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Revision 0

Initial Groundwater Plume Development (Uranium, Technetium-99, Nitrate, and Iodine-129) to Support Fate and Transport Modeling for Remedial Design in the 200- UP-1 Groundwater Operable Unit

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788

CH2MHILL
Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352

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ENVIRONMENTAL CALCULATION COVER PAGE

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Project: 200-UP-1 Remedial Design **Date:** 4/15/2014

Calculation Title & Description: Initial Groundwater Plume Development (Uranium, Technetium-99, Nitrate, and Iodine-129) to Support Fate and Transport Modeling for Remedial Design in the 200-UP-1 Groundwater Operable Unit

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Checker: M Hodgkinson	**Basis of Qualification:** Education & experience
Senior Reviewer: JP McDonald	**Basis of Qualification:** Education & experience

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Environmental Calculation File

Initial Groundwater Plume Development (Uranium, Technetium-99, Nitrate, and Iodine-129) to Support Fate and Transport Modeling for Remedial Design in the 200-UP-1 Groundwater Operable Unit

Contents

1 **Purpose** 1

2 **Methodology** 1

3 **Assumptions and Inputs** 4

4 **Software Applications** 4

4.1 Approved Software 5

4.1.1 Description 5

4.1.2 Software Installation and Checkout 5

4.1.3 Statement of Valid Software Application 5

5 **Calculation** 5

6 **Results/Conclusions** 8

7 **References** 13

Attachments

A. **Input Data for Three-Dimensional Interpolation of Uranium Plume** 14

B. **Input Data for Three-Dimensional Interpolation of Technitium-99 Plume** 28

C. **Input Data for Three-Dimensional Interpolation of Nitrate Plume** 33

D. **Input Data for Three-Dimensional Interpolation of Iodine-129 Plume** 40

E. **Excel® Spreadsheet with Plume Values Extracted at Model Grid Points** 44

F. **Software Installation and Checkout Forms for Controlled Use Software** 46

Figures

Figure 1. Interpolated Uranium Plume (top-view above; perspective view below). Concentrations between 10 – 30 μg/L are shown in yellow, between 30 – 300 μg/L in red, and above 300 μg/L in brown. 2012 two-dimensional contour levels are shown for 10 μg/L (white), 30 μg/L (red), and 300 μg/L (black) 9

Figure 2. Interpolated Technetium Plume (top-view above; perspective view below). Concentrations between 900 – 9,000 pCi/L are shown in yellow and above 9,000 pCi/L in red. 2012 two-dimensional contour levels are shown for 900 pCi/L (blue) and 9,000 pCi/L (red). 10

Figure 3. Interpolated Nitrate Plume (top-view above; perspective view below). Concentrations between 45,000 – 450,000 μg/L are shown in yellow and above 450,000 pCi/L in red. 2012 two-dimensional contour level is shown for 45,000 μg/L. Ringold mud layer is shown in brown. 11

Figure 3. Interpolated Iodine-129 Plume (top-view above; perspective view below). Concentrations between 1 – 10 pCi/L are shown in yellow and above 10 pCi/L in red. 2012 two-dimensional contour level are shown for 1 pCi/L (blue) and 10 pCi/L (red). Ringold mud layer is shown in brown. 12

Tables

Table 1. Interpolation Parameters used for Uranium Plume Interpolation in Leapfrog Hydro 6

Table 2. Interpolation Parameters used for Technetium-99 Plume Interpolation in Leapfrog Hydro 7

Table 3. Interpolation Parameters used for Nitrate Plume Interpolation in Leapfrog Hydro 7

Table 4. Interpolation Parameters used for Iodine-129 Plume Interpolation in Leapfrog Hydro 8

Table 5. Extracted Uranium plume concentrations for CP model grid (only first 10 cells shown) 8

Terms

CHPRC	CH2M Hill Plateau Remediation Company
COI	contaminant of interest
DEM	digital elevation map
ECF	environmental calculation file
HEIS	Hanford Environmental Information System (environmental database)
OU	Operable Unit

1 Purpose

The purpose of this environmental calculation file (ECF) is to present the methodology, input data, and results to delineate three-dimensional plumes for various contaminants of interest (COIs) in the 200-UP-1 operable unit (OU). The four contaminants considered were uranium (U), technetium-99 (Tc99), nitrates (NO_3^-), and iodine-129 (I129). The three-dimensional interpolation was carried out in the Leapfrog Hydro geologic modeling platform, which includes an interpolation engine for analyzing and visualizing three-dimensional data.

Data collected from annual sampling at various groundwater-monitoring wells was used to estimate the three-dimensional extent of these plumes. Where necessary this data was augmented through input from project scientists as well as depth discrete samples taken at the time of the drilling of wells. All interpolated plumes were reviewed by project scientists and effort was made to incorporate site-specific expertise in the delineation of these plumes.

The three-dimensional plumes were used to extract initial concentrations for the Central Plateau Groundwater (CPGW) fate and transport model (CP-47631, *Model Package Report: Central Plateau Groundwater Model Version 3.4*) used to support remedial design in the 200-UP-1 OU.

2 Methodology

The three-dimensional interpolation was carried out following the general methodology laid out below:

Input Data Processing

1. Annual average samples used for the construction of the latest two-dimensional plumes were extracted from the Hanford Environmental Information System (HEIS).
   a. The samples consisted of data collected in 2013, 2012, and 2011. Documentation for the data pull and filtering operations can be found in ECF-HANFORD-12-0012, *Calculation and Depiction of Groundwater Contamination for the Calendar Year 2012 (CY2012) Hanford Site Groundwater Monitoring Report*. Due to the contiguous nature of some of the plumes, data from the 200-ZP-1 OU was included in addition to the 200-UP-1 area.
   b. All control points used to constrain the two-dimensional plumes were also included.
   c. Screen top and bottom depths were obtained for all monitoring wells included in the above dataset. In many cases, screen information was not present for certain monitoring wells in the HEIS database. Screen information was obtained from as-builts and other well completion documents for 200-UP-1 (J. McDonald, personal communication).
2. Depth discrete data was obtained consisting of COI concentration samples taken during the drilling of various wells. Depth discrete data can be obtained from the HEIS database by selecting all samples with valid entries for the STD_SAMP_INTV_BOT attribute. Data for the 200-UP-1 and 200-ZP-1 OUs was included. Note, that depth discrete data was used only when the annual average sample data was not adequate to constrain the three-dimensional extent of the plumes.
3. Digital elevation map (DEM) raster were obtained to ascertain ground surface elevations (P. Royer, personal communication). DEM resolution was 10 m by 10 m. Ground surface elevations were extracted from the DEM raster for all monitoring well locations (annual average samples as well as depth discrete data, if used).

4. The 2013 average water table surface raster was obtained (P. Royer, personal communication). Water table raster resolution was 100 m by 100 m. Water table elevations were extracted for all monitoring wells as well as control point locations.

5. Screen top and bottom elevations were calculated by subtracting screen top and bottom depths from ground surface elevations.

6. Annual average samples were assumed to represent average concentrations in the saturated media across the screen interval. Hence, screen top and bottom elevations were compared with water table to assign representative depths to samples as follows:

   a. If the screen top and bottom were below the water table, the top and bottom of the sample were kept the same as the screen top and bottom.

   b. The screen top is above the water table, while the screen bottom is below the water table. In this case, the water table elevation is used as the sample top. The screen bottom is compared with the water table. If the screen bottom is within a certain threshold from the water table then the sample bottom is kept at the threshold value below the water table. If the screen bottom is deeper than the threshold then the screen bottom is used as the sample bottom. For example, if the water table was at 133 m and the threshold was 3 m, then a sample with screen bottom at 131 m would have sample bottom elevation at 130 (=133 – 3) m while a sample with screen bottom at 128 m would have the sample bottom at 128 m (same as screen bottom elevation). The threshold is supposed to represent the expected vertical extent of the three-dimensional plume and was fixed based on input from project scientists.

   c. Both the screen top and bottom are above the water table. This situation is similar to b. Water table elevation was used to assign sample top elevation, and the threshold was used to assign sample bottom elevation.

   d. All control points were assigned, by default, the water table elevation as the top elevation and the threshold below water table as the bottom elevation. In some cases, the bottom elevation for the control point was adjusted based on input from project scientists.

   e. The average elevation between the sample top and bottom was used to define a sample middle elevation. Sample top, bottom, and middle elevations were used in the three-dimensional interpolation. Note, that depth-discrete data (when used) already had defined depths, thus these did not need to be re-estimated for interpolation.

Data Import into Leapfrog Hydro

7. Annual average values (along with any control points) with representative top, middle, and bottom elevation (derived from screen depths and water table elevations, as described in 6) were imported into Leapfrog Hydro (Locations->[1]Import Locations). Depth discrete data (if used) was also included in this import.

8. The water table raster was imported (Mesh-> Import Elevation Grid) into Leapfrog Hydro. The water table represented the upper boundary for the three-dimensional interpolation of the contaminant plumes. To enable this, the water table mesh was also set as the Topography (i.e., the topmost layer) in Leapfrog Hydro (Topography -> Add Height Data -> Surface -> Water Table Mesh).

[1] The '->' operation indicates a 'right click' on the corresponding Leapfrog Hydro icon.

9. Elevations for all seven layers of the CP groundwater model were obtained from the .dis MODFLOW package. Elevations for each layer were stored in separate ASCII files. Elevations for the vertical mid-point of each layer were calculated by averaging top and bottom elevations for each grid. All layer elevations (top, middle, and bottom) were imported into Leapfrog Hydro as meshes (Mesh-> Import Elevation Grid).

10. The top of the Ringold Lower Mud unit (bottom of layer 5 for the CP Model) was assumed to be the lower boundary for the three-dimensional interpolation of the contaminant plumes.

