	RL/Regulator Review Draft A WI 116-D-10	9/11/2008	10/25/2008
	RL/Regulator Review Draft A WI for 100-D-42	9/15/2008	10/29/2008
	RL/Regulator Review Draft A WI for 100-D-43	9/15/2008	10/29/2008
	RL/Regulator Review Draft A WI for 100-D-45	9/15/2008	10/29/2008
	RL/Regulator Review Draft A Closure Document for 126-DR-1	9/16/2008	10/30/2008
	RL/Regulator Sign Rev. 0 WI for 1607-D2:2	10/2/2008	10/9/2008
	RL/Regulator Sign Rev. 0 WI for 118-D-4	10/6/2008	10/9/2008
	RL/Regulator Review Draft A WI for 100-D-29	9/24/2008	11/7/2008
	RL/Regulator Review Draft A WI for UPR-100-D-5	9/24/2008	11/7/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-56 South	10/20/2008	10/23/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-32	11/3/2008	11/6/2008
	RL/Regulator Sign Rev. 0 WI for 116-D-10	11/11/2008	11/17/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-42	11/13/2008	11/19/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-45	11/13/2008	11/19/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-43	11/13/2008	11/19/2008
	RL/Regulator Sign Rev. 0 Closure Document for 126-DR-1	11/24/2008	12/3/2008
	RL/Regulator Sign Rev. 0 WI for 100-D-29	11/24/2008	12/2/2008
	RL/Regulator Sign Rev. 0 WI for UPR-100-D-5	11/24/2008	12/12/2008
100-F			
	RL/Regulator Review Draft A Phase 2 WI for 100-F-44:5	8/19/08 (A)	10/2/2008
	RL/Regulator Review Draft A Phase 2 WI for 100-F-53	8/19/08 (A)	10/2/2008
	RL/Regulator Review Draft A 100-F-59 SAI	8/21/08 (A)	9/11/2008
	RL/Regulator Sign Rev. 0 Closure Document 118-F-6	9/5/2008	9/18/2008
	RL/Regulator Sign Rev. 0 Closure Document 100-F-26:9 Pipeline	9/5/2008	9/18/2008
	RL/Regulator Sign Rev. 0 Closure Document for 100-F-44:4	9/16/2008	9/22/2008
	RL/Regulator Sign Rev. 0 for 100-F-59 SAI	10/6/2008	10/9/2008
	RL/Regulator Sign Rev. 0 Closure Document 128-F-2	9/24/2008	10/1/2008
	RL/Regulator Sign Rev. 0 Phase 2 WI for 100-F-44:5	10/20/2008	10/23/2008
	RL/Regulator Sign Rev. 0 Phase 2 WI for 100-F-53	10/20/2008	10/23/2008
100-H			
	RL/Regulator Sign Rev. 0 WI for 100-H-36	8/28/2008 (A)	9/11/2008
100-N			
	RL/Regulator Sign Rev. 0 WI for 120-N-4	8/6/2008 (A)	10/8/2008
	RL/Regulator Review 116-N-1 Rev. 1 CVP	8/19/2008 (A)	10/2/2008
	RL/Regulator Sign Rev. 1 CVP for 116-N-1	10/27/2008	11/3/2008
100-IU-2/-6			
	RL/Regulator Review Draft A Closure Document for 600-111	8/27/2008 (A)	10/10/2008
	RL/Regulator Sign Rev. 0 Closure Document for 600-111	11/3/2008	11/10/2008
	RL/Regulator Review Draft A Closure Document for 600-149	11/13/2008	12/15/2008
100 Area			
	RL Review of 100 Area Remedial Design Report	8/21/2008 (A)	9/30/2008
	RL/Regulator Review of 100 Area Sampling and Analysis Plan	8/21/2008 (A)	9/30/2008

All Data is Based on FY08/09 CPP with August 2008 Month End Status

Mission Completion
Sample Design and Cleanup Verification
for the September 2008 UMM

300 Area

618-10/11 RL Review Phase 2 Characterization Pln	2/26/2008 (A)	9/30/2008
Regulator Review of Draft A Closure Document 600-243	5/8/2008 (A)	9/11/2008
RL/Regulator Sign Rev. 0 Closure Document 600-243	5/10/2008 (A)	10/9/2008
RL/Regulator Sign Rev. 0 Closure Document 331 LSLDF	5/23/2008 (A)	9/25/2008
Regulator Review Draft A WI for 300-32	7/15/2008 (A)	9/12/2008
RL/Regulator Sign Rev. 0 WI for 300-32	7/28/2008 (A)	10/2/2008
RL Approve 618-10/11 SAP Rev. 0	9/16/2008	10/16/2008
RL/Regulator Review Draft A Thoria Trench Closure Plan for 618-7	9/18/2008	10/2/2008
RL Review 300 Area Remedial Design Report	10/1/2008	11/18/2008
RL/Regulator Sign Rev. 0 Thoria Trench Closure Plan for 618-7	10/9/2008	10/13/2008
RL/Regulator Review Draft A Closure Document for 618-7	11/25/2008	12/25/2008

Attachment 8

(8)

Environmental Protection Mission Completion Project
September 11, 2008

Orphan Sites Evaluations

- Submit 100-D Area, 100-IU-2, and 100-IU-6 MP-14 forms for regulatory signature in September. The final reports will be issued once forms have all required signatures.
- Continuing N-Area orphan site evaluation.
- 100-H Area summary report submitted for RL/regulator review. Comments due back in September.
- Drafting 100-K Area summary report scheduled for RL/regulator review in late-September.
- Received and reviewing draft orthophotography and LiDAR data for the River Corridor.

Long-Term Stewardship

- Continue preparing the draft 100-BC Area Remedial Action Report.

River Corridor Baseline Risk Assessment

- RL review of Volume 2 (human health) to be complete September 18.
- Volume 1 (ecological) is at RL for release to initiate regulatory review.

Remedial Investigation of Hanford Releases to Columbia River

- Sediment mapping is underway and will continue through September.
- Trident probe testing is scheduled September 12-17.
- Cultural review workshop scheduled September 18.
- Subcontract award is anticipated September 15.
- Distribution of Rev.0 work plan for approvals anticipated by September 22. Meeting with Tri-Parties scheduled for September 24 to discuss disposition of comments.
- Sample collection activities anticipated to begin in early October.

