Section D
Soil and Groundwater Remediation Project (RL-0030)

CH2MHILL
Plateau Remediation Company

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November 2011
CHPRC-2011-11, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

PROJECT SUMMARY

Work included pump-and-treat operations, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial processes, and documentation for the River Corridor and Central Plateau. Sampling and groundwater treatment completed in November includes the following:

- Collected 1,154 samples, resulting in 323 results being loaded into HEIS.
- 16M gallons groundwater treated by ZP-1 treatment facility
- 21M gallons groundwater treated by KX treatment facility
- 9M gallons groundwater treated by KW treatment facility
- 7M gallons groundwater treated by KR-4 treatment facility
- 25M gallons groundwater treated by HX treatment facility
- 21M gallons groundwater treated by DX treatment facility
- 1M gallon groundwater treated by TX/TY well pumps
- 100M gallons of groundwater treated total

EMS Objectives and Target Status

Objective#	Objective	Target	Due Date	Status
12-EMS-SGWR-OB1-T1	Reduce the release of toxic and/or hazardous material	Treat 1 billion gallons of groundwater from all pump & treat systems during FY2012. This assumes that existing P&T facilities continue to operate at or near current production /through put levels.	9/30/12	On Schedule
		Review and tally total number of gallons treated	Monthly	198.4M Gallons through 11/30/11

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	1	N/A
Total Recordable Injuries	0	14	N/A
First Aid Cases	3	103	**11/10 –** While loading an ERDF flat, employees' finger was pinched between the ramp and a backboard. 22413 (S&GRP) **11/10** – Employee was wiping down glass sample bottles when one broke in hand. 22412 (S&GRP) **11/15 –** Employee was unloading files from a file cabinet and struck her left elbow resulting in a contusion. 22519 (S&GRP)
Near-Misses	0	2	N/A

KEY ACCOMPLISHMENTS

Base - RL-0030.C1 –GW Remedy Implementation

Engineering Projects and Construction (EPC) Projects in Support of Soil and Groundwater Remediation Project (S&GRP) - Base

- Continued working through the remaining construction punch-list items. Completed Radiological Building site work and concrete apron. Completed BIO Building and BIO Pad floor penetrating sealant installation and all process system and influent piping system flush.
- Hanford Fire Marshall occupancy permit issued for all four transfer buildings
- Injections Wells: ATP complete.

Base - RL-0030.01 RL 30 Operations

EPC Projects in Support of S&GRP - Base

- 100-HX Groundwater Treatment Facility - Continued working project closeout activities.

Integration and Assessments

- Chaired an integrated River Corridor/Central Plateau Senior Management (RL and contractors) that provided direction on the 300 Area Proposed Plan, the path forward to evaluate the status of work remaining in the River Corridor following final ROD approval, and pending policy for coal ash sites.
- Remediation Optimization Study: Completed a series of workshops with contractor/DOE representatives to develop data/approaches/assumptions to support the study. Defining the process for subdividing and sequencing the implementation areas.

Technical Integration

- DOE O 435.1 Assessments: The Composite Analysis and Integrated Disposal Facility annual

status reports have had internal draft review comments incorporated and the decisional drafts are in technical publications.

- Groundwater Protection Modeling:
  - DOE/RL-2011-50 Rev. 0 (Graded Approach document) was released for 90-day public review period (closes January 6).
  - River Corridor Vadose Zone Model Package Report (SGW-50776 Rev. 0) has been submitted to clearance.
- Submitted the Tier 2 ecological Preliminary Remediation Goal (PRG) report (CHPRC-01311) to clearance, following incorporation of DOE comments.

Systematic Planning Integration

- Completed cost estimates for five 300 Area remedial alternatives for inclusion in the Remedial Investigation/Feasibility Study (RI/FS) decision document and Proposed Plan (PP).
- Implemented new comment resolution process on EPA comments for the 100K RI/FS and PP. Comments were reviewed and categorized (based on difficulty) within 24 hours of receipt and reviewed with RL within 48 hours.

