United States Department of Energy

Savannah River Site

Z-AREA SALTSTONE DISPOSAL FACILITY GROUNDWATER MONITORING REPORT FOR 2013 (U)

Class 3 Landfill Permit #025500-1603

SRNS-TR-2013-00275

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Prepared By:
Savannah River Nuclear Solutions, LLC
Savannah River Site
Aiken, SC 29808

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1.0 SITE DESCRIPTION AND BACKGROUND

The SRS Z-Area Saltstone Disposal Facility (SDF) Class 3 Landfill is located within Z-Area (Figure 1) on the Savannah River Site (SRS) in Aiken County and is operated by Savannah River Remediation LLC (SRR) for the U.S. Department of Energy (USDOE). Z-Area is approximately 238 acres, which currently contains two rectangular Saltstone Disposal Units (SDUs), formerly referred to as vaults, and six new circular SDUs (Figure 2).

2.0 GROUNDWATER MONITORING

In accordance with the SRS Z-Area SDF Class 3 Landfill permit (SCDHEC 2011), a groundwater monitoring plan is in place to monitor groundwater in the vicinity of the SDF (WSRC 2005). Fifteen wells located up gradient and down gradient of the SDF (Figure 2) are sampled semiannually and biennially for the constituents and parameters listed in Table 1. Seven new wells were installed in 2012 (Figure 2). The seven new wells monitor SDUs 2, 3, and 5 provide an additional background well. SDU Cell 2B was put into service in September 2012 and SDU Cell 2A in December 2012. SDU Cell 5B was put into service on December 5, 2013, but SDU Cells 3A, 3B, and 5A have not been placed in operation yet. SDU Cells 3A, 3B, and 5A will be put into operation, as needed. The monitoring well network and monitoring plan are designed to effectively detect any release from the SDF. Groundwater samples were collected during the first and third quarters of 2013 in accordance with the *Hydrogeologic Data Collection Procedures and Specifications* (SRNS 2010), and the samples were sent to SCDHEC certified labs for analyses. Two thresholds (8 pCi/L and 30 pCi/L) were established for gross beta (i.e., nonvolatile beta) analyses as part of the *Groundwater Monitoring Plan for the Z-Area Saltstone Disposal Facility* (WSRC 2005). If the 8 pCi/L threshold is exceeded by a well sample, then the exceeding well is to be resampled within 30 days for the Contingent Analysis 1 (Strontium-90 [Sr-90]) listed in Table 1. If the contingent Sr-90 analysis is above detection, then it will be added to the list of semiannual analyses. If the 30 pCi/L threshold for gross beta is exceeded by a well sample, then the exceeding well and the applicable background well (ZBG 1 or ZBG015D) are to be resampled within 30 days for the Contingent Analyses 2 listed in Table 1. If any contingent analyte is above background well or monitoring well concentrations, then it will be added to the list of semiannual analyses. If the follow-up sample event confirms the

exceedance results for a constituent(s) then a characterization plan to determine plume extent will be developed and submitted to SCDHEC within 60 days (WSRC 2005).

3.0 GROUNDWATER FLOW DIRECTION AND RATE

Water level data collected for first quarter of 2013 are presented in Figure 3, and the water level data for the third quarter of 2013 are presented in Figure 4. Groundwater flow is radial in this area of SRS. The water table at SDU 1 and SDU 4 indicate groundwater flow is to the northeast, groundwater flow at SDU 2 is to the north, and groundwater flow at SDU 3 and 5 is to the northwest (Figures 3 and 4). Flow rates can be estimated using the distance and head difference between wells with the following equation:

$$Q = \frac{K}{n} \times \frac{dh}{dl}$$

Where:

- Flow (ft/day);
- K = Hydraulic Conductivity (ft/day) = 13 ft/day*;
- n = Effective Porosity (%) = 0.25*;
- dh = Difference in Head (ft) = 14.3 ft; and
- dl = Distance between Wells (ft) = 805 ft.

* These parameters were changed from the mid-year report to be consistent with the Performance Assessment modeling data in the SRS General Separations Area (GSA).

The water table in the GSA is located in the upper aquifer zone of the Upper Three Runs Aquifer (UTRA-UAZ). However, as the water table approaches McQueens Branch and Upper Three Runs, the water table drops into the underlying lower aquifer zone of the Upper Three Runs Aquifer (UTRA-LAZ). The horizontal hydraulic conductivity (K) of the UTRA-UAZ and UTRA-LAZ in the GSA is 10 ft/day and 13 ft/day, respectively, and the effective porosity (n) value is 0.25 % (WSRC 2007). The water table in Z-Area is predominantly located in the UTRA-LAZ; therefore, a value of 13 ft/day is used to calculate groundwater flow rates. The head difference (dh) between wells ZBG 7 and ZBG 4 was 14.3 ft for the first quarter, and 11.8 ft in the third quarter of 2013. The horizontal distance (dl) is 805 ft, which is the distance between wells ZBG 7 and ZBG 4 (Figures 2, 3, and 4).

For the first quarter, the groundwater flow rate was calculated as follows:

$$Q = \frac{13\ ft/day}{0.25} \times \frac{14.3\ ft}{805\ ft}$$

$$Q = 0.924\ ft/day\ or\ 337.2\ ft/year$$

For the third quarter, the groundwater flow rate was calculated as follows:

$$Q = \frac{13\ ft/day}{0.25} \times \frac{11.8\ ft}{805\ ft}$$

$$Q = 0.762\ ft/day\ or\ 278.2\ ft/year$$

From the first quarter to the third quarter of 2013 the water table elevation rose between 3.1 ft and 6.1 ft in Z-Area, based on the fifteen ZBG monitoring wells. The rise in the water table was the result of heavy rains during the months of February through July of 2013.

4.0 GROUNDWATER CONSTITUENTS AND PARAMETERS

In accordance with the Z-Area SDF Class 3 Landfill Permit (SCDHEC 2011), the monitoring wells were sampled during the first and third quarters of 2013 for the analytes and the parameters listed in Table 1. Samples for biennial analyses were also collected in the first quarter of 2013 (Table 1).

5.0 RESULTS

Groundwater samples were collected during the first quarter of 2013 from eight wells monitoring SDUs 1 and 4 at the Z-Area SDF (Figure 2). Groundwater samples were also collected during the first and third quarters of 2013 from the seven wells monitoring SDUs 2, 3 and 5 at the Z-Area SDF. The laboratory results are presented in Table 2; the field measurements are presented in Table 3; and the water elevation data are presented in Table 4.

Groundwater monitoring results are compared to Practical Quantitation Limits (PQLs), background concentrations, and Groundwater Protection Standards (GWPSs). PQLs are indicators of laboratory instrument and method sensitivity, but are not regulatory limits, nor are they risk-based. The Method Detection Limit (MDL) is the lowest limit a method and instrument can detect an analyte, but results between the MDL and PQL are only estimated

concentrations. The PQL is the lowest concentration of an analyte which can be reliably quantified in a given sample. Background concentrations are based on historical data from wells (ZBG 1 and ZBG015D) up gradient of the SDF. Comparison with background is important because several SRS facilities are up gradient of the SDF. GWPSs for the SDF are based on the Primary Drinking Water Standards (PDWSs), or proposed PDWSs, or Secondary Drinking Water Standards (SDWSs), or background concentrations (WSRC 2005), and are listed in Table 1. Unlike PQLs and background concentrations, GWPSs are regulatory limits, and exceedances are relevant to water quality.

6.0 DISCUSSION

The following constituents exceeded the PQL in one or more wells monitoring the SDF (Table 2):

- Bismuth-214 (Bi-214);
- Lead-214 (Pb-214);
- Nitrate-Nitrite as Nitrogen;
- Nonvolatile Beta*;
- Radium-226 (Ra-226);
- Radium-228 (Ra-228);
- Technetium-99 (Tc-99); and
- Tritium (H-3).

* Exceeded the 30 pCi/L threshold for Nonvolatile Beta (Gross Beta) at ZBG 2 in the first quarter, which required additional analyses.

Well ZBG015D has had four independent (quarterly) samples to establish initial background concentrations, as required by the monitoring plan (WSRC 2005). Well ZBG015D now has sufficient data for background comparisons for groundwater monitoring wells around SDUs 1 and 4. Well ZBG 1 will be used for background data comparisons for SDUs 2, 3, and 5, as this well is positioned up gradient of those SDUs (Figures 2, 3, and 4).

Well ZBG 2 nonvolatile beta analysis was elevated on the initial sample taken on 3/18/13. SRS took several actions in accordance with the monitoring plan (WSRC 2005) including reanalysis of the remaining sample and data validation, which showed some results were invalid. Upon reviewing validated data it was determined that resampling of Well ZBG 2 was required. Resampling of Well ZBG2 was completed on 6/24/13. Discussed below is a summary of the actions and results of the data.

Well ZBG 2 was resampled on June 24, 2013 for nonvolatile beta and Tc-99 analyses. The ZBG 2 resample (6/24/13) result for Tc-99 is J35.6 pCi/L, which is below the PQL but above the MDL, and therefore considered an estimated concentration (J-Qualified). The ZBG 2 resample (6/24/13) result for nonvolatile beta is 15.3 pCi/L, which is above the PQL but below the 30 pCi/L threshold. The ZBG 2 sample (3/18/13) nonvolatile beta result of 68 pCi/L exceeded the 30 pCi/L threshold for nonvolatile beta, which initiated performing the Contingent Analyses 1 and 2 (Table 1) for wells ZBG 2 and ZBG015D (background well). The strontium-90 result was below the practical quantitation limit (0.69 pCi/L). However, Tc-99 from the Contingent Analyses 2 list exceeded its PQL. Tc-99 (84.2 pCi/L) exceeded its PQL (13.0 pCi/L), but Tc-99 did not exceed its GWPS (900 pCi/L). Likewise, a reanalysis on the ZBG 2 sample (3/18/13) for Tc-99 (82.9 pCi/L) support the initial Tc-99 result. In addition, ZBG 2 showed an increase in nonvolatile beta (from 3 to 68 pCi/L) and nitrate (from 0.76 to 4.9 mg/L) concentrations, as well as conductivity (from 19 to 56 µS/cm) in the past year (from 3/20/12 to 3/18/13). The ZBG 2 nitrate result (4.9 mg/L) does not exceed the Saltstone GWPS (10 mg/L), but it exceeds the PQL and background well (ZBG015D) maximum nitrate result (0.67 mg/L).

The third quarter (9/23/13) ZBG 2 sample Tc-99 result continued to decline to J25.9 pCi/L, which is below the PQL but above the MDL. Likewise the conductivity value (35 µS/cm) and nitrate result (1.58 mg/L) continued to decline for the third quarter ZBG 2 sample (9/23/13). The ZBG 2 third quarter sample (9/24/13) result for nonvolatile beta is 25.8 pCi/L, which is above the 8 pCi/L threshold requiring Sr-90 analysis but below the 30 pCi/L threshold requiring additional radiological analyses. The third quarter ZBG 2 sample Sr-90 result was below the MDL (7.33 pCi/L).

In 2013, the maximum gross alpha concentration was estimated as J6.95 pCi/L at well ZBG 8, which is both below the PQL (8.37 pCi/L) and the SDF GWPS (15 pCi/L). The maximum Bi-214 concentration was 655 pCi/L at well ZBG 8, which is above the historic maximum (160 pCi/L) for background well ZBG015D, but below the 4 mrem GWPS for Bi-214 (18,900 pCi/L). The maximum Pb-214 concentration was 715 pCi/L at well ZBG 8, which is above the historic maximum (171 pCi/L) for background well ZBG015D, but below the 4 mrem GWPS for Pb-214 (1,800 pCi/L). The maximum Ra-226 concentration was 0.83 pCi/L at well ZBG 6, which is above the historic maximum (0.32 pCi/L) for background well ZBG015D, but below the GWPS

(5 pCi/L) for Ra-226. Bi-214 and Pb-214 are short-lived daughter products in the naturally-occurring uranium-238 decay series, and will be supported by radium-226, which is commonly detected in the groundwater (USGS 2011). The maximum Ra-228 concentration was 1.0 pCi/L at well ZBG 8, which is above the historic maximum (0.77 pCi/L) for background well ZBG015D, but below the GWPS (5 pCi/L). While Bi-214, Pb-214, Ra-226, and Ra-228 are above background well concentrations, these radionuclides appear to be of natural origin, not related to SDF operations, below their GWPS, but contribute to nonvolatile beta and gross alpha activities.

In 2013, the maximum tritium concentration was 3.54 pCi/mL at well ZBG015D (new background well), which is below the historic maximum (4.02 pCi/mL) for well ZBG015D. The long-term background well (ZBG 1) has had steadily decreasing tritium concentration trends since 1987. All the SDF monitoring well tritium data appears to be consistent with this trend, including well ZBG 2. The ZBG 1 and ZBG015D data indicate the tritium in Z-Area groundwater is from an up-gradient source.

In 2013, well ZBG013D had the highest specific conductance (253 µS/cm) and pH (7.5) measurements. These elevated field measurements appear to be related to the geologic formation as nearby wells ZBG012D and ZBG014D also have high conductivity, pH, and total alkalinity field measurements. Carbonate material was identified in the lithology cores while installing these wells. In addition, wells ZBG012D, ZBG013D and ZBG014D monitor SDUs 3 and 5, which were not receiving saltstone material as of the third quarter 2013 sampling period (09/23/2013).

7.0 CONCLUSION

The wells monitoring SDUs 2, 3, and 5 have had three or four rounds of sampling to determine baseline conditions for the groundwater down gradient of the new SDUs.

Well ZBG 2 showed an increase in nonvolatile beta activity (68 pCi/L), nitrate concentration (4.9 mg/L), and conductivity (56 µS/cm) in the first quarter of 2013. The nonvolatile beta data initiated additional analyses, with the following analytical results:

- The initial technetium-99 (Tc-99) result (84.2 pCi/L) and a reanalysis (82.9 pCi/L) were below the Groundwater Protection Standard (900 pCi/L).
- Well ZBG 2 was resampled (6/24/13) for nonvolatile beta and Tc-99 analyses. The result for Tc-99 was much lower (J35.6 pCi/L), and slightly above the detection limit.
- The ZBG 2 resample result for nonvolatile beta is 15.3 pCi/L, which is below the 30 pCi/L threshold requiring additional action.

As required by the groundwater monitoring plan, Tc-99 was added to the list of radionuclides requiring semi-annual sampling and analysis. The third quarter sample for well ZBG 2 showed decreasing trends for nitrate, Tc-99, and conductivity.

