Appendix A

Supporting Information for CERCLA Operable Units

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A Supporting Information for CERCLA Operable Units

Under the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA), the contaminated groundwater beneath portions of the Hanford Site is divided into 11 groundwater operable units.

The tables provided in this chapter list the constituents, monitoring wells, and sampling frequency for each operable unit, as required by their respective sampling and analysis plans or other documentation. The tables also indicate whether the wells were sampled as scheduled during 2014. Aquifer tubes are also sampled at the Hanford Site as part of the CERCLA groundwater monitoring program. Details regarding aquifer tube sampling are provided in Appendix D.

In many cases, wells are sampled for additional constituents not strictly required by the plans. Those constituents are not listed in the tables of this appendix, but data files accompanying this report include all of the required and supplemental data.

Table A-1. Monitoring Wells and Constituents for the 100-BC-5 Operable Unit

Well	Hydrologic Unit Monitored	Alkalinity	Gross Alpha/Beta	Anions	Hexavalent Chromium	Metals	Strontium-90	Tritium	Technetium-99	Volatile Organic Analytes	Sampled as Planned?
199-B2-12	RUM	BO	—	BO	BO	BO	BO	BO	—	—	Yes
199-B2-13	TU	BE	—	BE	BE	BE	BE	BE	—	—	Not scheduled*
199-B2-14	TU	—	—	—	A	—	A	A	—	—	Yes
199-B2-15	RUM	—	—	—	BE	—	BE	BE	—	—	Not scheduled
199-B2-16	BU	A	—	A	S	A	S	S	—	A	Yes
199-B3-1	TU	BE	—	BE	A	BE	A	A	—	—	Yes
199-B3-46	TU	BO	—	BO	A	BO	A	A	—	—	Yes
199-B3-47	TU	BE	—	BE	A	BE	A	A	—	—	Yes
199-B3-50	TU	—	—	—	A	—	A	A	—	—	Yes
199-B3-51	BU	BO	—	BO	BO	BO	BO	BO	—	—	Yes
199-B4-1	TU	BE	—	BE	A	BE	A	A	—	—	Yes
199-B4-4	TU	—	—	—	BE	—	BE	BE	—	—	Not scheduled*
199-B4-7	TU	A	—	A	S	A	A	S	—	—	Yes
199-B4-8	TU	BE	—	BE	BE	BE	BE	BE	—	—	Yes
199-B4-14	TU	A	—	A	M	A	M	M	—	—	Yes
199-B5-1	TU	A	—	A	S	A	A	S	—	—	Yes
199-B5-2	TU	—	—	—	A	—	A	A	—	—	Yes

Table A-1. Monitoring Wells and Constituents for the 100-BC-5 Operable Unit

Well	Hydrologic Unit Monitored	Alkalinity	Gross Alpha/Beta	Anions	Hexavalent Chromium	Metals	Strontium-90	Tritium	Technetium-99	Volatile Organic Analytes	Sampled as Planned?
199-B5-5	BU	—	—	—	A	—	—	A	—	A	Yes
199-B5-6	BU	A	A	A	Q	A	—	Q	—	A	Yes
199-B5-8	TU	BE	BE	BE	BE	BE	—	BE	BE	BE	Not scheduled*
199-B8-6	TU	BO	BO	BO	A	BO	—	A	—	—	Yes
199-B8-9	TU	—	A	—	Q	—	—	Q	—	—	Yes
199-B9-2	TU	—	BE	—	BE	—	—	BE	—	—	Not scheduled*
199-B9-3	TU	BO	BO	BO	BO	BO	—	BO	—	—	Yes
699-63-90	U	BE	BE	BE	—	BE	—	BE	—	—	Not scheduled
699-65-83	U	—	—	—	—	—	—	BE	—	—	Not scheduled*
699-67-86	U	—	—	—	—	—	—	BO	—	—	Yes
699-68-105	U	BO	—	BO	—	BO	—	BO	—	—	Yes
699-71-77	U	BO	—	BO	—	BO	—	BO	BO	—	Yes
699-72-73	U	BE	—	BE	—	BE	—	BE	BE	—	Not scheduled*
699-72-92	U	BO	—	BO	—	BO	—	BO	—	—	Yes
Spring037-1	TU	—	A	—	A	—	—	A	—	—	Yes
Spring039-2	TU	—	A	—	A	—	—	A	—	—	Yes

Notes:

The sampling requirements are from DOE/RL-2003-38, *100-BC-5 Operable Unit Sampling and Analysis Plan*, as modified by TPA-CN-522, *Tri-Party Agreement Change Notice Form: 100-BC-5 Operable Unit Sampling and Analysis Plan, DOE/RL-2003-38, Rev. 1 (as modified by TPA-CN-240, 12/8/2008 and TPA-CN-293 (10/6/2009).*

Additional constituents sampled for include field parameters specific conductance, temperature, and turbidity.

* Not scheduled under the routine groundwater SAP. Sampled as required under a separate SAP.

A = to be sampled annually
BE = to be sampled biennially, even fiscal years
BO = to be sampled biennially, odd fiscal years
BU = bottom of unconfined aquifer
M = to be sampled monthly
Q = to be sampled quarterly
RUM = Ringold upper mud unit
TU = top of unconfined aquifer
U = unconfined aquifer (undifferentiated)

Table A-2. Monitoring Wells and Constituents for the 100-BC-5 Operable Unit Remedial Investigation Studies

Well Name	Hydrologic Unit Monitored	Anions	Alkalinity	Cr(VI)	Metals	Sr-90	Tritium	DOC	Fe(II)	Isotopic Cr	Sulfide	Sampled as Planned in 2014?
199-B2-13	TU	A	A	A	A	—	—	A	—	—	—	Yes
199-B2-14	TU	A	A	S	S	A	A	S	S	S	S	No[a]
199-B2-16	BU	A	A	S	S	A	A	S	—	—	—	Yes
199-B3-1	TU	A	A	S	S	A	A	S	—	—	—	Yes
199-B3-46	TU	A	A	S	S	A	A	S	—	—	—	Yes
199-B3-47	TU	S	S	S	S	A	A	S	S	S	S	No[a]
199-B3-50	TU	A	A	S	S	A	A	S	—	—	—	Yes
199-B3-51	BU	A	A	A	A	A	A	A	—	—	—	Yes
199-B4-1	TU	A	A	S	S	A	A	S	S	S	S	No[a]
199-B4-4	TU	A	A	A	A	—	—	A	—	—	—	Yes
199-B4-7	TU	S	S	Q	Q	A	S	S	—	—	—	Yes
199-B4-8	TU	A	A	S	S	—	—	S	—	—	—	Yes
199-B4-14	TU	S	S	Q	Q	—	Q	S	S	S	S	No[a]
199-B4-16[c]	TU	Q	Q	Q	Q	—	Q	Q	—	—	—	Yes
199-B4-18[c]	BU	Q	Q	Q	Q	Q	Q	Q	—	—	—	No[b]
199-B5-1	TU	S	S	S	S	A	A	S	—	—	—	Yes
199-B5-2	TU	A	A	S	S	A	A	S	—	—	—	Yes
199-B5-5	BU	A	A	S	S	—	A	S	—	—	—	Yes
199-B5-6	BU	S	S	Q	Q	—	Q	S	—	—	—	Yes
199-B5-8	TU	A	A	A	A	—	A	A	—	—	—	Yes
199-B5-9[c]	BU	Q	Q	Q	Q	—	Q	Q	—	—	—	No[b]
199-B5-10[c]	TU	Q	Q	Q	Q	—	Q	Q	—	—	—	Yes
199-B5-11[c]	BU	Q	Q	Q	Q	—	Q	Q	—	—	—	No[b]
199-B5-12[c]	TU	Q	Q	Q	Q	—	Q	Q	—	—	—	Yes
199-B5-13[c]	BU	Q	Q	Q	Q	Q	Q	Q	—	—	—	No[b]
199-B5-14[c]	TU	Q	Q	Q	Q	—	Q	—	—	—	—	Yes
199-B8-6	TU	A	A	S	S	—	A	S	—	—	—	Yes

Table A-2. Monitoring Wells and Constituents for the 100-BC-5 Operable Unit Remedial Investigation Studies

Well Name	Hydrologic Unit Monitored	Anions	Alkalinity	Cr(VI)	Metals	Sr-90	Tritium	DOC	Fe(II)	Isotopic Cr	Sulfide	Sampled as Planned in 2014?
199-B8-9	TU	S	S	Q	Q	—	S	S	S	S	S	No[a]
199-B9-2	TU	A	A	A	A	—	—	A	—	—	—	Yes
199-B9-3	TU	A	A	S	S	—	—	S	—	—	—	Yes
699-65-83	U	A	A	A	A	—	—	A	—	—	—	Yes

Notes:

The sampling requirements are from DOE/RL-2009-44, *Sampling and Analysis Plan for the 100-BC-1, 100-BC-2, and 100-BC-5 Operable Units Remedial Investigation/Feasibility Study*, as modified by TPA-CN-602, *Tri-Party Agreement Change Notice* Form, 1/5/2013.

Additional constituents sampled for include field parameters dissolved oxygen, pH, specific conductance, temperature, and turbidity.

a. Isotopic chromium analyses for June 2014 delayed too long; cancelled. Isotopic chromium analysis for October 2014 are pending. Earlier isotopic chromium data not yet in HEIS.

b. For the first two sample events in these new, deep wells, pumps were set at incorrect depths and wells were not purged sufficiently. Samples were judged to be non-representative. An extra sampling event was completed in the affected wells and their shallow counterparts.

c. New wells; first routine samples in March 2014. Quarterly sampling for first year; frequency may be reduced subsequently, with EPA and DOE concurrence.

A = to be sampled annually

BU = bottom of unconfined aquifer

Q = to be sampled quarterly

S = to be sampled semiannually

TU = top of unconfined aquifer

U = unconfined (undifferentiated)

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-11	6/23/2014	—
199-K-11	11/23/2014	—
199-K-13	5/9/2014	—
199-K-13	11/14/2014	—
199-K-18	2/6/2014	—
199-K-18	4/14/2014	—
199-K-18	7/17/2014	—
199-K-18	10/7/2014	—
199-K-19	5/16/2014	—
199-K-19	11/17/2014	—
199-K-20	2/6/2014	—
199-K-20	4/14/2014	—
199-K-20	7/17/2014	—
199-K-20	10/7/2014	—
199-K-21	4/18/2014	—
199-K-21	10/9/2014	—
199-K-22	5/16/2014	—
199-K-22	11/17/2014	—
199-K-23	1/16/2014	—
199-K-23	5/16/2014	—
199-K-23	11/14/2014	—
199-K-31	5/13/2014	—
199-K-31	11/14/2014	—
199-K-32A	2/19/2014	—
199-K-32A	5/16/2014	—
199-K-32A	8/11/2014	—
199-K-32A	11/23/2014	—
199-K-34	2/14/2014	—
199-K-34	4/14/2014	—

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-34	7/30/2014	—
199-K-34	11/21/2014	—
199-K-36	5/30/2014	—
199-K-36	11/21/2014	—
199-K-37	5/27/2014	—
199-K-37	11/17/2014	—
199-K-106A	2/14/2014	—
199-K-106A	6/23/2014	—
199-K-106A	9/9/2014	—
199-K-106A	11/21/2014	—
199-K-107A	2/14/2014	—
199-K-107A	5/21/2014	—
199-K-107A	9/9/2014	—
199-K-107A	11/21/2014	—
199-K-108A	2/14/2014	—
199-K-108A	5/21/2014	—
199-K-108A	8/13/2014	—
199-K-108A	11/21/2014	—
199-K-108A	11/24/2014	—
199-K-110A	5/9/2014	—
199-K-110A	11/23/2014	—
199-K-111A	2/20/2014	—
199-K-111A	5/28/2014	—
199-K-111A	8/11/2014	—
199-K-111A	11/23/2014	—
199-K-113A	5/22/2014	Extraction Well
199-K-113A	11/19/2014	Extraction Well
199-K-114A	5/22/2014	Extraction Well
199-K-114A	11/19/2014	Extraction Well

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-115A	5/22/2014	Extraction Well
199-K-115A	11/19/2014	Extraction Well
199-K-116A	5/22/2014	Extraction Well
199-K-116A	11/19/2014	Extraction Well
199-K-117A	2/6/2014	—
199-K-117A	4/14/2014	—
199-K-117A	7/17/2014	—
199-K-117A	10/9/2014	—
199-K-118A	11/17/2014	—
199-K-119A	5/9/2014	—
199-K-119A	11/17/2014	—
199-K-120A	11/19/2014	Extraction Well
199-K-121A	—	Injection Well
199-K-122A	—	Injection Well
199-K-123A	—	Injection Well
199-K-124A	5/27/2014	—
199-K-124A	12/2/2014	—
199-K-125A	5/28/2014	—
199-K-125A	11/23/2014	—
199-K-126	4/18/2014	—
199-K-127	11/19/2014	Extraction Well
199-K-128	—	Injection Well
199-K-129	5/22/2014	Extraction Well
199-K-129	11/19/2014	Extraction Well
199-K-130	4/17/2014	Extraction Well
199-K-130	10/29/2014	Extraction Well
199-K-131	6/5/2014	Extraction Well
199-K-131	11/24/2014	Extraction Well
199-K-132	6/5/2014	Extraction Well

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-133	5/27/2014	—
199-K-133	11/14/2014	—
199-K-134	11/14/2014	—
199-K-135	11/14/2014	—
199-K-136	5/27/2014	—
199-K-136	11/14/2014	—
199-K-137	5/22/2014	Extraction Well
199-K-137	11/18/2014	Extraction Well
199-K-138	5/22/2014	Extraction Well
199-K-138	11/19/2014	Extraction Well
199-K-138	11/20/2014	Extraction Well
199-K-139	5/22/2014	Extraction Well
199-K-139	11/19/2014	Extraction Well
199-K-140	1/23/2014	Extraction Well
199-K-140	5/22/2014	Extraction Well
199-K-140	8/25/2014	Extraction Well
199-K-140	11/19/2014	Extraction Well
199-K-141	1/23/2014	Extraction Well
199-K-141	5/22/2014	Extraction Well
199-K-141	8/25/2014	Extraction Well
199-K-141	11/24/2014	Extraction Well
199-K-142	5/30/2014	—
199-K-142	11/23/2014	—
199-K-143	—	Injection Well
199-K-144	1/16/2014	Extraction Well
199-K-144	5/22/2014	Extraction Well
199-K-144	12/16/2014	Extraction Well
199-K-145	5/22/2014	Extraction Well
199-K-145	11/19/2014	Extraction Well

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-146	6/5/2014	Extraction Well
199-K-146	11/24/2014	Extraction Well
199-K-147	5/22/2014	Extraction Well
199-K-147	11/24/2014	Extraction Well
199-K-148	5/22/2014	Extraction Well
199-K-148	11/24/2014	Extraction Well
199-K-149	5/28/2014	—
199-K-149	11/14/2014	—
199-K-150	1/16/2014	—
199-K-150	2/10/2014	—
199-K-150	3/3/2014	—
199-K-150	4/4/2014	—
199-K-150	5/9/2014	—
199-K-150	6/23/2014	—
199-K-150	7/17/2014	—
199-K-150	8/12/2014	—
199-K-150	9/9/2014	—
199-K-150	10/9/2014	—
199-K-150	11/18/2014	—
199-K-151	4/18/2014	—
199-K-151	10/13/2014	—
199-K-152	4/17/2014	Extraction Well
199-K-152	10/29/2014	Extraction Well
199-K-153	8/25/2014	Extraction Well
199-K-153	11/24/2014	Extraction Well
199-K-154	8/25/2014	Extraction Well
199-K-154	11/24/2014	Extraction Well
199-K-156	—	Injection Well
199-K-157	2/19/2014	—

