GROUNDWATER MONITORING DATA RELEASE
2011 SAMPLING EVENT
LUCKEY FUSRAP SITE

U.S. Army Corps of Engineers
Buffalo District

Building Strong®

February 2012

Formerly Utilized Sites Remedial Action Program (FUSRAP)

FUSRAP was initiated in 1974 to identify, investigate, and cleanup or control sites throughout the United States that were part of the Nation's early atomic weapons and energy programs during the 1940s, 1950s, and 1960s.

When implementing FUSRAP, the Corps follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Site Description

The Luckey Site is located at 21200 Luckey Road near the Village of Luckey, Ohio, 22 miles southeast of Toledo. The site is bordered by Luckey Road to the west, Gilbert Road to the south, abandoned railroad tracks to the east, and bounded by farm fields to the north. The site is zoned industrial but is currently not being utilized for industrial processes. The Luckey Site covers approximately 40 acres and contains numerous open areas. Several of these open areas were previously used to store byproducts from magnesium and beryllium processing.

Purpose

The purpose of this environmental data release is to provide groundwater monitoring data that is collected annually at the site. The U.S. Army Corps of Engineers (USACE) Buffalo District is posting this data to the Luckey Site web page available at: http://www.lrb.usace.army.mil/fusrap/luckey. Included on the web page are annual groundwater monitoring data and the USACE interpretation of these data, a description of the site's conceptual groundwater model (in the Luckey Site Proposed Plan), and the community outreach annual groundwater monitoring fact sheet.

Results and Interpretation

Figure 1 shows the location of the groundwater monitoring wells sampled at the Luckey Site in 2011. Groundwater surface elevations were measured during the June 20th and 21st, 2011 monitoring event and are presented in Table 1. These elevations were also plotted as groundwater contours, shown in Figures 2 and 3, for the shallow and intermediate water bearing zones, respectively. Figure 4 shows the groundwater surface elevations measured for the deep water bearing zone. The data indicate that groundwater flow within the shallow, intermediate and deep water bearing zones is northerly and northwesterly.

Most of the monitoring wells on the Luckey Site were installed in 1998 during the Remedial Investigation (RI) phase. However, some wells have been decommissioned and new wells have been installed since that time. In 2010, wells MW-24R(S), MW-50(I), MW-51(S), MW-52(I), MW-53(I), MW-54(S), MW-55(I), and MW-56(I) were installed, and MW-22(I), MW-24(S), OMW-29(I), OMW-30(B), OMW-33(I), OMW-34(B), OMW-35(I), OMW-36(B), OMW-37(I), and OMW-38(B) were decommissioned. Wells MW-51(S) and MW-52(I) were installed and sampled December 19th and 20th, 2010; these two wells were also sampled June 20th and 21st, 2011. The results from the December 2010 sampling event are reported with the June 2011 results.

Analytical results for the June 2011 annual monitoring event are presented in Tables 2 and 3 for non-filtered and filtered samples, respectively. The United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) are the accepted contaminant guidelines for drinking water. Analytical results above the USEPA MCLs include beryllium (MW-01(I), MW-02(S), MW-19(I) [filtered portion], MW-26(S), PW(W)), lead (MW-21(I)), total uranium (MW-21(I)), and gross alpha (MW-21(I) [non-filtered portion]) which are consistent with previous results. All of the wells that contain constituents of concern (COCs) above the USEPA MCLs are located on-site. Exceedances of the MCL are not impacting human health, because the on-site wells are not utilized for drinking water. The sample from residential well GW-0002 did not contain COCs at concentrations above the MCLs. The data indicate that COC concentrations in groundwater are not increasing over time.