8.0 REFERENCES

SCDHEC, 2011. *SRS Z-Area Saltstone Disposal Facility Class 3 Landfill, Facility ID # 0255001603*, May 12, 2011, Division of Mining and Solid Waste Management, Bureau of Land and Waste Management, South Carolina Department of Health and Environmental Control, Columbia, SC

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WSRC, 2005. *Groundwater Monitoring Plan for the Z-Area Saltstone Disposal Facility*, WSRC-TR-2005-00257, Rev. 5, July 2010, Westinghouse Savannah River Company, Savannah River Site, Aiken, SC

WSRC, 2007, *Hydrogeologic Data Summary In Support of the F-Area Tank Farm (FTF) Performance Assessment*, WSRC-TR-2007-00283, Rev. 0, July 31, 2007, Savannah River Site, Aiken, SC

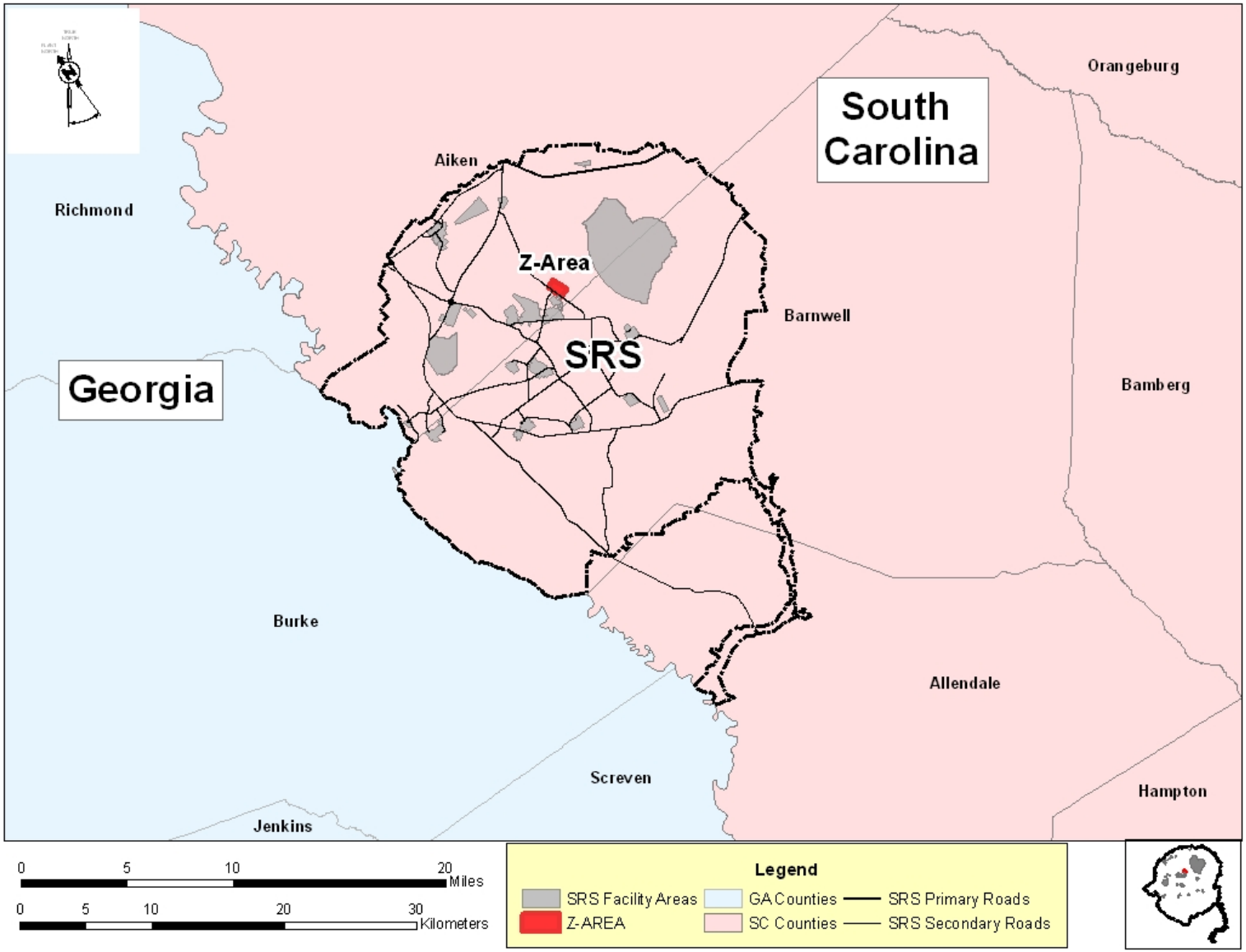

Figure 1. Z-Area Location within the Savannah River Site

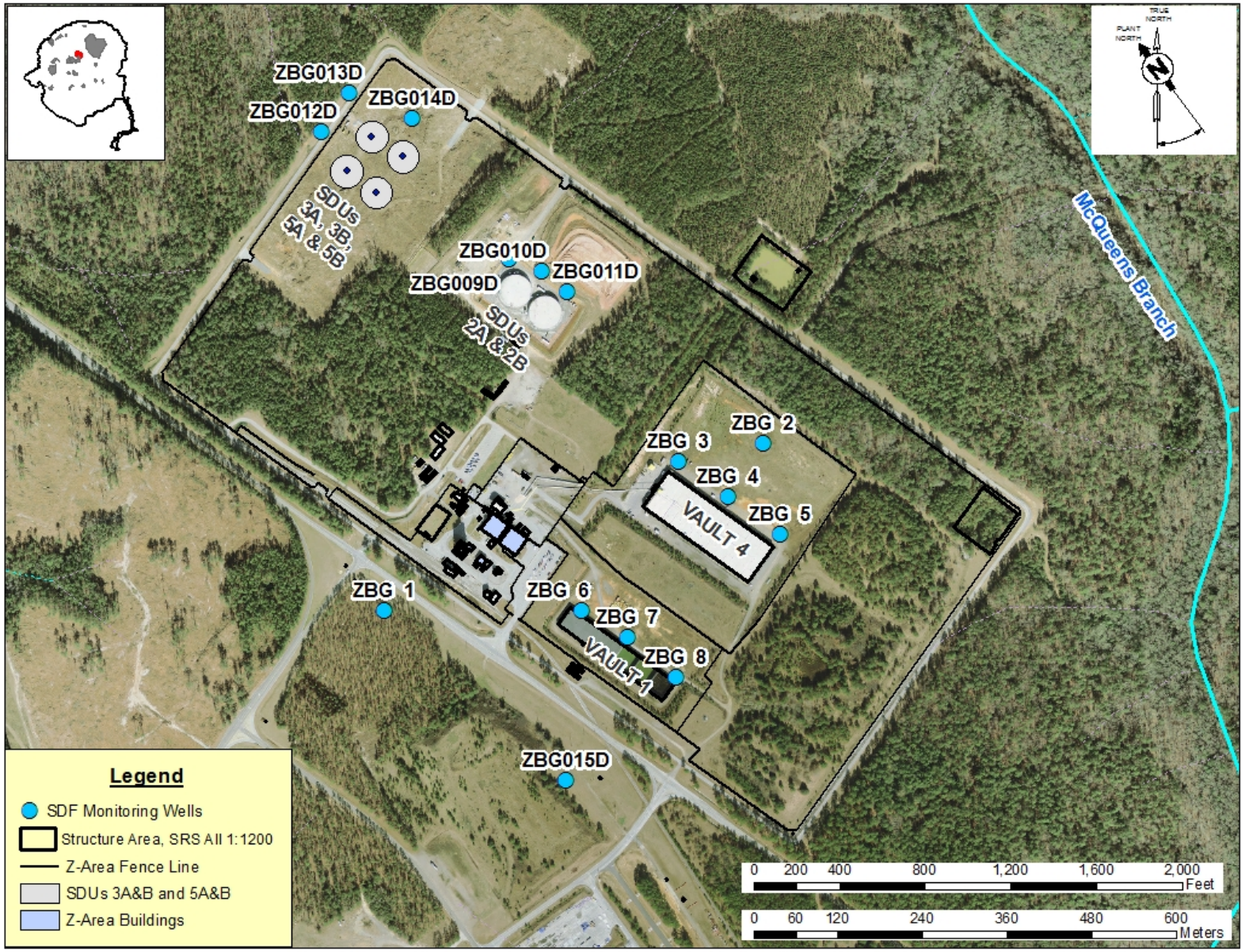

Figure 2. Monitoring Well Locations at the SDF

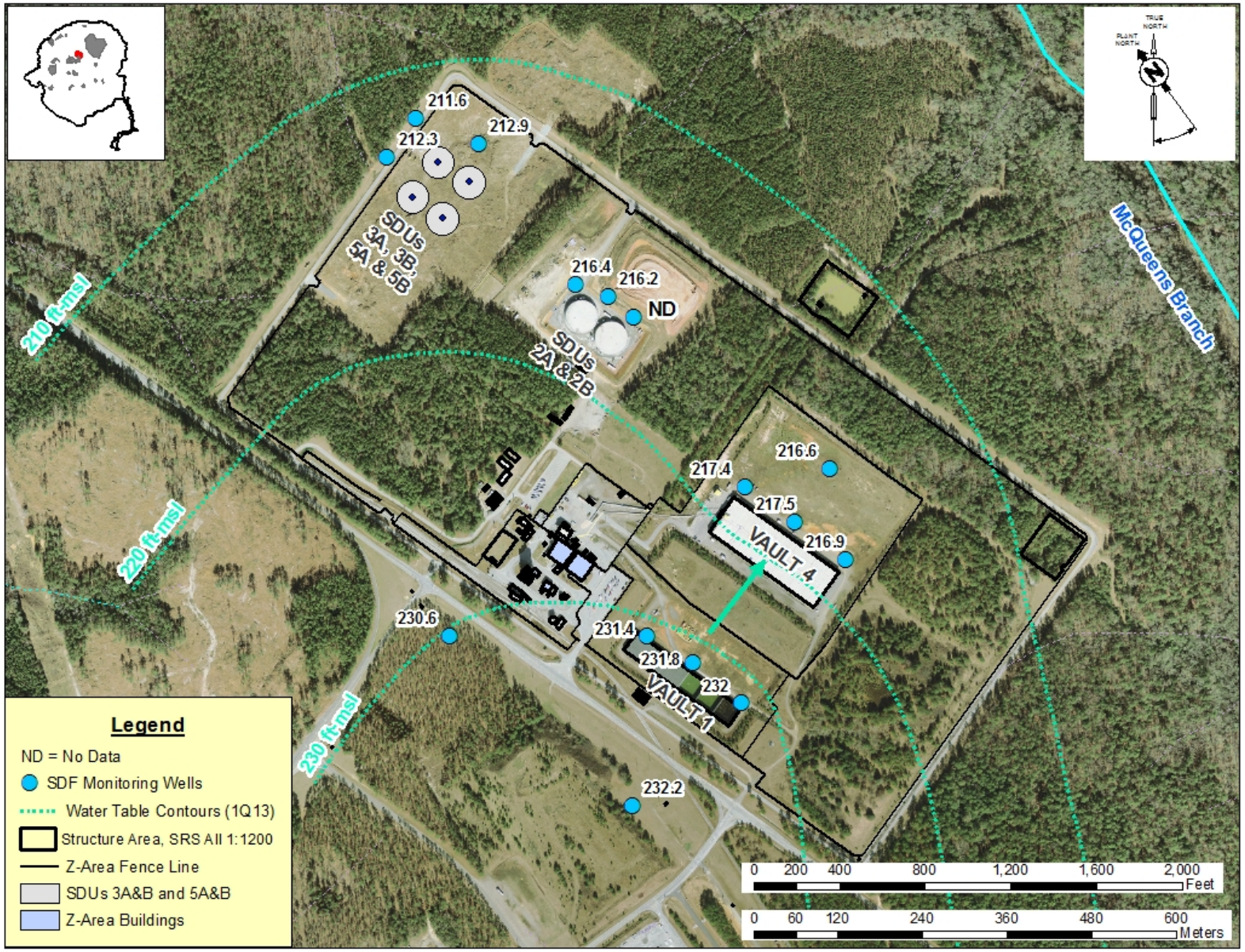

Figure 3. First Quarter 2013 Water Table Elevations (ft-msl)

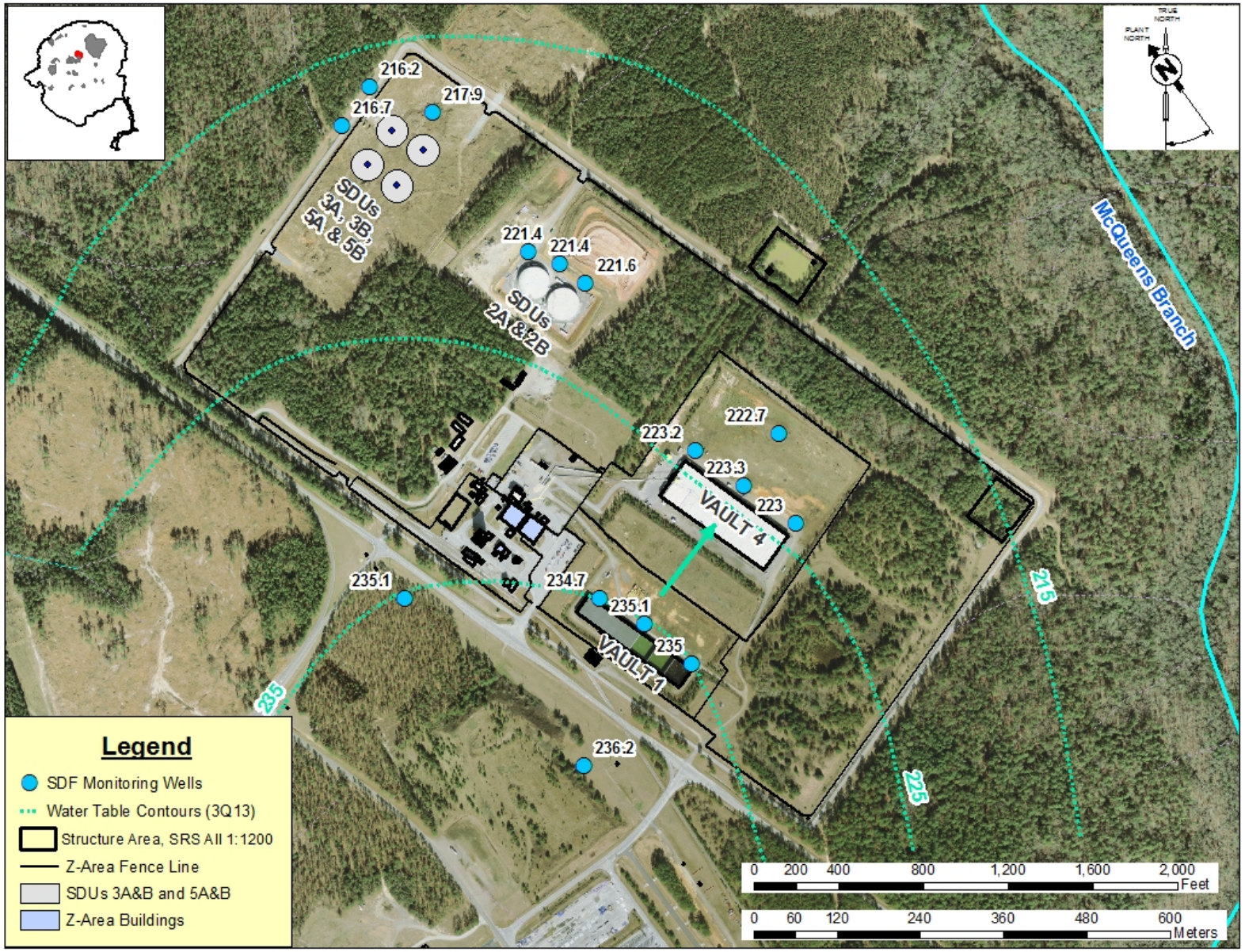

Figure 4. Third Quarter 2013 Water Table Elevations (ft-msl)