River Corridor

100-KR-4 Operable Unit - Base

- Received EPA RI/FS & PP comments on November 14, 2011.

100-HR-3 Operable Unit - Base

- Received DOE RI/FS Report comments starting in early November, with the final comments received on November 23, 2011.

300-FF-5 Operable Unit – Base

- Delivered the Decisional Draft Proposed Plan to RL on November 14, 2011(TPA M-015-72-T01 due December 31, 2011).

Central Plateau

200-UP-1 Operable Unit – Base

- Construction of the S-SX extraction system (Ojeda) continued. Transfer building ATP was performed and a final punch-list issued. All mechanical and electrical rack were fabricated and placed at the well heads and are undergoing ATP placement and testing of the above-ground pipelines was completed. All 3 extraction wells are complete.

200-ZP-1 Operable Unit - Base

- Drilling/sampling of 23 permanent extraction and/or injection wells is complete. Wells C8068, C8069, and C8386 are at depths of 482 ft (TD), 524 (TD), and 447.5 ft.
- Operators are being trained on how to operate the 200 West P+T system using recently created simulator based training software.

200-IS-1 Operable Unit – Base

- RL transmitted the Draft A 200-IS-1 OU RFI/CMS & RI/FS Work Plan to the Regulatory Agencies on November 10, 2011 (TPA M-015-90 due December 31, 2011).

200-SW-2 Operable Unit – Base

- RL transmitted the Draft A 200-SW-2 OU RFI/CMS & RI/FS Work Plan to the Regulatory Agencies on November 7, 2011 (TPA M-015-93A due December 31, 2011).

MAJOR ISSUES

No major issues to report this month.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

Working - No Concerns
Working - Concern
Working - Critical

Increased Confidence
No Change
Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-002: RL or Regulator Personnel Changes	Work with RL to document agreements and to obtain appropriate formal approvals (RL and regulators) for the agreements that could result in a schedule delay of greater than 3 months or a cost impact of more than $500K in the event the agreements were to change.	Working - Concern	Decreased Confidence	Currently experiencing this issue with turnover of RL and Regulator staff. Training was conducted with S&GRP management team to reinforce documentation of meetings and agreements to minimize this risk.
SGW-080: 100-BC-5 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.	Working - Concern	No Change	EPA concurred that need for pump and treat will be evaluated as part of RI/FS process; existing sample data and the draft feasibility study indicate a treatment system may be required as part of a final action under the future Record of Decision.
SGW-081: 100-FR-3 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.	Working - No Concerns	No Change	EPA concurred that need for pump and treat will be evaluated as part of RI/FS process but based upon current sample data and the draft feasibility study , the need for treatment is not considered likely.
SGW-001: 100-D Treatment Technology Selection Change	Review draft RD/RAWP with regulators; maintain close interface to minimize impact of changes.	Working - No Concerns	No Change	This risk is has a low probability but will still be a risk until the final remedy is approved.
SGW-008A: Significant Regulatory Comments - 100-KR-4	Routine meetings are already held with the regulators and RL during document development. No additional mitigation is feasible. Risk is accepted.	Working - Concern	Decreased Confidence	EPA has policy related comments that are being evaluated and considered for impacts to not only K, but other related projects. Example include the addition of irrigation within the unrestricted land use which has overarching impacts on other projects.
SGW-008B: Regulatory Document Comments for 100-HR-3	Routine meetings are being held with regulators during document development; no additional mitigation is feasible.	Working - No Concerns	No Change	DOE completed their review and set expectations that we also address resolutions from the 100-K EPA comments.
SGW-008D: Regulatory Document Comments - 100-NR-2	Coordinating with RL to conduct routine meetings with Ecology during document development. No additional mitigation is feasible at this time. Risk is accepted with monitoring.	Working - No Concerns	No Change	No issues are expected this month.
SGW-008J: Regulatory Document Comments - 300-FF-5	Routine meetings are being held with the regulators and RL during document development. No additional mitigation is feasible. Risk is accepted.	Working - No Concerns	No Change	No issues are expected this month.
SGW-017 - Groundwater Flow Less Than Planned - 200 West P&T (Phase I)	Project has accelerated drilling of 6 injection wells to ensure adequate injection capacity.	Working - No Concerns	No Change	Hydraulic analysis was performed and as a result, project is revising pump header configuration to accommodate startup and operations at ITB #1 and ITB #2.
SGW-031A: P&T Design Changes - 200 West	Identify required design changes early in the process to minimize schedule impact. Work closely with the client and regulators to minimize impact to schedule. Incorporate design changes quickly to minimize cost impacts and avoid rework. Supplement Eng/QA/QC support and contracts for special inspection so as to finalize engineering requirements.	Working - Concern	No Change	The baseline has incorporated the realized risk from the final issuance of the "issued for construction" drawings. Construction is complete and project is entering acceptance testing phase. As these tests complete, risk associated with design will diminish.