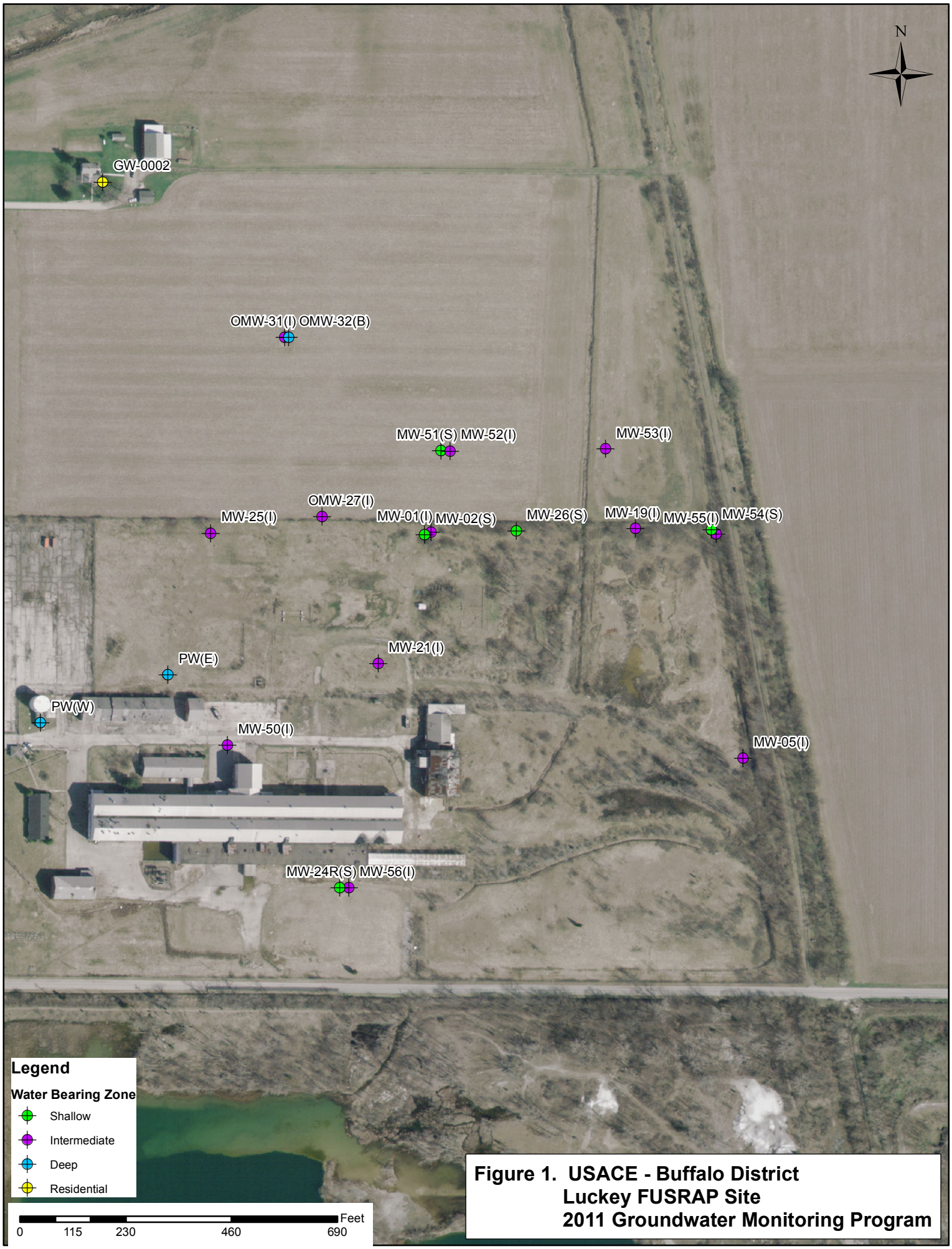

Figure 1. USACE - Buffalo District
Luckey FUSRAP Site
2011 Groundwater Monitoring Program

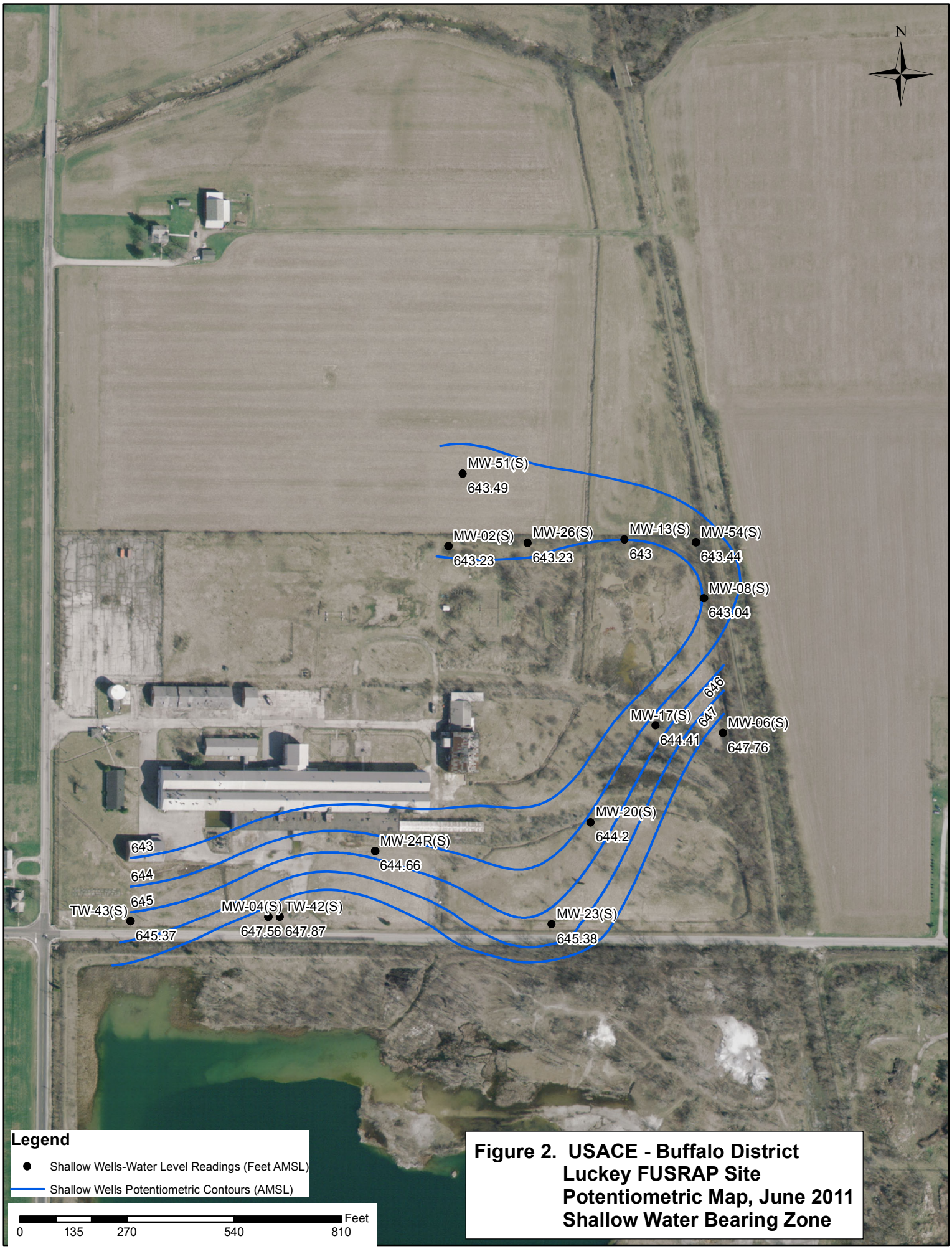

Figure 2. USACE - Buffalo District
Luckey FUSRAP Site
Potentiometric Map, June 2011
Shallow Water Bearing Zone