Table 1. List of Analytes and Parameters for the SDF

Semiannual Constituents	Groundwater Protection Standard	Units
pH	NA	pH
Specific Conductance	NA	µS/cm
Groundwater Elevations	NA	ft-msl
Nitrate (Nitrate/Nitrite)	10,000	µg/L
Gross Alpha	15	pCi/L
Gross Beta [1,2] (Nonvolatile Beta)	8 / 30	pCi/L
Gamma Spectroscopy-Emitters (Beta-Emitters)	4	mrem
Iodine-129 (I-129)	1	pCi/L
Technetium-99 (Tc-99)	900	pCi/L
Tritium	20	pCi/mL
Biennial Constituents	**Groundwater Protection Standard**	**Units**
Radium-226 (Ra-226)	5 (Ra-226 + Ra-228)	pCi/L
Radium-228 (Ra-228)	5 (Ra-226 + Ra-228)	pCi/L
Benzene	5	µg/L
Tetrachloroethylene	5	µg/L
Toluene	1000	µg/L
Trichloroethylene	5	µg/L
Contingent Analysis 1	**Groundwater Protection Standard**	**Units**
Strontium-90	8	pCi/L
Contingent Analyses 2	**Groundwater Protection Standard**	**Units**
C-14	2000	pCi/L
Co-60	100	pCi/L
Cs-137	200	pCi/L
Gross Beta (Re-analysis)	30	pCi/L
Nb-94	707 [3]	pCi/L
Ni-59	300	pCi/L
Ni-63	50	pCi/L
Pu-241	62.6 [3]	pCi/L
Ru-106	30	pCi/L
Sb-125	300	pCi/L
Tc-99	900	pCi/L

[1] If Gross Beta is equal to or exceeds 8 pCi/L then Contingent Analysis 1 is analyzed for that sample.

[2] If Gross Beta is equal to or exceeds 30 pCi/L then all Contingent Analyses 2 are analyzed for that well and the background well.

[3] Proposed Drinking Water Standard.
NA = Not Applicable.

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Table 2. Laboratory Results for Saltstone Wells (2013)

