

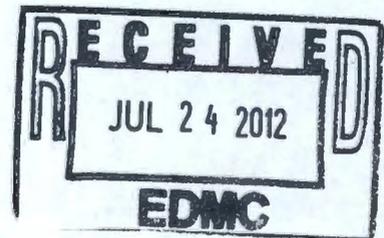
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**FINAL**

Office of River Protection  
Consent Decree 08-5085-FVS

Monthly Summary Report

July 2012



Office of River Protection  
 Consent Decree 08-5085-FVS  
 Monthly Summary Report  
 July 2012

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22	Analytical Laboratory (LAB) – D-00A-005	

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2012</b>				
D-00C-02L	Submit to Ecology and Oregon Monthly Summary Reports	10/31/11	10/25/11	Completed
D-00C-02M	Submit to Ecology and Oregon Monthly Summary Reports	11/30/11	11/21/11	Completed
D-00C-02N	Submit to Ecology and Oregon Monthly Summary Reports	12/31/11	12/27/11	Completed
D-00C-02O	Submit to Ecology and Oregon Monthly Summary Reports	01/31/12	01/25/12	Completed
D-00C-02P	Submit to Ecology and Oregon Monthly Summary Reports	02/29/12	02/22/12	Completed
D-00C-02Q	Submit to Ecology and Oregon Monthly Summary Reports	03/31/12	03/31/12	Completed
D-00C-02R	Submit to Ecology and Oregon Monthly Summary Reports	04/30/12	04/26/12	Completed
D-00C-02S	Submit to Ecology and Oregon Monthly Summary Reports	05/31/12	05/29/12	Completed
D-00C-02T	Submit to Ecology and Oregon Monthly Summary Reports	06/30/12	06/29/12	Completed
D-00C-02U	Submit to Ecology and Oregon Monthly Summary Reports	07/31/12		On-going
**D-00C-02V	Submit to Ecology and Oregon Monthly Summary Reports	08/31/12		On-going
** Future Monthly Summary Reports will be added as necessary to maintain a two-months ahead activity.				
D-00C-01D	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	01/31/12	01/27/12	Completed
D-00C-01E	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	07/31/12		On-going
<b>Fiscal Year 2013</b>				
D-00C-02X	Submit to Ecology & State of Oregon Monthly Summary Report	10/31/2012		On-going
**D-00C-02Y	Submit to Ecology & State of Oregon Monthly Summary Report	11/30/2012		On-going
** Future Monthly Reports will be added as necessary to maintain a two-months ahead activity.				
D-00A-05	LAB Construction Substantially Complete	12/31/2012		On-going
D-00A-12	Steam Plant Construction Complete	12/31/2012		On-going
D-00A-21	Complete Construction of Structural Steel to EL. 37' in HLW Fac.	12/31/2012		On-going

Milestone	Title	Due Date	Completion Date	Status
D-00C-01F	Submit to Ecology & State of Oregon Semi-Annual Report	01/31/2013		On-going
D-00C-01G	Submit to Ecology & State of Oregon Semi-Annual Report	07/31/2013		On-going
D-006-00-A1	Provide State of Oregon Notice of Meetings	09/25/2013		On-going

## Reports

**D-00C-01 series, Submit to Ecology & State of Oregon Semi-Annual Report, Due: Semi-Annually – January 31<sup>st</sup> and July 31<sup>st</sup> of each year. Status: On-going**

**D-00C-02 series, Submit to Ecology & State of Oregon Monthly Summary Report Documenting Progress During Previous Month, Due: End of Each Month, Status: On-going**

**D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled, Due: 9/25/2013, Status: On-going**

**D-006-00-A, Meet Approximately Every Three Years After Entry of Decree to review requirements of the Consent Decree, Due: 10/25/2013, Status: On-going**

## SST Retrieval Program

**D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due: 9/30/2014, Status: On-going**

**D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: TBD**

Pursuant to the requirement in Section IV-B-5 of the Consent Decree (CD) DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix "C", Part 1, of the CD. Tanks currently in retrieval status are C-104, C-107, C-108, C-109, C-110, C-111, and C-112.

**D-00B-02, Advise Ecology of the 9 SSTs from which Waste Will Be Retrieved by 2022, Due: 9/30/2014, Status: Complete.** ORP and Ecology began meeting in December 2010 to discuss the selection of the next nine tanks from which waste will be retrieved and why ORP believes those nine tanks should be in A/AX Farms. The last meeting was held on August 24, 2011. At this meeting, Ecology provided ORP with the guidance that Ecology believes the requirements of Project B-2 of the Consent Decree have been met.

**D-00B-03, Initiate Startup Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due: 12/31/2017, Status: On-going**

**D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due: 9/30/2022, Status: On-going**

**D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due: TBD**

### Significant Past Accomplishments:

1. Completed design for C-101 and C-102 modified sluicing retrieval systems.
2. Continued procurement for C-101 & 102 modified sluicing retrieval systems.
3. Continued removal of legacy equipment in C-101 and C-102.
4. Initiated hard heel retrieval activities on C-104, added 15K gallons of caustic and commenced recirculation of caustic.
5. Continued construction activities for removal of equipment at C-105 to support large riser installation.
6. Continued modifying ventilation system to add C-105 to the new exhaust system installed for C-102.
7. Continued C-107 retrieval utilizing the MARS system (approximately 75% of waste retrieved).
8. Initiated removal of failed C-109 slurry pump to support hard heel removal.

### Significant Planned Activities in the Next Six Months:

1. Complete-removal of legacy equipment at C-101.
2. Complete construction/installation of the modified sluicing system in C-101.
3. Complete removal of legacy equipment at C-102.
4. Complete construction/installation of the modified sluicing system in C-102.
5. Complete hard heel removal of waste at C-104.

6. Complete installation of the C-105 ventilation system and removal of equipment.
7. Complete installation of the large riser in C-105.
8. Complete C-107 bulk retrieval.
9. Complete C-107 hard heel retrieval.
10. Initiate hard heel retrieval of C-109.
11. Complete discussions with Ecology on the retrieval certificate of completion.

**Issues:**

None.

**Tank Waste Retrieval Work Plan (TWRWP) Status**

Tank	TWRWP	Expected Revisions	Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520	Complete	MRS (per 10/7/10 agreement, to be Modified Sluicing)	Chemical Dissolution	-
C-102	RPP-22393	Complete	Modified Sluicing	Chemical Dissolution	-
C-104	RPP-22393	In Process	Modified Sluicing	Chemical Dissolution	-
C-105	RPP-22520	Early Spring 2012	MARS-V	High pressure water spray/M A RS platform	-
C-107	RPP-22393	In Process	MARS-S	MARS-High Pressure	-
C-108	RPP-22393	In Process	Modified Sluicing	Chemical Dissolution	-
C-109	RPP-21895	After evaluation of C-108 hard heel retrieval	Modified Sluicing	Chemical Dissolution	-
C-110	RPP-33116	After evaluation of C-108 hard heel retrieval	Modified Sluicing	None (to be revised to In-Tank Vehicle)	-
C-111	RPP-37739	After evaluation of C-108 hard heel retrieval	Modified Sluicing	None (to be revised to In-Tank Vehicle)	-
C-112	RPP-22393	In Process	Modified Sluicing	Chemical Dissolution	-

**Significant Accomplishments**

None.