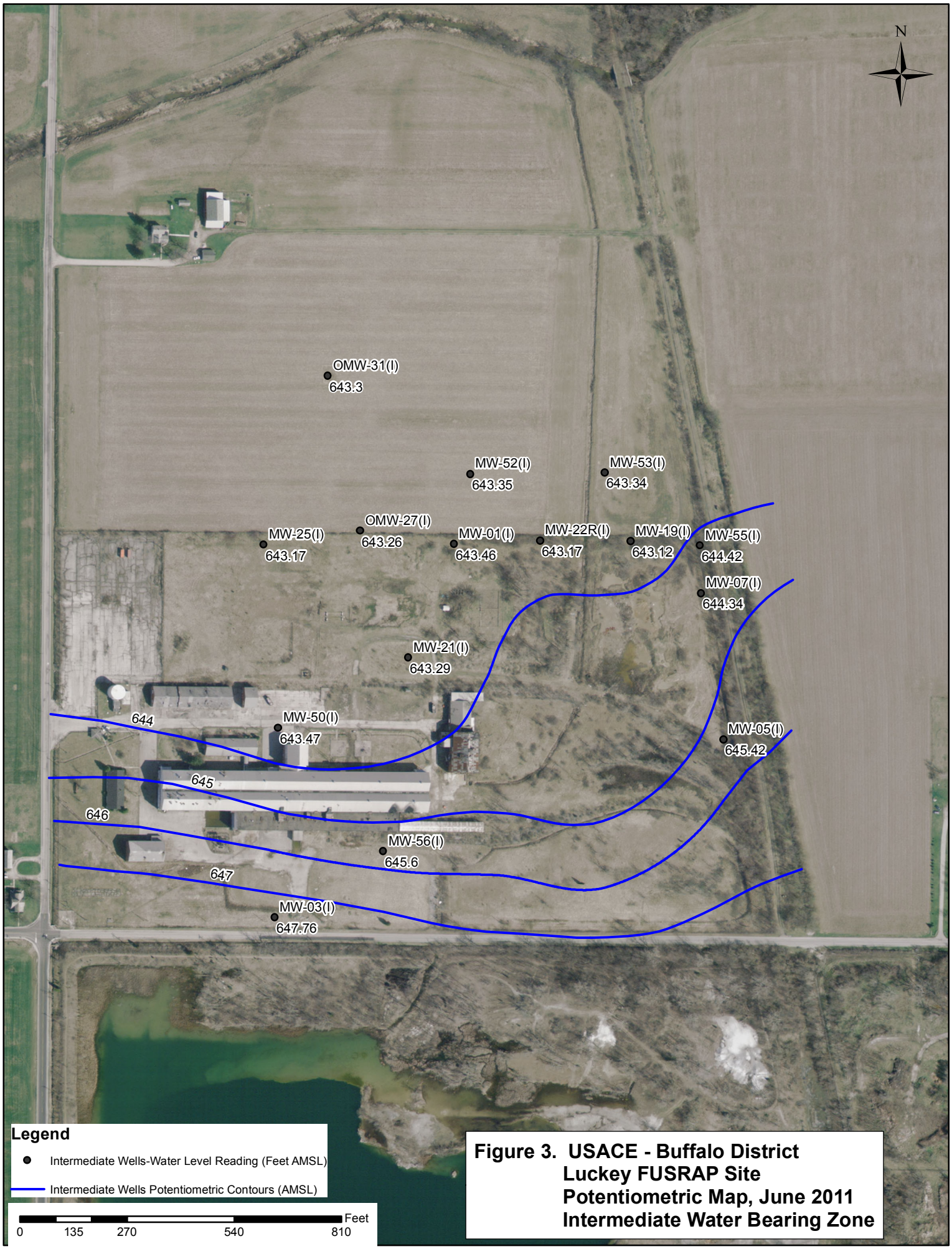

Figure 3. USACE - Buffalo District
Luckey FUSRAP Site
Potentiometric Map, June 2011
Intermediate Water Bearing Zone