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-157	5/30/2014	—
199-K-157	8/13/2014	—
199-K-157	11/23/2014	—
199-K-158	—	Injection Well
199-K-159	—	Injection Well
199-K-160	—	Injection Well
199-K-161	6/24/2014	Extraction Well
199-K-161	11/24/2014	Extraction Well
199-K-162	5/22/2014	Extraction Well
199-K-162	11/19/2014	Extraction Well
199-K-163	1/23/2014	Extraction Well
199-K-163	8/25/2014	Extraction Well
199-K-163	11/24/2014	Extraction Well
199-K-164	—	Injection Well
199-K-165	4/17/2014	Extraction Well
199-K-165	11/18/2014	Extraction Well
199-K-166	1/23/2014	Extraction Well
199-K-166	4/17/2014	Extraction Well
199-K-166	7/16/2014	Extraction Well
199-K-166	11/18/2014	Extraction Well
199-K-168	1/23/2014	Extraction Well
199-K-168	5/22/2014	Extraction Well
199-K-168	8/25/2014	Extraction Well
199-K-168	11/19/2014	Extraction Well
199-K-169	—	Injection Well
199-K-170	—	Injection Well
199-K-171	8/25/2014	Extraction Well
199-K-171	11/24/2014	Extraction Well
199-K-172	—	Injection Well

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-173	1/23/2014	Extraction Well
199-K-173	4/17/2014	Extraction Well
199-K-173	7/16/2014	Extraction Well
199-K-173	11/19/2014	Extraction Well
199-K-174	—	Injection Well
199-K-175	—	Injection Well
199-K-178	5/22/2014	Extraction Well
199-K-178	12/11/2014	Extraction Well
199-K-179	—	Injection Well
199-K-180	—	Injection Well
199-K-181	1/16/2014	Extraction Well
199-K-181	5/22/2014	Extraction Well
199-K-181	12/11/2014	Extraction Well
199-K-182	1/23/2014	Extraction Well
199-K-182	6/5/2014	Extraction Well
199-K-182	8/27/2014	Extraction Well
199-K-182	11/24/2014	Extraction Well
199-K-183	2/14/2014	—
199-K-183	5/13/2014	—
199-K-183	8/11/2014	—
199-K-183	11/18/2014	—
199-K-184	2/14/2014	—
199-K-184	5/21/2014	—
199-K-184	8/13/2014	—
199-K-184	11/21/2014	—
199-K-185	2/20/2014	—
199-K-185	5/28/2014	—
199-K-185	8/13/2014	—
199-K-185	11/21/2014	—

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-186	2/19/2014	—
199-K-186	5/27/2014	—
199-K-186	8/11/2014	—
199-K-186	11/23/2014	—
199-K-187	2/19/2014	—
199-K-187	5/13/2014	—
199-K-187	9/9/2014	—
199-K-187	11/18/2014	—
199-K-188	2/19/2014	—
199-K-188	5/30/2014	—
199-K-188	8/13/2014	—
199-K-188	11/21/2014	—
199-K-189	2/19/2014	—
199-K-189	5/28/2014	—
199-K-189	8/13/2014	—
199-K-189	11/21/2014	—
199-K-190	2/19/2014	—
199-K-190	5/9/2014	—
199-K-190	8/13/2014	—
199-K-190	11/23/2014	—
199-K-191	2/20/2014	—
199-K-191	5/27/2014	—
199-K-191	8/13/2014	—
199-K-191	11/18/2014	—
199-K-192	2/20/2014	—
199-K-192	6/2/2014	—
199-K-192	8/13/2014	—
199-K-192	11/23/2014	—
199-K-193	2/24/2014	—

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-193	5/28/2014	—
199-K-193	8/13/2014	—
199-K-193	12/2/2014	—
199-K-194	2/20/2014	—
199-K-194	6/23/2014	—
199-K-194	8/21/2014	—
199-K-194	11/21/2014	—
199-K-196	1/23/2014	Extraction Well
199-K-196	5/22/2014	Extraction Well
199-K-196	8/25/2014	Extraction Well
199-K-196	11/19/2014	Extraction Well
199-K-197	2/20/2014	—
199-K-197	6/2/2014	—
199-K-197	8/21/2014	—
199-K-197	11/21/2014	—
199-K-198	1/16/2014	Extraction Well
199-K-198	2/26/2014	Extraction Well
199-K-198	5/22/2014	Extraction Well
199-K-198	8/25/2014	Extraction Well
199-K-198	11/19/2014	Extraction Well
199-K-199	1/16/2014	Extraction Well
199-K-199	2/26/2014	Extraction Well
199-K-199	5/22/2014	Extraction Well
199-K-199	8/25/2014	Extraction Well
199-K-199	11/19/2014	Extraction Well
199-K-200	2/19/2014	—
199-K-200	6/2/2014	—
199-K-200	8/21/2014	—
199-K-200	12/2/2014	—

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-201	2/20/2014	—
199-K-201	5/9/2014	—
199-K-201	8/21/2014	—
199-K-202	10/13/2014	—
199-K-203	11/5/2014	—
199-K-203	11/12/2014	—
199-K-203	11/19/2014	—
199-K-204	9/2/2014	—
199-K-204	9/9/2014	—
199-K-204	9/18/2014	—
199-K-204	10/22/2014	—
199-K-205	2/3/2014	Extraction Well
199-K-205	2/3/2014	Extraction Well
199-K-205	2/4/2014	Extraction Well
199-K-205	9/30/2014	Extraction Well
199-K-205	12/11/2014	Extraction Well
199-K-206	3/31/2014	Injection Well
199-K-207	12/9/2014	—
199-K-207	12/9/2014	—
199-K-207	12/22/2014	—
199-K-207	12/23/2014	—
199-K-207	12/30/2014	—
199-K-210	3/13/2014	Extraction Well
199-K-210	3/20/2014	Extraction Well
199-K-210	3/25/2014	Extraction Well
199-K-210	4/1/2014	Extraction Well
199-K-210	6/3/2014	Extraction Well
199-K-210	11/24/2014	Extraction Well
199-K-212	3/24/2014	Extraction Well

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
199-K-212	3/25/2014	Extraction Well
199-K-212	3/26/2014	Extraction Well
199-K-212	3/31/2014	Extraction Well
199-K-212	5/20/2014	Extraction Well
199-K-212	11/24/2014	Extraction Well
199-K-220	4/8/2014	Extraction Well
199-K-220	4/14/2014	Extraction Well
199-K-220	4/17/2014	Extraction Well
199-K-220	6/9/2014	Extraction Well
199-K-220	12/11/2014	Extraction Well
199-N-71	2/24/2014	—
199-N-71	3/5/2014	—
199-N-71	6/19/2014	—
199-N-71	9/15/2014	—
199-N-71	11/12/2014	—
199-N-165	3/3/2014	—
199-N-165	6/19/2014	—
199-N-165	9/16/2014	—
199-N-165	11/12/2014	—
699-70-68	1/6/2014	—
699-70-68	10/27/2014	—
699-72-73	10/13/2014	—
699-73-61	1/6/2014	—
699-77-54	10/21/2014	—
699-78-62	2/20/2014	—
699-78-62	5/9/2014	—
699-78-62	8/22/2014	—
699-78-62	11/4/2014	—
Note:		

Table A-3. Extraction, Injection, and Monitoring Wells for 100-KR-4

Well Name	Sample Date	Comment
This table excludes sample dates associated with extraction wells that were taken at the plant on a monthly basis.		

Table A-4. Monitoring Wells and Constituents for 100-NR-2

Well Name	Field Parameters[c]	Alkalinity	Gross Alpha	Anions	Gross Beta	Gamma	Metals	Oil and Grease	PAH	Strontium-90	Total Petroleum Hydrocarbons	Tritium	VOC	SVOC	Sampled as Planned in 2014?	Comments
199-N-2[a]	A	—	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-3[a]	S	—	—	S	S	—	S	—	—	S	—	S	—	—	Yes	—
199-N-14[a]	S	—	—	S	S	—	S	—	—	S	—	S	—	—	Yes	—
199-N-16[a]	A	—	—	A	A	—	A	A	—	A	A	—	—	—	No	Decommissioned 2012
199-N-18[a]	A	—	—	—	—	—	—	A	—	—	A	—	—	—	No	Not sampled; used for removal of TPH free product
199-N-19	A	—	—	A	—	—	A	—	A	A	A	—	—	—	No	Sampled in January 2015; delayed by access restrictions
199-N-21[a]	A	—	—	A	—	—	A	—	—	—	—	—	—	—	No	Sampled in January 2015; delayed by access restrictions
199-N-27[a]	A	—	A	A	—	A	A	—	—	—	—	A	—	—	Yes	—
199-N-28	A	A	A	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-32[a]	S	—	—	S	S	S	S	—	—	S	—	S	—	—	Yes	—
199-N-34	A	A	—	A	—	—	A	—	—	A	—	A	—	—	Yes	—
199-N-41	A	A	—	A	—	—	A	—	—	A	—	A	—	—	Yes	—
199-N-46	S	S	S	S	S	S	S	—	—	S	—	—	—	—	Yes	—
199-N-50[a]	A	—	—	—	A	—	—	—	—	—	—	A	—	—	Yes	—

Table A-4. Monitoring Wells and Constituents for 100-NR-2

Well Name	Field Parameters[c]	Alkalinity	Gross Alpha	Anions	Gross Beta	Gamma	Metals	Oil and Grease	PAH	Strontium-90	Total Petroleum Hydrocarbons	Tritium	VOC	SVOC	Sampled as Planned in 2014?	Comments
199-N-51[a]	A	—	—	—	A	—	—	—	—	—	—	A	—	—	Yes	—
199-N-56	A	A	A	A	—	A	A	—	A	A	A	A	—	—	Yes	—
199-N-57	A	A	A	A	—	A	A	—	A	A	A	A	—	—	Yes	—
199-N-64[a]	A	—	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-67[a]	S	—	S	S	S	—	S	—	—	S	—	—	—	—	Yes	—
199-N-69	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-70[a]	A	—	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-71	A	A	—	A	—	—	A	—	—	—	—	—	—	—	Yes	—
199-N-73	A	A	—	A	—	—	A	—	—	—	—	—	—	—	Yes	—
199-N-74[a]	A	—	A	—	A	A	A	—	—	—	—	—	—	—	Yes	—
199-N-75[a]	S	—	—	S	S	—	S	—	—	S	—	S	—	—	Yes	—
199-N-76[a]	S	—	—	S	S	S	S	—	—	S	—	S	—	—	Yes	—
199-N-80[a]	A	—	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-81[a]	A	—	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-92A[a]	A	—	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-96A[a]	A	—	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—

Table A-4. Monitoring Wells and Constituents for 100-NR-2

Well Name	Field Parameters[c]	Alkalinity	Gross Alpha	Anions	Gross Beta	Gamma	Metals	Oil and Grease	PAH	Strontium-90	Total Petroleum Hydrocarbons	Tritium	VOC	SVOC	Sampled as Planned in 2014?	Comments
199-N-99A[a]	A	—	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-103A	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-105A	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-106A	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-119	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-120	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-121	A	A	A	A	A	A	A	—	—	A	—	A	—	—	Yes	—
199-N-173	A	A	—	A	A	—	A	—	A	A	A		A	—	Yes	
199-N-182	A	A	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-183	A	A	—	A	—	—	A	A	A	A	A	—	A	—	Yes	—
199-N-184	A	A	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-185	A	A	—	A	A	—	A	—	—	A	—	A	—	—	Yes	—
199-N-186[b]	Q	—	Q	Q	Q	Q	Q	—	Q	Q	Q	Q	Q	Q	Yes	Also sampled for an extended analyte list[d]
199-N-187[b]	Q	—	Q	Q	Q	Q	Q	—	Q	Q	Q	Q	Q	Q	Yes	Also sampled for an extended analyte list[d]

Table A-4. Monitoring Wells and Constituents for 100-NR-2

Well Name	Field Parameters[c]	Alkalinity	Gross Alpha	Anions	Gross Beta	Gamma	Metals	Oil and Grease	PAH	Strontium-90	Total Petroleum Hydrocarbons	Tritium	VOC	SVOC	Sampled as Planned in 2014?	Comments
199-N-188[b]	Q	—	Q	Q	Q	Q	Q	—	Q	Q	Q	Q	Q	Q	Yes	Also sampled for an extended analyte list[d]
199-N-189	A	A	—	A	A	—	A	—	—	A	—	A	—	—	Yes	

a. Monitoring requirements are from *Remedial Design/Remedial Action Work Plan for the 100-NR-2 Operable Unit* (DOE/RL-2001-27). TPA-CN-256, *Change Notice for Modifying Approved Documents/Workplans In Accordance with the Tri-Party Agreement Action Plan, Section 9.0, Documentation and Records: DOE/RL-2001-27, Rev. 0, Remedial Design Report/Remedial Action Work Plan for the 100-NR-2 Operable Unit and the Interim Action Waste Management Plan for the 100-NR-2 Operable Unit, DOE/RL-2000-41, Rev. 1*, modified the monitoring requirements, including updating analyses and removing decommissioned wells.

b. Monitoring requirements are *Sampling and Analysis Plan for the 100-NR-1 and 100-NR-2 Operable Units Remedial Investigation/Feasibility Study* (DOE/RL-2009-42). TPA-CN-478, *Tri-Party Agreement Change Notice Form: Sampling and Analysis Plan for the 100-NR-1 and 100-NR-2 Operable Units Remedial Investigation/Feasibility Study, DOE/RL-2009-42, Rev. 0*, modified the monitoring requirements, adding quarterly sampling for wells 199-N-186, 199-N-187, and 199-N-188 for the list of constituents in Table 2-7 of DOE/RL-2009-42.

c. Field parameters include pH, temperature, conductivity, and turbidity; with dissolved oxygen and oxidation-reduction potential on some wells.

d. Wells 199-N-186, 199-N-187, and 199-N-188 also sampled for plutonium-238, plutonium-239/240, technetium-99, uranium-233/234, uranium-235, uranium-238, pesticides, cyanide, nonhalogenated hydrocarbons, polychlorinated biphenyls, hexavalent chromium, and mercury.