**Significant Planned Activities in the Next 6 Months:**

Work with Ecology on updates to TWRWPs RPP-22520, RPP-22393, and RPP-37739 for tanks 241-C-101, 241-C-102, and 241-C-111, respectively.

**Issues:**

None.

### SST Retrieval Monthly and Fiscal Year EVMS Data

Office of River Protection (ORP-0014) Fiscal Year 2012 - Monthly EVMS



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-11	\$3,580.0	\$4,402.2	\$4,709.1	1.23	0.93	\$3,580.0	\$4,402.2	\$4,709.1	1.23	0.93
Nov-11	\$5,940.2	\$3,864.7	\$5,462.1	0.65	0.71	\$9,520.2	\$8,266.9	\$10,171.2	0.87	0.81
Dec-11	\$7,038.0	\$4,650.9	\$6,844.4	0.66	0.68	\$16,558.2	\$12,917.8	\$17,015.6	0.78	0.76
Jan-12	\$3,732.7	\$5,070.3	\$6,601.7	1.36	0.77	\$20,290.9	\$17,988.1	\$23,617.3	0.89	0.76
Feb-12	\$5,629.0	\$5,885.6	\$7,633.1	1.05	0.77	\$25,919.9	\$23,873.7	\$31,250.4	0.92	0.76
Mar-12	\$9,484.6	\$9,596.9	\$9,999.9	1.01	0.96	\$35,404.5	\$33,470.6	\$41,250.3	0.95	0.81
Apr-12	\$7,717.2	\$10,237.2	\$9,151.0	1.33	1.12	\$43,121.7	\$43,707.8	\$50,401.3	1.01	0.87
May-12	\$12,189.8	\$13,026.7	\$10,318.8	1.07	1.26	\$55,311.5	\$56,734.5	\$60,720.1	1.03	0.93
Jun-12	\$9,473.9	\$0.0	\$0.0	0.00	0.00	\$64,785.4			0.00	0.00
Jul-12	\$9,555.6	\$0.0	\$0.0	0.00	0.00	\$74,341.0			0.00	0.00
Aug-12	\$12,814.2	\$0.0	\$0.0	0.00	0.00	\$87,155.2			0.00	0.00
Sep-12	\$11,249.6	\$0.0	\$0.0	0.00	0.00	\$98,404.8			0.00	0.00
<b>CTD</b>	<b>\$294,658.4</b>	<b>\$292,036.7</b>	<b>\$292,545.9</b>	<b>0.99</b>	<b>1.00</b>					

**Single-Shell Tanks**

Schedule Variance \$836.9K:

The favorable schedule variance is primarily due to:

- C-104 retrieval due to earned value taken for accelerated progress on hard heel removal work performed to date. BCR RPP-12-118, "C-104 Hard Heel Acceleration," was approved by DOE-ORP and implemented in May, which aligned the baseline to reflect completion of C-104 hard heel retrieval by September 30, 2013. The BCR accelerated work from FY 2014 to FY 2013. This accelerated work had already been started but could not be claimed because it was planned outside the current TOC option period. Progress earned in May 2012 included hard heel removal installation, hard heel procurement and hard heel removal design and engineering support.
- C-105 retrieval because the large riser assembly was delivered 3 months ahead of the planned August 2012 date. In addition, schedule recovery was achieved with receipt of the ventilation demister assemblies that were originally planned in FY 2011 but were deferred due to reprioritization of funding.

The favorable variances are partially offset by:

- C-101 retrieval delay in receipt of long-lead procurements, specifically the ERSS. ORP had planned to receive the ERSS in May and June but receipt has been delayed until July and August as the ERSS hose failed qualification testing because the fittings were too tight for the high temperature and tension burst test. As a result, new hoses were ordered so that fittings could be matched to meet both the temperature and pressure tests. Testing was successfully completed.
- C-102 retrieval has been delayed because of delays in the fabrication of the slurry pump. In addition, system installation is behind schedule due to other priorities and resource allocations. Equipment removal activities are scheduled to complete in early July.

Cost Variance \$2,707.9K:

The favorable cost variance is primarily due to:

- C-104 retrieval due to earned value taken for accelerated progress on hard heel removal work performed to date. BCR RPP-12-118, "C-104 Hard Heel Acceleration," was approved by DOE-ORP and implemented in May, which aligned the baseline to reflect completion of C-104 hard heel retrieval by September 30, 2013. The BCR accelerated work from FY 2014 to FY 2013. This accelerated work had already been started but could not be claimed because it was planned outside the current TOC option period. Progress earned in May 2012 included Hard Heel Removal Installation, Hard Heel Procurement and Hard Heel Removal Design and Engineering Support.
- C-105 retrieval due to procurement and system installation cost efficiencies associated with the demister assemblies and the new riser assembly. Additional soil analysis was performed which resulted in an increase in the allowable volume of soil that may be removed at one time. This resulted in one excavation for equipment removal instead of excavating and backfilling each piece of removed equipment as originally planned.

**WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) PROJECT**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-06	Complete Methods Validations	12/31/2017	On-going* (see issues below)
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	On-going* (see issues below)
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	On-going* (see issues below)

The WTP Project currently employs about 2,515 Full-Time Equivalent (FTE) contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel, including 581 craft, 483 non-manual, and about 109 subcontractor personnel FTEs working at the WTP construction site (all facilities). As of May 2012, the project was 65 percent complete overall, design and engineering was 85 percent complete, procurement was 70 percent complete, construction was 62 percent complete, and startup and commissioning was 15 percent complete.

The overall WTP Project schedule variance in May was a negative \$41.4 M; the cost variance was a negative \$43 M. The cost variance was primarily related to Engineering Design, Construction Crafts, and Engineering Equipment; and the schedule variance was primarily related to Engineering Design, Plant Equipment, Plant Material, and Plant Operations.

Following is the status through the end of May for current project issues.