Document Review Look-Ahead

Document	Regulator Review Start	Duration
100-H Area Orphan Sites Evaluation Report	July 29, 2008	45 days
RCBRA Draft B – Volume 1 (Eco)	September 15, 2008	45 days
100-K Area Orphan Sites Evaluation Report	September 2008	45 days
RCBRA Draft B – Volume 2	November 5, 2008	45 days

Attachment 9

Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

Issues and Actions	Action Due Date	Status August 2008
100-HR-3 Groundwater		
Issue 1. Additional risk assessment information is needed to evaluate the interim actions prescribed within the records of decisions and to develop final cleanup decisions.		
Action 1-1. Submit Draft A of the River Corridor Baseline Risk Assessment Report.	**Jun-07**	**Complete**
Action 1-2. Submit draft sampling and analysis plan for Inter-Areas Shoreline Assessment.	**Aug-06**	**Complete**
New Action 1-3. Reassess and resubmit to EPA the protectiveness determinations for operable units 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1. 100-FR-2. 100-HR-1. 100-HR-2, 100-HR-3, 100-IU-2, 100-IU-6, 100-KR-1, 100-KR-2, 100-KR-4, 100-NR-1, 300-FF-1, and 300-FF-2 using new information from the River Corridor Baseline Risk Assessment and submit to EPA an Addendum with, as appropriate, updated Protectiveness Determinations, Issues, and Follow-up Actions.	Feb-08	This was to be coordinated with the finalization of the River Corridor Baseline Risk Assessment. The RCBRA should be complete April, 2009. RL anticipates completing this action within 90 days of Ecology and EPA acceptance of the report.
Issue 2. A strategy to obtain the final records of decisions and integrate the waste sites, deep vadose zone and groundwater has not been developed and agreed upon with the regulator agencies.		
Action 2-1. Submit Draft A of the River Corridor Strategy for Achieving Final Cleanup Decision in the River Corridor. Document will identify issues for integration and provide alternatives for future discussions between the Tri-Parties on milestones for final records of decision in the River Corridor.	**Nov-06**	**Complete**
New Action 2-2. *Reach agreement between the Tri-Party Agencies on a strategy and schedule to obtain final records of decisions in the River Corridor.*	Nov-07	The Tri-Parties agreed on ROD groupings as documented in the June, 2007 IAMIT minutes. Completion of this action will be within the scope of the overall milestone negotiations underway by the Parties.
New Action 2-3. *Submit a TPA change package with new milestones for submitting RI/FS work plans and proposed plans for all operable units in the river corridor. New milestones shall require submission of RI/FS work plans and proposed plans for final actions at all of the following operable units that do not already have these documents approved: 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, 100-FR-1. 100-FR-2. 100-HR-1. 100-HR-2, 100-HR-3, 100-IU-2, 100-IU-6, 100-KR-1, 100-KR-2, 100-KR-4, 100-NR-1, 300-FF-1, and 300-FF-2.*	Feb-08	In TPA negotiations, dependent on Action 2-2

Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

Issues and Actions	Action Due Date	Status August 2008
100-K Area		
Issue 3. The southeastern (inland) extent of the chromium groundwater plume from the 116□K-2 trench, northeast of the current injection wells, has not been delineated.		
Action 3-1. Install three additional wells to further delineate the southeastern (inland) extent of the chromium groundwater plume from the 116-K-2 trench, northeast of the current injection wells. Wells installed as part of the pump-and-treat system expansion or injection well relocation may count towards this effort if appropriately located.	**Aug-08**	**Completed-1/2008. Drilling began on 18 KR-4 pump-and-treat wells on 10/4/07. Wells K153, 154 & 163 were drilled to address this action. See Figure 3-1.**
Issue 4. The small chromium plume at KW Reactor site has reached the river, as evidenced by near-shore aquifer tubes. There is currently no active remediation system in place for the small chromium plume at the KE-KW Reactor site. Therefore, construction of a new pump-and-treat system has been initiated in response to this condition.		
Action 4-1. Construct a new pump-and-treat facility to the address the chromium groundwater plume in the KW Reactor area.	**Aug-08**	**Completed-1/2007. KW system is operating at design capacity of 100 gpm using 4 extraction/2 injection wells. See Figure 3-1.**
Issue 5. Groundwater monitoring indicates that the expansion of the 100-K Area pump-and-treat extraction system has not yet achieved the remedial action objective.		
Action 5-1. Expand the 100-K Area pump-and-treat system by 378.5 liters (100 gallons) per minute to enhance remediation of the chromium plume between the 116-K-2 and the N Reactor perimeter fence.	Aug-08	The existing KR-4 pump-and-treat system operates at design capacity of 300 gpm. Construction of the K expansion process building and 2 transfer bldgs was completed in early 2007. Plant design for a 300-gpm expansion was completed 10/07; design for a 600-gpm expansion was completed in 2/08. Construction of the full 600-gpm expansion is underway; the bulk of the construction will be complete 9/08. See Figure 3-1.

Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

Issues and Actions	Action Due Date	Status August 2008
Action 5-2. Add additional wells between the 166-K-2 trench and the N Reactor perimeter fence for groundwater extraction, and connect the additional wells to the pump-and-treat system.	Mar-07	Drilling began on 18 KR-4 pump-and-treat wells on 10/4/07, and completed 3/19/08. Wells K147, 148, and 149, along with existing wells K130 & 131 fulfill this action. The wells will be connected to the expanded KR-4 system discussed in Action 5-1. See Figure 3-1.
Issue 6. The pump-and-treat system is ineffective and inefficient in reducing the flux of strontium-90 to the Columbia River, providing only a fraction (1:10) of the protection provided by natural radioactive decay. The degree of protection provided by hydraulic control from the pump-and-treat is unproven.		
Action 6-1. Implement the treatability test plan for permeable reactive barrier utilizing apatite sequestration as described in the *Strontium-90 Treatability Test Plan for 100-NR-02 Groundwater Operable Unit* (DOE 2005c). Issue Treatability Test Report.	Sep-08	Two pilot injections were conducted June and September 2006. DOE used these results and bench scale testing to modify the injected solution. DOE conducted two injection campaigns in FY07, one in the Ringold formation during low water (02/28 - 03/22), and the second in the Hanford formation during high water (06/06 - 07/10). The test report for 2007 sampling will be submitted in August 2008.

Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

Issues and Actions	Action Due Date	Status August 2008
Issue 7. Additional ecological data is needed to assess the interim actions prescribed within the record of decisions and to develop final cleanup standard. The extent of shoreline water quality impacts related to the diesel spill that occurred circa 1963 are not well known.		
Action 7-1. Perform additional data collection to support risk assessment, provide to Ecology previously collected data, and coordinate with River Corridor sampling efforts to collect additional pore water data from new and existing aquifer tubes along the 100-NR-2 shoreline in order to assess water quality impacts.	Sep-08	Completed as of August 2008. Samples were collected from aquifer tubes in FY07and will continue through FY08. Section 2.4.1 of the Groundwater Annual report discusses significant results. PNNL placed additional tubes to identify the dimensions of SR-90 and TPH contaminants at 100-NR-2 in 2007. The results are detailed in PNNL-16714. Additional tubes were also installed in April of 2008. Previous sample results have been provided to Ecology.

Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

Issues and Actions	Action Due Date	Status August 2008
100-D Area		
Issue 8. Groundwater monitoring data indicates there is an unidentified chromium vadose source in the 100-D Area near the demolished 190-DR clear wells.		
Action 8-1. Complete a field investigation to investigate additional sources of chromium groundwater contamination within the 100-D Area. Additional geologic and geochemical investigations of the vadose zone in the 100-D Area.	Mar-09	Initial field work completed March 2007 with the drilling of 7 wells (DOE/RL-2006-74). These and selected existing wells are currently being monitored to refine the source area. Four additional boreholes have been drilled in 2008 to further refine the source area. See Figure 8-1. An investigation of the northeastern chromium plume, including vadose boreholes and wells, will take place in FY2009. PNNL is completing geochemical investigations to determine how chromium is refined on sediments. An interpretive report will be submitted to RL 9/30/08.
Issue 9. There is less than adequate data to characterize potential chromium groundwater contamination between the 100-D and 100-H Area, in the area known as the "horn."		
Action 9-1. Perform additional characterization of the aquifer for chromium contamination between the 100-D and 100-H Area, in the area known as the "horn," and evaluate the need to perform remedial action to meet the remedial action objectives of the 100-D record of decision for interim action. This issue will also be addressed in the final record of decision.	Sep-09	Drilling of 21 wells began August 2007 and was complete January 2008 (SGW-33844). Nine sets of aquifer tubes have been installed and sampled in October and November 2007. Post sampling and well monitoring continues. See Figure 9-1. A "horn" investigation report will be submitted to RL by 9/30/08.

Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

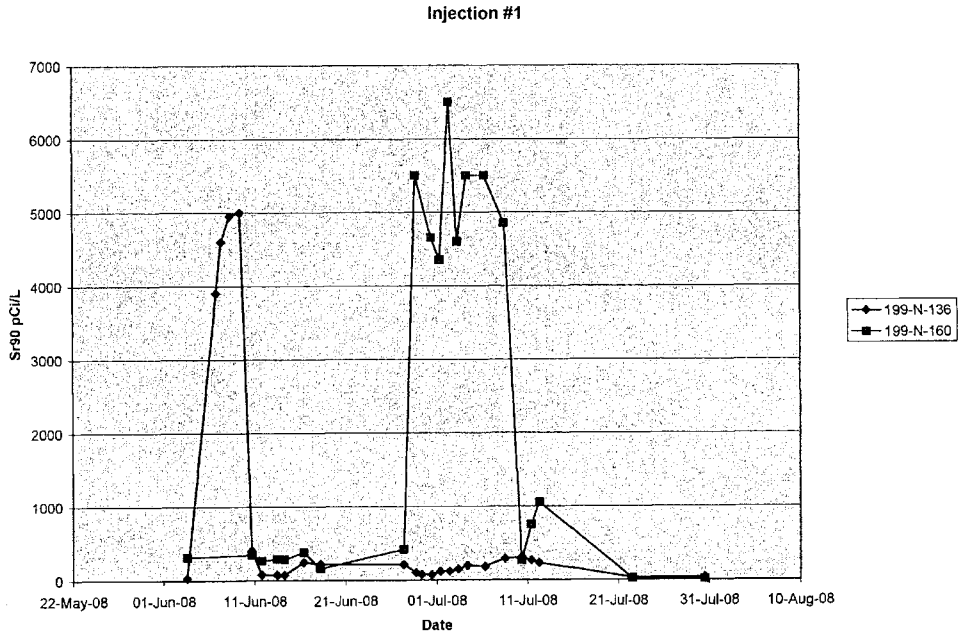
Issues and Actions	Action Due Date	Status August 2008
Action 9-2. Incorporate the "horn" area into the 100-HR-3 interim ROD treatment zone if Action 9-1 indicates "horn" contains a groundwater chromium plume that needs immediate remediation.	Sep-09	This action is dependent on results of Action 9-1 above and will be incorporated into the Systematic Planning Process for HR-3 OU.
Issue 10. Some of the groundwater wells near the 182-D reservoir show conductivity values similar to values expected for raw water indicating some leakage from the reservoir.		
Action 10-1. Issue direction to the operating contractor to change operations to further minimize leakage from the 182-D reservoir.	**Completed**	**An Order was issued to prevent the use of 182-D except in the event of an emergency situation, such as fire control or loss of other safety system water supplies (Reference: JLD-02-02-2007-01 Rev02)**
Issue 11. A few wells within the in situ redox manipulation barrier have shown break through much sooner than expected.		
Action 11-1. Initiate limited iron amendments to the in situ redox manipulation barrier to evaluate whether this enhances the performance.	**Sep-07**	**Completed August 2008. Initial laboratory tests of preferred iron compounds were found to be un-reactive. Laboratory testing to identify suitable iron compounds was completed spring 2008 and field injection occurred in August of 2008.**
Action 11-2 (unintentionally omitted from Five-Year Review Report Executive Summary). Expand groundwater pump-and-treat extraction within the 100-D Area by 378.5 liters (100 gallons) per minute to enhance remediation of the chromium plume.		DOE and Ecology have agreed that this action will be resolved through continuing improvements to the pump-and-treat system. Currently, optimization of the pump-and-treat system and new technologies (electrocoagulation) for the treatment of extracted water are being evaluated.