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 1	3/20/13	ACTINIUM-228	48.000	68.000	U	3.000	pCi/L	REG
ZBG 1	9/24/13	ACTINIUM-228	13.000	32.300	U	-11.500	pCi/L	REG
ZBG 1	3/20/13	ANTIMONY-125	25.000	53.000	U	4.000	pCi/L	REG
ZBG 1	3/20/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 1	3/20/13	BISMUTH-214	24.000	50.000	U	22.000	pCi/L	REG
ZBG 1	9/24/13	BISMUTH-214	8.000	29.600		112.000	pCi/L	REG
ZBG 1	3/20/13	CARBON-14	8.200	17.600	U	-1.000	pCi/L	REG
ZBG 1	3/20/13	CESIUM-137	9.100	19.700	U	2.800	pCi/L	REG
ZBG 1	9/24/13	CESIUM-137	3.770	8.490	U	0.751	pCi/L	REG
ZBG 1	3/20/13	COBALT-60	21.000	26.000	U	2.000	pCi/L	REG
ZBG 1	9/24/13	COBALT-60	3.680	7.440	U	0.443	pCi/L	REG
ZBG 1	3/20/13	GROSS ALPHA	0.740	1.880		0.950	pCi/L	REG
ZBG 1	9/24/13	GROSS ALPHA	2.810	6.170	U	1.400	pCi/L	REG
ZBG 1	3/20/13	IODINE-129	1.020	2.290	U	-0.541	pCi/L	REG
ZBG 1	9/24/13	IODINE-129	1.250	2.320	U	0.201	pCi/L	REG
ZBG 1	3/20/13	LEAD-212	22.000	50.000	U	-2.000	pCi/L	REG
ZBG 1	9/24/13	LEAD-212	7.220	17.300	U	2.900	pCi/L	REG
ZBG 1	3/20/13	LEAD-214	27.000	57.000	U	10.000	pCi/L	REG
ZBG 1	9/24/13	LEAD-214	8.440	33.000		126.000	pCi/L	REG
ZBG 1	3/20/13	NICKEL-59	1.600	3.520	U	0.560	pCi/L	REG
ZBG 1	3/20/13	NICKEL-63	1.900	3.900	U	-0.800	pCi/L	REG
ZBG 1	3/20/13	NIOBIUM-94	10.000	21.200	U	-0.200	pCi/L	REG
ZBG 1	3/20/13	NITRATE-NITRITE AS NITROGEN	0.012	0.100		1.700	mg/L	REG
ZBG 1	9/24/13	NITRATE-NITRITE AS NITROGEN	0.085	0.250		1.120	mg/L	REG
ZBG 1	3/20/13	NONVOLATILE BETA	0.800	1.900		0.920	pCi/L	REG
ZBG 1	9/24/13	NONVOLATILE BETA	2.140	4.600	U	0.618	pCi/L	REG
ZBG 1	3/20/13	PLUTONIUM-241	3.700	8.100	U	1.600	pCi/L	REG
ZBG 1	3/20/13	POTASSIUM-40	120.000	294.000	U	115.000	pCi/L	REG
ZBG 1	9/24/13	POTASSIUM-40	37.500	123.000	R	50.800	pCi/L	REG
ZBG 1	3/20/13	RADIUM-226	0.200	0.640		0.750	pCi/L	REG
ZBG 1	3/20/13	RADIUM-228	0.340	0.800	J	0.440	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 1	3/20/13	RUTHENIUM-106	100.000	105.000	U	-0.800	pCi/L	REG
ZBG 1	3/20/13	STRONTIUM-90	0.720	1.580	U	0.270	pCi/L	REG
ZBG 1	9/24/13	STRONTIUM-90	7.560	15.600	U	-0.508	pCi/L	REG
ZBG 1	3/20/13	TECHNETIUM-99	4.690	10.200	U	-0.765	pCi/L	REG
ZBG 1	9/24/13	TECHNETIUM-99	20.000	42.800	U	-3.420	pCi/L	REG
ZBG 1	3/20/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 1	3/20/13	THALLIUM-208	13.000	24.200	U	2.900	pCi/L	REG
ZBG 1	9/24/13	THALLIUM-208	3.510	9.930	U	1.370	pCi/L	REG
ZBG 1	3/20/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG 1	3/20/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 1	3/20/13	TRITIUM	0.521	1.260		1.270	pCi/mL	REG
ZBG 1	9/24/13	TRITIUM	0.496	1.330		1.710	pCi/mL	REG
ZBG 2	3/18/13	ACTINIUM-228	55.000	70.800	U	-2.200	pCi/L	REG
ZBG 2	9/23/13	ACTINIUM-228	19.500	42.100	U	-4.100	pCi/L	REG
ZBG 2	3/18/13	ANTIMONY-125	34.000	66.000	U	8.000	pCi/L	REG
ZBG 2	3/18/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 2	3/18/13	BISMUTH-214	14.000	48.000		42.000	pCi/L	REG
ZBG 2	9/23/13	BISMUTH-214	9.180	46.400		369.000	pCi/L	REG
ZBG 2	3/18/13	CARBON-14	7.200	15.800	U	1.300	pCi/L	REG
ZBG 2	3/18/13	CESIUM-137	20.000	37.400	U	5.500	pCi/L	REG
ZBG 2	9/23/13	CESIUM-137	4.860	10.900	U	0.455	pCi/L	REG
ZBG 2	3/18/13	COBALT-60	27.000	85.000	U	-8.000	pCi/L	REG
ZBG 2	9/23/13	COBALT-60	5.190	11.000	U	0.124	pCi/L	REG
ZBG 2	3/18/13	GROSS ALPHA	0.700	1.760		0.790	pCi/L	REG
ZBG 2	9/23/13	GROSS ALPHA	2.330	5.930	J	3.380	pCi/L	REG
ZBG 2	3/18/13	IODINE-129	1.060	2.720	U	0.991	pCi/L	REG
ZBG 2	9/23/13	IODINE-129	0.869	1.790	U	-0.199	pCi/L	REG
ZBG 2	3/18/13	LEAD-212	24.000	66.000	U	-3.000	pCi/L	REG
ZBG 2	9/23/13	LEAD-212	9.710	24.400	U	4.770	pCi/L	REG
ZBG 2	3/18/13	LEAD-214	30.000	60.000	U	23.000	pCi/L	REG
ZBG 2	9/23/13	LEAD-214	12.000	53.200		412.000	pCi/L	REG
ZBG 2	3/18/13	NICKEL-59	1.600	4.800	U	-0.500	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 2	3/18/13	NICKEL-63	1.900	6.500	R	35.100	pCi/L	REG
ZBG 2	3/18/13	NICKEL-63	1.800	7.200	R	53.700	pCi/L	REG
ZBG 2	6/24/13	NICKEL-63	39.800	84.600	U	-2.440	pCi/L	REG
ZBG 2	3/18/13	NIOBIUM-94	14.000	29.800	U	-1.800	pCi/L	REG
ZBG 2	3/18/13	NITRATE-NITRITE AS NITROGEN	0.031	0.250		4.900	mg/L	REG
ZBG 2	9/23/13	NITRATE-NITRITE AS NITROGEN	0.085	0.250		1.580	mg/L	REG
ZBG 2	3/18/13	NONVOLATILE BETA	0.800	6.000		68.000	pCi/L	REG
ZBG 2	6/24/13	NONVOLATILE BETA	5.530	14.000		15.300	pCi/L	REG
ZBG 2	9/23/13	NONVOLATILE BETA	2.690	8.790		25.800	pCi/L	REG
ZBG 2	3/18/13	PLUTONIUM-241	3.500	7.300	U	-0.010	pCi/L	REG
ZBG 2	3/18/13	POTASSIUM-40	240.000	1460.000	U	-70.000	pCi/L	REG
ZBG 2	9/23/13	POTASSIUM-40	46.900	121.000	U	31.800	pCi/L	REG
ZBG 2	3/18/13	RADIUM-226	0.170	0.550		0.660	pCi/L	REG
ZBG 2	3/18/13	RADIUM-228	0.400	0.900	U	0.260	pCi/L	REG
ZBG 2	3/18/13	RUTHENIUM-106	150.000	326.000	U	-26.000	pCi/L	REG
ZBG 2	3/18/13	STRONTIUM-90	0.310	0.690	U	0.130	pCi/L	REG
ZBG 2	9/23/13	STRONTIUM-90	7.330	15.400	U	0.804	pCi/L	REG
ZBG 2	3/18/13	TECHNETIUM-99	4.080	12.700		82.900	pCi/L	REG
ZBG 2	3/18/13	TECHNETIUM-99	4.210	13.000		84.200	pCi/L	REG
ZBG 2	6/24/13	TECHNETIUM-99	20.300	46.700	J	35.600	pCi/L	REG
ZBG 2	9/23/13	TECHNETIUM-99	20.100	45.100	J	25.900	pCi/L	REG
ZBG 2	3/18/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 2	3/18/13	THALLIUM-208	15.000	31.800	U	1.700	pCi/L	REG
ZBG 2	9/23/13	THALLIUM-208	5.270	12.600	U	-0.822	pCi/L	REG
ZBG 2	3/18/13	TOLUENE	0.072	0.500	J	0.130	µg/L	REG
ZBG 2	3/18/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 2	3/18/13	TRITIUM	0.525	1.320		1.750	pCi/mL	REG
ZBG 2	9/23/13	TRITIUM	0.533	1.370		1.540	pCi/mL	REG
ZBG 3	3/20/13	ACTINIUM-228	39.000	65.000	U	4.000	pCi/L	REG
ZBG 3	9/23/13	ACTINIUM-228	17.100	46.300	U	10.100	pCi/L	REG
ZBG 3	3/20/13	ANTIMONY-125	29.000	42.200	U	2.900	pCi/L	REG
ZBG 3	3/20/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 3	3/20/13	BISMUTH-214	30.000	74.000	U	-5.000	pCi/L	REG
ZBG 3	9/23/13	BISMUTH-214	8.910	39.700		212.000	pCi/L	REG
ZBG 3	3/20/13	CESIUM-137	13.000	27.200	U	0.900	pCi/L	REG
ZBG 3	9/23/13	CESIUM-137	4.070	9.430	U	-0.191	pCi/L	REG
ZBG 3	3/20/13	COBALT-60	16.000	33.400	U	-2.800	pCi/L	REG
ZBG 3	9/23/13	COBALT-60	5.030	10.600	U	0.169	pCi/L	REG
ZBG 3	3/20/13	GROSS ALPHA	0.820	1.720	U	0.170	pCi/L	REG
ZBG 3	9/23/13	GROSS ALPHA	2.920	6.000	U	0.426	pCi/L	REG
ZBG 3	3/20/13	IODINE-129	1.010	2.240	U	-0.261	pCi/L	REG
ZBG 3	9/23/13	IODINE-129	0.816	1.540	U	0.223	pCi/L	REG
ZBG 3	3/20/13	LEAD-212	23.000	65.000	U	-6.000	pCi/L	REG
ZBG 3	9/23/13	LEAD-212	8.280	22.200	U	0.496	pCi/L	REG
ZBG 3	3/20/13	LEAD-214	23.000	59.000		23.000	pCi/L	REG
ZBG 3	9/23/13	LEAD-214	10.200	44.800		211.000	pCi/L	REG
ZBG 3	3/20/13	NIOBIUM-94	7.900	15.900	U	0.060	pCi/L	REG
ZBG 3	3/20/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		1.100	mg/L	REG
ZBG 3	9/23/13	NITRATE-NITRITE AS NITROGEN	0.085	0.250		0.840	mg/L	REG
ZBG 3	3/20/13	NONVOLATILE BETA	0.970	2.310		1.440	pCi/L	REG
ZBG 3	9/23/13	NONVOLATILE BETA	2.150	4.450	U	-0.253	pCi/L	REG
ZBG 3	3/20/13	POTASSIUM-40	130.000	290.000	U	68.000	pCi/L	REG
ZBG 3	9/23/13	POTASSIUM-40	49.300	106.000	U	-14.000	pCi/L	REG
ZBG 3	3/20/13	RADIUM-226	0.170	0.470		0.300	pCi/L	REG
ZBG 3	3/20/13	RADIUM-228	0.350	0.770	U	0.100	pCi/L	REG
ZBG 3	3/20/13	RUTHENIUM-106	100.000	218.000	U	-18.000	pCi/L	REG
ZBG 3	3/20/13	TECHNETIUM-99	4.700	10.200	U	-0.649	pCi/L	REG
ZBG 3	9/23/13	TECHNETIUM-99	19.800	42.800	U	3.010	pCi/L	REG
ZBG 3	3/20/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 3	3/20/13	THALLIUM-208	14.000	18.600	U	-1.500	pCi/L	REG
ZBG 3	9/23/13	THALLIUM-208	4.340	13.200	U	1.520	pCi/L	REG
ZBG 3	3/20/13	TOLUENE	0.072	0.500	J	0.140	µg/L	REG
ZBG 3	3/20/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 3	3/20/13	TRITIUM	0.525	1.360		2.260	pCi/mL	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 3	9/23/13	TRITIUM	0.540	1.510		2.510	pCi/mL	REG
ZBG 4	3/19/13	ACTINIUM-228	37.000	50.800	U	5.900	pCi/L	REG
ZBG 4	9/23/13	ACTINIUM-228	16.800	39.600	U	3.770	pCi/L	REG
ZBG 4	3/19/13	ANTIMONY-125	35.000	61.000	U	1.000	pCi/L	REG
ZBG 4	3/19/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 4	3/19/13	BISMUTH-214	23.000	49.000	U	16.000	pCi/L	REG
ZBG 4	9/23/13	BISMUTH-214	8.980	38.800		173.000	pCi/L	REG
ZBG 4	3/19/13	CESIUM-137	4.400	12.600	U	0.000	pCi/L	REG
ZBG 4	9/23/13	CESIUM-137	4.540	9.700	U	1.850	pCi/L	REG
ZBG 4	3/19/13	COBALT-60	6.800	10.400	U	0.000	pCi/L	REG
ZBG 4	9/23/13	COBALT-60	5.170	10.700	U	-0.131	pCi/L	REG
ZBG 4	3/19/13	GROSS ALPHA	0.630	1.350	U	0.190	pCi/L	REG
ZBG 4	9/23/13	GROSS ALPHA	2.970	5.810	U	-0.046	pCi/L	REG
ZBG 4	3/19/13	IODINE-129	1.000	2.200	U	-0.172	pCi/L	REG
ZBG 4	9/23/13	IODINE-129	0.671	1.430	U	-0.071	pCi/L	REG
ZBG 4	3/19/13	LEAD-212	19.000	47.000	U	12.000	pCi/L	REG
ZBG 4	9/23/13	LEAD-212	8.400	22.400	U	3.470	pCi/L	REG
ZBG 4	3/19/13	LEAD-214	22.000	48.000		22.000	pCi/L	REG
ZBG 4	9/23/13	LEAD-214	30.700	62.100		203.000	pCi/L	REG
ZBG 4	3/19/13	NIOBIUM-94	10.000	21.200	U	1.700	pCi/L	REG
ZBG 4	3/19/13	NITRATE-NITRITE AS NITROGEN	0.012	0.100		0.940	mg/L	REG
ZBG 4	9/23/13	NITRATE-NITRITE AS NITROGEN	0.085	0.250		0.750	mg/L	REG
ZBG 4	3/19/13	NONVOLATILE BETA	0.900	2.040	U	0.650	pCi/L	REG
ZBG 4	9/23/13	NONVOLATILE BETA	2.180	4.440	U	0.087	pCi/L	REG
ZBG 4	3/19/13	POTASSIUM-40	130.000	262.000	U	9.000	pCi/L	REG
ZBG 4	9/23/13	POTASSIUM-40	57.600	121.000	U	4.830	pCi/L	REG
ZBG 4	3/19/13	RADIUM-226	0.200	0.460	U	0.140	pCi/L	REG
ZBG 4	3/19/13	RADIUM-228	0.330	0.710	U	0.110	pCi/L	REG
ZBG 4	3/19/13	RUTHENIUM-106	92.000	250.000	U	35.000	pCi/L	REG
ZBG 4	3/19/13	TECHNETIUM-99	4.190	9.350	U	3.220	pCi/L	REG
ZBG 4	9/23/13	TECHNETIUM-99	20.300	43.500	U	-1.240	pCi/L	REG
ZBG 4	3/19/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 4	3/19/13	THALLIUM-208	15.000	16.900	U	0.570	pCi/L	REG
ZBG 4	9/23/13	THALLIUM-208	4.090	12.800	R	8.590	pCi/L	REG
ZBG 4	3/19/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG 4	3/19/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 4	3/19/13	TRITIUM	0.522	1.300		1.650	pCi/mL	REG
ZBG 4	9/23/13	TRITIUM	0.546	1.400		1.560	pCi/mL	REG
ZBG 5	3/19/13	ACTINIUM-228	40.000	48.600	U	1.400	pCi/L	REG
ZBG 5	9/23/13	ACTINIUM-228	15.900	36.100	U	-4.750	pCi/L	REG
ZBG 5	3/19/13	ANTIMONY-125	26.000	58.000	U	5.000	pCi/L	REG
ZBG 5	3/19/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 5	3/19/13	BISMUTH-214	24.000	46.000	U	3.000	pCi/L	REG
ZBG 5	9/23/13	BISMUTH-214	7.500	35.500		202.000	pCi/L	REG
ZBG 5	3/19/13	CESIUM-137	9.200	19.600	U	1.900	pCi/L	REG
ZBG 5	9/23/13	CESIUM-137	3.720	9.180	R	3.930	pCi/L	REG
ZBG 5	3/19/13	COBALT-60	12.000	25.000	U	-0.700	pCi/L	REG
ZBG 5	9/23/13	COBALT-60	4.440	9.960	U	0.232	pCi/L	REG
ZBG 5	3/19/13	GROSS ALPHA	0.910	2.030	U	0.460	pCi/L	REG
ZBG 5	9/23/13	GROSS ALPHA	1.960	5.760	J	5.280	pCi/L	REG
ZBG 5	3/19/13	IODINE-129	1.050	2.290	U	0.145	pCi/L	REG
ZBG 5	9/23/13	IODINE-129	0.886	1.640	U	0.268	pCi/L	REG
ZBG 5	3/19/13	LEAD-212	19.000	38.800	U	0.060	pCi/L	REG
ZBG 5	9/23/13	LEAD-212	7.570	19.400	U	5.610	pCi/L	REG
ZBG 5	3/19/13	LEAD-214	19.000	39.000	U	7.000	pCi/L	REG
ZBG 5	9/23/13	LEAD-214	29.300	58.300		233.000	pCi/L	REG
ZBG 5	3/19/13	NIOBIUM-94	11.000	23.200	U	-0.900	pCi/L	REG
ZBG 5	3/19/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.350	mg/L	REG
ZBG 5	9/23/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.213	mg/L	REG
ZBG 5	3/19/13	NONVOLATILE BETA	0.860	1.960	U	0.680	pCi/L	REG
ZBG 5	9/23/13	NONVOLATILE BETA	2.120	5.220	J	3.910	pCi/L	REG
ZBG 5	3/19/13	POTASSIUM-40	100.000	7500.000	U	-90.000	pCi/L	REG
ZBG 5	9/23/13	POTASSIUM-40	48.400	104.000	U	-17.000	pCi/L	REG
ZBG 5	3/19/13	RADIUM-226	0.200	0.440	U	0.070	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 5	3/19/13	RADIUM-228	0.350	0.730	U	-0.080	pCi/L	REG
ZBG 5	3/19/13	RUTHENIUM-106	79.000	177.000	U	15.000	pCi/L	REG
ZBG 5	3/19/13	TECHNETIUM-99	4.190	9.280	U	1.890	pCi/L	REG
ZBG 5	9/23/13	TECHNETIUM-99	20.000	43.200	U	2.350	pCi/L	REG
ZBG 5	3/19/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 5	3/19/13	THALLIUM-208	9.600	23.800	U	3.700	pCi/L	REG
ZBG 5	9/23/13	THALLIUM-208	4.660	10.100	U	1.060	pCi/L	REG
ZBG 5	3/19/13	TOLUENE	0.072	0.500	J	0.095	µg/L	REG
ZBG 5	3/19/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 5	3/19/13	TRITIUM	0.527	1.190	U	0.491	pCi/mL	REG
ZBG 5	9/23/13	TRITIUM	0.537	1.190	U	0.372	pCi/mL	REG
ZBG 6	3/20/13	ACTINIUM-228	29.000	67.000	U	20.000	pCi/L	REG
ZBG 6	9/23/13	ACTINIUM-228	15.600	36.200	U	-15.500	pCi/L	REG
ZBG 6	3/20/13	ANTIMONY-125	19.000	22.200	U	-0.500	pCi/L	REG
ZBG 6	3/20/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 6	3/20/13	BISMUTH-214	24.000	54.000	U	12.000	pCi/L	REG
ZBG 6	9/23/13	BISMUTH-214	8.710	40.500		275.000	pCi/L	REG
ZBG 6	3/20/13	CESIUM-137	11.000	23.000	U	-1.200	pCi/L	REG
ZBG 6	9/23/13	CESIUM-137	4.500	10.500	U	-0.139	pCi/L	REG
ZBG 6	3/20/13	COBALT-60	14.000	30.400	U	-3.800	pCi/L	REG
ZBG 6	9/23/13	COBALT-60	4.740	9.620	U	1.160	pCi/L	REG
ZBG 6	3/20/13	GROSS ALPHA	0.920	2.180	U	0.840	pCi/L	REG
ZBG 6	9/23/13	GROSS ALPHA	2.990	6.710	U	1.930	pCi/L	REG
ZBG 6	3/20/13	IODINE-129	1.100	2.910	U	1.100	pCi/L	REG
ZBG 6	9/23/13	IODINE-129	0.961	1.780	U	0.085	pCi/L	REG
ZBG 6	3/20/13	LEAD-212	19.000	43.000	U	-1.000	pCi/L	REG
ZBG 6	9/23/13	LEAD-212	7.200	20.300	U	6.630	pCi/L	REG
ZBG 6	3/20/13	LEAD-214	23.000	45.000	U	10.000	pCi/L	REG
ZBG 6	9/23/13	LEAD-214	10.000	44.200		311.000	pCi/L	REG
ZBG 6	3/20/13	NIOBIUM-94	9.600	20.000	U	-0.040	pCi/L	REG
ZBG 6	3/20/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.510	mg/L	REG
ZBG 6	9/23/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.448	mg/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 6	3/20/13	NONVOLATILE BETA	0.970	2.270		1.150	pCi/L	REG
ZBG 6	9/23/13	NONVOLATILE BETA	2.420	5.500	U	2.190	pCi/L	REG
ZBG 6	3/20/13	POTASSIUM-40	200.000	6800.000	U	-80.000	pCi/L	REG
ZBG 6	9/23/13	POTASSIUM-40	44.000	137.000	U	17.000	pCi/L	REG
ZBG 6	3/20/13	RADIUM-226	0.180	0.620		0.830	pCi/L	REG
ZBG 6	3/20/13	RADIUM-228	0.290	0.730	J	0.600	pCi/L	REG
ZBG 6	3/20/13	RUTHENIUM-106	81.000	219.000	U	21.000	pCi/L	REG
ZBG 6	3/20/13	TECHNETIUM-99	4.710	10.400	U	1.210	pCi/L	REG
ZBG 6	9/23/13	TECHNETIUM-99	19.700	42.900	U	7.360	pCi/L	REG
ZBG 6	3/20/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 6	3/20/13	THALLIUM-208	12.000	19.400	U	1.800	pCi/L	REG
ZBG 6	9/23/13	THALLIUM-208	4.960	12.600	U	1.520	pCi/L	REG
ZBG 6	3/20/13	TOLUENE	0.072	0.500	J	0.140	µg/L	REG
ZBG 6	3/20/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 6	3/20/13	TRITIUM	0.521	1.460		3.510	pCi/mL	REG
ZBG 6	9/23/13	TRITIUM	0.536	1.600		3.330	pCi/mL	REG
ZBG 7	3/26/13	ACTINIUM-228	33.000	63.000	U	11.000	pCi/L	REG
ZBG 7	9/23/13	ACTINIUM-228	13.600	30.800	U	-1.730	pCi/L	REG
ZBG 7	3/26/13	ANTIMONY-125	26.000	48.000	U	8.000	pCi/L	REG
ZBG 7	3/26/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 7	3/26/13	BISMUTH-214	24.000	68.000		80.000	pCi/L	REG
ZBG 7	9/23/13	BISMUTH-214	6.440	21.900		28.000	pCi/L	REG
ZBG 7	3/26/13	CESIUM-137	10.000	20.800	U	0.100	pCi/L	REG
ZBG 7	9/23/13	CESIUM-137	3.310	7.230	U	1.020	pCi/L	REG
ZBG 7	3/26/13	COBALT-60	13.000	27.000	U	-0.300	pCi/L	REG
ZBG 7	9/23/13	COBALT-60	3.440	6.720	U	1.140	pCi/L	REG
ZBG 7	3/26/13	GROSS ALPHA	0.680	1.920		1.390	pCi/L	REG
ZBG 7	9/23/13	GROSS ALPHA	2.940	6.260	U	0.927	pCi/L	REG
ZBG 7	3/26/13	IODINE-129	1.000	2.180	U	-0.239	pCi/L	REG
ZBG 7	9/23/13	IODINE-129	1.050	2.140	U	0.034	pCi/L	REG
ZBG 7	3/26/13	LEAD-212	22.000	46.000	U	2.000	pCi/L	REG
ZBG 7	9/23/13	LEAD-212	6.490	15.700	U	0.598	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 7	3/26/13	LEAD-214	21.000	59.000		60.000	pCi/L	REG
ZBG 7	9/23/13	LEAD-214	13.200	32.000		32.900	pCi/L	REG
ZBG 7	3/26/13	NIOBIUM-94	6.100	13.100	U	2.100	pCi/L	REG
ZBG 7	3/26/13	NITRATE-NITRITE AS NITROGEN	0.012	0.100		0.950	mg/L	REG
ZBG 7	9/23/13	NITRATE-NITRITE AS NITROGEN	0.085	0.250		0.920	mg/L	REG
ZBG 7	3/26/13	NONVOLATILE BETA	0.880	2.020	U	0.550	pCi/L	REG
ZBG 7	9/23/13	NONVOLATILE BETA	2.650	5.370	U	-0.588	pCi/L	REG
ZBG 7	3/26/13	POTASSIUM-40	180.000	356.000	U	7.000	pCi/L	REG
ZBG 7	9/23/13	POTASSIUM-40	47.600	95.000	U	26.200	pCi/L	REG
ZBG 7	3/26/13	RADIUM-226	0.130	0.282		0.520	pCi/L	REG
ZBG 7	3/26/13	RADIUM-228	0.310	0.830		0.970	pCi/L	REG
ZBG 7	3/26/13	RUTHENIUM-106	72.000	128.000	U	22.000	pCi/L	REG
ZBG 7	3/26/13	TECHNETIUM-99	4.530	9.910	U	-0.024	pCi/L	REG
ZBG 7	9/23/13	TECHNETIUM-99	19.700	42.900	U	5.820	pCi/L	REG
ZBG 7	3/26/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 7	3/26/13	THALLIUM-208	13.000	51.000	U	-5.000	pCi/L	REG
ZBG 7	9/23/13	THALLIUM-208	3.270	8.130	U	0.546	pCi/L	REG
ZBG 7	3/26/13	TOLUENE	0.072	0.500	J	0.150	µg/L	REG
ZBG 7	3/26/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 7	3/26/13	TRITIUM	0.565	1.480		2.740	pCi/mL	REG
ZBG 7	9/23/13	TRITIUM	0.535	1.580		3.120	pCi/mL	REG
ZBG 8	3/25/13	ACTINIUM-228	43.000	89.000	U	4.000	pCi/L	REG
ZBG 8	9/24/13	ACTINIUM-228	22.800	48.200	U	0.757	pCi/L	REG
ZBG 8	3/25/13	ANTIMONY-125	39.000	63.000	U	6.000	pCi/L	REG
ZBG 8	3/25/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG 8	3/25/13	BISMUTH-214	26.000	78.000		134.000	pCi/L	REG
ZBG 8	9/24/13	BISMUTH-214	11.000	62.600		655.000	pCi/L	REG
ZBG 8	3/25/13	CESIUM-137	11.000	24.000	U	3.000	pCi/L	REG
ZBG 8	9/24/13	CESIUM-137	5.670	13.000	U	1.040	pCi/L	REG
ZBG 8	3/25/13	COBALT-60	8.500	16.500	U	0.200	pCi/L	REG
ZBG 8	9/24/13	COBALT-60	6.220	13.500	U	-1.100	pCi/L	REG
ZBG 8	3/25/13	GROSS ALPHA	0.890	2.210		1.110	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG 8	9/24/13	GROSS ALPHA	2.950	8.370	J	6.950	pCi/L	REG
ZBG 8	3/25/13	IODINE-129	0.981	2.160	U	-0.113	pCi/L	REG
ZBG 8	9/24/13	IODINE-129	0.797	1.420	U	0.226	pCi/L	REG
ZBG 8	3/25/13	LEAD-212	21.000	43.000	U	10.000	pCi/L	REG
ZBG 8	9/24/13	LEAD-212	12.600	29.400	U	-4.350	pCi/L	REG
ZBG 8	3/25/13	LEAD-214	26.000	72.000		121.000	pCi/L	REG
ZBG 8	9/24/13	LEAD-214	14.800	68.200		715.000	pCi/L	REG
ZBG 8	3/25/13	NIOBIUM-94	10.000	21.400	U	1.800	pCi/L	REG
ZBG 8	3/25/13	NITRATE-NITRITE AS NITROGEN	0.012	0.100		0.830	mg/L	REG
ZBG 8	9/24/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.778	mg/L	REG
ZBG 8	3/25/13	NONVOLATILE BETA	0.910	2.050	U	0.500	pCi/L	REG
ZBG 8	9/24/13	NONVOLATILE BETA	3.160	7.860	J	6.240	pCi/L	REG
ZBG 8	3/25/13	POTASSIUM-40	110.000	280.000		140.000	pCi/L	REG
ZBG 8	9/24/13	POTASSIUM-40	64.300	137.000	U	-8.150	pCi/L	REG
ZBG 8	3/25/13	RADIUM-226	0.130	0.302		0.709	pCi/L	REG
ZBG 8	3/25/13	RADIUM-228	0.300	0.800		1.000	pCi/L	REG
ZBG 8	3/25/13	RUTHENIUM-106	110.000	224.000	U	0.900	pCi/L	REG
ZBG 8	3/25/13	TECHNETIUM-99	4.540	9.800	U	-2.310	pCi/L	REG
ZBG 8	9/24/13	TECHNETIUM-99	20.000	43.200	U	2.830	pCi/L	REG
ZBG 8	3/25/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG 8	3/25/13	THALLIUM-208	14.000	28.800	U	2.600	pCi/L	REG
ZBG 8	9/24/13	THALLIUM-208	6.290	14.400	U	-2.690	pCi/L	REG
ZBG 8	3/25/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG 8	3/25/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG 8	3/25/13	TRITIUM	0.560	1.450		2.510	pCi/mL	REG
ZBG 8	9/24/13	TRITIUM	0.490	1.480		2.880	pCi/mL	REG
ZBG009D	3/25/13	ACTINIUM-228	38.000	72.000	U	19.000	pCi/L	REG
ZBG009D	9/24/13	ACTINIUM-228	16.600	35.400	U	1.340	pCi/L	REG
ZBG009D	3/25/13	ANTIMONY-125	31.000	57.000	U	5.000	pCi/L	REG
ZBG009D	3/25/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG009D	3/25/13	BISMUTH-214	31.000	65.000	U	26.000	pCi/L	REG
ZBG009D	9/24/13	BISMUTH-214	6.500	33.700		154.000	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG009D	3/25/13	CESIUM-137	13.000	20.600	U	0.000	pCi/L	REG
ZBG009D	9/24/13	CESIUM-137	3.350	7.930	U	-0.769	pCi/L	REG
ZBG009D	3/25/13	COBALT-60	14.000	14.700	U	0.170	pCi/L	REG
ZBG009D	9/24/13	COBALT-60	3.800	8.320	U	0.268	pCi/L	REG
ZBG009D	3/25/13	GROSS ALPHA	0.790	1.930		0.800	pCi/L	REG
ZBG009D	9/24/13	GROSS ALPHA	2.830	7.470	J	4.330	pCi/L	REG
ZBG009D	3/25/13	IODINE-129	1.010	2.150	U	0.320	pCi/L	REG
ZBG009D	9/24/13	IODINE-129	0.899	1.700	U	0.222	pCi/L	REG
ZBG009D	3/25/13	LEAD-212	24.000	64.000	U	-4.000	pCi/L	REG
ZBG009D	9/24/13	LEAD-212	8.150	19.100	U	-0.487	pCi/L	REG
ZBG009D	3/25/13	LEAD-214	22.000	60.000		78.000	pCi/L	REG
ZBG009D	9/24/13	LEAD-214	8.460	38.700		190.000	pCi/L	REG
ZBG009D	3/25/13	NIOBIUM-94	12.000	25.000	U	-1.200	pCi/L	REG
ZBG009D	3/25/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.940	mg/L	REG
ZBG009D	9/24/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.916	mg/L	REG
ZBG009D	3/25/13	NONVOLATILE BETA	0.890	1.910	U	-0.010	pCi/L	REG
ZBG009D	9/24/13	NONVOLATILE BETA	2.500	6.460	J	5.040	pCi/L	REG
ZBG009D	3/25/13	POTASSIUM-40	200.000	760.000	U	-80.000	pCi/L	REG
ZBG009D	9/24/13	POTASSIUM-40	46.400	96.200	U	-7.550	pCi/L	REG
ZBG009D	3/25/13	RADIUM-226	0.220	0.362	U	0.160	pCi/L	REG
ZBG009D	3/25/13	RADIUM-228	0.300	0.680	U	0.210	pCi/L	REG
ZBG009D	3/25/13	RUTHENIUM-106	110.000	188.000	U	0.000	pCi/L	REG
ZBG009D	3/25/13	TECHNETIUM-99	4.500	9.730	U	-2.170	pCi/L	REG
ZBG009D	9/24/13	TECHNETIUM-99	19.800	42.800	U	2.100	pCi/L	REG
ZBG009D	3/25/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG009D	3/25/13	THALLIUM-208	10.000	20.200	U	5.500	pCi/L	REG
ZBG009D	9/24/13	THALLIUM-208	3.980	11.200	U	2.250	pCi/L	REG
ZBG009D	3/25/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG009D	3/25/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG009D	3/25/13	TRITIUM	0.566	1.480		2.660	pCi/mL	REG
ZBG009D	9/24/13	TRITIUM	0.492	1.480		2.900	pCi/mL	REG
ZBG010D	3/25/13	ACTINIUM-228	37.000	71.000	U	7.000	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG010D	9/24/13	ACTINIUM-228	14.200	33.000	U	-6.930	pCi/L	REG
ZBG010D	3/25/13	ANTIMONY-125	27.000	53.000	U	5.000	pCi/L	REG
ZBG010D	3/25/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG010D	3/25/13	BISMUTH-214	23.000	61.000		56.000	pCi/L	REG
ZBG010D	9/24/13	BISMUTH-214	7.090	30.100		128.000	pCi/L	REG
ZBG010D	3/25/13	CESIUM-137	9.400	19.400	U	-0.200	pCi/L	REG
ZBG010D	9/24/13	CESIUM-137	3.770	7.950	U	-0.017	pCi/L	REG
ZBG010D	3/25/13	COBALT-60	13.000	26.400	U	0.800	pCi/L	REG
ZBG010D	9/24/13	COBALT-60	3.310	6.930	U	-0.452	pCi/L	REG
ZBG010D	3/25/13	GROSS ALPHA	1.200	2.700	U	0.790	pCi/L	REG
ZBG010D	9/24/13	GROSS ALPHA	2.980	6.700	U	1.760	pCi/L	REG
ZBG010D	3/25/13	IODINE-129	0.985	2.300	U	0.104	pCi/L	REG
ZBG010D	9/24/13	IODINE-129	0.681	1.440	U	-0.232	pCi/L	REG
ZBG010D	3/25/13	LEAD-212	17.000	37.000	U	7.000	pCi/L	REG
ZBG010D	9/24/13	LEAD-212	7.320	17.200	U	-1.390	pCi/L	REG
ZBG010D	3/25/13	LEAD-214	20.000	54.000		53.000	pCi/L	REG
ZBG010D	9/24/13	LEAD-214	23.800	51.000		161.000	pCi/L	REG
ZBG010D	3/25/13	NIOBIUM-94	10.000	21.400	U	-0.700	pCi/L	REG
ZBG010D	3/25/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		1.400	mg/L	REG
ZBG010D	9/24/13	NITRATE-NITRITE AS NITROGEN	0.085	0.250		0.845	mg/L	REG
ZBG010D	3/25/13	NONVOLATILE BETA	0.940	2.560		3.660	pCi/L	REG
ZBG010D	9/24/13	NONVOLATILE BETA	2.810	6.550	J	2.970	pCi/L	REG
ZBG010D	3/25/13	POTASSIUM-40	200.000	7600.000	U	-90.000	pCi/L	REG
ZBG010D	9/24/13	POTASSIUM-40	44.200	95.800	U	-23.800	pCi/L	REG
ZBG010D	3/25/13	RADIUM-226	0.130	0.266		0.409	pCi/L	REG
ZBG010D	3/25/13	RADIUM-228	0.330	0.770		0.350	pCi/L	REG
ZBG010D	3/25/13	RUTHENIUM-106	94.000	150.000	U	5.000	pCi/L	REG
ZBG010D	3/25/13	TECHNETIUM-99	4.570	10.000	U	0.522	pCi/L	REG
ZBG010D	9/24/13	TECHNETIUM-99	19.900	43.100	U	3.720	pCi/L	REG
ZBG010D	3/25/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG010D	3/25/13	THALLIUM-208	11.000	24.400	U	5.300	pCi/L	REG
ZBG010D	9/24/13	THALLIUM-208	3.450	9.270	U	1.480	pCi/L	REG

