Change Number M-24-16-01	Federal Facility Agreement and Consent Order Change Control Form	Date 5/24/2016

Originator
R.J. Corey

Phone
(509) 373 - 9971

Class of Change
[ ] I - Signatories [X] II - Executive Manager [ ] III - Project Manager

Change Title
Groundwater Protection, Monitoring, And Remediation Well Installation Priority List Update Through CY 2019, Including New Interim Milestone And Target Date

Description/Justification of Change

This change package completes the 2016 Hanford Federal Facility Agreement and Consent Order (TPA) target date M-024-67-T01 requirement to conclude discussions of groundwater monitoring well commitments initiated under M-024-58 by August 1, 2016, and adds a new interim M-024 milestone to incorporate well installations needed to maintain a three-year rolling prioritized schedule consistent with the sitewide cleanup priorities. Replacement of serviceable monitoring wells not meeting regulatory construction specifications is deferred to support groundwater remediation needs.

The Parties have successfully concluded discussions, and by approval of this change package, establish the interim TPA milestone M-024-70 for completion of CY 2019 well installations. This change package also creates the M-024-70-T01 target date for concluding well discussions by August 1, 2019.

Continued on page 2…

Impact of Change
This change provides for continued installation of new groundwater protection, monitoring, and remediation wells.

Affected Documents
The Hanford Federal Facility Agreement and Consent Order, as amended, and Hanford Site internal planning management, and budget documents (e.g., USDOE and USDOE contractor Baseline Change Control documents; Multi-Year Work Plan; Sitewide Systems Engineering Control Documents; Project Management Plan, RI/FS documents, RCRA TSD monitoring plans and, if appropriate, LDR Report requirements).

Approvals

R.J. Corey DOE	7/18/16 Date	X Approved	____ Disapproved
D.A. Faulk EPA	7/18/16 Date	✓ Approved	____ Disapproved
A.K. Smith Ecology	7/19/16 Date	✓ Approved	____ Disapproved

Description/Justification of Change

Continued from page 1.

The Parties agree that when a monitoring well is drilled and subsequently is found to be "dry," that the well will still count toward meeting M-024 well drilling totals.

Approval of this change package updates the list of monitoring wells planned to be drilled/constructed in CY 2017 and CY 2018, as well as provides the list of wells for CY 2019. Monitoring wells identified to be drilled/constructed in the years CY 2017 through CY 2019 are identified in the attached table. These wells are part of a CERCLA/RCRA-CERCLA past practice operable unit, and are part of an applicable CERCLA waste control plan or CERCLA waste management plan. The attached table also shows additional wells tentatively planned for later years. Dates not set are pending evaluation of engineering studies, other related reports, and observations as requested by Washington State Department of Ecology.

Changes to interim milestones and target dates are displayed by double-underline to indicate addition of text and by ~~strikeout~~ to indicate deletion of text.

Number	Description	Due Date
M-024-70 Lead Regulatory Agency: Ecology	DOE shall complete the construction of all wells listed for calendar year 2019 and before, as identified in TPA change package M-24-16-01. This milestone series will continue on a yearly basis until such time that the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation. These milestones do not preclude or foreclose the imposition of additional groundwater well installations pursuant to RCRA permits or work plans and/or CERCLA work plans. Additional work or modification to work shall be in accordance with the provisions of Article XXX of the Agreement.	12/31/2019
M-024-70-T01 Lead Regulatory Agency: Ecology	Conclude discussions of well commitments initiated under M-024-58.	08/01/2019

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
1	C8797	100-KR-4	199-K-222	100-KR-4 #1	Monitor potential release of Sr-90 and other fission products from vadose zone beneath UPR-100-K-1, Adjacent to north side of 105-KE	Accepted 9/30/2015	2017
2	C8796	100-KR-4	199-K-221	100-KR-4 #2	Monitor potential release of Sr-90 from vadose zone beneath 116-KE-3 Crib/Reverse Well	Accepted 9/30/2015	2017
3	C9439	200-ZP-1	299-W5-2	200-ZP-1	200-ZP-1 RCRA Monitoring Well #1 located in the northeast corner of 200 West Area	Accepted 12/16/2015	2017
4	C9440	200-ZP-1	299-W13-2	200-ZP-1	200-ZP-1 RCRA Monitoring Well #2 located north of Environmental Remediation Disposal Facility	Accepted 3/21/2016	2017
5	C8729	100-HR-3	199-D5-149	100-HR-3 - WCH #7	WCH replacement monitoring wells - area south of 183-D clearwells to provide downgradient monitoring of the north portion of 100-D-100 - replacing 199-D5-120	Accepted 3/31/2016	2017
6	C8730	100-HR-3	199-D5-150	100-HR-3 - WCH #1	WCH replacement monitoring wells 100-D-100 along NE upgradient edge - replacing 199-D5-144	Accepted 3/31/2016	2017
7	C8731	100-HR-3	199-D5-151	100-HR-3 - WCH #2	WCH replacement monitoring wells - north side of the 100-D-100 - replacing 199-D5-99	Accepted 3/31/2016	2017
8	C8732	100-HR-3	199-D5-152	100-HR-3 - WCH #3	WCH replacement monitoring wells - replacing 199-D5-122	Accepted 3/31/2016	2017
9	C8733	100-HR-3	199-H4-87	100-HR-3 - WCH #4	WCH replacement monitoring wells - replacing 199-H4-48	Accepted 4/6/2016	2017
10	C8734	100-HR-3	199-H4-88	100-HR-3 - WCH #5	WCH replacement monitoring wells - replacing 199-H4-7	Accepted 4/6/2016	2017
11	C8735	100-HR-3	199-H4-89	100-HR-3 - WCH #6	WCH replacement monitoring wells - replacing 199-H4-9	Accepted 4/6/2016	2017
12	C9449	200-BP-5	299-E27-26	NA	RCRA Replacement/Monitoring located just northeast of the 241-C Tank Farm (WMA C) Replacement well for non-WAC compliant well 299-E27-7. Permit conditions for WMA C.	Accepted 4/12/2016	2017
13	C9472	100-FR-3	699-76-45	NA	South of main TCE plume MNA remedy; monitor TCE plume shrinkage and migration		2017
14	C9474	100-FR-3	699-71-34	NA	About 2 km south of 100-F, between nitrate plume and river MNA remedy; sentinel well for nitrate		2017