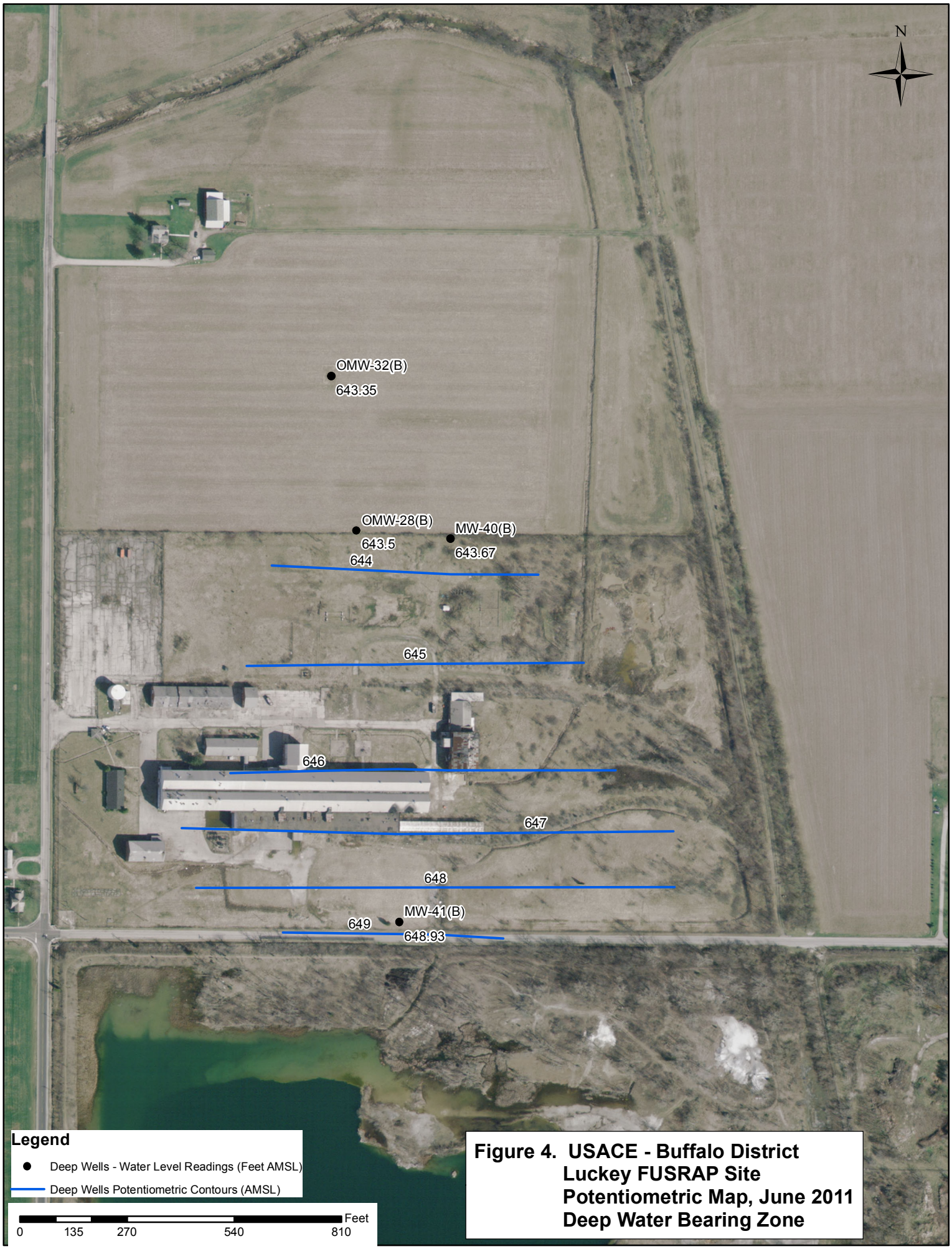

Figure 4. USACE - Buffalo District
Luckey FUSRAP Site
Potentiometric Map, June 2011
Deep Water Bearing Zone

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TABLE 1
Luckey FUSRAP Site
Groundwater Elevations
2011

Well ID	Top of Casing Elev (ft AMSL)	Depth to Water (ft TOC)	WL Elev (ft AMSL)
MW-01(I)	650.52	7.06	643.46
MW-02(S)	650.27	7.04	643.23
MW-03(I)	651.66	3.90	647.76
MW-04(I)	651.53	3.97	647.56
MW-05(I)	653.26	7.84	645.42
MW-06(S)	652.49	4.73	647.76
MW-07(I)	650.21	5.87	644.34
MW-08(S)	650.77	7.73	643.04
MW-13(S)	651.03	8.03	643.00
MW-14(S)	649.05	N/A	N/A
MW-17(S)	652.23	7.82	644.41
MW-18(I)	647.54	N/A	N/A
MW-19(I)	651.03	7.91	643.12
MW-20(S)	653.71	9.51	644.20
MW-21(I)	651.45	8.16	643.29
MW-22R(I)	649.98	6.81	643.17
MW-23(S)	652.58	7.20	645.38
MW-24R(S)	653.81	9.15	644.66
MW-25(I)	649.31	6.14	643.17
MW-26(S)	650.44	7.21	643.23
OMW-27(I)	649.97	6.71	643.26
OMW-28(B)	649.99	6.49	643.50
OMW-31(I)	648.68	5.38	643.30
OMW-32(B)	648.74	5.39	643.35
OMW-39(B)	650.28	N/A	N/A
MW-40(B)	650.27	6.60	643.67
MW-41(B)	653.00	4.07	648.93
TW-42(S)	651.97	4.10	647.87
TW-43(S)	651.73	6.36	645.37
MW-50(I)	652.92	9.45	643.47
MW-51(S)	650.09	6.60	643.49
MW-52(I)	650.21	6.86	643.35
MW-53(I)	649.69	6.35	643.34
MW-54(S)	650.27	6.83	643.44
MW-55(I)	650.19	5.77	644.42
MW-56(I)	653.38	7.78	645.60
PZ-01	651.10	8.74	642.36
PZ-02	650.48	6.33	644.15
PZ-03	652.70	8.51	644.19
PZ-04	651.06	4.31	646.75
PZ-05	652.84	4.91	647.93
PZ-06	648.96	N/A	N/A
PW(E)	N/A	---	---
PW(W)	N/A	---	---

Notes:

AMSL	Above Mean Sea Level
ft	foot (feet)
N/A	Not Available
N/M	Not Measured
TOC	Top of Casing

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TABLE 2
Luckey FUSRAP Site
Groundwater Analytical Results for Non-Filtered Samples
2002 - 2011

