



GROUNDWATER MONITORING DATA 2016 SAMPLING EVENT

HARSHAW CHEMICAL COMPANY FUSRAP SITE

**U.S. Army Corps of Engineers
Buffalo District**

Building Strong®

April 2017

Formerly Utilized Sites Remedial Action Program

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was initiated in 1974 to identify, investigate, and clean up or control sites throughout the United States that had been part of the Nation's early atomic weapons and energy programs during the 1940s, 1950s, and 1960s. When implementing FUSRAP, the United States Army Corps of Engineers follows the investigation and response framework of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan.

Site Description

The 55-acre former Harshaw Chemical Company site is located at 1000 Harvard Avenue, approximately five miles southwest of downtown Cleveland in Cuyahoga County, Ohio. The site is in a low-lying area adjacent to the Cuyahoga River and Big Creek. It is surrounded on three sides by industries and includes several developed and undeveloped land parcels. Between December 2014 and January 2015, the Corps of Engineers dismantled the former Building G-1 to enable safe access to investigate the underlying contaminated groundwater. From October to December 2015, BASF, the current property owner, also removed a warehouse, former foundry, former boiler house, a garage, and the former hydrogen fluoride plant wastewater treatment system. Consequently, no former industrial buildings exist on the site. In addition, several segments of stormwater sewers were removed by the site owner to address uncontrolled discharges to the Cuyahoga River.

Purpose

The purpose of groundwater monitoring is to determine the potential for movement of FUSRAP-related radiological contaminants associated with historic activities by the Manhattan Engineer District (MED) and Atomic Energy Commission (AEC). Between 1942 and 1954, various forms of uranium materials were produced in the former Building G-1 at the Harshaw Site under MED and AEC contracts.

A subset of the groundwater wells on-site are sampled annually. The Corps of Engineers releases the groundwater monitoring data and interprets the results to monitor conditions at the site. This information, along with a description of the site's conceptual groundwater model, can be found on the Buffalo District webpage in the Environmental Monitoring section; a website link is provided at the bottom of page 2 of this document.

Scope

The Corps of Engineers has conducted annual groundwater monitoring at the Harshaw Site since 2008. In 2014, construction operations at the Harshaw Site limited the ability of the Corps of Engineers to safely collect samples. As a result, Corps of Engineers personnel were only able to identify water levels and collect a limited number of groundwater and surface water samples. The Corps of Engineers generally collects water levels from all accessible wells annually.

The Corps of Engineers collected both filtered and unfiltered samples from the sampling locations in 2016. Figure 1 shows 27 groundwater monitoring well locations and one surface water location sampled in June 2016. Figure 2 shows all groundwater well locations, and Figure 3 shows all surface water sampling locations. Figure 4 shows dissolved phase uranium (filtered total uranium) results for monitoring wells sampled in 2016 and highlights areas of soil above the radiological cleanup levels identified in the 2012 feasibility study.

In the past, the constituents of interest included isotopic radium (Ra-226, Ra-228), isotopic thorium (Th-228, Th-230, Th-232), isotopic uranium (U-234, U-235, U-238), and total uranium. Beginning with the 2013 sampling event, the parameters for analysis were decreased to only total uranium because the previous five years of sampling had shown that radium and thorium were not a concern for groundwater. Radium and thorium had been rarely detected in site groundwater. Additionally, analysis of isotopic uranium is no longer needed since total uranium is sufficient for decision-making purposes.

Results and Interpretation

The United States Environmental Protection Agency's maximum contaminant level for uranium in drinking water is 30 micrograms per liter ($\mu\text{g/L}$). This standard was exceeded in ten wells near the location of the former Building G-1 during the 2016 sampling event. The groundwater and surface water at the site are not currently drinking water sources. The sampling results indicate that current site conditions are protective of human health.

Groundwater flow at the Harshaw Site is controlled by unconsolidated soil deposits, the topography of the underlying shale bedrock, the relative elevation of the Cuyahoga River and Big Creek, and the operation of the present owner's groundwater extraction system, which is designed to control nickel inflows to site sewers. Groundwater elevation data are presented on Table 1 and are consistent with findings from the RI report that showed predominately west to east groundwater flow directions. This is confirmed in Figures 5 through 13, which present the potentiometric surface contours for the years 2008 through 2016. The Groundwater Conceptual Site Model fact sheet, available on the U.S. Army Corps of Engineers Buffalo District's webpage, describes in more detail the site groundwater modeling program and the hydrogeologic conditions. A link to the webpage is provided at the bottom of this page.

Table 2 lists the unfiltered (total) and filtered (dissolved phase) analytical results in groundwater, and Table 3 presents analytical results for surface water for the 2016 monitoring event, along with the historical data. Filtered total uranium results for 2016 are also presented on Figure 4. Statistical analyses of long-term uranium trends will be included in the future release of a feasibility study addendum (planned in 2018); in general, the total uranium concentrations show generally stable trends while varying a small amount from year to year. Uranium concentrations reflect conditions first monitored in 2003, although the distribution of concentrations are more refined. The total uranium result at location G-1-04 was higher than the 2015 result, which was the first time this well was sampled. The total uranium result at location RMW39, which reported a higher result in 2015, returned to within its usual range in 2016; the anomaly was likely due to dust-suppression water affecting the well during the Building G-1 dismantlement.

During the 2016 sampling event, one surface water sample was collected (IA08-SW007) along the Cuyahoga River shoreline. The uranium concentrations in the surface water sample were estimated at 0.4 $\mu\text{g/L}$ (total) and 0.38 $\mu\text{g/L}$ (dissolved). These concentrations are below both the average (0.9 $\mu\text{g/L}$) and 95 percent upper tolerance limit (1.5 $\mu\text{g/L}$) of the surface water background data set collected during the remedial investigation. In addition, these concentrations of uranium are not known to pose an adverse risk to aquatic life.

The uranium impacts to groundwater are centered on the former Building G-1 location in the northern portion of the site (see Figure 4). This building and its extension to the north (former Building G-2) served as the main uranium ore receiving, storage, processing, and shipping facilities. Wells downgradient of this area do not show significant impacts to groundwater, indicating that the plume is not subject to rapid movement. Spatial consistency of uranium values in the site wells over time (2003 to 2016) indicate that the plume is stable because the subsurface sediments attenuate the uranium (via sorption) migrating from the former Building G-1 area. Analytical results indicate that a number of locations have uranium concentrations greater than what is seen in background wells. One background well was sampled in 2016 (BKG-MW001) with an unfiltered result of 2.28 $\mu\text{g/L}$ and a filtered result of 2.1 $\mu\text{g/L}$.

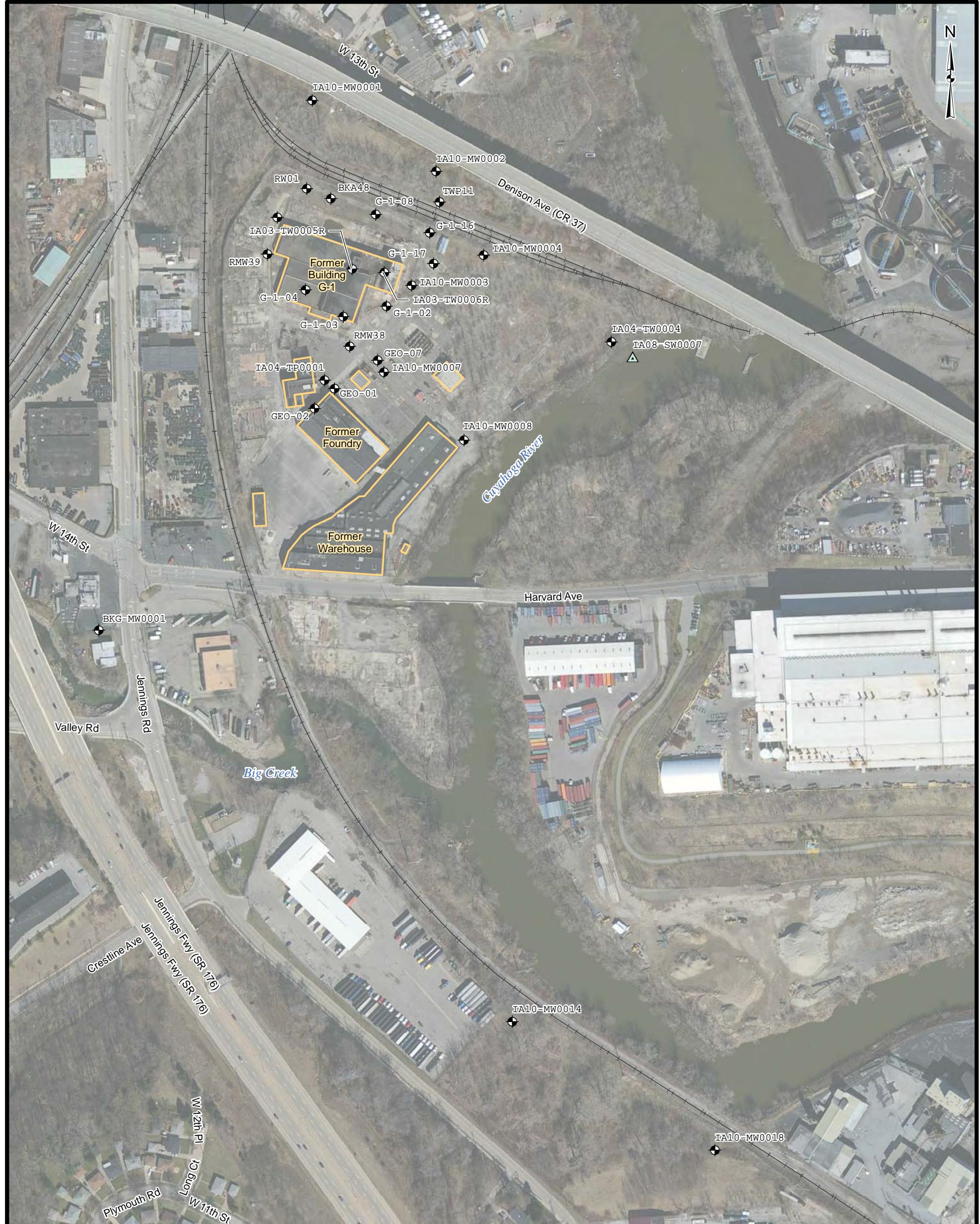
**U.S. ARMY CORPS OF ENGINEERS, BUFFALO DISTRICT
ENVIRONMENTAL PROJECT MANAGEMENT TEAM**

1776 NIAGARA STREET, BUFFALO, NY 14207

Phone: 800-833-6390 (Option 4)

Email: fusrap@usace.army.mil

Website: <http://www.lrb.usace.army.mil/Missions/HTRW/FUSRAP/HarshawSite.aspx>

**Legend**

- Groundwater Monitoring Well
- ▲ Surface Water Sample
- (Orange Oval) Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 125 250 500
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

Document Name: 170127_2016Samples.mxd
Drawn By: H5TDESPM
Date Saved: 30 Jan 2017
Time Saved: 2:53:22 PM

2016 SAMPLING LOCATIONS

FORMER HARSHAW CHEMICAL COMPANY
CLEVELAND, OHIO

FIGURE 1

**Legend**

- ◆ Monitoring Well Location
- △ Piezometer Location
- Temporary Well Point
- Former Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 125 250 500
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER MONITORING WELLS

FORMER HARSHAW CHEMICAL COMPANY
CLEVELAND, OHIO

FIGURE 2

**Legend**

Surface Water Sample

Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 125 250 500
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

SURFACE WATER SAMPLING LOCATIONS

**Legend**

- | | | | |
|------------------------------------|-----------------|------------------|---|
| Total Uranium Concentration | (●) < 1 ug/L | (○) 1 - 3 ug/L | (○) Soil Above Feasibility Study Cleanup Levels |
| | (●) 3 - 10 ug/L | (●) 10 - 30 ug/L | (○) Site Buildings |
| | (●) > 30 ug/L | | |

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 125 250 500
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

TOTAL DISSOLVED URANIUM IN GROUNDWATER JUNE 2016

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 100 200 400
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2008

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 100 200 400
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2009

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 100 200 400
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2010

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 100 200 400
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2011

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 100 200 400
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2012

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 100 200 400
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2013

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 75 150 300
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - APRIL 2014

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 75 150 300
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - MAY 2015

**Legend**

● Monitoring Well

— Groundwater Elevation Contour (ft amsl)

○ Site Buildings

Notes:
Aerial Imagery circa February 2012. Many buildings on the Harshaw site have since been removed.

0 75 150 300
Feet



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NY
Buffalo District

GROUNDWATER POTENTIOMETRIC SURFACE MAP - JUNE 2016

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
BKA48	5/1/2008	594.87	12.65	582.22
BKA48	5/1/2009	594.87	11.33	583.54
BKA48	5/1/2010	594.87	9.72	585.15
BKA48	5/1/2011	594.87	8.25	586.62
BKA48	5/21/2012	594.87	11.68	583.19
BKA48	3/15/2013	594.87	9.74	585.13
BKA48	4/17/2013	594.87	9.58	585.29
BKA48	5/6/2013	594.87	10.2	584.67
BKA48	10/1/2013	594.87	12.69	582.18
BKA48	10/29/2013	594.87	10.15	584.72
BKA48	4/30/2014	594.87	9.42	585.45
BKA48	10/21/2014	594.87	11.85	583.02
BKA48	11/20/2014	594.87	11.01	583.86
BKA48	3/18/2015	594.87	9.26	585.61
BKA48	5/22/2015	594.87	12.12	582.75
BKA48	6/2/2015	594.87	9.55	585.32
BKA48	6/22/2015	594.87	9.51	585.36
BKA48	11/13/2015	594.87	12.52	582.35
BKA48	1/11/2016	594.87	11.44	583.43
BKA48	6/13/2016	594.87	13.96	580.91
BKA48	10/27/2016	594.87	10.93	583.94
BKA51	5/1/2010	595.76	17.65	578.11
BKA51	5/1/2011	595.76	15.61	580.15
BKA51	5/21/2012	595.76	20.02	575.74
BKA51	4/17/2013	595.76	18.45	577.31
BKA51	5/6/2013	595.76	19.5	576.26
BKA51	10/21/2014	595.76	18.91	576.85
BKA51	11/20/2014	595.76	19.61	576.15
BKA51	3/18/2015	595.76	15.51	580.25
BKA51	6/22/2015	595.76	16.99	578.77
BKA51	11/13/2015	595.76	20.06	575.7
BKA51	6/13/2016	595.76	19.79	575.97
BKA51	10/27/2016	595.76	18.95	576.81
BKA52	5/1/2011	593.13	16.74	576.39
BKA52	5/21/2012	593.13	19.25	573.88
BKA52	4/17/2013	593.13	17.98	575.15
BKA52	5/6/2013	593.13	19	574.13
BKA52	10/21/2014	593.13	17.03	576.1
BKA52	11/20/2014	593.13	19.14	573.99
BKA52	3/18/2015	593.13	15.21	577.92
BKA52	6/22/2015	593.13	16.97	576.16

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
BKA52	11/13/2015	593.13	19.24	573.89
BKA52	6/13/2016	593.13	18.62	574.51
BKA52	10/27/2016	593.13	18.27	574.86
BKA53	5/1/2008	593.4	19.99	573.41
BKA53	5/1/2009	593.4	20.01	573.39
BKA53	5/1/2010	593.4	18.08	575.32
BKA53	5/1/2011	593.4	16.61	576.79
BKA53	5/21/2012	593.4	19.93	573.47
BKA53	4/17/2013	593.4	18.72	574.68
BKA53	5/6/2013	593.4	19.8	573.6
BKA53	10/21/2014	593.4	16.95	576.45
BKA53	11/20/2014	593.4	20.16	573.24
BKA53	3/18/2015	593.4	16.18	577.22
BKA53	6/22/2015	593.4	18.02	575.38
BKA53	11/13/2015	593.4	20.02	573.38
BKA53	6/13/2016	593.4	19.27	574.13
BKA53	10/27/2016	593.4	18.93	574.47
BKG-MW0001	5/1/2010	592.1	10.38	581.72
BKG-MW0001	5/1/2011	592.1	9.22	582.88
BKG-MW0001	5/21/2012	592.1	16.86	575.24
BKG-MW0001	4/17/2013	592.1	10.49	581.61
BKG-MW0001	5/6/2013	592.1	10.61	581.49
BKG-MW0001	4/30/2014	592.1	10.1	582
BKG-MW0001	10/21/2014	592.1	10.89	581.21
BKG-MW0001	11/20/2014	592.1	10.54	581.56
BKG-MW0001	3/19/2015	592.1	9.46	582.64
BKG-MW0001	6/5/2015	592.1	9.98	582.12
BKG-MW0001	6/22/2015	592.1	8.70	583.4
BKG-MW0001	6/13/2016	592.1	10.72	581.38
BKG-MW0001	10/27/2016	592.1	10.83	581.27
BKG-MW0003	5/1/2008	591.98	9.94	582.04
BKG-MW0003	5/1/2009	591.98	8.62	583.36
BKG-MW0004	3/19/2015	592.3	7.61	584.69
BKG-MW0005	5/1/2010	592.2	7.81	584.39
BKG-MW0005	5/1/2011	592.2	6.69	585.51
BKG-MW0005	4/17/2013	592.2	8.06	584.14
BKG-MW0005	5/6/2013	592.2	8.49	583.71
BKG-MW0005	4/30/2014	592.2	7.77	584.43
BKG-MW0005	10/21/2014	592.2	9.25	582.95
BKG-MW0005	6/5/2015	592.2	7.71	584.49
BKG-MW0005	6/22/2015	592.2	7.25	584.95

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
BKG-MW0005	6/13/2016	592.2	9.84	582.36
BKG-MW0005	10/27/2016	592.2	8.98	583.22
DM1	5/1/2010	596.13	9.98	586.15
DM1	5/1/2011	596.13	9.07	587.06
DM1	5/21/2012	596.13	16.58	579.55
DM1	3/15/2013	596.13	12.12	584.01
DM1	4/17/2013	596.13	10.57	585.56
DM1	5/6/2013	596.13	11.25	584.88
DM1	10/1/2013	596.13	15.2	580.93
DM1	10/29/2013	596.13	10.25	585.88
DM1	4/30/2014	596.13	9.45	586.68
DM1	10/21/2014	596.13	11.00	585.13
DM1	11/20/2014	596.13	9.75	586.38
DM1	3/18/2015	596.13	9.07	587.06
DM1	5/22/2015	596.13	12.21	583.92
DM1	6/22/2015	596.13	8.59	587.54
DM1	11/13/2015	596.13	10.81	585.32
DM1	1/11/2016	596.13	9.93	586.2
DM1	6/13/2016	596.13	15.91	580.22
DM1	10/27/2016	596.13	9.73	586.4
DM10	5/1/2010	592.71	9.47	583.24
DM10	5/1/2011	592.71	7.64	585.07
DM10	5/21/2012	592.71	11.81	580.9
DM10	3/15/2013	592.71	9.81	582.9
DM10	4/17/2013	592.71	9.85	582.86
DM10	5/6/2013	592.71	10.4	582.31
DM10	10/1/2013	592.71	11.87	580.84
DM10	10/29/2013	592.71	9.8	582.91
DM10	4/30/2014	592.71	9.52	583.19
DM10	10/21/2014	592.71	10.95	581.76
DM11	5/1/2010	595.89	10.48	585.41
DM11	5/1/2011	595.89	8.44	587.45
DM11	5/21/2012	595.89	14.11	581.78
DM11	3/15/2013	595.89	11.14	584.75
DM11	4/17/2013	595.89	11.11	584.78
DM11	5/6/2013	595.89	11.8	584.09
DM11	10/1/2013	595.89	13.38	582.51
DM11	10/29/2013	595.89	11	584.89
DM11	4/30/2014	595.89	10.76	585.13
DM11	10/21/2014	595.89	12.34	583.55
DM11	11/20/2014	595.89	11.97	583.92