RISK MANAGEMENT STATUS– Cont.

Unassigned Risk
Risk Passed
New Risk

Working - No Concerns
Working - Concern
Working - Critical

Increased Confidence
No Change
Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-041, Maintenance on the groundwater pump and treat systems is higher than planned due to reduced system reliability.	Shutdown of the older facilities as new facilities are brought on line.			No impacts at this time.
SGW-043A: P&T System Relocation - 100-KR-4	The 100-KR-4 Operable Unit Lead will work closely with the 100 K Area waste site remediation manager to minimize the impact to the groundwater pump and treat system. No additional mitigation is feasible. Risk is accepted.			No issues are expected this month.
SGW-049: 200 West Pump & Treat - New Technology	The ability of either resin (two different resins are being considered) to remove I-129 to target MCL's is not specifically understood; therefore, DOE has agreed that Phase I treatment will primarily target Tc-99. A test plan has been developed to define the approach and protocols for CCL4 uptake.			No issues at this time.
SGW-051: Compressed Schedule for 200 West P&T Project Due to TPA Commitment	Project team will work closely with RL and the regulators to minimize the potential of unexpected design changes and to implement any required design changes quickly so as to minimize the schedule impact. Additional funding will be required to mitigate these issues. Contractor schedule compression will be supplemented with appropriate detail over time. Design schedule has been extended and has overlapped construction and no constructability reviews have occurred. Include funds to account for changes and claims in budget, compare design and estimate costs for changes, perform phased constructability reviews. Project is already exploring options to accelerate schedule more so than what was delivered in general contractor's proposal.			Agreed upon completion criteria with RL and Regulators. Project is utilizing additional resources and working overtime to mitigate this risk. The concern is reviewed daily with the General Contractor and testing personnel to recover critical path work activities.
SGW-069: 100-HR-3 ISRM Barrier Amendment - Hexavalent Chromium Continues to Move Through Barrier	Monitor zero valence iron injection; add four wells to P&T.			DOE and Ecology have agreed to the strategy and signed a memorandum documenting the changes as insignificant. For wells will be used to supplement the barrier and capture down-gradient chromium. DX system is on line with extraction wells down gradient of the ISRM barrier.
SGW-083, River Corridor Characterization	Additional characterization wells are required to support the development of an RI/FS and Proposed Plan for the River Corridor groundwater operable units or to investigate findings from WCH data gathering.			WCH is gathering data in and along the river. This data could result in the need to install additional characterization wells in the River Corridor operable units. Information and conclusions from WCH risk assessments is raising questions regarding the Riparian Zone and Columbia River component human health risk assessment.
SGW-086: 200 W P&T Startup	Operations and engineering input has been obtained on the operating system controls to standardize the controls to those used for other pump and treat systems to the extent possible. Corporate design team and technologists experienced in bioremediation have been deployed to support the design effort and system startup. Resident engineer from corporate will also be supplied to support startup and testing of the new process equipment. Initiate preparation of CAT/ATP/OTP early. Early integration with contractors for incremental testing (e.g. isolate transfer buildings for a more efficient CAT/ATP). Notify vendors of necessary reconfigurations as early as possible so as to minimize schedule and cost impact.			No issues at this time.