3D Interpolation in Leapfrog Hydro

11. A geologic model was created within Leapfrog Hydro (Geologic Model -> New Geologic Model) to represent the domain for interpolation. Since the water table was set as a Topography layer it was automatically set as the top of the geologic model. The mesh for layer 5 bottom elevations was added as the base (Geologic Model -> Boundary -> New Base -> From Surface -> Layer 5 Bottom Elevation Mesh).

12. Interpolation was carried out using the inbuilt interpolation utility in Leapfrog Hydro. Leapfrog Hydro carries out 3D interpolation using the FastRBF™ algorithm (Carr et al., 2001) as follows:

    a. Location-specific concentration data (imported into Leapfrog Hydro) was used for interpolation.

    b. The Geologic Model boundaries (discussed in 11) were used as the interpolant boundary.

    c. Resolution for the interpolation ranged from 25 m to 50 m and depended on the extent of the plume (high resolution interpolation was too time-consuming for large plumes such as Nitrates, especially as the plumes had to be updated based on input from project scientists).

    d. All data was log-transformed. Negative values were converted into zero and a small value (= 0.001) was added to allow for log-transformation of zero sample concentrations.

    e. The trend for the interpolation was adjusted based on input from project scientists such that a reasonable match was obtained between the three-dimensional extent of the plume and the two-dimensional extents estimated in ECF-HANFORD-12-0012. The plumes were found to be very sensitive to trend parameters. In general, the maximum ellipsoid ratio corresponded to correlation along the x axis, the intermediate ellipsoid ratio to correlation along the y axis, and minimum ellipsoid ratio to correlation along the z axis. Dip, Dip Azimuth, and Pitch parameters could be modified to change the principal axes for the interpolation domain. Overall, the minimum ellipsoid ratio was kept approximately $1/10^{th}$ of the maximum ellipsoid ratio, representing a vertical anisotropy of 0.1. The actual values for these interpolation parameters were adjusted for each COI; this is discussed in Section 5.

    f. Default values for the sill and range were used. The plumes were not found to be sensitive to these parameters (the parameters were varied above and below the default values to evaluate this sensitivity).

    g. For each interpolant, isosurface intervals were defined based on contour intervals used in the 2D interpolation (ECF-HANFORD-12-0012).

    h. Control points were added based on input from project scientists to constrain the lateral and vertical extents of the plumes.

Evaluation of Interpolated Concentrations at Model Grid

13. The meshes for top, bottoms, and middle of all seven of the model layers were converted into vertices (Mesh Layer -> Extract Vertices).

14. The interpolated concentrations were then sampled at all grid points (Vertices Layer -> Numerical Evaluation->Interpolant) for each set of vertices in Leapfrog Hydro.

15. The vertices were exported along with the evaluated concentrations (Vertices Layer -> Export/Add Evaluations -> Export) as ASCII files.

16. The ASCII files were then processed within Microsoft Excel®[2]. For each layer the maximum values for the corresponding top, middle, and bottom grid point was taken as the representative concentration. Concentrations were kept zero in layer 1 (representing the vadose zone) as well as layers 6, and 7 (below the Ringold Lower Mud).

17. Concentrations for all model grid points were arranged in order of row, column, and layer and supplied in a Microsoft Excel® spreadsheet to the project modelers.

3 Assumptions and Inputs

Assumptions for the three-dimensional interpolations include:

1. The extent of the COI plume was assumed to be within the saturated portion of the unconfined units above the Ringold lower mud.

2. Annual average samples were assumed to represent uniform concentrations across the screen interval within the saturated thickness of the aquifer.

3. When extracting plume values for the model grid, values were extracted from the plume grid for the top, middle, and bottom point within each model cell to represent variability in the vertical plane better. The maximum of these values was then assigned to the model grid cell. Note, that due to the XY resolution (100 m) of the model grid, it is possible that variability/heterogeneity in the horizontal plane is under-represented in the extracted values for the model grid.

Input data for all four COIs are provided in Attachments A, B, C, and D to this ECF. Note that for uranium sample data as well as depth discrete data was used. However, for technetium-99, nitrate, and iodine-129, satisfactory three-dimensional plumes were obtained using the annual average samples. Hence, for the latter COIs, only annual average samples and control points are included.

4 Software Applications

Leapfrog Hydro, Microsoft Excel® and Access, and ArcGIS®3, software programs were used for this calculation. These are CH2M Hill Plateau Remediation Company (CHPRC) approved software, managed and used in compliance with the requirements of PRC-PRO-IRM-309, Rev. 2, *Controlled Software Management*. Leapfrog Hydro is approved calculation software with the approval documented in CHPRC-01755, Rev. 1. Microsoft Excel® and Access and ArcGIS®[3], software programs were used for this calculation as spreadsheet software.

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[2] Microsoft Excel is a registered product of the Microsoft Corporation.

[3] ArcGIS is a registered trademark of Environmental and Social Research Institute (Ersi) in the United States and other countries.

4.1 Approved Software

For approved calculation software used in this calculation, the required descriptions are provided below.

4.1.1 Description

Leapfrog Hydro

- Software Title: Leapfrog Hydro
- Software Version: 2.1.1
- Hanford Information System Inventory (HISI) Identification Number: 2874 (Safety Software, Level C)
- Authorized Workstation type and property number: INTERA #00538
- Authorized User: A. Singh
- CHPRC Software Control Documents:
  - CHPRC-01753 Rev. 0, *Leapfrog Hydro Software Management Plan*
  - CHPRC-01754 Rev. 0, *Leapfrog Hydro Software Test Plan*
  - CHPRC-01755 Rev. 1, *Leapfrog Hydro Acceptance Test Report: Version 2.1*

4.1.2 Software Installation and Checkout

Copies of the *Software Installation and Checkout Forms* for the authorized users and authorized workstations for software used that requires this documentation are provided in Attachment E to this ECF.

4.1.3 Statement of Valid Software Application

The preparers of this calculation attest that the software identified above, and used for the calculations described in this calculation, is appropriate for the application and used within the range of intended uses for which it was tested and accepted by CHPRC.

5 Calculation

Three-dimensional interpolation was carried out for the four COIs. The overall approach was kept consistent with the steps defined in the Methodology (Section 2).

Interpolation parameters were selected to interpolate given data to provide the best match to existing two-dimensional contours (from ECF-HANFORD-12-0012), as well incorporating the site knowledge of project scientists. Tables 1 through 4 show the interpolation parameters used for each COI.

Specific considerations for specific COI interpolations are listed below:

1. Certain depth-discrete values for uranium were discarded or modified as these were deemed too high by project scientists. These are listed below:
   a. Discarded sample at 299-W10-35, dated 12/8/2010, value = 5.66 μg/L
   b. Discarded sample at 299-W19-20, dated 4/10/2002, value = 703 μg/L

c. Modified sample at 299-W22-50, dated 1/12/2000, from 30.9 to 0 µg/L

d. Discarded sample at 699-43-67, dated 8/2/2010, value = 8.61

2. Certain samples were discarded for all Tc99 as given below:

   a. Discarded samples at 299-W22-80 and 299-W23-15 as sample results from these wells are believed to be non-representative of aquifer conditions due to vertical flow in the wells.

   b. Discarded samples at 299-W22-90, 299-W22-91, and 299-W22-92 as these were extraction wells that may be pulling in clean water, and therefore biasing sample concentrations.

   c. Added control points to constrain the vertical and horizontal extents of various plumes.

3. All extraction wells were excluded from interpolation.

4. Additional injection wells were included for nitrate interpolation. Injection wells included were 299-W10-36; 299-W15-29; 299-W18-36; 299-W18-37; 299-W18-38; 299-W18-39; 299-W6-13; 299-W6-14. Influent concentrations were kept at 37,022 µg/L (provided by project scientist).

5. Additional wells were included for I129, based on a visual inspection of the 2012 plume, which included more data than the original annual average sample dataset. These were 299-W14-71, 299-W19-6, 699-34-61, 699-36-66B, 699-36-67, 699-37-66, 699-37-68, and 699-38-61. The 2/28/2012 sample from well 699-38-61 was not used for interpolation because it was an off-trend result not representative of prevailing conditions in the area. Injection well 699-42-67 was also not included because this well was completed below the lower mud unit.

Table 1. Interpolation Parameters used for Uranium Plume Interpolation in Leapfrog Hydro

Trend				
Directions			**Ellipsoid Ratio**	
Dip	Degree	0	Maximum	12
Dip Azimuth	Degree	0	Intermediate	6
Pitch	Degree	0	Minimum	1
Interpolant				
Sill	Meters	2000	Drift	Constant
Range	Meters	2000	Accuracy	0.0007
Accuracy	Meters	0		
Isosurface and Volumes				
Intervals	µg/L	1; 10; 30; 300		
Resolution	Meter	30		

Table 2. Interpolation Parameters used for Technetium-99 Plume Interpolation in Leapfrog Hydro

Trend				
Directions			Ellipsoid Ratio	
Dip	Degree	0	Maximum	1.25
Dip Azimuth	Degree	25	Intermediate	1.1
Pitch	Degree	0	Minimum	0.1
Interpolant				
Sill	Meters	2000	Drift	Constant
Range	Meters	2000	Accuracy	0.0009
Accuracy	Meters	0		
Isosurface and Volumes				
Intervals	pCi/L	900; 9,000		
Resolution	Meter	30		

Table 3. Interpolation Parameters used for Nitrate Plume Interpolation in Leapfrog Hydro

Trend				
Directions			Directions	
Dip	Degree	0	Maximum	1
Dip Azimuth	Degree	0	Intermediate	1
Pitch	Degree	0	Minimum	0.075
Interpolant				
Sill	Meters	250	Drift	Constant
Range	Meters	30,000	Accuracy	0.0020
Accuracy	Meters	0		
Isosurface and Volumes				
Intervals	µg/L	45,000; 450,000		
Resolution	Meter	50		

Table 4. Interpolation Parameters used for Iodine-129 Plume Interpolation in Leapfrog Hydro

Trend				
Directions			Ellipsoid Ratio	
Dip	Degree	0	Maximum	1.5
Dip Azimuth	Degree	0	Intermediate	1.5
Pitch	Degree	0	Minimum	0.075
Interpolant				
Sill	Meters	2000	Drift	Constant
Range	Meters	5000	Accuracy	0.0005
Accuracy	Meters	0		
Isosurface and Volumes				
Intervals	pCi/L	1; 10		
Resolution	Meter	25		

6 Results/Conclusions

Figures 1 through 4 show the three-dimensional plumes for uranium, technetium-99, nitrate, and iodine-129 for the 200-UP-1 area.