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
15	C9475	100-FR-3	699-71-33B	NA	About 2 km south of 100-F, inland edge of nitrate plume MNA remedy; monitor nitrate plume shrinkage		2017
16	C9476	100-FR-3	699-76-46	NA	Directly south of central 100-F MNA remedy; monitor nitrate plume shrinkage		2017
17	C9477	100-FR-3	699-61-26C	NA	Southeast of 100-F between nitrate plume and river MNA remedy; monitor nitrate plume shrinkage and sentinel well		2017
18	C9478	100-FR-3	699-66-24	NA	About 3 km south of 100-F, inland edge of nitrate plume MNA remedy; monitor nitrate plume shrinkage		2017
19	C9479	100-FR-3	699-66-25	NA	About 3 km south of 100-F, middle of nitrate plume MNA remedy; monitor nitrate plume shrinkage		2017
20	C9480	100-FR-3	699-66-26	NA	About 3 km south of 100-F, between nitrate plume and river MNA remedy; monitor nitrate plume shrinkage and sentinel well		2017
21	C9416	200-UP-1	699-31-68	NA	UP-1 RDRA Work Plan Monitoring Well #6. Characterize southeast chromium plume.		2017
22	C9413	200-UP-1	699-29-66	NA	UP-1 RDRA Work Plan Monitoring Well #7. Characterize southeast chromium plume.		2017
23	C9417	200-UP-1	699-30-57	NA	UP-1 RDRA Work Plan Monitoring Well #11. Characterize southeast chromium plume.		2017
24	C9400	100-NR-2	199-N-371	NA	NR-2-Monitoring between the Reactor and the River (replacement near 199-N-22): downgradient and west of the N Reactor (105-N) building		2017
25	C9401	100-NR-2	199-N-372	NA	NR-2-Monitoring between the Reactor and the River (replacement near 199-N-24): downgradient and west of the N Reactor (105-N) building		2017
26	C9402	100-NR-2	199-N-373	NA	NR-2 CERCLA data gap for final remedy between Reactor and River: upgradient and east of the N Reactor building, on the corner of Titan Road and NW Avenue		2017
27	C9403	100-NR-2	199-N-374	NA	NR-2 CERCLA data gap for final remedy between Reactor and River: downgradient and west of the N Reactor (105-N) building		2017
28	C9425	100-NR-2	199-N-376	NA	NR-2 Monitoring between the Reactor and the River: upriver and southwest side of the N Reactor		2017
29	C9429	100-NR-2	199-N-377	NA	NR-2 CERCLA data gap for final remedy between Reactor and River: downgradient, downriver, and northeast side of the N Reactor		2017