Well	Year	Beryllium	Lead	Total Uranium (KPA)[2]	Uranium-234	Uranium-235	Uranium-238	Total Uranium[1] (Alpha Spec)[1]
Units		ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L
USEPA MCLs		*4*	*15*	*30*	*-*	*-*	*-*	*27*
GW0001	2002	ND	ND	0.48	0.31	ND	0.26	0.57
	2004	ND	1.7 J	0.561	ND	ND	ND	ND
GW0002	2002	ND	ND	0.18	0.33	ND	ND	0.33
	2004	ND	ND	0.371	1.35	ND	ND	1.35
	2005	ND	0.8 J	ND	0.229 J	ND	0.079 J	0.308 J
	2006	ND	0.6 J	0.85 J	0.11 J	ND	ND	0.11 J
	2007	ND	ND	NA	0.147	ND	0.068 J	0.215 J
	2008	ND	ND	ND	0.389	ND	0.2	0.589
	2009	0.17 J	0.96	ND	0.286 J	ND	ND	0.286 J
	2010	ND	0.58	ND	0.862 J	0.25	0.227	1.34 J
	2011	ND	1.2	0.146 J	0.149	0.064 J	0.11	0.259
MW-01(I)	2002	**34**	ND	0.52	1.57	0.16 J	0.78	2.51 J
	2004	**31.1**	ND	3.16	1.88	ND	1.64	3.52
	2005	**41.2**	ND	3.32	1.35	0.056 J	0.96	2.37
	2006	**31.8**	ND	2.85	1.45 J	ND	0.94 J	2.39 J
	2007	**32.5**	ND	NA	1.41	0.091 J	0.79	2.29 J
	2008	**31.1**	ND	2.63	1.74	ND	0.862	2.60
	2009	**39**	0.57	2.39	1.15	0.341 J	0.982	2.47 J
	2010	**25**	0.74	2.91	2.46	0.402	1.08	3.94
	2011	**28**	0.45	2.99	1.27	0.104	0.951	2.325
MW-02(S)	2002	**60**	4	6.46	2.37	ND	1.88	4.25
	2004	**77.8**	1.7 J	6.24	2.89	ND	3.14	6.03
	2005	**44.2**	1.5 J	5.23	2.33	0.133 J	2	4.46 J
	2006	**14.8**	1.8	4.13	1.69 J	0.16 J	1.58 J	3.43 J
	2007	**14.2**	ND	NA	1.85	0.099 J	1.51	3.46 J
	2008	**13.2**	ND	3.93	1.63	0.183 J	1.52	3.15
	2009	**14**	1.3	3.64	2.17	ND	1.48	3.65
	2010	**11**	1.3	4.17	2.35	0.482	1.72	4.55
	2011	**13**	1.1	4.36	1.38	0.095	1.23	2.705
MW-05(I)	2002	ND	4	3.58	1.36	ND	0.96	2.32
	2004	ND	ND	2.79	1.97	ND	ND	1.97
	2005	ND	2.6 J	3.23	1.37	0.07 J	1.06	2.50 J
	2006	ND	1.5	3.82	1.54 J	0.18 J	1.02 J	2.74 J
	2007	ND	ND	NA	1.17	ND	0.89	2.06
	2008	ND	3.5 J	2.96	1.77	0.198 J	1.32	3.29 J
	2009	ND	3.3	2.77	1.67	ND	1.32	2.99
	2010	0.52	3.3	3.36	1.44 J	ND	1.02	2.46 J
	2011	0.21 J	3.4	3.16	1.36	0.067	0.963	2.39
MW-07(I)	2002	ND	ND	2.48	1.44	ND	0.68	2.12
	2004	ND	ND	2.47	1.62	ND	ND	1.62
	2005	ND	ND	2.53	0.93	0.056 J	0.62	1.61 J
	2006	ND	ND	2.73	0.87 J	ND	0.75 J	1.62 J
	2007	ND	ND	NA	1.15	0.083 J	1.07	2.30 J
	2008	ND	ND	2.36	1.4	0.195 J	0.617	2.21 J
	2009	ND	0.067 J	2.17	1.65 J	ND	0.852 J	2.50 J
MW-19(I)	2002	ND	ND	0.43	0.43	ND	ND	0.43
	2004	2.8 J	ND	0.554	1.67	ND	ND	1.67
	2005	3.1 J	ND	0.492 J	0.204 J	ND	0.244 J	0.448 J
	2006	2.8	ND	ND	0.39 J	ND	0.16 J	0.55 J
	2007	2.2 J	ND	NA	NU	NU	0.68	NU
	2008	2.9 J	ND	ND	0.261 J	ND	ND	0.261 J
	2009	3.9	0.25 J	ND	0.506 J	ND	ND	0.506 J
	2010	3	0.55	ND	ND	ND	0.288	0.288
	2011	3.2	0.54	0.559	0.308	0.026 U	0.158	0.492