A = to be sampled annually
Q = to be sampled quarterly
S = to be sampled semiannually
SVOC = semivolatile organic compound
VOC = volatile organic compound

Table A-5. Monitoring Wells and Constituents for the 100-NR-2 Apatite Permeable Reactive Barrier

Well Name	Well Type	Field Parameters*	Anions	Gross Alpha/Beta	Metals	Strontium-90	TPH-Diesel	Sampled as Planned in 2014?
199-N-96A	Performance monitoring	S	S	S	S	S	S	Yes
199-N-122	Performance monitoring	S	S	S	S	S	S	Yes
199-N-123	Performance monitoring	S	S	S	S	S	S	Yes
199-N-146	Performance monitoring	S	S	S	S	S	S	Yes
199-N-147	Performance monitoring	S	S	S	S	S	S	Yes
199-N-347	Performance monitoring	S	S	S	S	S	S	Yes
199-N-348	Performance monitoring	S	S	S	S	S	S	Yes
199-N-349	Performance monitoring	S	S	S	S	S	S	Yes
199-N-350	Performance monitoring	S	S	S	S	S	S	Yes
199-N-351	Performance monitoring	S	S	S	S	S	S	Yes
199-N-352	Performance monitoring	S	S	S	S	S	S	Yes
199-N-353	Performance monitoring	S	S	S	S	S	S	Yes
APT1	Aquifer tube	S	S	S	S	S	S	Yes
APT5	Aquifer tube	S	S	S	S	S	S	Yes
C7881	Aquifer tube	S	S	S	S	S	S	Yes

Table A-5. Monitoring Wells and Constituents for the 100-NR-2 Apatite Permeable Reactive Barrier

Well Name	Well Type	Field Parameters*	Anions	Gross Alpha/Beta	Metals	Strontium-90	TPH-Diesel	Sampled as Planned in 2014?
N116mArray-1A	Aquifer tube	S	S	S	S	S	S	No; Tube missing. Repaired in fall, sampled once in December 2014. No metals, nitrate, or strontium-90.
N116mArray-2A	Aquifer tube	S	S	S	S	S	S	Yes
N116mArray-3A	Aquifer tube	S	S	S	S	S	S	Yes
N116mArray-4A	Aquifer tube	S	S	S	S	S	S	Yes
N116mArray-6A	Aquifer tube	S	S	S	S	S	S	Yes
N116mArray-8A	Aquifer tube	S	S	S	S	S	S	Yes
NVP2-116.0	Aquifer tube	S	S	S	S	S	S	Yes

Note: Sampling requirements are from *Remedial Design Report/Remedial Action Work Plan for the 100-NR-2 Operable Unit* (DOE/RL-2001-27). TPA-CN-569, *Change Notice for Modifying Approved Documents/Workplans In Accordance with the Tri-Party Agreement Action Plan, Section 9.0, Documentation and Records: DOE/RL-2001-27, Rev. 0, Remedial Design Report/Remedial Action Work Plan for the 100-NR-2 Operable Unit*, added semiannual sampling at groundwater wells and aquifer tubes to monitor the performance of the 100-NR-2 apatite permeable reactive barrier.

* Field parameters: conductivity, pH, temperature, and turbidity.

S = sampled twice each year (at high and low river stages)

TPH = total petroleum hydrocarbon

Table A-6. Monitoring Wells and Constituents for the 100-N (UPR-100-N-17) Bioremediation

Well Name	Well Type	Field Parameters[a]	Alkalinity	Anions	Metals	Oil and Grease	PAHs	TPH[b]	VOCs	Sampled as Planned in 2014?
199-N-3	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-19	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-56	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-96A	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-167	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-169	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-171	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-172	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-173	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
199-N-183	Bioventing monitoring	S	S	S	S	S	S	S	S	No[c]
N116mArray-0A	Aquifer tube	S	S	S	S	S	S	S	S	No; O&G, PAH, VOA only once
C6132	Aquifer tube	S	S	S	S	S	S	S	S	No[c]
C6135	Aquifer tube	S	S	S	S	S	S	S	S	No; broken

Note: Sampling requirements are from *Remedial Design Report/Remedial Action Work Plan for the 100-N Area* (DOE/RL-2005-93), Appendix H, Table H-3.

a. Field parameters: conductivity, pH, temperature, turbidity, dissolved oxygen, oxidation-reduction potential, and sheen/odor.

b. TPH analyses: TPH-diesel, TPH-gasoline, and TPH-motor oil.

c. The scheduled October 2014 sampling was planned to be done concurrent with the fall bioventing respirometry test, which was delayed. Samples were collected in January 2015.

S = sampled twice each year (at high and low river stages)

PAH = polycyclic aromatic hydrocarbon

TPH = total petroleum hydrocarbon

VOC = volatile organic compound

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D2-6	5/29/2014	—
199-D2-6	11/14/2014	—
199-D2-10	—	Inactive injection
199-D2-11	1/31/2014	—
199-D2-11	2/7/2014	—
199-D2-11	3/7/2014	—
199-D2-11	3/21/2014	—
199-D2-11	4/4/2014	—
199-D2-11	4/18/2014	—
199-D2-11	4/30/2014	—
199-D2-11	5/15/2014	—
199-D2-11	5/29/2014	—
199-D2-11	6/15/2014	—
199-D2-11	6/27/2014	—
199-D2-11	7/10/2014	—
199-D2-11	7/24/2014	—
199-D2-11	8/7/2014	—
199-D2-11	8/21/2014	—
199-D2-11	9/4/2014	—
199-D2-11	11/14/2014	—
199-D2-12	—	Inactive injection
199-D3-2	1/8/2014	—
199-D3-2	3/21/2014	—
199-D3-2	6/20/2014	—
199-D3-2	9/19/2014	—
199-D3-2	12/9/2014	—
199-D3-5	2/11/2014	—
199-D3-5	6/11/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D3-5	8/5/2014	—
199-D3-5	11/7/2014	—
199-D4-1	1/8/2014	—
199-D4-1	12/9/2014	—
199-D4-4	12/9/2014	—
199-D4-5	11/21/2014	—
199-D4-6	12/19/2014	—
199-D4-7	12/12/2014	—
199-D4-13	11/21/2014	—
199-D4-14	3/20/2014	Extraction
199-D4-14	7/1/2014	Extraction
199-D4-14	8/27/2014	Extraction
199-D4-14	12/15/2014	Extraction
199-D4-15	11/21/2014	—
199-D4-19	1/24/2014	—
199-D4-19	4/8/2014	—
199-D4-19	8/18/2014	—
199-D4-19	10/14/2014	—
199-D4-20	10/15/2014	—
199-D4-22	3/21/2014	—
199-D4-22	6/20/2014	—
199-D4-22	9/26/2014	—
199-D4-22	12/9/2014	—
199-D4-23	3/21/2014	—
199-D4-23	6/20/2014	—
199-D4-23	9/19/2014	—
199-D4-23	12/30/2014	—
199-D4-25	3/21/2014	—
199-D4-25	7/10/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D4-25	9/19/2014	—
199-D4-25	12/19/2014	—
199-D4-26	1/24/2014	—
199-D4-26	4/18/2014	—
199-D4-26	7/10/2014	—
199-D4-26	10/14/2014	—
199-D4-27	12/19/2014	—
199-D4-31	12/12/2014	—
199-D4-32	12/19/2014	—
199-D4-34	—	Extraction
199-D4-36	12/17/2014	—
199-D4-38	3/20/2014	Extraction
199-D4-38	7/1/2014	Extraction
199-D4-38	8/27/2014	Extraction
199-D4-38	12/15/2014	Extraction
199-D4-39	1/30/2014	Extraction
199-D4-39	5/29/2014	Extraction
199-D4-39	8/7/2014	Extraction
199-D4-39	11/10/2014	Extraction
199-D4-48	12/19/2014	—
199-D4-62	3/21/2014	—
199-D4-62	6/20/2014	—
199-D4-62	9/19/2014	—
199-D4-62	12/19/2014	—
199-D4-78	11/21/2014	—
199-D4-83	11/10/2014	Extraction
199-D4-84	—	Extraction
199-D4-85	—	Extraction
199-D4-86	1/24/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D4-86	4/8/2014	—
199-D4-86	7/15/2014	—
199-D4-86	10/27/2014	—
199-D4-92	1/24/2014	—
199-D4-92	4/18/2014	—
199-D4-92	7/10/2014	—
199-D4-92	10/14/2014	—
199-D4-93	7/10/2014	—
199-D4-93	10/15/2014	—
199-D4-95	1/30/2014	Extraction
199-D4-95	4/17/2014	Extraction
199-D4-95	7/16/2014	Extraction
199-D4-95	12/11/2014	Extraction
199-D4-96	1/30/2014	Extraction
199-D4-96	4/17/2014	Extraction
199-D4-96	7/16/2014	Extraction
199-D4-96	10/29/2014	Extraction
199-D4-97	1/30/2014	Extraction
199-D4-97	4/17/2014	Extraction
199-D4-97	7/16/2014	Extraction
199-D4-97	10/29/2014	Extraction
199-D4-98	1/30/2014	Extraction
199-D4-98	4/17/2014	Extraction
199-D4-98	7/16/2014	Extraction
199-D4-98	10/29/2014	Extraction
199-D4-99	1/30/2014	Extraction
199-D4-99	4/17/2014	Extraction
199-D4-99	7/16/2014	Extraction
199-D4-99	11/10/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D4-101	—	Extraction
199-D5-13	2/6/2014	—
199-D5-13	4/8/2014	—
199-D5-13	7/9/2014	—
199-D5-13	11/4/2014	—
199-D5-13	1/31/2014	—
199-D5-13	4/8/2014	—
199-D5-13	7/9/2014	—
199-D5-13	10/24/2014	—
199-D5-15	3/20/2014	—
199-D5-15	6/20/2014	—
199-D5-15	9/5/2014	—
199-D5-15	12/12/2014	—
199-D5-16	4/18/2014	—
199-D5-16	6/20/2014	—
199-D5-16	9/19/2014	—
199-D5-16	12/12/2014	—
199-D5-17	6/6/2014	—
199-D5-17	10/24/2014	—
199-D5-18	6/6/2014	—
199-D5-18	11/7/2014	—
199-D5-19	6/20/2014	—
199-D5-19	10/24/2014	—
199-D5-20	1/30/2014	Extraction
199-D5-20	4/17/2014	Extraction
199-D5-20	7/16/2014	Extraction
199-D5-32	1/30/2014	Extraction
199-D5-32	4/17/2014	Extraction
199-D5-32	7/16/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-32	10/28/2014	Extraction
199-D5-33	1/31/2014	—
199-D5-33	4/8/2014	—
199-D5-33	7/9/2014	—
199-D5-33	10/27/2014	—
199-D5-34	2/14/2014	—
199-D5-34	3/7/2014	—
199-D5-34	3/21/2014	—
199-D5-34	4/4/2014	—
199-D5-34	4/18/2014	—
199-D5-34	4/30/2014	—
199-D5-34	5/15/2014	—
199-D5-34	5/29/2014	—
199-D5-34	6/12/2014	—
199-D5-34	6/27/2014	—
199-D5-34	7/10/2014	—
199-D5-34	7/24/2014	—
199-D5-34	8/7/2014	—
199-D5-34	8/21/2014	—
199-D5-34	9/4/2014	—
199-D5-34	9/18/2014	—
199-D5-34	10/1/2014	—
199-D5-34	10/16/2014	—
199-D5-34	11/6/2014	—
199-D5-34	12/9/2014	—
199-D5-36	1/31/2014	—
199-D5-36	4/8/2014	—
199-D5-36	7/30/2014	—
199-D5-36	10/27/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-37	1/31/2014	—
199-D5-37	4/9/2014	—
199-D5-37	7/15/2014	—
199-D5-37	11/4/2014	—
199-D5-38	3/21/2014	—
199-D5-38	6/20/2014	—
199-D5-38	9/26/2014	—
199-D5-38	12/17/2014	—
199-D5-39	1/15/2014	Extraction
199-D5-39	1/30/2014	Extraction
199-D5-39	2/26/2014	Extraction
199-D5-39	3/6/2014	Extraction
199-D5-39	3/20/2014	Extraction
199-D5-39	4/3/2014	Extraction
199-D5-39	4/17/2014	Extraction
199-D5-39	4/30/2014	Extraction
199-D5-39	5/15/2014	Extraction
199-D5-39	5/29/2014	Extraction
199-D5-39	6/12/2014	Extraction
199-D5-39	7/1/2014	Extraction
199-D5-39	7/10/2014	Extraction
199-D5-39	7/24/2014	Extraction
199-D5-39	8/7/2014	Extraction
199-D5-39	8/21/2014	Extraction
199-D5-39	9/4/2014	Extraction
199-D5-39	10/28/2014	Extraction
199-D5-39	11/10/2014	Extraction
199-D5-39	12/15/2014	Extraction
199-D5-40	3/25/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-40	6/17/2014	—
199-D5-40	8/5/2014	—
199-D5-40	11/7/2014	—
199-D5-41	6/11/2014	—
199-D5-41	12/19/2014	—
199-D5-42	—	Injection
199-D5-43	1/8/2014	—
199-D5-43	3/24/2014	—
199-D5-43	6/20/2014	—
199-D5-43	9/26/2014	—
199-D5-43	12/17/2014	—
199-D5-44	—	Injection
199-D5-92	1/30/2014	Extraction
199-D5-92	5/29/2014	Extraction
199-D5-92	8/7/2014	Extraction
199-D5-92	11/10/2014	Extraction
199-D5-97	1/22/2014	—
199-D5-97	1/31/2014	—
199-D5-97	2/14/2014	—
199-D5-97	3/7/2014	—
199-D5-97	3/21/2014	—
199-D5-97	4/4/2014	—
199-D5-97	4/18/2014	—
199-D5-97	4/30/2014	—
199-D5-97	5/15/2014	—
199-D5-97	5/29/2014	—
199-D5-97	6/15/2014	—
199-D5-97	6/27/2014	—
199-D5-97	7/10/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-97	7/24/2014	—
199-D5-97	8/7/2014	—
199-D5-97	8/21/2014	—
199-D5-97	9/4/2014	—
199-D5-97	9/18/2014	—
199-D5-97	10/1/2014	—
199-D5-97	10/16/2014	—
199-D5-97	11/6/2014	—
199-D5-97	12/17/2014	—
199-D5-101	1/30/2014	Extraction
199-D5-101	4/17/2014	Extraction
199-D5-101	7/16/2014	Extraction
199-D5-101	10/29/2014	Extraction
199-D5-103	1/22/2014	—
199-D5-103	1/31/2014	—
199-D5-103	2/14/2014	—
199-D5-103	3/7/2014	—
199-D5-103	3/21/2014	—
199-D5-103	4/4/2014	—
199-D5-103	4/18/2014	—
199-D5-103	4/30/2014	—
199-D5-103	5/15/2014	—
199-D5-103	5/29/2014	—
199-D5-103	6/12/2014	—
199-D5-103	6/27/2014	—
199-D5-103	7/10/2014	—
199-D5-103	7/24/2014	—
199-D5-103	8/7/2014	—
199-D5-103	8/21/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-103	9/4/2014	—
199-D5-103	9/18/2014	—
199-D5-103	10/1/2014	—
199-D5-103	10/16/2014	—
199-D5-103	11/6/2014	—
199-D5-103	12/17/2014	—
199-D5-104	1/15/2014	Extraction
199-D5-104	1/30/2014	Extraction
199-D5-104	2/26/2014	Extraction
199-D5-104	3/6/2014	Extraction
199-D5-104	3/20/2014	Extraction
199-D5-104	4/3/2014	Extraction
199-D5-104	4/17/2014	Extraction
199-D5-104	4/30/2014	Extraction
199-D5-104	5/15/2014	Extraction
199-D5-104	5/29/2014	Extraction
199-D5-104	6/12/2014	Extraction
199-D5-104	7/1/2014	Extraction
199-D5-104	7/15/2014	Extraction
199-D5-104	7/24/2014	Extraction
199-D5-104	8/7/2014	Extraction
199-D5-104	8/21/2014	Extraction
199-D5-104	9/4/2014	Extraction
199-D5-104	10/29/2014	Extraction
199-D5-104	11/10/2014	Extraction
199-D5-104	12/15/2014	Extraction
199-D5-106	1/22/2014	—
199-D5-106	2/14/2014	—
199-D5-106	3/7/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-106	4/11/2014	—
199-D5-106	6/11/2014	—
199-D5-106	6/20/2014	—
199-D5-106	7/15/2014	—
199-D5-106	8/5/2014	—
199-D5-106	9/5/2014	—
199-D5-106	10/27/2014	—
199-D5-106	11/7/2014	—
199-D5-106	12/17/2014	—
199-D5-108	10/14/2014	—
199-D5-109	10/15/2014	—
199-D5-110	10/15/2014	—
199-D5-114	10/15/2014	—
199-D5-115	10/15/2014	—
199-D5-127	—	Extraction
199-D5-128	—	Injection
199-D5-129	—	Injection
199-D5-130	—	Extraction
199-D5-123	3/24/2014	Extraction 6/14
199-D5-123	6/20/2014	Extraction 6/14
199-D5-123	9/5/2014	Extraction 6/14
199-D5-123	12/19/2014	Extraction 6/14
199-D5-125	3/24/2014	Extraction 6/14
199-D5-125	6/20/2014	—
199-D5-125	9/19/2014	—
199-D5-125	12/17/2014	—
199-D5-126	3/24/2014	—
199-D5-126	6/20/2014	—
199-D5-126	9/19/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-126	12/17/2014	—
199-D5-127	1/30/2014	Extraction
199-D5-127	3/6/2014	Extraction
199-D5-127	3/20/2014	Extraction
199-D5-127	4/3/2014	Extraction
199-D5-127	4/17/2014	Extraction
199-D5-127	4/30/2014	Extraction
199-D5-127	5/15/2014	Extraction
199-D5-127	5/29/2014	Extraction
199-D5-127	6/12/2014	Extraction
199-D5-127	7/1/2014	Extraction
199-D5-127	7/10/2014	Extraction
199-D5-127	7/24/2014	Extraction
199-D5-127	8/7/2014	Extraction
199-D5-127	8/21/2014	Extraction
199-D5-127	9/4/2014	Extraction
199-D5-127	10/29/2014	Extraction
199-D5-128	—	Injection
199-D5-129	—	Injection
199-D5-130	3/6/2014	Extraction
199-D5-130	4/17/2014	Extraction
199-D5-130	7/16/2014	Extraction
199-D5-130	10/28/2014	Extraction
199-D5-131	3/6/2014	Extraction
199-D5-131	4/17/2014	Extraction
199-D5-131	7/16/2014	Extraction
199-D5-131	11/10/2014	Extraction
199-D5-132	2/7/2014	—
199-D5-132	6/17/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-132	8/18/2014	—
199-D5-132	11/7/2014	—
199-D5-133	1/31/2014	—
199-D5-133	2/7/2014	—
199-D5-133	3/7/2014	—
199-D5-133	3/21/2014	—
199-D5-133	4/4/2014	—
199-D5-133	4/18/2014	—
199-D5-133	4/30/2014	—
199-D5-133	5/15/2014	—
199-D5-133	5/29/2014	—
199-D5-133	6/12/2014	—
199-D5-133	6/27/2014	—
199-D5-133	7/10/2014	—
199-D5-133	7/24/2014	—
199-D5-133	8/7/2014	—
199-D5-133	8/21/2014	—
199-D5-133	9/4/2014	—
199-D5-133	11/14/2014	—
199-D5-134	11/21/2014	—
199-D5-141	11/21/2014	—
199-D5-142	2/7/2014	—
199-D5-142	11/7/2014	—
199-D5-143	2/11/2014	—
199-D5-143	6/11/2014	—
199-D5-143	8/8/2014	—
199-D5-143	11/16/2014	—
199-D5-145	1/22/2014	—
199-D5-145	1/31/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-145	2/14/2014	—
199-D5-145	3/7/2014	—
199-D5-145	3/21/2014	—
199-D5-145	4/4/2014	—
199-D5-145	4/18/2014	—
199-D5-145	4/30/2014	—
199-D5-145	5/15/2014	—
199-D5-145	5/29/2014	—
199-D5-145	6/12/2014	—
199-D5-145	6/27/2014	—
199-D5-145	7/10/2014	—
199-D5-145	7/24/2014	—
199-D5-145	8/7/2014	—
199-D5-145	8/21/2014	—
199-D5-145	9/4/2014	—
199-D5-145	9/18/2014	—
199-D5-145	10/1/2014	—
199-D5-145	10/16/2014	—
199-D5-145	11/6/2014	—
199-D5-145	12/17/2014	—
199-D5-146	1/22/2014	Extraction 6/14
199-D5-146	1/31/2014	Extraction 6/14
199-D5-146	2/14/2014	Extraction 6/14
199-D5-146	3/7/2014	Extraction 6/14
199-D5-146	3/21/2014	Extraction 6/14
199-D5-146	4/4/2014	Extraction 6/14
199-D5-146	6/12/2014	Extraction 6/14
199-D5-146	7/1/2014	Extraction 6/14
199-D5-146	7/10/2014	Extraction 6/14