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
30	C9546	100-HR-3	699-88-41A	NA	Monitoring wells south of the 100-H reactor area – located within the 600 Area between 100-D and 100-H - FY 2016 P & T Optimization		2017
31	C9547	100-HR-3	699-93-37A	NA	Monitoring wells south of the 100-H reactor area – located in the 600 Area to the southeast of 100-H - FY 2016 P & T Optimization		2018
32	C9414	200-UP-1	299-W15-115	NA	UP-1 RDRA Work Plan Monitoring Well #1. Replacement 4" well for 299-W19-18. located south of U Plant off of 16th Ave support groundwater plume characterization SST(U)-2 and SST(U)-1 were identified to monitor the emerging Tc-99 plume from U-Farm as it moves toward the two ZP-1 extraction wells to the North/Northeast		2018
33	C9415	200-UP-1	299-W21-3	NA	UP-1 RDRA Work Plan Monitoring Well #2. Replacement 4" well for 699-35-70. located near the south eastern corner of ERDF support groundwater plume characterization		2018
34	C9412	200-UP-1	299-W19-116	NA	UP-1 RDRA Work Plan Monitoring Well #4. Replacement 4" well for 699-38-70. located north of the Environmental Restoration Disposal Facility (ERDF) area boundary and east of the 200 West Area boundary support groundwater plume characterization SST(U)-2 and SST(U)-1 were identified to monitor the emerging Tc-99 plume from U-Farm as it moves toward the two ZP-1 extraction wells to the North/Northeast		2018
35	C9567	200-UP-1	299-W19-123	NA	UP-1 RDRA Work Plan Monitoring Well #14 Dual Purpose 8" located south of U Plant off of 16th Ave support groundwater plume characterization		2018
36	C9411	200-UP-1	299-W22-114	NA	UP-1 RDRA Work Plan Monitoring Well #3. Replacement 4" well for 299-W22-9. located west of Beloit Ave in the southern portion of the 200 West Area		2018
37	C9593	200-UP-1	699-36-63B	NA	UP-1 RDRA Work Plan Monitoring Well #12 Dual Purpose 8" located east of ERDF		2018
38	C9594	200-UP-1	299-W19-125	NA	UP-1 RDRA Work Plan Monitoring Well #13 Dual Purpose 8" located east of U-Plant off of Beloit Avenue		2018
39	C9568	200-UP-1	299-W19-124	NA	UP-1 RDRA Work Plan Monitoring Well U-4 Verify southern extent of uranium plume near U Plant		2018
40	C9604	200-UP-1	299-W19-126	NA	UP-1 RDRA Work Plan Monitoring Well U-6 Verify northern extent of uranium plume near U Plant		2018

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
41	C9605	200-UP-1	299-W19-127	NA	UP-1 RDRA Work Plan Monitoring Well SST(U)-1 Monitor migration of Tc-99 from U Tank Farm		2018
42	C9606	200-UP-1	299-W19-128	NA	UP-1 RDRA Work Plan Monitoring Well SST(U)-2 Monitor migration of Tc-99 from U Tank Farm		2018
43	C9607	200-UP-1	699-39-68	NA	UP-1 RDRA Work Plan Monitoring Well IR-1 Monitor northern extent of I-129 plume		2018
44	C9608	200-UP-1	699-38-64B	NA	UP-1 RDRA Work Plan Monitoring Well IR-2 I-129 plume hydraulic control remedy performance		2018
45	C9609	200-UP-1	699-33-70	NA	UP-1 RDRA Work Plan Monitoring Well SP-4 southern extent of I-129 plume		2018
46	C9610	200-UP-1	699-33-67	NA	UP-1 RDRA Work Plan Monitoring Well SP-5 southern extent of I-129 plume		2018
47	C9611	200-UP-1	699-43-58	NA	UP-1 RDRA Work Plan Monitoring Well NT-1 Verify connection of NO3 plume with BP-5 NO3 plume		2018
48	C9612	200-UP-1	699-39-58	NA	UP-1 RDRA Work Plan Monitoring Well NT-2 Verify eastern extent of H-3 plume		2018
49	C9601	200-UP-1	699-32-64	NA	UP-1 RDRA Work Plan Monitoring Well southeast Chrome Plume 8" multipurpose monitoring Verify extent of high concentration center of southeast Cr plume		2018
50	C9602	200-UP-1	699-30-63	NA	UP-1 RDRA Work Plan Monitoring Well southeast Chrome Plume 8" multipurpose monitoring Verify extent of high concentration center of southeast Cr plume		2018
51	C9603	200-UP-1	699-32-59	NA	UP-1 RDRA Work Plan Monitoring Well southeast Chrome Plume 8" multipurpose monitoring Verify extent of high concentration center of southeast Cr plume		2018
52	C9616	200-PO-1	299-E26-80	NA	216-A-29 Ditch - downgradient well New well to be drilled for use in downgradient monitoring in the revised 216-A-29 RCRA monitoring network. As of November 2015, well identified in new RCRA monitoring plan.		2018

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
53	C9617	200-PO-1	299-E25-238	NA	216-A-29 Ditch - downgradient well New well to be drilled for use in downgradient monitoring in the revised 216-A-29 RCRA monitoring network. As of November 2015, well identified in new RCRA monitoring plan.		2018
54	TBD	200-PO-1	TBD	TBD	216-A-29 Ditch - Replacement downgradient well (Non-WAC comp) under Vit Plant Power line replacement well for A4771 (299-E25-26) Non-WAC compliant due to the lack of a continuous annular seal around the casing. Currently used in RCRA network. Location under power line limits ability to access well for pump repairs and well cleaning. A new well serving the same monitoring purpose should be installed in the general vicinity.		2018
55	C9615	200-PO-1	699-44-43C	NA	B-3 Pond and Ditch - downgradient well New well to be drilled for use in upgradient monitoring in the revised 216-B-3 RCRA monitoring network. As of November 2015, well identified in new RCRA monitoring plan.		2018
56	TBD	200-BP-5	TBD	200-BP-5	LLWMA-1 monitoring well - SE corner of LLWMA-1 required by new RCRA monitoring plan. To be located between wells 299-E28-26 and 299-E28-27.		2018
57	C9625	200-ZP-1	TBD	NA	LLWMA-3 Monitoring well - East of Mixed -Waste Trenches 31 and 34 - downgradient Complete compliant-point monitoring network for permit conditions Need a revised monitoring plan. Replacing well 299-W10-13		2018
58	C9626	200-ZP-1	TBD	NA	LLWMA-3 Monitoring well - East of Mixed -Waste Trenches 31 and 34 - downgradient Complete compliant-point monitoring network for permit conditions Need a revised monitoring plan. Replacing well 299-W10-20		2018
59	TBD	200-ZP-1	TBD	TBD	200-ZP-1 CERCLA Monitoring Well #MW2 Performance Monitoring Plan (DOE/RL-2009-115) drilling single wells with multiple screened intervals and sampling them with a low-flow Spectra device to avoid mixing between intervals.		2018
60	TBD	200-ZP-1	TBD	TBD	200-ZP-1 CERCLA Monitoring Well #MW3ABC Performance Monitoring Plan (DOE/RL-2009-115) drilling single wells with multiple screened intervals and sampling them with a low-flow Spectra device to avoid mixing between intervals.		2018