RISK MANAGEMENT STATUS– Cont.

Unassigned Risk
Risk Passed
New Risk

Working - No Concerns
Working - Concern
Working - Critical

Increased Confidence
No Change
Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-091: Material Procurement - 200 West P & T	Work closely with the BTR to ensure timely placement of procurement contracts, including any necessary expediting. Supplement engineering support for RCI submittal resolution, on-site focus review including vendor participation as needed. Provide incentives for vendors to compress schedule.	Yellow	No Change	All major long lead equipment (LLE) has been received and accepted. Significant interferences have been encountered in the field. On-site support has been employed to modify, replace, and/or repair the interferences. As testing continues, risk associated with long lead procurements will diminish.
SGW-092: 200 West P&T Operating Requirements	The operating requirements and waste disposition requirements will be evaluated further at the 30, 60, and 90 percent design phases to determine whether operational planning needs to be adjusted. Risk is accepted without further mitigation at this time.	Yellow	No Change	No issues at this time" update "Risk Strategy/Handling" to include: "As preventative maintenance packages proceed through the development process, staffing levels will be evaluated to ensure continuous P&T operation.
SGW-095: Well Relocation or Acceleration - 200 West P&T	Wells will be installed as necessary to support system startup, with design changes incorporated as they are identified. Risk is accepted without further mitigation.	Green	No Change	No issues at this time.
SGW-098: 200-W P&T - Schedule Impacts Due to Scope Increases	Contractor will hold periodic discussions with client and regulators to maintain a clear understanding of scope changes. As these issues are identified, they will be listed with other emerging issues. At this point, further mitigation tactics will be determined.	Yellow	No Change	OT and additional shifts have been utilized in certain areas to ensure schedule requirements are met. Work continues to support acceptance testing procedure.
SGW-101, 100-NR-2 Strontium Downstream From Barrier	If strontium contaminants downstream of the barrier require mitigation, an evaluation of barrier expansion will be conducted.	Green	No Change	The 100-NR-2 apatite barrier is designed to control and treat the strontium in the soil and groundwater to prevent migration to the river. There is a very low probability risk that strontium that is downstream from the barrier will require additional treatment.
SGW-107: Unplanned New Wells Required	Annual well drilling plans reflect current knowledge. Risk is accepted without mitigation.	Green	No Change	Wells in FY2012 can only be added if funds are approved by DOE/Sr. Management. BCR would be initiated to incorporate any new wells that have approved funds.
SGW-119: Integration of Lime system Vendor Package Equipment into Facility Construction	Project has sent representatives to fabrication facilities to inspect processes and mitigate further issues. PRC is actively managing subcontractors by holding schedule accountability meetings twice per week.	Yellow	No Change	The design changes have been completed, and structural modifications have been installed for the lime sludge conveying system with structural steel. The contractor is adding resources/working overtime to recover schedule. These costs have been identified for backcharge to the equipment vendor and include extended general conditions costs for the installation Contractor.
SGW-120: 200 West Safety Considerations	CHPRC oversight including site safety, IH, and construction management will work with the contractor on a daily basis to reduce this risk potential.	Yellow	No Change	Successful completion of the project is contingent upon ongoing implementation of safety and health practices.
SGW-121: 200 West P&T Work - Software Development & Verification/Validation	Monitor progress of software development and apply additional resources as necessary. CH2MHILL senior management to oversee and provide necessary resources to meet all required scheduling requirements for work performed at CH2MHILL.	Green	No Change	There have been issues with package vendors that have been mitigated. Probability of occurrence remains until system is fully operational.
SGW-124: 200 W P&T Long-Lead Equipment Fabrication to Site Standards & Requirements	Fabrication of LL vendor equipment is not in compliance with site standards (e.g., hoisting and rigging manual) and other relevant closed/standards (e.g., NEC, NRTL, NFPA, welding codes) are not met and require re-workafter shipment to the site.	Yellow	No Change	Project has QA/QC representation at the vendors site to inspect processes and mitigate further issues. Bi-Weekly meetings are being held to maintain schedule and delivery dates. Actions have been taken to correct the equipment prior to receipt and installation. The LLE Vendor will be working the items required to meet the site standard and requirements.