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-146	7/24/2014	Extraction 6/14
199-D5-146	8/7/2014	Extraction 6/14
199-D5-146	8/21/2014	Extraction 6/14
199-D5-146	9/4/2014	Extraction 6/14
199-D5-146	10/28/2014	Extraction 6/14
199-D5-146	11/10/2014	Extraction 6/14
199-D5-146	12/15/2014	Extraction 6/14
199-D5-147	3/7/2014	—
199-D5-147	6/17/2014	—
199-D5-147	8/5/2014	—
199-D5-147	11/16/2014	—
199-D5-148	1/31/2014	Injection 6/14
199-D5-148	2/11/2014	Injection 6/14
199-D5-148	3/7/2014	Injection 6/14
199-D5-148	3/21/2014	Injection 6/14
199-D5-148	4/4/2014	Injection 6/14
199-D5-153	4/3/2014	Extraction 6/14
199-D5-154	4/3/2014	—
199-D5-155	5/28/2014	Multiple ports
199-D5-155	6/26/2014	Multiple ports
199-D5-155	7/21/2014	Multiple ports
199-D5-155	8/6/2014	Multiple ports
199-D5-155	9/17/2014	Multiple ports
199-D5-155	10/1/2014	Multiple ports
199-D5-155	11/6/2014	Multiple ports
199-D5-155	11/20/2014	Multiple ports
199-D5-156	5/27/2014	Multiple ports
199-D5-156	6/26/2014	Multiple ports
199-D5-156	7/21/2014	Multiple ports

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D5-156	8/6/2014	Multiple ports
199-D5-156	9/17/2014	Multiple ports
199-D5-156	10/1/2014	Multiple ports
199-D5-156	11/6/2014	Multiple ports
199-D5-156	11/20/2014	Multiple ports
199-D5-157	5/27/2014	Multiple ports
199-D5-157	6/26/2014	Multiple ports
199-D5-157	7/21/2014	Multiple ports
199-D5-157	8/6/2014	Multiple ports
199-D5-157	9/17/2014	Multiple ports
199-D5-157	10/1/2014	Multiple ports
199-D5-157	11/6/2014	Multiple ports
199-D5-157	11/20/2014	Multiple ports
199-D5-158	5/21/2014	Multiple ports
199-D5-158	5/22/2014	Multiple ports
199-D5-158	6/26/2014	Multiple ports
199-D5-158	7/21/2014	Multiple ports
199-D5-158	8/6/2014	Multiple ports
199-D5-158	9/17/2014	Multiple ports
199-D5-158	10/1/2014	Multiple ports
199-D5-158	11/6/2014	Multiple ports
199-D5-158	11/20/2014	Multiple ports
199-D6-1	—	Injection
199-D6-2	—	Injection
199-D6-3	2/10/2014	—
199-D6-3	6/20/2014	—
199-D6-3	8/5/2014	—
199-D6-3	11/21/2014	—
199-D7-3	3/6/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D7-3	4/17/2014	Extraction
199-D7-3	7/16/2014	Extraction
199-D7-3	10/28/2014	Extraction
199-D7-4	—	Injection
199-D7-5	—	Injection
199-D7-6	3/6/2014	Extraction
199-D7-6	4/17/2014	Extraction
199-D7-6	7/16/2014	Extraction
199-D7-6	10/28/2014	Extraction
199-D8-4	1/31/2014	—
199-D8-4	4/9/2014	—
199-D8-4	7/18/2014	—
199-D8-4	10/27/2014	—
199-D8-5	3/24/2014	—
199-D8-5	6/20/2014	—
199-D8-5	9/5/2014	—
199-D8-5	12/17/2014	—
199-D8-6	1/15/2014	Extraction
199-D8-53	6/24/2014	Extraction 4/14
199-D8-53	12/15/2014	Extraction 4/14
199-D8-54A	8/8/2014	—
199-D8-54A	12/17/2014	—
199-D8-54B	6/24/2014	—
199-D8-54B	12/19/2014	—
199-D8-55	—	Extraction
199-D8-68	3/20/2014	Extraction
199-D8-68	6/24/2014	Extraction
199-D8-68	9/4/2014	Extraction
199-D8-68	12/15/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D8-69	3/20/2014	Extraction
199-D8-69	6/24/2014	Extraction
199-D8-69	9/4/2014	Extraction
199-D8-69	12/15/2014	Extraction
199-D8-70	2/14/2014	—
199-D8-70	3/24/2014	—
199-D8-70	6/24/2014	—
199-D8-70	9/19/2014	—
199-D8-70	12/19/2014	—
199-D8-71	2/11/2014	—
199-D8-71	6/11/2014	—
199-D8-71	8/8/2014	—
199-D8-71	11/14/2014	—
199-D8-72	6/24/2014	—
199-D8-73	1/15/2014	Extraction
199-D8-73	3/20/2014	Extraction
199-D8-73	7/1/2014	Extraction
199-D8-73	8/27/2014	—
199-D8-88	3/20/2014	Extraction
199-D8-88	7/1/2014	Extraction
199-D8-88	8/27/2014	Extraction
199-D8-88	12/15/2014	Extraction
199-D8-89	1/30/2014	Extraction
199-D8-89	4/17/2014	Extraction
199-D8-89	7/16/2014	Extraction
199-D8-89	10/28/2014	Extraction
199-D8-90	1/30/2014	Extraction
199-D8-90	4/17/2014	Extraction
199-D8-90	7/16/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-D8-90	10/28/2014	Extraction
199-D8-91	1/30/2014	Extraction
199-D8-91	4/17/2014	Extraction
199-D8-91	7/16/2014	Extraction
199-D8-91	10/28/2014	Extraction
199-D8-93	—	Inactive injection
199-D8-94	—	Inactive injection
199-D8-95	3/6/2014	Extraction
199-D8-95	4/17/2014	Extraction
199-D8-95	7/16/2014	Extraction
199-D8-95	10/28/2014	Extraction
199-D8-96	3/6/2014	Extraction
199-D8-96	4/17/2014	Extraction
199-D8-96	7/16/2014	Extraction
199-D8-96	10/28/2014	Extraction
199-D8-97	1/30/2014	Extraction
199-D8-97	4/17/2014	Extraction
199-D8-97	7/16/2014	Extraction
199-D8-97	10/28/2014	Extraction
199-D8-98	3/6/2014	Extraction
199-D8-98	4/17/2014	Extraction
199-D8-98	7/16/2014	Extraction
199-D8-98	10/28/2014	Extraction
199-D8-99	—	Injection
199-D8-101	2/6/2014	—
199-D8-101	4/9/2014	—
199-D8-101	7/24/2014	—
199-D8-101	10/27/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H1-1	3/19/2014	Extraction
199-H1-1	6/11/2014	Extraction
199-H1-1	8/26/2014	Extraction
199-H1-1	12/11/2014	Extraction
199-H1-2	3/19/2014	Extraction
199-H1-2	6/11/2014	Extraction
199-H1-2	8/26/2014	Extraction
199-H1-2	12/11/2014	Extraction
199-H1-3	6/5/2014	Extraction
199-H1-4	3/19/2014	Extraction
199-H1-4	6/11/2014	Extraction
199-H1-4	8/26/2014	Extraction
199-H1-5	3/20/2014	Extraction
199-H1-5	6/24/2014	Extraction
199-H1-5	10/28/2014	Extraction
199-H1-5	12/15/2014	Extraction
199-H1-6	3/19/2014	Extraction
199-H1-6	6/11/2014	Extraction
199-H1-6	8/26/2014	Extraction
199-H1-6	12/16/2014	Extraction
199-H1-7	2/25/2014	—
199-H1-7	5/5/2014	—
199-H1-7	8/1/2014	—
199-H1-7	10/31/2014	—
199-H1-20	—	Injection
199-H1-21	—	Injection
199-H1-25	3/19/2014	Extraction
199-H1-25	6/11/2014	Extraction
199-H1-25	8/26/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H1-25	12/16/2014	Extraction
199-H1-27	3/19/2014	Extraction
199-H1-27	6/11/2014	Extraction
199-H1-27	8/26/2014	Extraction
199-H1-27	12/16/2014	Extraction
199-H1-32	1/22/2014	Extraction
199-H1-32	1/29/2014	Extraction
199-H1-32	6/5/2014	Extraction
199-H1-32	8/14/2014	Extraction
199-H1-32	12/11/2014	Extraction
199-H1-33	1/15/2014	Extraction
199-H1-33	1/29/2014	Extraction
199-H1-33	6/5/2014	Extraction
199-H1-33	8/14/2014	Extraction
199-H1-33	12/11/2014	Extraction
199-H1-34	3/19/2014	Extraction
199-H1-34	6/11/2014	Extraction
199-H1-34	8/26/2014	Extraction
199-H1-34	12/16/2014	Extraction
199-H1-35	1/29/2014	Extraction
199-H1-35	6/5/2014	Extraction
199-H1-35	8/14/2014	Extraction
199-H1-35	11/10/2014	Extraction
199-H1-36	3/19/2014	Extraction
199-H1-36	6/11/2014	Extraction
199-H1-36	8/26/2014	Extraction
199-H1-36	12/16/2014	Extraction
199-H1-37	1/29/2014	Extraction
199-H1-37	6/5/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H1-37	8/14/2014	Extraction
199-H1-37	11/10/2014	Extraction
199-H1-38	1/29/2014	Extraction
199-H1-38	6/5/2014	Extraction
199-H1-38	8/14/2014	Extraction
199-H1-38	11/10/2014	Extraction
199-H1-39	1/15/2014	Extraction
199-H1-39	3/19/2014	Extraction
199-H1-39	6/11/2014	Extraction
199-H1-39	8/26/2014	Extraction
199-H1-40	1/29/2014	Extraction
199-H1-40	6/5/2014	Extraction
199-H1-40	8/14/2014	Extraction
199-H1-40	11/10/2014	Extraction
199-H1-42	3/19/2014	Extraction
199-H1-42	6/11/2014	Extraction
199-H1-42	8/26/2014	Extraction
199-H1-42	12/16/2014	Extraction
199-H1-43	3/19/2014	Extraction
199-H1-43	6/11/2014	Extraction
199-H1-43	10/29/2014	Extraction
199-H1-43	12/16/2014	Extraction
199-H1-45	3/19/2014	Extraction
199-H1-45	6/24/2014	Extraction
199-H1-45	8/27/2014	Extraction
199-H1-45	12/16/2014	Extraction
199-H2-1	2/25/2014	—
199-H2-1	5/15/2014	—
199-H2-1	8/1/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H2-1	10/31/2014	—
199-H3-2A	3/19/2014	—
199-H3-2A	6/20/2014	—
199-H3-2A	9/5/2014	—
199-H3-2A	12/12/2014	—
199-H3-2C	3/19/2014	Extraction
199-H3-2C	6/24/2014	Extraction
199-H3-2C	8/27/2014	Extraction
199-H3-2C	12/16/2014	Extraction
199-H3-3	2/21/2014	—
199-H3-3	5/5/2014	—
199-H3-3	8/1/2014	—
199-H3-3	10/31/2014	
199-H3-4	1/29/2014	Extraction
199-H3-4	6/5/2014	Extraction
199-H3-4	8/14/2014	Extraction
199-H3-4	11/10/2014	Extraction
199-H3-5	2/21/2014	—
199-H3-5	5/5/2014	—
199-H3-5	8/1/2014	—
199-H3-5	10/31/2014	—
199-H3-6	2/21/2014	—
199-H3-6	5/5/2014	—
199-H3-6	8/18/2014	—
199-H3-6	10/31/2014	—
199-H3-7	2/21/2014	—
199-H3-7	5/5/2014	—
199-H3-7	8/1/2014	—
199-H3-7	10/31/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H3-9	2/21/2014	—
199-H3-9	6/17/2014	—
199-H3-9	8/8/2014	—
199-H3-9	10/31/2014	—
199-H3-10	2/21/2014	—
199-H3-10	5/5/2014	—
199-H3-10	8/8/2014	—
199-H3-10	10/31/2014	—
199-H3-25	—	Injection
199-H3-26	—	Injection
199-H3-27	—	Injection
199-H4-4	1/29/2014	Extraction
199-H4-4	6/5/2014	Extraction
199-H4-4	8/14/2014	Extraction
199-H4-4	12/16/2014	Extraction
199-H4-5	3/19/2014	—
199-H4-5	6/20/2014	—
199-H4-5	9/5/2014	—
199-H4-5	12/12/2014	—
199-H4-6	1/22/2014	—
199-H4-6	4/11/2014	—
199-H4-6	7/24/2014	—
199-H4-6	10/24/2014	—
199-H4-8	3/10/2014	—
199-H4-8	11/5/2014	—
199-H4-10	3/19/2014	—
199-H4-10	6/20/2014	—
199-H4-10	9/5/2014	—
199-H4-10	12/12/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H4-11	2/21/2014	—
199-H4-11	5/5/2014	—
199-H4-11	8/1/2014	—
199-H4-11	10/31/2014	—
199-H4-12A	2/21/2014	—
199-H4-12A	5/5/2014	—
199-H4-12A	8/1/2014	—
199-H4-12A	11/5/2014	—
199-H4-12B	—	Extraction
199-H4-12C	1/29/2014	Extraction
199-H4-12C	6/5/2014	Extraction
199-H4-12C	7/23/2014	Extraction
199-H4-12C	8/14/2014	Extraction
199-H4-12C	11/10/2014	Extraction
199-H4-13	3/19/2014	—
199-H4-13	6/20/2014	—
199-H4-13	9/26/2014	—
199-H4-13	12/15/2014	—
199-H4-14	—	—
199-H4-15A	1/29/2014	Extraction
199-H4-15A	6/5/2014	Extraction
199-H4-15A	8/14/2014	Extraction
199-H4-15A	11/10/2014	Extraction
199-H4-15CP	11/23/2014	—
199-H4-15CQ	11/23/2014	—
199-H4-15CR	11/23/2014	—
199-H4-15CS	11/23/2014	—
199-H4-16	2/21/2014	—
199-H4-16	5/5/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H4-16	8/1/2014	—
199-H4-16	10/31/2014	—
199-H4-17	—	Injection
199-H4-18	—	Injection
199-H4-45	3/19/2014	—
199-H4-45	6/24/2014	—
199-H4-45	9/5/2014	—
199-H4-45	12/12/2014	—
199-H4-46	2/21/2014	—
199-H4-46	5/15/2014	—
199-H4-46	8/1/2014	—
199-H4-46	10/31/2014	—
199-H4-49	2/21/2014	—
199-H4-49	5/5/2014	—
199-H4-49	8/1/2014	—
199-H4-49	10/31/2014	—
199-H4-63	4/17/2014	Extraction
199-H4-63	6/24/2014	Extraction
199-H4-63	8/27/2014	Extraction
199-H4-63	12/16/2014	Extraction
199-H4-64	3/19/2014	Extraction
199-H4-64	6/24/2014	Extraction
199-H4-64	8/27/2014	Extraction
199-H4-64	12/16/2014	Extraction
199-H4-65	2/21/2014	—
199-H4-65	5/5/2014	—
199-H4-65	8/8/2014	—
199-H4-65	10/31/2014	—
199-H4-69	3/19/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H4-69	6/24/2014	Extraction
199-H4-69	8/27/2014	Extraction
199-H4-69	12/16/2014	Extraction
199-H4-70	3/19/2014	Extraction
199-H4-70	6/24/2014	Extraction
199-H4-70	8/27/2014	Extraction
199-H4-70	12/16/2014	Extraction
199-H4-71	—	Injection
199-H4-72	—	Injection
199-H4-73	—	Injection
199-H4-74	—	Injection
199-H4-75	3/19/2014	Extraction
199-H4-75	6/24/2014	Extraction
199-H4-75	8/27/2014	Extraction
199-H4-75	12/16/2014	Extraction
199-H4-76	6/5/2014	Extraction
199-H4-76	8/26/2014	Extraction
199-H4-77	3/19/2014	Extraction
199-H4-77	6/11/2014	Extraction
199-H4-77	10/29/2014	Extraction
199-H4-77	12/16/2014	Extraction
199-H4-78	—	Injection
199-H4-79	—	Injection
199-H4-80	3/20/2014	Extraction
199-H4-80	6/24/2014	Extraction
199-H4-80	10/28/2014	Extraction
199-H4-80	12/15/2014	Extraction
199-H4-81	3/20/2014	Extraction
199-H4-81	6/24/2014	Extraction