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ZBG010D	3/25/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG010D	3/25/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG010D	3/25/13	TRITIUM	0.570	1.450		2.260	pCi/mL	REG
ZBG010D	9/24/13	TRITIUM	0.488	1.410		2.380	pCi/mL	REG
ZBG011D	3/25/13	ACTINIUM-228	33.000	69.000	U	10.000	pCi/L	REG
ZBG011D	9/24/13	ACTINIUM-228	15.500	32.800	U	-0.560	pCi/L	REG
ZBG011D	3/25/13	ANTIMONY-125	23.000	55.000	U	11.000	pCi/L	REG
ZBG011D	3/25/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG011D	3/25/13	BISMUTH-214	27.000	65.000	U	4.000	pCi/L	REG
ZBG011D	9/24/13	BISMUTH-214	6.000	20.900	R	8.270	pCi/L	REG
ZBG011D	3/25/13	CESIUM-137	16.000	180.000	U	-6.000	pCi/L	REG
ZBG011D	9/24/13	CESIUM-137	3.890	7.750	U	1.960	pCi/L	REG
ZBG011D	3/25/13	COBALT-60	21.000	49.000	U	-2.000	pCi/L	REG
ZBG011D	9/24/13	COBALT-60	2.910	6.710	U	-2.030	pCi/L	REG
ZBG011D	3/25/13	GROSS ALPHA	0.870	2.010	U	0.640	pCi/L	REG
ZBG011D	9/24/13	GROSS ALPHA	2.860	5.940	U	0.515	pCi/L	REG
ZBG011D	3/25/13	IODINE-129	1.040	2.230	U	0.364	pCi/L	REG
ZBG011D	9/24/13	IODINE-129	1.020	1.990	U	0.249	pCi/L	REG
ZBG011D	3/25/13	LEAD-212	21.000	45.000	U	-0.700	pCi/L	REG
ZBG011D	9/24/13	LEAD-212	6.150	15.600	U	1.670	pCi/L	REG
ZBG011D	3/25/13	LEAD-214	19.000	47.000	U	17.000	pCi/L	REG
ZBG011D	9/24/13	LEAD-214	8.170	22.200	U	2.570	pCi/L	REG
ZBG011D	3/25/13	NIOBIUM-94	13.000	27.200	U	-1.800	pCi/L	REG
ZBG011D	3/25/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.110	mg/L	REG
ZBG011D	9/24/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.197	mg/L	REG
ZBG011D	3/25/13	NONVOLATILE BETA	0.860	1.960	U	0.620	pCi/L	REG
ZBG011D	9/24/13	NONVOLATILE BETA	3.570	7.330	U	-1.210	pCi/L	REG
ZBG011D	3/25/13	POTASSIUM-40	220.000	820.000	U	-100.000	pCi/L	REG
ZBG011D	9/24/13	POTASSIUM-40	43.400	90.200	U	-8.690	pCi/L	REG
ZBG011D	3/25/13	RADIUM-226	0.170	0.276	U	0.099	pCi/L	REG
ZBG011D	3/25/13	RADIUM-228	0.310	0.710	U	0.290	pCi/L	REG
ZBG011D	3/25/13	RUTHENIUM-106	99.000	211.000	U	-15.000	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG011D	3/25/13	TECHNETIUM-99	4.540	9.920	U	-0.236	pCi/L	REG
ZBG011D	9/24/13	TECHNETIUM-99	19.900	42.700	U	-0.354	pCi/L	REG
ZBG011D	3/25/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG011D	3/25/13	THALLIUM-208	14.000	28.200	U	0.500	pCi/L	REG
ZBG011D	9/24/13	THALLIUM-208	3.220	8.500	U	1.040	pCi/L	REG
ZBG011D	3/25/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG011D	3/25/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG011D	3/25/13	TRITIUM	0.560	1.270	U	0.508	pCi/mL	REG
ZBG011D	9/24/13	TRITIUM	0.489	1.130	J	0.558	pCi/mL	REG
ZBG012D	3/20/13	ACTINIUM-228	38.000	78.000	U	10.000	pCi/L	REG
ZBG012D	9/24/13	ACTINIUM-228	12.200	27.700	U	-3.230	pCi/L	REG
ZBG012D	3/20/13	ANTIMONY-125	21.000	45.000	U	7.000	pCi/L	REG
ZBG012D	3/20/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG012D	3/20/13	BISMUTH-214	29.000	103.000	U	-7.000	pCi/L	REG
ZBG012D	9/24/13	BISMUTH-214	8.360	20.100	U	1.940	pCi/L	REG
ZBG012D	3/20/13	CESIUM-137	8.400	18.800	U	4.300	pCi/L	REG
ZBG012D	9/24/13	CESIUM-137	3.870	8.730	U	-2.280	pCi/L	REG
ZBG012D	3/20/13	COBALT-60	6.800	12.000	U	0.000	pCi/L	REG
ZBG012D	9/24/13	COBALT-60	3.140	6.740	U	-0.817	pCi/L	REG
ZBG012D	3/20/13	GROSS ALPHA	1.100	2.280	U	0.110	pCi/L	REG
ZBG012D	9/24/13	GROSS ALPHA	2.950	6.870	U	2.560	pCi/L	REG
ZBG012D	3/20/13	IODINE-129	1.090	2.520	U	0.746	pCi/L	REG
ZBG012D	9/24/13	IODINE-129	1.160	2.180	U	0.161	pCi/L	REG
ZBG012D	3/20/13	LEAD-212	17.000	37.000	U	5.000	pCi/L	REG
ZBG012D	9/24/13	LEAD-212	6.450	14.500	U	0.773	pCi/L	REG
ZBG012D	3/20/13	LEAD-214	25.000	83.000	U	-4.000	pCi/L	REG
ZBG012D	9/24/13	LEAD-214	8.880	21.400	U	6.230	pCi/L	REG
ZBG012D	3/20/13	NIOBIUM-94	12.000	25.200	U	0.300	pCi/L	REG
ZBG012D	3/20/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025	J	0.020	mg/L	REG
ZBG012D	9/24/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050	J	0.031	mg/L	REG
ZBG012D	3/20/13	NONVOLATILE BETA	0.780	1.780		0.940	pCi/L	REG
ZBG012D	9/24/13	NONVOLATILE BETA	2.090	4.630	U	1.310	pCi/L	REG