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM11	3/18/2015	595.89	9.69	586.2
DM11	5/22/2015	595.89	15.14	580.75
DM11	6/2/2015	595.89	12.14	583.75
DM11	6/22/2015	595.89	10.29	585.6
DM11	11/13/2015	595.89	12.76	583.13
DM11	1/11/2016	595.89	12.05	583.84
DM11	6/13/2016	595.89	14.98	580.91
DM11	10/27/2016	595.89	12.55	583.34
DM12	5/1/2010	596.13	11.15	584.98
DM12	5/1/2011	596.13	9.26	586.87
DM12	5/21/2012	596.13	13.71	582.42
DM12	3/15/2013	596.13	11.53	584.6
DM12	4/17/2013	596.13	11.53	584.6
DM12	5/6/2013	596.13	12.1	584.03
DM12	10/1/2013	596.13	13.7	582.43
DM12	10/29/2013	596.13	11.5	584.63
DM12	4/30/2014	596.13	11.21	584.92
DM12	10/21/2014	596.13	12.78	583.35
DM12	11/20/2014	596.13	12.44	583.69
DM12	3/18/2015	596.13	10.34	585.79
DM12	5/22/2015	596.13	14.11	582.02
DM12	6/22/2015	596.13	11.02	585.11
DM12	11/13/2015	596.13	13.40	582.73
DM12	1/11/2016	596.13	12.76	583.37
DM12	6/13/2016	596.13	15.21	580.92
DM12	10/27/2016	596.13	11.97	584.16
DM14	5/1/2008	596.33	13.95	582.38
DM14	5/1/2009	596.33	12.68	583.65
DM14	5/1/2010	596.33	10.77	585.56
DM14	5/1/2011	596.33	8.86	587.47
DM14	5/21/2012	596.33	13.32	583.01
DM14	3/15/2013	596.33	11.18	585.15
DM14	4/17/2013	596.33	11.06	585.27
DM14	5/6/2013	596.33	11.7	584.63
DM14	10/1/2013	596.33	13.44	582.89
DM14	10/29/2013	596.33	11.3	585.03
DM14	4/30/2014	596.33	10.65	585.68
DM14	10/21/2014	596.33	12.34	583.99
DM14	11/20/2014	596.33	12.08	584.25
DM14	3/18/2015	596.33	9.86	586.47
DM14	5/22/2015	596.33	13.37	582.96

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM14	6/2/2015	596.33	10.31	586.02
DM14	6/22/2015	596.33	11.42	584.91
DM14	11/13/2015	596.33	13.66	582.67
DM14	1/11/2016	596.33	13.05	583.28
DM14	6/13/2016	596.33	15.37	580.96
DM14	10/27/2016	596.33	12.02	584.31
DM15	5/1/2008	596.46	16.48	579.98
DM15	5/1/2009	596.46	13.32	583.14
DM15	5/1/2010	596.46	12.66	583.8
DM15	5/1/2011	596.46	8.69	587.77
DM15	5/21/2012	596.46	13.73	582.73
DM15	3/15/2013	596.46	11.33	585.13
DM15	4/17/2013	596.46	11.14	585.32
DM15	5/6/2013	596.46	12.3	584.16
DM15	10/1/2013	596.46	14.14	582.32
DM15	10/29/2013	596.46	11.15	585.31
DM15	4/30/2014	596.46	11.56	584.9
DM15	10/21/2014	596.46	13.13	583.33
DM15	11/20/2014	596.46	12.58	583.88
DM15	3/18/2015	596.46	9.67	586.79
DM15	5/22/2015	596.46	15.55	580.91
DM15	6/2/2015	596.46	11.49	584.97
DM15	6/22/2015	596.46	11.43	585.03
DM15	11/13/2015	596.46	13.73	582.73
DM15	1/11/2016	596.46	13.20	583.26
DM15	6/13/2016	596.46	16.58	579.88
DM15	10/27/2016	596.46	15.15	581.31
DM22R	5/1/2010	594.81	19.02	575.79
DM22R	5/1/2011	594.81	17.54	577.27
DM22R	5/21/2012	594.81	21.09	573.72
DM22R	4/17/2013	594.81	19.69	575.12
DM22R	5/6/2013	594.81	20.8	574.01
DM22R	10/21/2014	594.81	18.31	576.5
DM22R	11/20/2014	594.81	20.12	574.69
DM22R	3/18/2015	594.81	16.99	577.82
DM22R	6/22/2015	594.81	18.91	575.9
DM22R	11/13/2015	594.81	21.04	573.77
DM22R	6/13/2016	594.81	20.52	574.29
DM22R	10/27/2016	594.81	19.99	574.82
DM23R	5/1/2008	593.06	19.6	573.46
DM23R	5/1/2009	593.06	19.67	573.39

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM23R	5/1/2010	593.06	17.43	575.63
DM23R	5/1/2011	593.06	16.1	576.96
DM23R	5/21/2012	593.06	19.56	573.5
DM23R	4/17/2013	593.06	18.21	574.85
DM23R	5/6/2013	593.06	19.3	573.76
DM23R	10/1/2013	593.06	19.21	573.85
DM23R	10/21/2014	593.06	16.32	576.74
DM23R	11/20/2014	593.06	19.7	573.36
DM23R	3/18/2015	593.06	15.62	577.44
DM23R	6/5/2015	593.06	17.97	575.09
DM23R	6/22/2015	593.06	17.57	575.49
DM23R	11/13/2015	593.06	19.54	573.52
DM23R	6/13/2016	593.06	18.95	574.11
DM23R	10/27/2016	593.06	18.42	574.64
DM25R	5/1/2010	592.84	17.39	575.45
DM25R	5/1/2011	592.84	15.45	577.39
DM25R	5/21/2012	592.84	19.63	573.21
DM25R	3/15/2013	592.84	18.57	574.27
DM25R	4/17/2013	592.84	18.2	574.64
DM25R	5/6/2013	592.84	19.16	573.68
DM25R	10/1/2013	592.84	19.45	573.39
DM25R	10/29/2013	592.84	19.06	573.78
DM25R	4/30/2014	592.84	16.45	576.39
DM25R	10/21/2014	592.84	17.61	575.23
DM25R	12/3/2014	592.84	18.81	574.03
DM25R	3/18/2015	592.84	15.32	577.52
DM25R	5/22/2015	592.84	19.23	573.61
DM25R	6/22/2015	592.84	16.98	575.86
DM25R	11/13/2015	592.84	19.21	573.63
DM25R	1/11/2016	592.84	18.27	574.57
DM25R	6/13/2016	592.84	18.56	574.28
DM25R	10/27/2016	592.84	18.18	574.66
DM26	5/1/2010	592.99	17.26	575.73
DM26	5/1/2011	592.99	15.64	577.35
DM26	5/21/2012	592.99	21.48	571.51
DM26	3/15/2013	592.99	18.71	574.28
DM26	4/17/2013	592.99	17.98	575.01
DM26	5/6/2013	592.99	18.88	574.11
DM26	10/29/2013	592.99	18.9	574.09
DM26	4/30/2014	592.99	18.41	574.58
DM26	10/21/2014	592.99	17.78	575.21

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM26	11/20/2014	592.99	18.73	574.26
DM26	3/18/2015	592.99	15.04	577.95
DM26	5/22/2015	592.99	18.73	574.26
DM26	6/3/2015	592.99	16.12	576.87
DM26	6/22/2015	592.99	16.49	576.5
DM26	11/13/2015	592.99	18.87	574.12
DM26	1/11/2016	592.99	18.03	574.96
DM26	6/13/2016	592.99	18.16	574.83
DM26	10/27/2016	592.99	17.85	575.14
DM28R	5/1/2010	595.09	20.53	574.56
DM28R	5/1/2011	595.09	18.35	576.74
DM28R	5/21/2012	595.09	21.95	573.14
DM28R	3/15/2013	595.09	21.57	573.52
DM28R	4/17/2013	595.09	21.24	573.85
DM28R	5/6/2013	595.09	22.16	572.93
DM28R	10/29/2013	595.09	22.2	572.89
DM28R	4/30/2014	595.09	8.76	586.33
DM28R	10/21/2014	595.09	19.77	575.32
DM28R	11/20/2014	595.09	22.26	572.83
DM28R	3/18/2015	595.09	18.59	576.5
DM28R	5/22/2015	595.09	21.96	573.13
DM28R	6/22/2015	595.09	20.09	575
DM28R	11/13/2015	595.09	22.20	572.89
DM28R	1/11/2016	595.09	21.33	573.76
DM28R	6/13/2016	595.09	21.05	574.04
DM28R	10/27/2016	595.09	21.13	573.96
DM29R	5/1/2008	595.49	22.51	572.98
DM29R	5/1/2009	595.49	22.08	573.41
DM29R	5/1/2010	595.49	20.7	574.79
DM29R	5/1/2011	595.49	18.81	576.68
DM29R	5/21/2012	595.49	22.46	573.03
DM29R	3/15/2013	595.49	22.04	573.45
DM29R	4/17/2013	595.49	21.62	573.87
DM29R	5/6/2013	595.49	22.51	572.98
DM29R	10/1/2013	595.49	22.76	572.73
DM29R	10/29/2013	595.49	22.55	572.94
DM29R	4/30/2014	595.49	19.46	576.03
DM29R	10/21/2014	595.49	20.55	574.94
DM29R	11/20/2014	595.49	22.72	572.77
DM29R	3/18/2015	595.49	19.07	576.42
DM29R	5/22/2015	595.49	22.31	573.18

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM29R	6/22/2015	595.49	20.47	575.02
DM29R	11/13/2015	595.49	22.69	572.8
DM29R	1/11/2016	595.49	21.86	573.63
DM29R	6/13/2016	595.49	21.52	573.97
DM29R	10/27/2016	595.49	21.65	573.84
DM3	5/1/2010	594.14	1.57	592.57
DM3	5/1/2011	594.14	1.43	592.71
DM3	5/21/2012	594.14	2.3	591.84
DM3	3/15/2013	594.14	1.82	592.32
DM3	4/17/2013	594.14	1.8	592.34
DM3	5/6/2013	594.14	2.5	591.64
DM3	10/29/2013	594.14	1.75	592.39
DM3	4/30/2014	594.14	1.43	592.71
DM3	10/21/2014	594.14	1.54	592.6
DM3	11/20/2014	594.14	1.91	592.23
DM3	3/18/2015	594.14	1.61	592.53
DM3	5/22/2015	594.14	2.36	591.78
DM3	6/22/2015	594.14	1.75	592.39
DM3	11/13/2015	594.14	2.00	592.14
DM3	1/11/2016	594.14	1.72	592.42
DM3	6/13/2016	594.14	2.65	591.49
DM3	10/27/2016	594.14	1.81	592.33
DM30R	5/1/2010	594.91	20.56	574.35
DM30R	5/1/2011	594.91	18.42	576.49
DM30R	5/21/2012	594.91	21.95	572.96
DM30R	3/15/2013	594.91	21.78	573.13
DM30R	4/17/2013	594.91	21.37	573.54
DM30R	5/6/2013	594.91	22.19	572.72
DM30R	10/29/2013	594.91	22.3	572.61
DM30R	4/30/2014	594.91	18.06	576.85
DM30R	10/21/2014	594.91	20.04	574.87
DM30R	11/20/2014	594.91	22.49	572.42
DM30R	3/18/2015	594.91	18.81	576.1
DM30R	5/22/2015	594.91	21.91	573
DM30R	6/22/2015	594.91	20.13	574.78
DM30R	11/13/2015	594.91	22.39	572.52
DM30R	1/11/2016	594.91	21.62	573.29
DM30R	6/13/2016	594.91	21.03	573.88
DM30R	10/27/2016	594.91	21.31	573.6
DM4	5/1/2010	593.84	3.98	589.86
DM4	5/1/2011	593.84	3.13	590.71

**Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)**

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM4	5/21/2012	593.84	5.15	588.69
DM4	3/15/2013	593.84	4.12	589.72
DM4	4/17/2013	593.84	4.16	589.68
DM4	5/6/2013	593.84	4.5	589.34
DM4	10/1/2013	593.84	5.3	588.54
DM4	10/29/2013	593.84	4.1	589.74
DM4	4/30/2014	593.84	3.83	590.01
DM4	10/21/2014	593.84	4.28	589.56
DM4	11/20/2014	593.84	4.24	589.6
DM4	3/18/2015	593.84	3.74	590.1
DM4	5/22/2015	593.84	5.45	588.39
DM4	6/22/2015	593.84	3.85	589.99
DM4	11/13/2015	593.84	5.10	588.74
DM4	6/13/2016	593.84	6.94	586.9
DM4	10/27/2016	593.84	4.65	589.19
DM5	5/1/2010	596.36	11.25	585.11
DM5	5/1/2011	596.36	9.52	586.84
DM5	5/21/2012	596.36	13.12	583.24
DM5	3/15/2013	596.36	11.52	584.84
DM5	4/17/2013	596.36	11.56	584.8
DM5	5/6/2013	596.36	11.95	584.41
DM5	10/1/2013	596.36	13.35	583.01
DM5	10/29/2013	596.36	11.45	584.91
DM5	4/30/2014	596.36	11.28	585.08
DM5	10/21/2014	596.36	12.44	583.92
DM5	11/20/2014	596.36	12.16	584.2
DM5	3/18/2015	596.36	10.3	586.06
DM5	5/22/2015	596.36	13.41	582.95
DM5	6/22/2015	596.36	10.77	585.59
DM5	11/13/2015	596.36	13.08	583.28
DM5	1/11/2016	596.36	12.51	583.85
DM5	6/13/2016	596.36	14.79	581.57
DM5	10/27/2016	596.36	11.69	584.67
DM9	5/1/2010	598.01	11.97	586.04
DM9	5/1/2011	598.01	9.3	588.71
DM9	5/21/2012	598.01	14.89	583.12
DM9	3/15/2013	598.01	11.89	586.12
DM9	4/17/2013	598.01	11.86	586.15
DM9	5/6/2013	598.01	12.65	585.36
DM9	10/1/2013	598.01	14.85	583.16
DM9	10/29/2013	598.01	12.09	585.92

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
DM9	4/30/2014	598.01	10.95	587.06
DM9	10/21/2014	598.01	12.80	585.21
DM9	11/20/2014	598.01	11.65	586.36
DM9	3/18/2015	598.01	10.23	587.78
DM9	5/22/2015	598.01	14.29	583.72
DM9	6/2/2015	598.01	8.59	589.42
DM9	6/22/2015	598.01	13.32	584.69
DM9	11/13/2015	598.01	15.98	582.03
DM9	1/11/2016	598.01	13.84	584.17
DM9	6/13/2016	598.01	17.51	580.5
DM9	10/27/2016	598.01	11.64	586.37
ERM47	5/1/2008	593.06	19.56	573.5
ERM47	5/1/2009	593.06	13.68	579.38
ERM47	5/1/2010	593.06	2.74	590.32
ERM47	5/1/2011	593.06	1.21	591.85
ERM47	5/21/2012	593.06	2.56	590.5
ERM47	3/15/2013	593.06	1.2	591.86
ERM47	4/17/2013	593.06	1.35	591.71
ERM47	5/6/2013	593.06	2.07	590.99
ERM47	10/1/2013	593.06	1.95	591.11
ERM47	10/29/2013	593.06	1.3	591.76
ERM47	4/30/2014	593.06	0.82	592.24
ERM47	10/21/2014	593.06	0.63	592.43
ERM47	11/20/2014	593.06	1.34	591.72
ERM47	3/18/2015	593.06	1.36	591.7
ERM47	5/22/2015	593.06	3.24	589.82
ERM47	6/3/2015	593.06	1.47	591.59
ERM47	6/22/2015	593.06	1.76	591.3
ERM47	11/13/2015	593.06	2.04	591.02
ERM47	1/11/2016	593.06	1.48	591.58
ERM47	6/13/2016	593.06	6.39	586.67
ERM47	10/27/2016	593.06	1.98	591.08
G-1-01	5/22/2015	596.75	12.4	584.35
G-1-01	6/22/2015	596.75	9.59	587.16
G-1-01	11/13/2015	596.75	8.38	588.37
G-1-01	1/11/2016	596.75	2.57	594.18
G-1-01	6/13/2016	596.75	7.01	589.74
G-1-01	10/27/2016	596.75	4.55	592.2
G-1-02	5/22/2015	597.37	12.26	585.11
G-1-02	6/22/2015	597.37	10.31	587.06
G-1-02	11/13/2015	597.37	8.97	588.4

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
G-1-02	1/11/2016	597.37	8.41	588.96
G-1-02	6/13/2016	597.37	6.71	590.66
G-1-02	10/27/2016	597.37	7.16	590.21
G-1-03	5/22/2015	596.75	5.67	591.08
G-1-03	6/22/2015	596.75	3.35	593.4
G-1-03	11/13/2015	596.75	6.26	590.49
G-1-03	1/11/2016	596.75	5.57	591.18
G-1-03	6/13/2016	596.75	6.52	590.23
G-1-03	10/27/2016	596.75	5.29	591.46
G-1-04	5/22/2015	596.63	14.95	581.68
G-1-04	6/22/2015	596.63	11.46	585.17
G-1-04	11/13/2015	596.63	14.89	581.74
G-1-04	1/11/2016	596.63	13.03	583.6
G-1-04	6/13/2016	596.63	13.96	582.67
G-1-04	10/27/2016	596.63	12.05	584.58
G-1-05	3/18/2015	595.81	10.34	585.47
G-1-05	5/22/2015	595.81	15.06	580.75
G-1-05	6/22/2015	595.81	10.8	585.01
G-1-05	11/13/2015	595.81	13.43	582.38
G-1-05	1/11/2016	595.81	12.84	582.97
G-1-05	6/13/2016	595.81	15.56	580.25
G-1-05	10/27/2016	595.81	11.50	584.31
G-1-06	5/22/2015	594.39	12.24	582.15
G-1-06	6/22/2015	594.39	9.55	584.84
G-1-06	11/13/2015	594.39	12.17	582.22
G-1-06	1/11/2016	594.39	11.15	583.24
G-1-06	6/13/2016	594.39	13.72	580.67
G-1-06	10/27/2016	594.39	10.54	583.85
G-1-07	3/18/2015	593.58	9.04	584.54
G-1-07	5/22/2015	593.58	11.91	581.67
G-1-07	6/22/2015	593.58	9.46	584.12
G-1-07	11/13/2015	593.58	12.29	581.29
G-1-07	1/11/2016	593.58	11.17	582.41
G-1-07	6/13/2016	593.58	13.74	579.84
G-1-07	10/27/2016	593.58	10.64	582.94
G-1-08	3/18/2015	594.76	7.95	586.81
G-1-08	5/22/2015	594.76	10.64	584.12
G-1-08	6/22/2015	594.76	8.41	586.35
G-1-08	11/13/2015	594.76	11.40	583.36
G-1-08	1/11/2016	594.76	10.25	584.51
G-1-08	6/13/2016	594.76	11.16	583.6