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2002 - 2011

Well	Year	Beryllium	Lead	Total Uranium (KPA)[2]	Uranium-234	Uranium-235	Uranium-238	Total Uranium[1] (Alpha Spec)[1]
Units		ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L
USEPA MCLs		*4*	*15*	*30*	*-*	*-*	*-*	*27*
MW-21(I)	2002	ND	**34**	27.6	8.64	0.76	7.97	17.4
	2004	ND	**32.5**	13.57	4.77	1.13	5.21	11.1
	2005	ND	**25.5**	14.9	3.89	0.141	3.49	7.5
	2006	ND	**32.7**	**35**	6.8	0.16 J	6	12.8
	2007	ND	**27.1**	NA	9.5	0.5	9.1	19.1
	2008	ND	**39.6**	**37.7**	15.7	1.03	14.4	**31.1**
	2009	ND	**84**	**34.1**	16.1	0.92	15.5	**32.5**
	2010	2.6	**62**	**44.4**	15.8	1.04	16	**32.8**
	2011	ND	**38**	**37.7**	16.4	0.78	16.3	**33.48**
MW-22(I)	2008	ND	ND	1.11	0.292	ND	0.34	0.632
	2009	ND	1.3	ND	0.743	ND	0.405	1.15
MW-23(S)	2008	ND	ND	4.44	2.27	ND	1.95	4.22
	2009	0.10 J	0.6	2.64	1.71	0.38 J	1.35	3.44 J
MW-24(S)[3]	2002	ND	12	**333**	99.8	11.8 J	99.9	**211 J**
	2004	ND	9.4	**273**	89	5.19	91.4	**186**
	2005	ND	ND	**161**	52.7	2.78	54.5	**110**
	2006	0.38 J	6.8	**184**	59.7	3.29 J	57.6	**121 J**
	2007	ND	6.1 J	**NA**	63	2.5	71	**136.5**
	2008	ND	4.3 J	**163**	52.1	4.17	52.5	**109**
	2009	0.79	5.9	**197**	57.6	3.55	56.9	**118**
MW-24R(S)	2010	0.88 J	2.4	21.3	10.4	0.515	7.47	18
	2011	ND	2.3	0.987	8.21	0.549	6.99	15.749
MW-25(I)	2008	ND	ND	1.28	0.725	ND	0.509	1.23
	2009	0.20 J	0.59	ND	0.813	ND	0.331	1.14
	2010	0.056 J	0.42	3.3	2.72	0.301	1.24	4.26
	2011	ND	0.53	2.68	0.971	0.040 J	0.878	1.889
MW-26(S)	2002	**119**	10	13.8	4.88	ND	3.13	8.01
	2008	**8.9**	5 J	6.72	2.56	ND	2.23	4.79
	2009	**15**	5.3	9.63	4.14	0.522	3.62	8.28
	2010	**9.2**	2.1	8.18	3.27	0.351	2.73	6.35
	2011	**20**	1.8	7.77	2.99	0.199	2.73	5.919
OMW-27(I)	2008	ND	ND	1.89	2.16	0.357	0.852	3.37
	2009	ND	0.73	1.41	1.42	ND	0.763	2.18
	2010	ND	1.2	2.09	2	0.426	1.02	3.45
	2011	ND	1.2	1.88	1.19	0.060 J	0.45	1.7
MW-40(B)	2002	ND	4	1.03	0.67	ND	0.33 J	1 J
	2004	ND	ND	1.1	ND	ND	ND	ND
	2005	ND	ND	0.484 J	0.48 J	0.031 J	0.234 J	0.745 J
	2006	ND	ND	ND	0.4 J	ND	0.18 J	0.58 J
	2007	ND	ND	NA	0.46	ND	0.153	0.613
OMW-29(I)	2002	ND	ND	0.21	ND	ND	ND	ND
	2004	ND	ND	0.299	ND	ND	ND	ND
	2005	ND	ND	4.45	2.11	0.063 J	1.5	3.67 J
	2006	ND	ND	2.5	1.35 J	ND	0.72 J	2.07 J
	2007	ND	ND	NA	1.01	ND	0.57	1.58
OMW-31(I)	2002	ND	ND	0.67	0.3 J	ND	0.27 J	0.57 J
	2004	ND	ND	0.982	ND	ND	ND	ND
	2005	ND	ND	1.42	0.66	ND	0.55	1.21
	2006	ND	ND	1.81 J	0.99 J	ND	0.56 J	1.55 J
	2007	ND	ND	NA	0.36	ND	0.211	0.571
	2008	ND	ND	ND	0.564	ND	0.615	1.18
	2009	ND	0.27 J	ND	0.36	ND	ND	0.36
	2010	ND	0.66	ND	0.839 J	ND	ND	0.839 J

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TABLE 2
Luckey FUSRAP Site
Groundwater Analytical Results for Non-Filtered Samples
2002 - 2011

