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Please distribute to the following:

100/300 AREA UNIT MANAGER MEETING
ATTENDANCE AND DISTRIBUTION

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168267

100/300 AREA UNIT MANAGERS MEETING
APPROVAL OF MEETING MINUTES

September 13, 2012

APPROVAL: _____ Date 10-11-12
Mark French, DOE/RL (A3-04)
River Corridor Project Manager

APPROVAL: _____ Date 10/11/12
Briant Charboneau, DOE/RL (A6-33)
Groundwater Project Manager

APPROVAL: _____ Date 10/11/12
Nina Menard, Ecology (H0-57)
Environmental Restoration Project
Manager

APPROVAL: _____ Date 10/11/12
Laura Buelow, Rod Lobos, or Christopher
Guzzetti, EPA (B1-46)
100 Area Project Manager

APPROVAL: _____ Date Oct 11, 2012
Larry Gadbois, EPA
(B1-46)
300 Area Project Manager

100 & 300 AREA UNIT MANAGER MEETING MINUTES

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

September 13, 2012

ADMINISTRATIVE

- Next Unit Manager Meeting (UMM) – The next meeting will be held October 11, 2012, 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.
- Approval of Minutes – The August 9, 2012, 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 – The status of action items was reviewed and updates were provided (see Attachment B).
- Agenda – Attachment C is the meeting agenda.

EXECUTIVE SESSION (Tri-Parties Only)

An Executive Session was not held by RL, EPA, and Ecology prior to the September 13, 2012, UMM.

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

Attachment 1 provides status and information for groundwater. Attachment 2 provides status and information for Field Remediation activities. Attachment 3 provides the Field Remediation Schedule for IU-2/6. No issues were identified and no action items were documented.

> Agreement 1: Attachment 4 provides EPA's agreement that additional backfill and revegetation of 600-386 (battery site) is not required.

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

Attachment 1 provides status and information for groundwater. Attachment 2 provides status and information for Field Remediation activities. Attachment 5 provides the Field Remediation Schedule for 100-D. Attachment 6 provides the Field Remediation Schedule for 100-H. No issues were identified and no agreements or action items were documented.

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

Attachment 1 provides status and information for groundwater. Attachment 2 provides status and information for Field Remediation activities. Attachment 7 provides status and information for D4/ISS activities at 100-N. Attachment 8 provides the 100-N Area FR Schedule. No issues were identified and no action items were documented.

Agreement 1: Attachment 9 provides DOE's and Ecology's approvals of the "100-N Shallow Petroleum-Only releases (SPOR) Waste Site Agreement."

Agreement 2: Attachment 10 provides Ecology's approval of the proposed changes for relocating two of the statistical samples (EXC-3 and EXC-4) at UPR-100-N-6.

Agreement 3: Attachment 11 provides Ecology's approval to backfill a portion of the 100-N-63:2 waste site to make a land bridge to support installation of the bioventing equipment for waste site UPR-100-N-17.

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

Attachment 1 provides status and information for groundwater. Attachment 2 provides status and information for Field Remediation activities. Attachment 12 provides a status of the 100-K Sludge Treatment Project and the 100-K Facility Demolition and Soil Remediation projects. Attachment 13 provides a schedule for Field Remediation at the 100-K Area. No issues were identified and no agreements or action items were documented.

Note: EPA indicated that DOE needs to fund the sludge treatment work and that there would be no milestone relief. EPA expected on schedule completion of M-16-00C.

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

Attachment 1 provides status and information for groundwater. Attachment 2 provides status and information for Field Remediation activities. Attachment 14 provides a schedule for Field Remediation at 100-B/C Area. No issues were identified and no agreements or action items were documented.

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

Attachment 1 provides status and information for groundwater. Attachment 2 provides status and information for Field Remediation activities. No issues were identified and no agreements or action items were documented.

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

Attachment 1 provides status and information for groundwater. Attachment 15 provided a paper on the "Groundwater Monitoring Response to Water Line Break at the 308 Building, August 2012." Attachment 16 provides status of the 300 Area Closure Project activities. No issues were identified and no action items were documented.

Agreement 1: EPA agreed to extend the monthly monitoring of well 399-4-15 through December 2012.

MISSION COMPLETION PROJECT

Attachment 17 provides status and information regarding the Long-Term Stewardship, the Remedial Investigation of Hanford Releases to the Columbia River, and a Document Review Look-Ahead. No issues were identified and no agreements or action items were documented.

5-YEAR RECORD OF DECISION ACTION ITEM UPDATE

No changes were reported to the status of the CERCLA Five-Year Review action Items. No issues were identified and no agreements or action items were documented.

ANNUAL INSTITUTIONAL CONTROLS EVALUATION

Attachment 18 provides the "2012 Annual Sitewide Institutional Controls (IC) Review" for the River Corridor Contractor (RCC) source waste sites. No issues were identified and no agreements or action items were documented.

Attachment A

100/300 AREA UNIT MANAGER MEETING
ATTENDANCE AND DISTRIBUTION
September 13, 2012

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Attachment B

100/300 Area UMM
Action List
September 13, 2012

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status
X	100-181	RL	J. Hanson	100-HR	DOE will provide Ecology with a briefing on the applicability and status of bioremediation of chromium and the associated feasibility studies.	Open: 4/14/11; Action: Closed 9/13/12
O	100-193	RL	M. Thompson	100-N	At the next UMM, DOE will discuss the potential sources of total organic carbon detected at well 199-N-165 down-gradient from the 1324-N/NA treatment, storage, and/or disposal units.	Open: 1/12/12; Action:
X	100-194	RL	M. Thompson	100-K	DOE will provide EPA and Ecology with the references to support the assumptions regarding the number of years required for habitat reestablishment.	Open: 4/12/12; Action: Closed 9/13/12
O	100-195	RL	R. Guercia	300	DOE will determine if placing inert demolition debris in excavations as backfill triggers any landfill closure requirements.	Open: 7/12/12; Action:
O	100-196	RL	J. Neath	100-D	DOE will determine if the ISRM Pond had been incorporated into the WIDS database, and if not, to finalize a discovery site checklist and get the site into WIDS via the MP-14 process.	Open: 7/12/12; Action:

Attachment C

100/300 Area Unit Manager Meeting
September 13, 2012
Washington Closure Hanford Building
2620 Fermi Avenue, Richland, WA 99354
Room C209; 2:00p.m.

Administrative:

- Approval and signing of previous meeting minutes (August 9, 2012)
- Update to Action Items List
- Next UMM (10/11/2012, Room C209)

Open Session: Project Area Updates - Groundwater, Field Remediation, D4/ISS:

- 100-F & 100-IU-2/6 Areas (Greg Sinton/Tom Post/Jamie Zeisloft)
- 100-D & 100-H Areas (Jim Hanson/Tom Post/Elwood Glossbrenner)
- 100-N Area (Joanne Chance, Rudy Guercia, Mike Thompson)
- 100-K Area (Jim Hanson, Jamie Zeisloft, Tom Teynor)
- 100-B/C Area (Greg Sinton, Tom Post)
- 300 Area - 618-10/11 exclusively (Jamie Zeisloft)
- 300 Area (Mike Thompson/Rudy Guercia)
- Mission Completion Project (John Sands)

Special Topics/Other

- 5-Year Record of Decision Action Item Update (Jim Hanson)
- Annual Institutional Controls Evaluation (Jamie Zeisloft)

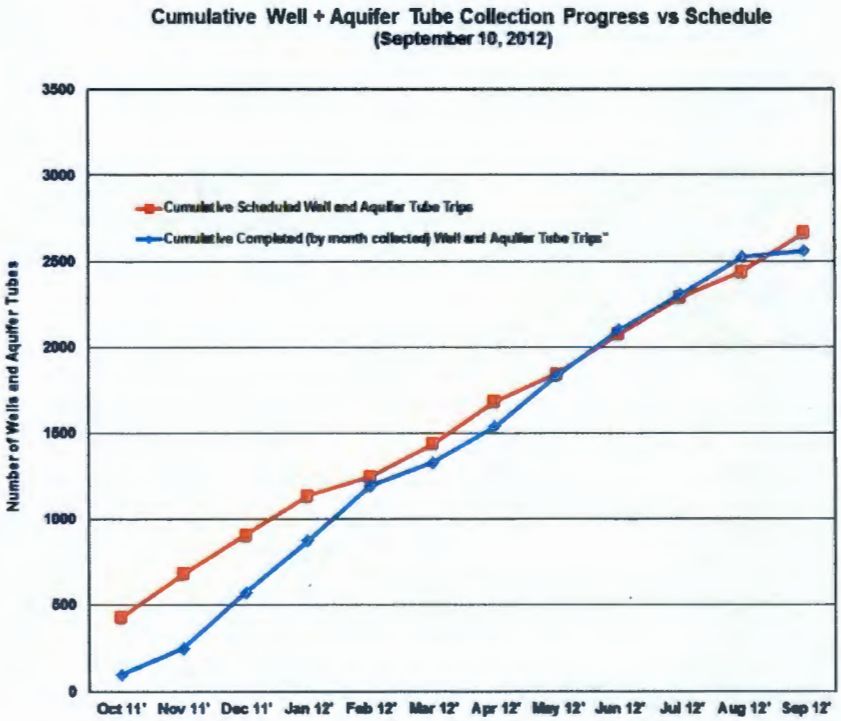
Adjourn

Attachment 1

100/300 Areas Unit Managers Meeting
September 13, 2012

General information on Groundwater Sampling

The wells sampled successfully are reported in a table on the last page of this handout. FY 2012 sampling progress is described in the figure at the right. To account for the optimization that occurs during the sample scheduling, sample events (or well trips) are now being reported, rather than each specific sample that is scheduled. This is to accommodate the current database architecture of HEIS and the scheduling tools.



Hanford Site Groundwater Monitoring for 2011 (DOE/RL-2011-118, Rev. 0) was released in August. A small number of paper copies were distributed and the full report is available online via the Soil and Groundwater Remediation Project's web page: http://www.hanford.gov/page.cfm/SoilandGroundwater.

Hexavalent Chromium Groundwater Plumes in 100 Area – David Dooley / Lorna Dittmer

(M-016-110-T01, DOE shall take actions necessary to contain or remediate hexavalent chromium groundwater plumes in each of the 100 Area NPL operable units such that ambient water quality standards for hexavalent chromium are achieved in the hyporheic zone and river water column.)
Schedule Status – On schedule.

- White paper has been circulated to EPA and Ecology.

Cross Cutting RI/FS & PP Issue

- Current agreement between DOE and EPA senior management is to incorporate irrigation-based PRGs in to the River Corridor Proposed Plans.

100-FR-3 Groundwater Operable Unit – Bert Day / Mary Hartman

(M-015-64-T01, 12/17/2011, Submit CERCLA RI/FS Report and Proposed Plan for the 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2, and 100-IU-6 Operable Units for groundwater and soil.)
Schedule Status – Missed. The planned delivery date for the 100-F/IU Draft A RI/FS Report to the regulators is December 28, 2012.

- CERCLA Process Implementation: RI/FS report development continues.
  - The team held a workshop with EPA on August 29, 2012. The workshop focused on the recommended preferred alternative for groundwater and soils remediation.
  - The project team finalized the chapters and appendices of the RI/FS report, completed the Connectivity Review, and the document is now going through internal senior PRC review. The document is scheduled to be delivered for RL review on September 27, 2012.

  - PP preparation continues. The format and structure of the Proposed Plan will be similar to the 100-K Proposed Plan. The team initiated preparation of the proposed plan and it is approximately 30% complete.
  - The team is incorporating the applicable 100-K resolutions into the document for consistency
- Groundwater monitoring: Nothing to report. No additional groundwater monitoring scheduled for the remainder of FY 2012.

100-HR-3 Groundwater Operable Unit – Bert Day / John Smoot

(M-15-70-T01, 11/24/2011, Submit feasibility study report and proposed plan for the 100-HR-1, 100-HR-2, 100-HR-3, 100-DR-1 and 100-DR-2 operable units for groundwater and soil.)
Schedule Status – Missed. The planned delivery date for the 100-D/H Draft A RI/FS Report to the regulators is December 14, 2012.

- Conducted RI/FS briefing on risk assessment with Ecology on August 30, 2012.

- WCH is planning power outages on two Friday's in October to reroute power lines at 100-D to allow access to the 100-D-100 waste site remediation. These outages will impact both the DX and HX systems. The intent is to complete the work each Friday, but there is some possibility that the work could carry over into the Saturday in each case.

- CERCLA Process Implementation: RI/FS decisional draft is with RL for review. PP is being drafted with applicable 100-K resolutions.

- 100-D and 100-H Well Decommissioning and Replacement: PRC and WCH are developing a plan for replacement of wells impacted by source area remediation in 100-D and 100-H in FY 2012. A draft plan with prospective well locations was discussed with Ecology on August 23, 2012. Adjustments to the draft well placements are being conducted based on these discussions. A meeting was held September 6, 2012 to review a plan for new well locations, the plan will be sent to Ecology for approval.

- Remedial Actions:
  - Operations continue at DX and HX pump-and treat system. August 1 through 31, 2012 performance:
    - The systems treated 59.1 million gallons
    - The system removed 30.8 kg of hexavalent chromium

100-NR-2 Groundwater Operable Unit – Marty Doornbos / Deb Alexander

(M-015-62-T01, 9/17/2012, Submit a Feasibility Study [FS] Report and Proposed Plan [PP] for the 100-NR-1 and 100-NR-2 Operable Units including groundwater and soil. The FS Report and PP will evaluate the permeable reactive barrier technology and other alternatives (petroleum remediation) and will identify a preferred alternative in accordance with CERCLA requirements.
Schedule Status –Behind schedule. The planned delivery date for the 100-NR-2 OU Draft A RI/FS Report to the regulators is currently scheduled for December 28, 2012 to accommodate comments from the 100-K documents.

- CERCLA Process Implementation
  - Work continues on preparation of the decisional draft RI/FS report. Several changes are being incorporated to be consistent with the agreements made in the 100K RI/FS.

- A meeting was held with Ecology on August 23, 2012 to discuss the conceptual site model. A follow-on meeting has been scheduled for September 10, 2012 to continue the CSM discussion.

- Yearly Sample Events for 2012
  - Annual sampling of CERCLA and AEA wells started two weeks early in August, for the scheduled September sampling events at 100-N. Sampling will likely be complete by the end of September for all scheduled wells.

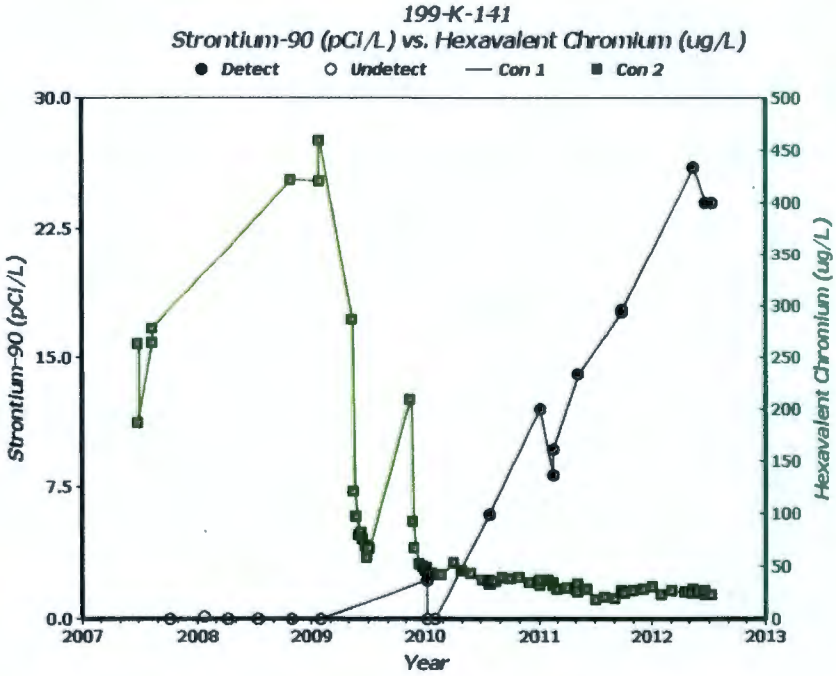
- Apatite PRB Performance Monitoring
  - The low river stage (fall) sampling event will occur in October/November as schedule allows. Samples will be collected from all three sections of the installed barrier (upriver and downriver extensions and the original barrier), and will include 12 monitoring wells and 10 aquifer tubes.

100-KR-4 Groundwater Operable Unit – Bert Day / Chuck Miller

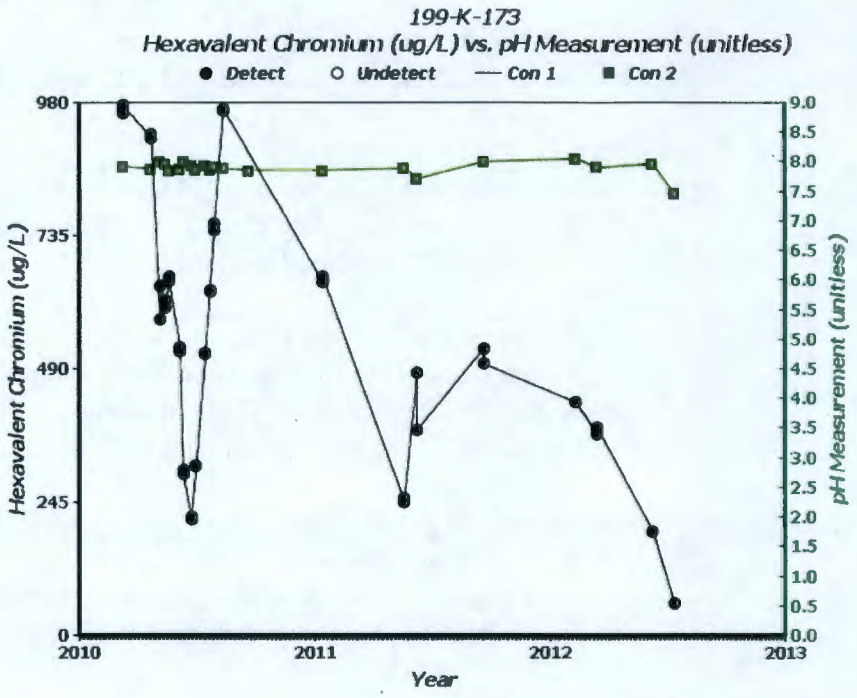
- CERCLA Process Implementation:
  - Proposed Plan: Production of the proposed plan and final revision of the RI/FS report is pending the direction on implementation of revised groundwater protection approach.

- Remedial Actions:
  - Operations continue at KX, KR4, and KW pump-and-treat systems. All three systems are operating with SIR-700 resin in each train. August 1 through 31, 2012 performance:
    - The systems treated 44.8 million gallons.
    - The system removed 4.0 kg of hexavalent chromium

- Monitoring and Reporting:
  - Strontium-90 concentration in extraction well 199-K-141, located downgradient of 105-KE Reactor, remained steady at 24 pCi/L in a sample collected 11 July 2012. No special emphasis is placed on the recent change. The trend plot for strontium-90 in well 199-K-141 is shown below. This well, located on the west side of the inferred Sr-90 plume that originated at the 116-KE-3 Fuel Storage Basin Overflow Crib, is expected to continue to capture a portion of that plume and may exhibit higher concentrations in the future. Hexavalent chromium in this well was steady at 22 ug/L.



- Hexavalent chromium concentration in monitoring well 199-K-173, located between the 100-KW system injection and extraction wells and downgradient of the historical release point at the 183-KW Head House area, exhibited a continued decrease to 59 ug/L in a sample collected on 12 July 2012. This is a decrease from 192 ug/L in a 8 June 2012 sample. The groundwater pH was also observed to decrease in the 12 July 2012 sample, to 7.45 from previous 7.95. This coincidental decrease in hexavalent chromium and pH at this location may indicate that the circulation of injected effluent water is reaching this well location. This would be indication that the system is functioning as expected.