PROJECT BASELINE PERFORMANCE
Current Month
($M)

WBS 030/RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance ($)	Schedule Variance (%)	Cost Variance ($)	Cost Variance (%)
Base RL-0030.C1 GW Remedy Implement	2.7	3.0	5.4	0.4	13.4	(2.4)	-79.4
ARRA RL-0030.R1.1 Cleanup Operations	0.0	0.0	(0.6)	0.0	0.0	0.6	0.0
ARRA RL-0030.R1.2 Well Drilling Operations	0.0	0.0	0.2	0.0	0.0	(0.2)	0.0
Subtotal RL-0030.C	**2.7**	**3.0**	**5.0**	**0.4**	**13.4**	**(2.0)**	**-67.2**
Base RL-0030.01 RL 30 (Operations)	7.0	8.4	5.9	1.5	20.8	2.5	30.2
ARRA RL-0030.R1.3 Support Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**9.7**	**11.5**	**10.9**	**1.8**	**18.7**	**0.5**	**4.4**

Numbers are rounded to the nearest $0.1M.

CM Schedule Performance

Current month schedule variances that exceed thresholds are as follows:

RL-0030.C (+$0.4M/+13.4%)

Base RL-0030.C1 GW Remedy Implementation (+$0.4M)

200 ZP-1 Operable Unit (+$0.4M)

The overall Sludge Stabilization System is behind schedule. However, performance taken in November was for BCWS planned in prior months therefore resulting in a current month positive schedule variance. As additional work is completed the overall contract to date behind schedule position will improve.

ARRA RL-0030.R1.1 Cleanup Operations ($0.0M)

There is no current month schedule variance.

ARRA RL-0030.R1.2 Well Drilling Operations ($0.0M)

There is no current month schedule variance.

RL-0030.01

Base RL-0030.01 RL 30 (Operations) (+$1.5M/+20.8%)

100 NR-2 Operable Unit (+$0.7M)

The primary drivers for the current month schedule variance are barrier expansion work being planned in FY13 that is being performed this year and a point adjustment for the implementation of BCR-PRC-12-001, PMB Rev3 which adjusted for RD/RA work that was re-planned into FY13.

Regulatory Decisions & Closure Integration (+$0.4M)

The current month schedule variance is due to the point adjustment as the result of implementing BCR-PRC-12-001, PMB Rev 3. The BCR re-planned CERCLA documents into the out years due to funding.

RL-0030.R1.3

ARRA RL-0030.R1.3 Support Operations ($0.0M/0.0%)

There is no current month schedule variance.

CM Cost Performance

Current month schedule variances that exceed thresholds are as follows:

RL-0030.C ($-2.0M/-67.2%)

Base RL-0030.C1 GW Remedy Implementation (-$2.4M)

200 ZP-1 Operable Unit (-$2.4M)

FY year-end contract changes caused accrual issues in October, the November accrual covers both months and resulted in a negative cost variance for the period.

ARRA RL-0030.R1.1 Cleanup Operations (+$0.6M)

200-ZP-1 OU (+$0.6M)

Closeout costs on contracts credit value based on actual being less than accrual and credits from contractors.

ARRA RL-0030.R1.2 Well Drilling Operations (-$0.2M)

200-ZP-1 OU (-$0.2M)

Contract closeout costs.

RL-0030.01

Base RL-0030.01 RL 30 (Operations) (+$2.5M/+30.2%)

GW Monitoring & Performance Assessments (+$0.3M)

A contract accrual for surface geophysical logging was not made as the contract had been incorrectly coded as complete in passport. The coding has been corrected and an accrual will be made in December.

100 NR-2 Operable Unit (+$0.7M)

The current month positive cost variance is primarily due to performing the accelerated expansion barrier work scope more efficiently than expected and the impact of the point adjustment as a result of the implementation of BCR-PRC-1-001, PMB Rev3 (de-blending resources and other rate impacts associated with the expansion barrier work scope).