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
61	TBD	100-KR-4	TBD	TBD	new well placed in the southern portion of the former 118-K-1 Burial Ground to monitor potential continuing tritium contributions from residual vadose zone sources		2019
62	TBD	100-KR-4	TBD	TBD	new well located north of 183-KE Head House and east of 165-KE Building to monitoring hexavalent chromium and define the plume in that area		2019
63	C9543	100-HR-3	199-D5-161	TBD	D2 Monitoring well in 100-D in the northern plume for delineation on the eastern side – east of DR reactor. There is currently very little plume control location on the east side of the plume. Concentrations in wells 199-D5-18 and others in that area were increasing in 2015. Well would be used to ensure that the plume is not migrating to the east due to the increased flow rates into injection wells at DX.		2019
64	TBD	100-HR-3	TBD	TBD	Monitoring well in the mid-area of 100-H. Plume appears to be moving between our extraction zones. Monitoring in this area would ensure that having adequate capture following well realignment at 100-H.		2019
65	TBD	200-UP-1	TBD	TBD	Placeholder for replacement of ERDF well # 699-36-66B.		2019
66	TBD	200-PO-1	TBD	TBD	Far-field downgradient wells are needed to be installed beyond the line of compliance per WA Ecology, to determine if dangerous waste constituents released earlier from the facility may be present downgradient of the current well monitoring system. In "RL30 Safe Store- Fiscal Year 2012 and beyond" it states these wells will be drilled to a depth of up to 115 feet below the water table to determine whether the low-permeability unit is present beneath the SWL portion of the WMA and also to determine whether contamination is present at depths up to 115 feet below the water table. The wells will screened where the highest levels of contaminants are detected (above MDLs).		2019

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
67	TBD	200-PO-1	TBD	TBD	Far-field downgradient wells are needed to be installed beyond the line of compliance per WA Ecology, to determine if dangerous waste constituents released earlier from the facility may be present downgradient of the current well monitoring system. In "RL30 Safe Store- Fiscal Year 2012 and beyond" it states these wells will be drilled to a depth of up to 115 feet below the water table to determine whether the low-permeability unit is present beneath the SWL portion of the WMA and also to determine whether contamination is present at depths up to 115 feet below the water table. The wells will screened where the highest levels of contaminants are detected (above MDLs).		2019
68	TBD	200-PO-1	TBD	TBD	Far-field downgradient wells are needed to be installed beyond the line of compliance per WA Ecology, to determine if dangerous waste constituents released earlier from the facility may be present downgradient of the current well monitoring system. In "RL30 Safe Store- Fiscal Year 2012 and beyond" it states these wells will be drilled to a depth of up to 115 feet below the water table to determine whether the low-permeability unit is present beneath the SWL portion of the WMA and also to determine whether contamination is present at depths up to 115 feet below the water table. The wells will screened where the highest levels of contaminants are detected (above MDLs).		2019
69	TBD	200-PO-1	TBD	TBD	Far-field downgradient wells are needed to be installed beyond the line of compliance per WA Ecology, to determine if dangerous waste constituents released earlier from the facility may be present downgradient of the current well monitoring system. In "RL30 Safe Store- Fiscal Year 2012 and beyond" it states these wells will be drilled to a depth of up to 115 feet below the water table to determine whether the low-permeability unit is present beneath the SWL portion of the WMA and also to determine whether contamination is present at depths up to 115 feet below the water table. The wells will screened where the highest levels of contaminants are detected (above MDLs).		2019
70	TBD	200-PO-1	TBD	TBD	In vicinity of current 299-E25-41 WMA-A-AX location Potential for well going sample dry in the future. Need to make a replacement recommendation for this RCRA/CERCLA network well once the PO-1/BP-5 remedial strategy is defined.		2019