**Significant Past Accomplishments:**

- Completed the 7 vessel weld inspections related to the welding issue as part of the Extent of Condition review from the High Level Waste (HLW) vessel RLD-00008 weld discrepancies (PT).
- Completed installation of the remote-operated dampers in the filter cave (HLW)
- Completed structural steel which supports the 14ft steel deck (HLW)
- Completed installation activities for C2 ventilation (C2V) system air-handling unit plenum and Carbon Bed Adsorber Monorail at elevation +48 (LAW)
- Completed 8 week walk down for WTP switchgear building 87 (BOF)

**Significant Planned Actions in the Next Six Months:**

- Complete the single PJM (pump down) tests for the 8' vessel in support of the V&V of the CFD program (PT)
- Receive Plant Wash and Drains vessel (RLD-VSL-8) (HLW)
- Complete 37' structural steel (HLW)
- Complete installation of melter power supplies (LAW)
- Complete installation of autosampler (ASX system) (LAW)
- Complete mechanical installation of autosampling system (LAB)
- Complete construction of the cooling tower (BOF)
- Complete construction of the switchgear building (BOF)

**Issues:**

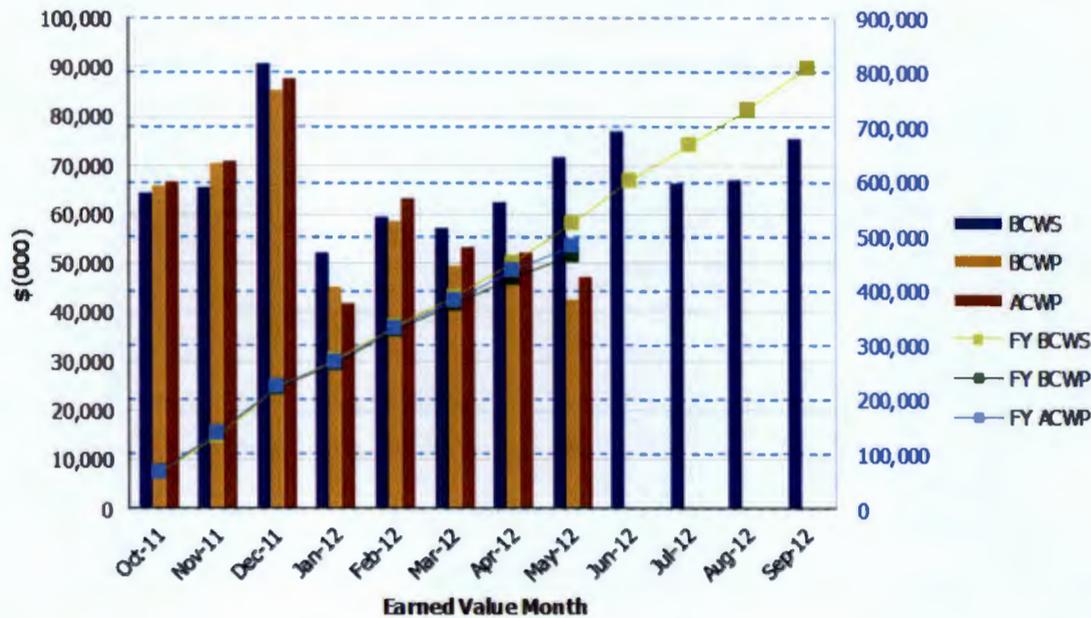
- \*PT and HLW Facilities: Other issues have potential impacts on the PTF and HLW schedule. This includes risks that the project has already realized and the plans for addressing the remaining risks in the PTF and HLW.
- There are no significant technical issues in LAW, LAB or BOF at this time.

Data Set: FY 2012 Earned Value Data

Data as of: May 2012

**River Protection Project  
Waste Treatment Plant (WTP) Project**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$64,411	\$65,869	\$66,670	1.02	0.99	\$64,411	\$65,869	\$66,670	1.02	0.99
Nov 2011	\$65,647	\$70,625	\$70,879	1.08	1.00	\$130,058	\$136,494	\$137,549	1.05	0.99
Dec 2011	\$90,699	\$85,246	\$87,845	0.94	0.97	\$220,757	\$221,740	\$225,394	1.00	0.98
Jan 2012	\$52,248	\$45,149	\$41,816	0.86	1.08	\$273,005	\$266,889	\$267,210	0.98	1.00
Feb 2012	\$59,271	\$58,579	\$63,201	0.99	0.93	\$332,276	\$325,468	\$330,411	0.98	0.99
Mar 2012	\$57,285	\$49,398	\$53,161	0.86	0.93	\$389,561	\$374,866	\$383,572	0.96	0.98
Apr 2012	\$62,378	\$47,517	\$52,149	0.76	0.91	\$451,939	\$422,383	\$435,721	0.93	0.97
May 2012	\$71,778	\$42,759	\$47,365	0.60	0.90	\$523,717	\$465,142	\$483,086	0.89	0.96
Jun 2012	\$76,835			0.00		\$600,551			0.00	
Jul 2012	\$66,388			0.00		\$666,939			0.00	
Aug 2012	\$66,879			0.00		\$733,818			0.00	
Sep 2012	\$75,468			0.00		\$809,286			0.00	
PTD	\$6,987,464	\$6,946,096	\$6,989,111	0.99	0.99					

**PRETREATMENT (PT) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-19	ComPLeTe Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	On-going* (see issues below)
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	On-going* (see issues below)
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	On-going* (see issues below)
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	On-going* (see issues below)
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	On-going* (see issues below)

The Pretreatment (PT) Facility will separate radioactive tank waste into High Level Waste (HLW) and Low-Activity Waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. Through May 2012, the PT Facility was 53 percent complete overall, with engineering design 79 percent complete, procurement 52 percent complete, construction 42 percent complete, and startup and commissioning 4 percent complete.

**Significant Past Accomplishments:**

The placement of the Control Building base mat has been put on hold pending resolution of sizing and type of air compressors.

The 7 vessel weld inspections related to the welding issue as part of the Extent of Condition review from the High Level Waste (HLW) vessel RLD-00008 weld discrepancies have been completed. All of the vessels inspected were found to have some weld deficiencies, which are being evaluated. Based on the results, a more extensive inspection plan is being prepared.

The key on-going activities in Pretreatment are related to the resolution of the Pretreatment Vessel Vent Process (PVP) system design, vessel mixing, erosion/corrosion and Hydrogen in Piping and Ancillary Vessels (HPAV) technical issues.

The small scale test report documenting the results to determine realistic entrainment coefficient for the Process Vessel Vent Exhaust (PVV) system will be issued in July 2012. The medium scale test report will be issued in August 2012 after completion of the last test in July. The preliminary results for both the small and medium scale tests are positive.