Extracted concentrations at all model grid points are included in Attachment D as Microsoft Excel spreadsheets. Table 5 shows the first few rows for the extracted values dataset (for Uranium). The columns correspond to cell row, cell column, cell-center easting, cell-center northing, followed by concentrations in layers 1 through 7. Remaining concentrations for all COIs can be obtained from the attached excel spreadsheet.

Table 5. Extracted Uranium plume concentrations for CP model grid (only first 10 cells shown)

Row	Col	Easting	Northing	Lay1_U	Lay2_U	Lay3_3	Lay4_U	Lay5_U	Lay6_U	Lay7_U
1	1	555700	143200	0	0.542	0.530	0.518	0.507	0	0
1	2	555800	143200	0	0.538	0.527	0.516	0.505	0	0
1	3	555900	143200	0	0.543	0.531	0.519	0.508	0	0
1	4	556000	143200	0	0.544	0.532	0.520	0.509	0	0
1	5	556100	143200	0	0.544	0.532	0.520	0.509	0	0
1	6	556200	143200	0	0.541	0.530	0.519	0.508	0	0
1	7	556300	143200	0	0.542	0.531	0.520	0.509	0	0
1	8	556400	143200	0	0.541	0.530	0.519	0.509	0	0
1	9	556500	143200	0	0.542	0.531	0.520	0.510	0	0
1	10	556600	143200	0	0.542	0.531	0.520	0.510	0	0

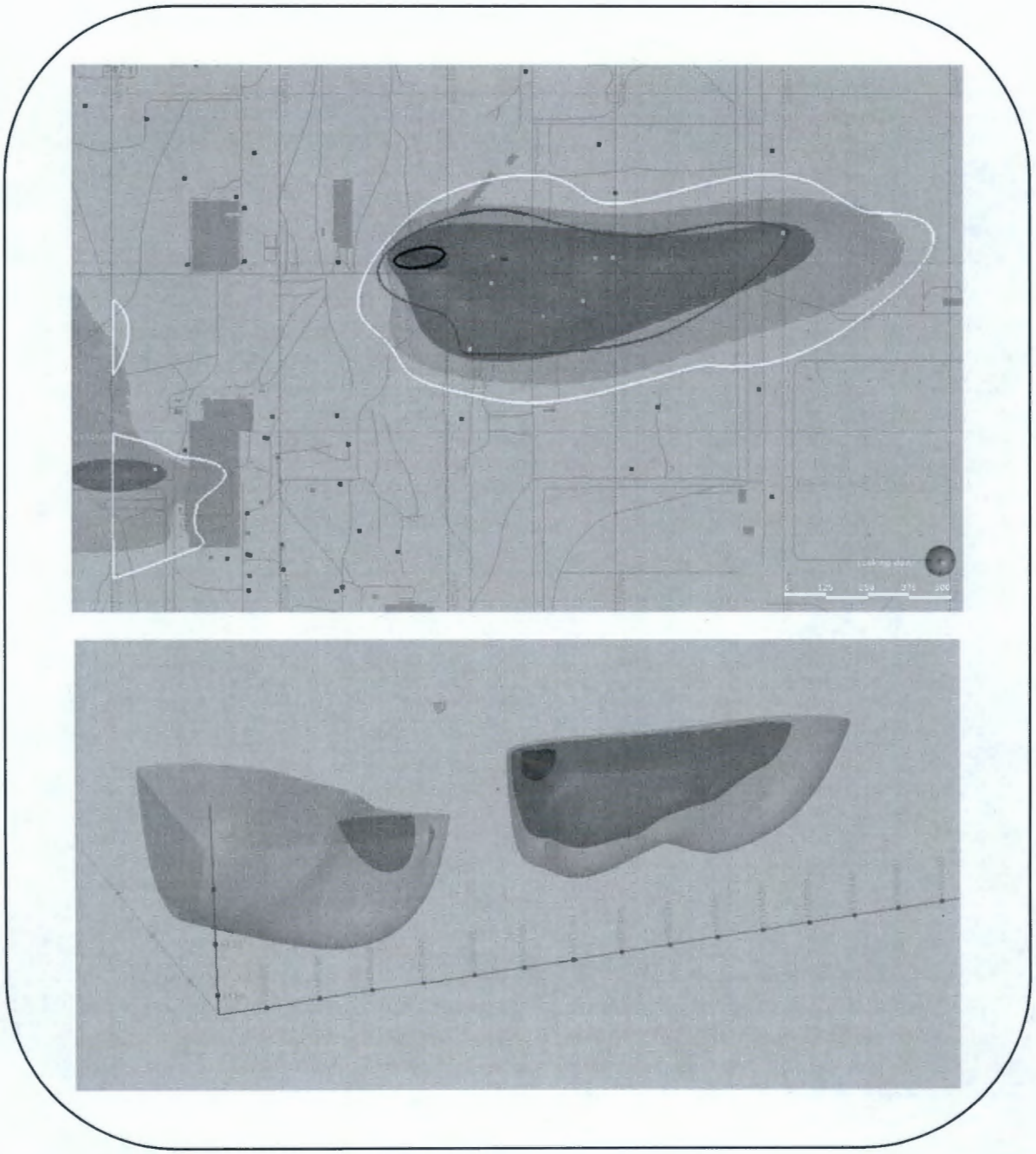

Figure 1. Interpolated Uranium Plume (top-view above; perspective view below). Concentrations between 10 – 30 µg/L are shown in yellow, between 30 – 300 µg/L in red, and above 300 µg/L in brown. 2012 two-dimensional contour levels are shown for 10 µg/L (white), 30 µg/L (red), and 300 µg/L (black)

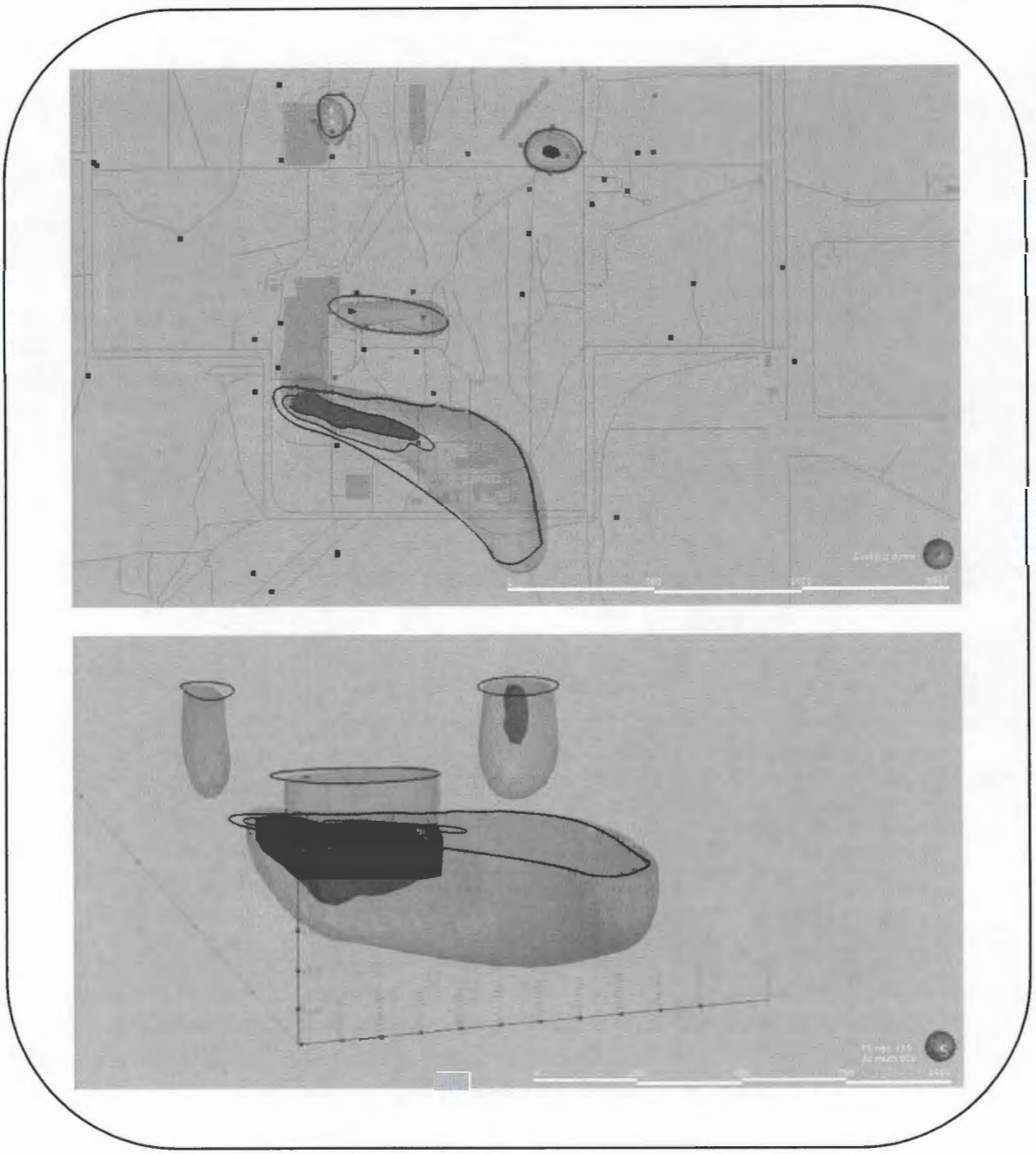

Figure 2. Interpolated Technetium Plume (top-view above; perspective view below). Concentrations between 900 -- 9,000 pCi/L are shown in yellow and above 9,000 pCi/L in red. 2012 two-dimensional contour levels are shown for 900 pCi/L (blue) and 9,000 pCi/L (red).