Well	Year	Beryllium	Lead	Total Uranium (KPA)[2]	Uranium-234	Uranium-235	Uranium-238	Total Uranium[1] (Alpha Spec)[1]
Units		**ug/L**	**ug/L**	**ug/L**	**pCi/L**	**pCi/L**	**pCi/L**	**pCi/L**
USEPA MCLs		*4*	*15*	*30*	*-*	*-*	*-*	*27*
	2011	ND	1.2	1.25	0.359	0.019 U	0.205	0.583
OMW-32(B)	2008	ND	ND	ND	0.498	ND	ND	0.498
	2009	ND	0.13 J	ND	ND	ND	ND	ND
	2010	ND	0.18 J	ND	0.346 J	ND	ND	0.346 J
	2011	0.36 J	0.57	0.178 J	0.228	0.041 J	0.122	0.391
OMW-35(I)	2002	ND	ND	0.72	0.35 J	ND	0.3 J	0.65 J
	2004	ND	ND	0.763	ND	ND	ND	ND
	2005	ND	ND	0.528 J	0.4 J	ND	0.194 J	0.594 J
	2006	ND	1.6	1.91 J	0.96 J	ND	0.64 J	1.6 J
	2007	ND	ND	NA	1.17	0.099 J	1.05	2.32 J
PW(E)	2002	ND	ND	0.18	ND	ND	ND	ND
	2004	ND	ND	0.502	ND	ND	ND	ND
	2008	ND	**26.2**	ND	ND	ND	0.414	0.414
	2009	0.17 J	**26**	ND	ND	ND	ND	ND
	2010	0.098 J	**16**	ND	0.637 J	ND	0.356	0.993 J
	2011	ND	0.54	0.157 J	0.094 J	0.067	0.041 J	0.202
PW(W)	2004	**4.1 J**	ND	8.04	ND	ND	1.96	1.96
	2008	**11.3**	ND	4.14	2.14	ND	2.09	4.23
	2009	**13**	2.2	3.74	2.03	0.33 J	1.85	4.21 J
	2010	**7.5**	1.3	3.73	3.15	0.735	1.69	5.58
	2011	**6.8**	0.91	3.64	1.38	0.193	1.16	2.733
MW-50(I)	2010	0.082 J	0.72	2.17	1.05 J	0.331	0.705 J	2.09 J
	2011	ND	1.6	1.16	0.687	0.045 J	0.417	1.149
MW-51 (S)	2010	0.5 U	1.4 J		0.7	0.03 U	0.52	
	2011	ND	0.13 J	4.73	2.33	0.031 J	1.79	4.151
MW-52 (I)	2010	0.5 U	6.8		2.48	0.125 J	1.86	
	2011	0.37 J	0.74	2.76	1.61	0.026	0.972	2.608
MW-53(I)	2010	ND	0.17 J	ND	0.764 J	ND	0.323	1.087 J
	2011	ND	0.87	0.408	0.291	-0.008 U	0.138	0.421
MW-54(S)	2010	0.11 J	0.21 J	4.98	2.42	ND	1.6	4.02
	2011	ND	ND	7	4.73	0.150 J	3.02	7.9
MW-55(I)	2010	ND	0.06 J	ND	0.508 J	ND	0.275	0.783 J
	2011	ND	ND	0.684	0.205 J	0.005 U	0.160 J	0.37
MW-56(I)	2010	0.25 J	0.48	3.45	1.29 J	ND	1.51	3.45 J
	2011	0.62	0.12 J	1.35	0.682	0.067	0.439	1.188

Notes:	
NA	Not Analyzed
ND	Not Detected
NU	Result was not used because of quality issues
J	Estimated
µg/L	micrograms per liter
pCi/L	pico Curies per liter
1	MCL refers to the sum of Uranium Isotopes (MCL=27pCi/L or 30 µg/L)
2	Kinetic Phosphorescence Analysis (KPA) and Alpha Spec are the analytical methods used
	to measure Total Uranium and Uranium Isotopes, respectively.
3	MW-24(S) has been physically moved approximately 25 feet to the east and renamed IA09-MW-24R(S).

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TABLE 3
Luckey FUSRAP Site
Groundwater Analytical Results for Filtered Samples
2002 - 2011

Well	Year	Beryllium (Filtered)	Lead (Filtered)	Total Uranium (Filtered) (KPA)[2]	Uranium-234 (Filtered)	Uranium-235 (Filtered)	Uranium-238 (Filtered)	Total Uranium[1] (Filtered) (Alpha Spec)[2]
Units		ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L
USEPA MCLs		*4*	*15*	*30*	*-*	*-*	*-*	*27*
GW0001	2002	ND	ND					
	2004	NA	NA					
GW0002	2002	ND	ND					
	2004	NA	NA					
	2005	ND	1 J					
	2006	ND	ND					
	2007	ND	ND					
	2008	ND	3.8 J					
	2009	0.076 J	0.14 J					
	2010	ND	0.094 J					
	2011	ND	0.12 J	0.153 J	0.161	0.007 U	0.033 J	0.201
MW-01(I)	2002	**11**	3					
	2004	NA	NA					
	2005	**33.8**	ND					
	2006	**33.2**	0.62 J					
	2007	**30.9**	ND					
	2008	**31.5**	ND					
	2009	**34**	0.46					
	2010	**20**	0.35 J					
	2011	**28**	0.36 J	2.88	1.13	0.114 J	0.738	1.982
MW-02(S)	2002	**60**	ND					
	2004	NA	NA					
	2005	**43**	2.3 J					
	2006	**13.7**	1.4					
	2007	**13.2**	ND					
	2008	**12.4**	ND					
	2009	**22**	1.3					
	2010	3.1	0.72					
	2011	**14**	0.87	4.2	1.82	0.017 U	1.34	3.177
MW-05(I)	2002	ND	4					
	2004	NA	NA					
	2005	ND	3.4					
	2006	ND	1.2					
	2007	ND	ND					
	2008	ND	3.4 J					
	2009	ND	2.7					
	2010	0.084 J	2.6					
	2011	0.16	1.9	3	1.16	0.053 J	1.08	2.293
MW-07(I)	2002	ND	ND					
	2004	NA	NA					
	2005	ND	ND					
	2006	ND	ND					
	2007	ND	ND					
	2008	ND	ND					
	2009	ND	0.21					

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TABLE 3
Luckey FUSRAP Site
Groundwater Analytical Results for Filtered Samples
2002 - 2011