BNI is actively working to resolve issues regarding vessel material selection and mixing. The erosion/corrosion action plan will be revised in July and a corrosion test scoping document will be issued in December 2012 to address the material selection issue. The NQA-1 Computational Fluid Dynamics (CFD) Verification and Validation (V&V) simulant tests will start after the resolution of DOE/NETL comments on the test plan. Informational testing in preparation for CFD V&V simulant tests will start in mid-July 2012. The construction of the facility to be utilized for the 14 foot vessel testing is progressing well. The draft Trade Study to identify options for the path forward on the non-Newtonian vessels will be completed in August 2012. A revision to the 2010-2 Implementation Plan (IP) is being prepared to address the changes in

strategy, approach and expectations and is planned to be issued to the DNFSB in the last quarter of calendar year 2012. The hydrogen generation rate (HGR) calculations for HLP-22 have been completed. The remaining calculations in support of resolving the HPAV issue are currently planned to complete in November 2012.

**Significant Planned Actions in the Next Six Months:**

- Issue the final report documenting the results from the entrainment coefficient testing for the PVV system
- Complete Hazards and Operability Analysis (HAZOP) for (PVP) system
- Complete the HPAV HGR rate calculations
- Issue the technical scaling selection basis document.
- Submit the 2010-2 Implementation Plan revision
- Issue the corrosion test scoping document
- Complete the single PJM (pump down) tests for the 8' vessel in support of the V&V of the CFD program
- Issue jumpers phase 2 frame design for hot cell areas 29, 30 and 33

**Issues:**

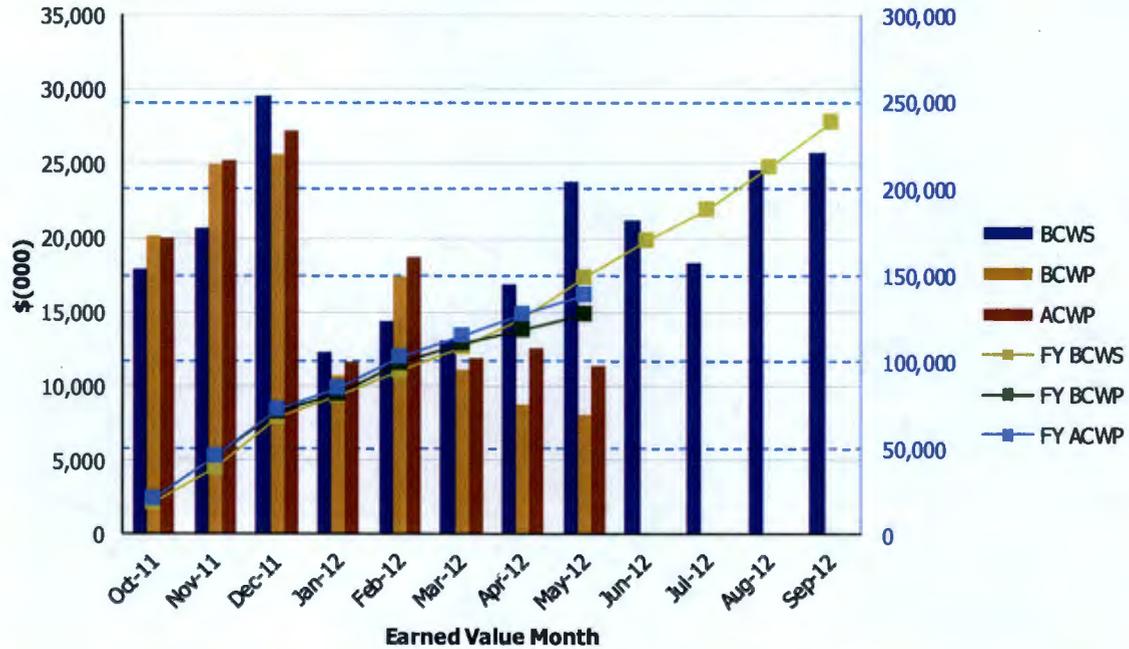
\* Other issues have potential impacts on the PT schedule. This includes risks that the project has already realized and the plans for addressing the remaining risks in the PTF.

Data Set: FY 2012 Earned Value Data

Data as of: May 2012

**River Protection Project  
Pretreatment Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$17,935	\$20,110	\$20,000	1.12	1.01	\$17,935	\$20,110	\$20,000	1.12	1.01
Nov 2011	\$20,616	\$24,945	\$25,222	1.21	0.99	\$38,551	\$45,055	\$45,222	1.17	1.00
Dec 2011	\$29,580	\$25,673	\$27,175	0.87	0.94	\$68,131	\$70,728	\$72,397	1.04	0.98
Jan 2012	\$12,292	\$10,751	\$11,583	0.87	0.93	\$80,423	\$81,479	\$83,980	1.01	0.97
Feb 2012	\$14,371	\$17,367	\$18,675	1.21	0.93	\$94,794	\$98,846	\$102,655	1.04	0.96
Mar 2012	\$13,101	\$11,054	\$11,874	0.84	0.93	\$107,895	\$109,900	\$114,529	1.02	0.96
Apr 2012	\$16,877	\$8,730	\$12,488	0.52	0.70	\$124,772	\$118,630	\$127,017	0.95	0.93
May 2012	\$23,773	\$8,080	\$11,320	0.34	0.71	\$148,545	\$126,710	\$138,337	0.85	0.92
Jun 2012	\$21,257			0.00		\$169,801			0.00	
Jul 2012	\$18,266			0.00		\$188,067			0.00	
Aug 2012	\$24,560			0.00		\$212,627			0.00	
Sep 2012	\$25,838			0.00		\$238,465			0.00	
PTD	\$1,391,718	\$1,376,209	\$1,358,950	0.99	1.01					

**HIGH-LEVEL WASTE (HLW) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	On-going
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	On-going* (see issues below)
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	On-going* (see issues below)
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	On-going* (see issues below)

The High Level Waste (HLW) Facility will receive the separated high-level waste concentrate from the Pretreatment (PT) Facility. This concentrate will be blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated prior to shipment to interim storage. The HLW Facility is 59 percent complete overall, with engineering design 86 percent complete, procurement 76 percent complete, construction 41 percent complete, and startup and commissioning is 4 percent complete.

**Significant Past Accomplishments:**

Excellent progress is being made on completion of the Consent Decree Milestone (D-00A-21) "Complete Construction of Structural Steel to 37' in HLW Facility." The current forecasted construction completion date is early October 2012 and the consent decree compliance date is December 31, 2012. All of the materials to complete this milestone have been delivered and are on site. The remaining steel erection consists primarily of 20 beams in the Filter Cave and 4 beams in the Rinse Tunnel. Prior to setting this steel, work at lower elevations is proceeding in order to utilize efficiencies gained by being able to lift materials in through the roof.

The installation of the remote-operated dampers in the filter cave has been completed, and the structural steel which supports the 14ft steel deck is also complete. The steel decking installation has commenced and good progress is being made.