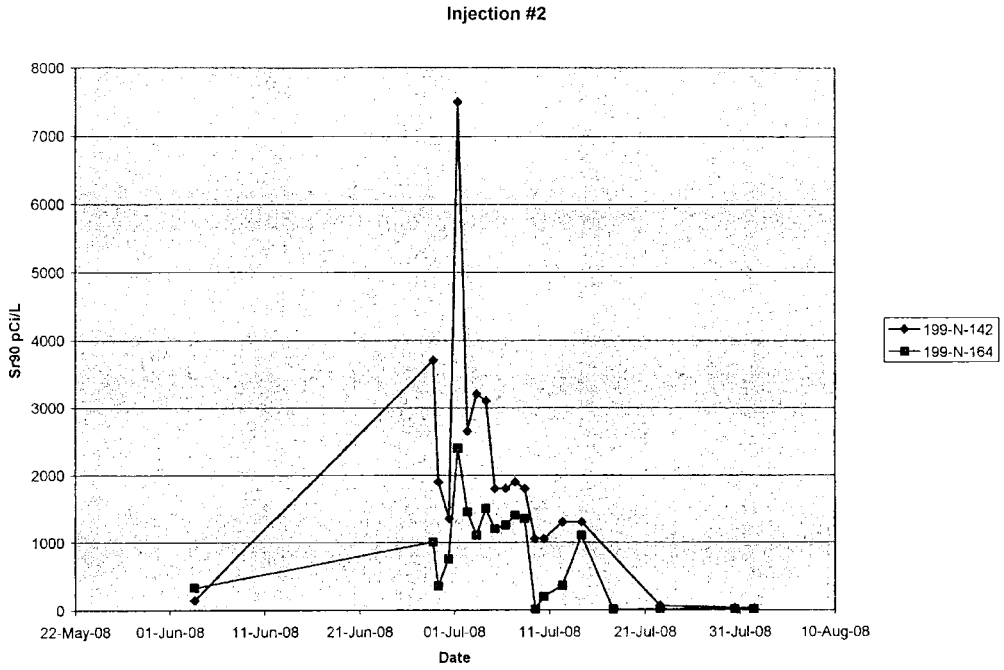
Updates include notes from August 2008 River Corridor Unit Managers Meeting.
Two action items (7-1, and 11-1) have been completed since last update.

Issues and Actions	Action Due Date	Status August 2008
100-H Area		
Issue 12. Groundwater samples from one deep well extending below the aquitard exceed the drinking water standard (100 mg/L) for chromium. The extent of chromium contamination in this zone is not well understood.		
Action 12-1. Perform additional characterization of the aquifer below the initial aquitard.	Sep-09	This information was identified as a data gap in the systematic planning process for HR-3. The RI/FS Work Plan for 100-H will be issued in February of 2009 with this data collection identified as a need.
300 Area		
Issue 19. Predicted attenuation of uranium contaminant concentrations in the groundwater under the 300 Area has not occurred. DOE is currently performing additional characterization and treatability testing in the evaluation of more aggressive remedial alternatives.		
Action 19-1. Complete focused feasibility study for 300-FF-5 Operable Unit to provide better characterization of the uranium contamination, develop a conceptual model, validate ecological consequences and evaluate treatment alternatives. Concurrently test injection of polyphosphate into the aquifer to immobilize the uranium and reduce the concentration of dissolved uranium. These activities support a CERCLA proposed plan.	Sep-08	Alternatives for remediation of the the uranium contamination in the 300 Area will be addressed in a Remediation Strategy Report due to EPA on 9/30/08. Complete information on implementation and costs needed to complete a Feasibility Study is not available this fiscal year.

Wells in/near the apatite barrier had detections of lead in June 2008 with levels as high as 527 µg/L. Each well had only one or two detections, followed by non-detects in July and August. Many, but not all, of the data had lab flags indicating potential QC problems. If the lead detections were real, they were apparently transient. The drinking water standard for lead is 15 µg/L.

- Apatite Barrier Injections
  - All injections were completed July 2008.
  - Sampling has been reduced to monthly, 1650 samples have been taken with 72,000 data points.





- Phyto remediation contract releases have been issued to PNNL, research work to continue.

- Total Petroleum Hydrocarbon Investigation
  - Initial field sampling at the Columbia River interface (150-200 mg/kg observed 2 to 4 feet below surface) characterization will continue.

100/300 Areas Unit Managers Meeting,
September 11, 2008

100-KR-4 Groundwater OU - Julie Robertson

- Monthly monitoring of cultural resources for 100-KR-4 was performed on August 15, 2008. No problems were observed this month.

- 100-KR-4 Remediation Treatment Status
  - For the period of August 1-31, 2008:
    - System operated normally with the exception that transfer building #1 (servicing extraction wells 199-K-119, -120, and 127) went out of service on August 14 due to adjustable frequency drive (AFD) motor problems.
    - Total average flow through the system was approximately 226 gpm.
    - Average influent hexavalent chromium concentration was 32 µg/L.

- KR-4 Expansion
  - During September, the bulk of the KX construction work is scheduled to be completed, and acceptance testing initiated. All four replacement injection wells have been completed. Development sampling indicated the presence of hexavalent chromium at 77 µg/L in well 199-K-171; baseline sampling result is 79 µg/L.
  - EPA approval of the revised KX RDR/RAWP (pending incorporation of comments) has been received by RL. Document is on schedule for issuance by the end of this month.
  - A review of baseline sampling results for KX well co-contaminants identified the presence of elevated tritium. Tritium was measured at 286,000 pCi/L at proposed extraction well K-144 and at 621,000 pCi/L at monitoring well K-157. Resampling of well K-157 in July generated a significantly lower tritium value of 24,000 pCi/L. Both of these wells are being scheduled for resampling in the coming weeks.

- KW Groundwater Remediation
  - KW remediation treatment status for the period of August 1-31, 2008.
    - System operated normally.
    - Total average flow through the system was approximately 102 gpm.
    - Average influent hexavalent chromium concentration was 67 µg/L.
  - Drilling of four new wells in the vicinity of the 105-KW reactor (pursuant to DOE/RL-2008-33) is proceeding. Elevated hexavalent chromium was identified in drilling samples at both of the first two wells (199-K-168 and 199-K-165), and the well screen placement adjusted accordingly. A foreign substance, likely a petroleum hydrocarbon, was identified during drilling of the third well (199-K-167) earlier this week.