- The revised SIR-700 resin test report (SGW-51721, Rev. 1) was issued on August 30, 2012. This revision contains expanded discussion on the applicability of the test results from 100-KW to the 100-KR4 and 100-KX pump-and-treat systems. The report also includes recommendations for supplemental groundwater monitoring as well as focused supplemental aquifer characterization based on analysis of archived samples.

- Modifications & Expansions
  - All three systems (KR, KX, and KW) are running on SIR-700 resin.

- Issues and Conditions Observed
  - None to report.

100-BC-5 Groundwater Operable Unit – Bert Day/ Mary Hartman

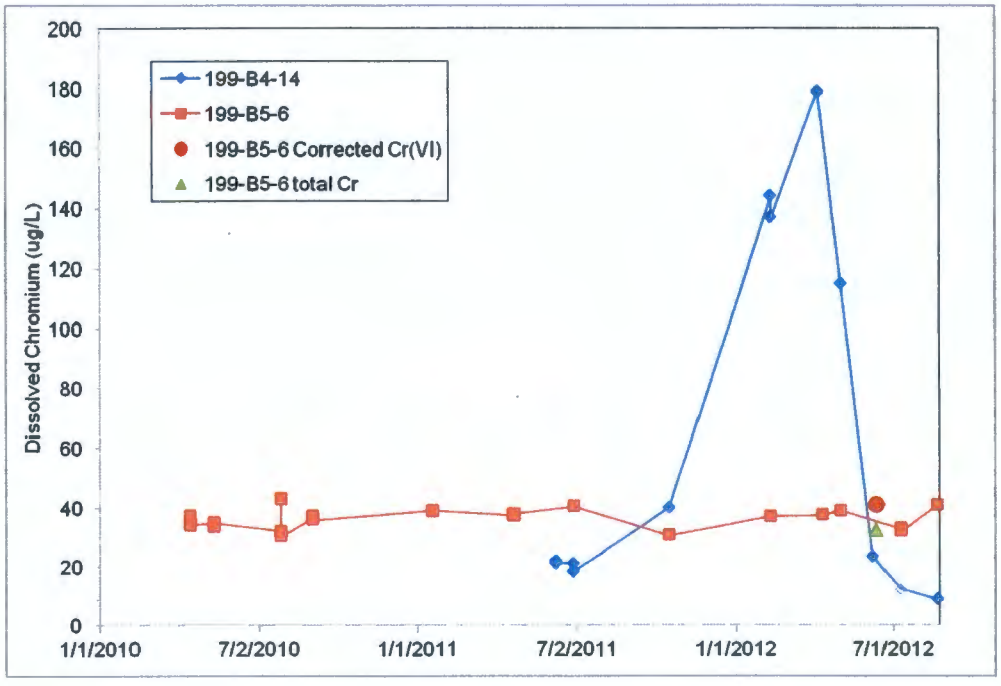
(M-015-68-T01, 11/30/2011, Submit CERCLA RI/FS Report and Proposed Plan for the 100-BC-1, 100-BC-2 and 100-BC-5 Operable Units for groundwater and soil.)
Schedule Status – Missed. The planned delivery date for the 100-BC Draft A RI/FS Report to the regulators is December 12, 2012 (under discussions).

- CERCLA Process Implementation:
  - The RI/FS team delivered the Draft RI/FS for RL review on August 24, 2012 and the document is under review. Final delivery of the document is under discussion.
  - The team conducted a workshop with EPA on September 5, 2012. The workshop focused on the recommended preferred alternative for soils remediation and the suggested path forward for the selection of the groundwater preferred remedy. It was suggested that

because of recent monitoring results, potentially associated with vadose zone source removal activities, that the decision for groundwater be deferred until the source removal activities are complete, the groundwater system has had time reach an equilibrium, and the effects of source removal can be evaluated and incorporated into the decision.

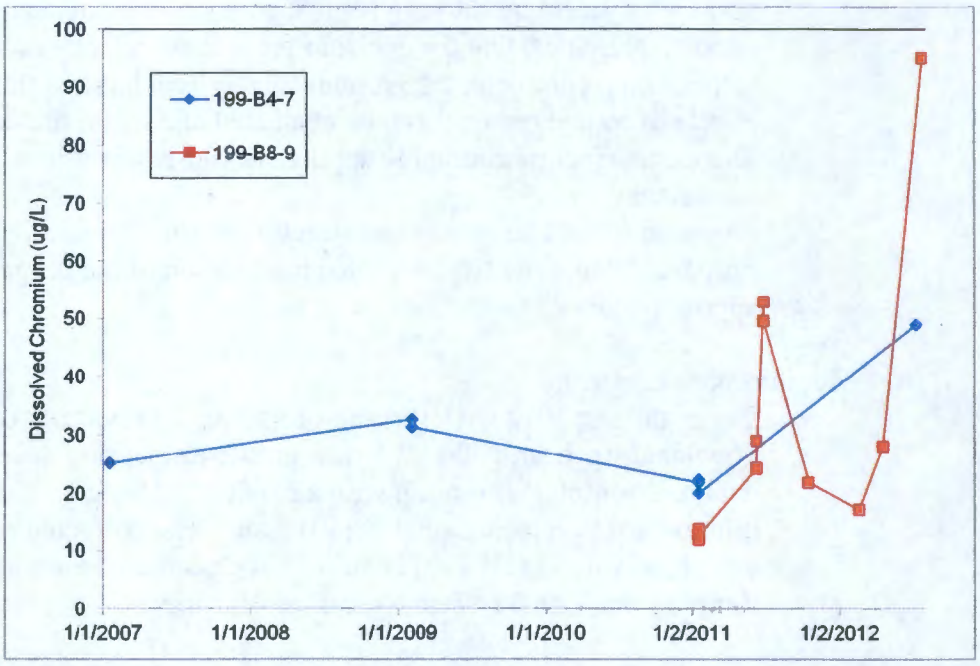
- The team is incorporating the applicable 100-K resolutions into the document for consistency.
- Proposed Plan: The format and structure of the Proposed Plan will be similar to the 100-K Proposed Plan. The team initiated preparation of the proposed plan and the plan is approximately 25% complete.

- Monitoring & Reporting
  - The high June 2012 Cr(VI) result of 410 µg/L previously reported for deep well 199-B5-6, downgradient from 100-C-7:1, was erroneous. During a data review, residual sample was analyzed for total chromium with a result of 32.5 µg/L. The lab subsequently found a 10X dilution error on the original Cr(VI) result. The corrected result (41 µg/L) will replace the erroneous value in HEIS. The new total chromium result has been loaded. An August sample from 199-B5-6 had a result of 41.1 µg/L.

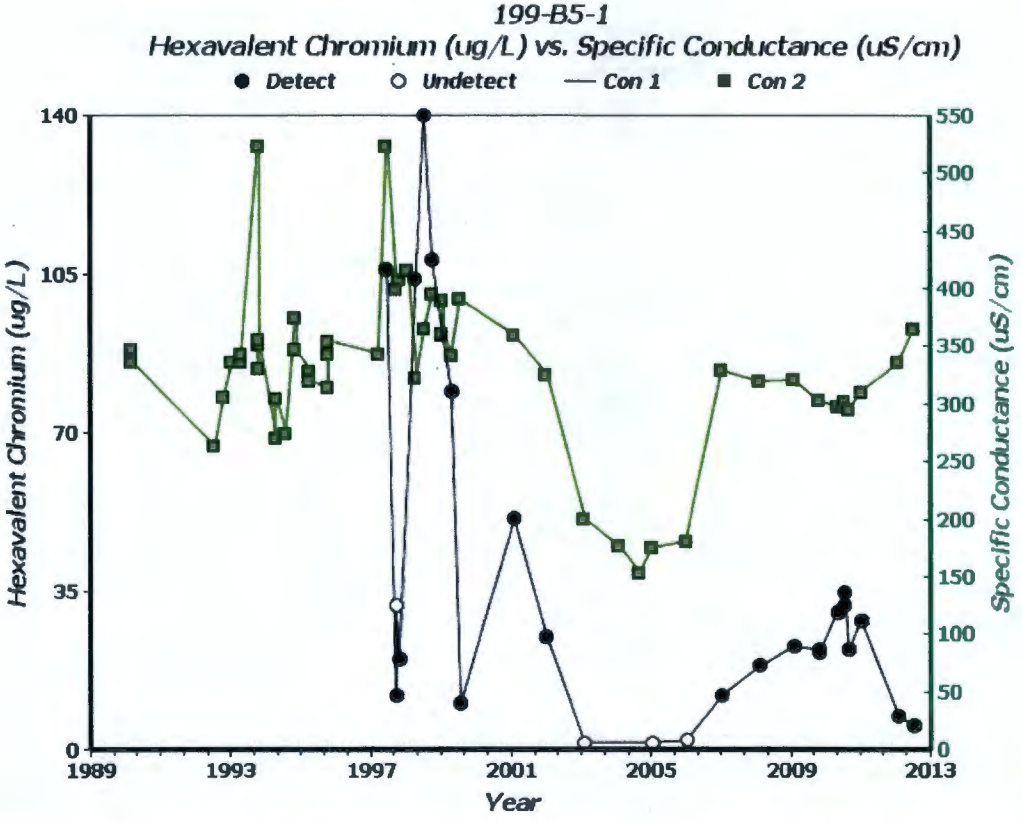


  - Six wells were sampled in July as required under TPA-CN-522. Results indicate contaminants in southern 100-BC are migrating toward the east and northeast, and clean groundwater is moving into the area from the west and southwest. This interpretation is consistent with water-table elevations in southern 100-BC. Specific monitoring results are discussed in the following bullets.
  - The Cr(VI) increase in shallow well 199-B4-14, downgradient from 100-C-7:1, has passed or shifted away from the well. The July and August results were 12 and 8.6 µg/L, respectively..

- Cr(VI) and tritium trends in two wells in eastern 100-BC suggest movement of contamination toward the east and northeast. The Cr(VI) concentration in 199-B8-9 (east of 100-C-7 near C Reactor) increased to 95 µg/L in July. Well 199-B8-9 is sampled quarterly. Farther north, the concentration also increased in 199-B4-7 (sampled semiannually).



- The Cr(VI) concentration in well 199-B5-1, located in western 100-BC approximately 500 meters north of 199-B4-14, continued to decline in July. A previous decline was associated with low specific conductance, which indicated dilution of groundwater from a leaking water line that was subsequently repaired. The 2012 Cr(VI) decrease was accompanied by a slight increase in specific conductance so dilution is not occurring. The recent change suggests movement of uncontaminated groundwater into 100-BC from the west and southwest.



- The sixth 100-BC well sampled in July was 199-B2-16, located near the water intake structure. The Cr(VI) result was 29 µg/L, a slight increase from previous 2012 results.

300-FF-5 Groundwater Operable Unit – Marty Doornbos/Virginia Rohay

M-015-72-T01 (due December 31, 2011) "Submit CERCLA RI/FS Report and Proposed Plan for the 300-FF-2 and 300-FF-5 Operable Units for groundwater and soil."

- M-015-72-T01 milestone was completed on December 27, 2011.
- RI/FS report (DOE/RL-2011-99) Draft A delivered to EPA and Ecology on December 27, 2011.
  - EPA comments on the RI/FS and PP were received on February 13, 2012. Progress continues on incorporation of the comments into the Draft Rev. 0 RI/FS.
- Proposed Plan (DOE/RL-2011-47) Draft A delivered to EPA and Ecology on December 27, 2011.
  - The Draft Rev. 0 PP was provided to EPA on July 13, 2012. EPA's technical comments were received on July 24; and EPA's legal and Ecology's comments were received on July 30. Meetings have been held on July 31, August 1, August 21, and August 23 to resolve comments. Outstanding issues include implementation of irrigation PRGs and ecological PRGs.

- The 300-FF-5 Groundwater OU includes the groundwater impacted by releases from waste sites associated with three geographic subregions: 300 Area Industrial Complex, 618-11 Burial Ground, and 618-10 Burial Ground/316-4 Cribs. Principal controlling documents are:
  - 300-FF-5 OU operations and maintenance plan (DOE-RL-95-73, Rev. 1, 2002)
  - 300-FF-5 OU sampling and analysis plan (DOE/RL-2002-11, Rev. 2, 2008)
  - 300 Area RI/FS work plan (DOE/RL-2009-30, Rev. 0, 2010)
  - 300 Area RI/FS sampling and analysis plan (DOE/RL-2009-45, Rev. 0, 2010).

- 300 Area Industrial Complex — High uranium concentrations are noted at numerous 300 Area wells during periods of high water table conditions. Of particular note was the uranium concentration (4,030 µg/L) detected in the sample from well 399-1-17A collected in July 2011, which corresponds to high water table conditions. This well is located approximately 30 m south of the 300 Area Process Trenches and 20 m southwest of the 300-15 process sewer spur that conveyed effluents to the process trenches. A groundwater sample collected from this well on July 3, 2012, during the 2012 seasonal high water table conditions, again had an elevated uranium concentration (838 µg/L) (Figure 300FF5-1). The positive correlation between water-table elevation and uranium concentration is consistent with the conceptual site model that uranium remains in the lower portion of the vadose zone and periodically rewetted zone and is available to be remobilized during periods of high water-table conditions. Well 399-1-17A was sampled on August 21 and is scheduled for sampling in September as part of RCRA monitoring of the 300 Area Process Trenches.

  On May 16, a water line was discovered to be leaking south of the 324 Building. Repairs were completed on May 18. An estimated 20,000 gallons of water was released to the soil column. A plan to monitor the nearest downgradient wells for potential impacts was approved by DOE and EPA on May 17. The nearest well, 399-4-15, was sampled on May 30, June 29, and July 25. The most recent analytical results for gross beta (18 pCi/L) and gross alpha (28 pCi/L) at well 399-4-15 do not indicate any groundwater impacts (Figure 300FF5-2). Well 399-3-20 was sampled on May 15th, the day before the leak was discovered. Results for gross beta (21 pCi/L) and gross alpha (20 pCi/L) at well 399-3-20 are similar to the results at well 399-4-15. Results for gross beta and gross alpha for three wells further downgradient (399-4-9, 399-4-10, 399-4-14) that were sampled on May 21 and 22 also do not indicate groundwater impacts. (Gross beta results were 13 pCi/L, 15 pCi/L, and 33 pCi/L, respectively, and gross alpha results were 15 pCi/L, 15 pCi/L, and 29 pCi/L, respectively.) Well 399-4-15 was sampled on 08/15/12. Monthly sampling of well 399-4-15 is planned for 6 months (May through October) to monitor for potential impacts of the leak. Wells 399-3-20, 399-4-9, and 399-4-14 also were sampled in August.

- 618-11 Burial Ground — Tritium, nitrate, and gross beta results for the sample collected on May 3rd at well 699-13-3A, next to the eastern fence line of the Burial Ground, are consistent with previous trends. However, the technetium-99 concentrations appear to have increased from 35 pCi/L on 06/10/10 to 180 pCi/L on 05/03/12. These results are well below the technetium-99 Drinking Water Standard of 900 pCi/L.

- 618-10 Burial Ground/316-4 Crib — Groundwater data from July 2012 at well 699-S6-E4L near the 618-10 burial ground show increased concentrations of uranium and of magnesium, a soil fixative (Figure 300FF5-3). These data may indicate impacts from excavation activities that began in March 2011 at some of the trenches in the burial ground. Well 699-S6-E4K was sampled on July 25, 2012 and does not indicate a significant increase in the uranium concentration. The monitoring frequency for uranium was increased to monthly at well 699-S6-E4L, and the monitoring frequency for metals (calcium and magnesium, which are soil fixatives) was increased to quarterly at wells 699-S6-E4K and 699-S6-E4L to accommodate excavation and dust control activities as they occur at the burial ground. The increased sampling frequency will be performed for a period of six months. Well 699-S6-E4L was sampled on August 20, 2012.

Figure 300FF5-1. Uranium Trend Plot (through July 3, 2012) for Well 399-1-17A near the 300 Area Process Trenches and North Process Pond.

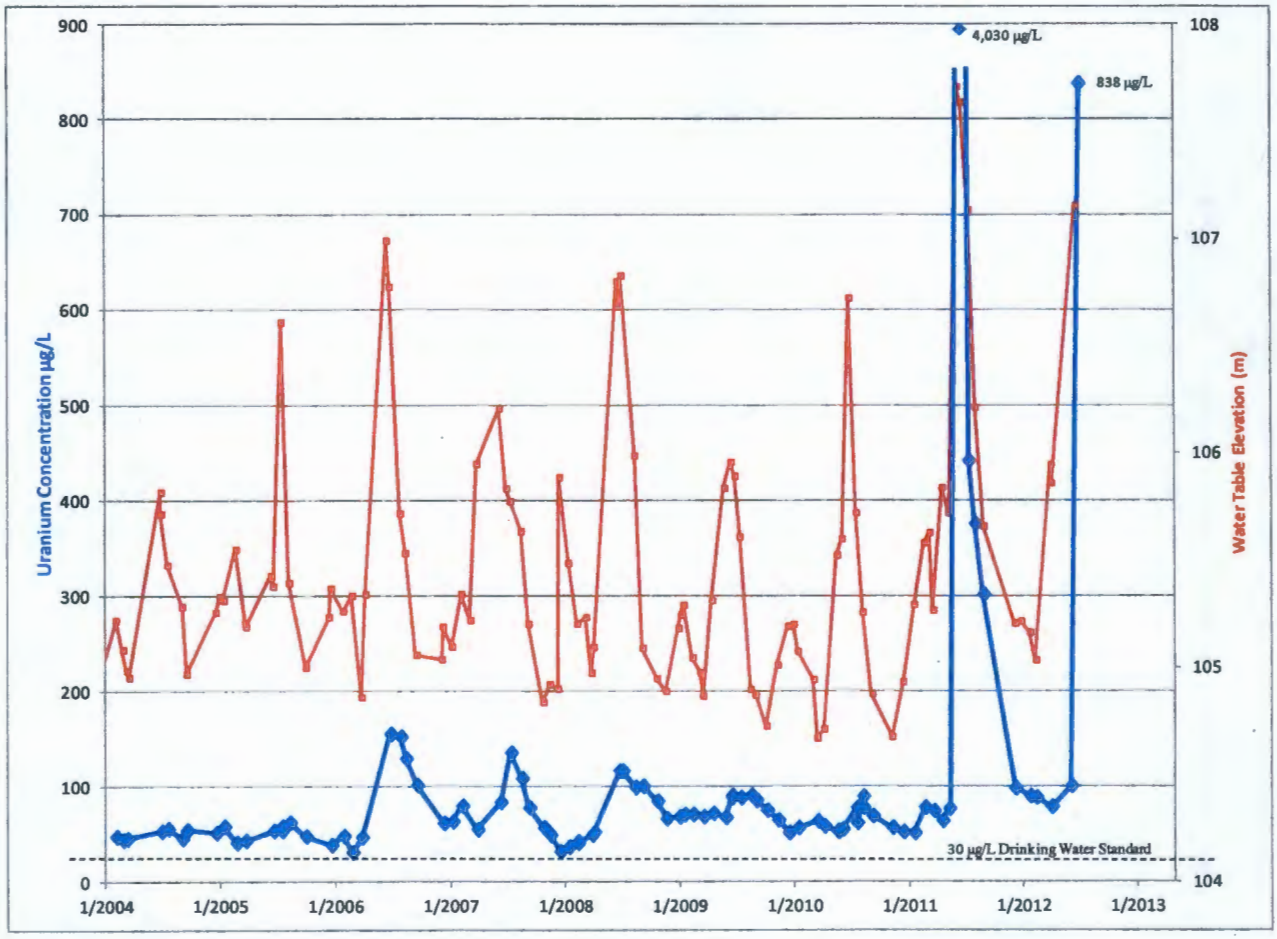


Figure 300FF5-2. Gross Beta and Gross Alpha Trends (through July 25, 2012) at Well 399-4-15 near the 324 Building.