The seismic rails for the decontamination rinse bogie have been set. The Dangerous Waste Permit change notification has been approved so that the rinse bogie can be installed. The rinse bogie and decontamination vessel have been installed in the canister rinse tunnel. The rails will be installed following the setting of the decontamination rinse bogie for final alignment.

75% of the concrete has been poured in the facility with 58ft elevation walls continuing and a majority of the 37ft slabs complete.

The melter transport trolley was received by HLW. This trolley will be used to remove and replace the melters.

Fabrication of Plant Wash and Drain Vessel (RLD-VSL-08) in England was completed; and it was delivered to the Mid-Columbia Engineering Facility in April for further inspection prior to being received and accepted by Bechtel. The project completed factory acceptance testing on Thermal Catalytic Oxidizers (TCO) which are being fabricated in Colorado. The TCOs are scheduled for delivery to the site in August.

**Significant Planned Actions in the Next Six Months:**

- Complete 37' structural steel
- Receive Thermal Catalytic Oxidizers
- Receive Plant Wash and Drains Vessel (RLD-VSL-8)
- Receive Acidic Waste Vessel (RLD-VSL-7)
- Receive Primary Off-gas Vessel HEME Vessel

**Issues:**

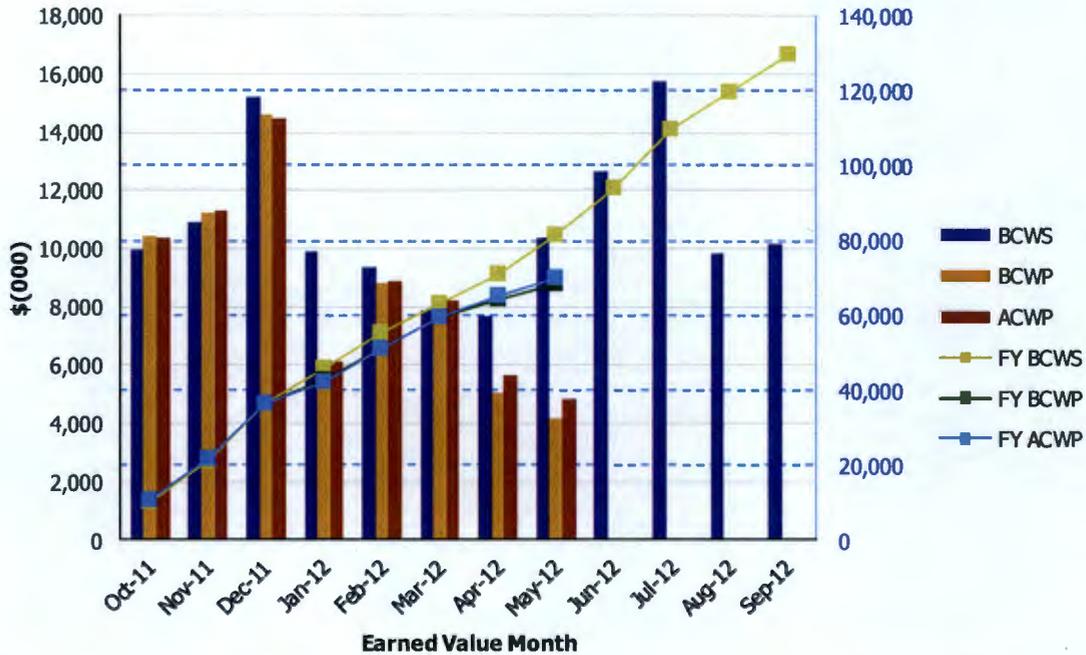
\* Various issues may have potential impacts on the HLW schedule. This includes risks that the project has already realized and the plans for addressing the remaining risks in the HLW.

Data Set: FY 2012 Earned Value Data

Data as of: May 2012

**River Protection Project  
High-Level Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$9,953	\$10,437	\$10,368	1.05	1.01	\$9,953	\$10,437	\$10,368	1.05	1.01
Nov 2011	\$10,920	\$11,224	\$11,295	1.03	0.99	\$20,873	\$21,661	\$21,663	1.04	1.00
Dec 2011	\$15,209	\$14,578	\$14,472	0.96	1.01	\$36,082	\$36,239	\$36,135	1.00	1.00
Jan 2012	\$9,878	\$6,187	\$6,142	0.63	1.01	\$45,960	\$42,426	\$42,277	0.92	1.00
Feb 2012	\$9,383	\$8,807	\$8,891	0.94	0.99	\$55,343	\$51,233	\$51,168	0.93	1.00
Mar 2012	\$7,900	\$7,901	\$8,221	1.00	0.96	\$63,243	\$59,134	\$59,389	0.94	1.00
Apr 2012	\$7,652	\$5,055	\$5,676	0.66	0.89	\$70,895	\$64,189	\$65,065	0.91	0.99
May 2012	\$10,364	\$4,150	\$4,849	0.40	0.86	\$81,259	\$68,339	\$69,914	0.84	0.98
Jun 2012	\$12,635			0.00		\$93,894			0.00	
Jul 2012	\$15,787			0.00		\$109,681			0.00	
Aug 2012	\$9,818			0.00		\$119,499			0.00	
Sep 2012	\$10,133			0.00		\$129,632			0.00	
PTD	\$910,752	\$899,965	\$894,972	0.99	1.01					

**LOW-ACTIVITY WASTE (LAW) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	On-going
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	On-going
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	On-going

The Low-Activity Waste (LAW) Facility will vitrify LAW from the Pretreatment (PT) Facility. Waste will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that are anticipated to be disposed on the Hanford Site in the Integrated Disposal Facility. The LAW Facility is 68 percent complete overall, with engineering design 84 percent complete, procurement 88 percent complete, construction 70 percent complete, and startup and commissioning is 4 percent complete.

**Significant Past Accomplishments:**

Electrical systems design continues in support of all equipment, controls, and lighting throughout the facility. For example, control logic diagrams were updated for the LAW Primary Off-Gas Processing (LOP), Radioactive Liquid Waste Disposal (RLD), and Stack Discharge Monitoring (SDJ) systems. Also, control logic diagrams were issued for the LAW Container Finishing Handling (LFH) and LAW Secondary Off-Gas/Vessel Vent Process (LVP) systems. Functional diagrams were issued for the LAW Container Export Handling (LEH), Container Receipt Handling (LRH), Container Pour Handling (LPH), and Mechanical Handling Control (MHJ) systems. Sequential functional charts were issued for the LFH system. Instrument data sheets were updated for the LAW Concentrate Receipt Process (LCP), LAW Melter Process (LMP), and LAW Melter Feed Process (LFP) systems and issued for the LPH system. The system design document for the C1 Ventilation (C1V) system was issued. New configuration data indices were issued for the Breathing Service Air (BSA), Demineralized Water (DIW), Domestic (potable) Water (DOW), Instrument Service Air (ISA), Miscellaneous Gases (MXG), and Plant Service Air (PSA) systems.