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
G-1-08	10/27/2016	594.76	9.27	585.49
G-1-09	3/18/2015	594.23	9.25	584.98
G-1-09	5/22/2015	594.23	11.84	582.39
G-1-09	6/22/2015	594.23	9.18	585.05
G-1-09	11/13/2015	594.23	13.00	581.23
G-1-09	1/11/2016	594.23	11.74	582.49
G-1-09	6/13/2016	594.23	12.50	581.73
G-1-09	10/27/2016	594.23	11.20	583.03
G-1-10	5/22/2015	594.66	13.61	581.05
G-1-10	6/22/2015	594.66	9.24	585.42
G-1-10	11/13/2015	594.66	11.71	582.95
G-1-10	1/11/2016	594.66	16.95	577.71
G-1-10	6/13/2016	594.66	12.27	582.39
G-1-10	10/27/2016	594.66	10.22	584.44
G-1-11	3/18/2015	596.81	3.91	592.9
G-1-11	5/22/2015	596.81	5.91	590.9
G-1-11	6/22/2015	596.81	4.50	592.31
G-1-11	11/13/2015	596.81	4.44	592.37
G-1-11	1/11/2016	596.81	4.81	592
G-1-11	6/13/2016	596.81	6.05	590.76
G-1-11	10/27/2016	596.81	4.36	592.45
G-1-12	6/22/2015	597.06	15.38	581.68
G-1-12	11/13/2015	597.06	5.75	591.31
G-1-12	6/13/2016	597.06	4.78	592.28
G-1-12	10/27/2016	597.06	4.94	592.12
G-1-13	5/22/2015	596.40	14.93	581.47
G-1-13	6/22/2015	596.40	11.93	584.47
G-1-13	11/13/2015	596.40	14.20	582.2
G-1-13	1/11/2016	596.40	5.95	590.45
G-1-13	6/13/2016	596.40	14.71	581.69
G-1-13	10/27/2016	596.40	13.11	583.29
G-1-14	5/22/2015	597.42	11.28	586.14
G-1-14	6/22/2015	597.42	7.94	589.48
G-1-14	11/13/2015	597.42	10.15	587.27
G-1-14	1/11/2016	597.42	13.49	583.93
G-1-14	6/13/2016	597.42	9.12	588.3
G-1-14	10/27/2016	597.42	9.29	588.13
G-1-15	3/18/2015	594.82	11.68	583.14
G-1-15	5/22/2015	594.82	14.89	579.93
G-1-15	6/22/2015	594.82	12.34	582.48
G-1-15	11/13/2015	594.82	14.38	580.44

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
G-1-15	1/11/2016	594.82	13.69	581.13
G-1-15	6/13/2016	594.82	16.21	578.61
G-1-15	10/27/2016	594.82	13.54	581.28
G-1-16	6/22/2015	595.48	11.57	583.91
G-1-16	11/13/2015	595.48	11.30	584.18
G-1-16	1/11/2016	595.48	10.50	584.98
G-1-16	6/13/2016	595.48	9.29	586.19
G-1-16	10/27/2016	595.48	9.84	585.64
G-1-17	6/22/2015	596.47	14.04	582.43
G-1-17	11/13/2015	596.47	12.71	583.76
G-1-17	1/11/2016	596.47	11.86	584.61
G-1-17	6/13/2016	596.47	10.61	585.86
G-1-17	10/27/2016	596.47	10.46	586.01
G-1-18	6/22/2015	597.17	12.59	584.58
G-1-18	11/13/2015	597.17	15.26	581.91
G-1-18	1/11/2016	597.17	14.02	583.15
G-1-18	6/13/2016	597.17	14.66	582.51
G-1-18	10/27/2016	597.17	13.77	583.4
GEO-01	6/13/2016	592.35	6.11	586.24
GEO-01	10/27/2016	592.35	7.29	585.06
GEO-02	6/13/2016	592.53	5.10	587.43
GEO-02	10/27/2016	592.53	2.47	590.06
GEO-03	6/13/2016	592.38	10.66	581.72
GEO-03	10/27/2016	592.38	10.56	581.82
GEO-04	6/13/2016	592.59	4.18	588.41
GEO-04	10/27/2016	592.59	3.29	589.3
GEO-05	6/13/2016	592.12	4.00	588.12
GEO-05	10/27/2016	592.12	3.66	588.46
GEO-06	6/13/2016	592.44	3.23	589.21
GEO-06	10/27/2016	592.44	2.58	589.86
GEO-07	6/13/2016	592.83	7.12	585.71
GEO-07	10/27/2016	592.83	6.71	586.12
GEO-08	10/27/2016	592.40	3.41	588.99
GEO-09	6/13/2016	591.95	18.41	573.54
GEO-09	10/27/2016	591.95	18.05	573.9
GEO-10	6/13/2016	591.72	18.43	573.29
GEO-10	10/27/2016	591.72	17.54	574.18
GEO-11	6/13/2016	591.87	5.31	586.56
GEO-11	10/27/2016	591.87	17.66	574.21
GEO-12	6/13/2016	592.33	3.51	588.82
GEO-12	10/27/2016	592.33	4.08	588.25

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
GEO-13	6/13/2016	592.12	6.52	585.6
GEO-13	10/27/2016	592.12	4.40	587.72
GEO-14	6/13/2016	591.61	6.01	585.6
GEO-15	6/13/2016	592.30	4.22	588.08
GEO-15	10/27/2016	592.30	3.30	589
GEO-16	6/13/2016	592.21	8.03	584.18
GEO-16	10/27/2016	592.21	3.15	589.06
GEO-17	6/13/2016	593.57	3.47	590.1
GEO-17	10/27/2016	593.57	3.19	590.38
GEO-18	10/27/2016	592.44	2.67	589.77
IA03-TP0001	5/1/2011	594.16	9.56	584.6
IA03-TP0001	5/21/2012	594.16	12.9	581.26
IA03-TP0001	3/15/2013	594.16	11.25	582.91
IA03-TP0001	4/17/2013	594.16	11.27	582.89
IA03-TP0001	5/6/2013	594.16	11.82	582.34
IA03-TP0001	10/1/2013	594.16	13.05	581.11
IA03-TP0001	10/29/2013	594.16	11.13	583.03
IA03-TP0001	4/30/2014	594.16	10.99	583.17
IA03-TP0001	10/21/2014	594.16	12.33	581.83
IA03-TP0001	11/20/2014	594.16	11.95	582.21
IA03-TP0001	3/18/2015	594.16	10.74	583.42
IA03-TP0001	5/22/2015	594.16	13.13	581.03
IA03-TP0001	6/22/2015	594.16	11.31	582.85
IA03-TP0001	11/13/2015	594.16	13.02	581.14
IA03-TP0001	1/11/2016	594.16	12.46	581.7
IA03-TP0001	6/13/2016	594.16	14.92	579.24
IA03-TP0001	10/27/2016	594.16	12.08	582.08
IA03-TW0001	5/1/2008	596.5	6.39	590.11
IA03-TW0001	5/1/2010	596.5	4.81	591.69
IA03-TW0001	5/1/2011	596.5	4.19	592.31
IA03-TW0001	5/21/2012	596.5	6.77	589.73
IA03-TW0001	3/15/2013	596.5	5.26	591.24
IA03-TW0001	4/17/2013	596.5	5.37	591.13
IA03-TW0001	5/6/2013	596.5	5.98	590.52
IA03-TW0001	10/1/2013	596.5	6.53	589.97
IA03-TW0001	10/29/2013	596.5	5.35	591.15
IA03-TW0001	4/30/2014	596.5	3.98	592.52
IA03-TW0001	10/21/2014	596.5	3.86	592.64
IA03-TW0001	11/20/2014	596.5	5.97	590.53
IA03-TW0001	3/18/2015	596.5	4.92	591.58
IA03-TW0001	5/22/2015	596.5	5.69	590.81

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA03-TW0001	6/22/2015	596.5	6.05	590.45
IA03-TW0001	11/13/2015	596.5	5.04	591.46
IA03-TW0001	1/11/2016	596.5	4.49	592.01
IA03-TW0001	6/13/2016	596.5	5.61	590.89
IA03-TW0002	5/1/2010	595.39	8.96	586.43
IA03-TW0002	5/1/2011	595.39	8.51	586.88
IA03-TW0002	5/21/2012	595.39	10.19	585.2
IA03-TW0002	3/15/2013	595.39	8.11	587.28
IA03-TW0002	4/17/2013	595.39	8.24	587.15
IA03-TW0002	5/6/2013	595.39	7.85	587.54
IA03-TW0002	10/1/2013	595.39	10.52	584.87
IA03-TW0002	10/29/2013	595.39	10.05	585.34
IA03-TW0002	4/30/2014	595.39	8.94	586.45
IA03-TW0002	10/21/2014	595.39	10.08	585.31
IA03-TW0002	11/20/2014	595.39	9.41	585.98
IA03-TW0002	3/18/2015	595.39	8.11	587.28
IA03-TW0002	5/22/2015	595.39	10.15	585.24
IA03-TW0002	6/22/2015	595.39	8.59	586.8
IA03-TW0002	11/13/2015	595.39	11.33	584.06
IA03-TW0002	1/11/2016	595.39	9.28	586.11
IA03-TW0002	6/13/2016	595.39	10.20	585.19
IA03-TW0002R	3/18/2015	594.87	7.67	587.2
IA03-TW0002R	5/22/2015	594.87	10.42	584.45
IA03-TW0002R	6/22/2015	594.87	7.82	587.05
IA03-TW0002R	11/13/2015	594.87	11.37	583.5
IA03-TW0002R	1/11/2016	594.87	9.80	585.07
IA03-TW0002R	6/13/2016	594.87	10.49	584.38
IA03-TW0002R	10/27/2016	594.87	9.26	585.61
IA03-TW0003	5/1/2010	593.39	11.91	581.48
IA03-TW0003	5/1/2011	593.39	11.2	582.19
IA03-TW0003	5/21/2012	593.39	13.61	579.78
IA03-TW0003	3/15/2013	593.39	11.97	581.42
IA03-TW0003	4/17/2013	593.39	12.02	581.37
IA03-TW0003	5/6/2013	593.39	12.55	580.84
IA03-TW0003	10/1/2013	593.39	14.02	579.37
IA03-TW0003	10/29/2013	593.39	12.1	581.29
IA03-TW0003	4/30/2014	593.39	11.98	581.41
IA03-TW0003	11/20/2014	593.39	13.81	579.58
IA03-TW0003	3/18/2015	593.39	11.77	581.62
IA03-TW0003	5/22/2015	593.39	14.16	579.23
IA03-TW0003	6/22/2015	593.39	12.39	581

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA03-TW0003	11/13/2015	593.39	14.09	579.3
IA03-TW0003	6/13/2016	593.39	16.02	577.37
IA03-TW0004	5/1/2008	592.92	12.15	580.77
IA03-TW0004	5/1/2010	592.92	9.21	583.71
IA03-TW0004	5/1/2011	592.92	7.91	585.01
IA03-TW0004	5/21/2012	592.92	11.03	581.89
IA03-TW0004	4/17/2013	592.92	9.22	583.7
IA03-TW0004	5/6/2013	592.92	9.6	583.32
IA03-TW0004	10/1/2013	592.92	12.08	580.84
IA03-TW0004	10/29/2013	592.92	9.58	583.34
IA03-TW0004	4/30/2014	592.92	9.03	583.89
IA03-TW0004	10/21/2014	592.92	11.27	581.65
IA03-TW0004	12/3/2014	592.92	11.71	581.21
IA03-TW0004	3/18/2015	592.92	8.71	584.21
IA03-TW0004	5/22/2015	592.92	11.51	581.41
IA03-TW0004	6/22/2015	592.92	8.97	583.95
IA03-TW0004	11/13/2015	592.92	11.89	581.03
IA03-TW0004	6/13/2016	592.92	11.71	581.21
IA03-TW0004R	3/18/2015	593.00	6.77	586.23
IA03-TW0004R	5/22/2015	593.00	9.54	583.46
IA03-TW0004R	6/22/2015	593.00	7.02	585.98
IA03-TW0004R	11/13/2015	593.00	11.40	581.6
IA03-TW0004R	1/11/2016	593.00	10.24	582.76
IA03-TW0004R	6/13/2016	593.00	17.14	575.86
IA03-TW0005R	5/22/2015	596.67	4.82	591.85
IA03-TW0005R	6/22/2015	596.67	3.25	593.42
IA03-TW0005R	11/13/2015	596.67	7.35	589.32
IA03-TW0005R	1/11/2016	596.67	6.87	589.8
IA03-TW0005R	6/13/2016	596.67	6.21	590.46
IA03-TW0005R	10/27/2016	596.67	6.10	590.57
IA03-TW0006R	5/22/2015	596.67	9.64	587.03
IA03-TW0006R	6/22/2015	596.67	10.57	586.1
IA03-TW0006R	11/13/2015	596.67	6.31	590.36
IA03-TW0006R	1/11/2016	596.67	5.72	590.95
IA03-TW0006R	6/13/2016	596.67	4.27	592.4
IA03-TW0006R	10/27/2016	596.67	3.17	593.5
IA04-TP0001	5/1/2008	596.32	17.02	579.3
IA04-TP0001	5/1/2009	596.32	9.46	586.86
IA04-TP0001	5/1/2010	596.32	8	588.32
IA04-TP0001	5/1/2011	596.32	7.79	588.53
IA04-TP0001	5/21/2012	596.32	9.91	586.41

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA04-TP0001	3/15/2013	596.32	8.4	587.92
IA04-TP0001	4/17/2013	596.32	8.2	588.12
IA04-TP0001	5/6/2013	596.32	8.6	587.72
IA04-TP0001	10/1/2013	596.32	10.18	586.14
IA04-TP0001	10/29/2013	596.32	8.6	587.72
IA04-TP0001	4/30/2014	596.32	8.25	588.07
IA04-TP0001	10/21/2014	596.32	8.43	587.89
IA04-TP0001	11/20/2014	596.32	7.12	589.2
IA04-TP0001	3/18/2015	596.32	6.6	589.72
IA04-TP0001	5/22/2015	596.32	9.49	586.83
IA04-TP0001	6/3/2015	596.32	6.42	589.9
IA04-TP0001	6/22/2015	596.32	6.83	589.49
IA04-TP0001	11/13/2015	596.32	8.33	587.99
IA04-TP0001	1/11/2016	596.32	7.55	588.77
IA04-TP0001	6/13/2016	596.32	8.31	588.01
IA04-TP0001	10/27/2016	596.32	7.51	588.81
IA04-TP0002	5/1/2010	595.74	19.79	575.95
IA04-TP0002	5/1/2011	595.74	18.3	577.44
IA04-TP0002	5/21/2012	595.74	22.6	573.14
IA04-TP0002	3/15/2013	595.74	21.26	574.48
IA04-TP0002	4/17/2013	595.74	20.49	575.25
IA04-TP0002	5/6/2013	595.74	16.5	579.24
IA04-TP0002	10/1/2013	595.74	21.73	574.01
IA04-TP0002	10/29/2013	595.74	21.5	574.24
IA04-TP0002	4/30/2014	595.74	19.17	576.57
IA04-TP0002	10/21/2014	595.74	20.43	575.31
IA04-TP0002	11/20/2014	595.74	21.22	574.52
IA04-TP0002	3/18/2015	595.74	17.76	577.98
IA04-TP0002	5/22/2015	595.74	21.29	574.45
IA04-TP0002	6/22/2015	595.74	18.67	577.07
IA04-TP0002	11/13/2015	595.74	23.09	572.65
IA04-TP0002	1/11/2016	595.74	22.38	573.36
IA04-TP0002	6/13/2016	595.74	21.91	573.83
IA04-TP0002	10/27/2016	595.74	22.72	573.02
IA04-TP0003	5/1/2010	595.39	17.55	577.84
IA04-TP0003	5/21/2012	595.39	19.6	575.79
IA04-TP0003	3/15/2013	595.39	19.02	576.37
IA04-TP0003	4/17/2013	595.39	18.32	577.07
IA04-TP0003	5/6/2013	595.39	19.21	576.18
IA04-TP0003	10/1/2013	595.39	21.56	573.83
IA04-TP0003	10/29/2013	595.39	19.33	576.06

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA04-TP0003	4/30/2014	595.39	18.48	576.91
IA04-TP0003	10/21/2014	595.39	8.94	586.45
IA04-TP0003	11/20/2014	595.39	19.34	576.05
IA04-TP0003	3/18/2015	595.39	15.59	579.8
IA04-TP0003	5/22/2015	595.39	19.21	576.18
IA04-TP0003	6/22/2015	595.39	17.12	578.27
IA04-TP0003	11/13/2015	595.39	18.95	576.44
IA04-TP0003	1/11/2016	595.39	18.50	576.89
IA04-TP0003	6/13/2016	595.39	18.03	577.36
IA04-TP0004	5/1/2008	595.2	19.5	575.7
IA04-TP0004	5/1/2009	595.2	14.79	580.41
IA04-TP0004	5/1/2010	595.2	13.79	581.41
IA04-TP0004	5/1/2011	595.2	12.8	582.4
IA04-TP0004	5/21/2012	595.2	14.67	580.53
IA04-TP0004	3/15/2013	595.2	13.75	581.45
IA04-TP0004	4/17/2013	595.2	13.73	581.47
IA04-TP0004	5/6/2013	595.2	14.02	581.18
IA04-TP0004	10/1/2013	595.2	17.6	577.6
IA04-TP0004	10/29/2013	595.2	18.45	576.75
IA04-TP0004	4/30/2014	595.2	13.04	582.16
IA04-TP0004	10/21/2014	595.2	14.41	580.79
IA04-TP0004	11/20/2014	595.2	14.22	580.98
IA04-TP0004	3/18/2015	595.2	12.29	582.91
IA04-TP0004	5/22/2015	595.2	14.34	580.86
IA04-TP0004	6/3/2015	595.2	12.94	582.26
IA04-TP0004	6/4/2015	595.2	19.01	576.19
IA04-TP0004	6/22/2015	595.2	12.86	582.34
IA04-TP0004	11/13/2015	595.2	15.28	579.92
IA04-TP0004	1/11/2016	595.2	14.09	581.11
IA04-TP0004	6/13/2016	595.2	14.71	580.49
IA04-TP0004	10/27/2016	595.2	15.69	579.51
IA04-TP0005	5/1/2008	594.47	21.64	572.83
IA04-TP0005	5/1/2010	594.47	19.99	574.48
IA04-TP0005	5/1/2011	594.47	17.93	576.54
IA04-TP0005	3/15/2013	594.47	21.19	573.28
IA04-TP0005	4/17/2013	594.47	20.77	573.7
IA04-TP0005	5/6/2013	594.47	21.61	572.86
IA04-TP0005	10/1/2013	594.47	21.81	572.66
IA04-TP0005	10/29/2013	594.47	21.65	572.82
IA04-TP0005	4/30/2014	594.47	18.55	575.92
IA04-TP0005	10/21/2014	594.47	19.62	574.85