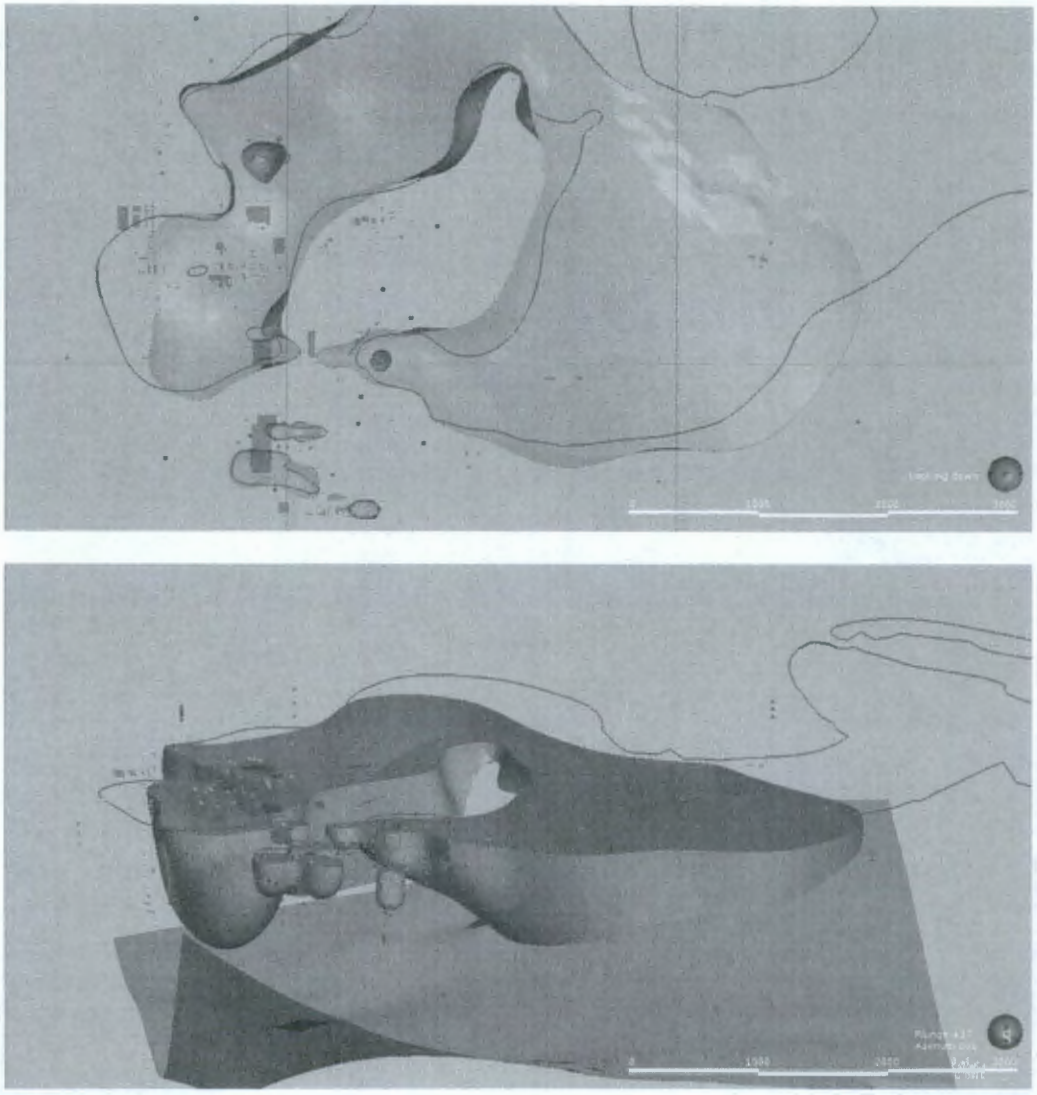

Figure 3. Interpolated Nitrate Plume (top-view above; perspective view below). Concentrations between 45,000 – 450,000 μg/L are shown in yellow and above 450,000 pCi/L in red. 2012 two-dimensional contour level is shown for 45,000 μg/L. Ringold mud layer is shown in brown.

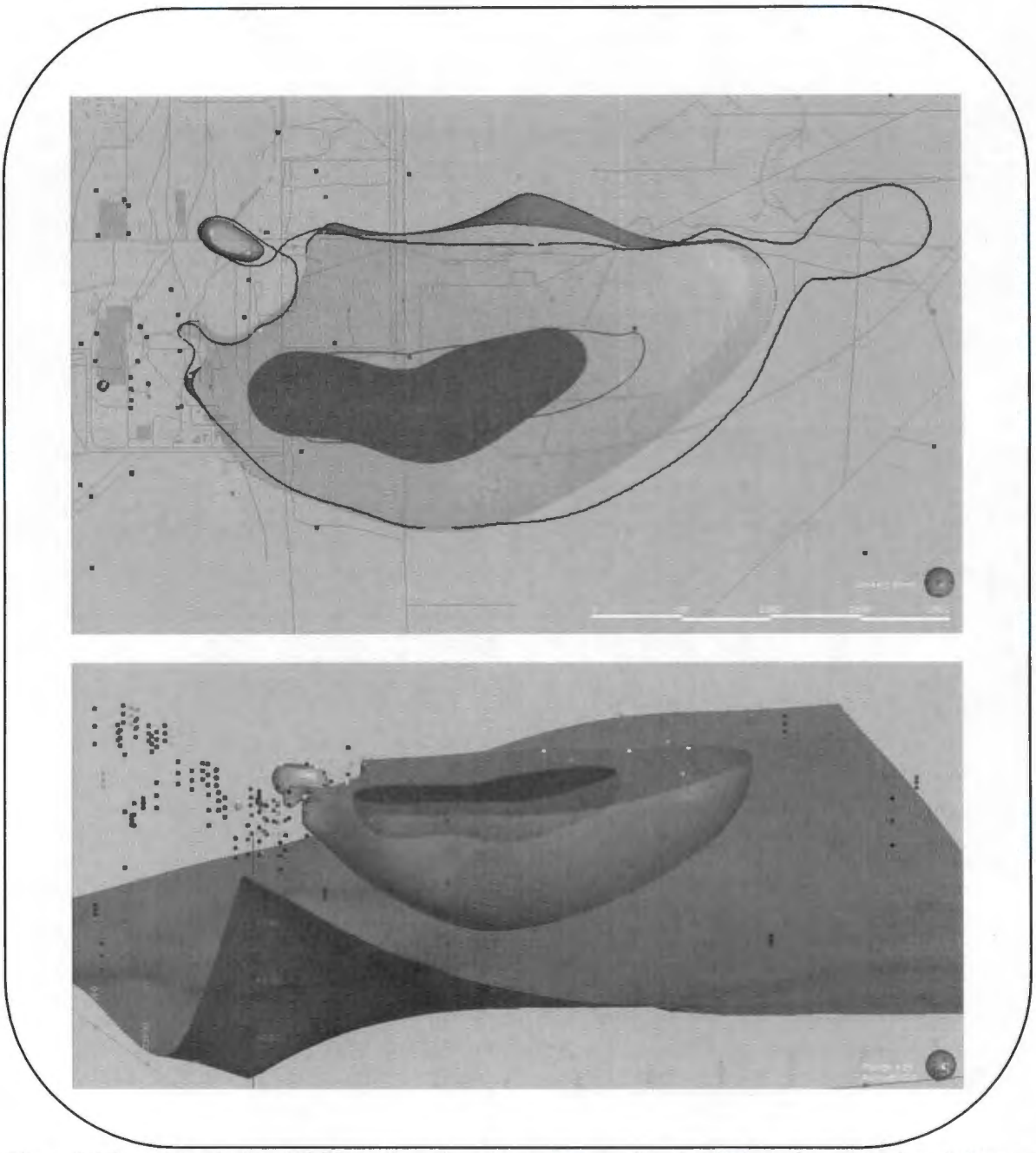

Figure 3. Interpolated Iodine-129 Plume (top-view above; perspective view below). Concentrations between 1 – 10 pCi/L are shown in yellow and above 10 pCi/L in red. 2012 two-dimensional contour level are shown for 1 pCi/L (blue) and 10 pCi/L (red). Ringold mud layer is shown in brown.

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ECF-HANFORD-13-0012, *Calculation and Depiction of Groundwater Contamination for the Calendar Year 2012 (CY2012) Hanford Site Groundwater Monitoring Report*, Rev. 0, CH2M Hill Plateau Remediation Company, Richland, Washington.