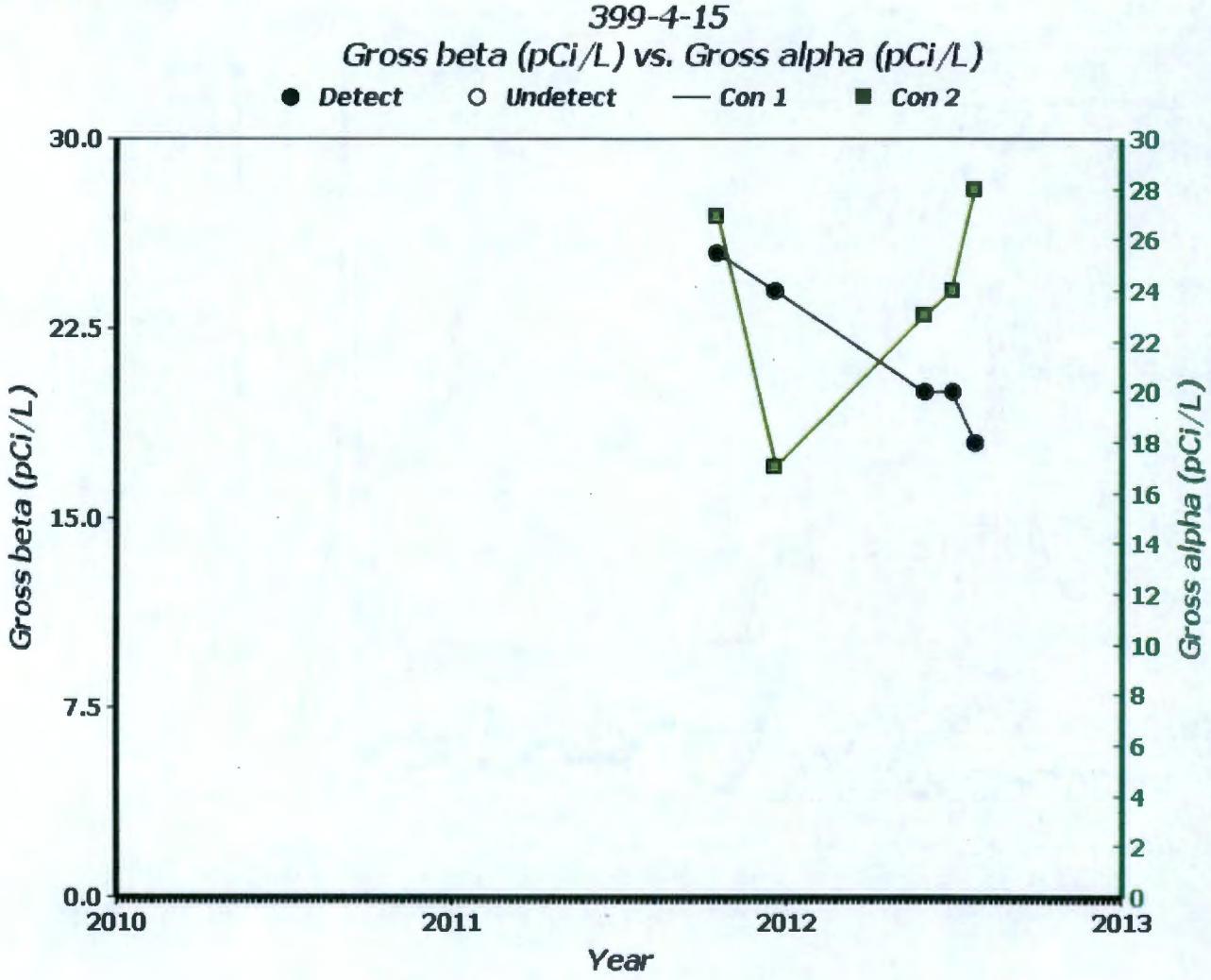
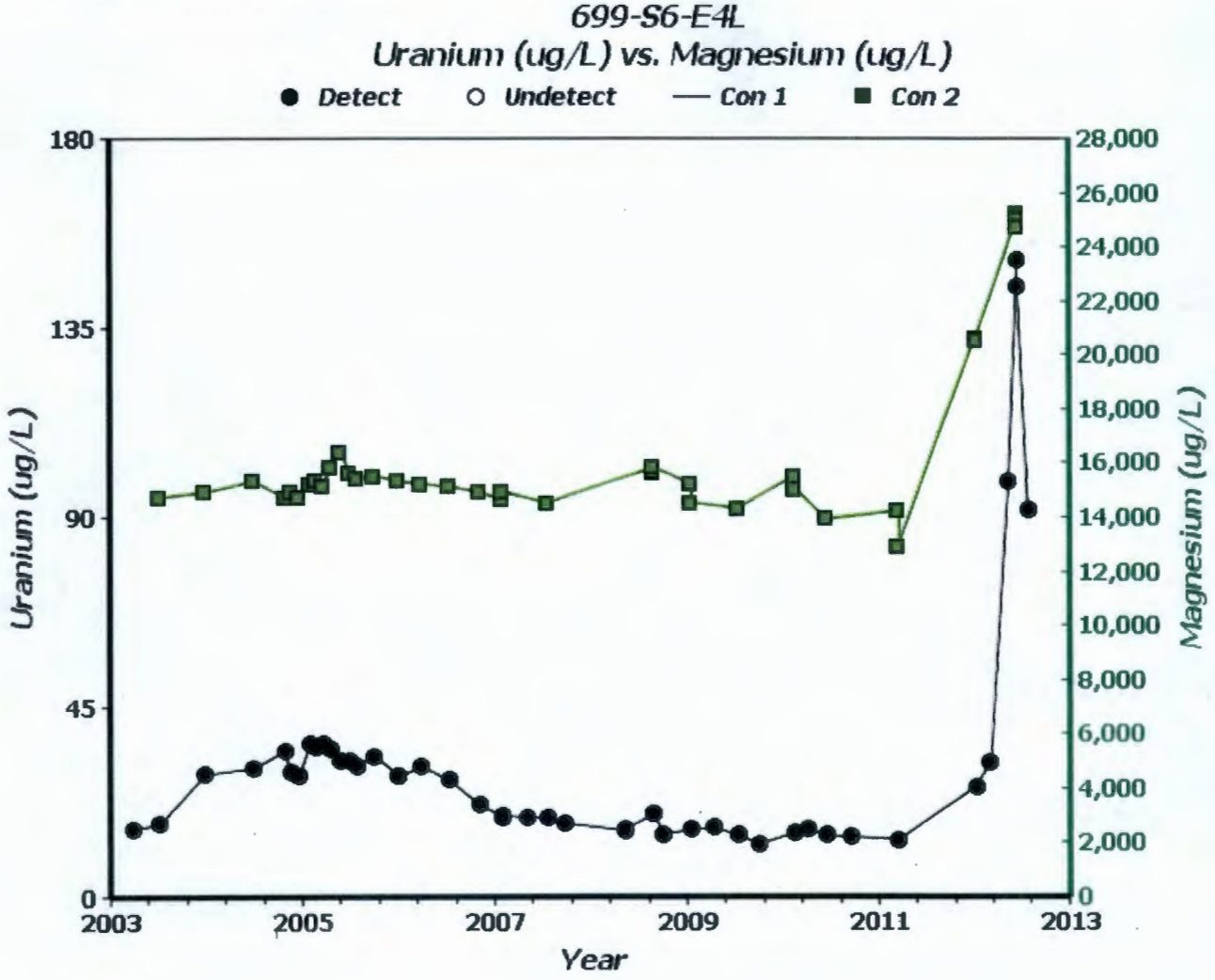


Figure 300FF5-3. Uranium and Magnesium Trends (through July 25, 2012) at Well 699-S6-E4L at the 618-10 Burial Ground.



Summary of Wells & Aquifer Tubes Sampled in the River Corridor Areas During August 2012						
Week	**100-BC**	**100-K**	**100-N**	**100-D/H**	**100-F**	**300 Area**
01-02 Aug 12		C6250	26-S 26-D 26-M	DD-44-3 DD-44-4		
06-09 Aug 12				Redox-1-6.0 C6270 C6271 Redox-1-3.3 C6269 199-H1-25 199-H4-77 199-H1-35 199-H1-1 199-H1-2 199-H1-43 199-H1-6 199-H1-39 199-H1-37 199-H1-36 199-H1-40 199-H3-4 199-H1-27 199-H1-34 199-H4-75 199-H4-12C 199-H1-38 199-H1-42 199-H3-2C 199-H4-64 199-H4-4 199-H4-70 199-H4-69 199-H1-45 199-H4-15A 199-H1-33 199-H1-32 199-H4-76 199-H4-63 199-D5-104 199-D4-39 199-D5-92 199-D8-88 199-D5-39 199-D8-73 199-D8-89 199-D4-38 199-D4-95		

Summary of Wells & Aquifer Tubes Sampled in the River Corridor Areas During August 2012						
Week	**100-BC**	**100-K**	**100-N**	**100-D/H**	**100-F**	**300 Area**
				199-D4-96 199-D4-97 199-D4-98 199-D4-99 199-D5-127 199-D5-32 199-D8-97 199-D5-101 199-D8-98 199-D5-20 199-D8-90 199-D8-91 199-D8-95 199-D5-130 199-D5-131 199-D8-69 199-H1-5 199-D8-96 199-D7-6 199-H4-82 199-H4-81 199-H4-80 199-D8-6 199-D7-3		
13-16 Aug 12		C6241 C7641 C7643 C7642	N116mArray-4A N116mArray-3A N116mArray-6A NVP2-116.0			399-3-19 399-1-63 399-1-64 399-1-57 399-2-1 399-3-18 399-3-38 399-3-33 399-3-20 399-3-10 399-4-9 399-4-15 399-6-5 399-8-1 399-3-21 399-6-3

Summary of Wells & Aquifer Tubes Sampled in the River Corridor Areas During August 2012						
Week	**100-BC**	**100-K**	**100-N**	**100-D/H**	**100-F**	**300 Area**
20-24 Aug 12	199-B5-6 199-B4-14		199-N-75 199-N-187 199-N-184 199-N-182 199-N-186 199-N-67 199-N-188 199-N-69 199-N-76 199-N-80 199-N-183 199-N-123 199-N-119 199-N-120 199-N-121 199-N-103A	199-D5-144 199-D5-99 199-D5-122 199-D5-119 199-H4-3 199-D5-13		399-1-62 399-1-23 399-1-55 399-2-5 699-S6-E4L 399-1-59 399-8-5A 399-1-58 399-1-54 399-1-10B 399-1-10A 399-1-10B 399-1-16A 399-1-16B 399-1-17A 699-12-2C 399-4-14 399-1-18A 399-1-18B 399-1-17B 399-3-22 699-13-2D 699-13-1C 699-12-2C
27-30 Aug 12			199-N-70 199-N-173 199-N-185 199-N-147 199-N-104A Unsuccessful 199-N-96A 199-N-99A 199-N-106A 199-N-189 199-N-122 199-N-146 199-N-92A Unsuccessful 199-N-188 199-N-19 199-N-187 199-N-14 199-N-46 199-N-56 199-N-51 199-N-50 199-N-27 199-N-186	199-H2-1 699-99-41 199-H1-40 199-H1-42 199-D5-104 199-D5-39 199-H1-43		

Attachment 2

September 13, 2012 Unit Manager's Meeting
Field Remediation Status

100-B/C

- No field activities being conducted at 100-B/C at this time
- Continue to receive and review 100-C-7:1 sample data
- MSA continued power pole/line disposal (target completion after fire danger)

100-D

- No excavation/remediation field activities being conducted at 100-D at this time
- Verification sampling completed at 100-D-50:1 and 100-D-50:6
- Completed disposal of mobile offices MO-889, MO-980, MO-989 and MO-929
- Continue evaluation of subcontractor bid packages
- Backfill subcontractor mobilization to start week of September 17, 2012

100-F

- No field activities being conducted at this time, remediation complete at 100-F]

100-H

- No field activities being conducted at this time
- Continue evaluation of subcontractor bid packages
- Backfill subcontractor mobilization to start week of September 17, 2012

100-K

- No field activities being conducted at this time
- Continued receiving and evaluating close-out sample data at 118-K-1
- Continued discussion on path forward for tritium plume at 118-K-1 trench N

100-N

- No field activities being conducted at 100-N at this time
- Contractor mobilization begun, remediation scheduled to begin in October 2012
- Phase II in-situ bioremediation mobilization scheduled to begin in late September 2012, testing scheduled to begin in October 2012
- Continued preparation of closure documents and conducting verification sampling

618-10 Trench Remediation

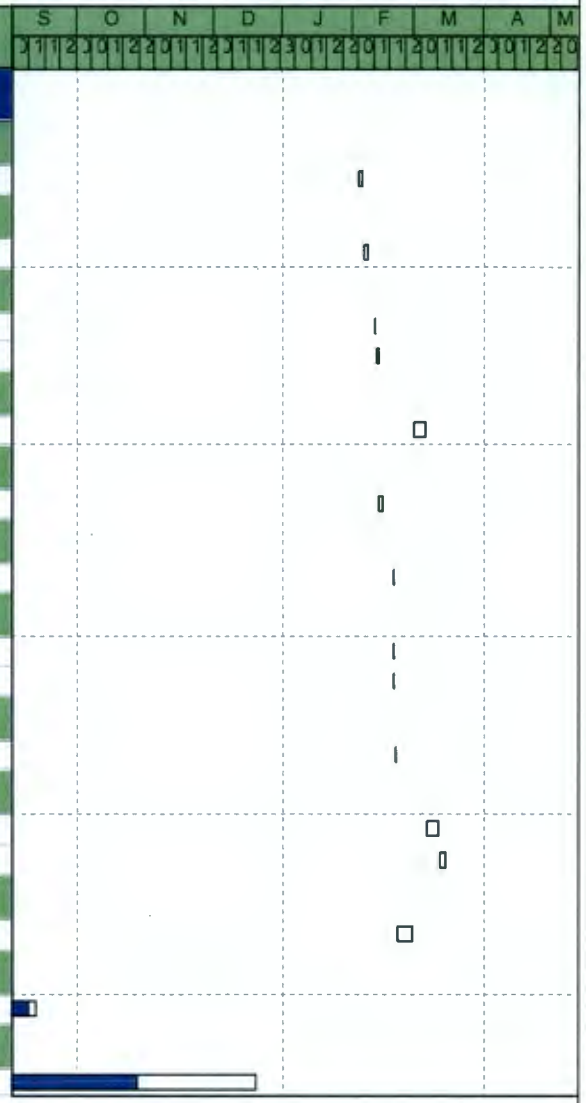
- Continued loadout of soil waste to ERDF
- Continued excavation of trench
- Continue excavation, loadout, and shipment of concrete drums
- Prep for shipments of Chips and Oil to Permafix
- Execute repairs and troubleshooting of DPF #1

100-IU-2/6

- All field work has been completed for this fiscal year
- All close-out samples have been taken from remediated sites
- Work on closeout reports has begun

Attachment 3

Activity ID	Activity Name	TPA (?)	% Comp.	Rem Dur	Start	Finish
Not in SPIF						
600-298 - Stained/Burned Soil						
RU1U265260	Excavate/Loadout Area #4	Y	0%	2.0	04-Feb-13*	05-Feb-13
600-299 - Batteries						
RU1U265270	Excavate/Loadout Area #2	Y	0%	2.0	06-Feb-13	07-Feb-13
600-300 - Miscellaneous Debris						
RU1U265280	Excavate/Loadout Area #11	Y	0%	1.0	11-Feb-13	11-Feb-13
RU1U265290	Excavate/Loadout Area #1	Y	0%	1.0	12-Feb-13	12-Feb-13
600-303 - Vertical Pipes						
RU1U265210	Excavate/Loadout Area #1	Y	0%	3.0	28-Feb-13*	05-Mar-13
600-316 - Dry Cell Batteries						
RU1U265250	Excavate/Loadout Area #4		0%	2.0	13-Feb-13	14-Feb-13
600-318 - Wet Cell Batteries						
RU1U265300	Excavate/Loadout Area #3	Y	0%	1.0	19-Feb-13*	19-Feb-13
600-320 - Oil Stains						
RU1U264810	Excavate/Loadout Area #3	Y	0%	1.0	19-Feb-13	19-Feb-13
RU1U264880	Excavate/Loadout Area #9	Y	0%	1.0	19-Feb-13*	19-Feb-13
600-321 - Suspect ACM Sites						
RU1U264870	Excavate/Loadout Area #1	Y	0%	1.0	20-Feb-13	20-Feb-13
600-326 - Black Material						
RU1U265200	Excavate/Loadout Area #1	Y	0%	3.0	06-Mar-13*	11-Mar-13
RU1U265230	Excavate/Loadout Area #2	Y	0%	3.0	12-Mar-13*	14-Mar-13
600-328 - Lead Slag						
RU1U264090	Excavate/Loadout Area #1	Y	0%	4.0	21-Feb-13*	27-Feb-13
600-386 - Segment 5 Battery Site						
RU1U265190	Closeout Documentation	N	95%	10.0	11-Jul-12 A	12-Sep-12
IU-2/6 Burn Pits/Stains Closeout (600-305/308/309/310/311/312/313/314/317/319/324)						
RU1U265130	Closeout Documentation	Y	63%	65.0	30-Jul-12 A	20-Dec-12



Attachment 4

166990

^WCH Document Control

From: Saueressig, Daniel G
Sent: Tuesday, August 14, 2012 2:47 PM
To: ^WCH Document Control
Subject: 600-386

Please provide a chron number.

Thanks,

Dan Saueressig
FR Environmental Project Lead
Washington Closure Hanford
521-5326

From: Strom, Dean N
Sent: Tuesday, August 14, 2012 2:33 PM
To: Bernhard, James E; Wright, Bryan D; Carman, Hans M; Fancher, Jonathan D (Jon); Saueressig, Daniel G
Cc: 'Christopher Guzzetti'; Glossbrenner, Ellwood T
Subject: 600-386

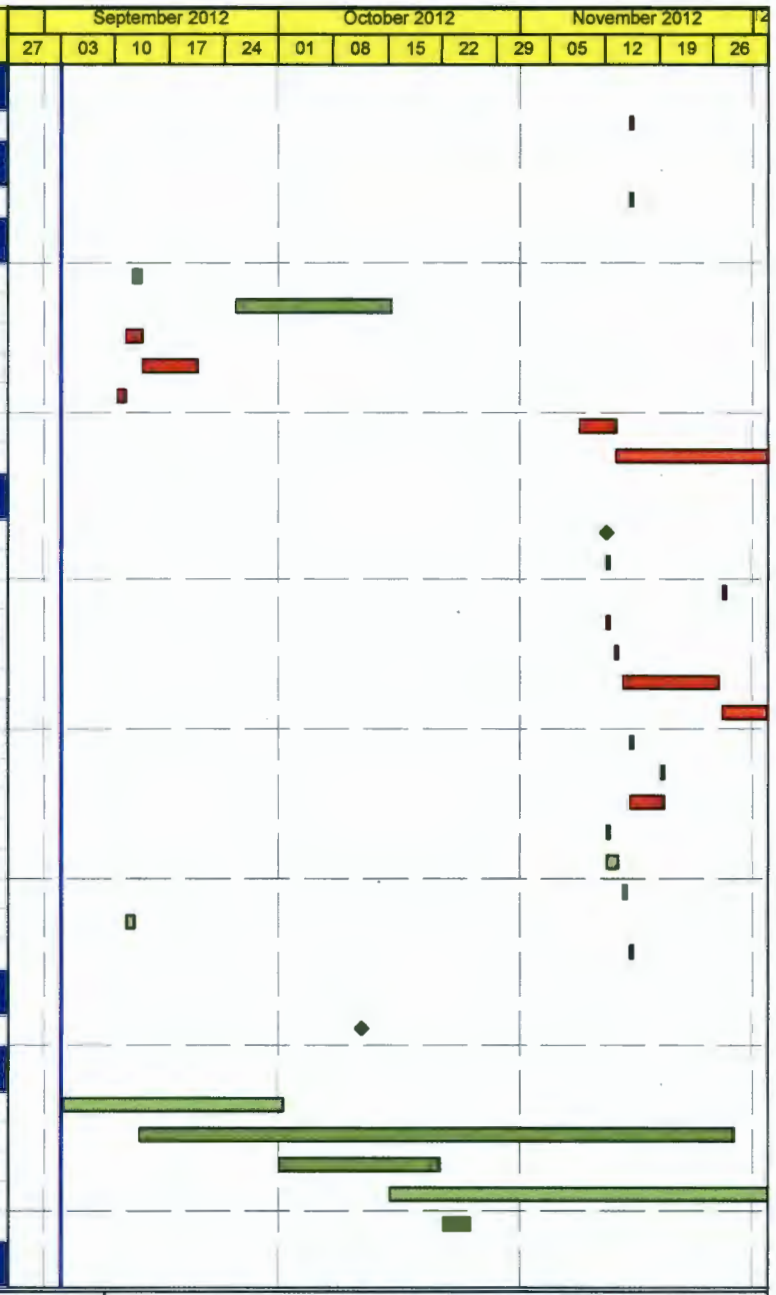
All,

I spoke with Ellwood and Chris concerning the backfill and re-veg expectations associated with 600-386 (Battery site). Based on the small footprint, no additional backfill or re-veg will be required.