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H4-81	10/28/2014	Extraction
199-H4-81	12/12/2014	Extraction
199-H4-82	3/20/2014	Extraction
199-H4-82	6/24/2014	Extraction
199-H4-82	10/28/2014	Extraction
199-H4-82	12/15/2014	Extraction
199-H4-84	1/22/2014	—
199-H4-84	2/6/2014	—
199-H4-84	3/10/2014	—
199-H4-84	4/4/2014	—
199-H4-84	5/5/2014	—
199-H4-84	6/17/2014	—
199-H4-84	7/18/2014	—
199-H4-84	8/18/2014	—
199-H4-84	9/9/2014	—
199-H4-84	11/5/2014	—
199-H4-84	11/23/2014	—
199-H4-85	2/21/2014	—
199-H4-85	5/5/2014	—
199-H4-85	8/25/2014	—
199-H4-85	10/31/2014	—
199-H4-86	2/21/2014	—
199-H4-86	5/15/2014	—
199-H4-86	8/18/2014	—
199-H4-86	11/7/2014	—
199-H4-90	6/20/2014	—
199-H4-90	9/15/2014	—
199-H4-91	6/24/2014	—
199-H4-91	9/26/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
199-H4-91	12/12/2014	—
199-H5-1A	2/25/2014	—
199-H5-1A	5/5/2014	—
199-H5-1A	8/1/2014	—
199-H5-1A	11/7/2014	—
199-H6-1	5/5/2014	—
199-H6-1	11/5/2014	—
199-H6-2	—	Extraction
199-H6-3	5/12/2014	—
199-H6-3	11/5/2014	—
199-H6-4	5/12/2014	—
199-H6-4	11/7/2014	—
699-86-42	10/21/2014	—
699-87-42A	10/24/2014	—
699-87-55	10/24/2014	—
699-88-41	10/24/2014	—
699-90-45	10/24/2014	—
699-91-46A	10/24/2014	—
699-93-48A	2/27/2014	—
699-93-48A	6/2/2014	—
699-93-48A	8/15/2014	—
699-93-48A	11/3/2014	—
699-94-41	2/27/2014	—
699-94-41	6/2/2014	—
699-94-41	8/8/2014	—
699-94-41	11/3/2014	—
699-94-43	2/24/2014	—
699-94-43	6/2/2014	—
699-94-43	8/8/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
699-94-43	11/3/2014	—
699-95-45	2/24/2014	—
699-95-45	6/6/2014	—
699-95-45	8/15/2014	—
699-95-45	11/3/2014	—
699-95-48	2/27/2014	—
699-95-48	6/6/2014	—
699-95-48	8/15/2014	—
699-95-48	11/4/2014	—
699-95-51	2/14/2014	—
699-95-51	6/2/2014	—
699-95-51	8/15/2014	—
699-95-51	11/4/2014	—
699-96-43	11/21/2014	—
699-96-52B	2/25/2014	—
699-96-52B	6/6/2014	—
699-96-52B	8/22/2014	—
699-96-52B	12/19/2014	—
699-97-41	2/24/2014	—
699-97-41	6/6/2014	—
699-97-41	8/22/2014	—
699-97-41	12/19/2014	—
699-97-43B	10/24/2014	—
699-97-43C	10/24/2014	—
699-97-45	10/24/2014	—
699-97-45B	10/24/2014	—
699-97-48B	10/24/2014	—
699-97-48C	10/24/2014	—
699-97-51A	2/27/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
699-97-51A	6/2/2014	—
699-97-51A	8/15/2014	—
699-97-51A	11/3/2014	—
699-98-43	10/24/2014	—
699-98-46	2/25/2014	—
699-98-46	6/6/2014	—
699-98-46	8/25/2014	—
699-98-46	11/4/2014	—
699-98-49A	2/27/2014	—
699-98-49A	6/2/2014	—
699-98-49A	8/15/2014	—
699-98-49A	11/4/2014	—
699-98-51	2/25/2014	—
699-98-51	6/6/2014	—
699-98-51	8/25/2014	—
699-98-51	11/21/2014	—
699-99-41	2/25/2014	—
699-99-41	6/6/2014	—

Table A-7. Extraction, Injection, and Monitoring Wells for 100-HR-3

Well Name	Sample Date	Comment
699-99-41	8/25/2014	—
699-99-41	11/7/2014	—
699-99-44	3/3/2014	—
699-99-44	6/6/2014	—
699-99-44	8/25/2014	—
699-99-44	11/14/2014	—
699-100-43B	3/10/2014	—
699-100-43B	4/9/2014	—
699-100-43B	7/30/2014	—
699-100-43B	10/24/2014	—
699-101-45	1/31/2014	—
699-101-45	4/9/2014	—
699-101-45	7/18/2014	—
699-101-45	10/24/2014	—
199-D5-131	—	Extraction

Table A-8. Monitoring Wells and Constituents for the 100-FR-3 Operable Unit

Well	Field	Chromium (Hexavalent)	Nitrate (Anions)	Strontium-90	Trichloroethene (VOA)	Uranium (Total)	Trace Metals	Alkalinity	6010 Metals	Sampled as Planned in 2014?
199-F1-2	BO	—	BO	—	—	—	BO	—	—	Yes
199-F5-1	S	A	A	S	—	—	A	—	—	Yes
199-F5-4	A	A	A	—	A	—	A	—	—	Yes
199-F5-6	S	S	A	A	—	—	A	A	A	Yes
199-F5-43A	A	A	A	A	—	—	A	—	—	Yes
199-F5-44	A	A	A	A	—	—	A	—	—	Yes
199-F5-45	A	A	A	—	A	—	A	—	—	Yes
199-F5-46	S	A	A	S	A	—	A	—	—	Yes
199-F5-47	A	A	A	BO	—	—	A	—	—	Yes
199-F5-48	A	A	A	BO	A	—	A	—	—	Yes
199-F5-52	BO	BO	BO	—	—	—	BO	—	—	Yes
199-F5-53	BO	BO	BO	BO	—	—	BO	—	—	Yes
199-F5-54	BO	BO	BO	BO	—	—	BO	—	—	Yes
199-F5-55	S	A	A	S	—	—	A	—	—	Yes
199-F5-56	A	A	A	A	—	A	A	—	—	Yes
199-F6-1	A	A	A	A	—	—	A	—	—	Yes
199-F7-1	A	—	A	—	A	—	A	A	A	Yes
199-F7-2	BO	BO	BO	—	BO	—	BO	—	—	Yes
199-F7-3	A	—	A	—	A	—	A	—	—	Yes
199-F8-3	BO	BO	BO	—	—	—	BO	—	—	Yes
199-F8-4	BO	BO	BO	—	—	—	BO	BO	BO	Yes
199-F8-7	BO	—	BO	BO	BO	—	BO	—	—	Yes
699-60-32	BO	—	BO	—	—	—	—	—	—	Yes
699-62-31	BO	—	BO	—	—	—	—	—	—	Yes
699-63-25A	BO	—	BO	—	—	—	—	—	—	Yes
699-64-27	BO	—	BO	—	—	—	—	—	—	Yes
699-66-23	BO	—	BO	—	—	—	—	—	—	Yes

Table A-8. Monitoring Wells and Constituents for the 100-FR-3 Operable Unit

Well	Field	Chromium (Hexavalent)	Nitrate (Anions)	Strontium-90	Trichloroethene (VOA)	Uranium (Total)	Trace Metals	Alkalinity	6010 Metals	Sampled as Planned in 2014?
699-71-30	A	—	A	—	A	—	—	A	A	Yes
699-77-36	A	—	A	—	A	—	—	—	—	Yes
699-77-54	BO	BO	BO	—	BO	—	—	—	—	Yes
699-81-38	BO	BO	BO	—	BO	—	—	—	—	Yes
699-83-47	BO	BO	BO	—	BO	—	—	—	—	Yes
Aquifer Tubes[a]										
62-M	A	A	A	—	—	—	—	A	A	Yes
64-M	A	A	A	A	—	—	—	—	—	Yes
67-M	A	A	A	—	—	—	—	—	—	Yes
72-M	A	A	A	—	—	—	—	—	—	No access
74-D	A	A	A	—	—	—	—	—	—	Yes
75-D	A	A	A	—	—	—	—	A	A	Yes
76-D	A	A	A	—	—	—	—	—	—	Yes
77-D	A	A	A	—	—	—	—	—	—	No; damaged
C6302	A	A	A	A	—	—	—	—	—	Yes
C6303	A	A	A	—	—	—	—	—	—	Yes
C6306	A	A	A	A	—	—	—	A	A	Yes
C6309	A	A	A	A	—	—	—	—	—	Yes
C6315	A	A	A	—	—	—	—	—	—	Yes

Notes:

Sampling requirements are from *100-FR-3 Operable Unit Sampling and Analysis Plan* (DOE/RL-2003-49, Rev. 2)

All wells are screened in the unconfined aquifer, except 199-F5-53, which is screened in the Ringold Formation aquitard.

a. Aquifer tubes were incorporated into DOE/RL-2003-49, Rev. 2.