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ZBG012D	3/20/13	POTASSIUM-40	140.000	314.000	U	78.000	pCi/L	REG
ZBG012D	9/24/13	POTASSIUM-40	36.000	81.400	U	-19.400	pCi/L	REG
ZBG012D	3/20/13	RADIUM-226	0.200	0.420	U	0.040	pCi/L	REG
ZBG012D	3/20/13	RADIUM-228	0.350	0.750	U	0.020	pCi/L	REG
ZBG012D	3/20/13	RUTHENIUM-106	77.000	191.000	U	16.000	pCi/L	REG
ZBG012D	3/20/13	TECHNETIUM-99	4.680	10.200	U	-0.600	pCi/L	REG
ZBG012D	9/24/13	TECHNETIUM-99	19.900	42.500	U	-3.520	pCi/L	REG
ZBG012D	3/20/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG012D	3/20/13	THALLIUM-208	17.000	28.400	U	-1.900	pCi/L	REG
ZBG012D	9/24/13	THALLIUM-208	3.590	8.230	U	-0.872	pCi/L	REG
ZBG012D	3/20/13	TOLUENE	0.072	0.500	J	0.097	µg/L	REG
ZBG012D	3/20/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG012D	3/20/13	TRITIUM	0.520	1.330		1.970	pCi/mL	REG
ZBG012D	9/24/13	TRITIUM	0.491	1.310		1.640	pCi/mL	REG
ZBG013D	3/20/13	ACTINIUM-228	37.000	77.000	U	9.000	pCi/L	REG
ZBG013D	9/24/13	ACTINIUM-228	17.500	46.300	U	8.420	pCi/L	REG
ZBG013D	3/20/13	ANTIMONY-125	23.000	49.000	U	5.000	pCi/L	REG
ZBG013D	3/20/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG013D	3/20/13	BISMUTH-214	22.000	52.000	U	-2.000	pCi/L	REG
ZBG013D	9/24/13	BISMUTH-214	7.900	20.700	U	7.440	pCi/L	REG
ZBG013D	3/20/13	CESIUM-137	14.000	154.000	U	-5.000	pCi/L	REG
ZBG013D	9/24/13	CESIUM-137	4.020	8.300	U	0.815	pCi/L	REG
ZBG013D	3/20/13	COBALT-60	18.000	20.400	U	-0.400	pCi/L	REG
ZBG013D	9/24/13	COBALT-60	4.460	8.720	U	1.880	pCi/L	REG
ZBG013D	3/20/13	GROSS ALPHA	1.100	2.340	U	0.360	pCi/L	REG
ZBG013D	9/24/13	GROSS ALPHA	2.890	5.650	U	-0.322	pCi/L	REG
ZBG013D	3/20/13	IODINE-129	0.966	2.300	U	0.612	pCi/L	REG
ZBG013D	9/24/13	IODINE-129	0.837	1.590	U	0.213	pCi/L	REG
ZBG013D	3/20/13	LEAD-212	16.000	36.000		16.000	pCi/L	REG
ZBG013D	9/24/13	LEAD-212	9.340	22.500	U	1.610	pCi/L	REG
ZBG013D	3/20/13	LEAD-214	20.000	42.000	U	7.000	pCi/L	REG
ZBG013D	9/24/13	LEAD-214	8.670	20.900	U	-3.160	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG013D	3/20/13	NIOBIUM-94	8.300	17.100	U	0.040	pCi/L	REG
ZBG013D	3/20/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.110	mg/L	REG
ZBG013D	9/24/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.125	mg/L	REG
ZBG013D	3/20/13	NONVOLATILE BETA	0.390	0.910		0.390	pCi/L	REG
ZBG013D	9/24/13	NONVOLATILE BETA	1.680	3.470	U	-0.122	pCi/L	REG
ZBG013D	3/20/13	POTASSIUM-40	200.000	500.000	U	-50.000	pCi/L	REG
ZBG013D	9/24/13	POTASSIUM-40	53.300	118.000	U	1.240	pCi/L	REG
ZBG013D	3/20/13	RADIUM-226	0.190	0.430	U	0.110	pCi/L	REG
ZBG013D	3/20/13	RADIUM-228	0.330	0.730	U	0.140	pCi/L	REG
ZBG013D	3/20/13	RUTHENIUM-106	89.000	100.000	U	-1.200	pCi/L	REG
ZBG013D	3/20/13	TECHNETIUM-99	4.700	10.200	U	-1.110	pCi/L	REG
ZBG013D	9/24/13	TECHNETIUM-99	19.900	42.700	U	-0.832	pCi/L	REG
ZBG013D	3/20/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG013D	3/20/13	THALLIUM-208	14.000	42.000	U	-5.000	pCi/L	REG
ZBG013D	9/24/13	THALLIUM-208	3.780	10.800	U	1.470	pCi/L	REG
ZBG013D	3/20/13	TOLUENE	0.072	0.500	J	0.130	µg/L	REG
ZBG013D	3/20/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG013D	3/20/13	TRITIUM	0.517	1.170	U	0.427	pCi/mL	REG
ZBG013D	9/24/13	TRITIUM	0.489	1.180	J	0.834	pCi/mL	REG
ZBG014D	3/25/13	ACTINIUM-228	35.000	71.000	U	8.000	pCi/L	REG
ZBG014D	9/25/13	ACTINIUM-228	12.400	28.700	U	-2.650	pCi/L	REG
ZBG014D	3/25/13	ANTIMONY-125	21.000	45.000	U	3.000	pCi/L	REG
ZBG014D	3/25/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG014D	3/25/13	BISMUTH-214	25.000	73.000	U	-7.000	pCi/L	REG
ZBG014D	9/25/13	BISMUTH-214	6.740	17.800	U	5.650	pCi/L	REG
ZBG014D	3/25/13	CESIUM-137	9.000	11.600	U	0.000	pCi/L	REG
ZBG014D	9/25/13	CESIUM-137	3.200	6.840	U	-0.195	pCi/L	REG
ZBG014D	3/25/13	COBALT-60	11.000	17.800	U	1.300	pCi/L	REG
ZBG014D	9/25/13	COBALT-60	3.520	7.760	U	-0.212	pCi/L	REG
ZBG014D	3/25/13	GROSS ALPHA	1.300	2.860	U	0.450	pCi/L	REG
ZBG014D	9/25/13	GROSS ALPHA	2.910	5.710	U	-0.367	pCi/L	REG
ZBG014D	3/25/13	IODINE-129	0.994	2.220	U	-0.164	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG014D	9/25/13	IODINE-129	0.909	1.850	U	-0.014	pCi/L	REG
ZBG014D	3/25/13	LEAD-212	18.000	44.000	U	6.000	pCi/L	REG
ZBG014D	9/25/13	LEAD-212	6.630	14.600	U	-1.190	pCi/L	REG
ZBG014D	3/25/13	LEAD-214	23.000	47.000	U	0.200	pCi/L	REG
ZBG014D	9/25/13	LEAD-214	8.040	20.700	U	0.195	pCi/L	REG
ZBG014D	3/25/13	NIOBIUM-94	8.800	18.200	U	-0.200	pCi/L	REG
ZBG014D	3/25/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.031	mg/L	REG
ZBG014D	9/25/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.213	mg/L	REG
ZBG014D	3/25/13	NONVOLATILE BETA	1.000	2.140	U	0.010	pCi/L	REG
ZBG014D	9/25/13	NONVOLATILE BETA	1.770	3.620	U	-0.263	pCi/L	REG
ZBG014D	3/25/13	POTASSIUM-40	170.000	570.000	U	-40.000	pCi/L	REG
ZBG014D	9/25/13	POTASSIUM-40	38.800	101.000	U	8.590	pCi/L	REG
ZBG014D	3/25/13	RADIUM-226	0.150	0.264		0.213	pCi/L	REG
ZBG014D	3/25/13	RADIUM-228	0.300	0.660	U	0.060	pCi/L	REG
ZBG014D	3/25/13	RUTHENIUM-106	83.000	181.000	U	31.000	pCi/L	REG
ZBG014D	3/25/13	TECHNETIUM-99	4.460	9.800	U	0.671	pCi/L	REG
ZBG014D	9/25/13	TECHNETIUM-99	19.800	42.400	U	-2.520	pCi/L	REG
ZBG014D	3/25/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG014D	3/25/13	THALLIUM-208	9.700	22.700	U	6.200	pCi/L	REG
ZBG014D	9/25/13	THALLIUM-208	3.120	8.460	U	1.730	pCi/L	REG
ZBG014D	3/25/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG
ZBG014D	3/25/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG014D	3/25/13	TRITIUM	0.564	1.220	U	0.028	pCi/mL	REG
ZBG014D	9/25/13	TRITIUM	0.487	1.160	J	0.746	pCi/mL	REG
ZBG015D	3/25/13	ACTINIUM-228	48.000	98.000	U	-0.400	pCi/L	REG
ZBG015D	9/24/13	ACTINIUM-228	15.700	35.100	U	-6.420	pCi/L	REG
ZBG015D	3/25/13	ANTIMONY-125	44.000	80.000	U	7.000	pCi/L	REG
ZBG015D	3/25/13	BENZENE	0.064	0.500	U	0.500	µg/L	REG
ZBG015D	3/25/13	BISMUTH-214	9.000	47.000		69.000	pCi/L	REG
ZBG015D	9/24/13	BISMUTH-214	7.940	32.500		160.000	pCi/L	REG
ZBG015D	3/25/13	CARBON-14	8.200	17.400	U	-2.600	pCi/L	REG
ZBG015D	3/25/13	CESIUM-137	14.000	28.400	U	0.070	pCi/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG015D	9/24/13	CESIUM-137	4.580	10.600	U	-0.858	pCi/L	REG
ZBG015D	3/25/13	COBALT-60	8.600	15.200	U	0.000	pCi/L	REG
ZBG015D	9/24/13	COBALT-60	3.570	7.590	U	-0.897	pCi/L	REG
ZBG015D	3/25/13	GROSS ALPHA	0.870	2.310		1.480	pCi/L	REG
ZBG015D	9/24/13	GROSS ALPHA	2.720	5.720	U	0.908	pCi/L	REG
ZBG015D	3/25/13	IODINE-129	0.979	2.160	U	-0.087	pCi/L	REG
ZBG015D	9/24/13	IODINE-129	0.797	1.530	U	0.422	pCi/L	REG
ZBG015D	3/25/13	LEAD-212	30.000	430.000	U	-10.000	pCi/L	REG
ZBG015D	9/24/13	LEAD-212	7.130	19.500	U	4.390	pCi/L	REG
ZBG015D	3/25/13	LEAD-214	18.000	60.000		66.000	pCi/L	REG
ZBG015D	9/24/13	LEAD-214	9.130	35.300		171.000	pCi/L	REG
ZBG015D	3/25/13	NICKEL-59	1.700	3.700	U	0.000	pCi/L	REG
ZBG015D	3/25/13	NICKEL-63	2.100	4.500	U	-0.200	pCi/L	REG
ZBG015D	3/25/13	NIOBIUM-94	15.000	31.800	U	-2.700	pCi/L	REG
ZBG015D	3/25/13	NITRATE-NITRITE AS NITROGEN	0.003	0.025		0.670	mg/L	REG
ZBG015D	9/24/13	NITRATE-NITRITE AS NITROGEN	0.017	0.050		0.555	mg/L	REG
ZBG015D	3/25/13	NONVOLATILE BETA	1.000	2.260	U	0.360	pCi/L	REG
ZBG015D	9/24/13	NONVOLATILE BETA	2.800	5.800	U	0.067	pCi/L	REG
ZBG015D	3/25/13	PLUTONIUM-241	4.000	8.800	U	2.500	pCi/L	REG
ZBG015D	3/25/13	POTASSIUM-40	200.000	6200.000	U	-70.000	pCi/L	REG
ZBG015D	9/24/13	POTASSIUM-40	50.900	107.000	U	-5.290	pCi/L	REG
ZBG015D	3/25/13	RADIUM-226	0.230	0.396		0.312	pCi/L	REG
ZBG015D	3/25/13	RADIUM-228	0.390	0.870	U	0.190	pCi/L	REG
ZBG015D	3/25/13	RUTHENIUM-106	90.000	242.000	U	27.000	pCi/L	REG
ZBG015D	3/25/13	STRONTIUM-90	0.610	1.290	U	0.020	pCi/L	REG
ZBG015D	9/24/13	STRONTIUM-90	7.310	15.600	U	1.390	pCi/L	REG
ZBG015D	3/25/13	TECHNETIUM-99	4.450	9.810	U	1.160	pCi/L	REG
ZBG015D	9/24/13	TECHNETIUM-99	23.100	49.500	U	-0.791	pCi/L	REG
ZBG015D	3/25/13	TETRACHLOROETHYLENE (PCE)	0.180	0.500	U	0.500	µg/L	REG
ZBG015D	3/25/13	THALLIUM-208	12.000	25.200	U	1.100	pCi/L	REG
ZBG015D	9/24/13	THALLIUM-208	4.490	9.930	U	-0.184	pCi/L	REG
ZBG015D	3/25/13	TOLUENE	0.072	0.500	U	0.500	µg/L	REG