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA04-TP0005	11/20/2014	594.47	21.95	572.52
IA04-TP0005	3/18/2015	594.47	18.31	576.16
IA04-TP0005	5/22/2015	594.47	21.38	573.09
IA04-TP0005	6/22/2015	594.47	19.63	574.84
IA04-TP0005	11/13/2015	594.47	21.86	572.61
IA04-TP0005	1/11/2016	594.47	21.08	573.39
IA04-TP0005	6/13/2016	594.47	20.55	573.92
IA04-TP0005	10/27/2016	594.47	20.86	573.61
IA04-TW0001	5/1/2010	595.16	20.81	574.35
IA04-TW0001	5/1/2011	595.16	17.86	577.3
IA04-TW0001	5/6/2013	595.16	21.93	573.23
IA04-TW0001	11/20/2014	595.16	22.01	573.15
IA04-TW0001	3/18/2015	595.16	17.94	577.22
IA04-TW0001	5/22/2015	595.16	21.92	573.24
IA04-TW0001	6/22/2015	595.16	21.53	573.63
IA04-TW0001	11/13/2015	595.16	21.91	573.25
IA04-TW0001	1/11/2016	595.16	20.95	574.21
IA04-TW0001	6/13/2016	595.16	21.23	573.93
IA04-TW0002	5/1/2010	593.59	14.76	578.83
IA04-TW0002	5/21/2012	593.59	17.23	576.36
IA04-TW0002	3/15/2013	593.59	16.28	577.31
IA04-TW0002	4/17/2013	593.59	15.72	577.87
IA04-TW0002	5/6/2013	593.59	16.75	576.84
IA04-TW0002	10/1/2013	593.59	17.38	576.21
IA04-TW0002	4/30/2014	593.59	15.49	578.1
IA04-TW0002	11/20/2014	593.59	17.41	576.18
IA04-TW0002	3/18/2015	593.59	13.13	580.46
IA04-TW0002	5/22/2015	593.59	17.07	576.52
IA04-TW0002	6/22/2015	593.59	14.01	579.58
IA04-TW0002	11/13/2015	593.59	17.31	576.28
IA04-TW0002	1/11/2016	593.59	16.50	577.09
IA04-TW0003	5/21/2012	596.03	10.32	585.71
IA04-TW0003	3/15/2013	596.03	7.73	588.3
IA04-TW0003	4/17/2013	596.03	7.56	588.47
IA04-TW0003	5/6/2013	596.03	7.77	588.26
IA04-TW0003	10/1/2013	596.03	12.1	583.93
IA04-TW0003	10/29/2013	596.03	9.49	586.54
IA04-TW0003	4/30/2014	596.03	7.4	588.63
IA04-TW0003	11/20/2014	596.03	9.91	586.12
IA04-TW0003	3/18/2015	596.03	6.76	589.27
IA04-TW0003	5/22/2015	596.03	10.59	585.44

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA04-TW0003	6/22/2015	596.03	8.14	587.89
IA04-TW0003	11/13/2015	596.03	12.61	583.42
IA04-TW0003	6/13/2016	596.03	11.03	585
IA04-TW0004	5/1/2008	594.44	17.52	576.92
IA04-TW0004	5/1/2010	594.44	15.02	579.42
IA04-TW0004	5/1/2011	594.44	13.66	580.78
IA04-TW0004	5/21/2012	594.44	17.23	577.21
IA04-TW0004	3/15/2013	594.44	17.18	577.26
IA04-TW0004	4/17/2013	594.44	16.44	578
IA04-TW0004	5/6/2013	594.44	17.58	576.86
IA04-TW0004	10/29/2013	594.44	17.71	576.73
IA04-TW0004	4/30/2014	594.44	14.06	580.38
IA04-TW0004	11/20/2014	594.44	17.77	576.67
IA04-TW0004	3/18/2015	594.44	13.95	580.49
IA04-TW0004	5/22/2015	594.44	17.25	577.19
IA04-TW0004	6/5/2015	594.44	16.05	578.39
IA04-TW0004	6/22/2015	594.44	16.39	578.05
IA04-TW0004	11/13/2015	594.44	17.66	576.78
IA04-TW0004	1/11/2016	594.44	16.96	577.48
IA04-TW0004	6/13/2016	594.44	16.25	578.19
IA04-TW0005	5/1/2011	593.23	7.98	585.25
IA04-TW0005	5/21/2012	593.23	21.44	571.79
IA04-TW0005	4/17/2013	593.23	8.56	584.67
IA04-TW0005	5/6/2013	593.23	8.75	584.48
IA04-TW0005	10/1/2013	593.23	12.43	580.8
IA04-TW0005	10/29/2013	593.23	10.7	582.53
IA04-TW0005	4/30/2014	593.23	8.69	584.54
IA04-TW0005	10/21/2014	593.23	12.34	580.89
IA04-TW0005	11/20/2014	593.23	11.46	581.77
IA04-TW0005	3/19/2015	593.23	9.32	583.91
IA04-TW0005	5/22/2015	593.23	12.24	580.99
IA04-TW0005	6/22/2015	593.23	9.18	584.05
IA04-TW0005	11/13/2015	593.23	13.55	579.68
IA04-TW0005	6/13/2016	593.23	12.36	580.87
IA04-TW0006	5/1/2010	589.71	17.34	572.37
IA04-TW0006	5/1/2011	589.71	14.82	574.89
IA04-TW0006	5/21/2012	589.71	18.26	571.45
IA04-TW0006	4/17/2013	589.71	17.72	571.99
IA04-TW0006	5/6/2013	589.71	18.35	571.36
IA04-TW0006	10/1/2013	589.71	18.49	571.22
IA04-TW0006	10/29/2013	589.71	18.25	571.46

**Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)**

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA04-TW0006	4/30/2014	589.71	15.48	574.23
IA04-TW0006	11/20/2014	589.71	18.95	570.76
IA04-TW0006	3/19/2015	589.71	15.58	574.13
IA04-TW0006	5/22/2015	589.71	18.22	571.49
IA04-TW0006	6/22/2015	589.71	16.50	573.21
IA04-TW0006	11/13/2015	589.71	18.77	570.94
IA04-TW0006	6/13/2016	589.71	17.23	572.48
IA05-TW0001	5/1/2010	598.64	21.13	577.51
IA05-TW0001	5/1/2011	598.64	19.66	578.98
IA05-TW0001	5/21/2012	598.64	22.73	575.91
IA05-TW0001	4/17/2013	598.64	21.7	576.94
IA05-TW0001	5/6/2013	598.64	22.65	575.99
IA05-TW0001	11/20/2014	598.64	24.6	574.04
IA05-TW0001	3/18/2015	598.64	19.24	579.4
IA05-TW0001	6/22/2015	598.64	20.89	577.75
IA05-TW0001	11/13/2015	598.64	24.51	574.13
IA05-TW0001	6/13/2016	598.64	21.99	576.65
IA10-MW0001	5/1/2008	593.86	11.81	582.05
IA10-MW0001	5/1/2009	593.86	10.31	583.55
IA10-MW0001	5/1/2010	593.86	9.96	583.9
IA10-MW0001	5/1/2011	593.86	7.69	586.17
IA10-MW0001	4/17/2013	593.86	8.91	584.95
IA10-MW0001	5/6/2013	593.86	9.3	584.56
IA10-MW0001	10/1/2013	593.86	11.84	582.02
IA10-MW0001	10/29/2013	593.86	9.21	584.65
IA10-MW0001	4/30/2014	593.86	8.73	585.13
IA10-MW0001	10/21/2014	593.86	11.15	582.71
IA10-MW0001	11/20/2014	593.86	10.19	583.67
IA10-MW0001	3/19/2015	593.86	8.48	585.38
IA10-MW0001	5/22/2015	593.86	11.3	582.56
IA10-MW0001	6/3/2015	593.86	8.6	585.26
IA10-MW0001	6/22/2015	593.86	8.76	585.1
IA10-MW0001	11/13/2015	593.86	11.71	582.15
IA10-MW0001	6/13/2016	593.86	11.47	582.39
IA10-MW0001	10/27/2016	593.86	10.08	583.78
IA10-MW0002	5/1/2008	595.72	13.8	581.92
IA10-MW0002	5/1/2009	595.72	12.22	583.5
IA10-MW0002	5/1/2010	595.72	10.32	585.4
IA10-MW0002	5/1/2011	595.72	9.23	586.49
IA10-MW0002	4/17/2013	595.72	10.15	585.57
IA10-MW0002	5/6/2013	595.72	10.43	585.29

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA10-MW0002	10/1/2013	595.72	13.88	581.84
IA10-MW0002	10/29/2013	595.72	11.32	584.4
IA10-MW0002	4/30/2014	595.72	10.04	585.68
IA10-MW0002	10/21/2014	595.72	13.09	582.63
IA10-MW0002	11/20/2014	595.72	11.94	583.78
IA10-MW0002	3/19/2015	595.72	9.96	585.76
IA10-MW0002	5/22/2015	595.72	12.84	582.88
IA10-MW0002	6/3/2015	595.72	9.94	585.78
IA10-MW0002	6/22/2015	595.72	9.79	585.93
IA10-MW0002	11/13/2015	595.72	13.93	581.79
IA10-MW0002	6/13/2016	595.72	13.15	582.57
IA10-MW0002	10/27/2016	595.72	12.19	583.53
IA10-MW0003	5/21/2012	597.98	14.11	583.87
IA10-MW0003	3/15/2013	597.98	12.96	585.02
IA10-MW0003	4/17/2013	597.98	12.49	585.49
IA10-MW0003	5/6/2013	597.98	12.59	585.39
IA10-MW0003	10/1/2013	597.98	14.75	583.23
IA10-MW0003	10/29/2013	597.98	13.42	584.56
IA10-MW0003	4/30/2014	597.98	12.1	585.88
IA10-MW0003	10/21/2014	597.98	14.51	583.47
IA10-MW0003	11/20/2014	597.98	13.62	584.36
IA10-MW0003	3/18/2015	597.98	12.02	585.96
IA10-MW0003	5/22/2015	597.98	14.31	583.67
IA10-MW0003	6/2/2015	597.98	13.06	584.92
IA10-MW0003	6/22/2015	597.98	11.75	586.23
IA10-MW0003	11/13/2015	597.98	15.22	582.76
IA10-MW0003	1/11/2016	597.98	15.09	582.89
IA10-MW0003	6/13/2016	597.98	14.75	583.23
IA10-MW0003	10/27/2016	597.98	14.42	583.56
IA10-MW0004	5/1/2008	595.88	13.92	581.96
IA10-MW0004	5/1/2009	595.88	12.82	583.06
IA10-MW0004	5/1/2010	595.88	9.32	586.56
IA10-MW0004	5/1/2011	595.88	7.23	588.65
IA10-MW0004	5/21/2012	595.88	17.56	578.32
IA10-MW0004	3/15/2013	595.88	8.55	587.33
IA10-MW0004	4/17/2013	595.88	8.46	587.42
IA10-MW0004	5/6/2013	595.88	9.47	586.41
IA10-MW0004	10/1/2013	595.88	13.96	581.92
IA10-MW0004	10/29/2013	595.88	9.29	586.59
IA10-MW0004	4/30/2014	595.88	8.56	587.32
IA10-MW0004	10/21/2014	595.88	12.02	583.86

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA10-MW0004	11/20/2014	595.88	10.43	585.45
IA10-MW0004	3/18/2015	595.88	8.03	587.85
IA10-MW0004	5/22/2015	595.88	12.26	583.62
IA10-MW0004	6/2/2015	595.88	7.99	587.89
IA10-MW0004	6/22/2015	595.88	8.04	587.84
IA10-MW0004	11/13/2015	595.88	13.63	582.25
IA10-MW0004	1/11/2016	595.88	11.98	583.9
IA10-MW0004	6/13/2016	595.88	13.19	582.69
IA10-MW0004	10/27/2016	595.88	11.23	584.65
IA10-MW0005	5/1/2009	594.83	5.69	589.14
IA10-MW0005	5/1/2010	594.83	0	594.83
IA10-MW0005	5/1/2011	594.83	4.64	590.19
IA10-MW0005	3/15/2013	594.83	1.63	593.2
IA10-MW0005	4/17/2013	594.83	1.53	593.3
IA10-MW0005	5/6/2013	594.83	0.5	594.33
IA10-MW0005	10/1/2013	594.83	3.22	591.61
IA10-MW0005	10/29/2013	594.83	0.9	593.93
IA10-MW0005	4/30/2014	594.83	0	594.83
IA10-MW0005	10/21/2014	594.83	0.03	594.8
IA10-MW0005	11/20/2014	594.83	0.57	594.26
IA10-MW0005	3/18/2015	594.83	1.32	593.51
IA10-MW0005	5/22/2015	594.83	1.17	593.66
IA10-MW0005	6/3/2015	594.83	1.01	593.82
IA10-MW0005	6/22/2015	594.83	9.58	585.25
IA10-MW0005	11/13/2015	594.83	8.18	586.65
IA10-MW0005	1/11/2016	594.83	6.52	588.31
IA10-MW0005	6/13/2016	594.83	3.82	591.01
IA10-MW0005	10/27/2016	594.83	3.02	591.81
IA10-MW0007	5/1/2009	592.95	17.87	575.08
IA10-MW0007	5/1/2010	592.95	16.89	576.06
IA10-MW0007	5/1/2011	592.95	15.3	577.65
IA10-MW0007	5/21/2012	592.95	18.64	574.31
IA10-MW0007	3/15/2013	592.95	17.75	575.2
IA10-MW0007	4/17/2013	592.95	16.22	576.73
IA10-MW0007	5/6/2013	592.95	17	575.95
IA10-MW0007	10/1/2013	592.95	18.15	574.8
IA10-MW0007	10/29/2013	592.95	17.53	575.42
IA10-MW0007	4/30/2014	592.95	14.72	578.23
IA10-MW0007	10/21/2014	592.95	16.50	576.45
IA10-MW0007	11/20/2014	592.95	16.41	576.54
IA10-MW0007	3/18/2015	592.95	13.26	579.69

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA10-MW0007	5/22/2015	592.95	15.98	576.97
IA10-MW0007	6/3/2015	592.95	15.16	577.79
IA10-MW0007	6/22/2015	592.95	15.21	577.74
IA10-MW0007	11/13/2015	592.95	18.42	574.53
IA10-MW0007	1/11/2016	592.95	18.07	574.88
IA10-MW0007	6/13/2016	592.95	15.75	577.2
IA10-MW0007	10/27/2016	592.95	15.75	577.2
IA10-MW0008	5/1/2009	592.57	18.98	573.59
IA10-MW0008	5/1/2010	592.57	17.25	575.32
IA10-MW0008	5/1/2011	592.57	15.31	577.26
IA10-MW0008	5/21/2012	592.57	19.32	573.25
IA10-MW0008	3/15/2013	592.57	18.31	574.26
IA10-MW0008	4/17/2013	592.57	18.07	574.5
IA10-MW0008	5/6/2013	592.57	18.7	573.87
IA10-MW0008	10/1/2013	592.57	19.5	573.07
IA10-MW0008	10/29/2013	592.57	19.11	573.46
IA10-MW0008	4/30/2014	592.57	16.45	576.12
IA10-MW0008	10/21/2014	592.57	17.42	575.15
IA10-MW0008	12/3/2014	592.57	18.01	574.56
IA10-MW0008	3/18/2015	592.57	15.42	577.15
IA10-MW0008	5/22/2015	592.57	18.71	573.86
IA10-MW0008	6/3/2015	592.57	16.42	576.15
IA10-MW0008	6/22/2015	592.57	16.91	575.66
IA10-MW0008	11/13/2015	592.57	19.13	573.44
IA10-MW0008	1/11/2016	592.57	18.18	574.39
IA10-MW0008	6/13/2016	592.57	18.40	574.17
IA10-MW0008	10/27/2016	592.57	17.19	575.38
IA10-MW0009	5/1/2009	586.74	12.99	573.75
IA10-MW0009	5/1/2010	586.74	11.41	575.33
IA10-MW0009	5/1/2011	586.74	8.19	578.55
IA10-MW0009	5/21/2012	586.74	13.11	573.63
IA10-MW0009	3/15/2013	586.74	11.72	575.02
IA10-MW0009	4/17/2013	586.74	11.42	575.32
IA10-MW0009	5/6/2013	586.74	12.6	574.14
IA10-MW0009	10/21/2014	586.74	10.41	576.33
IA10-MW0009	11/20/2014	586.74	12.94	573.8
IA10-MW0009	3/19/2015	586.74	9.28	577.46
IA10-MW0009	6/22/2015	586.74	10.76	575.98
IA10-MW0009	6/13/2016	586.74	12.36	574.38
IA10-MW0010	5/1/2009	586.6	12.86	573.74
IA10-MW0010	5/1/2010	586.6	11.15	575.45

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA10-MW0010	5/1/2011	586.6	7.99	578.61
IA10-MW0010	5/21/2012	586.6	12.97	573.63
IA10-MW0010	3/15/2013	586.6	11.53	575.07
IA10-MW0010	4/17/2013	586.6	11.2	575.4
IA10-MW0010	5/6/2013	586.6	12.5	574.1
IA10-MW0010	10/21/2014	586.6	10.47	576.13
IA10-MW0010	11/20/2014	586.6	12.81	573.79
IA10-MW0010	3/19/2015	586.6	9.09	577.51
IA10-MW0010	6/22/2015	586.6	10.55	576.05
IA10-MW0010	6/13/2016	586.6	12.32	574.28
IA10-MW0011	5/1/2009	591.43	17.65	573.78
IA10-MW0011	5/1/2010	591.43	15.99	575.44
IA10-MW0011	5/1/2011	591.43	12.73	578.7
IA10-MW0011	5/21/2012	591.43	17.78	573.65
IA10-MW0011	3/15/2013	591.43	16.36	575.07
IA10-MW0011	4/17/2013	591.43	16.04	575.39
IA10-MW0011	5/6/2013	591.43	17.3	574.13
IA10-MW0011	10/21/2014	591.43	15.10	576.33
IA10-MW0011	11/20/2014	591.43	17.63	573.8
IA10-MW0011	3/19/2015	591.43	13.91	577.52
IA10-MW0011	6/22/2015	591.43	15.38	576.05
IA10-MW0011	6/13/2016	591.43	9.45	581.98
IA10-MW0012	5/1/2009	583.7	9.95	573.75
IA10-MW0012	5/1/2010	583.7	7.98	575.72
IA10-MW0012	5/1/2011	583.7	4.72	578.98
IA10-MW0012	5/21/2012	583.7	9.98	573.72
IA10-MW0012	3/15/2013	583.7	8.5	575.2
IA10-MW0012	4/17/2013	583.7	8.16	575.54
IA10-MW0012	5/6/2013	583.7	9.6	574.1
IA10-MW0012	10/21/2014	583.7	7.19	576.51
IA10-MW0012	11/20/2014	583.7	9.82	573.88
IA10-MW0012	3/19/2015	583.7	5.42	578.28
IA10-MW0012	6/13/2016	583.7	11.25	572.45
IA10-MW0013	5/1/2009	586.09	12.36	573.73
IA10-MW0013	5/1/2010	586.09	10.73	575.36
IA10-MW0013	5/1/2011	586.09	7.35	578.74
IA10-MW0013	5/21/2012	586.09	12.42	573.67
IA10-MW0013	3/15/2013	586.09	11.06	575.03
IA10-MW0013	4/17/2013	586.09	10.68	575.41
IA10-MW0013	5/6/2013	586.09	12	574.09
IA10-MW0013	10/21/2014	586.09	9.20	576.89