100-KR-4: K-Basins Monitoring Task—Duane Horton

- Leak Detection Monitoring Results:
  - The most recent monthly sampling of wells close to the KE Basin was done in August. Well 199-K-29 was not sampled as scheduled because the well is in an area of D&D activities and could not be accessed.
  - The August results are not yet available. With one exception, previous results from July are on trend with recent, historical data.
  - The tritium concentration in well 199-K-141 has decreased from 4,300 pCi/L in April to 810 pCi/L in July.

- There is no indication of groundwater impacts attributable to leakage of shielding water from either Basin.

- Monitoring Well Network:
  The most recent routine quarterly sampling of K-Basins monitoring network wells took place in July. Results are not yet available.
  - The next routine quarterly sampling of K-Basins network wells is scheduled for October 2008 and is coordinated with the monthly sampling event.

- Reporting:
  - The most recent quarterly, RCRA groundwater report was for January through March 2007 (SGW-38473).
  - The fiscal year 2007 annual groundwater report (DOE/RL-2008-01) is available at http://www.hanford.gov/cp/gpp/library/gwrep07.
  - The next quarterly, RCRA groundwater report, for the period April through June 2008 is scheduled for release in early November.

100-HR-3 Groundwater OU - Dave Shrimpton

- HR-3 Treatment System
  - For the period August 1 to 31, 2008:
    - The system operated normally.
    - Total average flow through the system was approximately 178 gpm. Extraction 199-H4-63 went out of service on August 27, 2008 due to pump problems.
    - Average influent hexavalent chromium concentration for H Area was approximately 17 µg/L.
    - Average influent hexavalent chromium concentration for D Area was approximately 106 µg/L.

- Remediation Process Optimization
  - SWG-38494, *Performance Assessment of the 100-DR-5 Ion Exchange System for Removal of Chromium from Groundwater at the 100-D,* has been released.
  - SWG-38338, *Remedial Process Optimization for the 100-D Area Technical Memorandum*, is on schedule to be delivered to RL on September 15. RL and the RPO project team briefed Ecology on July 31 on the results to date and direction of the investigation. A follow-up briefing with RL, WCH, Ecology and EPA was conducted on September 4 to status the technology screening process. Additional discussions between Ecology and RL to discuss the CERCLA/TPA decision process and how it applies to the 100-D remediation optimization.
  - The report on the Groundwater-Columbia River Interactions Technical Workshop is undergoing concurrent internal/RL review.
  - Engineering is finalizing a resin test plan for the purpose of optimizing resins at the existing pump and treat system and providing information on resin selection to the RPO and RI/FS teams. The project is in the process of procuring a resin test skid to help evaluate different resin for future optimization of the pump and treats.

- DR-5 Treatment Status

- For the period August 1 to 31, 2008:
  - System operated normally.
  - Total average flow through the system was approximately 39 gpm. Extraction well 199-D5-92 went out of service on August 20 due to pump failure.
  - The average influent hexavalent chromium concentration was approximately 513 µg/L.

- DR-5 Optimization status: Completed waste stream process optimization to reduce the total chromium concentration going to the ISRM pond. Some of the optimizations effort included:

  - reducing the phosphate from a 400% excess to ~15%,
  - adjusting precipitation pH from 9.0 to ~10.5,
  - reducing setting time and increasing precipitation efficiency,
  - reducing the total chromium from 3-5 ppm to 0.09 ppm,
  - reducing turbidity to low NTU values.
  - reducing the chloride to less then half the previous level
  - reducing the sulfates to less then half the previous level
  - reducing the sodium to less then half the previous level.

  In addition, the project is working towards elimination of the discharge to the ISRM pond by sequentially adjusting rates and quantities of other reagent streams, then potentially recycling the cleaned up liquid waste to the injection well.

- Horn Investigation
  - DOE/RL-2008-02, Decisional Draft, *Hydrogeological Summary Report for the 600 Area Between 100-D and 100-H for the 100-HR-3 Groundwater Operable Unit*, has been formally transmitted to RL for their review. Project continues to monitor water level and conduct quarterly sampling.

- EM-22 Technology Projects
  - Investigation for mending ISRM Barrier: Well 199-D4-26 was injected with 2400 kg of nanometer-size zero valent iron from August 8-13. Initial results indicate the iron was communicated into the aquifer > 5 m away from the injection well.
  - EC Treatability Test: The draft Treatability Test report was resubmitted to RL for their review. Further comments are expected from the EM-22 peer review following the meeting held July 29.
  - 100-D Southern Plume Investigation: A draft report on the southern plume chromium source investigation in 100-D is being completed for transmittal to DOE-RL in September.
  - 100-D Northern Plume Investigation: Drilling of the first of three groundwater monitoring wells began August 29. Vadose zone characterization using the Hydraulic Hammer Rig is expected to begin early in fiscal year 2009.
  - In situ Biostimulation: Molasses results through ten months show a continuation of reduced conditions and low oxygen, nitrate, and chromate concentrations. Monitoring will continue at the test site for another year (PNNL-17619, *Hanford 100-D*