WELL	DATE	ANALYTE	MDL	PQL	QUALIFIER	RESULT	UNITS	SAMPLE TYPE
ZBG015D	3/25/13	TRICHLOROETHYLENE (TCE)	0.250	0.500	U	0.500	µg/L	REG
ZBG015D	3/25/13	TRITIUM	0.603	1.620		3.400	pCi/mL	REG
ZBG015D	9/24/13	TRITIUM	0.520	1.630		3.540	pCi/mL	REG

Notes:

MDL	Method Detection Limit
PQL	Practical Quantitation Limit
QUALIFIER	USEPA Functional Guideline Codes applied by labs.
REG	Regular Laboratory Analysis of Sample.
LD	Laboratory Duplicate QC Analysis
RERUN	Requested Reanalysis of Original Sample

USEPA Functional Guideline Codes

J The detected analyte was positively identified but the result is approximate.
NJ The detected analyte was only tentatively identified and the result is approximate. All usable TIC results receive this code.
U The analyte was analyzed for, but not detected. The sample detection and quantitation limits (MDL & PQL) are valid unless blank contamination is indicated.
UJ The analyte was analyzed for, but not detected. The MDL & PQL are approximate, and may be inaccurate or imprecise.
R The sample result is rejected as unusable due to serious deficiencies in meeting quality control criteria. The analyte may be present or absent.

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Table 3. Field Measurements for Saltstone Wells (2013)

STATION	DATE	ANALYTE	VALUE	UNITS
ZBG 1	3/20/13	AIR TEMPERATURE	8.80	degC
ZBG 1	9/24/13	AIR TEMPERATURE	19.30	degC
ZBG 1	3/20/13	FLOW RATE	1.00	gal/min
ZBG 1	9/24/13	FLOW RATE	1.00	gal/min
ZBG 1	3/20/13	PH	4.30	pH
ZBG 1	9/24/13	PH	4.80	pH
ZBG 1	3/20/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 1	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 1	3/20/13	SPECIFIC CONDUCTANCE	27.00	µS/cm
ZBG 1	9/24/13	SPECIFIC CONDUCTANCE	23.00	µS/cm
ZBG 1	3/20/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 1	9/24/13	TOTAL ALKALINITY (AS CACO3)	6.00	mg/L
ZBG 1	3/20/13	TURBIDITY	1.80	NTU
ZBG 1	9/24/13	TURBIDITY	0.30	NTU
ZBG 1	3/20/13	VOLUME PURGED	15.00	gal
ZBG 1	9/24/13	VOLUME PURGED	24.00	gal
ZBG 1	3/20/13	WATER TEMPERATURE	20.00	degC
ZBG 1	9/24/13	WATER TEMPERATURE	21.00	degC
ZBG 2	3/18/13	AIR TEMPERATURE	15.30	degC
ZBG 2	6/24/13	AIR TEMPERATURE	28.30	degC
ZBG 2	9/23/13	AIR TEMPERATURE	22.30	degC
ZBG 2	3/18/13	FLOW RATE	1.00	gal/min
ZBG 2	6/24/13	FLOW RATE	1.00	gal/min
ZBG 2	9/23/13	FLOW RATE	1.00	gal/min
ZBG 2	3/18/13	PH	4.80	pH
ZBG 2	6/24/13	PH	4.90	pH
ZBG 2	9/23/13	PH	4.20	pH
ZBG 2	3/18/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 2	6/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 2	9/23/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 2	3/18/13	SPECIFIC CONDUCTANCE	56.00	µS/cm
ZBG 2	6/24/13	SPECIFIC CONDUCTANCE	46.00	µS/cm
ZBG 2	9/23/13	SPECIFIC CONDUCTANCE	35.00	µS/cm
ZBG 2	3/18/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 2	6/24/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 2	9/23/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 2	3/18/13	TURBIDITY	1.50	NTU
ZBG 2	6/24/13	TURBIDITY	2.00	NTU
ZBG 2	9/23/13	TURBIDITY	1.00	NTU
ZBG 2	3/18/13	VOLUME PURGED	9.00	gal
ZBG 2	6/24/13	VOLUME PURGED	13.00	gal
ZBG 2	9/23/13	VOLUME PURGED	16.00	gal
ZBG 2	3/18/13	WATER TEMPERATURE	22.70	degC
ZBG 2	6/24/13	WATER TEMPERATURE	23.00	degC
ZBG 2	9/23/13	WATER TEMPERATURE	22.50	degC

STATION	DATE	ANALYTE	VALUE	UNITS
ZBG 3	3/20/13	AIR TEMPERATURE	10.10	degC
ZBG 3	9/23/13	AIR TEMPERATURE	30.20	degC
ZBG 3	3/20/13	FLOW RATE	1.00	gal/min
ZBG 3	9/23/13	FLOW RATE	1.00	gal/min
ZBG 3	3/20/13	PH	5.40	pH
ZBG 3	9/23/13	PH	4.90	pH
ZBG 3	3/20/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 3	9/23/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 3	3/20/13	SPECIFIC CONDUCTANCE	19.00	µS/cm
ZBG 3	9/23/13	SPECIFIC CONDUCTANCE	20.00	µS/cm
ZBG 3	3/20/13	TOTAL ALKALINITY (AS CACO3)	3.00	mg/L
ZBG 3	9/23/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 3	3/20/13	TURBIDITY	5.10	NTU
ZBG 3	9/23/13	TURBIDITY	0.90	NTU
ZBG 3	3/20/13	VOLUME PURGED	10.00	gal
ZBG 3	9/23/13	VOLUME PURGED	16.00	gal
ZBG 3	3/20/13	WATER TEMPERATURE	20.80	degC
ZBG 3	9/23/13	WATER TEMPERATURE	21.10	degC
ZBG 4	3/19/13	AIR TEMPERATURE	15.10	degC
ZBG 4	9/23/13	AIR TEMPERATURE	24.30	degC
ZBG 4	3/19/13	FLOW RATE	0.20	gal/min
ZBG 4	9/23/13	FLOW RATE	0.20	gal/min
ZBG 4	3/19/13	PH	6.00	pH
ZBG 4	9/23/13	PH	5.60	pH
ZBG 4	3/19/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 4	9/23/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 4	3/19/13	SPECIFIC CONDUCTANCE	23.00	µS/cm
ZBG 4	9/23/13	SPECIFIC CONDUCTANCE	23.00	µS/cm
ZBG 4	3/19/13	TOTAL ALKALINITY (AS CACO3)	5.00	mg/L
ZBG 4	9/23/13	TOTAL ALKALINITY (AS CACO3)	5.00	mg/L
ZBG 4	3/19/13	TURBIDITY	6.40	NTU
ZBG 4	9/23/13	TURBIDITY	9.10	NTU
ZBG 4	3/19/13	VOLUME PURGED	2.00	gal
ZBG 4	9/23/13	VOLUME PURGED	5.00	gal
ZBG 4	3/19/13	WATER TEMPERATURE	19.40	degC
ZBG 4	9/23/13	WATER TEMPERATURE	20.70	degC
ZBG 5	3/19/13	AIR TEMPERATURE	12.10	degC
ZBG 5	9/23/13	AIR TEMPERATURE	25.20	degC
ZBG 5	3/19/13	FLOW RATE	0.20	gal/min
ZBG 5	9/23/13	FLOW RATE	0.20	gal/min
ZBG 5	3/19/13	PH	7.00	pH
ZBG 5	9/23/13	PH	6.60	pH
ZBG 5	3/19/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 5	9/23/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 5	3/19/13	SPECIFIC CONDUCTANCE	95.00	µS/cm
ZBG 5	9/23/13	SPECIFIC CONDUCTANCE	100.00	µS/cm
ZBG 5	3/19/13	TOTAL ALKALINITY (AS CACO3)	42.00	mg/L

STATION	DATE	ANALYTE	VALUE	UNITS
ZBG 5	9/23/13	TOTAL ALKALINITY (AS CACO3)	113.00	mg/L
ZBG 5	3/19/13	TURBIDITY	2.80	NTU
ZBG 5	9/23/13	TURBIDITY	2.20	NTU
ZBG 5	3/19/13	VOLUME PURGED	2.00	gal
ZBG 5	9/23/13	VOLUME PURGED	2.00	gal
ZBG 5	3/19/13	WATER TEMPERATURE	19.40	degC
ZBG 5	9/23/13	WATER TEMPERATURE	21.10	degC
ZBG 6	3/20/13	AIR TEMPERATURE	14.60	degC
ZBG 6	9/23/13	AIR TEMPERATURE	24.20	degC
ZBG 6	3/20/13	FLOW RATE	1.00	gal/min
ZBG 6	9/23/13	FLOW RATE	1.00	gal/min
ZBG 6	3/20/13	PH	5.10	pH
ZBG 6	9/23/13	PH	4.90	pH
ZBG 6	3/20/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 6	9/23/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 6	3/20/13	SPECIFIC CONDUCTANCE	15.00	µS/cm
ZBG 6	9/23/13	SPECIFIC CONDUCTANCE	15.00	µS/cm
ZBG 6	3/20/13	TOTAL ALKALINITY (AS CACO3)	2.00	mg/L
ZBG 6	9/23/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 6	3/20/13	TURBIDITY	0.50	NTU
ZBG 6	9/23/13	TURBIDITY	0.10	NTU
ZBG 6	3/20/13	VOLUME PURGED	30.00	gal
ZBG 6	9/23/13	VOLUME PURGED	32.00	gal
ZBG 6	3/20/13	WATER TEMPERATURE	20.30	degC
ZBG 6	9/23/13	WATER TEMPERATURE	21.10	degC
ZBG 7	3/26/13	AIR TEMPERATURE	1.70	degC
ZBG 7	9/23/13	AIR TEMPERATURE	29.80	degC
ZBG 7	3/26/13	FLOW RATE	0.20	gal/min
ZBG 7	9/23/13	FLOW RATE	0.20	gal/min
ZBG 7	3/26/13	PH	5.30	pH
ZBG 7	9/23/13	PH	5.20	pH
ZBG 7	3/26/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 7	9/23/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 7	3/26/13	SPECIFIC CONDUCTANCE	17.00	µS/cm
ZBG 7	9/23/13	SPECIFIC CONDUCTANCE	17.00	µS/cm
ZBG 7	3/26/13	TOTAL ALKALINITY (AS CACO3)	2.00	mg/L
ZBG 7	9/23/13	TOTAL ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 7	3/26/13	TURBIDITY	3.70	NTU
ZBG 7	9/23/13	TURBIDITY	0.70	NTU
ZBG 7	3/26/13	VOLUME PURGED	2.00	gal
ZBG 7	9/23/13	VOLUME PURGED	1.00	gal
ZBG 7	3/26/13	WATER TEMPERATURE	19.00	degC
ZBG 7	9/23/13	WATER TEMPERATURE	21.00	degC
ZBG 8	3/25/13	AIR TEMPERATURE	12.10	degC
ZBG 8	9/24/13	AIR TEMPERATURE	18.70	degC
ZBG 8	3/25/13	FLOW RATE	1.00	gal/min
ZBG 8	9/24/13	FLOW RATE	0.50	gal/min