Equipment qualification data sheets for LVP system preheaters were issued. Equipment anchorage plans for the annex building were issued including schedule drawings. Piping isometric drawings for the LAW Chilled Water (CHW), Steam Condensate Water (SCW), RLD, ISA, and LCP systems were issued. Piping support drawings were issued for the LAW LCP systems. Piping support drawings were issued for the ISA, Non-Radioactive Liquid Waste Disposal (NLD), LCP and chilled water systems. The structural steel level plates plan at elevation +3 for pour caves # 1 and # 2 was issued. Public review of the LAW-027 permit package for the LVP Carbon Bed Adsorber and the LAW-026B permit package for the LVP HEPA Housings began June 4, 2012.

Procurement activities for the LAW facility are currently focused on the LVP system components. Engineering review of vendor calculations and vendor interactions continued as a major emphasis during the ongoing procurement of LVP system components. Medium Voltage Electrical (MVE) input/output remote enclosures were received for elevation +3'.

The primary areas of construction focus continued to be LAW facility partition wall installation and equipment installation for the Container Finishing Handling (LFH) system. Installation of the decontamination manipulators, finishing line dual-rail hoists, and the trolley/bogie cars for the LFH system continued.

Construction activities were initiated to install pour cave steel plates in the melter bays at elevation +3'. Other on-going construction activities included installation of drywall on stairs, installation of mobile air-filtration units outside melter bays to support the melter refractory subcontractor, and installation of MVE equipment.

Installation activities were completed for C2 ventilation (C2V) system air-handling unit plenum and Carbon Bed Adsorber Monorail at elevation +48. Alignment of LMP system pumps #1 through #4 at elevation +3 were completed and partition wall coatings for room L-0309. Commercial grade dedication testing of Wet Electrostatic Precipitator (WESP) internals was also completed.

Comments were resolved for software functional requirements for the following systems:

- LAW Container Pour Handling System (LPH)
- Radioactive Liquid Waste Disposal System (RLD)
- LAW Primary Off-gas Process System (LOP)
- LAW Container Finishing Handling System (LFH)

**Significant Planned Actions in the Next Six Months:**

- Complete installation of melter power supplies
- Complete installation of Auto Sampling (ASX) system
- Receive HEPA Pre-heaters for LVP system
- Receive HEPA Housings for LVP system
- Receive Thermal Catalytic Oxidizer (TCO) for LVP system

**Issues:**

No major issues at this time.

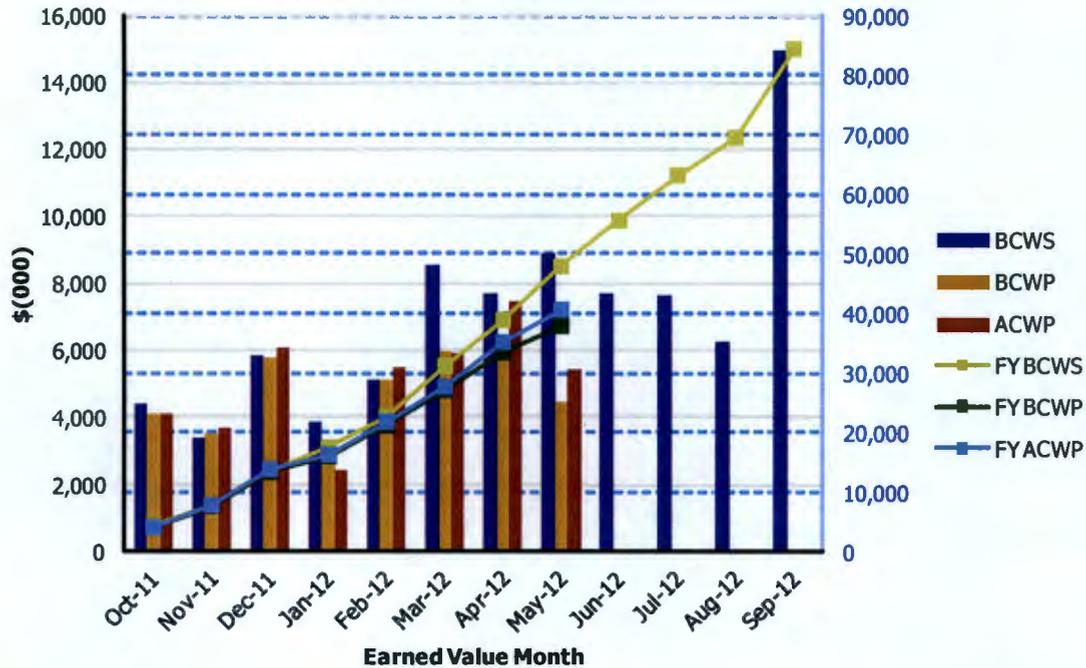
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2012 Earned Value Data

Data as of: May 2012

**River Protection Project  
Low-Activity Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$4,415	\$4,115	\$4,104	0.93	1.00	\$4,415	\$4,115	\$4,104	0.93	1.00
Nov 2011	\$3,404	\$3,510	\$3,704	1.03	0.95	\$7,819	\$7,625	\$7,808	0.98	0.98
Dec 2011	\$5,827	\$5,807	\$6,123	1.00	0.95	\$13,646	\$13,432	\$13,931	0.98	0.96
Jan 2012	\$3,886	\$2,617	\$2,412	0.67	1.08	\$17,532	\$16,049	\$16,343	0.92	0.98
Feb 2012	\$5,140	\$5,117	\$5,472	1.00	0.94	\$22,672	\$21,166	\$21,815	0.93	0.97
Mar 2012	\$8,531	\$5,960	\$5,900	0.70	1.01	\$31,203	\$27,126	\$27,715	0.87	0.98
Apr 2012	\$7,735	\$6,351	\$7,469	0.82	0.85	\$38,938	\$33,477	\$35,184	0.86	0.95
May 2012	\$8,906	\$4,481	\$5,425	0.50	0.83	\$47,844	\$37,958	\$40,609	0.79	0.93
Jun 2012	\$7,718			0.00		\$55,562			0.00	
Jul 2012	\$7,638			0.00		\$63,200			0.00	
Aug 2012	\$6,263			0.00		\$69,462			0.00	
Sep 2012	\$14,932			0.00		\$84,395			0.00	
<b>PTD</b>	<b>\$684,428</b>	<b>\$675,220</b>	<b>\$723,145</b>	<b>0.99</b>	<b>0.93</b>					

**BALANCE OF FACILITIES (BOF)**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-12	Steam Plant Construction Complete	12/31/2012	On-going

The Balance of Facilities (BOF) provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. The BOF is 49 percent complete overall, with engineering design 73 percent complete, procurement 48 percent complete, construction 64 percent complete, and startup and commissioning is 9 percent complete.