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA10-MW0013	11/20/2014	586.09	12.29	573.8
IA10-MW0013	3/19/2015	586.09	8.61	577.48
IA10-MW0013	6/22/2015	586.09	10.84	575.25
IA10-MW0013	6/13/2016	586.09	11.71	574.38
IA10-MW0014	5/1/2009	597.25	23.42	573.83
IA10-MW0014	5/1/2010	597.25	21.81	575.44
IA10-MW0014	5/1/2011	597.25	18.14	579.11
IA10-MW0014	5/21/2012	597.25	24.45	572.8
IA10-MW0014	3/15/2013	597.25	22.05	575.2
IA10-MW0014	4/17/2013	597.25	21.72	575.53
IA10-MW0014	5/6/2013	597.25	23	574.25
IA10-MW0014	10/21/2014	597.25	20.78	576.47
IA10-MW0014	11/20/2014	597.25	23.42	573.83
IA10-MW0014	3/19/2015	597.25	19.71	577.54
IA10-MW0014	6/4/2015	597.25	21.31	575.94
IA10-MW0014	6/22/2015	597.25	20.96	576.29
IA10-MW0014	6/13/2016	597.25	22.83	574.42
IA10-MW0015	5/1/2009	598.56	24.6	573.96
IA10-MW0015	5/1/2010	598.56	22.7	575.86
IA10-MW0015	5/1/2011	598.56	19	579.56
IA10-MW0015	5/21/2012	598.56	25.57	572.99
IA10-MW0015	3/15/2013	598.56	23.08	575.48
IA10-MW0015	4/17/2013	598.56	22.79	575.77
IA10-MW0015	5/6/2013	598.56	23.95	574.61
IA10-MW0015	10/21/2014	598.56	22.27	576.29
IA10-MW0015	11/20/2014	598.56	24.61	573.95
IA10-MW0015	3/19/2015	598.56	20.72	577.84
IA10-MW0015	6/22/2015	598.56	21.83	576.73
IA10-MW0015	6/13/2016	598.56	23.96	574.6
IA10-MW0016	5/1/2009	594.71	17.54	577.17
IA10-MW0016	5/1/2010	594.71	14.82	579.89
IA10-MW0016	5/1/2011	594.71	7.81	586.9
IA10-MW0016	5/21/2012	594.71	16.48	578.23
IA10-MW0016	3/15/2013	594.71	12.03	582.68
IA10-MW0016	4/17/2013	594.71	11.85	582.86
IA10-MW0016	5/6/2013	594.71	14.5	580.21
IA10-MW0016	10/21/2014	594.71	16.78	577.93
IA10-MW0016	11/20/2014	594.71	17.02	577.69
IA10-MW0016	3/19/2015	594.71	9.21	585.5
IA10-MW0016	6/22/2015	594.71	12.74	581.97
IA10-MW0016	6/13/2016	594.71	15.83	578.88

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
IA10-MW0017	5/1/2009	595.48	19.42	576.06
IA10-MW0017	5/1/2010	595.48	17.72	577.76
IA10-MW0017	5/1/2011	595.48	13.67	581.81
IA10-MW0017	5/21/2012	595.48	19.37	576.11
IA10-MW0017	3/15/2013	595.48	17.91	577.57
IA10-MW0017	4/17/2013	595.48	17.61	577.87
IA10-MW0017	5/6/2013	595.48	18.9	576.58
IA10-MW0017	10/21/2014	595.48	17.51	577.97
IA10-MW0017	11/20/2014	595.48	19.43	576.05
IA10-MW0017	3/19/2015	595.48	15.25	580.23
IA10-MW0017	6/4/2015	595.48	17.12	578.36
IA10-MW0017	6/22/2015	595.48	16.72	578.76
IA10-MW0017	6/13/2016	595.48	18.89	576.59
IA10-MW0018	5/1/2009	592.21	13.64	578.57
IA10-MW0018	5/1/2010	592.21	10.69	581.52
IA10-MW0018	5/1/2011	592.21	3.02	589.19
IA10-MW0018	5/21/2012	592.21	13.21	579
IA10-MW0018	3/15/2013	592.21	8.39	583.82
IA10-MW0018	4/17/2013	592.21	8.71	583.5
IA10-MW0018	5/6/2013	592.21	11.1	581.11
IA10-MW0018	10/21/2014	592.21	12.91	579.3
IA10-MW0018	11/20/2014	592.21	13.01	579.2
IA10-MW0018	3/19/2015	592.21	4.91	587.3
IA10-MW0018	6/4/2015	592.21	8.91	583.3
IA10-MW0018	6/22/2015	592.21	7.30	584.91
IA10-MW0018	6/13/2016	592.21	12.05	580.16
IA10-MW0019	5/1/2009	597.19	13.98	583.21
IA10-MW0019	5/1/2010	597.19	9.58	587.61
IA10-MW0019	5/1/2011	597.19	6.86	590.33
IA10-MW0019	5/21/2012	597.19	13.72	583.47
IA10-MW0019	3/15/2013	597.19	8.32	588.87
IA10-MW0019	4/17/2013	597.19	8.62	588.57
IA10-MW0019	5/6/2013	597.19	10.9	586.29
IA10-MW0019	10/21/2014	597.19	12.83	584.36
IA10-MW0019	11/20/2014	597.19	12.42	584.77
IA10-MW0019	3/19/2015	597.19	7.52	589.67
IA10-MW0019	6/22/2015	597.19	8.11	589.08
IA10-MW0019	6/13/2016	597.19	12.50	584.69
RMW35	5/1/2011	596.44	8.42	588.02
RMW35	3/15/2013	596.44	11.1	585.34
RMW35	4/17/2013	596.44	11.08	585.36

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
RMW35	5/6/2013	596.44	11.8	584.64
RMW35	10/29/2013	596.44	10.8	585.64
RMW35	4/30/2014	596.44	10.81	585.63
RMW35	10/21/2014	596.44	12.61	583.83
RMW35	11/20/2014	596.44	12.14	584.3
RMW35	3/18/2015	596.44	9.78	586.66
RMW35	5/22/2015	596.44	13.86	582.58
RMW35	6/22/2015	596.44	10.22	586.22
RMW35	11/13/2015	596.44	12.81	583.63
RMW35	1/11/2016	596.44	12.06	584.38
RMW35	6/13/2016	596.44	13.04	583.4
RMW35	10/27/2016	596.44	11.33	585.11
RMW38	5/1/2008	596.76	12.33	584.43
RMW38	5/1/2009	596.76	10.93	585.83
RMW38	5/1/2010	596.76	9.51	587.25
RMW38	5/1/2011	596.76	8.82	587.94
RMW38	5/21/2012	596.76	11.11	585.65
RMW38	3/15/2013	596.76	10.04	586.72
RMW38	4/17/2013	596.76	9.83	586.93
RMW38	5/6/2013	596.76	9.85	586.91
RMW38	10/1/2013	596.76	11.84	584.92
RMW38	10/29/2013	596.76	10.45	586.31
RMW38	4/30/2014	596.76	9.78	586.98
RMW38	10/21/2014	596.76	11.35	585.41
RMW38	11/20/2014	596.76	9.77	586.99
RMW38	3/18/2015	596.76	8.64	588.12
RMW38	5/22/2015	596.76	10.43	586.33
RMW38	6/3/2015	596.76	8.98	587.78
RMW38	6/22/2015	596.76	8.65	588.11
RMW38	11/13/2015	596.76	11.06	585.7
RMW38	1/11/2016	596.76	10.23	586.53
RMW38	6/13/2016	596.76	10.49	586.27
RMW38	10/27/2016	596.76	10.01	586.75
RMW39	5/1/2010	595.93	9.36	586.57
RMW39	5/1/2011	595.93	5.26	590.67
RMW39	5/21/2012	595.93	13.11	582.82
RMW39	3/15/2013	595.93	10.23	585.7
RMW39	4/17/2013	595.93	10.02	585.91
RMW39	5/6/2013	595.93	11.3	584.63
RMW39	10/1/2013	595.93	13.27	582.66
RMW39	10/29/2013	595.93	9.93	586

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
RMW39	4/30/2014	595.93	8.33	587.6
RMW39	10/21/2014	595.93	10.58	585.35
RMW39	11/20/2014	595.93	11.53	584.4
RMW39	3/18/2015	595.93	7.26	588.67
RMW39	5/22/2015	595.93	12.92	583.01
RMW39	6/2/2015	595.93	4.5	591.43
RMW39	6/22/2015	595.93	8.48	587.45
RMW39	11/13/2015	595.93	11.54	584.39
RMW39	1/11/2016	595.93	9.75	586.18
RMW39	6/13/2016	595.93	14.48	581.45
RMW39	10/27/2016	595.93	10.29	585.64
TWP01	3/18/2015	591.94	7.25	584.69
TWP01	5/22/2015	591.94	9.91	582.03
TWP01	6/22/2015	591.94	7.35	584.59
TWP01	11/13/2015	591.94	10.37	581.57
TWP01	1/11/2016	591.94	9.21	582.73
TWP01	6/13/2016	591.94	10.09	581.85
TWP01	10/27/2016	591.94	8.89	583.05
TWP02	3/18/2015	592.76	8.09	584.67
TWP02	5/22/2015	592.76	10.74	582.02
TWP02	6/22/2015	592.76	8.19	584.57
TWP02	11/13/2015	592.76	10.26	582.5
TWP02	1/11/2016	592.76	10.12	582.64
TWP02	6/13/2016	592.76	10.88	581.88
TWP02	10/27/2016	592.76	9.73	583.03
TWP03	3/18/2015	592.92	8.02	584.9
TWP03	5/22/2015	592.92	10.68	582.24
TWP03	6/22/2015	592.92	8.09	584.83
TWP03	11/13/2015	592.92	11.28	581.64
TWP03	1/11/2016	592.92	10.12	582.8
TWP03	6/13/2016	592.92	10.85	582.07
TWP03	10/27/2016	592.92	9.74	583.18
TWP04	3/18/2015	593.42	8.39	585.03
TWP04	5/22/2015	593.42	11.18	582.24
TWP04	6/22/2015	593.42	8.33	585.09
TWP04	11/13/2015	593.42	12.04	581.38
TWP04	1/11/2016	593.42	10.77	582.65
TWP04	6/13/2016	593.42	11.42	582
TWP05	3/18/2015	593.39	8.54	584.85
TWP05	5/22/2015	593.39	11.47	581.92
TWP05	6/22/2015	593.39	8.41	584.98

Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
TWP05	11/13/2015	593.39	12.59	580.8
TWP05	1/11/2016	593.39	11.32	582.07
TWP05	6/13/2016	593.39	11.73	581.66
TWP05	10/27/2016	593.39	8.70	584.69
TWP06	3/18/2015	593.07	9.83	583.24
TWP06	5/22/2015	593.07	12.71	580.36
TWP06	6/22/2015	593.07	9.70	583.37
TWP06	11/13/2015	593.07	13.92	579.15
TWP06	1/11/2016	593.07	12.90	580.17
TWP08	3/18/2015	592.61	7.73	584.88
TWP08	5/22/2015	592.61	10.61	582
TWP08	6/22/2015	592.61	7.51	585.1
TWP08	11/13/2015	592.61	11.13	581.48
TWP08	1/11/2016	592.61	9.96	582.65
TWP08	6/13/2016	592.61	10.79	581.82
TWP08	10/27/2016	592.61	9.64	582.97
TWP09	3/18/2015	591.28	6.27	585.01
TWP09	5/22/2015	591.28	9.15	582.13
TWP09	6/22/2015	591.28	5.95	585.33
TWP09	11/13/2015	591.28	9.89	581.39
TWP09	1/11/2016	591.28	8.64	582.64
TWP09	6/13/2016	591.28	9.36	581.92
TWP09	10/27/2016	591.28	8.29	582.99
TWP10	3/18/2015	593.17	8.01	585.16
TWP10	5/22/2015	593.17	10.96	582.21
TWP10	6/22/2015	593.17	7.62	585.55
TWP10	11/13/2015	593.17	12.00	581.17
TWP10	1/11/2016	593.17	10.69	582.48
TWP10	6/13/2016	593.17	11.28	581.89
TWP10	10/27/2016	593.17	10.30	582.87
TWP11	3/18/2015	591.05	5.98	585.07
TWP11	5/22/2015	591.05	8.9	582.15
TWP11	6/22/2015	591.05	5.56	585.49
TWP11	11/13/2015	591.05	9.95	581.1
TWP11	1/11/2016	591.05	8.63	582.42
TWP11	6/13/2016	591.05	9.18	581.87
TWP11	10/27/2016	591.05	8.22	582.83
TWP12	3/18/2015	593.22	8.21	585.01
TWP12	5/22/2015	593.22	11.21	582.01
TWP12	6/22/2015	593.22	7.89	585.33
TWP12	11/13/2015	593.22	12.41	580.81

**Table 1: Harshaw FUSRAP Site
Groundwater Elevations (2009-2016)**

Well	Logdate	Measuring Point Elevation	Depth to Water (ft)	Groundwater Elevation (ft AMSL)
TWP12	1/11/2016	593.22	10.82	582.4
TWP12	6/13/2016	593.22	11.53	581.69
TWP12	10/27/2016	593.22	10.84	582.38
TWP13	3/18/2015	591.46	8.01	583.45
TWP13	5/22/2015	591.46	11.06	580.4
TWP13	6/22/2015	591.46	8.05	583.41
TWP13	11/13/2015	591.46	12.31	579.15
TWP13	1/11/2016	591.46	11.25	580.21

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
BKA48	2003		1.17 U		21.4			13.6 U	116 U	0	578
	2003			0.0601 U	0.814 U	0.176 U	126	9.08	126	261.08	367
	2004	0.465	1.33 U	0.0945 U	0.15 U	0.134 U	141	11.3	138	290.3	453
	2007	0.36 J	2.06 U	0.0904	-0.0064 U	-0.00585 U	63.3	4.31	65.4	304.21	193.8432432456
	2008	0.322 U	0.49 U	R	0.389	0.106 U		3.82	115	233.82	271
	2009	0.713	0.94 U	-0.00817 U	0.0533	0.00671 U		10.1	144	293.1	457
	2010	0.109 U	0 U	0.006 U	0 U	0.128 U	105	1.22	110	216.22	270
	2011	0 U	2.73	0.125 U	0.113 J	0.01 U	83.7	4.48	84.5	172.68	254
	2012	0.0988 U	0.212 U	0.05 U	-0.026 U	-0.006 U	85.5	5.05	87.9	178.45	300
	2013										501
	2015										272
	2016										343
BKA48 (Filtered)	2003		0.00367 U	0.383 U	0.0544 U	130	7.61	131	268.61	400	
	2004	0.72	1.07 U	0.0822 U	0.937 U	0.199 U	149	16.2	155	320.2	402
	2007	0.2 J	0.44 U	0.25 U	0.153 U	0.02 U	78	3.46	73	154.46	216.369369372
	2010	0.113 U	0 U	0.076 U	0.28 U	0.055 U	103	0.7	122	225.7	298
	2011	0.285 J	0.58 J	0.129 U	0.178 J	0.008 U	79.1	4.48	76.7	160.28	253
	2012	0.0531 U	0.31 J	0.11 J	-0.029 U	-0.005 U	108	6	111	225	366
	2013										500
	2015										265
	2016										341
BKA51	2003		3.7 U		85			30.3 U	74.6 U	0	0.0771 U
BKA52	2003		8.35 U		49.4			4 U	0 U	0	0.119 U
BKA53	2003		1.33 U		59.9			16.2 U	36 U	0	0.0233 U
	2003			0.442 U	-0.0595 U	-0.00152 U	0.085 U	0.0321 U	0 U	0	0 U
	2004	1.28	1.52	0.626 U	0.798 U	0.105 U	0.105 U	0.0747 U	-0.0162 U	0	0.216
	2007	0.77 J	0.47 J	0.28 J	0.36 J	0.045 U	0.053 J	0.007 U	0.023 U	0.053	0.068171171172 U
	2008	1.15	1.64	R	0.0904 U	-0.00809 U		0 U	-0.0409 U	0	0 U
BKA53 (Filtered)	2003		0.00821 U	0.394 U	0.18 U	2.09	0.0706 U	2.65	4.74	0 U	
	2004	0.583	2.12 J	0.0579 U	0.286 U	0.0345 U	0.141 U	0.316 U	0.181 U	0	0.414
	2007	0.71 J	1.09	0.29 J	0.3 J	0.036 U	0.087 J	0.006 U	0.012 U	0.087	0.035567567568 U
BKG-MW0001	2003		0.272 U	0.206 U	0.000352 U	0.466 J	0.0634 U	0.326 J	0.792	1.31	
	2004	0.775 J	2.28	-0.159 U	0.511 U	0.229 U	0.344 U	0.083 U	0.203 U	0	0.797
	2007	0.67 J	1.11	0.28 J	0.181 U	0.034 U	0.55 J	0.032 U	0.4 J	0.95	1.1855855856 J
	2011	0.877	1.23 J	0.22 J	0.076 U	0.027 J	0.765	0.054	0.476	1.295	1.32
	2012	0.38 J	0.111 U	0.159 J	-0.036 U	0 U	0.748	0.059 U	0.59	1.338	1.27
	2015										2.04
	2016										2.28
BKG-MW0001 (Filtered)	2003		-0.0224 U	0.0995 U	0.0559 U	0.765 J	0.117 U	0.589 J	1.354	1.38	
	2004	0.776 J	1.57	0.112 U	0.47 U	0.238 U	0.295 U	0.0377 U	0.737	0.737	0.668
	2007	1.01	1.1	0.39 J	0.3 J	0.058 U	0.64 J	0.039 U	0.35 J	0.99	1.0373873874 J
	2011	0.685	1.58 J	0.146 U	0.246 J	0.008 U	0.564	0.021 J	0.469	1.054	1.49
	2012	0.288 J	0.805 J	0.088 U	-0.081 U	0 U	0.451 J	0.166 J	0.701	1.318	1.3
	2013										1.78
	2015										2.07
BKG-MW0002	2003		2.63	1.04 U	0.112 U	0.0944 U	0.0241 U	0.0463 U	0	0	0.245
	2004	0.832 J	1.49 U	-0.192 U	0.531 U	-0.0727 U	0.14 U	0.059 U	0.153 U	0	0 U
	2007	1.03	0.65	0.31 J	0.42 J	0.042 U	0.027 J	0.0033 U	0.016 U	0.027	0.047423423424 U
BKG-MW0002 (Filtered)	2003		-0.0728 U	0.124 U	0.00843 U	0.147 U	0.0125 U	0.0296 U	0	0	0 U
	2004		-0.0927 U	0.65 U	-0.381 U	-0.115 U	-0.0357 U	-0.0168 U	0	0	0 U
	2007	0.94 J	0.35 U	0.2 U	0.115 J	0.016 U	0.031 U	-0.007 U	0.104 J	0.104	0.308252252256 J
BKG-MW0003	2003			0.112 U	0.27 U	0.0887 U	2.7	0.381 J	2.63	5.711	6.84
	2004	0.163 U	0.799 U	0.0715 U	0.315 U	-0.0145 U	1.97	0.212 U	1.98	3.95	4.34
	2007	0.23 J	0.56 U	0.181 J	0.124 J	0.042 U	2.35	0.14 U	2.1	4.45	6.2243243244
	2008	0.89	0.318 U	R	0.0819 U	-0.00751 U		0.167 U	1.7	3.77	5
	2009	0.127 U	2.69	0.0308 U	-0.00507 U	0.0168 U		0.0682 U	1.75	3.77	5.17
BKG-MW0003 (Filtered)	2003			0.43 U	0.727 U	0.0413 U	2.93	0.11 U	2.07	5	6.7
	2004			0.00451 U	-0.136 U	-0.0189 U	2.65	0.151 U	2.06	4.71	5.65
	2007	0.27 J	0.48 U	0.236 J	0.196 J	0.046 U	2.7	0 U	2.79	5.49	8.269459455956
BKG-MW0004	2003			-0.0259 U	0.431 U	-0.00169 U	0.105 U	-0.0115 U	0.116 U	0	0.481
	2004	0.325 U	1.47 U	0.227 U	0.266 U	0 U	0.451 U	0.0189 U	0.336 U	0	0.855
BKG-MW0004 (Filtered)	2003			0.0289 U	1.25 U	0.187 U	0.379 J	0.224 J	0.233 U	0.603	0.47
	2004	0.202 U	1.65 U	0.0519 U	0.563 U	0.144 U	0.983	0.208 U	0.28 U	0.983	0.431