Attachment A

Input Data for Three-Dimensional Interpolation of Uranium Plume

Annual Average Samples for Uranium							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W10-1	566663.096	136734.565	0.984	11/15/2011	133.51	124.47	128.99
299-W10-14	566017.194	136608.895	0.874	10/15/2013	82.69	76.60	79.64
299-W10-26	566843.396	136400.594	2.250	10/16/2013	132.17	128.46	130.32
299-W10-27	566843.969	136441.778	2.365	2/6/2013	132.23	127.21	129.72
299-W10-4	566734.643	136578.079	9.790	11/5/2012	132.90	129.90	131.40
299-W14-13	566901.718	136282.375	0.745	5/29/2013	131.91	128.58	130.24
299-W14-14	566898.386	136181.048	1.090	10/21/2013	132.02	128.47	130.25
299-W14-15	566899.685	136230.654	1.450	10/21/2013	131.94	127.69	129.81
299-W14-16	567001.334	136318.482	1.140	10/21/2013	131.71	128.54	130.12
299-W14-17	567006.773	136218.349	0.732	10/22/2013	131.66	128.66	130.16
299-W14-18	566897.47	136344.15	1.530	10/22/2013	131.93	128.19	130.06
299-W15-17	566306.891	135718.958	0.868	1/21/2013	80.72	77.67	79.19
299-W15-37	566716.468	135248.316	1.330	2/11/2013	134.20	126.71	130.45
299-W15-763	566809.207	136028.763	1.080	10/22/2013	132.65	129.65	131.15
299-W15-765	566697.02	136373.06	1.400	5/7/2013	132.79	127.42	130.10
299-W18-1	566421.515	135465.21	2.310	1/30/2013	135.21	96.48	115.85
299-W18-15	566380.033	134733.478	16.300	1/30/2013	135.18	130.17	132.67
299-W18-21	566097.7	134978.692	20.350	2/5/2013	136.55	133.55	135.05
299-W18-22	566088.632	134990.157	1.070	1/21/2013	78.24	68.79	73.51
299-W18-30	566870.755	135193.619	1.550	7/13/2012	133.75	130.75	132.25
299-W18-40	566723.29	134996.41	2.465	7/16/2012	134.30	128.08	131.19
299-W19-101	567939.14	135014.07	125.000	9/17/2013	132.39	122.73	127.56
299-W19-105	567565.15	134745.44	49.450	1/30/2013	132.81	124.09	128.45
299-W19-107	567997.87	135205.66	1.260	9/17/2013	122.33	117.76	120.05
299-W19-18	567360.647	135012.357	374.000	3/16/2011	133.07	129.24	131.16
299-W19-34A	567673.637	135012.246	1.393	8/12/2013	115.74	111.05	113.39
299-W19-34B	567662.876	135010.654	0.980	10/9/2013	89.18	86.18	87.68
299-W19-35	567992.099	135015.156	91.050	1/30/2013	132.37	129.37	130.87
299-W19-36	567634.738	135017.052	149.000	9/16/2013	132.70	126.75	129.73
299-W19-39	567901.739	134886.74	89.250	1/30/2013	132.51	124.38	128.44
299-W19-4	567949.931	135350.792	1.000	1/9/2012	131.89	113.97	122.93
299-W19-41	566896.532	135004.51	1.400	10/8/2013	133.83	129.19	131.51
299-W19-43	567699.15	135004.02	248.500	1/30/2013	132.64	124.99	128.81
299-W19-46	567782.67	134842.46	130.000	1/30/2013	132.63	123.90	128.26
299-W19-47	566895.31	135161.86	1.780	7/11/2012	133.72	126.81	130.27
299-W19-48	567822.93	134925.99	195.500	1/30/2013	132.56	121.99	127.27
299-W19-49	567568.04	134894.38	251.800	1/30/2013	132.81	124.11	128.46
299-W21-2	568124.39	134573.79	3.560	5/7/2013	132.33	123.16	127.75

Annual Average Samples for Uranium							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W22-26	567205.187	134465.229	0.723	6/7/2011	133.23	130.23	131.73
299-W22-44	566955.99	134484.42	5.830	2/7/2013	133.55	130.55	132.05
299-W22-45	566945.16	134292.51	5.750	6/5/2012	133.68	130.68	132.18
299-W22-47	566908.74	134076.28	5.310	6/6/2013	133.75	124.40	129.07
299-W22-48	566996.641	134425.096	5.970	6/18/2012	133.50	130.50	132.00
299-W22-49	566904.383	134201.625	6.955	6/18/2012	133.79	130.79	132.29
299-W22-50	566904.21	134139.71	5.585	3/5/2013	133.78	130.78	132.28
299-W22-69	567179.6	134347.83	1.030	6/3/2011	133.27	124.34	128.80
299-W22-72	567237.37	134207.08	0.832	6/5/2013	133.17	124.85	129.01
299-W22-80	566842.851	134125.649	2.220	6/21/2011	133.93	130.09	132.01
299-W22-81	567000.263	134354.189	7.280	6/3/2011	133.54	126.09	129.81
299-W22-82	567004.731	134167.07	1.400	9/13/2011	133.57	126.24	129.91
299-W22-83	567009.082	134092.546	1.670	6/5/2013	133.54	126.53	130.03
299-W22-84	566978.76	134547.62	5.000	6/21/2011	133.52	125.81	129.66
299-W22-85	566902.9	134260.58	3.500	6/28/2011	133.79	127.77	130.78
299-W22-86	567186.74	134041.31	1.700	6/4/2013	133.19	126.36	129.77
299-W22-87	567541.75	134539.88	1.380	2/12/2013	132.85	124.13	128.49
299-W22-88	568046.48	134390.53	2.380	1/30/2013	132.39	122.36	127.37
299-W22-89	566906.77	134031.67	1.300	9/28/2011	133.73	124.15	128.94
299-W22-90	566961.39	134483.24	3.110	1/9/2013	130.52	118.32	124.42
299-W22-91	566911.76	134134.53	4.040	1/9/2013	131.49	116.24	123.86
299-W22-92	567167.84	134029.77	3.325	1/9/2013	133.22	120.56	126.89
299-W22-95	567170.54	134549.11	0.875	8/20/2013	132.29	120.09	126.19
299-W22-96	567351.93	134145.58	1.970	5/23/2011	133.02	125.10	129.06
299-W23-15	566794	134127.23	7.070	6/6/2013	134.04	131.04	132.54
299-W23-19	566759.115	134166.653	8.320	7/9/2013	134.13	131.13	132.63
299-W23-20	566717.669	134446.189	2.600	6/4/2013	134.14	128.09	131.12
299-W23-21	566707.737	134293.994	9.040	6/4/2013	134.25	127.63	130.94
299-W23-4	566628.216	134391.881	44.200	1/30/2013	134.39	127.68	131.04
299-W26-13	566424.387	133293.598	1.810	11/30/2012	134.52	127.33	130.92
299-W26-14	566682.69	133539.21	1.030	5/2/2012	133.98	124.32	129.15
299-W27-2	566908.267	133670.351	0.626	5/2/2013	81.81	78.72	80.27
299-W6-3	567118.18	137299.13	0.964	6/26/2012	87.79	84.67	86.23
299-W6-6	567318.74	137638.72	0.557	1/30/2012	88.20	84.94	86.57
299-W7-3	566292.031	137638.641	1.290	5/8/2012	69.93	63.53	66.73
299-W7-4	566408.771	137308.243	2.100	5/16/2011	135.17	132.17	133.67
699-30-66	569990.98	132739.19	1.495	4/11/2013	91.28	88.23	89.76
699-32-62	571009.564	133215.925	2.870	11/7/2012	128.12	112.03	120.08

Annual Average Samples for Uranium							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
699-32-72A	567942.676	133362.612	0.619	4/15/2013	132.32	89.97	111.14
699-32-76	566683.94	133137.73	1.377	1/12/2011	133.82	124.49	129.16
699-33-74	567472.65	133552.16	4.210	4/11/2013	132.68	123.75	128.22
699-33-75	566907.78	133662.48	3.090	5/2/2013	133.57	123.32	128.45
699-33-76	566621.21	133600.43	0.878	1/12/2011	134.13	124.07	129.10
699-34-72	567859.97	133785.33	7.260	1/24/2013	132.33	125.03	128.68
699-35-66A	569857.861	134099.244	2.227	3/4/2013	130.10	127.10	128.60
699-35-78A	566063.586	134271.27	14.400	1/4/2012	135.54	132.54	134.04
699-36-61A	571395.472	134557.106	2.100	5/20/2013	123.81	120.81	122.31
699-36-70A	568466.679	134308.839	2.220	3/6/2013	131.89	128.10	129.99
699-36-70B	568427.79	134625.98	5.340	4/24/2012	131.85	124.38	128.12
699-38-65	570090.185	135039.847	1.570	5/20/2013	128.21	125.21	126.71
699-38-68A	569180.305	134931.603	3.270	2/7/2013	130.52	127.52	129.02
699-38-70B	568469.1	135331.04	0.932	4/11/2013	98.03	93.45	95.74
699-38-70C	569084.11	135325.58	2.720	6/11/2013	105.76	101.18	103.47
699-40-62	571164.26	135764.42	2.290	1/23/2013	122.53	117.09	119.81
699-40-65	570057.48	135881.16	1.440	4/15/2013	126.42	119.72	123.07
699-48-77C	566468.954	138086.801	0.320	1/15/2013	117.60	111.50	114.55
699-48-77D	566433.302	138119.268	0.861	1/15/2013	134.70	131.70	133.20

Control Points/Soft Data for Uranium						
Name	EASTING	NORTHING	Sample Value (µg/L)	Top Elev.	Middle Elev.	Bot. Elev.
699-38-70	568500.94	135089.205	42.2	131.44 11926	129.94 11926	128.44 11926
CP at C4711	567175.2	135002.52	0	133.29 54254	131.79 54254	130.29 54254
CP Leading Edge	568200	135012.357	25	114.74 82538		
CP Mid Plume	568000	135000	20	114.74 82538		
CP Top Plume	567630	134940	100	134		
CP at 299W19-18	567360.647	135012.357	20	114.74 82538		