A = to be sampled annually

BO = to be sampled biennially, odd fiscal years (October 2014 for fiscal year 2015)

S = to be sampled semiannually

TCE = trichloroethene

VOA = volatile organic analyte

Table A-9. Monitoring Wells and Constituents for the 300-FF-5 Operable Unit, 300 Area[a]

Well Name	Hydrologic Unit Monitored	cis-1,2-Dichloroethene	Trichloroethene	Uranium, Total (Unfiltered)	Tetrachloroethene	Strontium-90	Tritium	Nitrate	Anions	Alkalinity	Metals	Volatile Organic Compounds	Gross Alpha/Beta	Uranium, Isotopic	Sampled as Planned in 2014?
399-1-1	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-10A	TU	S	S	Q	S	—	A	Q	Q	Q	S	S	S	A	Yes
399-1-10B	LU	S	S	S	S	—	—	S	S	S	S	S	—	—	Yes
399-1-11	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-12	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-15	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-16A	TU	S	S	Q	S	—	A	Q	Q	Q	S	S	S	A	Yes
399-1-16B	LU	S	S	S	S	—	—	S	S	S	S	S	—	—	Yes
399-1-17A	TU	S	S	Q	S	—	A	Q	Q	Q	S	S	S	A	Yes
399-1-17B	LU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-18A	TU	—	—	S	—	—	S	S	S	S	S	—	—	—	Yes
399-1-18B	LU	—	—	S	—	—	S	S	S	S	S	—	—	—	Yes
399-1-2	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-21A	TU	S	S	Q	S	—	A	Q	Q	Q	S	S	S	A	Yes
399-1-21B	LU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-57	LU	S	S	—	S	—	—	—	—	—	—	S	—	—	Yes

Table A-9. Monitoring Wells and Constituents for the 300-FF-5 Operable Unit, 300 Area[a]

Well Name	Hydrologic Unit Monitored	cis-1,2-Dichloroethene	Trichloroethene	Uranium, Total (Unfiltered)	Tetrachloroethene	Strontium-90	Tritium	Nitrate	Anions	Alkalinity	Metals	Volatile Organic Compounds	Gross Alpha/Beta	Uranium, Isotopic	Sampled as Planned in 2014?
399-1-59	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-1-6	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-7	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-1-8	LU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-2-1	TU	S	S	Q	S	—	A	Q	Q	Q	S	S	S	A	Yes
399-2-2	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-2-32	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-2-5	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-3-1	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-3-10	TU	S	S	Q	S	—	A	Q	Q	Q	S	S	S	A	Yes
399-3-12	TU	S	S	Q	S	Q	—	S	Q	S	S	S	—	—	Yes[b]
399-3-18	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-3-19	TU	S	S	Q	S	Q	A	Q	Q	Q	S	S	S	A	Yes[b]
399-3-2	TU	S	S	S	S	—	—	S	S	S	S	S	—	—	No[c]
399-3-20	TU	S	S	Q	S	Q	A	Q	Q	Q	S	S	S	A	Yes[b]
399-3-22	LU	—	—	Q	—	Q	—	—	Q	—	—	—	—	—	Yes[b]

Table A-9. Monitoring Wells and Constituents for the 300-FF-5 Operable Unit, 300 Area[a]

Well Name	Hydrologic Unit Monitored	cis-1,2-Dichloroethene	Trichloroethene	Uranium, Total (Unfiltered)	Tetrachloroethene	Strontium-90	Tritium	Nitrate	Anions	Alkalinity	Metals	Volatile Organic Compounds	Gross Alpha/Beta	Uranium, Isotopic	Sampled as Planned in 2014?
399-3-33	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-3-34	TU	—	—	Q	—	Q	—	—	Q	—	—	—	—	—	Yes[b]
399-3-38	TU	—	—	Q	—	Q	—	—	Q	—	—	—	—	—	Yes[b]
399-3-6	TU	S	S	S	S	—	—	S	S	S	S	S	—	—	Yes
399-3-9	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-4-1	TU	S	S	S	S	—	—	S	S	S	S	S	—	—	Yes
399-4-10	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-4-12	TU	S	S	S	S	—	—	S	S	S	S	S	—	—	Yes
399-4-14	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-4-15	TU	—	—	Q	—	Q	—	—	Q	—	—	—	—	—	Yes[b]
399-4-7	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-4-9	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes
399-5-4B	TU	S	S	S	S	—	—	S	S	S	S	S	—	—	Yes
399-6-3	TU	—	—	S	—	—	—	—	—	—	—	—	—	—	Yes
399-8-5A	TU	S	S	S	S	—	—	S	S	S	S	S	S	—	Yes

Table A-9. Monitoring Wells and Constituents for the 300-FF-5 Operable Unit, 300 Area[a]

Well Name	Hydrologic Unit Monitored	cis-1,2-Dichloroethene	Trichloroethene	Uranium, Total (Unfiltered)	Tetrachloroethene	Strontium-90	Tritium	Nitrate	Anions	Alkalinity	Metals	Volatile Organic Compounds	Gross Alpha/Beta	Uranium, Isotopic	Sampled as Planned in 2014?

Note: Per TPA-CN-609 and TPA-CN-610 (both dated February 11, 2014), no further groundwater sampling will be conducted under the *300 Area Remedial Investigation/Feasibility Study Work Plan for the 300-FF-1, 300-FF-2, and 300-FF-5 Operable Units* (DOE/RL-2009-30) or the *300 Area Remedial Investigation/Feasibility Study Sampling and Analysis Plan for the 300-FF-1, 300-FF-2, and 300-FF-5 Operable Units* (DOE/RL-2009-45).

a. Sampling requirements are from the *300-FF-5 Operable Unit Sampling and Analysis Plan* (DOE/RL-2002-11) as modified by TPA-CN-611, *Tri-Party Agreement Change Notice 611* (February 11, 2014).

b. Per TPA-CN-611, well sampled quarterly for phosphate, strontium-90, cesium-137 (well 399-3-12 only), and uranium during calendar year 2014 to monitor potential impacts from remediation of the 340 Vault.

c. December 2014 sample delayed to January 2015.

A = to be sampled annually

LU = lower portion of unconfined aquifer

Q = to be sampled quarterly

S = to be sampled semiannually

TU = upper portion of unconfined aquifer, including water table

Table A-10. Monitoring Wells and Constituents for the 300-FF-5 Operable Unit, 618-10/316-4 Subregion[a]

Well[b]	Uranium, Total	Tributyl Phosphate	Gross Alpha/Beta	Nitrate	Alkalinity	Metals	Volatile Organic Compounds	Tritium	Technetium-99	Uranium, Isotopic	Sampled as Planned in 2014?
699-S6-E4A	Q	S	Q	Q	S	S	S	S	S	A	Yes
699-S6-E4B	S	—	S	S	S	S	—	S	—	—	Yes[c]
699-S6-E4D	A	—	A	A	A	A	—	A	A	—	Yes
699-S6-E4E	S	—	S	S	S	S	—	S	—	—	Yes
699-S6-E4K	S	S	S	S	S	S	S	S	S	A	Yes
699-S6-E4L	Q[d]	S	Q[d]	Q[d]	S	S	S	S	S	A	Yes

a. Sampling requirements are from the *300-FF-5 Operable Unit Sampling and Analysis Plan* (DOE/RL-2002-11) as modified by TPA-CN-611, *Tri-Party Agreement Change Notice 611* (February 11, 2014).

b. Wells are completed at the top of the unconfined aquifer.

c. June 2014 sample delayed until September 2014.

d. The samples collected in March 2014 fulfill the delayed December 2013 sample requirements as well as the first quarterly sample requirements for 2014.

A = to be sampled annually

Q = to be sampled quarterly

S = to be sampled semiannually

Table A.11. Monitoring Wells and Constituents for the 300-FF-5 Operable Unit, 618-11 Subregion[a]

Well[b]	Tritium	Gross Alpha/Beta	Uranium, Total (Unfiltered)	Technetium-99	Nitrate	Alkalinity	Anions	Metals	Sampled as Planned in 2014?
699-12-2C	Q	Q	S	S	S	S	S	S	Yes
699-13-0A	S	S	—	—	S	S	S	S	Yes
699-13-1E	S	S	—	—	S	S	S	S	Yes
699-13-2D	Q	Q	S	S	S	S	S	S	Yes
699-13-3A	Q	Q	S	S	S	S	S	S	Yes

a. Sampling requirements are from the *300-FF-5 Operable Unit Sampling and Analysis Plan* (DOE/RL-2002-11) as modified by TPA-CN-611, *Tri-Party Agreement Change Notice 611* (February 11, 2014).

b. Wells are completed at the top of the unconfined aquifer.

A = to be sampled annually

Q = to be sampled quarterly

S = to be sampled semiannually

Table A-12. Monitoring Wells and Constituents for the Former 1100-EM-1 Operable Unit

Well	1,1-Dichloroethene	Trichloroethene	Vinyl Chloride	Anions*	Sampled as Scheduled in 2014?
699-S28-E12	A	A	A	A	Yes
699-S31-E10A	A	A	A	A	Yes
699-S31-E10C	A	A	A	A	Delayed to 2015; broken pump

Note: Sampling requirements are from TPA-CN-163, *Change Notice for Modifying Approved Documents/Workplans In Accordance with the Tri-Party Agreement Action Plan, Section 9.0, Documentation and Records*; PNNL-12220, *Sampling and Analysis Plan Update for Groundwater Monitoring – 1100-EM-1 Operable Unit*.

* Supplemental analyses.

A = to be sampled annually

Table A-13. Monitoring Wells, Constituents, and Sampling Frequency for the 200-ZP-1 Operable Unit in 2014

Well Name	Carbon Tetrachloride	Chromium	Hexavalent Chromium	Iodine-129	Nitrate	Techneitum-99	Trichloroethene	Tritium	Uranium	Sampled as Scheduled in 2014?
299-W10-1	A	A	A	5	A	5	A	5	5	Yes
299-W10-14	A	5	5	5	A	5	A	5	5	Yes
299-W10-27	A	A	A	A	A	A	A	5	5	Yes
299-W10-30	A	5	5	5	A	5	A	5	5	Yes
299-W10-31	A	5	5	5	A	5	A	5	5	Yes
299-W10-33	A	A	A	5	A	A	A	A	5	Yes
299-W11-13	A	A	A	A	A	A	A	A	5	Yes
299-W11-18	A	A	A	A	A	5	A	A	5	Yes
299-W11-33Q	A	A	A	A	A	A	A	A	5	Yes
299-W11-43	A	A	A	A	A	A	A	A	5	Yes
299-W11-45	A	A	A	A	A	A	A	A	5	Yes[a]
299-W11-47	A	A	A	A	A	A	A	A	5	Yes
299-W11-48	A	A	A	A	A	A	A	A	5	Yes
299-W11-87	A	A	A	5	A	5	A	A	5	Yes
299-W11-88	A	A	A	A	A	5	A	A	5	Yes
299-W13-1	A	5	5	5	A	5	A	5	5	Yes
299-W14-11	A	A	A	A	A	A	A	A	5	Yes
299-W14-13	A	A	A	A	A	A	A	A	5	Yes
299-W14-14	A	A	A	A	A	A	A	A	5	Yes
299-W14-71	A	—	—	—	—	—	A	—	—	Yes
299-W14-72	A	5	5	5	A	5	A	5	5	Yes
299-W15-11	A	5	5	5	A	A	A	5	5	Yes
299-W15-152	A	5	5	5	A	5	A	5	5	Yes
299-W15-17	A	5	5	5	A	5	A	5	5	Yes
299-W15-33	A	5	5	5	A	A	A	5	5	Yes
299-W15-37	A	—	—	—	—	—	A	—	—	Yes

Table A-13. Monitoring Wells, Constituents, and Sampling Frequency for the 200-ZP-1 Operable Unit in 2014

Well Name	Carbon Tetrachloride	Chromium	Hexavalent Chromium	Iodine-129	Nitrate	Techneitum-99	Trichloroethene	Tritium	Uranium	Sampled as Scheduled in 2014?
299-W15-42	A	5	5	A	A	A	A	5	5	Yes
299-W15-46	A	5	5	5	A	A	A	5	5	Yes
299-W15-49	A	5	5	5	A	A	A	5	5	Yes
299-W15-50	A	5	5	5	A	A	A	5	5	Yes
299-W15-7	A	5	5	5	A	5	A	5	5	Yes
299-W15-763	A	5	5	5	A	A	A	A	5	Yes
299-W15-765	A	A	A	5	A	A	A	A	5	Yes
299-W15-83	A	5	5	5	A	5	A	5	5	Yes
299-W15-94	A	5	5	5	A	5	A	5	5	Yes
299-W18-1	A	5	5	A	A	A	A	5	5	Yes
299-W18-15	A	—	—	—	—	—	A	—	—	Yes
299-W18-16	A	5	5	5	A	A	A	5	5	Yes
299-W18-21	A	—	—	—	—	—	A	—	—	Yes
299-W18-22	A	—	—	—	—	—	A	—	—	Yes
299-W18-40	A	—	—	—	—	—	A	—	—	Yes
299-W19-105	A	—	—	—	—	—	A	—	—	Yes
299-W19-107	A	—	—	—	—	—	A	—	—	Yes
299-W19-18	A	—	—	—	—	—	A	—	—	Yes
299-W19-34A	A	—	—	—	—	—	A	—	—	Yes
299-W19-34B	A	—	—	—	—	—	A	—	—	Yes
299-W19-36	A	—	—	—	—	—	A	—	—	Yes
299-W19-4	A	—	—	—	—	—	A	—	—	Yes
299-W19-41	A	—	—	—	—	—	A	—	—	Yes
299-W19-47	A	—	—	—	—	—	A	—	—	Yes
299-W19-48	A	—	—	—	—	—	A	—	—	Yes
299-W19-49	A	—	—	—	—	—	A	—	—	Yes

Table A-13. Monitoring Wells, Constituents, and Sampling Frequency for the 200-ZP-1 Operable Unit in 2014

Well Name	Carbon Tetrachloride	Chromium	Hexavalent Chromium	Iodine-129	Nitrate	Techneitum-99	Trichloroethene	Tritium	Uranium	Sampled as Scheduled in 2014?
299-W19-6	A	—	—	—	—	—	A	—	—	Yes
299-W21-2	A	—	—	—	—	—	A	—	—	Yes
299-W22-24S[b]	A	—	—	—	—	—	A	—	—	No
299-W22-47	A	—	—	—	—	—	A	—	—	Yes
299-W22-72	A	—	—	—	—	—	A	—	—	Yes
299-W22-86	A	—	—	—	—	—	A	—	—	Yes
299-W22-87	A	—	—	—	—	—	A	—	—	Yes
299-W22-88	A	—	—	—	—	—	A	—	—	Yes
299-W23-19	A	—	—	—	—	—	A	—	—	Yes
299-W23-4	A	—	—	—	—	—	A	—	—	Yes
299-W26-13	A	—	—	—	—	—	A	—	—	Yes
299-W27-2	A	—	—	—	—	—	A	—	—	Yes
299-W6-3	A	5	5	5	A	A	A	5	5	Yes
299-W6-6	A	5	5	5	A	A	A	5	5	Yes
299-W7-3	A	5	5	5	A	5	A	5	5	Yes
699-30-66	A	—	—	—	—	—	A	—	—	Yes
699-32-62	A	—	—	—	—	—	A	—	—	Yes
699-32-72A	A	—	—	—	—	—	A	—	—	Yes
699-33-75	A	—	—	—	—	—	A	—	—	Yes
699-34-61	A	—	—	—	—	—	A	—	—	Yes
699-35-66A	A	—	—	—	—	—	A	—	—	Yes
699-35-78A	A	—	—	—	—	—	A	—	—	Yes
699-36-61A	A	—	—	—	—	—	A	—	—	Yes
699-36-66B	A	—	—	—	—	—	A	—	—	Yes
699-36-70A	A	—	—	—	—	—	A	—	—	Yes
699-36-70B	A	—	—	—	—	—	A	—	—	Yes

Table A-13. Monitoring Wells, Constituents, and Sampling Frequency for the 200-ZP-1 Operable Unit in 2014

Well Name	Carbon Tetrachloride	Chromium	Hexavalent Chromium	Iodine-129	Nitrate	Techneitum-99	Trichloroethene	Tritium	Uranium	Sampled as Scheduled in 2014?
699-37-66	A	—	—	—	—	—	A	—	—	Yes
699-38-61	A	—	—	—	—	—	A	—	—	Yes
699-38-65	A	—	—	—	—	—	A	—	—	Yes
699-38-68A	A	—	—	—	—	—	A	—	—	Yes
699-38-70B	A	—	—	—	—	—	A	—	—	Yes
699-38-70C	A	—	—	—	—	—	A	—	—	Yes
699-40-62	A	—	—	—	—	—	A	—	—	Yes
699-40-65	A	—	—	—	—	—	A	—	—	Yes
699-43-69	A	A	A	5	A	5	A	5	5	Yes
699-44-64	A	5	5	5	A	A	A	5	5	Yes
699-45-69A	A	5	5	5	A	5	A	5	5	Yes
699-45-69C	A	5	5	5	A	5	A	5	5	Yes
699-47-60	A	5	5	5	A	5	A	5	5	Yes
699-48-71	A	A	A	A	A	A	A	A	5	Yes
699-50-74	A	5	5	5	A	5	A	5	5	Yes
699-51-63	A	5	5	5	A	5	A	5	5	Yes

Note: Requirements are from DOE/RL-2009-124, *200 West Area Pump-and-Treat Facility Operations and Maintenance Plan*, Rev. 3; and DOE/RL-2009-115, *Performance Monitoring Plan for the 200-ZP-1 Groundwater Operable Unit Remedial Action*, Rev. 1.

a. Former extraction well 299-W11-45 has been offline since February 2015 and was converted to a monitoring well in October 2014.

b. Wells 299-W22-24S cannot be sampled as currently configured and was removed from the sampling schedule in 2014.