Notes:

pCi/L = picocuries per liter

μg/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

**Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples**

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
BKG-MW0005	2003			0.279 U	0.117 U	0.019 U	0.0567 U	0.0102 U	0.0364 U	0	0.427
	2004	1.5	2.78	-0.0664 U	0.456 U	0.28 U	0.0766 U	-0.074 U	0.321 U	0	0 U
	2007	2.38	1.74	0.181 J	0.096 J	0.057 J	0.083 J	0.022 U	0.024 U	0.083	0.071135135136 U
	2010	0.927	0.262 U	0.102 U	0.45	0.041 U	1.01	0.215	0.631	1.856	1.54
	2015										1.53
BKG-MW0005 (Filtered)	2003			0.0158 U	0.358 U	0.033 U	-0.0557 U	-0.0223 U	0.0794 U	0	0.282
	2004			0.223 U	0.721 J	0.0772 U	0.453 U	0.0354 U	-0.0307 U	0	0 U
	2007	2.29	1.58	0.208 J	0.099 J	0.011 U	0.1 J	0.041 J	0.086 J	0.227	0.254900900904 J
	2010	0.243 U	0 U	0.108 U	0 U	0.042 U	0.436 J	0.145 U	0.424	0.86	1.8
	2015										0.952
CDT-MW0001	2003			0.284 U	0.621 U	0.185 U	0.306 J	-0.0192 U	0.204 J	0.51	0.309
	2004	3.17	2.57	0.655 U	0.519 U	0.0656 U	0.194 U	0.175 U	0.158 U	0	0 U
CDT-MW0001 (Filtered)	2003			0.343 U	0.303 U	0.124 U	0.153 U	-0.0187 U	0.172 J	0.172	0.292
	2004			0.386	0.906 J	0.216 U	0.169 U	0.205 U	0.386 U	0	0 U
CDT-MW0002	2003			0.304 U	0.236 U	0.0815 U	0.13 U	0.0485 U	0.105 U	0	-0.0751 U
	2004	0.671 J	2.15	0.415 U	0.681 U	-0.0872 U	0.512 U	0.148 U	0.244 U	0	0 U
CDT-MW0002 (Filtered)	2003			0.389 U	0.605 U	0.137 U	0.00832 U	-0.0261 U	0.00849 U	0	-0.0194 U
	2004			-0.0285 U	0.975 J	0.0819 U	-0.15 U	0.51 U	0.188 U	0	0 U
DM1	2003		7.38 U		125				16.4 U	75.8 U	0
	2003			0.112 U	0.166 U	-0.0114 U	-0.156 U	-0.0996 U	0.0132 U	0	0 U
DM1 (Filtered)	2003			0.125 U	0.284 U	0.0725 U	0.771	0.0109 U	0.578 J	1.349	0 U
DM10	2003		0.326 U		13				1.34 U	153 U	0
DM11	2003		12 U		13.3 J				10.7 U	-38 U	0
	2004	0.334 U	0.575 U	-0.506 U	0.0294 U	-0.783 U	1.44	0.526 U	0.709	2.149	0.262
	2011	0.855 J	0.885 J	0.117 U	0.322 J	0.062 J	0.348	0.026 J	0.4	0.774	0.199 J
	2012	0.463 J	0.898	0.11 J	-0.042 U	0 U	0.595	0.151	0.482	1.228	0.976
	2013										32.5
	2015										0.177 J
DM11 (Filtered)	2004			0.304 U	1.64 J	0.114 U	0.982	0.591	0.813	2.386	1.89
	2011	0.09 U	0.806 J	0.091 U	0.065 U	0.112 J	-0.042 U	0 U	-0.001 U	0	0.02 U
	2012	0.104 U	1.04	0.267	0.02 U	0.01 U	0.459	0.038 U	0.496	0.955	0.754
	2013										0.689
	2015										0.228 J
DM12	2003		14.2 U		17.1				7.02 U	0 U	0
	2003			0.258 U	0.145 U	0.0583 U	0.263 J	0.0533 U	0.176 U	0.263	0 U
DM12 (Filtered)	2003			0.188 U	0.138 U	-0.0125 U	0.214 U	0.116 U	0.0889 U	0	0 U
DM14	2003		7.86 U		24.5				5.5 U	60 U	0
	2003			0.69 J	1.09 U	0.744 J	5.2	1.49	4.98	11.67	3.04
	2009	0.254 U	1.05 U	0.901	0.567	0.421		0.547	7.72	15.207	17.2
	2010	0.172 U	0 U	0.403	0.516	0.325 J	3.81	0.316	3.02	7.146	7.58
	2011	0.262 J	1.55	0.974 J	0.439 U	0.366	2.43	0.045 U	1.75	4.18	2.08
	2012	0.233 U	1.37	1.77 J	0.24 U	0.12 U	3.59	0.32 U	3.31	6.9	7.41
	2013										2.53
	2015										1.24
DM14 (Filtered)	2003			0.816 U	1.05 U	0.157 U	5.65	0.951 J	5.69 J	12.291	3.2
	2010	0.103 U	0.583	0.278	0.254 U	0.099 U	2.85	0.502	2.57	5.922	4.99
	2011	0.244 U	2.05	0.777 U	0.366 U	0.131 J	1.96	0.276 JB	1.18	3.416	1.27
	2012	0 U	1.18	2.05	0.296 U	0.336 J	1.01 U	0.289 U	2.17	2.17	4.97
	2013										2.22
	2015										1.12
DM15	2003		1.4 U		19.1				5.31 U	-14.2 U	0
	2004	0.914	1.33	0.218 U	1.76 J	0.327 U	10	2.18	9.52	21.7	29.8
	2007	1.05	0.36 U	0.28 J	0.3 J	0.046 U	9.4	0.43 J	8.7	18.53	25.7864864868
	2008	1.72	0.987	R	0.0822 U	0.0169 U		0.0873 U	11.1	23.8	34.6
	2009	0.52 U	0.436 U	-0.0229 U	-0.0159 U	-0.0000495 U		0.707	10.4	21.407	28.1
	2010	0.298	0.091 U	0 U	0.77	0.25 J	19.7	0.283	19	38.983	49.8
	2011	0.876	1.07 J	0.334 J	-0.002 U	0.024 U	15.1	1.03	16	32.13	42.2
	2012	0 U	0.789 J	0.067 U	0.031 J	0.023 U	11.4	0.794	10.2	22.394	29
	2013										27.1
	2015										30.8
DM15 (Filtered)	2004	0.803	1.14 U	-0.0507 U	0.522 U	-0.026 U	10.2	2.66	9.42	22.28	41.1
	2007	0.96 J	0.33 U	0.43 J	0.139 U	0.021 U	8	0.57 J	7.1	15.67	21.0441441444
	2010	0.281	0 U	0.089 U	0.437	0.546	20	0.712	20.9	41.612	47.8
	2011	-0.057 U	0.419 U	0.138 U	0.179 U	-0.005 U	14.1	0.786	13.5	28.386	41.7
	2012	0.89	1.4	-0.09 U	-0.066 U	-0.035 U	8.5	0.292	8.96	17.752	25.4
	2013										26.3
	2015										31

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

**Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples**

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
DM2	2003		11 U		26.3				12 U	0 U	0 0.316
DM22R	2003		1.2 U		78.4				-4.38 U	18.1 U	0 0 U
	2003			-0.181 U	0.287 U	-0.0331 U	1.1	0.433 J	0.0759 U	1.533	0 U
DM22R (Filtered)	2003			-0.0936 U	0.197 U	0.000211 U	0.672 J	0.536 U	0.0356 U	0.672	0 U
DM23R	2003		1.14 U		45.7				15.4 U	68.2 U	0 0.557
	2004	0.911	2.5	0.333 U	0.0532 U	0 U	0.506 U	0.103 U	0.469 U	0	1.38
	2009	0.774	1.94 U	0.108	0.0111 U	-0.00483 U		0.032 U	1.19	2.44	2.78
	2010	1.43	0.209 U	0.192	0.304 U	0.111 U	0.843 J	0 U	0.468	1.311	2.53
	2011	0.789	1.49 J	0.176 U	0.146 U	0.006 U	0.611	0.107 J	0.535	1.253	1.77
	2012	0.384 J	1.54	0.253 J	0.028 U	-0.013 U	0.764	0.042 U	0.867	1.631	2.39
	2013										0.842
	2015										1.07
	2004	0.896	1.95	0.432 U	1.82 J	0.14 U	0.649	0.466	0.554	1.669	1.88
DM23R (Filtered)	2010	0.832	0.84	0.702	0.331	0.798	0.629 J	0 U	0.826	1.455	2.98
	2011	0.298 J	1.56 J	0.26 J	0.035 U	0.019 U	0.478	-0.02 U	0.505	0.983	1.74
	2012	0.587	0.732 J	0.133 J	-0.044 U	-0.019 U	1.15	0.041 U	0.919	2.069	2.98
	2013										0.847
	2015										0.964
DM25R	2003		5.65 U		7.39 U			-0.178 U	59.5 U	0	0.0602 U
	2003			0.398 U	0.184 U	0.053 U	0.0196 U	-0.0506 U	0.132 U	0	0.293
	2004	1.01	0.895 U	0.207 U	1.41 U	0.0941 U	0.557	-0.0871 U	0.0649 U	0.557	-0.0235 U
DM25R (Filtered)	2003			0.233 U	0.461 U	0.0738 U	0.24 U	0.101 U	0.119 U	0	0 U
	2004	0.936	1.45 U	-0.244 U	0.728 U	0.087 U	0.166 U	0.126 U	0.0259 U	0	0.0904 U
DM26	2003		6.27 U		28				6.67 U	7.49 U	0 0.199
	2004	1.14 J	1.1 U	0.243 U	0.602 U	0.098 U	0.504	0.367 U	0.227 U	0.504	0.11 U
	2011	0.956	1.28 J	0.076	0.18 J	-0.005	0.05	-0.008	0.032	0.074	0.044
	2012	0.92	1.29	0.188 J	-0.037 U	-0.007 U	-0.035 U	0.035 U	0.02 U	0	0.105 U
	2013										0.097 J
	2015										0.137 U
DM26 (Filtered)	2004			0.141 U	0.711 U	0.126 U	0.191 U	0.0503 U	0.0326 U	0	0 U
	2011	0.771	1.85 J	0.08	0.212 J	0.015	0.03	0.022 U	0.065	0.095	0.013
	2012	1.15	0.909	0.114 J	-0.053 U	-0.019 U	-0.035 U	-0.017 U	-0.004 U	0	0.171 U
	2013										0.086 U
	2015										0.106 J
DM27R	2003		8.64 U		0 U			-6.31 U	27.8 U	0	15.9
	2003			0.154 U	0.863 U	0.0465 U	8.05	0.83	7.75	16.63	23.3
	2004	0.367 U	1.03	0.192 U	0.906	0.39 U	13.4 J	1.61 J	15.4 J	30.41	40.5
DM27R (Filtered)	2003			0.0555 U	0.593 U	0.152 U	6.05	0.639	5.6	12.289	25.8
	2004			0.0787 U	0.85	0.331 U	17.2 J	0.969 J	16.4 J	34.569	39.5
DM28R	2003		0.18 U		6.03 U				7.57 U	-48.7 U	0 0.559
	2003			-0.134 U	0.264 U	0.0478 U	0.048 U	0.0184 U	0.0537 U	0	0 U
	2004	0.148 U	0.746 U	0.413 U	1.12 U	-0.0388 U	0.166 U	0.268 U	0.126 U	0	-0.0459 U
	2007	0.22 J	0.27 U	0.234 U	0.096 U	0.041 U	0 U	0.024 U	0.038 U	0	0.112630630632 U
DM28R (Filtered)	2003			0.12 U	0.045 U	0.0438 U	0.18 U	-0.0522 U	0.031 U	0	0 U
	2004	0.286 U	3.27 J	0.334 U	1.25 U	0.0275 U	0.332 U	0.0941 U	0.249 U	0	0.147 U
	2007	0.31 J	0.27 U	0.27 U	0.219 J	0.016 U	0.016 U	0.03 U	-0.0003 U	0	-0.000889189189 U
DM29R	2003		5.46 U		12.6 J				1.02 U	106 U	0 0.484
	2004	1.12	1.93	0.216 U	1.02 U	0.229 U	0.263 U	0.131 U	0.138 U	0	0.656
	2008	1.01	2.75	R	-0.00302 U	0.0239 U		0.0943 U	0.175 U	0.388	0 U
DM29R (Filtered)	2004			0.32 U	0.756 U	0.269 U	0.581 U	0.301 U	0.236 U	0	0.262 U
DM3	2003		12.4 U		11.4 J				2.19 U	0 U	0 0.127 U
DM30R	2003		7.69 U		26.7				-5.07 U	127 U	0 0.189 U
	2003				0.764	1.07 U	0.1 U	0.229 J	0.0899 U	-0.0404 U	0.229 -0.351 U
	2004	0.66	1.27 U	0.0842 U	0.82 U	0.139 U	0.305 U	0.0545 U	0.154 U	0	0.0999 U
DM30R (Filtered)	2003			0.0204 U	0.119 U	0.0196 U	0.238 J	0.0617 U	0.0619 U	0.238	-0.122 U
	2004			0.287 U	0.814 U	0.0794 U	0.356 U	-0.0914 U	0.356 U	0	0.0629 U
DM4	2003		2.81 U		43.7				2.53 U	14.8 U	0 0 U
DM5	2003		0.218 U		24.6				6.23 U	167 U	0 0.341
	2003			0.0625 U	0.567 J	0.2 U	0.353 J	0.0427 U	0.203 J	0.556	0.228
DM5 (Filtered)	2003			0.434 U	0.368 U	0.0549 U	0.226 J	0.0293 U	0.0489 U	0.226	-0.062 U

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

**Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples**

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
DM9	2003		3.51 U		31.7			10.2 U	0 U	0	0.293
	2004	0.734	3.02	0.373 U	0.0875 U	-0.026 U	0.783	-0.0136 U	0.384 U	0.783	0.26
	2011	0.0592 U	0.89 J	0.13 U	0.228 J	0.087 J	1.33	0.08 J	0.821	2.231	2.98
	2012	0.305	0.168 U	0.06 U	-0.035 U	-0.013 U	1.21	0.073 U	0.811	2.021	1.96
	2013										3.16
	2015										2.62
DM9 (Filtered)	2004	0.483	2.91	0.574 U	1.21 J	0.483	0.321 U	0.306 U	0.318	0.318	0.335
	2011	0.47 J	1.14	0.184 U	0.038 U	0.054 J	1.24	0.139	1.11	2.489	2.92
	2012	0.0509 U	0.358 J	0.168	-0.027 U	-0.007 U	1.18	0.082 U	1.04	2.22	2.32
	2013										3.29
	2015										2.58
ERM47	2003		10.1 U		27.5			-11.3 U	155 U	0	0.037 U
	2003			0.487 U	0.938 J	0.0752 U	0.094 U	-0.0135 U	0.0537 U	0	-0.0933 U
	2008	1.25	1.46	0.906 J	0.179 U	-0.0361 U		-0.0159 U	0.127	0.127	0 U
ERM47 (Filtered)	2003			0.138 U	0.0327 U	0.0378 U	0.205 U	-0.00818 U	0.0517 U	0	0 U
G-1-01	2015										16
	2015										13
	2015										14
G-1-01 (Filtered)	2015										17
	2015										13
	2015										14
G-1-02	2015										22
	2015										11
	2015										11
	2016										22.8
G-1-02 (Filtered)	2015										16
	2015										12
	2015										11
	2016										14.1
G-1-03	2015										12000
	2015										11000
	2015										13000
	2016										7841
G-1-03 (Filtered)	2015										12000
	2015										11000
	2015										13000
	2016										7472
G-1-04	2015										490
	2015										360
	2015										300
	2016										832
G-1-04 (Filtered)	2015										470
	2015										330
	2015										310
	2016										799
G-1-05	2015										11
	2015										8.7
	2015										490
G-1-05 (Filtered)	2015										11
	2015										65
	2015										190
G-1-06	2015										0.29 J
	2015										0.56
	2015										0.638
G-1-06 (Filtered)	2015										0.51
	2015										0.36
	2015										0.609
G-1-07	2015										13
	2015										12
	2015										3.86
G-1-07 (Filtered)	2015										11
	2015										3.71