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
71	TBD	200-ZP-1	TBD	TBD	200-ZP-1 CERCLA Monitoring Well #MW4AB Performance Monitoring Plan (DOE/RL-2009-115) drilling single wells with multiple screened intervals and sampling them with a low-flow Spectra device to avoid mixing between intervals.		2019
72	TBD	200-ZP-1	TBD	TBD	200-ZP-1 CERCLA Monitoring Well #MW5AB Performance Monitoring Plan (DOE/RL-2009-115) drilling single wells with multiple screened intervals and sampling them with a low-flow Spectra device to avoid mixing between intervals.		2019
73	TBD	200-ZP-1	TBD	TBD	200-ZP-1 CERCLA Monitoring Well #MW6AB Performance Monitoring Plan (DOE/RL-2009-115) drilling single wells with multiple screened intervals and sampling them with a low-flow Spectra device to avoid mixing between intervals.		2019
74	TBD	200-ZP-1	TBD	TBD	200-ZP-1 CERCLA Monitoring Well #MW8AB Performance Monitoring Plan (DOE/RL-2009-115) drilling single wells with multiple screened intervals and sampling them with a low-flow Spectra device to avoid mixing between intervals.		2019
75	TBD	100-KR-4	TBD	TBD	Within footprint of former 116-KE-1 Gas Condensate Crib - characterization and monitoring potential release of C-14, H-3, nitrate from vadose zone		2019
76	TBD	100-KR-4	TBD	TBD	Within footprint of former 116-KW-1 Gas Condensate Crib - characterization and monitoring potential release of C-14, H-3, nitrate from vadose zone		2019
77	TBD	100-HR-3	TBD	TBD	Monitoring well south of current Well 199-D5-19. Plume appears to be migrating in that direction.		2019
78	TBD	100-HR-3	TBD	TBD	Monitoring well southeast of current Well 199-D5-19. Plume appears to be migrating in that direction.		2019
79	TBD	200-PO-1	TBD	TBD	IDF monitoring well - downgradient plan at least two years prior to IDF operations. Last of downgradient wells to be installed during Phase III construction.		2019

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
80	TBD	200-PO-1	TBD	TBD	PO-1 CERCLA well 699-S12-3 is now sample dry and cannot be re-habilitated and will be decommissioned. Add a new replacement well for this well. This well helps define the extent of the tritium plume, and the nearest monitoring well is approximately 2.5 km away. Recommendation for replacement needs to be made based on Ecology review of PO-1 SAP and RI.		2019
81	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W14-13 which expected to go dry in 2016 installed low-purge volume bladder pumps anticipating that sampling with low-purge volume pumps will allow us to continue to sample these wells and not have to replace them ZP-1 RCRA Monitoring Well #3		2019
82	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W12-1 which was sample dry in 2014. New well 299-W5-2 west of 299-W12-1 provides monitoring support - may not need replacement ZP-1 CERCLA Monitoring Well #2.		2019
83	TBD	200-ZP-1	TBD	TBD	LLWMA-4 Monitoring well - west side - upgradient There is no upgradient well; contingent on future monitoring requirements Need a revised monitoring plan. 299-W17-1 and 299-W18-21 provide monitoring support		2019
84	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W14-18 which expected to go dry in 2017 installed low-purge volume bladder pumps anticipating that sampling with low-purge volume pumps will allow us to continue to sample these wells and not have to replace them		2019
85	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W14-17 which expected to go dry in 2017 - Recommend bladder pump to be installed.		2019
86	TBD	100-KR-4	TBD	TBD	Monitoring well		2019
87	TBD	100-HR-3	TBD	TBD	Monitoring well		2019
88	TBD	100-HR-3	TBD	TBD	Monitoring well		2019