Thanks

Attachment 5

Activity ID	Activity Name	TPA	% Cmpl	RD	Start	Finish
Excavation						
100D503A010	Excavate 100-D-50:3		0%	1	15-Nov-12*	15-Nov-12
Loadout						
100D503A020	Loadout 100-D-50:3 (No Action)		0%	1	15-Nov-12*	15-Nov-12
Backfill						
RD67D1400	Backfill - 1607-D1 (3,709 BCM)		0%	1	12-Sep-12*	13-Sep-12
CBC0605C	Backfill - 118-D-2 (54,396 BCM)	Y	0%	11	25-Sep-12	15-Oct-12
CBB0403C	Backfill - 100-D-56 (8,632 BCM)	N	0%	2	11-Sep-12	13-Sep-12
RD10D81400	Backfill - 100-D-8 (4 DAYS RE-CONTOURING)	Y	0%	4	13-Sep-12	20-Sep-12
CBB0506C	Backfill - 116-D-5 (3,821 BCM)	Y	0%	1	10-Sep-12	11-Sep-12
100D14A030	Backfill - 100-D-14		0%	2	08-Nov-12	13-Nov-12
CBC0606C	Backfill - 118-D-3 (96,961 BCM)	Y	0%	20	13-Nov-12	20-Dec-12
Revegetation						
DMSR12	2012 100-D Reveg Campaign		0%	0	12-Nov-12*	
CBC0505E	Reveg - Rem Wst Site - 116-DR-10		0%	1	12-Nov-12	12-Nov-12
CBC0605E	Reveg - Rem BG - 118-D-2		0%	1	27-Nov-12	27-Nov-12*
CBC0602E	Revegetation - Rem BG - 100-D-43		0%	1	12-Nov-12	12-Nov-12
CBC0603E	Revegetation - Rem BG - 100-D-47		0%	1	13-Nov-12	13-Nov-12
CBC0604E	Revegetation - Rem BG - 118-D-1		0%	5	14-Nov-12	26-Nov-12
CBC0610E	Reveg - Rem BG - 126-DR-1 - Does not need Rev...		0%	4	27-Nov-12	03-Dec-12
CBB0403E	Revegetation - 100-D-56:2	N	0%	1	15-Nov-12*	15-Nov-12
CBB0404E	Reveg - Rem Liq Wst Site - 120-D-2		0%	1	19-Nov-12*	19-Nov-12
RD10D81500	Revegetation - 100-D-8	Y	0%	2	15-Nov-12*	19-Nov-12
CBB0502E	Revegetation - Rem Wst Site - 100-D-3		0%	1	12-Nov-12*	12-Nov-12
CBB0503E	Revegetation - Rem Wst Site - 100-D-42		0%	2	12-Nov-12*	13-Nov-12
CBB0505E	Reveg - Rem Wst Site - 100-D-61		0%	1	14-Nov-12	14-Nov-12
CBB0506E	Revegetation - Rem Wst Site - 116-D-5		0%	1	11-Sep-12*	12-Sep-12
CBB0533E	Reveg - Rem Liq Wst Site - 100-D-80:2		0%	1	15-Nov-12*	15-Nov-12
Procurement						
RD11DX4080	Subcontractor Procurement - Award Subcontract	N	0%	0		11-Oct-12*
Utilities (Electrical)						
100D100A368P	Procure Long Lead Items	N	0%	29	03-Sep-12*	01-Oct-12
100D100A333	Power Pole Relocation (Field Work)	N	0%	77	13-Sep-12*	28-Nov-12
100D100A368	13.8 kV Construction	N	0%	21	01-Oct-12*	21-Oct-12
100D100A369	230 kV Construction	N	0%	63	15-Oct-12*	16-Dec-12
100D100A370	13.8 kV Outage	N	0%	4	22-Oct-12*	25-Oct-12
Utility Isolations						



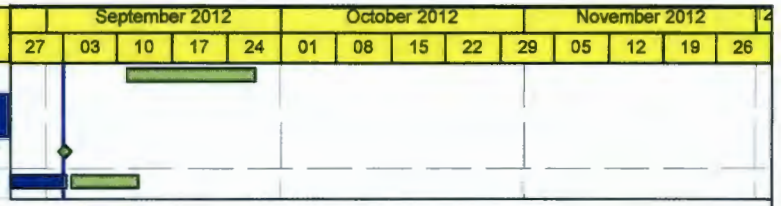
SPIF Bar | Remaining Work | Critical Remaining Work
Actual Work | Actual Critical Work | Remaining Level of Effort

Data Date: 03-Sep-12

CPP 100-D - Current - After FR468

TASK filter: 100-DH POW Content.

Activity ID	Activity Name	TPA	% Cmpl	RD	Start	Finish
100D100A363	Well Decommissioning @ 100-D (REA-184)	N	0%	11	11-Sep-12*	27-Sep-12
Utilities Design						
100D100A367	100% Design Submittal	N	0%	0		03-Sep-12*
100D100A323	Power Pole Relocation (Design Summary)	N	90%	6	13-Jun-12 A	12-Sep-12



SPIF Bar | Remaining Work | Critical Remaining Work
Actual Work | Actual Critical Work | Remaining Level of Effort

Data Date: 03-Sep-12

CPP 100-D - Current - After FR468

TASK filter: 100-DH POW Content.

Attachment 6

Activity ID	Activity Name	TPA	% Cmpl	RD	Start	Finish
Special Projects						
HB512A1	Power Line Relocation (100-H REA 138)	N	0%	48	08-Oct-12*	07-Jan-13
HB512A2	Water Line Reroute (100-H REA 138)	N	0%	90	08-Oct-12*	21-Mar-13
HB512A3	Well Decommissioning (100-H REA 138)	N	0%	36	08-Oct-12*	11-Dec-12
Backfill						
HC504C	Backfill - 128-H-1 (24,262 BCM)	Y	0%	5	15-Oct-12*	22-Oct-12
HB506C	Backfill - 126-H-2 (34,000 BCM)	Y	0%	4	01-Nov-12	07-Nov-12
HB504C1	Backfill - 118-H-6:4 (~1,300 BCM, 20%)		0%	1	08-Nov-12	08-Nov-12
HB5045C	Backfill - 118-H-6:5 (2,180 BCM)		0%	1	12-Nov-12	12-Nov-12
HB505C	Backfill - 100H Mud Dauber (3 Days Recontouring)	N	15%	3	14-Nov-11 A	14-Nov-12
HB510C1	Backfill - 132-H-3 (17,652 BCM)	Y	0%	3	13-Nov-12	15-Nov-12
HB503C	Backfill - 116-H-5 (2,857 BCM)		0%	2	13-Nov-12*	14-Nov-12
HB503C10	Backfill - 116-H-5 (15,349 BCM)		0%	6	15-Nov-12*	28-Nov-12
HB524C	Backfill 100-H-49:1		0%	1	14-Nov-12	14-Nov-12
Revegetation						
HC604E20	Revegetation - 118-H-4 (0.22 acres)		0%	1	15-Nov-12*	15-Nov-12
HC504E1	Order Revegetation - 128-H-1	Y	0%	1	05-Sep-12*	05-Sep-12
HC504E2	Revegetation - 128-H-1 (6.78 acres)		0%	3	23-Oct-12	25-Oct-12
HB404E20	Revegetation - 116-H-9 (0.41 acres)		0%	1	15-Nov-12*	15-Nov-12
HB506E1	Order Revegetation - 126-H-2	Y	0%	1	05-Sep-12*	05-Sep-12
HB506E2	Revegetation - 126-H-2 (2.1 acres)	Y	0%	1	08-Nov-12	08-Nov-12
HB5045E10	Order Revegetation - 118-H-6:5	N	0%	1	03-Oct-12*	03-Oct-12
HB504E10	Order Revegetation - 118-H-6:4	N	0%	1	03-Oct-12*	03-Oct-12
HB505E20	Revegetation - 100H Mud Dauber (25.00 acres)		0%	6	27-Nov-12	05-Dec-12
HB505E10	Order Revegetation - 100H Mud Dauber	N	0%	1	04-Sep-12*	04-Sep-12
HB502E	Revegetation - Rem Wst Site - 100-H-31		0%	5	12-Nov-12*	19-Nov-12
HB507E2	Revegetation - 1607-H3 (2.76 acres)		0%	1	15-Nov-12*	15-Nov-12
HB900F1	100-H-3 Reveg (.3 acres)		0%	1	15-Nov-12*	15-Nov-12
HB501E	Revegetation - Rem Wst Site - 100-H-14		0%	5	12-Nov-12*	19-Nov-12
HB510E	Order Revegetation - 132-H-3	Y	0%	1	04-Sep-12*	04-Sep-12
HB510E1	132-H-3 Revegetation		0%	8	27-Nov-12	10-Dec-12
HB910F1	100-H-4 Reveg (1.2 acres)		0%	4	15-Nov-12*	26-Nov-12
HB503E20	Revegetation - 116-H-5 (10.0 acres)		0%	1	29-Nov-12*	29-Nov-12

SPIF Bar | Remaining Work | Critical Remaining Work
Actual Work | Actual Critical Work | Remaining Level of Effort

Data Date: 03-Sep-12

CPP 100-H - Current

TASK filter: 100-DH POW Content.

Attachment 7

100 Area D4/ISS Status
September 13, 2012

100-N

River Structures: All structures 100% complete. Still pending 4:1 re-contouring of the benches (between the ordinary high and low water marks) as previously agreed with agencies. Delay due to high water level in river. Currently working with USACOE at the Priest Rapids Dam to determine if possible to reduce discharges when needed to drop downstream water to a level that facilitates re-contour work entirely out of the water.

105-N Fuel Storage Basin (FSB): Collected "in process" samples of soil that was under former FSB and pad in material. Awaiting analytical results.

105-N/109-N Reactor/Heat Exchanger Buildings (ISS): Drilled two holes through fast cart tunnel's concrete pourback last week to facilitate drainage of water that had become trapped inside prior to completion of SSE. Drainage appears to be almost complete and a plan has been developed to seal the holes and concrete pourback.

107-N Basin Recirculating/Cooling Facility: Demolition and load out 100% complete.

1120-N Storage and Training Building – Demolition and load out 100% complete. Also removed and loaded out the septic tanks and drain field of **1607-N9 (WIDS 124-N-9)** adjacent to and northeast of the 1120-N.

1904-NB and 1904-NC Lift Stations – Removed (pumped) residual wastewater from these facilities and began preparing them for demolition. A small amount of wastewater still needs to be removed from the 1904-NB prior to demolition.

100-N Miscellaneous Items – Currently removing and excessing miscellaneous materials and equipment from around the site. Also excavating and removing a remaining section of a 36-inch pipeline associated with WIDS 100-N-63:2 between the 105-N lift station and 1908-N outfall.

100-D

183-D Water Treatment Plant – Provided DOE and EPA's Region 10 Asbestos Subject Matter Expert (SME) with a tour of the 183-D last month. The EPA SME concurred that portions of the facility (i.e., Filter Building) are unsafe for asbestos abatement activities. Currently preparing an asbestos inspection report and summary that outlines the asbestos abatement and demolition plans for the facility. Several tritium containing "Exit" signs still in the facility have also been scheduled for removal.

1902-D Water Tower – Began removal to three feet below grade the concrete footers and valve box that were left behind from tower demolition in 2010. Removal currently at 40 %.

Other Activities

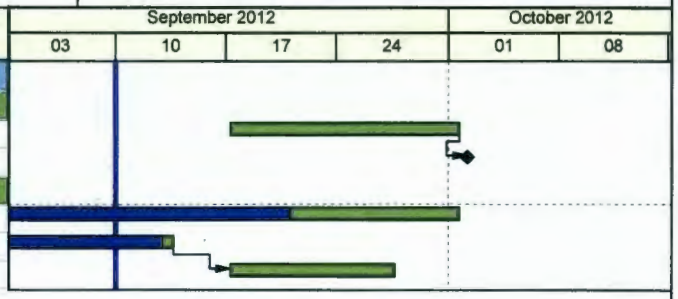
100 Area D4 personnel recently relocated base operations to 100-D. Also, working on data request from EPA's Region 10 Asbestos SME for asbestos information associated with DOE facility demolitions on the Hanford Site dating back to Jan 2007

Attachment 8

FY10-11 CPP 100-N AREA CURRENT - logic reline/FR-444 Rev

13-Sep-12 08:47

Activity ID	Activity Name	TPA ?	Remaining Duration	Physical % Complete	Start	Finish
Procurement						
Procurement						
CULTREV130	Mobilization	No	9	0%	17-Sep-12*	01-Oct-12
CULTREV140	NTP - Excavation/Loadout	No	0	0%	02-Oct-12*	
Submittals						
CULTREV90	Submittals/Approve	No	13	75%	20-Aug-12 A	01-Oct-12
CULTREV110	PSR - Mobilization	No	4	95%	30-Aug-12 A	13-Sep-12
CULTREV120	PSR - Excavation/Loadout	No	8	0%	17-Sep-12	27-Sep-12



SPIF Bar Current Bar Labels

Attachment 9

167464

^WCH Document Control

From: Saueressig, Daniel G
Sent: Wednesday, September 12, 2012 4:00 PM
To: ^WCH Document Control
Subject: FW: SPOR Agreement -- Concurrence needed ASAP please
Attachments: SPOR Agreement 082712__approved ECY.docx; Initial SPOR Discovery Sites 9-12-12.xls

Please provide a chron number (and include the attachments). This email documents a regulatory agreement and supersedes CCN 167273

Thanks,

Dan Saueressig
FR Environmental Project Lead
Washington Closure Hanford
521-5326

From: Chance, Joanne C [mailto:joanne.chance@rl.gov]
Sent: Wednesday, September 12, 2012 1:53 PM
To: Elliott, Wanda; Saueressig, Daniel G
Cc: Boyd, Alicia; Landon, Roger J; Wilkinson, Stephen G
Subject: RE: SPOR Agreement -- Concurrence needed ASAP please

RL concurs.

Joanne C. Chance
U.S. Department of Energy
Office of Assistant Manager for River and Plateau
825 Jadwin Ave / MSIN A3-04
Richland, WA 99352
(509) 376-0811

From: Elliott, Wanda (ECY) [mailto:well461@ecy.wa.gov]
Sent: Wednesday, September 12, 2012 1:17 PM
To: Saueressig, Daniel G; Chance, Joanne C
Cc: Boyd, Alicia (ECY); Landon, Roger J; Wilkinson, Stephen G
Subject: RE: SPOR Agreement -- Concurrence needed ASAP please

Ecology concurs.

Wanda Elliott
(509) 372-7904
Environmental Scientist
Nuclear Waste Program
Washington State Department of Ecology

From: Saueressig, Daniel G [mailto:dgsauere@wch-rcc.com]
Sent: Wednesday, September 12, 2012 11:07 AM
To: Chance, Joanne C; Elliott, Wanda (ECY)

Cc: Boyd, Alicia (ECY); Landon, Roger J; Wilkinson, Stephen G
Subject: FW: SPOR Agreement -- Concurrence needed ASAP please

Joanne/Wanda, verification sampling indicated that there was no TPH contamination associated with 100-N-25 so I'm planning to take it off the list of SPOR sites, with your concurrence. In addition, the table listing the SPOR sites was revised to include the HEIS numbers associated with the samples so that this information is available via WIDS when the site gets put into the database. Let me know if you concur and I'll get this agreement into the UMM meeting minutes tomorrow.

Thanks,

Dan Saueressig
FR Environmental Project Lead
Washington Closure Hanford
521-5326

From: Chance, Joanne C [mailto:joanne.chance@rl.gov]
Sent: Tuesday, August 21, 2012 4:44 PM
To: Boyd, Alicia
Cc: Menard, Nina; Elliott, Wanda; 'Welsch, Kim (ECY) (KIWE461@ECY.WA.GOV)'; Saueressig, Daniel G; Buckmaster, Mark A; Ovink, Roger W; Thompson, Wendy S; Neath, John P
Subject: FW: SPOR Agreement -- Concurrence needed ASAP please

Hi Alicia,

RL accepts Ecology's edits to the SPOR Agreement and will submit it at the next UMM with the associated table of waste sites and this e-mail chain. Thanks once again for your help!

Joanne C. Chance
U.S. Department of Energy
Office of Assistant Manager for River and Plateau
825 Jadwin Ave / MSIN A3-04
Richland, WA 99352
(509) 376-0811

From: Boyd, Alicia (ECY) [mailto:aboy461@ecy.wa.gov]
Sent: Tuesday, August 21, 2012 1:50 PM
To: Chance, Joanne C
Cc: Menard, Nina (ECY); Elliott, Wanda (ECY); Welsch, Kim (ECY); Saueressig, Daniel G
Subject: RE: SPOR Agreement -- Concurrence needed ASAP please

Joanne/Dan
Ecology has made some minor changes to the SPOR Agreement. I don't believe there is anything problematic. I've attached the version with our edits to this e-mail. Please use the "review" function to see the "final show markup" version. If you concur with the changes, please print the "final" version for inclusion in the UMM. If we need to discuss any of the suggested changes, please give me a call.

Alicia L. Boyd
Washington State Department of Ecology
3100 Port of Benton Blvd

Richland, WA 99352
509-372-7934

From: Chance, Joanne C [mailto:joanne.chance@rl.gov]
Sent: Tuesday, August 21, 2012 10:17 AM
To: Boyd, Alicia (ECY)
Cc: Menard, Nina (ECY); Elliott, Wanda (ECY); Welsch, Kim (ECY); Saueressig, Daniel G; Ovink, Roger W
Subject: SPOR Agreement -- Concurrence needed ASAP please
Importance: High

Hi Alicia,

Per my phone message this morning, would you have time to review the SPOR Agreement (e-mailed to you on August 14th) this week? RL requests e-mail concurrence this week (with ensuring documentation at the next UMM). We are nearing 'pens down' time on the 100-N RI/FS and we need to verify that Ecology is on board with this agreement so that it can be incorporated into the document, and just as importantly, our on-going fall remediation plans. I believe we have incorporated Ecology's review comments on the concept's white paper into the Agreement. Dan and I are available for questions today, and I have placed the matter on the Comment Resolution Agenda for tomorrow, if that facilitates your review. Thanks so much for your assistance with this matter.