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W10-33	566772.75	136610.19	1.08	8/24/2007	80.73
299-W10-33	566772.75	136610.19	0.88	8/21/2007	83.66
299-W10-33	566772.75	136610.19	0.725	8/15/2007	86.53
299-W10-33	566772.75	136610.19	0.688	8/13/2007	89.63
299-W10-33	566772.75	136610.19	0.592	8/8/2007	92.93
299-W10-33	566772.75	136610.19	0.794	8/6/2007	96.03
299-W10-33	566772.75	136610.19	0.801	8/3/2007	99.93
299-W10-33	566772.75	136610.19	1.2	8/2/2007	101.83
299-W10-33	566772.75	136610.19	1.02	8/1/2007	105.13
299-W10-33	566772.75	136610.19	0.906	7/31/2007	108.19
299-W10-33	566772.75	136610.19	0.831	7/27/2007	110.33
299-W10-33	566772.75	136610.19	0.226	7/24/2007	114.29
299-W10-33	566772.75	136610.19	1.09	7/17/2007	117.34
299-W10-33	566772.75	136610.19	1.6	7/16/2007	120.39
299-W10-33	566772.75	136610.19	4.91	7/12/2007	122.74
299-W10-33	566772.75	136610.19	6.77	7/11/2007	125.26
299-W10-33	566772.75	136610.19	8.21	7/10/2007	130.60
299-W10-33	566772.75	136610.19	6.27	7/6/2007	132.27
299-W10-35	566024.73	136995.48	0.623	12/6/2010	75.06
299-W10-35	566024.73	136995.48	0.669	12/3/2010	81.16
299-W10-35	566024.73	136995.48	0.622	12/2/2010	87.16
299-W10-35	566024.73	136995.48	0.656	11/30/2010	92.66
299-W10-35	566024.73	136995.48	0.768	11/29/2010	98.76
299-W10-35	566024.73	136995.48	0.675	11/19/2010	105.46
299-W10-35	566024.73	136995.48	0.519	11/18/2010	110.19
299-W10-35	566024.73	136995.48	0.384	11/17/2010	117.81
299-W10-35	566024.73	136995.48	0.51	11/16/2010	123.78
299-W10-35	566024.73	136995.48	0.517	11/15/2010	129.88
299-W11-43	567269.74	136971.04	2.99	6/21/2005	79.61
299-W11-43	567269.74	136971.04	3.19	6/16/2005	89.11
299-W11-43	567269.74	136971.04	3.16	6/9/2005	105.61
299-W11-43	567269.74	136971.04	2.5	6/7/2005	116.54
299-W11-43	567269.74	136971.04	2.32	6/1/2005	125.68
299-W11-48	566881.97	136846.18	1.06	6/5/2007	87.13
299-W11-48	566881.97	136846.18	0.264	6/1/2007	89.53
299-W11-48	566881.97	136846.18	1.11	5/29/2007	92.33
299-W11-48	566881.97	136846.18	0.684	5/25/2007	95.03
299-W11-48	566881.97	136846.18	1.38	5/25/2007	99.40

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W11-48	566881.97	136846.18	0.648	5/23/2007	101.13
299-W11-48	566881.97	136846.18	2.42	5/22/2007	104.23
299-W11-48	566881.97	136846.18	0.679	5/21/2007	107.23
299-W11-48	566881.97	136846.18	1.29	5/17/2007	109.37
299-W11-48	566881.97	136846.18	0.352	5/16/2007	113.33
299-W11-48	566881.97	136846.18	1.34	4/25/2007	116.68
299-W11-48	566881.97	136846.18	1.57	4/17/2007	119.42
299-W11-48	566881.97	136846.18	0.44	4/13/2007	122.78
299-W11-48	566881.97	136846.18	1.08	4/11/2007	127.35
299-W11-48	566881.97	136846.18	1.77	4/6/2007	131.92
299-W11-49	567361.5	135924.72	1.04	4/1/2010	78.52
299-W11-49	567361.5	135924.72	0.652	3/26/2010	84.32
299-W11-49	567361.5	135924.72	0.745	2/26/2010	89.22
299-W11-49	567361.5	135924.72	0.998	2/25/2010	95.32
299-W11-49	567361.5	135924.72	0.764	2/17/2010	101.42
299-W11-49	567361.5	135924.72	0.771	2/12/2010	107.52
299-W11-49	567361.5	135924.72	0.768	2/10/2010	113.62
299-W11-49	567361.5	135924.72	1.05	2/9/2010	119.70
299-W11-49	567361.5	135924.72	0.681	2/8/2010	125.79
299-W11-49	567361.5	135924.72	23.5	2/5/2010	128.84
299-W11-50	566966.27	136756.64	0.402	11/22/2010	62.02
299-W11-50	566966.27	136756.64	0.676	11/16/2010	69.12
299-W11-50	566966.27	136756.64	0.763	11/10/2010	75.22
299-W11-50	566966.27	136756.64	1.25	11/8/2010	81.32
299-W11-50	566966.27	136756.64	1.56	11/4/2010	87.32
299-W11-50	566966.27	136756.64	2.4	9/24/2010	98.62
299-W11-50	566966.27	136756.64	3.18	9/16/2010	105.32
299-W11-50	566966.27	136756.64	2.51	9/13/2010	110.22
299-W11-50	566966.27	136756.64	2.2	9/3/2010	123.03
299-W11-50	566966.27	136756.64	1.46	11/1/2010	124.55
299-W11-50	566966.27	136756.64	3.34	9/1/2010	128.97
299-W11-86	568143.53	136610.04	1.05	8/4/2006	73.56
299-W11-86	568143.53	136610.04	1.09	7/25/2006	89.36
299-W11-86	568143.53	136610.04	1.19	7/12/2006	106.16
299-W11-86	568143.53	136610.04	1.16	7/7/2006	119.86
299-W11-86	568143.53	136610.04	1.35	6/30/2006	126.85
299-W11-88	567874.67	137113.09	1.18	2/13/2008	73.55
299-W11-88	567874.67	137113.09	1.18	2/6/2008	83.83

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W11-88	567874.67	137113.09	0.92	12/11/2007	87.53
299-W11-88	567874.67	137113.09	1.51	12/6/2007	93.63
299-W11-88	567874.67	137113.09	1.61	12/5/2007	102.73
299-W11-88	567874.67	137113.09	1.39	12/3/2007	108.83
299-W11-88	567874.67	137113.09	1.42	11/29/2007	114.93
299-W11-88	567874.67	137113.09	1.44	11/29/2007	124.11
299-W11-90	567306.79	136519.66	0.736	3/18/2010	57.30
299-W11-90	567306.79	136519.66	1.09	3/8/2010	62.80
299-W11-90	567306.79	136519.66	1.18	3/4/2010	68.90
299-W11-90	567306.79	136519.66	1.52	3/2/2010	75.60
299-W11-90	567306.79	136519.66	1.21	3/1/2010	81.70
299-W11-90	567306.79	136519.66	1.4	2/23/2010	87.80
299-W11-90	567306.79	136519.66	1.52	2/22/2010	93.90
299-W11-90	567306.79	136519.66	1.23	2/16/2010	99.90
299-W11-90	567306.79	136519.66	1.48	2/12/2010	106.00
299-W11-90	567306.79	136519.66	1.1	1/19/2010	112.10
299-W11-90	567306.79	136519.66	0.885	1/15/2010	118.24
299-W11-90	567306.79	136519.66	0.601	1/14/2010	124.33
299-W11-90	567306.79	136519.66	0.496	1/13/2010	127.38
299-W11-92	566692.86	136351.78	0.182	6/2/2010	65.17
299-W11-92	566692.86	136351.78	0.923	5/27/2010	81.86
299-W11-92	566692.86	136351.78	0.763	5/24/2010	86.96
299-W11-92	566692.86	136351.78	0.922	5/20/2010	93.06
299-W11-92	566692.86	136351.78	1.06	5/18/2010	98.86
299-W11-92	566692.86	136351.78	1.03	5/17/2010	104.96
299-W11-92	566692.86	136351.78	1.96	9/9/2010	110.47
299-W11-92	566692.86	136351.78	1.02	5/17/2010	111.08
299-W11-92	566692.86	136351.78	1.25	5/14/2010	117.78
299-W11-92	566692.86	136351.78	2.38	9/1/2010	122.81
299-W11-92	566692.86	136351.78	1.18	4/30/2010	124.49
299-W11-92	566692.86	136351.78	0.566	4/29/2010	129.67
299-W11-93	567775.46	136780.07	1.28	11/19/2009	68.66
299-W11-93	567775.46	136780.07	1.17	11/18/2009	74.76
299-W11-93	567775.46	136780.07	1.1	11/17/2009	79.36
299-W11-93	567775.46	136780.07	1.46	10/29/2009	87.10
299-W11-93	567775.46	136780.07	1.34	10/26/2009	99.16
299-W11-93	567775.46	136780.07	0.95	10/23/2009	105.26
299-W11-93	567775.46	136780.07	1.3	10/22/2009	111.36