A = annual sampling

5 = sampled every 5 years in preparation for the CERCLA 5-year review

Table A-14. Monitoring Wells and Constituents for the 200-UP-1 Operable Unit

Well Name	Volatile Organic Analytes				Anions	Metals[a]	Radionuclides						Sampled as Scheduled in 2014?
	Carbon Tetrachloride	Chloroform	1,4-Dioxane	Trichloroethene	Nitrate	Chromium (Total)	Iodine-129	Selenium-79	Strontium-90	Technetium-99	Tritium	Uranium	
299-W15-37	A	A	—	A	A	—	—	—	—	—	—	A	Yes
299-W18-15	A	A	—	A	A	—	—	—	—	—	—	A	Yes
299-W18-21	A	—	—	A	A	—	—	—	—	A	—	A	Yes
299-W18-22	A	—	—	A	A	—	—	—	—	A	—	A	Yes
299-W19-101	A	—	—	A	A	—	A	—	—	A	A	A	Yes
299-W19-105	SA	—	—	—	SA	—	SA	—	—	SA	SA	SA	Yes
299-W19-107	A	—	—	A	A	—	A	—	—	A	—	A	Yes
299-W19-18	A	—	—	—	A	—	A	—	—	A	—	A	No; February event delayed until April; well nearly dry
299-W19-34A	A	A	—	A	A	—	A	—	—	A	—	A	Yes
299-W19-34B	BE	BE	—	BE	BE	—	BE	—	—	BE	—	BE	Yes
299-W19-35	SA	—	—	SA	SA	—	SA	—	—	SA	—	SA	No; August sample event cancelled; dry
299-W19-36	A	A	—	A	A	—	A	—	—	A	—	A	Yes
299-W19-39	SA	SA	—	SA	SA	—	SA	—	—	SA	—	SA	Yes
299-W19-4	BO	—	—	BO	BO	—	BO	—	—	BO	—	BO	Not scheduled
299-W19-43	SA	SA	—	SA	SA	—	SA	—	—	SA	—	SA	Yes

Table A-14. Monitoring Wells and Constituents for the 200-UP-1 Operable Unit

Well Name	Volatile Organic Analytes				Anions	Metals[a]	Radionuclides						Sampled as Scheduled in 2014?
	Carbon Tetrachloride	Chloroform	1,4-Dioxane	Trichloroethene	Nitrate	Chromium (Total)	Iodine-129	Selenium-79	Strontium-90	Technetium-99	Tritium	Uranium	
299-W19-46	SA	SA	—	SA	SA	—	SA	—	—	SA	SA	SA	Yes
299-W19-48	SA	—	—	SA	SA	—	SA	—	—	SA	SA	SA	Yes
299-W19-49	SA	—	—	—	SA	—	SA	—	—	SA	SA	SA	Yes
299-W21-2	A	—	—	—	A	—	A	—	A	A	A	A	Yes
299-W22-45	A	—	—	A	A	—	A	—	A	—	A	A	No; June event delayed until July; access restricted due to tank vapors
299-W22-49	SA	—	—	SA	SA	—	SA	—	SA	SA	SA	SA	No; dry; replaced by 299-W22-113 for December sample event (delayed till Jan. 2015)
299-W22-69	A	—	—	—	A	—	A	—	—	A	A	—	Yes
299-W22-72	A	—	—	—	A	—	A	—	A	A	A	A	Yes
299-W22-83	SA	—	—	SA	SA	—	SA	SA	SA	SA	SA	SA	Yes
299-W22-86	SA	—	—	SA	SA	SA	SA	SA	—	SA	SA	—	Yes
299-W22-87	A	—	—	—	A	—	A	—	—	A	A	A	Yes
299-W22-88	—	—	—	—	A	—	A	—	—	A	A	A	Yes
299-W22-95[b]	Q/A[b]	—	—	—	Q/A[b]	Q/A[b]	Q/A[b]	—	—	Q/A[b]	Q/A[b]	—	Yes

Table A-14. Monitoring Wells and Constituents for the 200-UP-1 Operable Unit

Well Name	Volatile Organic Analytes				Anions	Metals[a]	Radionuclides						Sampled as Scheduled in 2014?
	Carbon Tetrachloride	Chloroform	1,4-Dioxane	Trichloroethene	Nitrate	Chromium (Total)	Iodine-129	Selenium-79	Strontium-90	Technetium-99	Tritium	Uranium	
299-W22-96	A	—	—	—	A	A	A	—	—	A	A	—	Yes
299-W22-113	SA	—	—	SA	SA	—	SA	—	SA	SA	SA	SA	No; replacement for 299-W22-49; scheduled for December but not sample ready until January 2015
299-W23-15	A	A	—	—	A	—	—	—	—	A	A	A	No; June event delayed until August due to pump problem
299-W23-21	A	—	—	—	A	—	—	—	—	A	A	A	Yes
299-W23-4	A	A	—	A	A	—	—	—	—	—	A	A	Yes
299-W26-13	BO	—	—	BO	BO	—	BO	—	—	—	BO	BO	Not scheduled
299-W26-14	BE	—	—	BE	BE	—	BE	—	—	BE	BE	BE	Yes
699-30-66	SA	—	—	—	SA	SA	SA	—	—	—	SA	SA	Yes
699-32-62	—	—	—	—	BO	BO	BO	—	—	—	BO	—	Not scheduled
699-32-72A	—	—	—	BO	BO	—	BO	—	—	—	BO	—	Yes
699-32-76	BO	—	—	—	BO	BO	BO	—	—	—	—	—	Not scheduled
699-33-74	A	—	—	A	A	A	A	—	—	A	A	A	Yes
699-33-75	SA	—	—	SA	SA	SA	SA	—	—	—	SA	SA	Yes

Table A-14. Monitoring Wells and Constituents for the 200-UP-1 Operable Unit

Well Name	Volatile Organic Analytes				Anions	Metals[a]	Radionuclides						Sampled as Scheduled in 2014?
	Carbon Tetrachloride	Chloroform	1,4-Dioxane	Trichloroethene	Nitrate	Chromium (Total)	Iodine-129	Selenium-79	Strontium-90	Technetium-99	Tritium	Uranium	
699-33-76	A	—	—	—	A	A	A	—	—	—	—	—	Yes
699-34-61	—	—	—	—	A	A	A	—	—	—	A	—	Yes
699-34-72	A	—	A	—	A	A	A	—	A	A	A	A	Yes
699-35-66A	BO	—	—	—	BO	BO	BO	—	—	—	BO	—	Not scheduled
699-35-78A	A	—	—	—	A	—	—	—	—	—	—	A	No; delayed until January 2014
699-36-61A	—	—	—	—	BE	BE	BE	—	—	—	BE	—	Yes
699-36-66B	—	—	—	—	A	—	A	—	—	—	A	—	Yes
699-36-70A	A	—	—	—	A	—	A	—	—	A	A	A	Yes
699-36-70B	A	—	—	A	A	—	A	—	—	A	A	A	Yes
699-37-66	—	—	—	—	A	—	A	—	—	—	A	—	Yes
699-38-61	—	—	—	—	A	—	A	—	—	—	A	—	Yes
699-38-65	—	—	—	—	A	—	A	—	—	—	A	—	Yes
699-38-68A	BO	—	—	BO	BO	—	BO	—	—	BO	BO	BO	Not scheduled
699-38-70B	A	—	—	A	A	—	A	—	—	A	A	A	Yes
699-38-70C	A	—	—	—	A	—	A	—	—	A	A	A	Yes
699-40-62	—	—	—	—	BO	—	BO	—	—	BO	BO	BO	Not scheduled

Table A-14. Monitoring Wells and Constituents for the 200-UP-1 Operable Unit

Well Name	Volatile Organic Analytes				Anions	Metals[a]	Radionuclides						Sampled as Scheduled in 2014?
	Carbon Tetrachloride	Chloroform	1,4-Dioxane	Trichloroethene	Nitrate	Chromium (Total)	Iodine-129	Selenium-79	Strontium-90	Technetium-99	Tritium	Uranium	
699-40-65	A	—	—	—	A	—	A	—	—	A	A	—	Yes

Note: Requirements are from Appendix B of *200-UP-1 Groundwater Operable Unit Remedial Design/Remedial Action Work Plan* (DOE/RL-2013-07).

a. Filtered and unfiltered analyses.

b. Sample quarterly for one year after drilling, then annually thereafter. Quarterly sampling began during December 2013.

A = to be sampled annually

BE = to be sampled every other year (biennially) in even fiscal years

BO = to be sampled every other year (biennially) in odd fiscal years

Q = to be sampled quarterly

SA = to be sampled semiannually

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
299-E24-8	3-16	3-16	—	3-16	3-16	—	—	—	3-16	—	—	3-16	—	3-16	—	—	—	Not required
299-E24-25*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
299-E26-10	—	—	—	A	A	—	—	—	A	—	—	—	—	—	—	—	—	Yes
299-E26-11	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	3-16	—	—	—	Not required, but sampled
299-E27-7	—	—	—	A	A	—	—	A	A	—	—	—	—	A	—	—	—	Yes
299-E27-10	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	3-16	—	—	—	Not required, but sampled
299-E27-14	—	—	—	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
299-E27-15	—	—	—	—	A	—	—	A	—	—	A	—	—	—	A	—	—	Yes
299-E27-17	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	3-16	—	—	—	Not required, but sampled
299-E27-18	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	3-16	—	—	—	Not required, but sampled
299-E27-155*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
299-E28-2	A	—	—	A	A	A	A	A	A	—	A	A	—	—	A		—	Yes, no Tc-99 or tritium analyzed

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
299-E28-5	A	—	—	3-16	3-16	A	A	—	3-16	A	—	3-16	—	3-16	—	—	—	Yes
299-E28-6	A	A	—	3-16	3-16	A	A	—	3-16	A	—	3-16	—	3-16	—	—	—	Yes
299-E28-8	A	—	—	—	—	A	A	A	—	A	—	—	—	—	—	—	—	Yes
299-E28-17	A	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	3 16	—	—	—	Not required, but sampled
299-E28-18	—	—	—	A	A	—	—	—	A	A	—	A	—	A	—	—	—	Yes
299-E28-21	—	—	—	—	—	—	—	—	—	A	—	—	—	—	—	—	—	Yes
299-E28-23	A	—	—	—	—	A	A	—	—	A	—	A	A	—	—	A	—	Yes
299-E28-24	A	—	—	—	—	A	A	—	A	A	—	A	A	—	—	A	—	Yes
299-E28-25	A	—	—	A	A	A	A	—	A	A	—	A	A	A	—	A	—	Yes
299-E28-26	—	—	—	3-16	A	—	—	A	3-16	A	—	—	—	3-16	—	—	—	Yes
299-E28-27	A	—	—	A	A	A	A	A	3-16	A	—	—	—	—	—	—	—	Yes
299-E28-28	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required, but sampled

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
299-E28-30*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		Yes
299-E29-54*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		Yes
299-E32-2	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
299-E32-4	—	—	—	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
299-E32-5	—	—	—	3-16	3-16	—	—	—	3-16	3-16	—	—	—	—	—	—	—	Not required, but sampled
299-E32-6	—	—	—	3-16	A	—	—	A	3-16	3-16	—	—	—	—	—	—	—	Yes
299-E32-7	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
299-E32-8	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
299-E32-9	—	—	3-16	A	A	—	—	—	3-16	—	—	—	—	—	—	—	—	Yes
299-E32-10	—	A	A	3-16	3-16	—	—	A	3-16	A	—	—	—	3-16	—	—	—	Yes
299-E33-7	A	A	A	A	A	—	—	A	A	A	—	A	—	—	—	—	—	Yes

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
299-E33-13	—	—	A	—	—	—	—	—	—	A	—	—	—	—	—	—	—	No, two unsuccessful attempts in 2014. Declared sample dry
299-E33-15	—	—	—	—	A	—	—	A	—	—	—	—	—	—	—	—	—	Yes
299-E33-16	—	—	A	A	A	—	—	A	—	A	—	—	—	—	—	—	—	Yes
299-E33-18	—	—	—	A	A	—	—	A	—	A	—	—	—	—	—	—	—	No, decommissioned 2013
299-E33-26	—	A	A	3-16	3-16	—	—	A	3-16	A	—	3-16	—	—	—	—	—	No, dry well
299-E33-28	—	—	—	—	A	—	—	A	—	—	—	—	—	—	—	—	—	Yes
299-E33-29	—	—	—	3-16	3-16	—	—	3-16	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
299-E33-30	—	—	—	—	A	—	—	A	—	—	—	—	—	—	—	—	—	Yes
299-E33-32	—	—	—	3-16	3-16	—	—	3-16	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
299-E33-33	—	—	—	3-16	3-16	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	Not required, but sampled
299-E33-34	—	A	A	A	A	—	—	A	A	A	—	—	—	—	—	—	—	Yes

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
299-E33-35	3-16	3-16	A	3-16	A	—	—	A	3-16	A	—	—	—	—	—	—	—	Yes
299-E33-37	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
299-E33-38	—	A	A	A	A	A	A	A	A	A	—	A	—	A	—	—	—	Yes
299-E33-39	—	—	A	A	A	—	—	A	A	A	—	—	—	—	—	—	—	Yes
299-E33-41	3-16	3-16	3-16	3-16	3-16	—	—	A	3-16	A	—	—	—	—	—	—	—	Yes
299-E33-42	—	—	—	A	—	—	—	A	—	A	—	—	—	—	—	—	—	Yes
299-E33-43	—	—	—	A	—	—	—	A	—	A	—	—	—	—	—	—	—	Yes
299-E33-44	—	A	—	—	—	—	—	A	—	A	—	—	—	—	—	—	—	Yes
299-E33-50*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
299-E33-205*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	No, access issue
299-E33-334	—	—	—	—	A	—	—	A	—	A	—	—	—	—	—	—	—	Yes
299-E33-335	—	—	—	—	—	A	—	A	—	—	—	—	—	—	—	—	—	Yes, no Pu-239/240 analyzed
299-E33-338	—	—	—	—	—	—	—	A	—	A	—	—	—	—	—	—	—	Yes
299-E33-340*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
299-E33-341*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
299-E33-342*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
299-E33-343*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Not accessible
299-E33-345*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
299-E34-2	—	—	—	A	A	—	—	—	A	—	—	—	—	—	—	—	—	Yes
299-E34-9	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
699-44-39B	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Yes
699-45-42	—	—	—	3-16	3-16	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required
699-47-60	—	—	—	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
699-48-50B*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
699-49-55A	A	A	A	A	A	A	A	A	A	A	—	A	—	—	—	—	—	Yes, no alpha/beta analyzed
699-49-57A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	—	—	—	Yes
699-49-57B	A	A	A	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
699-50-56*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
699-50-59	—	—	A	A	A	—	—	A	—	A	—	—	—	—	—	—	—	Yes
699-52-55*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
699-52-55B*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	—	Yes
699-53-47A	—	—	—	—	A	—	A	—	A	—	—	A	—	—	—	—	—	No, dry well
699-53-47B	—	—	—	—	3-15	—	3-15	—	—	—	—	—	—	—	—	—	—	Not required, but sampled
699-53-48A	—	—	—	A	A	—	A	—	A	—	—	A	—	—	A	—	—	Yes, no metals analyzed
699-53-55A	—	A	A	—	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
699-53-55B	—	A	A	—	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
699-53-55C	—	A	A	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
699-54-45A	—	—	—	—	3-15	—	—	—	—	—	—	—	—	—	—	—	—	Not required
699-54-45B	—	—	—	—	3-15	—	—	—	—	—	—	—	—	—	—	—	—	Not required
699-54-48	—	—	—	—	—	—	3-15	—	—	—	—	—	—	—	—	—	—	Not required