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
89	C8917	200-BP-5	699-46-92	Modutank #2	Downgradient Modutank monitoring well. Based on DOE/RL-2009-39, if the modular storage unit will be used or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring. WAC 173-303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265.91 it is assumed one upgradient and three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014.		2019
90	C8918	200-BP-5	699-46-93	Modutank #3	Downgradient Modutank monitoring well. Based on DOE/RL-2009-39. if the modular storage unit will be used or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring. WAC 173-303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265.91 it is assumed one upgradient and three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014.		2019
91	C8919	200-BP-5	699-46-94	Modutank #4	Downgradient Modutank monitoring well. Based on DOE/RL-2009-39, if the modular storage unit will be used or if there is evidence of leakage from the modular storage units to the environment, RL will implement groundwater monitoring. WAC 173-303-645 states the department will specify in the facility permit the points of compliance. Based on 40 CFR 265.91 it is assumed one upgradient and three downgradient wells will be required if modutanks continue to operate beyond 8/5/2014.		
92	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W10-26 which expected to go dry in 2016 - Recommend bladder pump to be installed.		
93	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W14-14 which expected to go dry in 2016 installed low-purge volume bladder pumps anticipating that sampling with low-purge volume pumps will allow us to continue to sample these wells and not have to replace them		
94	TBD	200-ZP-1	TBD	TBD	Replacement of 299-W14-16 which expected to go dry in 2017 - Recommend bladder pump to be installed.		
95	TBD	200-ZP-1	TBD	TBD	Replacement well for 299-W14-15 which expected to go dry in 2017 installed low-purge volume bladder pumps anticipating that sampling with low-purge volume pumps will allow us to continue to sample these wells and not have to replace them		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
96	TBD	200-BP-5	TBD	TBD	Upper aquifer well next to well 299-E28-31. Monitor uranium plume.		
97	TBD	200-BP-5	TBD	TBD	Center downgradient well for WMA B/BX/BY Three wells are recommended between well 299-E33-37 and the 207-B Retention Basin at evenly spaced intervals. Monitoring wells Southeast of WMA B/BX/BY. Based on the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA analysis that are important to the subsequent risk assessment and subsequent development of remedial alternatives include the horizontal and vertical extent of contamination in soil and groundwater. In addition, DOE order 5400 requires continued monitoring to determine the migrating extent of contamination. waste management assessment plan		
98	TBD	200-BP-5	TBD	TBD	Deep well for WMA B/BX/BY Three wells are recommended between well 299-E33-37 and the 207-B Retention Basin at evenly spaced intervals. Monitoring wells Southeast of WMA B/BX/BY. Based on the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA analysis that are important to the subsequent risk assessment and subsequent development of remedial alternatives include the horizontal and vertical extent of contamination in soil and groundwater. In addition, DOE order 5400 requires continued monitoring to determine the migrating extent of contamination. waste management assessment plan		
99	TBD	200-BP-5	TBD	TBD	Southwest well for WMA B/BX/BY Three wells are recommended between well 299-E33-37 and the 207-B Retention Basin at evenly spaced intervals. Monitoring wells Southeast of WMA B/BX/BY. Based on the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA analysis that are important to the subsequent risk assessment and subsequent development of remedial alternatives include the horizontal and vertical extent of contamination in soil and groundwater. In addition, DOE order 5400 requires continued monitoring to determine the migrating extent of contamination. waste management assessment plan		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
100	TBD	200-BP-5	TBD	TBD	Far-field well southeast of WMA B/BX/BY center well between wells 299-E27-19 and 299-E28-5 at top of aquifer (northeast) Three additional farfield wells are recommended between well 299-E27-19 and 299-E28-5. These wells could be installed a year or two after the initial three wells above. RCRA assessment well for dangerous waste cyanide waste management assessment plan		
101	TBD	200-BP-5	TBD	TBD	Far-field well southeast of WMA B/BX/BY northeast well between wells 299-E27-19 and 299-E28-5 at top of aquifer (center) Three additional farfield wells are recommended between well 299-E27-19 and 299-E28-5. These wells could be installed a year or two after the initial three wells above. RCRA assessment well for dangerous waste cyanide waste management assessment plan		
102	TBD	200-BP-5	TBD	TBD	Far-field well southeast of WMA B/BX/BY southwest well between wells 299-E27-19 and 299-E28-5 at top of aquifer (southwest) Three additional farfield wells are recommended between well 299-E27-19 and 299-E28-5. These wells could be installed a year or two after the initial three wells above. RCRA assessment well for dangerous waste cyanide waste management assessment plan		
103	TBD	200 East	TBD	TBD	216-BY Cribs		
104	TBD	200 East	TBD	TBD	216-B-9		
105	TBD	200 East	TBD	TBD	216-C-1, C-3, C-7		
106	TBD	200 East	TBD	TBD	216-C-1, C-3, C-7		
107	TBD	200 East	TBD	TBD	216-A-3		
108	TBD	200 East	TBD	TBD	216-A-18		
109	TBD	200 East	TBD	TBD	219-A-19, A-20, A-34		
110	TBD	200 East	TBD	TBD	219-A-19, A-20, A-34		
111	TBD	200 East	TBD	TBD	216-A-5		
112	TBD	200 East	TBD	TBD	216-A-21		
113	TBD	200 East	TBD	TBD	216-A-2, A-4		
114	TBD	200 West	TBD	TBD	216-U-8		
115	TBD	200 West	TBD	TBD	216-U-12		
116	TBD	200 West	TBD	TBD	216-S-9		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
117	TBD	200 West	TBD	TBD	216-S-1&2		
118	TBD	200 West	TBD	TBD	216-S-12		
119	TBD	200 West	TBD	TBD	216-S-20, S-22		
120	TBD	200 West	TBD	TBD	216-S-6		
121	TBD	200 West	TBD	TBD	216-T-34		
122	TBD	200 West	TBD	TBD	216-T-8		
123	TBD	200 West	TBD	TBD	216-T-14, T-15, T-16, T-17		
124	TBD	200 West	TBD	TBD	216-T-14, T-15, T-16, T-17		
125	TBD	200 West	TBD	TBD	216-T-6		
126	TBD	200 West	TBD	TBD	216-T-18, T-26, T-27, T-28		
127	TBD	200 West	TBD	TBD	216-T-18, T-26, T-27, T-28		
128	TBD	200 West	TBD	TBD	216-T-19		
129	TBD	200 West	TBD	TBD	216-Z-4, Z-6, Z-17		
130	TBD	200 West	TBD	TBD	216-Z-21		
131	TBD	200 West	TBD	TBD	216-Z-18		
132	TBD	200 West	TBD	TBD	216-Z-1&2, Z-3, 207-Z, 241-Z, 241-Z-361		
133	TBD	200 West	TBD	TBD	216-Z-1&2, Z-3, 207-Z, 241-Z, 241-Z-361		
134	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
135	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
136	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
137	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
138	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
139	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
140	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
141	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
142	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
143	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
144	TBD	200-PO-1	TBD	TBD	200-PO-1 Post-ROD to implement the assume monitored natural attenuation (MNA) remedy		
145	TBD	100-KR-4	TBD	TBD	Replacement of A4643 199-K-11 KE Basins Non-WAC compliant due to the lack of a continuous annular seal around the casing		