Joanne C. Chance
U.S. Department of Energy
Office of Assistant Manager for River and Plateau
825 Jadwin Ave / MSIN A3-04
Richland, WA 99352
(509) 376-0811

100-N SHALLOW PETROLEUM-ONLY RELEASES (SPOR) WASTE SITE AGREEMENT BETWEEN ECOLOGY AND DOE-RL

The Washington State Department of Ecology (Ecology) and the U.S. Department of Energy, Richland Operations Office (DOE-RL) agree to initiate the Tri-Party Agreement MP-14 approval process for the creation of a Discovery Site to address recent unanticipated discoveries of shallow petroleum contamination at 100-N. The site shall be titled: "Shallow Petroleum-Only Releases" (SPOR) waste site and will initially consist of the petroleum contamination component of the waste site locations listed in the attached table entitled: "Initial SPOR Discovery Site." The first designation criterion for inclusion of a waste site in the table is the discovery during remediation activities of stains and/or elevated TPH or petroleum-derived PAH concentrations where petroleum contamination was not listed as a constituent of concern (COC) or a constituent of potential concern (COPC). Only sites for which the remove/treat/dispose (RTD) remedy is appropriate (for example, those from 0 to 20 feet in depth) are included in the SPOR waste site (second criterion). Remediation and interim closure of the listed sites will proceed for non-petroleum COCs and COPCs. However, backfill and revegetation will be delayed until disposition of the SPOR site is complete.

Future discoveries of petroleum contamination that meet the preceding two criteria will be added to the SPOR site (via colonization) upon the mutual agreement of Ecology and DOE-RL. The SPOR site will be evaluated for final disposition via the Remedial Investigation/Feasibility Study (RI/FS), Proposed Plan (PP), and the final ROD for 100-N. Ecology and DOE-RL technical staff will also develop a methodology to differentiate asphalt contamination from contamination resulting from petroleum release to facilitate site closures.

If petroleum contamination is found at depth (i.e., at the extent of excavation), further discussions will be held between Ecology and DOE-RL to identify the disposition (for example, bioventing, plume chasing, or evaluation under the final ROD) for such locations.

This Agreement can be amended upon mutual agreement between Ecology and DOE-RL as documented in UMM Minutes.

Collocated Waste Site Group #	Waste Site	Description	M-16-55 Milestone Completion 12/31/2012	Comments	HEIS Samples
1	116-N-2	1310-N Chemical Waste Storage Tank	Yes	Stain location on west end of 116-N-2 and stain indicate potential issue, further sampling required. (collocated sites whose backfill and revegetation depend on this site: UPR-100-N-5 and UPR-100-N-25)	None
2	100-N-61:1	100-N Water Treatment and Storage Facilities Underground Pipelines	No	Stain on side slopes of excavation and stain indicate potential issue, further sampling required. Backfill in some areas has been completed with Ecology approvals. (collocated sites whose backfill and revegetation depend on this site: 100-N-9, 100-N-28, 100-N-29, 100-N-30 and 100-N-37)	Verification samples J1R0J3, J1R0J5, and J1R0K5. In-process sample J1NLN9
2	100-N-64:1	105-N, 116-N-4 (1300-N), 1304-N, 107-N Underground Pipelines to 1908-N Outfall	Yes	No analytical data, stain on side slopes of excavation and stain indicate potential issue, further sampling required. (collocated sites whose backfill and revegetation depend on this site: 100-N-9, 100-N-28, 100-N-29, 100-N-30 and 100-N-37)	See waste site 100-N-61:1
3	120-N-3	Neutralization Pit and French Drain	Yes	No analytical data, stain on west slope of excavation including were excavation merges into 120-N-3 open excavation and stains indicate potential issue, further sampling required.	Verification samples J1PWD4, J1PWD9 and J1PWF5. In-process sample J1P0X3
4	100-N-61:2	100-N Water Treatment and Storage Facilities Underground Pipelines	No	No analytical data, stain on east slope of excavation at 100-N-62 pipeline lower excavation and stains indicate potential issue, further sampling required. (collocated sites whose backfill and revegetation depend on this site: 100-N-24 and 100-N-28)	See waste site 100-N-62
4	100-N-62	100-N 105-N, 109-N, 163-N, 182-N, 183-N and 184-N Underground Pipelines	Yes	No analytical data, 100-N-62 pipe laid underneath 100-N-61:2 and 100-N-64:2, stain on east slope of excavation and stains indicate potential issue, further sampling required. (collocated sites whose backfill and revegetation depend on this site: 100-N-24 and 100-N-28)	In-process sample J1NP43 and J1NP47
4	100-N-64:2	105-N, 116-N-4 (1300-N), 1304-N, 107-N Underground Pipelines to 1908-N Outfall	Yes	No analytical data, stain on east slope of excavation and stains indicate potential issue, further sampling required. (collocated sites whose backfill and revegetation depend on this site: 100-N-24 and 100-N-28).	See waste site 100-N-62
5	UPR-100-N-14	Drain System Leak	Yes	No analytical data, stain on east slope of excavation and stains indicate potential issue, further sampling required. (collocated sites whose backfill and revegetation depend on this site: 100-N-87 and 100-N-102:1)	None
6	100-N-63:2	105-N, 116-N-1 (1301-N) Crib, 116-N-3 (1325-N) Crib, and 116-N-2 (1310-N Tank) Underground Pipelines.	Yes	Not all portions of pipeline length effected by plumes and issues. (collocated sites whose backfill and revegetation depend on this site: 100-N-59, 100-N-60, 100-N-89, UPR-100-N-13, UPR-100-N-26, UPR-100-N-6	100-N-63:2 verification samples; J1MXD5, J1MXD3, J1PVM6, and J1P1N6. Collocated waste site 100-N-60 verification sample J1PX68

Q 9

Attachment 10

167391

^WCH Document Control

From: Saueressig, Daniel G
Sent: Thursday, September 06, 2012 8:41 AM
To: ^WCH Document Control
Subject: FW: UPR-100-N-6 Statistical sample location changes
Attachments: UPR-100-N-6 sample relocation.doc

Please provide a chron number (and include the attachment). This email documents a regulatory agreement.

Thanks,

Dan Saueressig
FR Environmental Project Lead
Washington Closure Hanford
521-5326

From: Elliott, Wanda (ECY) [mailto:well461@ECY.WA.GOV]
Sent: Wednesday, September 05, 2012 1:50 PM
To: Saueressig, Daniel G; Chance, Joanne C
Cc: Boyd, Alicia
Subject: UPR-100-N-6 Statistical sample location changes

I reviewed the proposed changes for 2 of the statistical sample location (EX-3 and EX-4) and approve of the new locations. Can you please update the WIVS and resubmit?

Thanks,

Wanda Elliott
(509) 372-7904
Environmental Scientist
Nuclear Waste Program
Washington State Department of Ecology

During the UPR-100-N-6 waste site verification sampling activities, two sample locations EXC-3 and EXC-4 were found to be under an active land bridge utilized by D4 activities. Unfortunately, due to limited availability of sampling resources at the time of sampling, a rapid decision had to be made to relocate sample locations EXC-3 and EXC-4 to the west and east of the land bridge, respectively. The sampling locations were focused to the nearest possible original location, immediately outside of the land bridge limits (Figure 1 and 2). A map in Figure 3 shows original locations and the new sampling locations for EXC-3 and EXC-4. New sample coordinates for EXC-3 and EXC-4 are indicated in Table 1.

Figure 1. UPR-100-N-6 Waste Site, EXC-3 New Location.

Figure 2. UPR-100-N-6 Waste Site, EXC-4 New Location.

Figure 3. UPR-100-N-6 Statistical Verification Sample Locations.

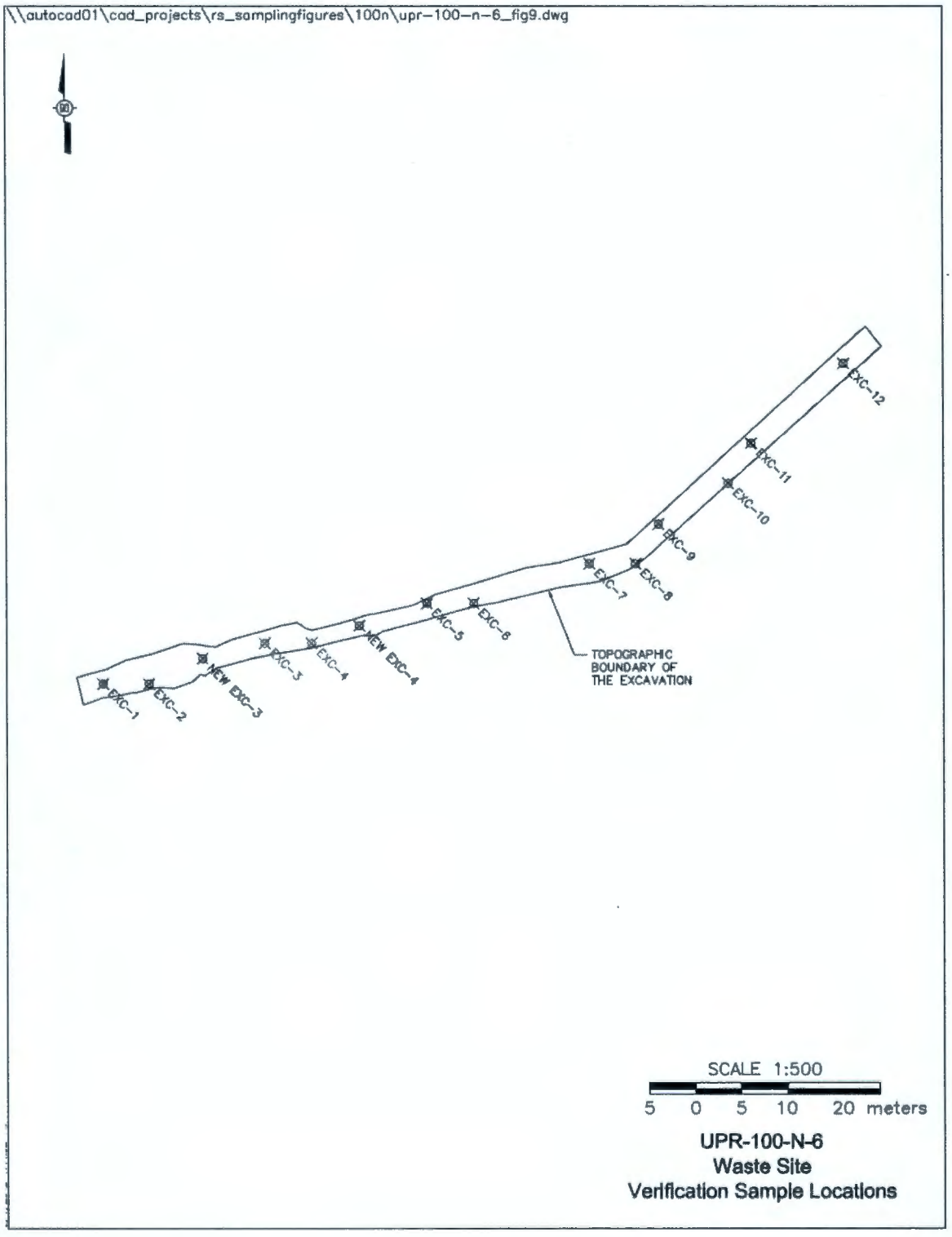


Table 1. UPR-100-N-6 Sample Summary. (2 Pages)

Sample Location	HEIS Sample Number	Northing	Easting	Sample Analysis
EXC-1	TBD	149592.7	571279.5	ICP metals, [a] mercury, hexavalent chromium, nitrate, GEA, nickel-63, carbon-14, strontium-90, isotopic plutonium, isotopic uranium, isotopic thorium, tritium [b], PAH [c], TPH [c]
EXC-2	TBD	149592.7	571285.5	
EXC-3	TBD	149596.0	571292.5	
EXC-4	TBD	149600.3	571312.9	
EXC-5	TBD	149603.2	571321.7	
EXC-6	TBD	149603.2	571327.8	
EXC-7	TBD	149608.4	571342.9	
EXC-8	TBD	149608.4	571348.9	
EXC-9	TBD	149613.6	571351.9	
EXC-10	TBD	149618.9	571361.0	
EXC-11	TBD	149624.1	571364.0	
EXC-12	TBD	149634.5	571376.0	
Duplicate [d]	TBD	TBD	TBD	
Equipment Blank	TBD	NA	NA	ICP metals, [a] mercury,

[a] The expanded list of ICP metals will include antimony, arsenic, barium, beryllium, boron, cadmium, chromium(total), cobalt, copper, lead, manganese, magnesium, molybdenum, nickel, silver, selenium, vanadium, and zinc in the analytical results package.

[b] The portion of the sample for tritium analysis will be collected at a depth of 0.15 m (6 in.) below the excavation surface per Tri-Party Agreement Change Notice TPA-CN-177 (dated August 21, 2007).

[c] PAH and TPH are not COPCs for UPR-100-N-6 waste site. Analysis will be performed for informational purposes only.

[d] One duplicate sample will be collected at a location selected at the project analytical lead's discretion.

GEA = gamma energy analysis
HEIS = Hanford Environmental Information System
ICP = inductively coupled plasma
NA = not applicable
PAH = polycyclic aromatic hydrocarbons
TPH = total petroleum hydrocarbons


10

Attachment 11

167390

^WCH Document Control

From: Saueressig, Daniel G
Sent: Thursday, September 06, 2012 8:39 AM
To: ^WCH Document Control
Subject: FW: 100-n-63:2 proposed land bridge
Attachments: 100-N-63-2 North Land Bridge Evaluation-rev 0.docx

Please provide a chron number (and include the attachment). This email documents a regulatory agreement.

Thanks,

Dan Saueressig
FR Environmental Project Lead
Washington Closure Hanford
521-5326

From: Elliott, Wanda (ECY) [mailto:well461@ECY.WA.GOV]
Sent: Thursday, September 06, 2012 7:24 AM
To: Saueressig, Daniel G; Chance, Joanne C; Buckmaster, Mark A
Cc: Boyd, Alicia
Subject: 100-n-63:2 proposed land bridge

I reviewed the packet of information that you provided me proposing a land bridge across 100-N-63:2 waste site and do not foresee any issues with the proposal.
Thanks,

Wanda Elliott
(509) 372-7904
Environmental Scientist
Nuclear Waste Program
Washington State Department of Ecology

Introduction

WCH requests Ecology approval to backfill a portion of the 100-N-63:2 waste site to make a land bridge to support installation of the bioventing equipment for waste site UPR-100-N-17. Figures 1 and 2 show the general location of the land bridge. This area has been excavated to design to remove the 100-N-63:2 pipeline. Radiological surveys were performed and verification samples collected in accordance with the 100 *Verification Sampling of the 100-N Treatment Storage and Disposal Unit Pipelines; 100-N-63:2, Pipelines Between 109-N, 105-N, 107-N, 1310N, 1322N, 1926N and 36" Process Drain to Outfall* (WCH 2011). The radiological survey and verification sample locations are also shown in Figures 1 and 2. The land bridge location was selected based on the review of the radiological survey results and individual verification sample results. These results show that backfill of this location should be allowed as no further remediation in this area is needed to meet the applicable cleanup criteria for soil as presented in the *Remedial Design Report/Remedial Action Work Plan for the 100-N Area* (DOE-RL 2006b).

Data Evaluation

Because the soil samples were collected for different verification decision units they were only analyzed for those analysis required for each decision (Table 1) identified in the Work Instruction for 100-N-63:2 verification work instruction (WCH 2011). Analytical results for four verification samples, plus one field duplicate within the land bridge location, and two adjacent locations to the north were reviewed and the data shown in Tables 2 through 5.

The radiological survey and results of the verification samples on the north side of the land bridge show radiological contamination, which may require additional remediation. For that reason the land bridge will not extend into this area. The verifications samples collected from within the land bridge area (sample numbers J1P1N0, J1F1M3, J1F1M5, J1F1M6, and J1F1M7).

Verification sample results for those samples within the land bridge were conservatively compared against the applicable cleanup criteria for soil as presented in the 100-N CERCLA RDR/RAWP (DOE-RL 2006). An evaluation of these results shows that residual contaminant concentrations in the soil do not preclude installation of the land bridge or any future uses (as bounded by the rural-residential scenario). The results also demonstrate that residual contaminant concentrations are protective of groundwater and the Columbia River.

Evaluation of the results provided in Table 6 indicate that all COPCs were either undetected or were quantified below remedial action goals (RAGs) and soil lookup values with the exception of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluorathene and benzo(k)fluoranthene which were detected above the soil RAGs for protection of ground water and the Columbia River. However, based on RESRAD modeling discussed in Appendix C of the 100-N Area RDR/RAWP (DOE-RL 2006), residual concentrations of these polyaromatic hydrocarbons (PAHs) are not predicted to migrate more than 0 m (0 ft) in 1,000 years, based on benzo(a)anthracene, having the lowest partitioning coefficient, 360 mL/g. The vadose zone underlying the bottom of the current excavation in this area is approximately 16.6 m (54.5 ft) thick. Therefore, residual concentrations of PAHs are predicted to be protective of groundwater, and thus, the Columbia River.

Potassium-40, Radium-226, thorium-228, and thorium-232 were detected in samples collected at the 100-N-63:2 waste site but are not considered in the evaluation. These isotopes are excluded from consideration based on natural occurrence and were all detected below background levels (based on an assumption of secular equilibrium, the background activities for radium-228 and thorium-228 are equal to the statistical background activity of 1.32 pCi/g for thorium-232) (DOE-RL 2006).

These samples were collected as part of the statistical and focus samples for interim closure of 100-N-63:2 and will be evaluated in the 100-N-63:2 closure verification package independent of this evaluation.