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
G-1-08	2015										51
	2015										48
	2015										46 J
	2016										48
G-1-08 (Filtered)	2015										48
	2015										46
	2015										46
	2016										51.7
G-1-09	2015										5.2
	2015										4.7
	2015										2.35
G-1-09 (Filtered)	2015										13
	2015										4.7
	2015										2.35
G-1-10	2015										0.9
	2015										0.84
	2015										0.436 J
G-1-10 (Filtered)	2015										3.8
	2015										0.9
	2015										0.448 J
G-1-11	2015										3.6
	2015										14
	2015										1.02
G-1-11 (Filtered)	2015										3.1
	2015										1.4
	2015										1.12
G-1-12	2015										120
	2015										44
	2015										45
G-1-12 (Filtered)	2015										73
	2015										44
	2015										46
G-1-13	2015										0.82
	2015										0.22
	2015										0.325 J
G-1-13 (Filtered)	2015										0.89
	2015										0.046 U
	2015										0.293 J
G-1-14	2015										210
	2015										220
	2015										120
G-1-14 (Filtered)	2015										190
	2015										210
	2015										160
G-1-15	2015										0.2
	2015										0.18
	2015										0.145 J
G-1-15 (Filtered)	2015										0.2
	2015										1 J
	2015										0.107 J
G-1-16	2015										11
	2015										12
	2015										13.098
	2016										11.8
G-1-16 (Filtered)	2015										11
	2015										12
	2015										11.505
	2016										12.2
G-1-17	2015										12
	2015										330
	2015										6.6
	2016										6.41
G-1-17 (Filtered)	2015										11
	2015										420
	2015										6
	2016										6.58

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
G-1-18	2015										7
	2015										16
	2015										10
G-1-18 (Filtered)	2015										15
	2015										16
	2015										10
GEO-01	2016										38.5
GEO-01 (Filtered)	2016										36.4
GEO-02	2016										7.21
GEO-02 (Filtered)	2016										5.67
GEO-07	2016										5.63
GEO-07 (Filtered)	2016										5.67
IA03-TP0001	2004	0.742	1.65	0.453 U	0.589 U	0.0457 U	0.193 UJ	0.0319 UJ	0.0859 UJ	0	1.26
	2015										4.5
	2015										1.4
	2015										3.9
IA03-TP0001 (Filtered)	2004			0.0949 U	0.457 U	0.0809 U	0.256 UJ	0.0505 UJ	0.391 UJ	0	0.305
	2015										4.5
	2015										1.1
	2015										5.2 J
IA03-TW0001	2003										5.32
	2008	0.44 U	0.909	1.03 J	0.262	0.332		0.0321 U	0.676	1.399	2.53
	2009	0.413 U	2.5	0.391	0.242	0.301		0.0685	0.814	1.7505	1.93
	2010	0 U	0 U	0.152 U	0.356 U	0.194 U	1.44	0.059 U	0.44	1.88	1.88
	2011	0.168 U	1.16	0.365 J	0.153 J	0.036 J	0.398	0.015 U	0.196	0.594	0.758
IA03-TW0001 (Filtered)	2003										8.4
	2010	0.15 U	0 U	0.192	0.619	0.116 U	1.32	0.244	0.862	2.426	2.18
	2011	0.127 U	0.821 J	0.186 U	0.113 J	0.061 J	0.245	-0.01 U	0.194	0.439	0.701
IA03-TW0002	2003										38.9
	2004										27
IA03-TW0002 (Filtered)	2003										31.2
	2013										8.43
IA03-TW0002R	2015										6.4
	2015										9
	2015										5.3
IA03-TW0002R (Filtered)	2015										6.1
	2015										29
	2015										5.4
IA03-TW0003	2003										0 U
IA03-TW0003 (Filtered)	2003										0 U
IA03-TW0004	2003										0.225
	2004	1.16	2.19	0.0214 U	0.511 U	0.00446 U	0.547 U	-0.0444 U	0.655	0.655	0.577
	2008	1.05	1.53	R	0.122 U	0.0251 U		0.0351 U	0.157	0.47	0 U
IA03-TW0004 (Filtered)	2003										0.23
	2004			0.38 U	0.819 U	0.105 U	0.459 U	0.469 U	0.286 U	0	0.54
IA03-TW0004R	2015										0.046 UJ
	2015										0.046 U
	2015										0.046 U
IA03-TW0004R (Filtered)	2015										4.9 J
	2015										0.046 U
	2015										0.046 U
IA03-TW0005	2003										4130
	2004			-0.028 U	0.792	0.372 U	349 J	25 J	353 J	727	1170
	2007										
	2014										6839
IA03-TW0005 (Filtered)	2003										4070
	2004										1370
	2014										6324
IA03-TW0005R	2015										3400
	2015										5300
	2015										6600
	2016										5480
IA03-TW0005R (Filtered)	2015										3500
	2015										5100
	2015										6800
	2016										5803

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

**Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples**

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
IA03-TW0006	2004										184000
	2004			55.7 U	17400	67 U	74100	4000	78100	156200	231485.5855884
	2007										
	2014										33180
IA03-TW0006 (Filtered)	2014										22250
IA03-TW0006R	2015										220000
	2015										240000
	2015										140000
	2016										122500
IA03-TW0006R (Filtered)	2015										240000
	2015										250000
	2015										160000
	2016										117300
IA04-TP0001	2004	0.34 J	1.39 U	0.175 U	0.265 U	0.0486 U	4.8	0.419 U	4.8	9.6	10.2
	2008	0.582	1.73	R	0.0147 U	0.0591 U		0.233	3.31	6.713	7.16
	2009	0.285 U	1.89 U	0.0107 U	0.0304	0.00442 U		0.143	3.23	6.903	14.8
	2010	0.17 U	0 U	0.127 U	0.126 U	0.275	2.36	0.406	1.81	4.576	5.41
	2011	0.382 J	1.16 J	1.01 J	0.076 U	0.459	13.2	0.842	12.3	26.342	26
	2012	-0.105 U	0.399 J	0.119 J	-0.042 U	0.007 U	2.87	0.121	2.45	5.441	7.13
	2013										6.74
	2015										12.8
	2016										18.7
IA04-TP0001 (Filtered)	2004			0.39 U	0.894 J	0.202 U	5.49	1.82	2.89	10.2	10.1
	2010	0.105 U	0 U	0.149	0.656	0.156	2.39	0.207 U	1.7	4.09	5.01
	2011	0 U	1.22 J	0.189 U	0.037 U	0.003 U	1.37	0.029 J	0.902	2.301	2.9
	2012	0.41 J	0.0812 U	0.099 J	-0.031 U	0.011 U	2.6	0.148	2.24	4.988	6.27
	2013										5.65
	2015										12.5
	2016										17.2
IA04-TP0002	2004	1.09 J	1.37 U	0.346	0.26 U	0.181	0.5 U	0.344 U	0.427 U	0	0.419
	2011	0.311 J	1.13 J	0.115 U	0.075 U	-0.017 U	0.521	0.031 J	0.28	0.832	0.449
	2012	0.451 J	-2.48 U	0.332	-0.011 U	0.026 U	0.178 J	0.138	-0.054 U	0.316	0.208 U
	2013										0.445
	2015										0.335 J
IA04-TP0002 (Filtered)	2004			-0.18 U	0.765 U	0.229	0.572 U	0.294 U	-0.0225 U	0	0.544
	2011	0.334 J	1.9 J	0.024 U	0.107 U	0.018 U	0.324	0.031 J	0.392	0.747	0.361 J
	2012	0.255 J	1.12	0.113 J	-0.02 U	-0.009 U	0.154 J	0.03 U	0.068 U	0.154	0.247 U
	2013										0.347
	2015										0.309 J
IA04-TP0003	2004	1.37	2.49	0.286 U	0.441 U	0.0000000181 U	0.0745 U	0.12 U	-0.0186 U	0	0 U
	2007	1.6	1.62	0.41 J	0.212 U	0.07 U	0.014 U	0.007 U	0.017 U	0	0.050387387388 U
IA04-TP0003 (Filtered)	2004			0.124 U	1.02 J	0.174	0.533 U	0.285 U	0.115 U	0	0 U
	2007	1.42	1.33	0.167 U	0.2 U	0.06 U	0.042 U	0.007 U	0.023 U	0	0.068171171172 U
IA04-TP0004	2004	0.695	1.62 U	0.643 U	0.93 U	0.0888 U	0.226 U	0.111 U	0.174 U	0	0.791 J
	2007	0.41 J	0.04 U	0.37 J	0.158 J	0.036 U	0.36 J	-0.006 U	0.27 U	0.36	0.80027027028 U
	2008	0.615	0.581 U	R	0.0615 U	0.0823		0.0752 U	0.175	0.472	0 U
	2009	1.2	3.51	1.1	0.522	0.667		0.171	3.51	7.851	14
	2010	0.24	0 U	0.169	0 U	R	1.34	0.071 U	0.726	2.066	2.35
IA04-TP0004 (Filtered)	2004			0.907	0.34 U	0.431 U	0.335 U	-0.0147 U	0.132 U	0	0.548 J
	2007	0.32 J	0.25 U	0.28 J	0.26 J	0.048 U	0.28 J	0.053 U	0.23 J	0.51	0.68171171172 J
	2010	0.429	0 U	0.039 U	0.257 U	0.071 U	1.52 J	0.077 U	0.727	2.247	2.01
IA04-TP0005	2004	0.422	1.46	0.682	1.49 J	0.0764 U	0.292 U	0.152 U	0.0617 U	0	1.27
	2008	0.75	0.875	R	0.0874 U	-0.00738 U		0.0675 U	0.0284 U	0	0 U
IA04-TP0005 (Filtered)	2004			0.312 U	1.76 J	0.201 U	-0.177 U	0.149 U	0.0249 U	0	0.146 U
IA04-TW0001	2003										0 U
IA04-TW0001 (Filtered)	2003										0.0732 U
IA04-TW0002	2003										0 U
IA04-TW0002 (Filtered)	2003										0 U
IA04-TW0003	2003										96.4
IA04-TW0003 (Filtered)	2003										75.8

Notes:

pCi/L = picocuries per liter

µg/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230			URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
IA04-TW0004	2003										9.89
	2004	0.693	1.49	0.119 U	1.03 U	-0.021 U	1.86	0.669	1.78	4.309	4.81
	2007	0.49 J	1.23	0.26 U	0.27 J	0.059 J	6.05	0.24 J	6.08	12.37	18.02090090112
	2008	0.671	0.96	R	-0.0598 U	0.0554 U		0.22 U	4.52	7.78	11.1
	2011	0.465 J	1.46 J	0.324 J	0.142 U	0.054	2.6	0.067 J	2.67	5.337	4.86
	2012	0.255 J	0.79 J	0.134 J	0.237	-0.009 U	8.13	0.325	7.56	16.015	18.1
	2013										12
	2015										2.94
	2016										5.7
IA04-TW0004 (Filtered)	2003										8.95
	2004			0.0976 U	1.34 U	-0.0562 U	2.97	0.426 U	2.51	5.48	5.47
	2007	0.67 J	1.62	0.33 J	0.145 J	0.02 U	5.82	0.35 J	6.01	12.18	17.81342342364
	2011	0.529	1.38 J	0.235 J	0.101 U	0.016 U	1.62	0 U	2.07	3.69	3.55
	2012	0 U	1.17	0.127 J	-0.011 U	-0.003 U	5.67	0.407	6.34	12.417	14.8
	2013										13.2
	2015										2.83
	2016										6.85
IA04-TW0005	2003										0 U
IA04-TW0005 (Filtered)	2003										0 U
IA04-TW0006	2003										0 U
IA04-TW0006 (Filtered)	2003										0.0234 U
IA05-TW0001	2003										0.117 U
	2007	1.19	2.35	0.267 J	0.067 U	0.043 U	0.067 J	0.007 U	0.052 J	0.119	0.154126126128 J
IA05-TW0001 (Filtered)	2003										0 U
	2007	1.33	2.01	0.249 U	0.095 U	0 U	0.044 U	-0.005 U	0.018 U	0	0.053351351352 U
IA10-MW0001	2003			0.201 U	0.459 U	0.0175 U	8.7	1.39	8.24	18.33	29.3
	2004	0.974	1.72	0.182 U	0.662 U	0.0886 U	1.95 J	0.413 UJ	2 J	3.95	6.63
	2007	0.46 J	0.43 U	0.234 J	0.097 J	0.049 J	5.5	0.19 J	4.47	10.16	13.24891891908
	2008	0.751	1.32	R	0.25	0.0318 U		0.55	5.87	13.58	21.2
	2009	0.427	0.764 U	0.00751 U	-0.0011 U	-0.0135 U		0.497	9.52	19.297	25.4
	2010	0.358	0 U	0.108 U	0 U	0.118 U	10.9	0.342	12	23.242	28.7
	2011	0.352	1.36 J	0.176	0.072 U	0.028	10.9	0.475	10.8	22.175	32.2
	2012	0.769	0.249 U	0.103 J	-0.034 U	0 U	9.45	0.528	8.88	18.858	28.2
	2013										25.3
	2015										38.7
	2016										27.7
IA10-MW0001 (Filtered)	2003			-0.348 U	0.332 U	0.139 U	8.89	0.969	10.3	20.159	27.4
	2004			0.0668 U	0.61	-0.0333 U	3 J	0.423 UJ	2.57 J	5.57	7.01
	2007	0.55 J	0.29 U	0.229 J	0.049 U	0.009 U	5.4	0.15 U	5.9	11.3	17.4873873876
	2010	0.168 U	0 U	0.029 U	0 U	0.104 U	10.9	0.131 U	10.2	21.1	31.8
	2011	0.411	0.752	0.194	0.116	0.052	11.2	0.576	11	22.776	33.9
	2012	1.32	0.387 J	0.063 U	-0.011 U	0.008 J	10	0.636	9.43	20.066	30.6
	2013										25.5
	2015										40.1
	2016										32.9
IA10-MW0002	2003			0.239 U	0.208 U	0.0796 U	0.0861 U	0.0744 U	0.0935 U	0	0.289
	2004	1.25	1.37 U	-0.108 U	0.703 U	0.0739 U	0.535 U	0.566	0.104 U	0.566	0.794
	2007	1.29	0.49 J	0.24 J	0.182 J	0.002 U	0.084 J	0 U	0.039 U	0.084	0.115594594596 U
	2008	1.2	1.21	R	0.0416	0.0359 U		-0.0159 U	0.0408 U	0	0 U
	2009	0.187 U	3.9	0.142	0.0342	0.00882 U		-0.00817 U	0.033 U	0	-0.000852 U
	2010	2.39	0.439	0.639	1.06	0.35 J	1.41	0.122 U	0.456	1.866	1.02
	2015										12.2
	2016										7.27
IA10-MW0002 (Filtered)	2003			0.0313 U	0.218 U	0.0271 U	0.0513 U	0.0113 U	0.0305 U	0	0.166 U
	2004	0.642	2.64	-0.228 U	0.851 U	0.253 U	0.385 U	0.335 U	0.123 U	0	0.724
	2007	0.79 J	1.51	0.202 J	0.274 J	0.028 U	0.074 J	0 U	0.08 J	0.154	0.23711711712 J
	2010	0.343	0 U	0.064 U	0.895	0.292 J	1.25	0.1 U	0.369 U	1.25	1.31
	2015										13.7
	2016										5.04
IA10-MW0003	2003			0.0466 U	0.424 U	0.0357 U	3.69	0.308 J	1.31	5.308	6.26
	2004			0.289 U	0.849	0.103 U	1.19 J	-0.0258 UJ	0.462 UJ	1.19	11.6
	2015										3.8
	2016										3.15
IA10-MW0003 (Filtered)	2003			0.0631 U	0.0797 U	0.0496 U	2.73	0.405 J	1.91	5.045	5.46
	2015										3.53
	2016										2.4