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W11-93	567775.46	136780.07	1.29	10/21/2009	117.46
299-W11-93	567775.46	136780.07	0.929	10/20/2009	123.52
299-W11-93	567775.46	136780.07	0.389	10/19/2009	129.62
299-W12-2	568312.67	136610.25	0.958	9/10/2009	75.65
299-W12-2	568312.67	136610.25	1.24	9/1/2009	79.90
299-W12-2	568312.67	136610.25	1.09	9/8/2009	81.83
299-W12-2	568312.67	136610.25	1.26	8/27/2009	86.50
299-W12-2	568312.67	136610.25	1.22	8/26/2009	91.80
299-W12-2	568312.67	136610.25	1.3	8/24/2009	98.80
299-W12-2	568312.67	136610.25	1.37	8/21/2009	105.90
299-W12-2	568312.67	136610.25	1.12	8/20/2009	111.80
299-W12-2	568312.67	136610.25	0.969	8/19/2009	117.70
299-W12-2	568312.67	136610.25	1.04	8/18/2009	123.99
299-W12-2	568312.67	136610.25	0.704	8/17/2009	125.66
299-W12-3	568321.53	136998.09	1.07	10/8/2009	72.42
299-W12-3	568321.53	136998.09	1.54	10/6/2009	79.12
299-W12-3	568321.53	136998.09	1.42	10/5/2009	84.32
299-W12-3	568321.53	136998.09	1.49	10/2/2009	91.02
299-W12-3	568321.53	136998.09	1.65	10/1/2009	97.12
299-W12-3	568321.53	136998.09	1.53	9/30/2009	103.52
299-W12-3	568321.53	136998.09	0.84	9/29/2009	109.32
299-W12-3	568321.53	136998.09	1.47	9/24/2009	116.48
299-W12-3	568321.53	136998.09	1.62	9/22/2009	122.42
299-W12-3	568321.53	136998.09	0.439	9/18/2009	128.83
299-W12-4	568327.41	136363.65	1.18	10/9/2009	68.26
299-W12-4	568327.41	136363.65	1.31	10/7/2009	74.06
299-W12-4	568327.41	136363.65	1.42	10/5/2009	80.99
299-W12-4	568327.41	136363.65	1.3	10/2/2009	86.89
299-W12-4	568327.41	136363.65	1.18	9/29/2009	93.59
299-W12-4	568327.41	136363.65	1.08	9/28/2009	99.90
299-W12-4	568327.41	136363.65	0.438	9/25/2009	104.99
299-W12-4	568327.41	136363.65	0.945	8/21/2009	110.79
299-W12-4	568327.41	136363.65	0.734	8/20/2009	116.89
299-W12-4	568327.41	136363.65	0.935	8/13/2009	122.99
299-W12-4	568327.41	136363.65	0.854	8/12/2009	126.05
299-W14-20	566909.22	136284.47	0.13	7/29/2009	71.32
299-W14-20	566909.22	136284.47	0.753	7/21/2009	80.30
299-W14-20	566909.22	136284.47	0.469	7/17/2009	85.92

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W14-20	566909.22	136284.47	0.768	7/13/2009	92.32
299-W14-20	566909.22	136284.47	0.76	7/9/2009	99.62
299-W14-20	566909.22	136284.47	1.48	7/6/2009	104.82
299-W14-20	566909.22	136284.47	0.844	6/29/2009	110.93
299-W14-20	566909.22	136284.47	1.56	6/24/2009	117.03
299-W14-20	566909.22	136284.47	1.06	6/19/2009	124.04
299-W14-20	566909.22	136284.47	1.76	4/16/2009	129.07
299-W14-21	567721.52	135890.01	2.01	10/22/2009	62.44
299-W14-21	567721.52	135890.01	0.741	10/19/2009	69.74
299-W14-21	567721.52	135890.01	0.829	10/16/2009	75.54
299-W14-21	567721.52	135890.01	0.936	10/14/2009	81.64
299-W14-21	567721.52	135890.01	0.92	10/12/2009	87.91
299-W14-21	567721.52	135890.01	0.912	10/9/2009	94.14
299-W14-21	567721.52	135890.01	0.878	10/8/2009	99.89
299-W14-21	567721.52	135890.01	1.05	10/7/2009	106.34
299-W14-21	567721.52	135890.01	1.2	10/6/2009	114.54
299-W14-21	567721.52	135890.01	1.47	10/2/2009	118.54
299-W14-21	567721.52	135890.01	0.714	9/23/2009	125.25
299-W14-21	567721.52	135890.01	0.568	9/22/2009	130.74
299-W14-71	567733.43	135567.81	0.596	10/12/2006	90.63
299-W14-71	567733.43	135567.81	0.473	10/5/2006	107.03
299-W14-71	567733.43	135567.81	0.565	9/22/2006	120.78
299-W14-71	567733.43	135567.81	0.671	9/19/2006	129.01
299-W14-72	567328.44	135941.28	0.617	10/17/2006	90.54
299-W14-72	567328.44	135941.28	0.723	10/11/2006	107.64
299-W14-72	567328.44	135941.28	0.893	10/4/2006	121.35
299-W14-72	567328.44	135941.28	0.976	10/2/2006	126.23
299-W14-73	567358.99	136204.58	0.492	5/27/2009	67.15
299-W14-73	567358.99	136204.58	0.794	5/15/2009	73.85
299-W14-73	567358.99	136204.58	0.618	5/8/2009	79.95
299-W14-73	567358.99	136204.58	0.723	5/4/2009	85.45
299-W14-73	567358.99	136204.58	0.784	4/29/2009	92.15
299-W14-73	567358.99	136204.58	0.799	4/27/2009	97.65
299-W14-73	567358.99	136204.58	0.746	4/22/2009	104.05
299-W14-73	567358.99	136204.58	0.888	4/20/2009	110.13
299-W14-73	567358.99	136204.58	1.44	4/15/2009	116.41
299-W14-73	567358.99	136204.58	0.947	4/10/2009	122.36
299-W14-73	567358.99	136204.58	1.42	4/7/2009	128.00

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W14-74	567781.48	136381.29	0.9	9/3/2009	70.08
299-W14-74	567781.48	136381.29	0.963	9/2/2009	76.18
299-W14-74	567781.48	136381.29	0.994	8/31/2009	82.28
299-W14-74	567781.48	136381.29	1.23	8/28/2009	88.38
299-W14-74	567781.48	136381.29	1.22	8/27/2009	94.48
299-W14-74	567781.48	136381.29	1.21	8/24/2009	100.58
299-W14-74	567781.48	136381.29	1.18	8/20/2009	106.68
299-W14-74	567781.48	136381.29	1.37	8/18/2009	112.78
299-W14-74	567781.48	136381.29	1.26	8/17/2009	118.58
299-W14-74	567781.48	136381.29	0.799	8/14/2009	124.97
299-W14-74	567781.48	136381.29	1.26	8/12/2009	128.02
299-W15-225	566657.35	136108.93	0.0762	5/8/2009	63.81
299-W15-225	566657.35	136108.93	0.927	4/29/2009	79.01
299-W15-225	566657.35	136108.93	0.873	4/28/2009	84.81
299-W15-225	566657.35	136108.93	0.869	4/27/2009	90.91
299-W15-225	566657.35	136108.93	0.913	4/24/2009	97.01
299-W15-225	566657.35	136108.93	1.14	4/23/2009	103.11
299-W15-225	566657.35	136108.93	0.989	4/22/2009	109.19
299-W15-225	566657.35	136108.93	1.2	4/21/2009	115.29
299-W15-225	566657.35	136108.93	0.216	3/27/2009	122.88
299-W15-225	566657.35	136108.93	1.14	3/9/2009	129.77
299-W15-226	566033.3	136450.23	0.1	6/16/2010	63.64
299-W15-226	566033.3	136450.23	0.553	6/10/2010	79.14
299-W15-226	566033.3	136450.23	0.688	6/10/2010	85.24
299-W15-226	566033.3	136450.23	0.693	6/7/2010	100.44
299-W15-226	566033.3	136450.23	0.726	6/4/2010	106.54
299-W15-226	566033.3	136450.23	0.722	6/4/2010	112.67
299-W15-226	566033.3	136450.23	0.468	6/3/2010	118.76
299-W15-226	566033.3	136450.23	0.323	6/2/2010	130.34
299-W15-226	566033.3	136450.23	0.1	6/1/2010	131.56
299-W15-227	566034.04	135966.56	0.317	7/12/2010	57.72
299-W15-227	566034.04	135966.56	0.722	7/1/2010	77.84
299-W15-227	566034.04	135966.56	0.712	6/30/2010	83.80
299-W15-227	566034.04	135966.56	0.677	6/25/2010	90.14
299-W15-227	566034.04	135966.56	0.661	6/24/2010	95.93
299-W15-227	566034.04	135966.56	0.563	6/23/2010	102.14
299-W15-227	566034.04	135966.56	0.56	6/21/2010	107.94
299-W15-227	566034.04	135966.56	0.492	6/16/2010	114.07