STATION	DATE	ANALYTE	VALUE	UNITS
ZBG 8	3/25/13	PH	5.40	pH
ZBG 8	9/24/13	PH	6.20	pH
ZBG 8	3/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 8	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG 8	3/25/13	SPECIFIC CONDUCTANCE	16.00	µS/cm
ZBG 8	9/24/13	SPECIFIC CONDUCTANCE	15.00	µS/cm
ZBG 8	3/25/13	TOTAL ALKALINITY (AS CACO3)	2.00	mg/L
ZBG 8	9/24/13	TOTAL ALKALINITY (AS CACO3)	3.00	mg/L
ZBG 8	3/25/13	TURBIDITY	1.20	NTU
ZBG 8	9/24/13	TURBIDITY	3.40	NTU
ZBG 8	3/25/13	VOLUME PURGED	5.00	gal
ZBG 8	9/24/13	VOLUME PURGED	10.00	gal
ZBG 8	3/25/13	WATER TEMPERATURE	19.20	degC
ZBG 8	9/24/13	WATER TEMPERATURE	21.10	degC
ZBG009D	3/25/13	AIR TEMPERATURE	6.00	degC
ZBG009D	9/24/13	AIR TEMPERATURE	21.60	degC
ZBG009D	3/25/13	FLOW RATE	0.20	gal/min
ZBG009D	9/24/13	FLOW RATE	0.20	gal/min
ZBG009D	3/25/13	PH	6.00	pH
ZBG009D	9/24/13	PH	5.70	pH
ZBG009D	3/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG009D	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG009D	3/25/13	SPECIFIC CONDUCTANCE	36.00	µS/cm
ZBG009D	9/24/13	SPECIFIC CONDUCTANCE	40.00	µS/cm
ZBG009D	3/25/13	TOTAL ALKALINITY (AS CACO3)	5.00	mg/L
ZBG009D	9/24/13	TOTAL ALKALINITY (AS CACO3)	7.00	mg/L
ZBG009D	3/25/13	TURBIDITY	4.70	NTU
ZBG009D	9/24/13	TURBIDITY	3.00	NTU
ZBG009D	3/25/13	VOLUME PURGED	7.00	gal
ZBG009D	9/24/13	VOLUME PURGED	2.00	gal
ZBG009D	3/25/13	WATER TEMPERATURE	19.00	degC
ZBG009D	9/24/13	WATER TEMPERATURE	19.70	degC
ZBG010D	3/25/13	AIR TEMPERATURE	6.30	degC
ZBG010D	9/24/13	AIR TEMPERATURE	22.70	degC
ZBG010D	3/25/13	FLOW RATE	0.20	gal/min
ZBG010D	9/24/13	FLOW RATE	0.20	gal/min
ZBG010D	3/25/13	PH	6.30	pH
ZBG010D	9/24/13	PH	5.60	pH
ZBG010D	3/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG010D	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG010D	3/25/13	SPECIFIC CONDUCTANCE	49.00	µS/cm
ZBG010D	9/24/13	SPECIFIC CONDUCTANCE	23.00	µS/cm
ZBG010D	3/25/13	TOTAL ALKALINITY (AS CACO3)	11.00	mg/L
ZBG010D	9/24/13	TOTAL ALKALINITY (AS CACO3)	4.00	mg/L
ZBG010D	3/25/13	TURBIDITY	3.10	NTU
ZBG010D	9/24/13	TURBIDITY	1.10	NTU
ZBG010D	3/25/13	VOLUME PURGED	6.00	gal

STATION	DATE	ANALYTE	VALUE	UNITS
ZBG010D	9/24/13	VOLUME PURGED	2.00	gal
ZBG010D	3/25/13	WATER TEMPERATURE	18.50	degC
ZBG010D	9/24/13	WATER TEMPERATURE	19.70	degC
ZBG011D	3/25/13	AIR TEMPERATURE	7.20	degC
ZBG011D	9/24/13	AIR TEMPERATURE	25.10	degC
ZBG011D	3/25/13	FLOW RATE	0.20	gal/min
ZBG011D	9/24/13	FLOW RATE	0.20	gal/min
ZBG011D	3/25/13	PH	6.10	pH
ZBG011D	9/24/13	PH	5.90	pH
ZBG011D	3/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG011D	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG011D	3/25/13	SPECIFIC CONDUCTANCE	67.00	µS/cm
ZBG011D	9/24/13	SPECIFIC CONDUCTANCE	65.00	µS/cm
ZBG011D	3/25/13	TOTAL ALKALINITY (AS CACO3)	9.00	mg/L
ZBG011D	9/24/13	TOTAL ALKALINITY (AS CACO3)	8.00	mg/L
ZBG011D	3/25/13	TURBIDITY	1.00	NTU
ZBG011D	9/24/13	TURBIDITY	0.70	NTU
ZBG011D	3/25/13	VOLUME PURGED	4.00	gal
ZBG011D	9/24/13	VOLUME PURGED	2.00	gal
ZBG011D	3/25/13	WATER TEMPERATURE	18.70	degC
ZBG011D	9/24/13	WATER TEMPERATURE	20.50	degC
ZBG012D	3/20/13	AIR TEMPERATURE	14.60	degC
ZBG012D	9/24/13	AIR TEMPERATURE	20.30	degC
ZBG012D	3/20/13	FLOW RATE	0.50	gal/min
ZBG012D	9/24/13	FLOW RATE	0.20	gal/min
ZBG012D	3/20/13	PH	7.00	pH
ZBG012D	9/24/13	PH	7.10	pH
ZBG012D	3/20/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG012D	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG012D	3/20/13	SPECIFIC CONDUCTANCE	210.00	µS/cm
ZBG012D	9/24/13	SPECIFIC CONDUCTANCE	203.00	µS/cm
ZBG012D	3/20/13	TOTAL ALKALINITY (AS CACO3)	93.00	mg/L
ZBG012D	9/24/13	TOTAL ALKALINITY (AS CACO3)	100.00	mg/L
ZBG012D	3/20/13	TURBIDITY	0.80	NTU
ZBG012D	9/24/13	TURBIDITY	0.80	NTU
ZBG012D	3/20/13	VOLUME PURGED	4.00	gal
ZBG012D	9/24/13	VOLUME PURGED	3.00	gal
ZBG012D	3/20/13	WATER TEMPERATURE	18.40	degC
ZBG012D	9/24/13	WATER TEMPERATURE	19.50	degC
ZBG013D	3/20/13	AIR TEMPERATURE	16.70	degC
ZBG013D	9/24/13	AIR TEMPERATURE	22.80	degC
ZBG013D	3/20/13	FLOW RATE	0.50	gal/min
ZBG013D	9/24/13	FLOW RATE	0.20	gal/min
ZBG013D	3/20/13	PH	7.40	pH
ZBG013D	9/24/13	PH	7.50	pH
ZBG013D	3/20/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG013D	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L

STATION	DATE	ANALYTE	VALUE	UNITS
ZBG013D	3/20/13	SPECIFIC CONDUCTANCE	253.00	µS/cm
ZBG013D	9/24/13	SPECIFIC CONDUCTANCE	245.00	µS/cm
ZBG013D	3/20/13	TOTAL ALKALINITY (AS CACO3)	82.00	mg/L
ZBG013D	9/24/13	TOTAL ALKALINITY (AS CACO3)	85.00	mg/L
ZBG013D	3/20/13	TURBIDITY	0.70	NTU
ZBG013D	9/24/13	TURBIDITY	0.40	NTU
ZBG013D	3/20/13	VOLUME PURGED	4.00	gal
ZBG013D	9/24/13	VOLUME PURGED	3.00	gal
ZBG013D	3/20/13	WATER TEMPERATURE	18.80	degC
ZBG013D	9/24/13	WATER TEMPERATURE	19.60	degC
ZBG014D	3/25/13	AIR TEMPERATURE	12.70	degC
ZBG014D	9/25/13	AIR TEMPERATURE	20.00	degC
ZBG014D	3/25/13	FLOW RATE	0.30	gal/min
ZBG014D	9/25/13	FLOW RATE	0.30	gal/min
ZBG014D	3/25/13	PH	7.30	pH
ZBG014D	9/25/13	PH	7.30	pH
ZBG014D	3/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG014D	9/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG014D	3/25/13	SPECIFIC CONDUCTANCE	180.00	µS/cm
ZBG014D	9/25/13	SPECIFIC CONDUCTANCE	191.00	µS/cm
ZBG014D	3/25/13	TOTAL ALKALINITY (AS CACO3)	81.00	mg/L
ZBG014D	9/25/13	TOTAL ALKALINITY (AS CACO3)	84.00	mg/L
ZBG014D	3/25/13	TURBIDITY	0.60	NTU
ZBG014D	9/25/13	TURBIDITY	0.20	NTU
ZBG014D	3/25/13	VOLUME PURGED	5.00	gal
ZBG014D	9/25/13	VOLUME PURGED	3.00	gal
ZBG014D	3/25/13	WATER TEMPERATURE	18.50	degC
ZBG014D	9/25/13	WATER TEMPERATURE	19.10	degC
ZBG015D	3/25/13	AIR TEMPERATURE	5.80	degC
ZBG015D	9/24/13	AIR TEMPERATURE	29.80	degC
ZBG015D	3/25/13	FLOW RATE	0.30	gal/min
ZBG015D	9/24/13	FLOW RATE	0.20	gal/min
ZBG015D	3/25/13	PH	5.20	pH
ZBG015D	9/24/13	PH	4.90	pH
ZBG015D	3/25/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG015D	9/24/13	PHENOLPHTHALEIN ALKALINITY (AS CACO3)	0.00	mg/L
ZBG015D	3/25/13	SPECIFIC CONDUCTANCE	39.00	µS/cm
ZBG015D	9/24/13	SPECIFIC CONDUCTANCE	28.00	µS/cm
ZBG015D	3/25/13	TOTAL ALKALINITY (AS CACO3)	12.00	mg/L
ZBG015D	9/24/13	TOTAL ALKALINITY (AS CACO3)	20.00	mg/L
ZBG015D	3/25/13	TURBIDITY	15.00	NTU
ZBG015D	9/24/13	TURBIDITY	21.50	NTU
ZBG015D	3/25/13	VOLUME PURGED	35.00	gal
ZBG015D	9/24/13	VOLUME PURGED	43.00	gal
ZBG015D	3/25/13	WATER TEMPERATURE	18.40	degC
ZBG015D	9/24/13	WATER TEMPERATURE	19.50	degC

Table 3 Notes:
degC = Degrees Celsius
gal/min = gallons per minute
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTU = Nephelometric Turbidity Units
gal = gallons

Table 4. Water Elevations for Saltstone Wells (2013)

WELL	DATE	REFERENCE ELEVATION (ft-msl)	DRY	WATER DEPTH (ft)	WATER ELEVATION (ft-msl)
ZBG 1	3/20/13	291.40	N	60.8	230.6
ZBG 1	9/24/13	291.40	N	56.4	235.1
ZBG 2	3/18/13	278.10	N	61.5	216.6
ZBG 2	6/24/13	278.10	N	58.2	219.9
ZBG 2	9/23/13	278.10	N	55.4	222.7
ZBG 3	3/20/13	272.63	N	55.2	217.4
ZBG 3	9/23/13	272.63	N	49.4	223.2
ZBG 4	3/19/13	274.11	N	56.6	217.5
ZBG 4	9/23/13	274.11	N	50.8	223.3
ZBG 5	3/19/13	272.33	N	55.4	216.9
ZBG 5	9/23/13	272.33	N	49.3	223.0
ZBG 6	3/20/13	288.03	N	56.6	231.4
ZBG 6	9/23/13	288.03	N	53.3	234.7
ZBG 7	3/26/13	287.35	N	55.6	231.8
ZBG 7	9/23/13	287.35	N	52.3	235.1
ZBG 8	3/25/13	288.42	N	56.5	232.0
ZBG 8	9/24/13	288.42	N	53.4	235.0
ZBG009D	3/25/13	275.58	N	59.2	216.4
ZBG009D	9/24/13	275.58	N	54.2	221.4
ZBG010D	3/25/13	277.32	N	61.1	216.2
ZBG010D	9/24/13	277.32	N	56.0	221.4
ZBG011D	3/25/13	280.71	N	ND	ND
ZBG011D	9/24/13	280.71	N	59.1	221.6
ZBG012D	3/20/13	261.97	N	49.7	212.3
ZBG012D	9/24/13	261.97	N	45.3	216.7
ZBG013D	3/20/13	262.48	N	50.9	211.6
ZBG013D	9/24/13	262.48	N	46.3	216.2
ZBG014D	3/25/13	267.58	N	54.7	212.9
ZBG014D	9/25/13	267.58	N	49.7	217.9
ZBG015D	3/25/13	297.97	N	65.8	232.2
ZBG015D	9/24/13	297.97	N	61.8	236.2

Notes:
ND = No Data
ft = feet
ft-msl = feet above mean sea level

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Electronic copy cc:

M.D. Wilson, SCDHEC, Columbia SC
J.R. Hughes, SCDHEC, Aiken SC
B.S. Mullinax, P.E., SCDHEC, Columbia SC
J.F. Litton, SCDHEC, Columbia, SC

T.J. Spears, DOE, 704-S, Rm. 29
P. Giles Jr., DOE, 704-S, Rm. 39
J.M. Ridley, DOE, 704-S, Rm. 35
P.C. Suggs, DOE, 704-S, Rm. 37
C.H. Pang, DOE, 704-S, Rm. 53
A.I. Watson, DOE, 730-B, Rm. 3429

K.J. Rueter, SRR, 766-H, Rm. 2407
S.A. Macvean, SRR, 766-H, Rm. 2408
C.J. Winkler, SRR, 766-H, Rm. 2406
R.E. Edwards Jr., SRR, 766-H, Rm. 2404
S. W. Wilkerson, SRR, 704-S, Rm. 19
M.N. Borders, SRR, 704-S, Rm. 7
W.M. Barnes, SRR, 704-S, Rm. 23
B.E. Long, SRR, 704-Z, Rm. 17
O.D. Stevens, SRR, 766-H, Rm. 2440
D.P. Skiff, SRR, 766-H, Rm. 2470
S.K. Smith, SRR, 766-H, Rm. 2301
E.J. Freed, SRR, 704-S, Rm. 13
J.N. Leita SRR, 704-Z, Rm. 2
V.A. Franklin, SRR, 705-1C, Rm. 7
S.A. Thomas, SRR, 705-1C, Rm. 18
T.F. England, SRR, 705-1C, Rm. 17

M.A. Flora, SRNS, 730-4B, Rm. 328
K.M. Kostelnik, SRNS, 730-4B, Rm. 316
J.M. Griffith, SRNS, 730-4B. Rm. 3134
V.E. Millings III, SRNS, 730-4B, Rm. 3062

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