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
IA10-MW0004	2003			0.227 U	0.281 U	0.0734 U	5.1	0.0381 U	3.86	8.96	9.46
	2004	0.085 U	1.17 U	0.14 U	0.367 U	0.00277 U	2.38	0.46 U	1.32	3.7	5.77
	2007	0.21 J	0.57 U	0.194 U	0.099 U	0.021 U	2.45	0.053 U	2.34	4.79	6.93567567576
	2008	0.908	0.884	R	-0.00299 U	-0.0319 U		0.23 U	2.11	5.69	6.26
	2009	0.569 U	3.05	0.0516 U	0.0262 U	0.0215 U		0.0624	2.05	4.5724	6.21
	2010	0.338 U	0.053 U	0.054 U	0.425	0.079 U	3.56	0.448	2.61	6.618	6.39
	2011	0.222 J	0.495 J	0.315 J	0.073 U	0.007 U	2.56	0.141	1.73	4.431	6.79
	2012	0.521	0.259 U	0.053 U	-0.049 U	0 U	3.25	0.098 J	2.26	5.608	5.84
	2013										6.34
	2015										5.43
	2016										5.77
IA10-MW0004 (Filtered)	2003			-0.0654 U	0.167 U	0.000436 U	4.34	0.621 U	2.77	7.11	9.03
	2004			0.178 U	0.871 U	0.0965 U	2.86	0.744 U	2.02	4.88	7.02
	2007	0.191 J	-0.66 U	0.209 U	0.125 U	0.042 U	2.38	0.04 U	1.88	4.26	5.57225225232
	2010	0.114 U	0 U	0.066 U	0.139 U	0.098 U	3.15	0.208	2.04	5.398	6.33
	2011	0.0667 U	0.631 J	0.133 U	0.116 U	0.033	2.75	0.064 J	1.88	4.694	6.15
	2012	0.107 U	0.956	0.023 U	-0.027 U	0 U	2.96	0.163 J	1.99	5.113	4.7
	2013										4.89
	2015										5.66
	2016										6.48
IA10-MW0005	2008										
	2009	0.984	2.25 U	0.205	0.284	0.281		0.505	8.14	18.485	17.3
	2010	0.104 U	0 U	0.052 U	0.264 U	0.11 U	6.01	0.178	5	11.188	14.8
	2011	0.249 U	1.15	0.256 J	0.317 J	0.131	7.05	0.458	5.57	13.078	15.3
	2012	0 U	0.758 J	0.271 J	-0.032 U	-0.008 U	4.92	0.154	3.66	8.734	11.6
	2013										11.5
IA10-MW0005 (Filtered)	2015										8.53
	2010	0.183 U	0 U	0 U	0.18 U	0.204 U	5.87	0.151 U	4.87	10.74	16
	2011	0.833 J	0.655 J	0.177 U	0.091 J	0.03 J	7.42	0.165	6.34	13.925	17.2
	2012	0.296 J	1.02	-0.073 U	0.11 J	-0.035 U	4.12	0.252	3.6	7.972	11
	2015										11.1
IA10-MW0007	2008	0.486	1.46	0.344 U	0.176 U	0.0448 U		0.535	4.47	12.935	13.24891891908
	2009	0.373 U	1.89 U	0.00341 U	0.0464	-0.0162 U		0.511	8.09	18.271	21.3
	2010	0 U	0 U	0.066 U	0.145 U	R	8.33	0.234	7.57	16.134	20.3
	2011	0.224 J	0.67 U	0.094 U	0.075 U	0.03 U	10.7	0.704	8.49	19.894	25.3
	2012	0.526 J	0.144 U	0.691	-0.045 U	0 U	8.13	0.36 J	6.52	15.01	19.7
	2013										19.8
	2015										18.1
IA10-MW0007 (Filtered)	2016										15
	2008	0.966	0.827	0.0196 U	R	-0.0433 U		0.467	4.19	11.477	12.41900900916
	2010	0.124 U	0 U	0.151 U	0.09 U	0.102 U	7.32	0.241 U	5.77	13.09	17.3
	2011	0.348 J	1.18 J	0.282 J	0.13 U	0.015 U	11	0.539	9.02	20.559	22.9
	2012	0.25	0.1 U	0.572	0.047 U	0 U	8.34	0.495 J	5.01	13.845	15
	2013										19.8
	2015										3.26 J
IA10-MW0008	2016										14.7
	2008	0.722	1.04 U	0.137 U	0.329 U	0.0553 U		0.0494 U	1.83	3.85	5.42405405412
	2009	0.605	1.99 U	0.00268 U	0.065	-0.00934 U		0.192	2.64	5.372	9.53
	2010	0 U	0 U	0.312	0 U	0.134	7.53	0.293	8.46	16.283	21.7
	2011	0 U	0.519 J	0.149 U	0.067 U	0.007 U	11.6	0.564	10.7	22.864	23.4
	2012	-0.049 U	1.67	0.044 U	-0.028 U	0.013 U	6.29	0.279	5.8	12.369	11
	2015										11
IA10-MW0008 (Filtered)	2016										24.3
	2008	0.722	R	0.196 U	0.103 U	0.125 U		0.285 U	2.27	4.31	6.72819819828
	2010	0.151 U	0 U	0 U	0 U	0.096 U	9.39	0.368	8.2	17.958	21
	2011	0.0576 U	1.1	0.272 J	0.128 J	-0.005 U	10.4	0.955	11.1	22.455	21.4
	2012	0.343 J	0.866 J	-0.115 U	-0.044 U	-0.026 U	6.35	0.401	5.66	12.411	13.9
	2013										9.16
	2015										24.9
IA10-MW0009	2016										28.5
	2008	0.464	R	0.196 U	0.103 U	0.125 U		0.285 U	2.27	4.31	6.72819819828
	2010	0.151 U	0 U	0 U	0 U	0.096 U	9.39	0.368	8.2	17.958	21
	2011	0.0576 U	1.1	0.272 J	0.128 J	-0.005 U	10.4	0.955	11.1	22.455	21.4
IA10-MW0009 (Filtered)	2012	0.343 J	0.866 J	-0.115 U	-0.044 U	-0.026 U	6.35	0.401	5.66	12.411	13.9
	2013										9.16
IA10-MW0010	2015										24.9
	2016										28.5
IA10-MW0009	2008	1.14	2.16	0.438 U	0.0766 U	-0.0315 U		-0.0505 U	0.313	0.313	0.927720720732
IA10-MW0009 (Filtered)	2008	0.685	0.673	0.375 U	-0.0584 U	-0.000922 U		-0.0421 U	0.0539 U	0	0.1597576576596 U
IA10-MW0010	2008	1.24	2.46	0.458 U	0.146 U	0.0781 U		0.155 U	0.11 U	0	0.32603603604 U
IA10-MW0010 (Filtered)	2008	0.818	R	-0.226 U	0.0601 U	0.0386 U		0.0684 U	0.042 U	0	0.124486486488 U

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

**Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples**

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
IA10-MW0011	2008	R	2.61	0.124 U	0.184 U	-0.0157 U		0 U	0 U	0.236	0 U
IA10-MW0011 (Filtered)	2008	0.759	3.45 J	0.124 U	0.282 U	-0.00398 U		0.0425 U	0.0185 U	0	0.054833333334 U
IA10-MW0012	2008	R	2.8	R	R	0.0348 U		0 U	0.0787 U	0	0.2332639639668 U
IA10-MW0012 (Filtered)	2008	0.926	1.71 U	0.172 U	0.0926 U	-0.017 U		0.088 U	0.0219 U	0	0.0649108108116 U
IA10-MW0013	2008	2.25 J	2.78	0.438 U	0.144 U	0.103 U		0.0189 U	0.0568 U	0	0.1683531531552 U
IA10-MW0013 (Filtered)	2008	2.31	0.442 U	0.196 U	R	0.0545 U		0 U	0.316 U	0.532	0.936612612624 U
IA10-MW0014	2008	0.153 U	1.52	-0.0144 U	R	0.0964 U		0.0475 U	0.089 U	0.496	0.263792792796 U
	2009	0.848	3.36	0.101	0.0326	0.00971 U		0.0138 U	0.153	0.299	0.222 U
	2010	0.255 U	1	0.114 U	0.217 U	0.366 J	0.004 U	0.242	0.111 U	0.242	1.03
	2011	1.35	2.64 J	0.191 U	0.121 U	0.004 U	0.081 J	0.033 J	0.031 U	0.114	0.185 J
	2012	0.749	2.8	1.05	0.02 U	0.056 U	0.134 U	0 U	0.147 J	0.147	0.111 U
	2013										0.207 J
	2015										0.152 J
	2016										0.049 U
IA10-MW0014 (Filtered)	2008	1.21	R	0.218 U	R	0.0571 U		0.221 U	2.23	3.87	6.60963963972
	2009	1.14	2.87	0.0396 U	0.0401	-0.00483 U		0.00405 U	0.121	0.306	0.222 U
	2010	0.695	1.43	0.029 U	0 U	0.088	0.096 U	0 U	0.256 U	0	1.11
	2011	0.588 J	3.63 J	0.191 U	0.102 U	0.019 U	0.046 U	-0.003 U	0.074 J	0.074	0.169 J
	2012	0.923	2.3	0.211 J	-0.06 U	-0.034 U	-0.07 U	0 U	0.169	0.169	0.13 U
	2013										0.173 J
	2015										0.243 J
	2016										0.049 U
IA10-MW0015	2008	1.11	2.5	0.0214 U	0.053 U	-0.0361 U		0.168 U	0.582	1.471	1.725027027048
IA10-MW0015 (Filtered)	2008	0.996	1.78	-0.198 U	0.0835 U	0.0337 U		-0.0809 U	0.909	2.029	2.694243243276
IA10-MW0016	2008	0.388 U	1.12 U	0.253 U	0.403 U	0.309 U		-0.0199 U	0.269	0.269	0.797306306316
IA10-MW0016 (Filtered)	2008	0.6 U	R	R	R	0.0453 U		0.116 U	0.427	0.427	1.265612612628
IA10-MW0017	2008	R	0.934 U	R	-0.0357 U	-0.00339 U		0.172 U	5.84	12.72	17.30954954976
	2009	0.428	2.73 U	0.0425 U	0.0171 U	0.0282 U		0.215	3.48	7.855	14.7
	2010	0.376	1.34	0.087 U	0.02 U	0.037 U	0.83 J	0 U	0.978	1.808	2.04
	2011	0.343 J	2.06 J	0.232 J	0.055 U	0 U	1.43	0.169	1.41	3.009	0.96
	2012	0.0515 U	1.54	0.532	-0.039 U	0.019 U	6.01	0.174 U	4.81	10.82	7.38
	2013										7.32
	2015										0.661
	2016										0.642
IA10-MW0017 (Filtered)	2008	0.466 U	3.32 J	-0.00548 U	0.132 U	0.0334 U		0.138 U	4.3	10.38	12.7450450452
	2009	0.817	3.34	0.0248	0.00347 U	-0.0177 U		0.22	3.24	7.13	13.3
	2010	0.503	1.36	0 U	0.372	0.129 U	1.07 J	0.091 U	0.805	1.875	1.8
	2011	0.175 U	2.04 J	0.235 J	0.116 U	0.038 U	1.32	0.059 J	1.05	2.429	0.968
	2012	0.168 U	1.73	0.294 J	0.019 U	-0.016 U	5.64	0.146 U	4.94	10.58	8.38
	2013										6.13
	2015										0.642
	2016										10.1
IA10-MW0018	2008	R	2.12	0.0645 U	0.188 U	0.0492 U		0.138 U	2.35	4.87	6.9653153154
	2009	-0.0626 U	1.59	0.0128 U	0.00954 U	0.000257 U		0.0743 U	1.85	3.95	5.15
	2010	0.164 U	0.121 U	0.085 U	0.536	0.078 U	2.98	0.371	2.77	6.121	7.42
	2011	0.23 J	1.12 J	0.082 U	0.095 U	0.048 J	5.17	0.185 J	4.61	9.965	11.2
	2012	0.384 J	0.291 U	0.394	0.003 U	-0.009 U	5.31	0.164 U	4.42	9.73	9.45
	2013										10.8
	2015										11.6
	2016										10.1
IA10-MW0018 (Filtered)	2008	0.434 U	4.7 J	0.177 U	0.342 U	-0.0419 U		0.423	1.35	4.033	4.0013513514
	2009	0.516 U	3.73	0.0421 U	0.0399 U	-0.0118 U		0.118	1.84	4.098	6.49
	2010	0.365	0 U	0.021 U	0.483	0.206	3.12	0.155 U	2.57	5.69	7.59
	2011	0.0539 U	0.8 U	0.095 U	0.097 U	0.021 U	5.67	0.369	5.06	11.099	14.6
	2012	0.0497 U	0.708 J	0.493	0.016 U	0.036 U	5.27	0.275 U	4.48	9.75	9.51
	2013										9.93
	2015										10.4
	2016										11.9
IA10-MW0019	2008	R	1.42	4.45	R	0.0221 U		0.349	1.64	4.589	4.86090090096
IA10-MW0019 (Filtered)	2008	0.57 U	R	-0.0168 U	0.197 U	-0.00339 U		0.0268 U	1.61	3.76	4.77198198204
RMW35	2003		7.58 U		34.5			9.01 U	71.4 U	0	1.85
	2004	0.791	2.2 J	0.367 U	1.11 U	-0.015 U	0.648 U	0.245 U	0.789	0.789	2.39
	2007	0.64 J	0.68	0.26 J	0.073 U	0.038 U	0.39 J	0.06 U	0.53 J	0.92	1.57090090092 J
RMW35 (Filtered)	2004			0.46 U	1.28 U	-0.0749 U	1.14	0.0589 U	0.37 U	1.14	1.75
	2007	0.69 J	1.53	0.41 J	0.069 U	0.005 U	0.56 J	0.004 U	0.49 J	1.05	1.45234234236 J

Notes:

pCi/L = picocuries per liter

μg/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
RMW38	2003		1.49 U		13.8			11.9 U	0 U	0	38.2
	2003			0.418 U	0.417 U	0.0292 U	26.2	1.23	24.8	52.23	82.3
	2004	1.65	2.13 J	0.14 U	0.622 U	0.0641 U	18.8	2.27	17	38.07	51.5
	2007	0.38 J	0.7 U	0.23 U	0.33 J	0.02 U	1.49	0.046 U	1.7	3.19	5.0387387388
	2008	0.336 U	0.915	0.36 U	0.0565 U	0.0848 U		0.0244 U	1.35	3.14	4.39
	2009	0.573	1.51 U	-0.0238 U	0.0196 U	-0.00991 U		0.0438	1.02	2.1938	2.66
	2010	0 U	0 U	0.3	0.225 U	0.211 J	1.68	0.39	1.27	3.34	3.71
	2011	0.213 U	0.517 J	0.193 JB	0.087 J	-0.018 U	3.95	0.205	4.25	8.405	11.5
	2012	0.348 J	0.275 U	0.029 U	0.002 U	-0.019 U	3.42	0.189	3.1	6.709	8.47
	2013										110
	2015										61.7
	2016										57.1
RMW38 (Filtered)	2003		0.0175 U	0.201 U	0.0234 U	27.1	3.17	24.7	54.97	74.2	
	2004	1.82	1.02 U	0.0829 U	1.05 J	0.0000000624 U	13.4	1.05	10.7	25.15	32.6
	2007	0.33 J	0.71 U	0.22 U	0.236 J	0.008 U	1.77	0.032 U	1.64	3.41	4.86090090096
	2010	0.105 U	0 U	0.189	0.228 U	0.325 J	1.87	0.278 U	1.43	3.3	3.58
	2011	0.372 J	1.03	0.169 U	0.088 J	-0.009 U	3.23	0.152	3.06	6.442	8.92
	2012	0 U	4.52	0.01 U	0.081 J	0.045 U	2.97	0.083 J	2.6	5.653	8.35
	2013										102
	2015										60.1
	2016										56
RMW39	2003		7.26 U		28.1			-1.39 U	0 U	0	4.24
	2012	0.448	0.223 J	0.286 U	-0.06 U	0.023 J	3.75	0.279	3.34	7.369	10.1
	2013										24.9
	2015										168
	2016										25
RMW39 (Filtered)	2012	0.176	0.245 J	-0.053 U	-0.022 U	-0.007 U	2.73	0.133 J	3.4	6.263	9.93
	2013										24.1
	2015										160
	2016										23.6
RW01	2011	0.132	0.772	0.244	0.159 U	0.022	62.7	3.67	63.3	129.67	198
RW01 (Filtered)	2011	0	0.671	0.158 U	0.056	0.014	59.9	3.18	61	124.08	188
	2016										190
RW02	2011	0.784	0.976 J	0.315 J	0.173 U	0.004	15.4	0.719	14.2	30.319	41.1
RW02 (Filtered)	2011	0.382	1.14 J	0.194 U	0.059 U	0.095	13.2	0.724	12.7	26.624	40.8
	2016										26.8
RW03	2011	0.249 U	1.05	0.078	0.173 J	0.067 J	5.02	0.139	5.18	10.339	13.2
RW03 (Filtered)	2011	0.239 U	0.294	0.2 J	0.197 J	0.033	4.93	0.176	4.52	9.626	12.6
RW04	2011	0.239	0.688	0.122 U	0	-0.031	42.8	2.54	41.3	86.64	126
RW04 (Filtered)	2011	-0.181	0.803	0.196 U	0.193 J	0.024	39.3	2.11	40.1	81.51	126
RW05	2011	0.319	0.951 J	0.213 J	0.204 J	0.006	1.74	0.08	1.57	3.39	2.67
RW05 (Filtered)	2011	0.309	1.45 J	0.193 U	0.112 U	0.045	1.48	0.078	1.16	2.718	2.16
RW06	2011	0.814	2.66	0.117 U	0.215 J	0.003	0.026	0.023	0.052	0.101	0.051
RW06 (Filtered)	2011	0.76	2.25	0.128 U	0.183 J	-0.016	0.008	0.021	0.024 U	0.029	0.109
RW07	2011	1.85	1.59 J	0.183 U	0.068	-0.016	0.081 U	0.066	0.094	0.16	0.196
RW07 (Filtered)	2011	0.886	0.431	0.121	0.127 U	0.053	0.031	-0.009	0.035	0.057	0.186
RW08	2011	0.414	0.942 J	0.132 U	0.069 U	0	0.425 J	0.033	0.297	0.755	0.692
RW08 (Filtered)	2011	0	1.03 J	0.122 U	0.111 U	0.086	0.118	-0.059	0.244	0.303	0.509
TP-01	2015										57.3
TP-01 (Filtered)	2015										39.9
TP-02	2015										611
TP-02 (Filtered)	2015										601
TP-04	2015										0.401
TP-04 (Filtered)	2015										0.184 J
TP-05	2015										1463
TP-05 (Filtered)	2015										850
TWP01	2015										0.354
TWP01 (Filtered)	2015										0.144 J
TWP02	2015										0.171 J
TWP02 (Filtered)	2015										0.136 J
TWP03	2015										0.504
TWP03 (Filtered)	2015										0.332
TWP04	2015										0.569
TWP04 (Filtered)	2015										0.158 J

Notes:

pCi/L = picocuries per liter

ug/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

Table 2: Harshaw FUSRAP Site
Analytical Results for Groundwater Samples

Well	Year	RADIUM-226	RADIUM-228	THORIUM-228	THORIUM-230	THORIUM-232	URANIUM-234	URANIUM-235	URANIUM-238	TOTAL URANIUM	TOTAL URANIUM
Units		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	ug/L
USEPA MCLs		5	5	15	15	15				27	30
TWP05	2015										0.674
TWP05 (Filtered)	2015										0.223
TWP06	2015										0.367
TWP06 (Filtered)	2015										0.163 J
TWP07	2015										0.21
TWP07 (Filtered)	2015										0.173 J
TWP08	2015										0.832
TWP08 (Filtered)	2015										0.303
TWP09	2015										0.608
TWP09 (Filtered)	2015										0.379
TWP10	2015										1.21
TWP10 (Filtered)	2015										1.28
TWP11	2015										6.68
TWP11	2016										0.963
TWP11 (Filtered)	2015										4.28
TWP11 (Filtered)	2016										0.842
TWP12	2015										2.52
TWP12 (Filtered)	2015										0.25
TWP13	2015										0.22
TWP13 (Filtered)	2015										0.128 J

Notes:

pCi/L = picocuries per liter

μg/L = micrograms per liter

MCL = Maximum Containment Level

U= Not Detected above the detection limit

**Table 3: Harshaw FUSRAP Site
Analytical Results for Surface Water Samples**

Table 3: Harshaw FUSRAP Site
Analytical Results for Surface Water Samples

Well	Year	RADIUM-226 pCi/L	RADIUM-228 pCi/L	THORIUM-228 pCi/L	THORIUM-230 pCi/L	THORIUM-232 pCi/L	URANIUM-234 pCi/L	URANIUM-235 pCi/L	URANIUM-238 pCi/L	TOTAL URANIUM pCi/L	TOTAL URANIUM ug/L
USEPA MCLs		5	5	15	15	15				27	30
IA09-SW0008-RD	2013										0.502
IA09-SW0008-RD (Filtered)	2013										0.641
IA09-SW0008-RU	2013										0.68
IA09-SW0008-RU (Filtered)	2013										0.61
IA09-SW0010	2003										2820
	2007	0.74 J	1	0.37 J	1.94	0.129 J	142	8.2	R	150.82	
IA09-SW0011	2003										3.68
IA09-SW0012	2003										150
	2007	0.15 U	0.24 U	0.27 U	0.28 J	0.036 U	54.6	2.76	54.2	111.56	
IA09-SW0013	2003										1.94
IA09-SW0014	2003										1.09
IA09-SW0015	2003										2.41
IA09-SW0101	2004										13.4
IA09-SW0102	2004										7.9
	2007	0.12 U	0.44 U	0.19 U	0.173 J	0.063 J	0.28 J	-0.006 U	0.31 J	0.59	
IA09-SW0103	2004										1.85
IA09-SW0104	2004										2.07
IA09-SW0105	2007	0.59 J	-0.04 U	0.3 J	0.27 J	0.078 J	1.9	0.023 U	1.84	3.74	