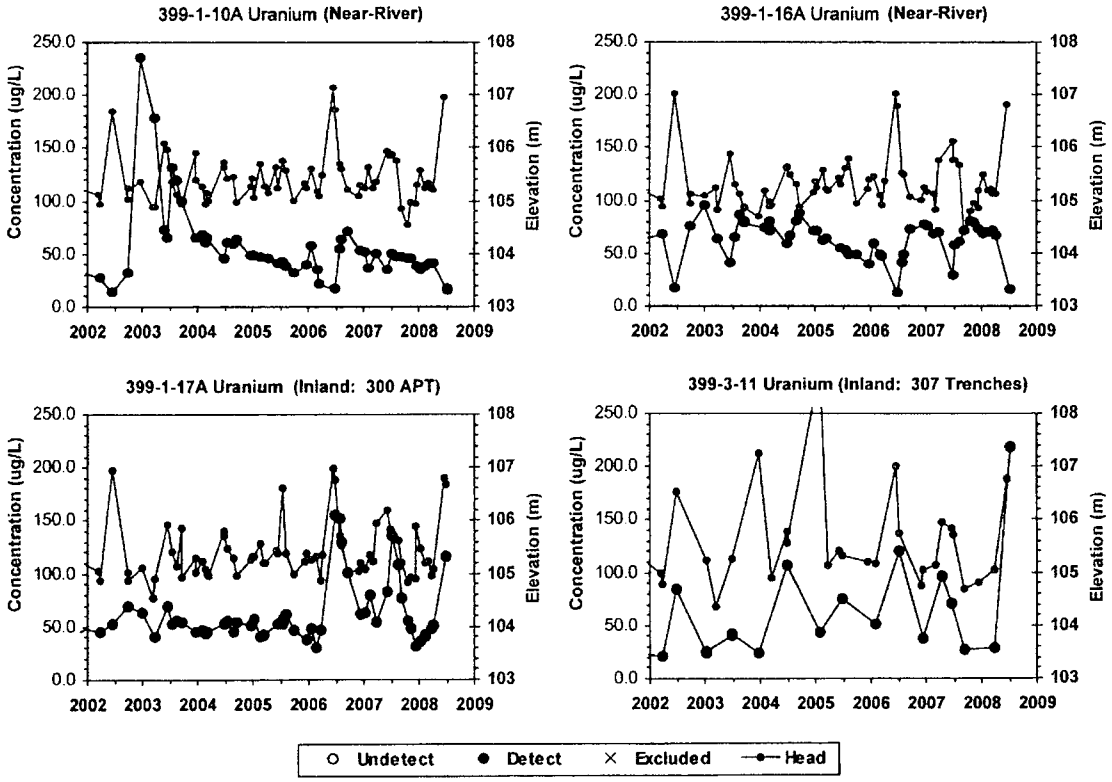
Area Biostimulation Soluble Substrate Field Test: Interim Data Summary for the substrate Injection and Process Monitoring Phases of the Field Test). Emulsified vegetable oil was successfully injected in August. Data for the injection and initial subsurface reactions will be compiled over the next few months.

Other

- The 100 Area semiannual report is on schedule for completion by September 30, 2008.

300-FF-5 Groundwater OU—Bob Peterson (Jane Borghese)

- Operations and Maintenance Plan Activities
  - *300 Area Subregion:* Some uranium results for the June sampling event are now becoming available. Concentration patterns are as expected, with higher values inland near former waste sites and lower values near the river because of dilution. Some values are higher this year than in previous years.
  - *618-7 Burial Ground:* There are no new analytical results for monitoring conducted downgradient from the burial ground remedial action site, with the most recent samples having been collected on July 13.
  - *618-1 Burial Ground:* More frequent sampling of two wells near the 618-1 burial ground has been scheduled to begin this month.



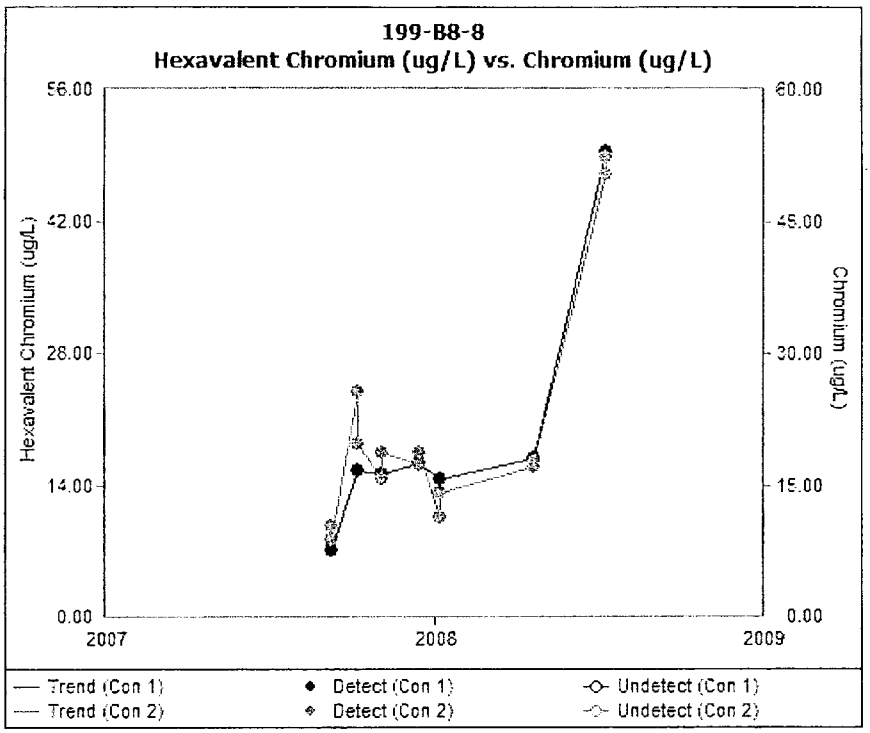
  - *618-11 Burial Ground Subregion:* Most recent analytical results are for samples collected last March. Most recent sampling occurred in late August.

- *618-10 Burial Ground Subregion:* Most recent analytical results are for samples collected in late spring/early summer. Most recent sampling occurred in late August.
- *Update to Sampling and Analysis Plan (DOE/RL-2002-11, Rev. 2):* Final copy of Revision 2 is being prepared for signature. Sampling schedules proposed in Rev. 2 have been entered into the master groundwater schedule for FY 2009.

- Remediation Strategy Development
  - The report "Remediation Strategy for Uranium in Groundwater at the Hanford Site 300 Area, 300-FF-5 Operable Unit," (DOE/RL-2008-36, Rev. 0) has been revised and is currently undergoing final clearance prior to distribution.
- Systematic Planning for the 300 NPL Site: Draft graphics that describe components of the 300 NPL Conceptual Site Model have been prepared. These graphics will be used during the upcoming workshop (September 16) and will ultimately be included in the RI/FS Work Plan.
- Other Activities
  - *Report on Uranium in 300 Area Drilling Samples*: A report entitled "Uranium Contamination in the 300 Area: Emergent Data and their Impact on the Source Term Conceptual Model" has been drafted and is currently undergoing internal peer review at PNNL. This report describes the laboratory analytical results for uranium on samples collected during the recent VOC Investigation (PNNL-17666).
  - *Report on Groundwater Modeling for the 300 Area*: The draft report "Three-Dimensional Groundwater Models of the 300 Area at the Hanford Site, Washington State" (PNNL-17708), has been provide to Fluor as an advance copy for review, prior to full distribution.
  - *Integrated Field-Scale Challenge Project, 300 Area*: No new information to report this month.