Figure 1. 100-N-63:2 Land Bridge Overlaid on Beta Survey Map

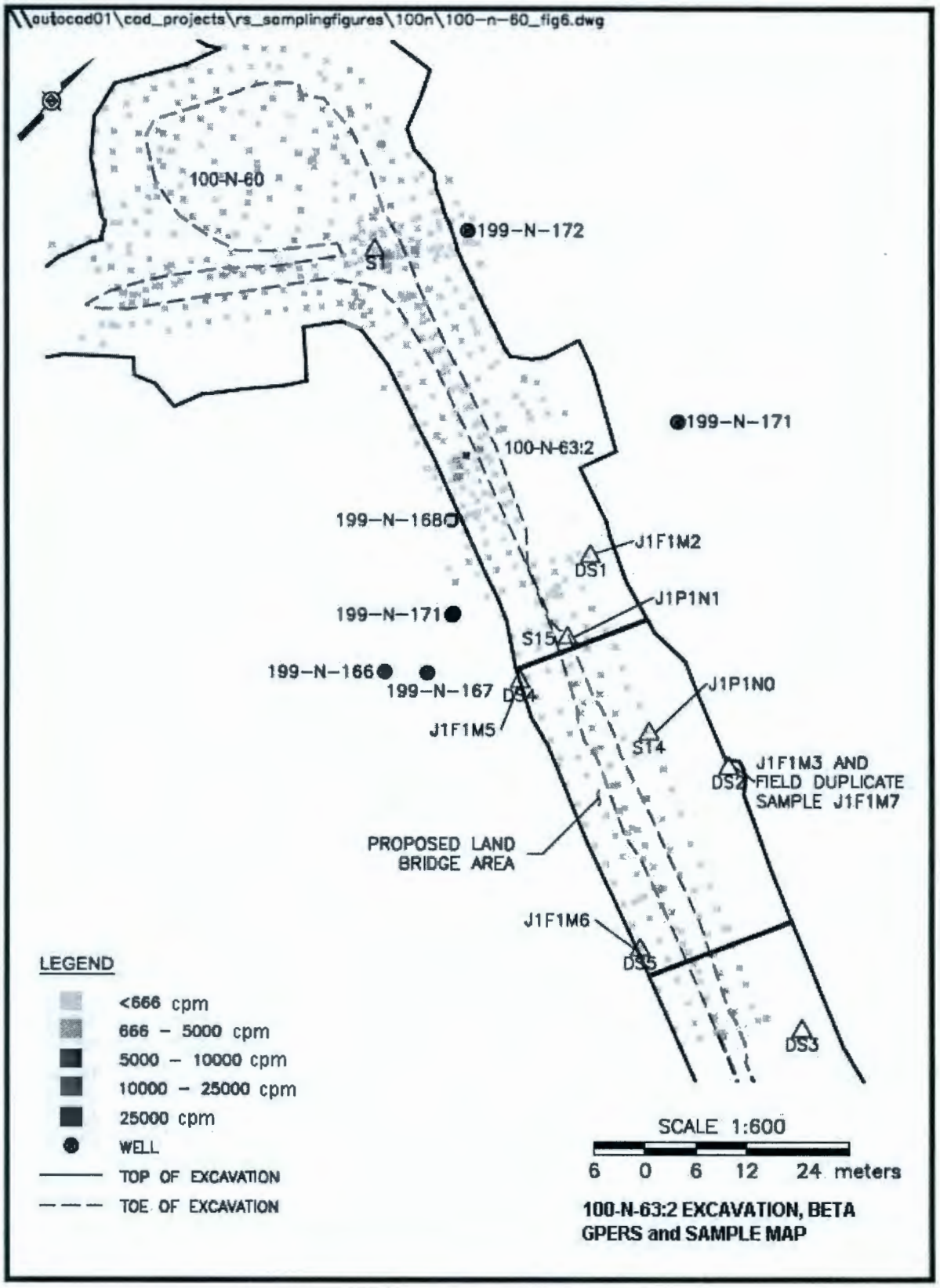


Figure 2. 100-N-63:2 Land Bridge Overlaid on Gamma Survey Map

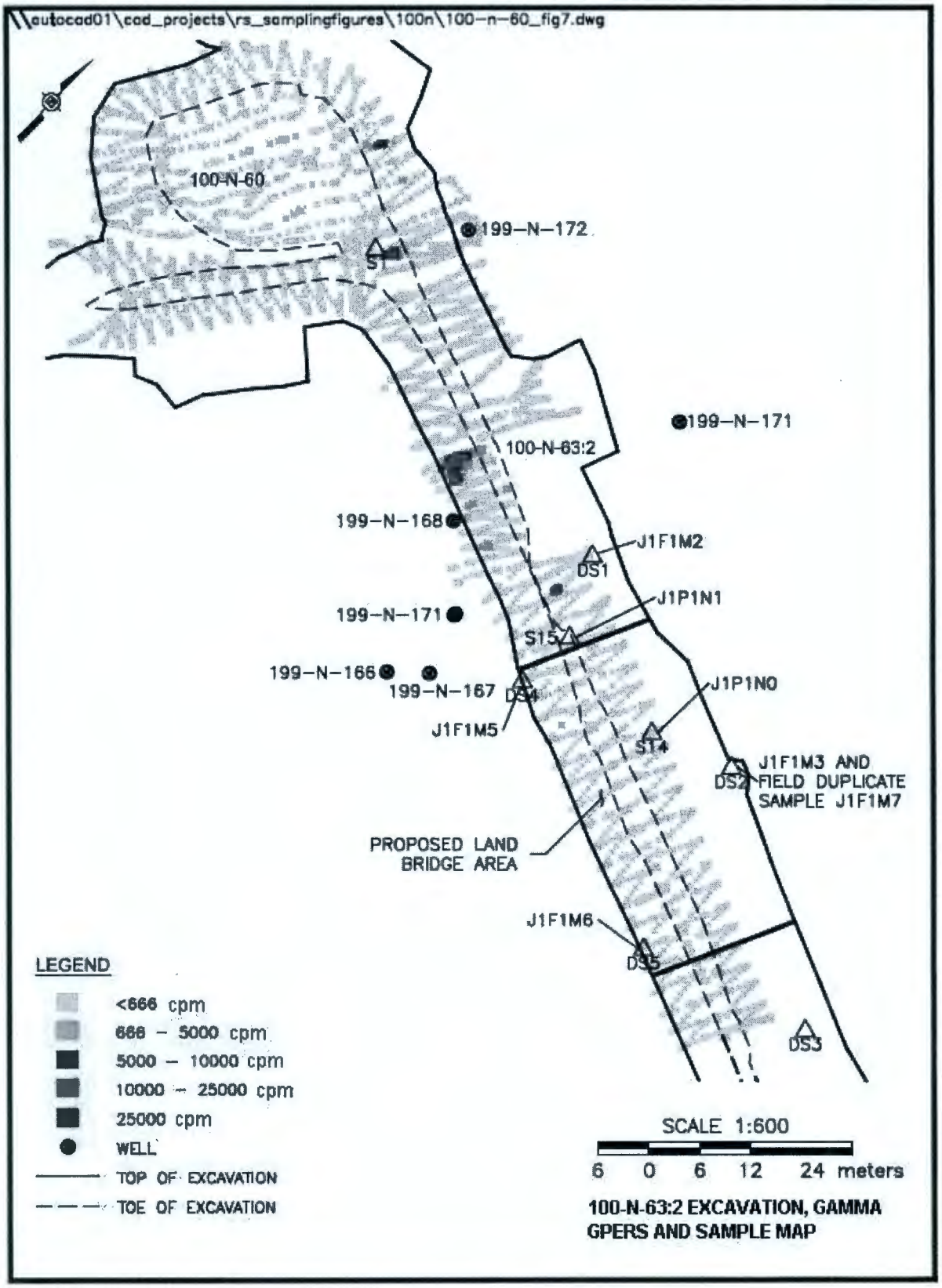


Table 1 Proposed Land Bridge Area 100-N-63:2 Sample Analysis Summary.

Sample Location Number	Description of Type of Pipeline Removed	Sample Number	Sample Analysis
S-14	Radioactively contaminated drain pipeline	J1P1N0	Cadmium, chromium (total) [a], mercury, hexavalent chromium, lead, nitrate/nitrite [b], sulfate, semi volatile organic analysis, total petroleum hydrocarbons, polyaromatic hydrocarbons, GEA, nickel-63, strontium-90, plutonium-239/240, thorium-282, thorium-232, uranium-233/234, uranium-238, tritium[d]
S-15		J1P1N1	
DS-1	Diesel fuel spill area soil	J1F1M2	Metals, petroleum hydrocarbons, polyaromatic hydrocarbons
DS-2		J1F1M3	
DS-4		J1F1M5	
DS-5		J1F1M6	
DS-2 Duplicate [c]		J1F1M7	

[a] Analysis for the expanded list of Inductively Coupled Plasma (ICP) metals will include aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, cobalt, copper, iron, lead, magnesium, manganese, molybdenum, nickel, potassium, selenium, silicon, silver, sodium, thallium, vanadium, and zinc in the analytical results package.

[b] To preclude holding time issues associated with Environmental Protection Agency (EPA) Method 300 for nitrites and nitrates, EPA Method 353 was performed.

[c] The duplicate sample location was identified at the discretion of the project analytical lead.

[d] The portion of the sample for tritium analyses was be collected at a depth of 0.15 m (6 in.) below the excavation surface per Tri-Party Agreement Change Notice TPA-CN-177 (dated August 21, 2007).

DS = diesel spill

GEA = gamma energy analysis

S = sample

Evaluation of 100-N-63:2 Land Bridge to Support Bio-Insitu Treatment

Table 2. Inorganic Sample Summary Table (2 Pages).

Sample Number	Sample Date	Aluminum			Antimony			Arsenic			Barium			Beryllium		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	6380	X	1.4	0.42	B	0.34	3.2		0.59	59.3	X	0.07	0.17	B	0.03
J1F1M3	5/23/12	9170	X	1.7	0.42	U	0.42	2.9		0.74	79.6	X	0.09	0.25		0.04
J1F1M5	5/23/12	6540	X	1.4	0.33	U	0.33	2.4		0.58	48	X	0.07	0.15	B	0.03
J1F1M6	5/23/12	6500	X	1.5	0.38	U	0.38	2.8		0.65	42.7	X	0.08	0.18	B	0.03
J1F1M7	5/23/12	8620	X	1.4	0.34	U	0.34	2.7		0.6	67.6	X	0.07	0.23		0.03
J1P1N0	5/14/12	6290	X	1.6	0.39	U	0.39	3.2		0.67	44.2	X	0.08	0.13	B	0.03
J1P1N1	5/14/12	7380	X	1.4	0.35	U	0.35	4.2		0.62	58.1	X	0.07	0.18	B	0.03

Sample Number	Sample Date	Boron			Cadmium			Calcium			Chromium			Cobalt		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	1	B	0.87	0.096	B	0.04	10400	X	12.5	7.9	X	0.05	8.5	X	0.09
J1F1M3	5/23/12	1.5	B	1.1	0.19	B	0.05	7050	X	15.7	16.8	X	0.07	8.5	X	0.11
J1F1M5	5/23/12	0.86	U	0.86	0.13	B	0.04	9430	X	12.4	12.5	X	0.05	7.3	X	0.09
J1F1M6	5/23/12	0.97	U	0.97	0.11	B	0.04	6340	X	14	9	X	0.06	7.9	X	0.1
J1F1M7	5/23/12	1.2	B	0.89	0.18		0.04	6450	X	12.8	12.6	X	0.05	7.8	X	0.09
J1P1N0	5/14/12	1	U	1	0.066	B	0.04	7060	X	14.4	8.7	X	0.06	7.6	-	0.1
J1P1N1	5/14/12	0.91	U	0.91	0.094	B	0.04	9730	X	13.2	10.5	X	0.05	7.3		0.09

Sample Number	Sample Date	Copper			Iron			Lead			Magnesium			Manganese		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	16	X	0.19	21300	X	3.4	4.6		0.24	4600	X	3.3	299	X	0.09
J1F1M3	5/23/12	17.9	X	0.24	22400	X	4.2	8.3		0.3	5190	X	4.1	360	X	0.11
J1F1M5	5/23/12	15.9	X	0.19	19000	X	3.3	5		0.24	4960	X	3.2	289	X	0.09
J1F1M6	5/23/12	17.2	X	0.22	19500	X	3.8	4.8		0.27	4540	X	3.7	273	X	0.1
J1F1M7	5/23/12	16.5	X	0.2	20300	X	3.4	7.6		0.24	4900	X	3.4	314	X	0.09
J1P1N0	5/14/12	15.3		0.22	20900	X	3.9	3.1		0.28	4230	X	3.8	278	X	0.1
J1P1N1	5/14/12	16.2		0.2	20500	X	3.5	4.2		0.25	4930	X	3.5	293	X	0.09

Sample Number	Sample Date	Mercury			Molybdenum			Nickel			Potassium			Selenium		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	0.011	B	0.007	0.31	B	0.23	9.3	X	0.11	1020		36.4	0.76	U	0.76
J1F1M3	5/23/12	0.0093	B	0.005	0.29	U	0.29	14.5	X	0.14	1750		45.7	0.96	U	0.96
J1F1M5	5/23/12	0.0079	B	0.006	0.23	U	0.23	11.3	X	0.11	974		36	0.76	U	0.76
J1F1M6	5/23/12	0.0099	B	0.006	0.26	U	0.26	10.2	X	0.12	937		40.6	0.85	U	0.85
J1F1M7	5/23/12	0.0084	B	0.005	0.24	U	0.24	14.7	X	0.11	1580		37.2	0.78	U	0.78
J1P1N0	5/14/12	0.0064	U	0.006	0.26	B	0.26	9.6	X	0.13	1060		41.8	0.88	U	0.88
J1P1N1	5/14/12	0.0055	U	0.006	0.24	U	0.24	11.7	X	0.11	1160		38.2	0.8	U	0.8

Sample Number	Sample Date	Silicon			Silver			Sodium			Vanadium			Zinc		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	284	XN	5	0.14	U	0.14	283		52.4	56.5	X	0.08	44.1	X	0.35
J1F1M3	5/23/12	564	X	6.3	0.18	U	0.18	260		65.7	54.9	X	0.1	58	X	0.44
J1F1M5	5/23/12	345	X	5	0.14	U	0.14	309		51.8	51	X	0.08	49.7	X	0.35
J1F1M6	5/23/12	347	X	5.6	0.16	U	0.16	241		58.5	50.1	X	0.09	39.3	X	0.39
J1F1M7	5/23/12	460	X	5.1	0.15	U	0.15	267		53.5	50.6	X	0.09	58	X	0.36
J1P1N0	5/14/12	493	X	5.8	0.16	U	0.16	270		60.1	53.6		0.1	38.6	X	0.41
J1P1N1	5/14/12	630	X	5.3	0.15	U	0.15	326		55	50		0.09	39.3	X	0.37

Table 2. Inorganic Sample Summary Table (2 Pages).

Sample Number	Sample Date	Hexavalent Chromium			Bromide			Chloride			Fluoride			Nitrogen in Nitrate		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M3	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M5	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M6	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M7	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1P1N0	5/14/12	0.155	U	0.155	0.7	B	0.4	4.8	B	2	0.85	U	0.85	4.5		0.33
J1P1N1	5/14/12	0.155	U	0.155	0.39	U	0.39	3.1	B	2	0.83	U	0.83	1.9	B	0.32

Sample Number	Sample Date	Nitrogen in Nitrite			Nitrogen in Nitrite and Nitrate			Phosphorous in phosphate			Sulfate		
		mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
J1F1M2	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M3	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M5	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M6	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1F1M7	5/23/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
J1P1N0	5/14/12	0.35	U	0.35	4.4		0.31	1.3	U	1.3	26.4		1.8
J1P1N1	5/14/12	0.34	U	0.34	1.5		0.31	1.2	U	1.2	11.3		1.7

B = Detected be low reporting limit
J = estimated result
MDA = minimum detectable activity
N = Recovery exceeds upper or lower control limits
NA = not analyzed
Q = qualifier
PQL = practical quantization limit
U = undetected
X = Serial dilution in the analytical batch indicates that physical and chemical interferences are precent

Table 3. Radionuclide Sample Summary Table .

Sample Number	Sample Date	Americium-241			Cesium-137			Cobalt-60			Europium-152			Europium-154		
		pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA
J1P1N0	5/14/12	0.056	U	0.232	0.028		0.023	0.006	U	0.027	0.0304	U	0.064	-0.0051	U	0.084
J1P1N1	5/14/12	0.037		0.033	0.208		0.029	1.41		0.029	-0.0029	U	0.06	-0.0356	U	0.08

Sample Number	Sample Date	Europium-155			Radium-226			Plutonium-238			Plutonium-239/240			Thorium-228		
		pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA
J1P1N0	5/14/12	0.049	U	0.078	0.424		0.041	0	U	0.057	0.00207	U	0.099	0.514		0.093
J1P1N1	5/14/12	0.015	U	0.052	0.417		0.05	0.032	U	0.059	0.0785		0.07	0.997		0.131

Sample Number	Sample Date	Thorium-230			Thorium-232			Uranium-234			Uranium-235			Uranium-238		
		pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA
J1P1N0	5/14/12	0.403		0.092	0.723		0.092	0.202		0.077	0.0147	U	0.062	0.235		0.062
J1P1N1	5/14/12	0.12	U	0.109	0.565		0.144	0.169		0.077	0.0123	U	0.055	0.186		0.062

Sample Number	Sample Date	Total beta radiostrontium			Nickel-63			Tritium		
		pCi/g	Q	MDA	pCi/g	Q	MDA	pCi/g	Q	MDA
J1P1N0	5/14/12	0.211		0.152	3.55	U	13.5	0.014	U	0.026
J1P1N1	5/14/12	0.257		0.132	7.33	U	12.9	0.021	U	0.023

Table 4. Semivolatile Organic Compounds Sample Summary Table (2 Pages).

Sample Number	J1P1N0			J1P1N1		
Sample Date	5/14/12			5/14/12		
Constituent	ug/kg	Q	PQL	ug/kg	Q	PQL
1,2,4-Trichlorobenzene	29	U	29	28	U	28
1,2-Dichlorobenzene	23	U	23	22	U	22
1,3-Dichlorobenzene	13	U	13	12	U	12
1,4-Dichlorobenzene	14	U	14	14	U	14
2,4,5-Trichlorophenol	10	U	10	10	U	10
2,4,6-Trichlorophenol	10	U	10	10	U	10
2,4-Dichlorophenol	10	U	10	10	U	10
2,4-Dimethylphenol	69	U	69	67	U	67
2,4-Dinitrophenol	350	U	350	340	U	340
2,4-Dinitrotoluene	69	U	69	67	U	67
2,6-Dinitrotoluene	29	U	29	28	U	28
2-Chloronaphthalene	10	U	10	10	U	10
2-Chlorophenol	22	U	22	21	U	21
2-Methylnaphthalene	20	U	20	19	U	19
2-Methylphenol (cresol, o-)	14	U	14	13	U	13
2-Nitroaniline	52	U	52	51	U	51
2-Nitrophenol	10	U	10	10	U	10
3+4 Methylphenol (cresol, m+p)	34	U	34	34	U	34
3,3'-Dichlorobenzidine	94	U	94	91	U	91
3-Nitroaniline	76	U	76	74	U	74
4,6-Dinitro-2-methylphenol	340	U	340	340	U	340
4-Bromophenylphenyl ether	20	U	20	19	U	19
4-Chloro-3-methylphenol	69	U	69	67	U	67
4-Chloroaniline	85	U	85	83	U	83
4-Chlorophenylphenyl ether	22	U	22	21	U	21
4-Nitroaniline	76	U	76	74	U	74
4-Nitrophenol	100	U	100	99	U	99

Table 4. Semivolatile Organic Compounds Sample Summary Table (2 Pages).

Sample Number	J1P1N0			J1P1N1		
Sample Date	5/14/2012			5/14/2012		
Constituent	ug/kg	Q	PQL	ug/kg	Q	PQL
Acenaphthene	11	U	11	10	U	10
Acenaphthylene	18	U	18	17	U	17
Anthracene	18	U	18	17	U	17
Benzo(a)anthracene	21	U	21	31	J	20
Benzo(a)pyrene	21	U	21	20	U	20
Benzo(b)fluoranthene	27	U	27	39	JK	27
Benzo(ghi)perylene	17	U	17	16	U	16
Benzo(k)fluoranthene	42	U	42	41	UK	41
Bis(2-chloro-1-methylethyl)ether	24	U	24	23	U	23
Bis(2-Chloroethoxy)methane	24	U	24	23	U	23
Bis(2-chloroethyl) ether	17	U	17	17	U	17
Bis(2-ethylhexyl) phthalate	48	U	48	47	U	47
Butylbenzylphthalate	45	U	45	44	U	44
Carbazole	38	U	38	37	U	37
Chrysene	28	U	28	34	J	27
Di-n-butylphthalate	30	U	30	29	U	29
Di-n-octylphthalate	15	U	15	15	U	15
Dibenz[a,h]anthracene	20	U	20	19	U	19
Dibenzofuran	21	U	21	20	U	20
Diethyl phthalate	27	U	27	26	U	26
Dimethyl phthalate	24	U	24	23	U	23
Fluoranthene	38	U	38	63	J	37
Fluorene	19	U	19	18	U	18
Hexachlorobenzene	30	U	30	29	U	29
Hexachlorobutadiene	10	U	10	10	U	10
Hexachlorocyclopentadiene	52	U	52	51	U	51
Hexachloroethane	22	U	22	22	U	22
Indeno(1,2,3-cd)pyrene	23	U	23	22	U	22
Isophorone	18	U	18	17	U	17
N-Nitroso-di-n-dipropylamine	32	U	32	31	U	31
N-Nitrosodiphenylamine	22	U	22	21	U	21
Naphthalene	32	U	32	31	U	31
Nitrobenzene	23	U	23	22	U	22
Pentachlorophenol	340	U	340	340	U	340
Phenanthrene	18	U	18	44	J	17
Phenol	19	U	19	18	U	18
Pyrene	13	U	13	63	J	12

Table 5. Polyaromatic Hydrocarbons and Total Petroleum Hydrocarbons Sample Summary Table.