**Significant Past Accomplishments:**

Oversight efforts are focused on identification of individual facility requirements within BOF to support facility completion and turnover to the startup organization. As necessary to support facility completion, the WTP contractor initiates a weekly or bi-weekly meeting approximately 12 months prior to the scheduled turnover date. The meetings focus on schedule reviews and punch list development for the remaining construction activities. Regular meetings are currently being held for the WTP site switchgear buildings (87 and 91), Chiller Compressor Plant (CCP), and a meeting is currently being established for the Non-radioactive non-dangerous Liquid Drains (NLD) facility.

Recent accomplishments for the BOF team are:

- Completed 8 week walk down for WTP switchgear building 87
- Began issuing system flushing sketches for the Plant Service Air (PSA) system and the Plant Cooling Water (CHW) system.
- Began excavation for the Potable Water (DOW) tie-in at the PTF and the Sanitary Disposal system (SND) tie-in between the LAB and LAW facilities.
- Began installing structural steel for pipe rack connection from the LAB to the LAW facility
- Continued installing PSA system piping in the Glass Former Storage Facility
- Continued installation of pressure safety valves in the CHW and PSA systems for the CCP

**Significant Planned Actions in the Next Six Months:**

- Complete construction of cooling tower
- Complete construction of BOF switchgear building
- Install structural steel for anhydrous ammonia facility
- Turnover WTP Switchgear (Bldg 87) from construction to the startup organization

**Issues:**

No major issues.

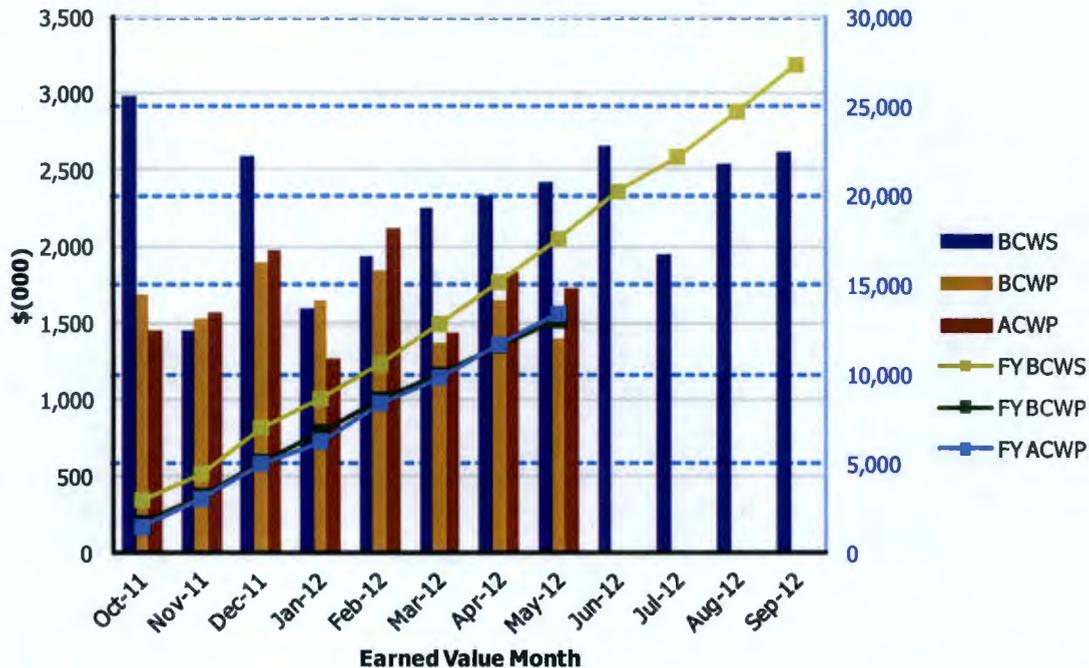
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2012 Earned Value Data

Data as of: May 2012

**River Protection Project  
Balance of Facilities**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$2,980	\$1,685	\$1,454	0.57	1.16	\$2,980	\$1,685	\$1,454	0.57	1.16
Nov 2011	\$1,455	\$1,524	\$1,564	1.05	0.97	\$4,435	\$3,209	\$3,018	0.72	1.06
Dec 2011	\$2,594	\$1,895	\$1,981	0.73	0.96	\$7,029	\$5,104	\$4,999	0.73	1.02
Jan 2012	\$1,597	\$1,652	\$1,262	1.03	1.31	\$8,626	\$6,756	\$6,261	0.78	1.08
Feb 2012	\$1,939	\$1,841	\$2,123	0.95	0.87	\$10,565	\$8,597	\$8,384	0.81	1.03
Mar 2012	\$2,248	\$1,376	\$1,444	0.61	0.95	\$12,813	\$9,973	\$9,828	0.78	1.01
Apr 2012	\$2,331	\$1,651	\$1,835	0.71	0.90	\$15,144	\$11,624	\$11,663	0.77	1.00
May 2012	\$2,421	\$1,399	\$1,725	0.58	0.81	\$17,565	\$13,023	\$13,388	0.74	0.97
Jun 2012	\$2,656			0.00		\$20,221			0.00	
Jul 2012	\$1,950			0.00		\$22,171			0.00	
Aug 2012	\$2,533			0.00		\$24,704			0.00	
Sep 2012	\$2,615			0.00		\$27,319			0.00	
PTD	\$271,408	\$265,135	\$262,445	0.98	1.01					

**ANALYTICAL LABORATORY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-05	LAB Construction Substantially Complete	12/31/2012	On-going

The Analytical Laboratory (LAB) will support WTP operations by analyzing feed, vitrified waste, and effluent streams. The LAB is 53 percent complete overall, with engineering design 79 percent complete, procurement 76 percent complete, construction 82 percent complete, and startup and commissioning is 10 percent complete.

**Significant Past Accomplishments:**

The LAB team continued to focus on the LAB Construction Substantially Complete milestone. Weekly meetings are held to evaluate construction progress and challenges that arise. Major structures of the building are in place including the interior partition walls which segregate the various analytical stations for LAW sample analysis. Within the individual analytical areas, detail/finishing work continues with emphasis on the installation of commodities to support laboratory cabinets and analytical equipment. Recent accomplishments for the LAB team are listed below:

- Began installing shower/eyewash stations throughout the facility
- Began testing of the Chill Water system
- Continuing RLD system installation in the southeast corner of the facility
- Continued installing hotcell lighting receptacles

**Significant Planned Actions in the Next Six Months:**

- Complete mechanical installation of Autosampling System
- Set pumps in C5 pit
- Install Hot Cell import/export motors
- Progress Analytical Laboratory Construction to “Substantially Complete”

**Issues:**

The LAB schedule was recently affected by an issue concerning valve internals. There is the potential that as many as 275 valves could have had their internal components damaged due to excessive temperatures caused by welding during installation. BNI plans to examine 65 of the valves and base the recovery plan upon the inspection results. While this will delay the LAB Substantially Complete Milestone forecasted construction completion date, there is currently no impact to the TPA milestone or contract milestone completion dates.