146	TBD	100-KR-4	TBD	TBD	Replacement of A4644 199-K-13 KE Basins Non-WAC compliant due to the lack of a continuous annular seal around the casing		
147	TBD	100-KR-4	TBD	TBD	Replacement of A4652 199-K-23 KE Basins Non-WAC compliant due to the lack of a continuous annular seal around the casing - penetrates a contaminated crib		
148	TBD	100-NR-2	TBD	TBD	Replacement of A4669 199-N-2 downgradient well for 1301-N Non-WAC compliant due to the original construction materials and seals used. It is part of the RCRA monitoring program and is producing usable data.		
149	TBD	100-NR-2	TBD	TBD	Replacement of A4679 199-N-3 downgradient well for 1301-N Non-WAC compliant due to the original construction materials and seals used. It is part of the RCRA monitoring program and is producing usable data.		
150	TBD	100-NR-2	TBD	TBD	Replacement of A4681 199-N-32 downgradient well for 1325-N Non-WAC compliant due to the original construction materials and seals used. It is part of the RCRA monitoring program and is producing usable data.		
151	TBD	100-NR-2	TBD	TBD	Replacement of A4683 199-N-34 downgradient well for 1325-N Non-WAC compliant due to the original construction materials and seals used. It is part of the RCRA monitoring program and is producing usable data.		
152	TBD	100-NR-2	TBD	TBD	Replacement of A4689 199-N-41 downgradient well for 1325-N Non-WAC compliant due to the original construction materials and seals used. It is part of the RCRA monitoring program and is producing usable data.		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
153	TBD	100-NR-2	TBD	TBD	Replacement of A4700 199-N-57 upgradient well for 1301-N Non-WAC compliant due to 6-ft of filter pack above the screen. It is going slowly dry. It is part of the RCRA monitoring program and is producing usable data.		
154	TBD	100-NR-2	TBD	TBD	Replacement of A4677 199-N-28 upgradient well for 1325-N Non-WAC compliant due to the original construction materials and seals used. It is part of the RCRA monitoring program and is producing usable data.		
155	TBD	200-BP-5	TBD	TBD	Replacement of A4842 299-E33-15 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing		
156	TBD	200-BP-5	TBD	TBD	Replacement of A4843 299-E33-17 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing		
157	TBD	200-BP-5	TBD	TBD	Replacement of A4847 299-E33-20 WMA B/BX/BY RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing. May go dry in the near future.		
158	TBD	200-BP-5	TBD	TBD	Replacement of A4848 299-E33-21 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing		
159	TBD	200-BP-5	TBD	TBD	Replacement of A4873 299-E33-9 SALDS RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing		
160	TBD	200-BP-5	TBD	TBD	Replacement of A5195 699-45-42 216-B-3 Non-WAC compliant due to the lack of a continuous annular seal around the casing. As of July 2015, it is proposed for use in RCRA network. It is currently being used in the CERCLA network and is providing acceptable data.		
161	TBD	200-BP-5	TBD	TBD	Replacement of A6788 299-E28-8 SALDS RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing		
162	TBD	200-BP-5	TBD	TBD	Replacement of A6855 299-E33-16 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing		
163	TBD	200-PO-1	TBD	TBD	Replacement of A4728 299-E17-1 216-A-36B RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing. As of July 2015, it is proposed for use in RCRA network. It is currently being used in the CERCLA network and is providing acceptable data.		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
164	TBD	200-PO-1	TBD	TBD	Replacement of A4765 299-E25-19 216-A-37-1 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing. Currently used in RCRA network and providing acceptable data.		
165	TBD	200-PO-1	TBD	TBD	Replacement of A4766 299-E25-2 WMA-A-AX and 216-A-29 Non-WAC compliant due to the lack of a continuous annular seal around the casing. Well is proposed for dual use. Currently used with the WMA-A-AX RCRA well network as a downgradient well and providing acceptable data. As of October 2016, identified for use with the updated 216-A-29 RCRA well network as a new upgradient well.		
166	TBD	200-PO-1	TBD	TBD	Replacement of A4767 299-E25-20 216-A-37-1 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing. Currently used in RCRA network and providing acceptable data.		
167	TBD	200-PO-1	TBD	TBD	Replacement of A5089 699-24-33 SWL Non-WAC compliant due to the lack of a continuous annular seal around the casing. In the monitoring program but sample data is used for information, not for statistical comparison. Future well use and need for replacement needs further evaluation.		
168	TBD	200-PO-1	TBD	TBD	Replacement of A6031 299-E25-17 216-A-37-1 RCRA Non-WAC compliant due to the lack of a continuous annular seal around the casing. Currently used in RCRA network and providing acceptable data.		
169	C8926	200-UP-1	299-W19-112	TBD	Replacement for A4945 299-W19-12 SST U monitoring well east of U Farm RCRA/WAC compliant. Non-WAC compliant due to the lack of a continuous annular seal around the casing. RCRA monitoring well for WMA U. Also, this well is forecast to become sample dry in 2017		
170	TBD	200-UP-1	TBD	TBD	Replacement of A5139 699-35-66A ERDF Non-WAC compliant due to the lack of a continuous annular seal around the casing		
171	TBD	200-ZP-1	TBD	TBD	Replacement of A4899 299-W10-8 WMA-T Sample dry. Consider replacement once 200W P&T reaches max operating conditions. Also non-WAC compliant due to the lack of a continuous annular seal around the casing		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
172	TBD	200-ZP-1	TBD	TBD	Replacement of A4902 299-W11-12 WMA-T Non-WAC compliant due to the lack of a continuous annular seal around the casing. Recommend decommissioning since it has been removed from the network (sample dry) and it is not needed.		
173	TBD	200-ZP-1	TBD	TBD	Replacement of A5214 699-48-71 SALDS Non-WAC compliant due to the lack of a continuous annular seal around the casing. Recommend replacement if the state program requires it. This well is not a RCRA well, so the WAC compliance requirements may not apply, and there are not any technical reasons to replace it.		
174	TBD	200-ZP-1	TBD	TBD	Replacement of A5221 699-49-79 SALDS Non-WAC compliant due to the lack of a continuous annular seal around the casing		
175	TBD	200-ZP-1	TBD	TBD	Replacement of A5232 699-51-75 SALDS Non-WAC compliant due to the lack of a continuous annular seal around the casing. Recommend replacement if the state program requires it. This well is not a RCRA well, so the WAC compliance requirements may not apply, and there are not any technical reasons to replace it.		
176	TBD	200-ZP-1	TBD	TBD	Replacement of A7136 299-W10-1 WMA-T Non-WAC compliant due to the lack of a continuous annular seal around the casing		
177	TBD	200-ZP-1	TBD	TBD	Replacement of A7137 299-W10-4 WMA-T ZP-1 CERCLA Monitoring Well #1. Sample dry in 2014. Plan to keep available to see if 200W P&T operations causes rewetting. Also non-WAC compliant due to the lack of a continuous annular seal around the casing. Cross-gradient well in a highly contaminated area.		
178	TBD	200-ZP-1	TBD	TBD	Replacement of A9730 699-51-75P SALDS Non-WAC compliant due to the lack of a continuous annular seal around the casing. Recommend replacement if the state program requires it. This piezometer (hosted in Well 699-51-75) is not used for RCRA monitoring, so the WAC compliance requirements may not apply, and there are not any technical reasons to replace it.		
179	C7568	200-BP-5	299-E34-15	TBD	South of Trench 94 Trench 94 Well #1. Need to complete geophysics investigation.		