Sample Number	J1P1N0			J1P1N1			J1F1M2			J1F1M3			J1F1M5			J1F1M6			J1F1M7		
Sample Date	5/14/12			5/14/12			5/23/12			5/23/12			5/23/12			5/23/12			5/23/12		
Constituent	ug/kg	Q	PQL	ug/kg	Q	PQL	ug/kg	Q	PQL	ug/kg	Q	PQL	ug/kg	Q	PQL	ug/kg	Q	PQL	ug/kg	Q	PQL
Polyaromatic hydrocarbons (PAH)																					
Acenaphthene	9.9	U	9.9	9.5	U	9.5	10	U	10	25	JX	11	10	U	10	10	U	10	10	U	10
Acenaphthylene	8.9	U	8.9	8.6	U	8.6	9.2	U	9.2	9.8	U	9.8	9.2	U	9.2	9.1	U	9.1	9.2	U	9.2
Anthracene	3	U	3	42		2.9	3.1	U	3.1	3.3	U	3.3	29	X	3.1	3.1	U	3.1	3.1	U	3.1
Benzo(a)anthracene	3.2	U	3.2	78		3	5.4	J	3.3	52		3.5	73		3.2	3.8	JX	3.2	19		3.2
Benzo(a)pyrene	6.4	U	6.4	42		6.1	6.6	U	6.6	33		7	40		6.5	6.5	U	6.5	15		6.5
Benzo(b)fluoranthene	4.2	U	4.2	48		4	4.3	U	4.3	53	X	4.6	50	X	4.3	4.5	JX	4.2	19		4.3
Benzo(ghi)perylene	7.2	U	7.2	27	J	6.9	7.4	U	7.4	26	J	7.8	26	J	7.3	7.2	U	7.2	9.3	J	7.3
Benzo(k)fluoranthene	3.9	U	3.9	18		3.8	4	U	4	21		4.3	22		4	4	U	4	7.2	J	4
Chrysene	4.8	U	4.8	53		4.6	5	U	5	51		5.3	60		4.9	4.9	U	4.9	17	J	4.9
Dibenz[a,h]anthracene	11	U	11	10	U	10	11	U	11	12	U	12	11	U	11	11	U	11	11	U	11
Fluoranthene	13	U	13	140		12	13	U	13	130		14	150		13	13	U	13	27	J	13
Fluorene	5.2	U	5.2	14	J	5	5.4	U	5.4	19	J	5.7	18	J	5.4	5.3	U	5.3	5.4	U	5.4
Indeno(1,2,3-cd)pyrene	12	U	12	24	J	11	12	U	12	23	J	13	23	J	12	12	U	12	12	U	12
Naphthalene	12	U	12	11	U	11	12	U	12	19	JX	13	12	U	12	12	U	12	12	U	12
Phenanthrene	12	U	12	85		11	12	U	12	93		13	87		12	12	U	12	12	U	12
Pyrene	12	U	12	150		11	12	U	12	130		13	140		12	12	U	12	30	J	12
Total Petroleum Hydrocarbons (TPH)																					
TPH - Diesel	5700		670	5100		670	2300	JB	650	12000	B	710	3500	JB	680	2000	JB	680	11000	B	680
TPH - Diesel Extended carbon range	7400		980	7900		980	4600		960	23000		1000	6100		1000	2400	J	990	31000		1000

Table 6. Comparison of the Land Bridge Area 100-N-63:2 Soil Sample Concentrations to Soil Action Levels.

COPC	Maximum Detected Result (pCi/g)	Soil Lookup Values (pCi/g)[a]			Does the Result Exceed Lookup Values?
		Shallow Zone Lookup Value	Soil Lookup Value for Groundwater Protection	Soil Lookup Value for River Protection	
Cesium-137	0.208	6.2	1,465	2,930[d]	No
Radium-226	0.424 (<BG)	1.05	NA	NA	No
Thorium-230	0.403	2.96	NA	NA	No
Thorium-232	0.723 (<BG)	1.3[i]	NA	NA	No
Strontium-90	0.211	4.5	27.6	55.2	No
Uranium-234	0.202	1.1[b]	1.1[b]	1.1[b]	No
Uranium-238	0.235 (<BG)	1.1[b]	1.1[b]	1.1[b]	No
COPC	**Result (mg/kg)**	**Soil Cleanup Levels (mg/kg)[a]**			**Does the Result Exceed RAGs?**
		Direct Exposure	Protective of Groundwater	Protective of the River	
Metals					
Arsenic	3.2 (<BG)	20[b]	20[b]	20[b]	No
Barium	79.6 (<BG)	5,600	200	400	No
Beryllium	0.25 (<BG)	10.4[d]	1.51[b]	1.51[b]	No
Boron[e]	1.5	7,200	320	--[f]	No
Cadmium[c]	0.19 (<BG)	13.9[d]	0.81[b]	0.81[b]	No
Chromium, total	16.8 (<BG)	80,000	18.5[b]	18.5[b]	No
Cobalt	8.5 (<BG)	24	15.7[b]	--[f]	No
Copper	17.9 (<BG)	2,960	59.2	22.0[b]	No
Lead	8.3 (<BG)	353	10.2[b]	10.2[b]	No
Manganese	360 (<BG)	3,760	512[b]	512[b]	No
Mercury	0.0099 (<BG)	24	0.33[c]	0.33[c]	No
Molybdenum[e]	0.26	400	8	--[f]	No
Nickel	14.7 (<BG)	1,600	19.1[b]	27.4	No
Vanadium	54.9 (<BG)	560	85.1[b]	--[f]	No
Zinc	58 (<BG)	24,000	480	67.8[b]	No
Inorganics					
Chloride	4.8 (<BG)	--	25,000	--	No
Nitrate (as Nitrogen)	4.5 (<BG)	128,000	1,000	2,000	No
Sulfate	26.4 (<BG)	--	25,000	--	No
Polyaromatic Hydrocarbons					
Acenaptthene	0.025	4,800	96	129	No
Anthracene	0.029	4,800	96	129	No
Benzo(a)anthracene	0.073	1.37	0.015[g]	0.015[g]	Yes[g]
Benzo(a)pyrene	0.040	0.137	0.015[g]	0.015[g]	Yes[g]
Benzo(b)fluoranthene	0.053	1.37	0.015[g]	0.015[g]	Yes[g]
Benzo(g,h,i)perylene[f]	0.026	2,400	48	192	No
Benzo(k)fluoranthene	0.022	1.37	0.015[g]	0.015[g]	Yes[g]
Chrysene	0.060	13.7	0.12	0.1[g]	No
Fluoranthene	0.150	3,200	64	18.0	No
Fluorene	0.019	3,200	64	260	No
Indeno(1,2,3-cd) pyrene	0.023	1.37	0.33[g]	0.33[g]	No
Naphthalene	0.019	1,600	16.0	988	No
Phenanthrene[f]	0.093	24,000	240	1,920	No
Pyrene	0.140	2,400	48	192	No
Total Petroleum Hydrocarbons					
TPH	31	200	200	200	No

Table 6. Comparison of the Land Bridge Area 100-N-63:2 Soil Sample Concentrations to Soil Action Levels.

[a] Lookup values and RAGs obtained from the 100 Area RDR/RAWP (DOE-RL 2006) unless otherwise noted.
[b] Where cleanup levels are less than background, cleanup levels default to background per WAC 173-340-700[4][d] (1996). The arsenic cleanup level of 20 mg/kg has been agreed to by the Tri-Party Agreement Project managers (DOE-RL 2006).
[c] Hanford Site-specific background value is not available; it was not evaluated during background study. Value used is from *Natural Background Soil Metals Concentrations in Washington State* (Ecology 1994).
[d] Carcinogenic cleanup level calculated based on the inhalation exposure pathway (WAC 173-340-750[3], 1996) using an airborne particulate mass-loading rate of 0.0001 g/m^3 (*Hanford Guidance for Radiological Cleanup* [WDOH 1997]).
[e] No Hanford Site-specific or Washington State background value is available.
[f] No parameters (bioconcentration factors or ambient water quality criteria values) are available from the Washington State Department of Ecology Cleanup Levels and Risk Calculations database or other databases to calculate cleanup levels (WAC 173-340-730(3)(a)(iii), 1996 [Method B for surface waters]).
[g] Because the soil partitioning coefficient values for copper and zinc are greater than 20 mL/g (22 mL/g and 30 mL/g, respectively), RESRAD modeling discussed in Appendix C of the 100-N Area RDR/RAWP (DOE-RL 2006) predicts that these constituents will not reach groundwater within 1,000 years. The vadose zone underlying the bottom of the 100-N-63:2 excavation is approximately 16.6 m (54.5 ft). Based on RESRAD modeling, constituents with a soil partitioning coefficient of 16 mL/g or greater are not predicted to migrate through a vadose zone of this thickness and reach groundwater within 1,000 years. Therefore, residual concentrations of the PAHs are predicted to be protective of groundwater and the Columbia River.

-- = not applicable
COPC = contaminant of potential concern
EPA = U.S. Environmental Protection Agency
BG = Hanford Specific Background activity or concentration
RAG = remedial action goal
RDL = required detection limit
RDR/RAWP = *Remedial Design Report/Remedial Action Work Plan for the 100 Area*
RESRAD = RESidual RADioactivity (dose assessment model)
WAC = *Washington Administrative Code*

References

DOE-RL, 2006, *Remedial Design Report/Remedial Action Work Plan for the 100-N Area,* DOE/RL-2005-93, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology, 1994, *Natural Background Soil Metals Concentrations in Washington State*, Publication No. 94-115, Washington State Department of Ecology, Olympia, Washington.

Ecology, 2011, Cleanup Levels and Risk Calculations (CLARC) Database, Washington State Department of Ecology, Olympia, Washington, <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

WAC 173-340, 1996, "Model Toxics Control Act -- Cleanup," *Washington Administrative Code*.

WDOH, 1997, *Hanford Guidance for Radiological Cleanup*, WDOH/320-015, Rev. 1, Washington State Department of Health, Olympia, Washington.

WCH, 2011, *Verification Sampling of the 100-N Treatment Storage and Disposal Unit Pipelines; 100-N-63:2, Pipelines Between 109-N, 105-N, 107-N, 1310N, 1322N, 1926N and 36" Process Drain to Outfall,* 0100N-WI-G0022, Washington Closure Hanford, Richland, Washington.

Attachment 12

100K Area Unit Managers Meeting Status

September 13, 2012

RL-0012 Sludge Treatment Project

- TPA Milestone M-016-172, *Complete KOP Material Removal from 105-KW Fuel Storage Basin* - Knockout pot material processing in the 105-K West Basin is complete. The fifth and final MCO has been loaded and is being processed at CVDF, and will be shipped to CSB for interim storage on September 13, 2012.
- TPA Milestone M-016-173 *K Basin Sludge Treatment and Packaging Technology Selection* - The siting study to evaluate existing facilities for the deployment of the Phase 2 Treatment and Packaging of sludge will be completed by September 30, 2012. Follow-on implementation work is unfunded for 2013.
- TPA Milestone M-16-174, *Complete Final Design of Sludge Retrieval and Transfer System* - The resolution of comments received during the ECRTS formal design review has begun. The Final Design Report is scheduled to be approved by September 30, 2012.
- TPA Milestone M-016-175, *Begin Sludge Removal from 105-KW Fuel Storage Basin* - Construction of the 105-KW Annex is in-progress.
- TPA Milestone M-016-176, *Complete Sludge Removal from 105-KW Fuel Storage Basin* - No change in status.
- TPA Milestone M-016-178, *Initiate Deactivation of 105-KW* - No change in status.

RL-0041 K Facility Demolition and Soil Remediation

Remedial Actions:

- The Remaining Sites Verification Package (RSVP) for waste sites 100-K-6, 132-KE-1, 100-K-62 and 100-K-46 (Area AH) was approved by DOE and EPA. These waste sites will be re-classified to Interim Closed Out status.
- The Remaining Sites Verification Package for waste site 100-K-53 was approved by DOE and EPA, allowing the site to be re-classified to Interim Closed Out.
- The Remaining Sites Verification Package for waste site 100-K-63 was approved by DOE and EPA, allowing the site to be re-classified to Interim Closed Out.
- Backfill in Area AA Zone 1 was completed.
- An evaluation of the data from the verification samples collected in Area AG Zone 2 was presented to DOE and EPA and backfill of the area began. The RSVP for Area AG Zone 2 is in CHPRC internal review. This RSVP supports the closure of phase 1 waste sites 100-K-3 and 100-K-36 and phase 3 waste site 100-K-79 subsite 7 (partial) as well as the 1706-KE, 1706-KEL, 1706-KER building footprints.
- An evaluation of the data from the verification samples collected in Area AG Zone 1was presented to DOE and EPA and backfill of the area began. The RSVP for Area AG Zone 1 is currently being drafted. This RSVP supports the closure of phase 1 waste sites 100-K-3,

100-K-68, 100-K-69, 100-K-70, and 100-K-71 and phase 3 waste sites 100-K-47 (partial) and 100-K-56 (partial).

- The Verification Sampling Instruction for 100-K-106 and 182-K is with DOE and EPA for review. Verification samples were collected in accordance with the plan and results are pending.

Demolition:

- Piping and valves from the 105-KE water tunnel demolition were transported to ERDF on August 27, 2012 to complete that phase of the work. The anticipated completion date for the draft Removal Action Report (RAR) is October 5, 2012.
- Size reduction of piping and metal and load out of the demolition debris from the 183.2 KE Sedimentation Basins were completed. The Removal Action Report to support closeout of 183.2 KE and 183.7 KE is drafted and will be sent to DOE and EPA for review September 10, 2012.
- The Removal Action Report documenting the completion of the D&D of 190-KE and 190-KW is in internal review.

105-KE Interim Safe Storage:

- Work continues on construction of below-grade concrete pourbacks. To date, 29 of 34 pourbacks have been completed.
- Interior reactor cleanout work is on-going. Recent efforts have focused on completing the tool dolly room, and the RCT office. Work has begun on the cleanout of the 3x ballroom, and includes lead and asbestos removal, as well as general combustible material removal.

Attachment 13

100-K POW | DEAN- UPDATE | 27-Aug-12 12:44

Activity ID	Activity Name	Remaining Duration	Physical % Complete	Start	Finish
In SPIF					
118-K-1 Remediation/Closeout					
4000S910	Closeout Documentation Excluding Trench "...	53.0	0%	18-Sep-12*	20-Dec-12
4000S1490	Backfill Excluding Trench "N"	40.8	0%	19-Feb-13*	30-Apr-13
Not in SPIF					
100-K MR sites					
4000S1480	Remediate	12.0	0%	08-Oct-12*	25-Oct-12
600-29 RTD-REA-118 (TPA-MS)					
4000S970	Backfill	1.6	0%	02-Nov-12*	05-Nov-12
4000S980	Revegetation	4.0	0%	19-Nov-12*	27-Nov-12
128-K-2 RTD-REA-118 (TPA-MS)					
4000S1010	Closeout Documentation	75.0	20%	10-Jul-12 A	14-Jan-13
4000S1020	Backfill	4.0	0%	05-Nov-12*	09-Nov-12
100-K-93					
4000S1060	Excavation/Loadout 100-K-93	3.0	0%	31-Oct-12*	05-Nov-12
4000S1130	Work Instructions 100-K-93	75.0	0%	06-Nov-12	26-Mar-13
100-K-87					
4000S1070	Excavation/Loadout 100-K-87	3.0	0%	06-Nov-12*	08-Nov-12
4000S1180	Work Instructions 100-K-87	75.0	0%	12-Nov-12	01-Apr-13
100-K-91					
4000S1080	Excavation/Loadout 100-K-91	3.0	0%	12-Nov-12*	14-Nov-12
4000S1230	Work Instructions 100-K-91	75.0	0%	15-Nov-12	04-Apr-13
100-K-95					
4000S1090	Excavation/Loadout 100-K-95	4.0	0%	15-Nov-12*	26-Nov-12
4000S1280	Work Instructions 100-K-95	75.0	0%	27-Nov-12	11-Apr-13
100-K-84					
4000S1100	Excavation/Loadout 100-K-84	19.0	0%	27-Nov-12*	02-Jan-13
4000S1330	Work Instructions 100-K-84	75.0	0%	03-Jan-13	15-May-13
100-K-86					
4000S1110	Excavation/Loadout 100-K-86	4.0	0%	03-Jan-13*	09-Jan-13
4000S1380	Work Instructions 100-K-86	75.0	0%	10-Jan-13	22-May-13
100-K-92					
4000S1120	Excavation/Loadout 100-K-92	3.0	0%	10-Jan-13*	15-Jan-13
4000S1430	Work Instructions 100-K-92	75.0	0%	16-Jan-13	29-May-13

SPIF | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

TASK filter: POW Format - 3 Month Window.

Attachment 14

Activity ID	Activity Name	RD	% Comp	Start	Finish	Duration Delta
In SPIF						
Backfill						
FR1080	Backfill 100-C-7	47.0	0%	11-Feb-13*	03-May-13	0
Not in SPIF						
Excavation						
FR3810	PSR Preparation	8.0	80%	25-Jul-12 A	21-Sep-12	0
FR3770	Re-Mob for West Wall Excavation	4.0	0%	24-Sep-12	27-Sep-12	0
FR3560	Exc 100-C-7:1 West Wall Plume (125,000 BCMS)	63.0	0%	01-Oct-12	24-Jan-13	0
Loadout						
FR3760	100-C-7:1 West Wall Plume Loadout (94,000 Tons)	63.0	0%	01-Oct-12*	24-Jan-13	0
FR3780	Remaining 100-C-7:1 ACL Stockpile Loadout (50,000 Tons)	63.0	0%	01-Oct-12*	24-Jan-13	0
Closure Documents and Sampling						
FR3570	Prepare Verification Work Instruction 100-C-7:1 West Wall	64.0	0%	28-Jan-13	20-May-13	0
FR3800	Closure Sampling and Analysis 100-C-7:1 Stock Pile Areas	26.0	0%	28-Jan-13	13-Mar-13	0
FR3580	Closure Sampling and Analysis 100-C-7:1 West Wall	26.0	0%	21-May-13	08-Jul-13	0
FR3590	Prepare Closure Document 100-C-7:1	89.0	0%	09-Jul-13	16-Dec-13	0
Backfill						
FR3600	100-C-7:1 West Wall Material Backfill	63.0	0%	01-Oct-12*	24-Jan-13	0
FR3830	100-C-7:1 Post C-7 Work Remaining Material Backfill	100.0	0%	06-May-13*	30-Oct-13	0
FR3820	100-C-7:1 Backfill	25.0	0%	31-Oct-13*	17-Dec-13	0
Reveg						
FR1090	Reveg 100-C-7	8.0	0%	09-Jan-14*	22-Jan-14	0
FR3610	Reveg 100-C-7:1	4.0	0%	23-Jan-14*	29-Jan-14	0
Powerline Relocation						
MS1040	MSA Removal and Disposal of Powerlines *Suspended Fire Danger	8.0	90%	20-Jun-12 A	20-Sep-12*	0
600-253 - Pit 24						
FR3620	Recontour 600-253 (Pit 24)	10.0	0%	18-Dec-13*	08-Jan-14	0
FR3630	Reveg 600-253 (Pit 24)	4.0	0%	30-Jan-14*	05-Feb-14	0
Final FR Punch List						
FR3690	Final FR Punch List (Remove Trailers, CTA, Lay-down Yard, Miscellaneous I...	48.0	0%	06-Feb-14	01-May-14	0

Critical Remaining Work ◆ Milestone
Current Bar Labels % Complete

TASK filters: Category, Less than 100.

Attachment 15

Groundwater Monitoring Response to Water Line Break at the 308 Building, August 2012

(September 13, 2012)

Description of the August 30, 2012 Water Line Failure. A water line breach occurred from 0840 to 0948 hrs on August 30, 2012 as a result of an excavation incident west of the 324 building. Initial attempts to isolate the leak were not successful because debris in the valve seats required a second round of re-seating the valves. The water ran into an open excavation at the former location of the 308-A building. The leak consisted of up to 150,000 gallons (more probably 100,000 or less) of water. The water pool in the excavation receded rapidly as it percolated into the soil. The nearest edge of the pool was about 250 ft from the northwest corner of the 324 Building, and the majority of the water extended several hundred feet farther to the west.