100-BC-5 Groundwater OU—Mary Hartman (Jane Borghese)

Total chromium results confirmed the increase in hexavalent chromium in well 199-B8-8 in July. The concentration increased to about 50 ug/L, which is half the drinking water standard but a sharp increase from previous levels (<20 ug/L). This well is located in south 100-B/C Area at the 100-C-7 site. Hexavalent chromium in nearby well 199-B8-7 remained low in July (8 µg/L). Both wells are scheduled for sampling in October. The frequency of sampling 199-B8-8 could be increased to monthly to monitor the trend more closely.



100-FR-3 Groundwater OU—Mary Hartman (Jane Borghese)

No new data. Wells are scheduled for FY 2009 sampling in October.

Revised groundwater SAP is with RL for review. It incorporates new aquifer tubes and proposed new well near burial ground.

Aquifer Tube Installations – Jane Borghese

Aquifer tubes (a total of 107 tubes) have been installed at forty-four sites. The remaining are those located at the 200-PO-1 shoreline (downriver of Hanford Town site).

Attachment 10

(10)

2008 Annual Sitewide Institutional Controls (IC) Review

River Corridor Contractor (RCC)

2008 RCC Annual IC Review

- **Basis**
  - ***Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions* (DOE/RL-2001-41, Rev. 2)**
    - Requires annual IC effectiveness review
    - Results to be reported in September UMM

2008 RCC Annual IC Review

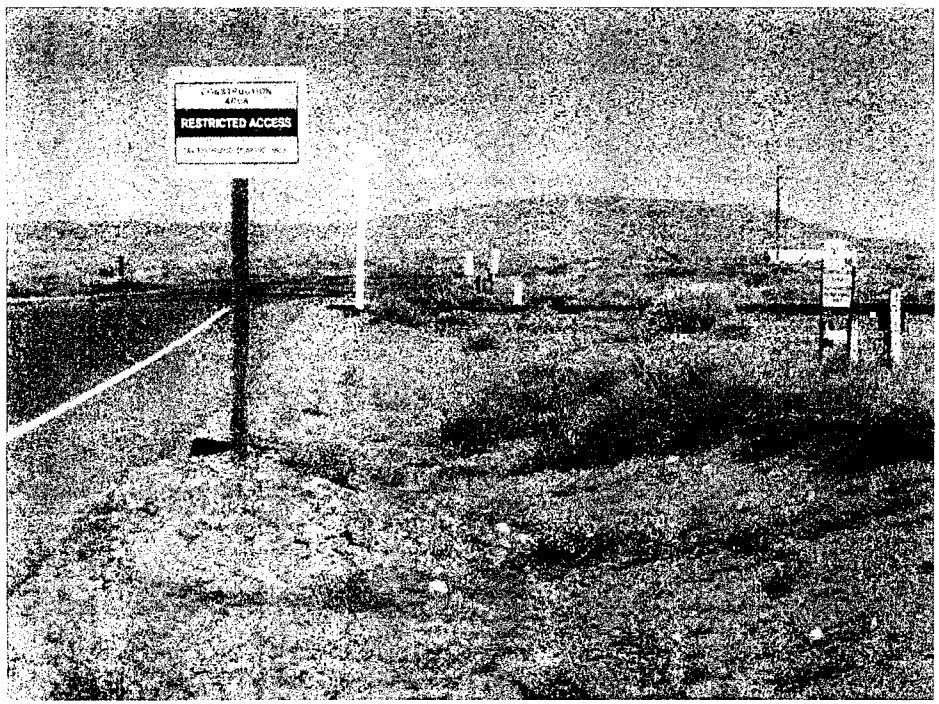
Scope of 2008 Review

- Trespass events during CY 2007
- Access control/entry restrictions
- Excavation control
- Field inspection of ICs
  - 100 Area waste sites within 100-IU-2 & 100-IU-6 OUs
  - 300 Area
    - 618-7 Burial Ground (Active remediation)
    - 618-10 Burial Ground
    - 618-11 Burial Ground
  - ERDF

2008 RCC Annual IC Review

- Results
  - No public trespass events on WCH managed projects during CY 2007
  - Approved Excavation Permits in place for remediation activities undertaken in 100-IU-2, 100-IU-6, and 300 Area waste sites
  - Badging system in place and active
  - No active 100-IU-2 or 100-IU-6 remediation activities underway during inspection
    - Signage consistent with 100 Area RDR/RAWP will need to be put in place prior to beginning remediation activities
  - Fencing and ample warning signage in place at 618-7
    - Signage text did not match that identified in 300 Area RDR/RAWP
      - Sign reflecting RDR/RAWP language will be in place by the end of September
  - Fencing and ample warning signage in place at 618-10 and 618-11
    - Phone number on signage obscured, did not match that identified in 300 Area RDR/RAWP
      - Signs will be revised to match RDR/RAWP provisions by the end of September
  - ERDF facility boundary fenced; signage present at entrance