100 HR-3 Operable Unit (+$0.4M)

Underrun is a result of efficiencies in HX construction closeout activities (as-builts and project closeout), DX operations and HX OTP activities.

200 UP-1 Operable Unit (+$0.4M)

The current month positive cost variance is primarily due to S-SX construction activities. Total UP-1 work scope is expected to be completed at or near total contract budget.

Regulatory Decisions and Closure Integration (+$0.3M)

The current month cost variance is a result of completing IS-1 and SW-2 work plans more efficiently than planned.

RL-0030.R1.3

ARRA RL-0030.R1.3 Support Operations ($0.0M/0.0%)

There is no current month schedule variance.

Contract-to-Date
($M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance ($)	Schedule Variance (%)	Cost Variance ($)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Base RL-0030.C1 GW Remedy Implement	49.7	47.0	51.6	(2.7)	-5.4	(4.7)	-9.9	60.4	68.3	(7.9)
ARRA RL-0030.R1.1 Cleanup Operations	175.0	175.0	174.4	0.0	0.0	0.6	0.3	175.0	174.4	0.6
ARRA RL-0030.R1.2 Well Drilling Operations	40.7	40.7	38.3	0.0	0.0	2.4	5.9	40.7	38.3	2.4
Subtotal RL-0030.C	**265.4**	**262.7**	**264.3**	**(2.7)**	**-1.0**	**(1.7)**	**-0.6**	**276.1**	**281.0**	**(4.9)**
Base RL-0030.01 RL 30 (Operations)	387.6	389.5	393.6	1.9	0.5	(4.1)	-1.1	1,170.8	1,175.2	(4.4)
ARRA RL-0030.R1.3 Support Operations	51.4	51.4	50.9	0.0	0.0	0.5	0.9	51.4	50.9	0.5
Total	**704.4**	**703.6**	**708.9**	**(0.8)**	**-0.1**	**(5.3)**	**-0.8**	**1,498.4**	**1,507.2**	**(8.8)**

Numbers are rounded to the nearest $0.1M.

CTD Schedule Performance

The primary contributors to the schedule variances that exceed the reporting thresholds are discussed below:

RL-0030.C1 (-$2.7/-5.4%)

Base RL-0030.C1 GW Remedy Implementation (-$2.7M)

200 ZP-1 Operable Unit (-$2.7M)

Negative schedule variance is due to delays associated with Sludge Stabilization System subcontractor submittals, fair cost estimates, award of contracts and design changes.

ARRA RL-0030.R1.1 Cleanup Operations ($0.0M)

Scope is complete. There is no contract to date schedule variance.

ARRA RL-0030.R1.2 Well Drilling Operations ($0.0M)

Scope is complete. There is no contract to date schedule variance.

RL-0030.01

Base RL-0030.01 RL 30 (Operations) (+$1.9M/+0.5%)

100 NR-2 Operable Unit (+$2.5M)

Positive schedule variance has resulted from performing barrier expansion and sampling support that was planned in FY13 and performed in FY11 and FY12.

RL-0030.R1.3

ARRA RL-0030.R1.3 Support Operations ($0.0M/0.0%)

Scope is complete. There is no contract to date schedule variance.

CTD Cost Performance

The primary contributors to the cost variances that exceed the reporting thresholds are discussed below:

RL-0030.C1 (-$1.7/-0.6%)

Base RL-0030.C1 GW Remedy Implementation (-$4.6M)

200-ZP-1 Operable Unit (-$4.6M)

Major contributors to the variance are as follows:

- 200W P&T construction negative CV is associated with the CHPRC accrued costs for Construction Contractor's completed work scope defined in Change Notifications which are in the process of definitization. The costs are associated with the resources expended to complete the P&T facility by the end of FY2011 including added shifts, overtime, and logistics of working parallel activities.
- Interim Operations reflects significant progress and cost underruns achieved to date for System Calibration
- Design of the permanent hookup of well EW-1 was lower than planned as only minor changes were needed to an existing design
- Cost for performing general operating and maintenance and minor modification activities have been lower than planned as the system has been running smoothly
- Cost for collecting depth-discrete groundwater and soil samples during the installation of new wells was less than planned
- 200W Pump-and-Treat Remedial Design/Remedial Action work plan and preliminary design activities were completed with fewer resources than planned

ARRA RL-0030.R1.1 Cleanup Operations (+$0.6M)

Contract to Date variances are within threshold.