The water from the August 30, 2012 leak pooled in the open excavation surrounding the TRIGA (Training Research and Isotope Production General Atomics) reactor. Because of the presence of the reactor, tritium potentially could be present. WCH collected six in-process soil samples during the TRIGA reactor excavation and analyzed them for isotopic radionuclides, including analyses specifically for tritium. All tritium results were non-detect. Therefore, tritium is unlikely to have been mobilized to groundwater by the infiltrating water. WCH collected additional samples after the water line failure. The analytical results from these samples have not been received.

Also shown in the figure are the locations of the two previous water line leaks that occurred in 2011 and 2012. A summary of these water line failures are identified as follows:

Leak Location	Date	Volume (gallons)
326 Building	July 17, 2011	100,000
324 Building	May 16, 2012	20,000
308-A Building	August 30, 2012	150,000

Evaluation

The former 308-A building footprint lies above a thick portion of Hanford gravels, which fills a major paleochannel. The saturated thickness of the gravels is 10 to 12 m, so infiltration of the 150,000 gallons occurred quickly and with low likelihood of widespread lateral movement.

Groundwater below the former 308-A building flows in a southeasterly direction. Because of seasonal changes in the rate and direction of groundwater movement in the paleochannel sediments, it is difficult to estimate the travel time from the 308-A Building footprint to a specific well. However, during the fall, the gradient toward the river is more pronounced and the groundwater flow rate is estimated to range from 3 to 10 meters/day.

Well 399-4-15 is southeast (downgradient) of all three water line leaks that occurred in 2011 and 2012. The estimated travel time from the leak infiltration locations to this well are provided below based upon a groundwater flow rate of 3 to 10 m/d.

Leak Location	Date	Distance from Infiltration Area to Well 399-4-15 (m)	Travel Time Based on 10 m/d flow rate			Travel Time Based on 3 m/d flow rate		
			days	weeks	date	days	weeks	date
326 Building	07/17/11	450	45	6	08/28/11	150	21	12/11/11
324 Building	05/16/12	125	12	2	05/30/12	41	6	06/27/12
308-A Building	08/30/12	215	21	3	09/20/12	71	10	11/08/12

During spring 2012, there was a significant increase in the water level in 300 Area wells related to the increased flows of the Columbia River. For the wells of interest associated with this monitoring, the increase in water levels were also observed in 399-4-15 and 399-3-20 (note that water level information is not available for well 399-4-14, but is expected to also show an increase). As a result, any changes in the water quality is likely associated with the increase water level due to the Columbia River and not associated with the recent pipeline water releases.

There was a temporary decrease in specific conductance in well 399-4-15 in the sample collected on July 25, 2012 (Figure 1). This temporary decrease was followed by an increase in specific conductance back to the previous levels. There was a slight increase in the gross alpha concentration from this well in the

sample collected on August 15, 2012 (Figure 2). As seen in other wells from the 300 Area, this increase is likely related to the increase in the water level associated with the higher flows in the Columbia River. No noticeable change (initial decrease followed by an increase back to the initial measured concentrations) was identified in the gross beta results.

Nearby wells 399-3-20 and 399-4-14, which have longer monitoring histories, show a slight delay between the high water level and the high uranium concentration (Figures 3 and 4). The correlation between these responses also suggest that the increase in uranium may reflect migration to the well from the periodically rewetted zone where uranium was mobilized during high water conditions.

Recommendation

Well 399-4-15 is currently being monitored monthly for 6 months (May-October 2012) in response to the May 16, 2012 leak. It is recommended that the monthly monitoring be extended through December 2012 to evaluate potential impacts from the August 30, 2012 leak. December 2012 is after the longer of the two estimated travel times. The samples will continue to be analyzed for gross alpha/beta, uranium, anions, metals, VOCs, and field parameters.

The table below lists the downgradient groundwater monitoring wells and sampling frequency.

Well	Last Sample	Next Sample	Sampling Frequency
399-4-7	05/22/12	December 2012	SA
399-4-9	08/15/12	December 2012	SA
399-4-10	05/21/12	December 2012	SA
399-4-14	08/22/12	December 2012	Q
399-4-15	09/07/12	October 2012	M through Dec 2012; Q after Dec 2012
M = Monthly; Q = Quarterly; SA = Semi-Annually			

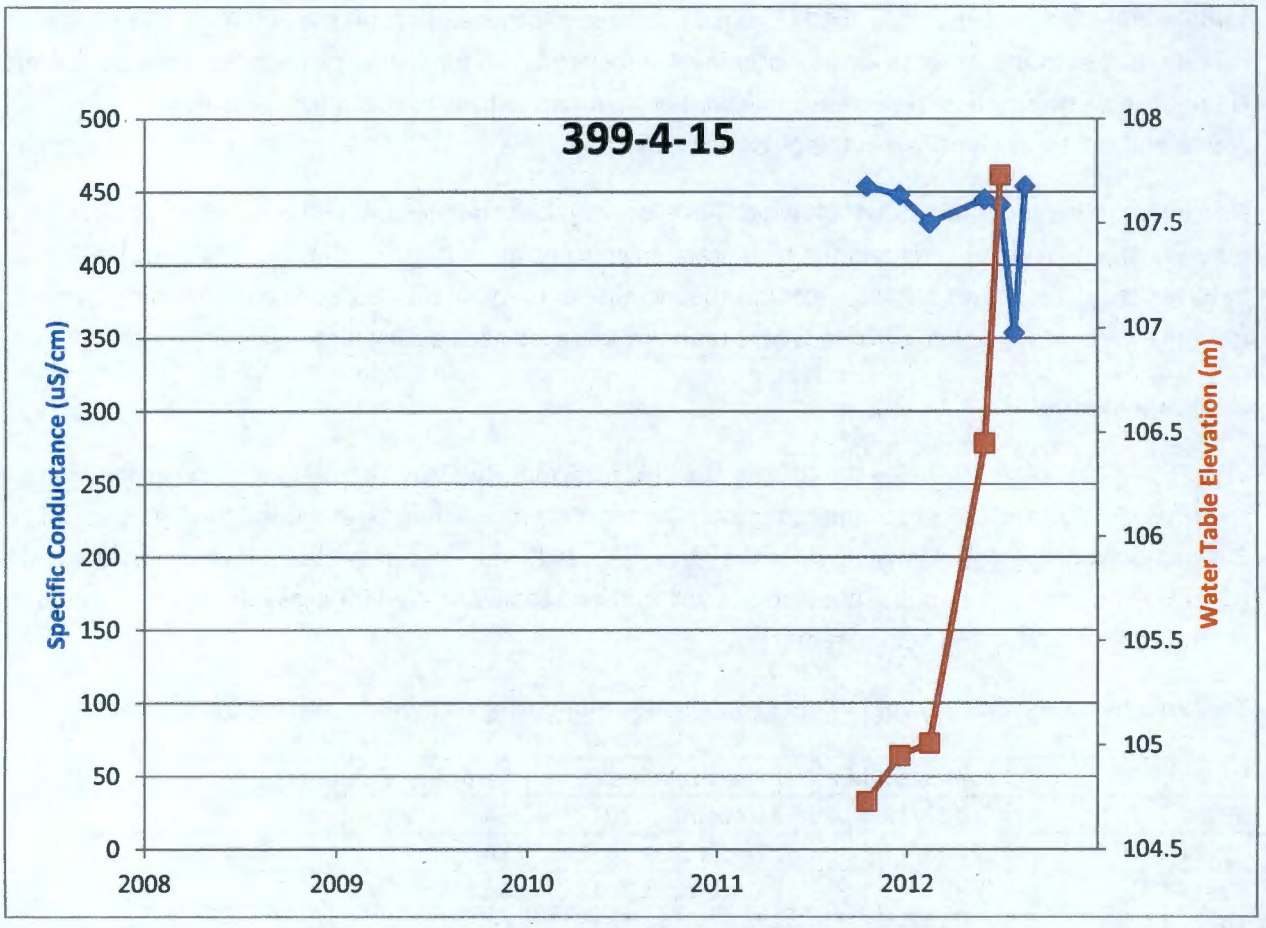


Figure 1. Specific Conductance and Water Table Elevation Trends for Well 399-4-15.

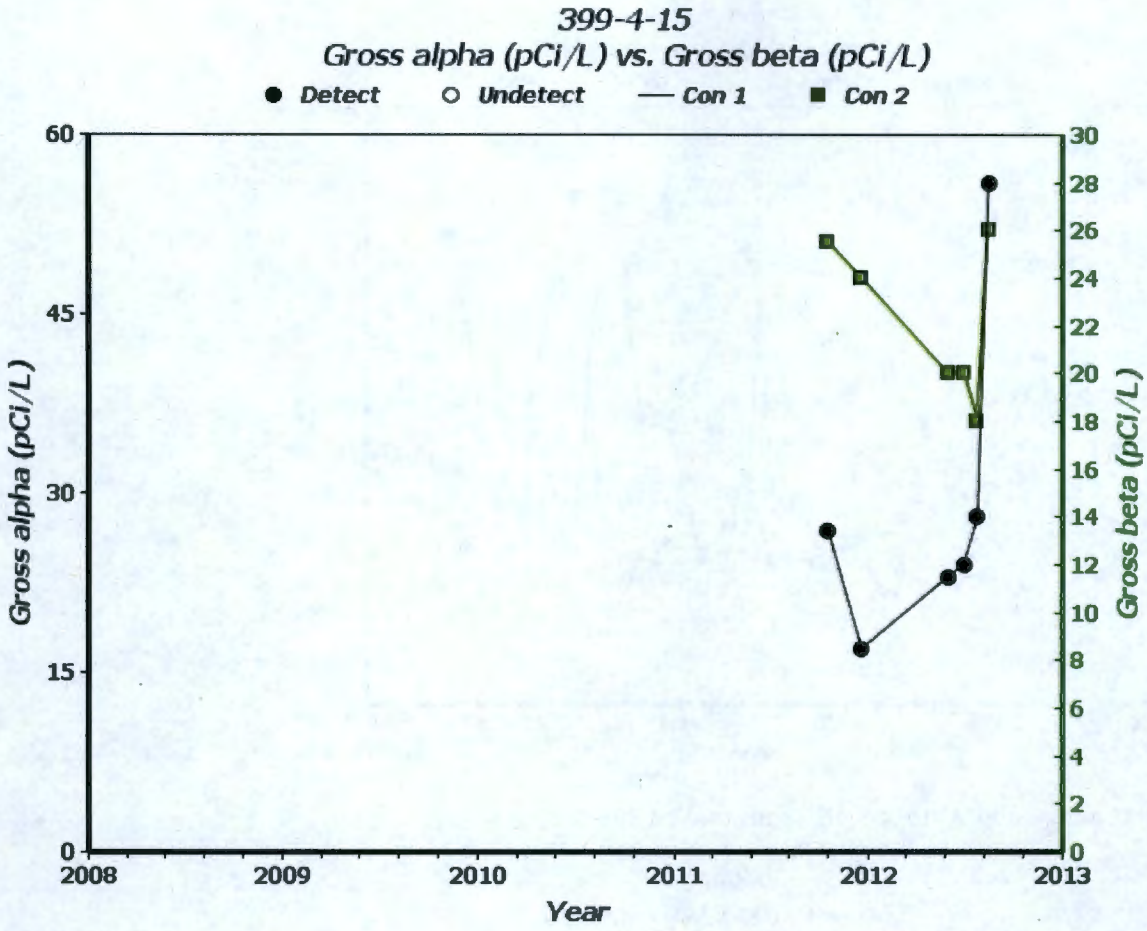


Figure 2. Gross Alpha and Gross Beta Trends in Well 399-4-15.

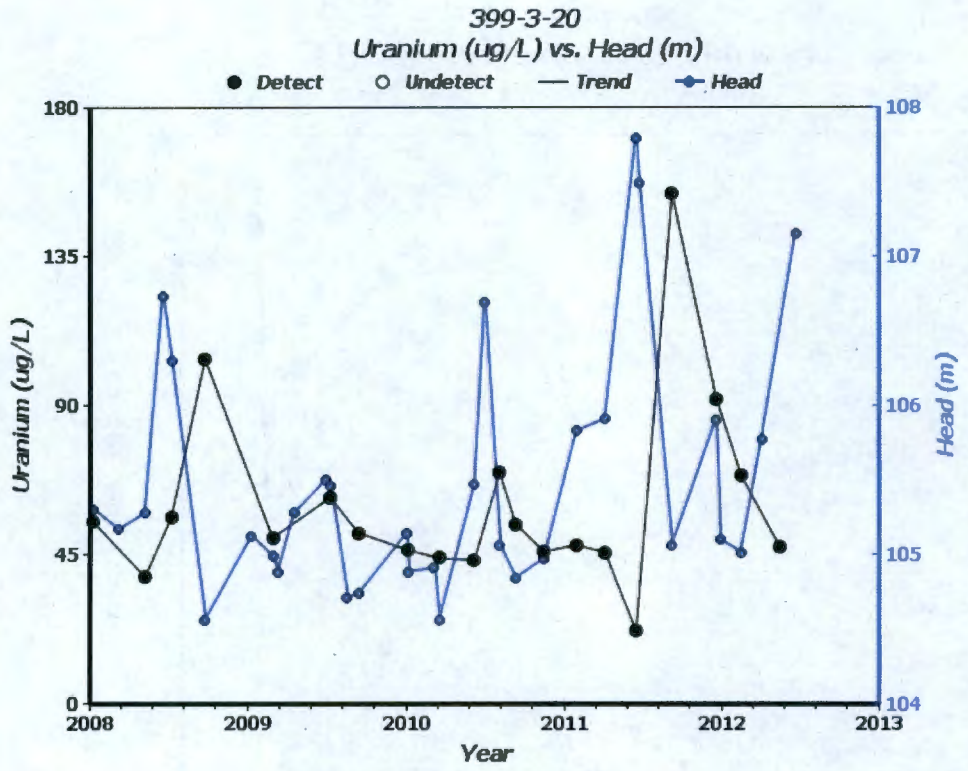


Figure 3. Uranium and Water Level Trends in Well 399-3-20.

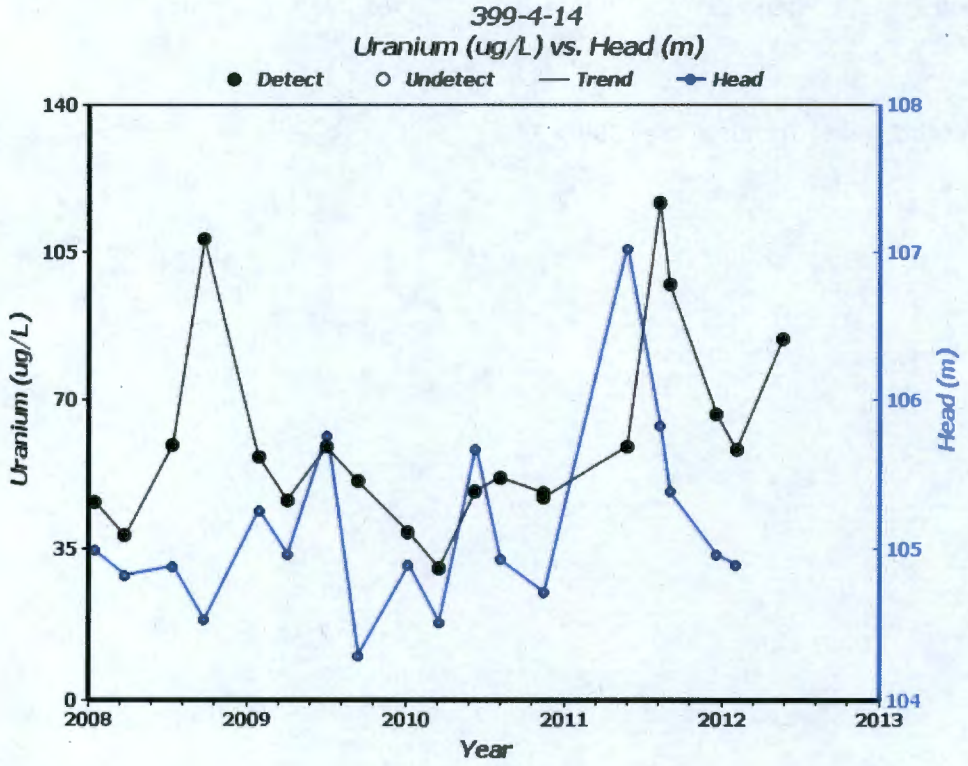


Figure 4. Uranium and Water Level Trends in Well 399-4-14.

Attachment 16

300 Area Closure Project Status
September 13, 2012
100/300 Area Combined Unit Manager Meeting

Ongoing Activities

- Completed backfill of all available waste sites north of Apple St.
- 309 Reactor – Core drilling and lower reactor space interference removal ongoing.
- 340 Complex – Excavation of vault and transport ramp ongoing nearly complete. Preparations for vault removal ongoing.
- 3730 – Continue hazardous material removal and hot-cell stabilization preparations.
- 308A – Completed below-grade demolition and site preparation. Site turned over to subcontractor for TRIGA reactor removal.
- 321 – Remediation excavation at design limits, plume continues to the south. Will now require removal of 323 below-grade tanks before resuming plume chasing.
- 323 – Subcontractor mobilizing for below-grade demolition and tank removal.
- 329 - Initiated above-grade demolition.
- 310 – above-grade demolition ~80% complete.
- 382 Complex – initiated above-grade demolition.
- 300-15 – Process sewer remediation north of Apple ongoing.

Demolition & Remediation Preparation Activities

- 326 Building – characterization nearly complete, finalizing demolition approach.
- 331 Series – demolition preparations nearly complete.

60-Day Project Look Ahead

- Continue authorization reviews for asbestos abatement activities.
- Continue 340 Complex waste site remediation and preparations for vault removal.
- Prep and remove TRIGA reactor.
- Continue north of Apple process sewer (300-15) remediation.
- Continue 309 reactor removal activities.
- Complete 310 TEDF demolition.
- Complete above-grade 329 Building demolition.
- Complete 382 Complex demolition.
- Award last remediation procurement waste sites south of Apple St.

Attachment 17

Environmental Protection Mission Completion Project
September 13, 2012

Long-Term Stewardship

- Continued drafting the 100-F turnover and transition package.

Remedial Investigation of Hanford Site Releases to the Columbia River

- A final meeting was held on 9/6/12 to review the remaining redline sections of the Rev. 0 human health risk assessment report. Agreements were reached on all outstanding comments and text. Production of the Rev. 0 report is underway. An approval copy is anticipated to be routed for Tri-Part signatures in early October.

Document Review Look-Ahead

- None

Attachment 18

2012 Annual Sitewide Institutional Controls (IC) Review

River Corridor Contractor (RCC)

2012 RCC Annual IC Review

- **Basis**
  - ***Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions* (DOE/RL-2001-41, Rev. 5)**
    - Requires annual IC effectiveness review
    - Results to be reported in September UMM

2012 RCC Annual IC Review

Scope of Review

- This portion of review addressed only river corridor source waste sites, and included evaluation of:
  - **Trespass events during CY 2011**
  - **Access control/entry restrictions**
  - **Excavation control**
  - **Field inspection of ICs**
    - Required roadway signage on entrances to 300 Area Main Complex, 618-10, 100-B/C, 100-D, 100-F, 100-H, 100-N Areas
    - Required shoreline signage at 300 Area, 100-B/C, 100-D, 100-F, 100-H,100-K, 100-N Areas

2012 RCC Annual IC Review

- Results


No public trespass events on WCH managed projects during CY 2011


Badging system (access controls) in place and active


Approved Excavation Permits in place and up to date


Warning signs in place at roadway entrances; additional sign installed at new entrance on west side of 300 Area main complex


Shoreline signage in place; 100-K and 100-N shoreline signs will be checked during September 2012 annual Columbia River RCRA inspection

2012 RCC Annual IC Review

100-B/C

100-H

100-F

Shoreline Signage

2012 RCC Annual IC Review

BEFORE

AFTER

Roadway Signage at West Entrance to 300 Area Main Complex