Row #	Well ID	OU or Area	Well Name	Temporary Name	Justification/Purpose/Location	Comment	Completion Calendar Year
180	C7569	200-BP-5	299-E34-16	TBD	East of Trench 94 Trench 94 Well #2. Need to complete geophysics investigation.		
181	TBD	200-BP-5	TBD	TBD	LLWMA-2 monitoring well - East of Trench 94 - Upgradient Contingent on results of geophysical investigations. Trench 94 is on a path to be removed from the permit. If Permit is adjusted this well is not required.		
182	TBD	200-BP-5	TBD	TBD	LLWMA-2 monitoring well - downgradient, location TBD Contingent on results of geophysical investigations and Permit Conditions - current identified in DOE/RL 2009-76 - Green Island Wells Need a revised monitoring plan. May not be needed		
183	TBD	200-BP-5	TBD	TBD	LLWMA-2 monitoring well - downgradient, location TBD Contingent on results of geophysical investigations and Permit Conditions - current identified in DOE/RL 2009-76 - Green Island Wells - Need a revised monitoring plan. May not be needed		
184	TBD	200-BP-5	TBD	TBD	Near field well southeast of 216-B-12 Crib. Three near field wells are recommended southeast, east, and northeast of the 216-B-12 Crib. The recommend depth is between 22 to 32 feet within the aquifer. The purpose to monitor the extent of nitrate, tritium, and uranium contamination found during BP-5 RI drilling and sampling at this depth. Nitrate concentrations exceed 800 mg/L and tritium 90,000 pCi/L. May not be needed		
185	TBD	200-BP-5	TBD	TBD	Near field well south of 216-B-6 Injection. Three near field wells are recommended southwest, south, and southeast of the 216-B-6 Injection Well. The recommend depth is between at the bottom of the aquifer. The purpose to monitor the extent of nitrate and tritium contamination found during BP-5 RI drilling and sampling at this depth. Nitrate concentrations exceed 300 mg/L and tritium 150,000 pCi/L. May not be needed		
186	TBD	200-PO-1	TBD	TBD	IDF monitoring well - downgradient Plan at least two years prior to IDF operations. Need to determine if this well is needed.		
187	TBD	200-PO-1	TBD	TBD	IDF monitoring well - downgradient Plan at least two years prior to IDF operations. Need to determine if this well is needed.		