Well	Year	Beryllium (Filtered)	Lead (Filtered)	Total Uranium (Filtered) (KPA)[2]	Uranium-234 (Filtered)	Uranium-235 (Filtered)	Uranium-238 (Filtered)	Total Uranium[1] (Filtered) (Alpha Spec)[2]
Units		ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L
USEPA MCLs		*4*	*15*	*30*	*-*	*-*	*-*	*27*
MW-19(I)	2002	ND	ND					
	2004	NA	NA					
	2005	2.9 J	ND					
	2006	3.5	ND					
	2007	2.1 J	ND					
	2008	2.4 J	ND					
	2009	**4.6**	0.16 J					
	2010	2.2	0.25 J					
	2011	**4.3**	0.34 J	0.813	0.367	0.117	0.376	0.86
MW-21(I)	2002	ND	**29**					
	2004	NA	NA					
	2005	ND	**25.7**					
	2006	ND	**31.7**					
	2007	ND	**25.7**					
	2008	ND	**32.9**					
	2009	ND	**58**					
	2010	ND	**53**					
	2011	ND	**36**	**37.2**	16.9	1.12	16.4	**34.42**
MW-22(I)	2008	ND	3.1 J					
	2009	0.088 J	1.7					
MW-23(S)	2008	ND	4.8 J					
	2009	0.034 J	1.1					
MW-24(S)[3]	2002	ND	12					
	2004	NA	NA					
	2005	ND	4.2 J					
	2006	0.17 J	6.1					
	2007	ND	7.1 J					
	2008	ND	ND					
	2009	0.61	6.7					
MW-24R(S)	2010	ND	3					
	2011	ND	1.1	6.83	7.54	0.401	6.61	15
MW-25(I)	2008	ND	5.9 J					
	2009	0.21	0.11 J					
	2010	ND	0.072 J					
	2011	ND	0.32 J	2.64	1.1	0.134	0.828	2.062
MW-26(S)	2002	**103**	ND					
	2008	**9.1**	ND					
	2009	**18**	6.2					
	2010	**8.4**	1.2					
	2011	**22**	1.9	8.55	3.31	0.232	2.67	6.212
OMW-27(I)	2008	ND	ND					
	2009	ND	0.54					
	2010	ND	0.55					
	2011	ND	0.49	1.73	1.18	0.085 J	0.67	1.935
MW-40(B)	2002	ND	3					
	2004	NA	NA					
	2005	ND	ND					
	2006	ND	0.49 J					
	2007	ND	ND					

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Groundwater Analytical Results for Filtered Samples
2002 - 2011

Well	Year	Beryllium (Filtered)	Lead (Filtered)	Total Uranium (Filtered) (KPA)[2]	Uranium-234 (Filtered)	Uranium-235 (Filtered)	Uranium-238 (Filtered)	Total Uranium[1] (Filtered) (Alpha Spec)[2]
Units		ug/L	ug/L	ug/L	pCi/L	pCi/L	pCi/L	pCi/L
USEPA MCLs		*4*	*15*	*30*	*-*	*-*	*-*	*27*
OMW-29(I)	2002	ND	ND					
	2004	NA	NA					
	2005	ND	ND					
	2006	ND	0.89 J					
	2007	ND	ND					
OMW-31(I)	2002	ND	ND					
	2004	NA	NA					
	2005	ND	ND					
	2006	ND	ND					
	2007	ND	ND					
	2008	ND	ND					
	2009	0.035 J	0.35					
	2010	ND	0.22 J					
	2011	ND	0.25 J	0.59	0.344	0.022 J	0.164	0.53
OMW-32(B)	2008	ND	ND					
	2009	ND	0.28					
	2010	ND	0.18 J					
	2011	ND	0.18 J	0.085 J	0.1 J	-0.017 U	0.065	0.148
OMW-35(I)	2002	ND	ND					
	2004	NA	NA					
	2005	ND	ND					
	2006	ND	1.5					
	2007	ND	ND					
PW(E)	2002	ND	ND					
	2004	NA	NA					
	2008	ND	4.0 J					
	2009	0.028 J	0.56					
	2010	ND	0.18					
	2011	ND	0.12 J	0.332	0.088 J	0.036	0.005 U	0.129
PW(W)	2004	NA	NA					
	2008	**11**	ND					
	2009	**18**	1.6					
	2010	**8.7**	0.85					
	2011	**6.6**	0.71	3.58	1.4	0.112	1.25	2.762
MW-50(I)	2010	0.06 J	0.15 J					
	2011	ND	0.62	1.16	0.509	0.016 U	0.461	0.986
MW-51 (S)	2010	0.5 U	3 U		0.45	0.009 U	0.218	0.677
	2011	ND	0.15 J	0.94	0.511	0.067 J	0.315	0.893
MW-52 (I)	2010	0.5 U	7.3		3.16	0.233	3.59	6.983
	2011	ND	0.4	2.68	1.65	0.111 J	1.1	2.861
MW-53(I)	2010	ND	0.07 J					
	2011	ND	ND	0.404	0.307	0.046 J	0.102	0.455
MW-54(S)	2010	ND	0.072 J					
	2011	ND	ND	8.14	4.16	0.198	3.14	7.498
MW-55(I)	2010	ND	0.064 J					
	2011	ND	ND	0.391	0.243 J	0.107 J	0.139	0.489
MW-56(I)	2010	0.08 J	0.3 J					
	2011	ND	0.16 J	1.54	0.531	0.074 J	0.358	0.963

Notes:

NA	Not Analyzed
ND	Not Detected
NU	Result was not used because of quality issues
J	Estimated
µg/L	micrograms per liter
pCi/L	pico Curies per liter
1	MCL refers to the sum of Uranium Isotopes (MCL=27pCi/L or 30 µg/L)
2	Kinetic Phosphorescence Analysis (KPA) and Alpha Spec are the analytical methods used to measure Total Uranium and Uranium Isotopes, respectively.
3	MW-24(S) has been physically moved approximately 25 feet to the east and renamed IA09-MW-24R(S).