2008 RCC Annual IC Review

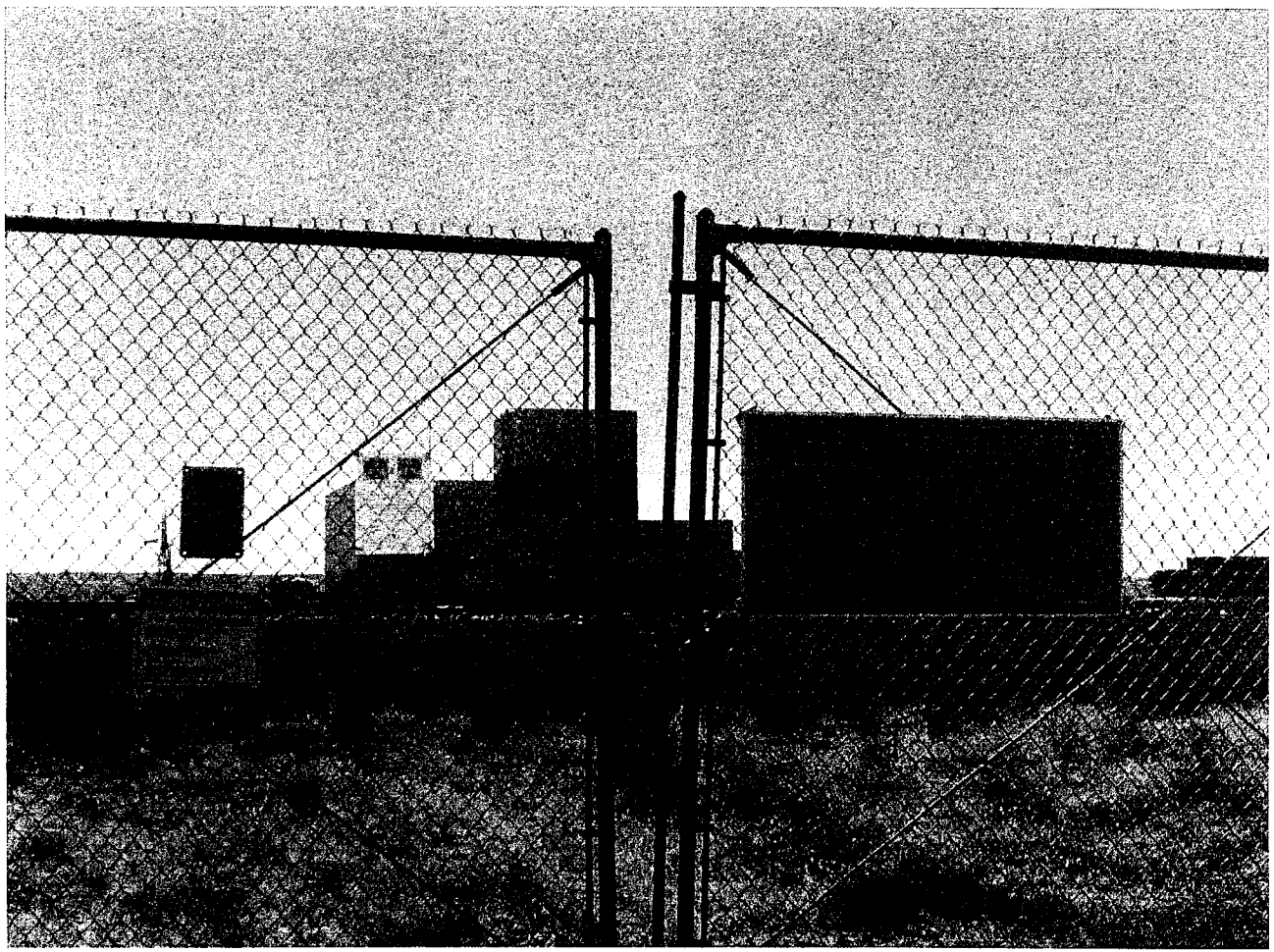


Roadway and Entrance Signage at 618-7

2008 RCC Annual IC Review

Signage and Fencing at 618-10

2008 RCC Annual IC Review

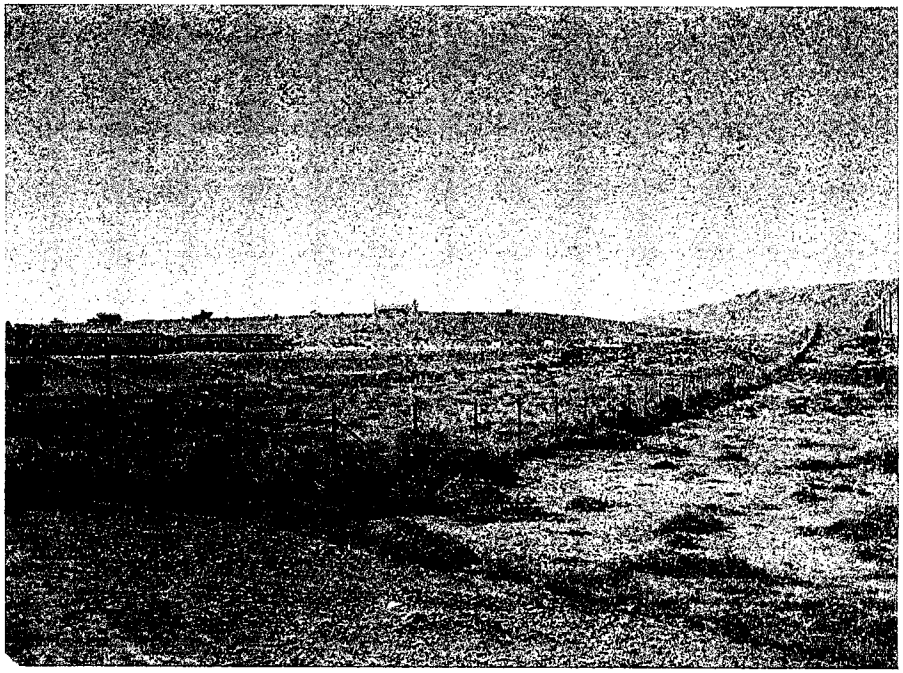


Signage and Fencing at 618-11

2008 RCC Annual IC Review

Roadway Signage at 600-111; 100-IU-6 OU

2008 RCC Annual IC Review



ERDF Entrance Signage and Fencing

Document/CCN Number: 141768

Customer To Complete:

- ❑ **This has action -** Written response required: Yes_____ No _____
  Actionee_____ Due Date _____
- ❑ **Distribution Completed:** Yes_____ No _____ Initials _____
- ❑ **This closes CCN** _____
- ❑ **Please call me for pick up/hand delivery** _____
- ❑ **Please expedite –** Please hand deliver to WCH Document Control, do not put in basket

---

Any Special Directions (i.e., added distribution, reproduction instructions, colored items, extra attachments, sensitive documents, etc.) **Please include name and telephone number of the person to contact if WCH Document Control has questions.**

Jack Donnelly 372-2043

Distribute to the highlighted names & enclosure copy get sent to Sylvia Cook @ the admin. record.

Attachment A of document (3 pages)

Additional distribution (please include MSINs):

Name:	MSIN:	NAME:	MSIN:

RECEIVED
OCT 2 2008
WCH DOCUMENT

TO BE COMPLETED BY R&DC:

RECORD TYPE MM

DATA ENTRY BY DD

REPRO BY _____

SCANNED/# PGS _____

DOCSOPEN # _____