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
699-54-49	—	—	—	—	A	—	A	—	A	—	—	A	—	—	—	—	—	Yes
699-55-50C	—	—	—	A	A	—	A	A	A	—	—	—	—	—	—	—	—	Yes
699-55-57	—	A	A	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
699-55-60A	—	A	A	A	A	—	—	A	A	—	—	—	—	—	—	—	—	Yes
699-57-59	A	A	A	A	A	A	A	A	A	A	A	A	—	—	A	—	A	Yes
699-59-58	A	A	A	A	A	A	A	A	A	A	A	A	—	—	A	—	A	Yes
699-60-60	A	A	A	A	A	A	A	A	A	A	A	A	—	—	A	—	A	Yes
699-61-62	A	A	A	A	A	A	A	A	A	A	A	A	—	—	A	—	A	Yes
699-61-66	A	A	A	A	A	A	A	A	A	A	A	A	—	—	A	—	A	Yes
699-64-62	A	A	A	A	A	A	A	A	A	A	A	A	—	—	A	—	A	Yes
699-65-50	—	—	—	—	—	—	—	3-16	—	—	—	—	—	—	—	—	—	Not required
699-65-72	—	—	—	—	—	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required
699-66-58	—	—	—	—	—	—	—	3-16	3-16	—	—	—	—	—	—	—	—	Not required

Table A-15. Monitoring Wells and Constituents for the 200-BP-5 Operable Unit

Well	Contaminants of Concern										Supporting Constituents							Sampled as Scheduled in 2014?
	Cesium-137	Cobalt-60	Cyanide	Iodine-129	Nitrate	Plutonium-239/240	Strontium-90	Technetium-99	Tritium	Uranium	Alkalinity	Alpha/Beta	Americium-241	Arsenic	Metals (Filtered)	Neptunium-237	TOC/TOX	
699-66-64	—	—	—	—	—	—	—	3-16	3-16	—	—	—	—	—	—	—	—	Not required
699-70-68	—	—	—	—	—	—	—	3-16	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
699-72-73	—	—	—	—	3-16	—	—	3-16	3-16	—	—	—	—	—	—	—	—	Not required, but sampled
699-73-61	—	—	—	—	—	—	—	—	3-16	—	—	—	—	—	—	—	—	Not required

Note: Sampling requirements are from *Groundwater Sampling and Analysis Plan for the 200-BP-5 Operable Unit* (DOE/RL-2001-49).

* Well was not listed in DOE/RL-2001-49 but was added to the sampling schedule per *Remedial Investigation/Feasibility Study Work Plan for the 200-BP-5 Groundwater Operable Unit* (DOE/RL-2007-18). Wells were also sampled and analyzed for volatile organic analytes and semivolatile organic analytes.

3-xx = to be sampled triennially (every 3 years); xx indicates the fiscal year of sampling for a specified analyte

A = to be sampled annually

CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*

LLWMA = low-level waste management area

TOC = total organic carbon

TOX = total organic halides

Table A-16. Monitoring Wells and Constituents for 200-PO-1 Operable Unit Near-Field Wells

Well Number	Contaminants of Concern					Supporting Constituents					Sampled as Planned in 2014?	Comments
	Field Parameters	Iodine-129	Strontium-90	Technetium-99	Tritium	Gross Alpha	Anions[a]	Gross Beta	Metals[b]	Uranium		
299-E16-2	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E17-1	A	A	A	A	A	A	A	A	A	A	No	Sampled Oct 2013, next sampling event February 2015
299-E17-15	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E17-13	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E17-14	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E17-16	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E17-18	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E17-19	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E17-23	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E17-25	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E18-1	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E23-1	A	A	—	—	A	A	A	A	A	—	No	Delayed 2013 sample collected Aug 2014

Table A-16. Monitoring Wells and Constituents for 200-PO-1 Operable Unit Near-Field Wells

Well Number	Contaminants of Concern					Supporting Constituents					Sampled as Planned in 2014?	Comments
	Field Parameters	Iodine-129	Strontium-90	Technetium-99	Tritium	Gross Alpha	Anions[a]	Gross Beta	Metals[b]	Uranium		
299-E24-16	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E24-18	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E24-20	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E24-22	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E24-23	A	A	A	A	A	A	A	A	A	A	Yes	—
299-E24-33	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E24-5	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-17	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-18	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E25-19	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-2	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-20	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E25-22	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E25-28	A	A	—	—	A	A	A	A	A	—	Yes	—

Table A-16. Monitoring Wells and Constituents for 200-PO-1 Operable Unit Near-Field Wells

Well Number	Contaminants of Concern					Supporting Constituents					Sampled as Planned in 2014?	Comments
	Field Parameters	Iodine-129	Strontium-90	Technetium-99	Tritium	Gross Alpha	Anions[a]	Gross Beta	Metals[b]	Uranium		
299-E25-29P	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-29Q	A	A	—	—	A	—	—	A	A	—	Yes	—
299-E25-236	A	A	A	A	A	A	A	A	A	—	No	Well decommissioned June 2013
299-E25-3	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E25-32P	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-32Q	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-34	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-35	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-36	A	A	A	—	A	A	A	A	A	A	Yes	—
299-E25-37	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-40	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-41	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-42	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-43	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-44	A	A	—	—	A	A	A	A	A	—	Yes	—

Table A-16. Monitoring Wells and Constituents for 200-PO-1 Operable Unit Near-Field Wells

Well Number	Contaminants of Concern					Supporting Constituents					Sampled as Planned in 2014?	Comments
	Field Parameters	Iodine-129	Strontium-90	Technetium-99	Tritium	Gross Alpha	Anions[a]	Gross Beta	Metals[b]	Uranium		
299-E25-47	A	A	—	—	A	A	A	A	A	—	Yes	—
299-E25-6	A	A	A	—	A	A	A	A	A	—	Yes	—
299-E25-93	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E25-94	A	A	A	A	A	A	A	A	A	—	Yes	—
299-E26-4	A	A	A	—	A	A	A	A	A	—	Yes	—
699-37-47A	A	A	A	A	A	A	A	A	A	A	Yes	—
699-39-39[c]	A	A	—	—	A	A	A	A	A	—	Yes	—
699-41-42	A	A	—	—	A	A	A	A	A	—	Yes	—
699-42-40A[c]	A	A	—	—	A	A	A	A	A	—	Yes	—
699-42-42B[c]	A	A	—	—	A	A	A	A	A	—	Yes	—
699-43-45	A	A	—	—	A	A	A	A	A	—	Yes	—
699-44-39B	A	A	—	—	A	A	A	A	A	—	Yes	—

Table A-16. Monitoring Wells and Constituents for 200-PO-1 Operable Unit Near-Field Wells

Well Number	Contaminants of Concern					Supporting Constituents					Sampled as Planned in 2014?	Comments
	Field Parameters	Iodine-129	Strontium-90	Technetium-99	Tritium	Gross Alpha	Anions[a]	Gross Beta	Metals[b]	Uranium		

Note: Sampling requirements are from *Sampling and Analysis Plan for the 200-PO-1 Groundwater Operable Unit* (DOE/RL-2003-04), as amended by TPA-CN-205, *Change Notice for Modifying Approved Documents/Workplans In Accordance with the Tri-Party Agreement Action Plan, Section 9.0, Documentation and Records: DOE/RL-2003-04, Revision 1, Sampling and Analysis Plan for the 200-PO-1 Operable Unit*, and *Remedial Investigation/Feasibility Study Work Plan for the 200-PO-1 Operable Unit* (DOE/RL-2007-31), as amended by TPA-CN-2-253, *Change Notice for Modifying Approved Documents/Workplans In Accordance with the Tri-Party Agreement Action Plan, Section 9.0, Documentation and Records: DOE/RL-2007-31 Rev. 0, Remedial Investigation/Feasibility Study Work Plan for the 200-PO-1 Operable Unit*.

a. Anions; analytes include, but are not limited to, chloride, nitrate, and sulfate.

b. Metals; analytes include, but are not limited to, chromium, manganese, and vanadium.

c. Ringold confined aquifer.

A = to be sampled annually

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
BC Cribs																		
299-E13-14	—	A	A	A	A	A	A	—	A	A	A	A	A	A	—	—	Yes	—
299-E13-5	—	A	A	A	A	A	A	—	A	A	A	A	A	A	—	—	Yes	—
299-E13-11	—	A	A	A	A	A	A	—	A	A	A	A	A	A	—	—	No	Access to well restricted
299-E13-19	—	A	A	A	A	A	A	—	A	A	A	A	A	A	—	—	Yes	—
Southeast Transect																		
699-10-54A	—	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-24-46	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-26-33	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	No	No; I-129, tritium, alpha, beta, gamma, or Sr-90
699-31-31	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-32-22A	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-32-43	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	No	Scheduled Jan 2014, collected January 2015
699-41-23	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-46-21B	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
River Transect																		
699-10-E12	—	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-20-E12O	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-41-1A	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	Sampled early; 12/31/2013
699-46-4	A	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	Sampled early; 12/31/2013
699-S3-E12	—	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
699-S19-E13	—	A	A	A	A	A	A	—	—	A	A	A	—	—	—	A	Yes	—
Basalt-Confined Aquifer																		
299-E16-1	T	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	Yes	—
699-13-1C	—	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	Yes	—
699-24-1P	—	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	NS	Last sampled in 2012
699-32-22B	T	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	Yes	—
699-42-40C	T	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	Yes	—
699-S2-34B	—	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	Yes	—

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
699-S11-E12AP	—	T	T	T	T	T	T	—	—	—	T	—	—	—	—	—	Yes	—
Far-Field General																		
499-S0-7	A	A	A	A	A	A	A	—	—	A	A	A	A	A	A	A	Yes	—
499-S0-8	A	A	A	A	A	A	A	—	—	A	A	A	A	A	A	A	Yes	—
499-S1-8J	A	A	A	A	A	A	A	—	—	A	A	A	A	A	A	A	Yes	—
699-15-4D	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-13-1A	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-13-3A	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-14-38	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-17-5	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-19-43	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-20-20	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-20-E12S	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-20-E5A	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-21-6	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
699-2-3	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-22-35	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-24-34C	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	No	Well is sample dry
699-25-33A	A	A	A	A	A	A	—	—	—	A	A	A	A	A	A	A	No	No gamma or ammonia
699-26-15A	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-26-35A	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-2-6A	—	A	A	A	—	A	—	—	—	—	—	—	—	—	—	—	Yes	—
699-2-7	—	A	A	A	—	A	—	—	—	—	—	—	—	—	—	—	Yes	—
699-28-40	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-29-4	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-31-11	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-33-56	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	Yes	—
699-34-41B	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-34-42	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-35-9	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
699-37-43	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-37-E4	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-38-15	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-40-1	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-40-33A	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-40-36[c]	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	Last sampled Oct 2012
699-41-40[c]	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-41-42	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	Yes	—
699-42-15A	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-42-39A	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-42-39B[c]	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-43-3	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-45-42[c]	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-47-5	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-48-7A	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
699-49-13E	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-50-28B	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-52-19	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-8-17	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-8-25	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-9-E2	T	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S12-3	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S19-E14	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S3-25	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S6-E14A	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S6-E4A	—	T	T	T	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S6-E4B	—	T	T	—	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
699-S8-19	—	T	T	—	—	T	—	—	—	—	—	—	—	—	—	—	NS	—
Aquifer Tubes[d]																		
82-M	A	A	A	A	A	—	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
82-S	A	A	A	A	A	—	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
83-D	A	A	A	A	A	—	A	A	—	—	—	—	A	—	—	—	No	Cannot be located
84-D	A	A	A	A	A	—	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
84-M	A	A	A	A	A	—	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
84-S	A	A	A	A	A	—	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
85-M	A	A	A	A	A	A	A	—	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
85-S	A	A	A	A	A	A	A	—	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
85-D	A	—	A	A	A	A	A	—	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
86-D	A	—	A	A	A	A	A	—	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
86-M	A	A	A	A	A	A	A	—	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
86-S	A	A	A	A	A	A	A	—	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6353	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6356	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6359	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6362	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		
C6365	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Cannot be located
C6368	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6371	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	No yield; cancelled
C6374	—	—	—	A	—	—	—	—	—	—	—	—	—	—	—	—	No	Delayed until 01/2015
C6375	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Broken; cancelled
C6378	A	A	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6380	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015
C6383	—	—	—	A	—	—	—	—	—	—	—	—	—	—	—	—	No	Delayed until 01/2015
C6384	A	—	A	A	A	A	A	A	—	—	—	—	A	—	—	—	No	Delayed until 01/2015

Table A-17. Monitoring Wells and Constituents for the 200-PO-1 Operable Unit Far-Field Wells

Well or Aquifer Tube Name	Contaminants of Concern			Field Parameters	Supporting Constituents												Sampled as Planned in 2014?	Comments
	Iodine-129	Nitrate	Tritium		Gross Alpha	Anions[a]	Gross Beta	Hexavalent Chromium	Cyanide	Gamma	Metals[b]	Strontium-90	Technetium-99	Uranium	Ammonia	Volatile Organic Analytes		

Note: Sampling requirements for wells are from *Sampling and Analysis Plan for the 200-PO-1 Groundwater Operable Unit* (DOE/RL-2003-04), and *Remedial Investigation/Feasibility Study Work Plan for the 200-PO-1 Operable Unit* (DOE/RL-2007-31), as amended by TPA-CN-2-253, *Change Notice for Modifying Approved Documents/Workplans In Accordance with the Tri-Party Agreement Action Plan, Section 9.0, Documentation and Records: DOE/RL-2007-31 Rev. 0, Remedial Investigation/Feasibility Study Work Plan for the 200-PO-1 Operable Unit*.

a. Anions; analytes include, but are not limited to, chloride, nitrate, and sulfate.

b. Metals; analytes include, but are not limited to, chromium, manganese, and vanadium.

c. Ringold confined aquifer.

d. The following aquifer tubes were listed in DOE/RL-2003-04, but were not successfully installed in 2008: C6360, C6361, C6366, C6367, C6377, C6369, C6381, and C6382.

A = to be sampled annually

NS = not scheduled

T = to be sampled triennially

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