ARRA RL-0030.R1.2 Well Drilling Operations (+$2.4M)

Drilling (+$2.4M)

The positive cost variance is due to efficiencies and savings obtained in drilling for 100-NR-2 and 200-BP-5 wells. Cost efficiencies have been obtained through an aggressive drilling schedule with savings in support personnel and faster drilling methods. Well decommissionings have also been completed for less than planned.

RL-0030.01

Base RL-0030.01 RL 30 (Operations) (-$4.1M/-1.1%)

Integration & Assessments (+$3.8M)

Primary drivers for this positive cost variance are as follows:

- Less subcontractor support required for Central Plateau strategy development and integration
- Sample Management and Reporting has performed work scope more efficiently than planned
- Less cleanup document reviews were required than originally planned, requiring less contract support. Also efficiencies/savings were realized in establishing document templates, reviewing procedures, and software procurements.

Drilling (-$2.3M)

Radiological contamination encountered on two NR-2 wells has caused additional HPT delays and additional support resource requirements (HPTs). In order to recover schedule additional well drilling rigs have been used, resulting in additional overruns to the project. Also, cost for remaining casing at the

completion of the project was accrued as it cannot be released to the contractor.

100-NR-2 OU (+$2.8M)

Chemical treatment and maintenance scope, jet grouting pilot test work, RI/FS Work Plan and Interim Proposed Plan Reporting were performed more efficiently than planned leading to the positive cost variance.

100 HR-3 Operable Unit (-$3.6M)

Primary contributors to the negative cost variance are as follows:

- 100 DX extensive effort required to design the pH adjustment system, cost overruns in completing the OU Remedial Process Optimization studies.
- 100 DX higher than expected cost to complete acceptance test plan and the operational test plan
- Cost of realigning wells from DR-5 to 100 DX
- 100 HX Construction Material procurement costs were high and ATP resources to complete exceeded the plan.
- Additional time and resources being spent on internal CERCLA (RI/FS) document development that will be recovered in completed Draft A document

200 PW-1 OU (+$0.9M)

Labor and subcontract cost for general operations and minor modifications support is less than planned. In addition, efficiencies and savings experienced with the Soil Vapor Extraction (SVE) system testing prior to March 2010 as well as the removal of two old SVE units.

Usage Based Services (-$1.4M)

Increased cost associated with training due to the additional ARRA work in FY2010 and fleet services costs that occurred in FY2009 and FY2010. Overruns will continue to be funds-managed within the S&GRP project.

RL-0030.R1.3

ARRA RL-0030.R1.3 Support Operations (+$0.5M/+0.9%)

Regulatory Decision and Closure Integration (+$1.7M)

The positive cost variance is primarily due to completing work scope more efficiently than planned, primarily in the areas of multi-incremental sampling (using existing documentation and direct haul rather than staging), and borehole drilling and landfill characterization (competitive subcontracting of drilling support and efficient field support).

Ramp-up and Transition (-$1.8M)

The negative cost variance was driven by increased Project Services Distribution to RL-0030.

Estimate at Completion (EAC)

ARRA – The projected variance at completion is positive 1.3%.

Base – The projected variance at completion of negative -1.0% is spread among several operational areas and is not considered significant.

ARRA – The EAC change from the previous month is within reporting thresholds.

Base – The EAC change from the previous month is within reporting thresholds.

FUNDS vs. SPEND FORECAST ($M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	FY2012 Projected Funding	FY2012 Spending Forecast	FY2012 Spend Variance
ARRA	0.6	0.6	0.0
Base	121.1	116.5	4.6

Numbers are rounded to the nearest $0.1M.