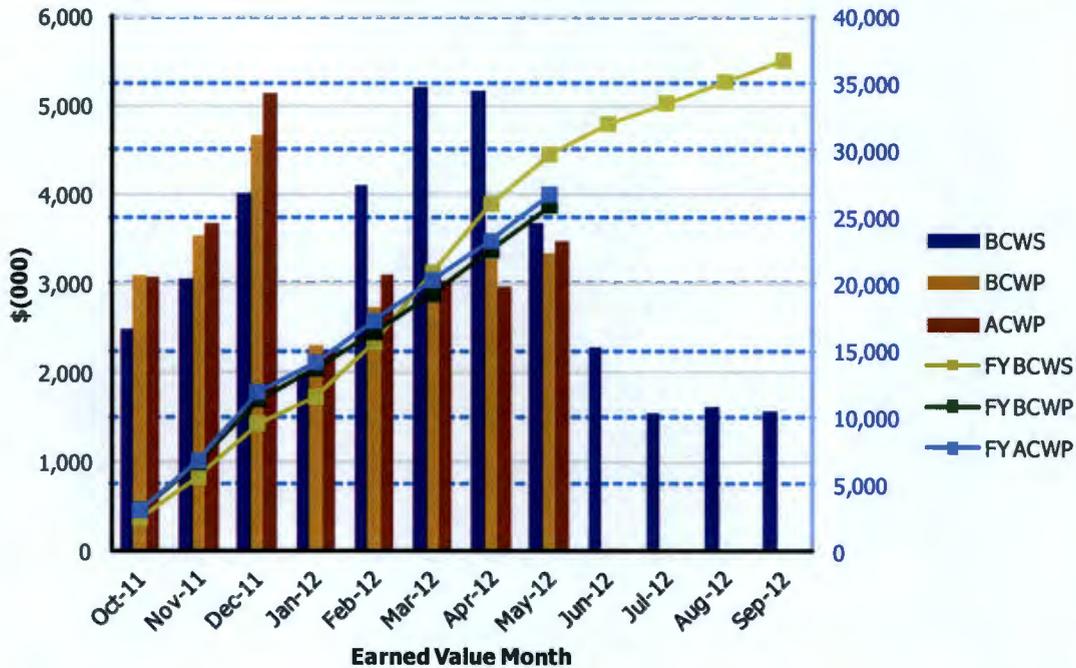
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2012 Earned Value Data

Data as of: May 2012

**River Protection Project  
Analytical Laboratory**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$2,489	\$3,092	\$3,063	1.24	1.01	\$2,489	\$3,092	\$3,063	1.24	1.01
Nov 2011	\$3,040	\$3,551	\$3,680	1.17	0.96	\$5,529	\$6,643	\$6,743	1.20	0.99
Dec 2011	\$4,005	\$4,676	\$5,128	1.17	0.91	\$9,534	\$11,319	\$11,871	1.19	0.95
Jan 2012	\$1,970	\$2,318	\$2,242	1.18	1.03	\$11,504	\$13,637	\$14,113	1.19	0.97
Feb 2012	\$4,113	\$2,725	\$3,091	0.66	0.88	\$15,617	\$16,362	\$17,204	1.05	0.95
Mar 2012	\$5,203	\$2,860	\$3,036	0.55	0.94	\$20,820	\$19,222	\$20,240	0.92	0.95
Apr 2012	\$5,167	\$3,265	\$2,954	0.63	1.11	\$25,987	\$22,487	\$23,194	0.87	0.97
May 2012	\$3,685	\$3,349	\$3,486	0.91	0.96	\$29,672	\$25,836	\$26,680	0.87	0.97
Jun 2012	\$2,292			0.00		\$31,963			0.00	
Jul 2012	\$1,540			0.00		\$33,503			0.00	
Aug 2012	\$1,612			0.00		\$35,115			0.00	
Sep 2012	\$1,572			0.00		\$36,687			0.00	
<b>PTD</b>	<b>\$199,474</b>	<b>\$194,305</b>	<b>\$207,449</b>	<b>0.97</b>	<b>0.94</b>					

Waste Treatment Plant Project - Percent Complete Status Through May 2012															
(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Facilities															
Low-Activity Waste	993.4	675.2	68%	250.8	210.4	84%	242.1	212.8	88%	350.3	245.3	70%	150.3	6.7	4%
Analytical Lab	360.3	194.3	54%	57.9	45.6	79%	56.2	42.8	76%	109.6	91.4	83%	136.6	13.7	10%
Balance of Facilities	538.6	265.1	49%	89.0	65.0	73%	81.4	39.3	48%	231.5	148.6	64%	136.7	12.2	9%
High-Level Waste	1,516.3	900.0	59%	355.9	307.0	86%	458.2	347.1	76%	582.3	241.1	41%	120.0	4.8	4%
Pretreatment	2,588.5	1,376.2	53%	774.0	613.9	79%	713.5	370.1	52%	914.6	385.2	42%	186.4	7.0	4%
Shared Services	4,720.2	3,535.3	75%	1,005.1	920.3	92%	471.7	400.2	85%	1,432.9	1,116.8	78%	455.9	133.6	29%
Total WTP w/o UB	10,717.3	6,946.1	65%	2,532.6	2,162.3	85%	2,023.2	1,412.3	70%	3,621.1	2,228.4	62%	1,185.8	178.0	15%
Undistributed Budget	0.0	n/a	n/a	n/a	n/a	n/a									
Total WTP	10,717.3	6,946.1	65%	2,532.6	2,162.3	85%	2,023.2	1,412.3	70%	3,621.1	2,228.4	62%	1,185.8	178.0	15%

Source: Preliminary WTP Contract Performance Report - Format 1, Data for May 2012

Note: Starting with the June 2009 report, facility Construction percent complete values decreased significantly, and a couple of Design/Engineering facility percent complete values went down as well. The decrease in values was tied to Phase I of BNI's elimination of WBS 1.08, Plant Wide EPCC; scope from WBS 1.08 was moved to facilities as appropriate or to WBS 1.90, Shared Services. This resulted in an increase in the facility construction budgets, which has correspondingly reduced the to-date percent complete values. In July 2010 the allocation of 1.90 to the facilities was removed to show true facility percent complete. This report does not show the LOE budgets that are not associated with a specific EPCC function, these include, Finance, Project Management, etc, but are included in the total Overall Facility Percent Complete for Shared Service.