Funds/Variance Analysis

Funding includes FY2011 carryover and FY2012 new Budget Authority.

Critical Path Schedule

Critical path analysis can be provided upon request.

Baseline Change Requests

BCR-PRC12-001R0, Baseline Rev. 3

BCRA-PRC-12-004R0 - November Administrative BCR

FY2012 Management Reserve (Funded):

ARRA = $0.0M

Base = $2.8M

No MR was used in November, see Management Reserve table in the CHPRC Overview.

MILESTONE STATUS

Tri-Party Agreement (TPA) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PMB Revision 3, implemented in November 2011, and subsequent approved BCRs define CHPRC planning with respect to TPA milestones. The following table is a one year look ahead of commitments and TPA enforceable milestones and non-enforceable target due dates.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-90	Submit RCRA Facility Investigation /Corrective Measures Study (RFI/CMS) and RI/FS work plan for 200-IS-1 OU to Ecology	TPA	12/31/11		12/15/11	Complete per RL transmittal letter 12-AMCP-0032 (12/6/11)
M-015-93A	Submit Rev'd RFI/CMS & RI/FS Work Plan for SW-2 to Ecology	TPA	12/31/11		12/31/11	Complete per RL transmittal letter 12-AMCP-0031 (12/6/11)
M-091-40L-032	Submittal Jul-Sep 4th Qrtr FY11 Burial Ground Sample Results	TPA	12/15/11		11/30/11	On Schedule. Qrtly letter report transmitted to RL on 11/28/11
M-015-72-T01	Submit RI/FS Report and PP for 300-FF-2/5 OUs for GW and Soil	TPA	12/31/11		12/31/11	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-91A	Submit RI/FS Work Plan for the 200-WA-1 OU to U.S. Environmental Protection Agency (EPA)	TPA	12/31/11		12/23/11	On Schedule
M-016-122	Begin Phase 1 Operation of 200W Pump-and-Treat System	TPA	12/31/11		12/31/11	On Schedule
M-015-70-T01	Submit Feasibility Study Report and Proposed Plan for 100-HR-1/2/3 and 100-DR-1/2 OUs	TPA	1/12/12		1/12/12	On Schedule
M-015-68-T01	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.	TPA	3/15/12		3/15/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-40L-033	Submit Oct-Dec 1st Quarter Burial Ground Sample Results	TPA	3/15/12		3/15/12	On Schedule
M-037-03	Submit revised closure plans to support TSD closure of two TSD Units: 216-B-3 Main Pond system and 216-S-10 Pond and Ditch	TPA	4/30/12		4/30/12	Ecology may take lead on producing document.
M-015-64-T01	Submit RI/FS Report and PP for 100-FR-1/2/3 and 100-IU-2/6	TPA	5/14/12		5/14/12	On Schedule
M-024-58E	Initiate Discussions of Well Commitments.	TPA	6/1/12		6/1/12	On Schedule
M-091-40L-034	Submit January to March 2nd Quarter FY-12 Burial Ground Sample Results.	TPA	6/15/12		5/31/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-110D	Submit Technicium-99 Pilot-scale Treatment Study Test Report as an element of the Remedial Investigation for the 200-WA-1 OU to EPA.	TPA	6/30/12		6/30/12	On Schedule
M-016-120	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	TPA	8/31/12		4/31/12	On Schedule
M-024-63-T01	Conclude Discussions of Well Commitments Initiated Under M-024-058 and Add a New Interim M-024 Milestone Commitment for 12/31/15	TPA	8/1/12		8/1/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-62-T01	Submit a FS/PP for the 100 NR-1 and 100-NR-2 Operable Units including groundwater and soil.	TPA	9/17/12		9/17/12	On Schedule
M-091-40L-035	Submit April to June 3rd Quarter FY-12 Burial Ground Sample Results	TPA	9/15/12		8/31/12	On Schedule

SELF-PERFORMED WORK

The Section H. clause entitled “Self-Performed Work” is addressed in the Overview.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.