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W15-227	566034.04	135966.56	0.454	6/11/2010	120.31
299-W15-227	566034.04	135966.56	0.481	6/10/2010	126.65
299-W15-227	566034.04	135966.56	0.256	6/10/2010	132.36
299-W15-46	566752.23	135586.67	0.116	1/26/2005	45.43
299-W15-46	566752.23	135586.67	0.361	11/10/2004	91.31
299-W15-46	566752.23	135586.67	0.639	10/19/2004	114.16
299-W15-46	566752.23	135586.67	3.22	9/28/2004	132.45
299-W15-46	566752.23	135586.67	1.98	9/14/2004	133.67
299-W15-49	566307.2	135972.91	0.74	12/15/2004	74.22
299-W15-49	566307.2	135972.91	0.1	12/15/2004	74.97
299-W15-49	566307.2	135972.91	0.1	12/14/2004	86.12
299-W15-49	566307.2	135972.91	0.536	12/10/2004	107.72
299-W15-49	566307.2	135972.91	0.498	12/9/2004	115.36
299-W15-49	566307.2	135972.91	0.946	12/7/2004	126.02
299-W15-50	566793.47	135790.72	0.18	2/9/2005	101.38
299-W15-50	566793.47	135790.72	0.59	2/7/2005	107.15
299-W15-50	566793.47	135790.72	0.638	2/2/2005	117.21
299-W15-50	566793.47	135790.72	0.567	1/31/2005	122.39
299-W15-50	566793.47	135790.72	0.701	1/25/2005	129.40
299-W17-2	566951.64	135806.21	0.786	4/26/2010	62.14
299-W17-2	566951.64	135806.21	0.683	4/21/2010	81.74
299-W17-2	566951.64	135806.21	0.679	4/19/2010	87.14
299-W17-2	566951.64	135806.21	0.702	4/16/2010	93.24
299-W17-2	566951.64	135806.21	0.678	4/15/2010	99.34
299-W17-2	566951.64	135806.21	0.633	4/9/2010	105.14
299-W17-2	566951.64	135806.21	0.606	4/8/2010	111.26
299-W17-2	566951.64	135806.21	0.535	4/6/2010	118.27
299-W17-2	566951.64	135806.21	0.725	4/1/2010	124.67
299-W17-2	566951.64	135806.21	0.172	4/1/2010	130.46
299-W17-3	566925.89	135325.02	0.1	4/20/2010	57.18
299-W17-3	566925.89	135325.02	1.03	4/16/2010	70.98
299-W17-3	566925.89	135325.02	0.795	4/15/2010	77.08
299-W17-3	566925.89	135325.02	0.623	4/12/2010	83.08
299-W17-3	566925.89	135325.02	0.482	4/7/2010	89.18
299-W17-3	566925.89	135325.02	0.47	4/2/2010	95.28
299-W17-3	566925.89	135325.02	0.492	3/31/2010	101.68
299-W17-3	566925.89	135325.02	0.483	3/26/2010	107.82
299-W17-3	566925.89	135325.02	0.502	3/25/2010	114.22

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W17-3	566925.89	135325.02	0.57	3/24/2010	120.31
299-W17-3	566925.89	135325.02	0.599	3/23/2010	126.71
299-W17-3	566925.89	135325.02	0.1	3/19/2010	131.89
299-W18-16	566605.05	135425.69	2.12	12/9/2004	107.33
299-W18-16	566605.05	135425.69	2.28	12/9/2004	107.63
299-W18-16	566605.05	135425.69	3.06	12/1/2004	118.30
299-W18-16	566605.05	135425.69	2.56	11/22/2004	130.49
299-W19-46	567782.67	134842.46	1.57	11/21/2002	97.09
299-W19-46	567782.67	134842.46	0.883	11/21/2002	102.59
299-W19-46	567782.67	134842.46	2.26	11/20/2002	108.69
299-W19-46	567782.67	134842.46	22.9	11/20/2002	114.75
299-W19-46	567782.67	134842.46	134	11/20/2002	120.85
299-W19-46	567782.67	134842.46	131	11/19/2002	126.95
299-W19-46	567782.67	134842.46	23.4	11/19/2002	130.30
299-W19-48	567822.93	134925.99	1.63	12/16/2004	83.38
299-W19-48	567822.93	134925.99	0.965	12/14/2004	90.08
299-W19-48	567822.93	134925.99	1.31	12/9/2004	107.38
299-W19-48	567822.93	134925.99	147	11/30/2004	124.19
299-W21-2	568124.39	134573.79	0.52	12/7/2004	97.03
299-W21-2	568124.39	134573.79	0.87	12/6/2004	100.63
299-W21-2	568124.39	134573.79	1.49	12/2/2004	106.73
299-W22-50	566904.21	134139.71	0	1/12/2000	38.43
299-W22-50	566904.21	134139.71	0.43	12/22/1999	70.13
299-W22-50	566904.21	134139.71	0.787	12/17/1999	84.73
299-W22-50	566904.21	134139.71	0.58	12/15/1999	109.13
299-W22-50	566904.21	134139.71	1.09	12/14/1999	125.89
299-W22-50	566904.21	134139.71	3.34	11/29/1999	131.07
299-W22-50	566904.21	134139.71	0.784	11/23/1999	139.00
299-W22-90	566961.39	134483.24	0.83	11/3/2011	110.90
299-W22-90	566961.39	134483.24	1.3	10/26/2011	131.97
299-W22-90	566961.39	134483.24	0.36	10/31/2011	132.30
299-W22-90	566961.39	134483.24	3.3	10/24/2011	132.33
299-W22-91	566911.76	134134.53	0.34	9/21/2011	112.57
299-W22-91	566911.76	134134.53	0.55	9/16/2011	118.30
299-W22-91	566911.76	134134.53	1.6	9/14/2011	124.52
299-W22-91	566911.76	134134.53	2.5	9/7/2011	131.22
299-W22-92	567167.84	134029.77	0.204	7/18/2011	114.14
299-W22-92	567167.84	134029.77	1.16	7/11/2011	120.85

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
299-W22-92	567167.84	134029.77	0.977	7/1/2011	126.57
299-W22-92	567167.84	134029.77	1.73	6/15/2011	132.76
299-W22-95	567170.54	134549.11	0.564	9/9/2013	111.62
299-W22-95	567170.54	134549.11	0.578	9/3/2013	118.44
299-W22-95	567170.54	134549.11	0.628	8/26/2013	127.58
299-W22-95	567170.54	134549.11	0.875	8/20/2013	129.81
299-W22-96	567351.93	134145.58	0.605	5/26/2011	125.38
299-W22-96	567351.93	134145.58	1.97	5/23/2011	131.30
699-30-66	569990.98	132739.19	1.32	10/12/2004	89.73
699-30-66	569990.98	132739.19	1.47	10/5/2004	103.43
699-30-66	569990.98	132739.19	1.33	9/21/2004	113.84
699-30-66	569990.98	132739.19	0.196	9/9/2004	124.66
699-36-70A	568466.679	134308.839	0.747	10/26/1994	93.90
699-36-70A	568466.679	134308.839	2.84	10/21/1994	102.40
699-36-70A	568466.679	134308.839	1.99	10/16/1994	114.00
699-36-70A	568466.679	134308.839	1.98	10/11/1994	122.23
699-36-70A	568466.679	134308.839	0.597	9/30/1994	128.63
699-36-70B	568427.79	134625.98	0.11	9/23/2004	87.56
699-36-70B	568427.79	134625.98	1.59	9/14/2004	101.26
699-36-70B	568427.79	134625.98	0.1	9/9/2004	111.96
699-36-70B	568427.79	134625.98	0.598	8/31/2004	122.60
699-36-70B	568427.79	134625.98	1.17	8/18/2004	131.74
699-38-70B	568469.1	135331.04	1.38	2/27/2004	76.14
699-38-70B	568469.1	135331.04	0.7	2/11/2004	88.19
699-38-70B	568469.1	135331.04	0.74	2/6/2004	97.29
699-38-70B	568469.1	135331.04	0.97	2/6/2004	107.99
699-38-70B	568469.1	135331.04	1.04	2/5/2004	115.89
699-38-70B	568469.1	135331.04	1.45	2/4/2004	126.28
699-38-70C	569084.11	135325.58	2.79	2/20/2004	98.96
699-38-70C	569084.11	135325.58	2.67	2/20/2004	104.76
699-38-70C	569084.11	135325.58	2.76	2/19/2004	115.06
699-38-70C	569084.11	135325.58	3.02	2/18/2004	126.06
699-40-65	570057.48	135881.16	2.92	12/31/2003	91.06
699-40-65	570057.48	135881.16	1.54	12/18/2003	121.86
699-42-67	569390.25	136199.83	1.1	11/22/2011	76.59
699-42-67	569390.25	136199.83	1.1	11/21/2011	82.69
699-42-67	569390.25	136199.83	1.3	11/17/2011	89.09
699-42-67	569390.25	136199.83	1.2	11/16/2011	95.49

Depth Discrete Data for Uranium					
Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Elev.
699-42-67	569390.25	136199.83	1.4	11/15/2011	100.99
699-42-67	569390.25	136199.83	1.4	10/19/2011	113.33
699-42-67	569390.25	136199.83	1.4	10/18/2011	119.30
699-42-67	569390.25	136199.83	0.6	10/17/2011	125.55
699-43-67	569369.88	136560.41	1.48	7/28/2010	90.71
699-43-67	569369.88	136560.41	1.25	7/28/2010	96.11
699-43-67	569369.88	136560.41	1.85	7/8/2010	102.21
699-43-67	569369.88	136560.41	1.48	7/1/2010	121.21
699-43-69	568967.03	136488.48	1.12	4/9/2008	73.70
699-43-69	568967.03	136488.48	0.6	4/4/2008	80.40
699-43-69	568967.03	136488.48	1.08	4/2/2008	87.70
699-43-69	568967.03	136488.48	1.24	4/1/2008	94.10
699-43-69	568967.03	136488.48	1.48	3/26/2008	101.40
699-43-69	568967.03	136488.48	1.05	3/18/2008	115.50
699-43-69	568967.03	136488.48	0.94	3/14/2008	117.60
699-43-69	568967.03	136488.48	1.13	3/12/2008	123.70
699-45-67	569257.03	137262.97	1.24	7/27/2010	92.36
699-45-67	569257.03	137262.97	0.999	7/23/2010	98.16
699-45-67	569257.03	137262.97	1.17	7/22/2010	104.21
699-45-67	569257.03	137262.97	1.16	7/16/2010	121.00
699-45-67	569257.03	137262.97	1.01	7/15/2010	125.88
699-45-69C	568947.12	137233.81	1.19	10/1/2007	83.00
699-45-69C	568947.12	137233.81	0.79	9/12/2007	90.30
699-45-69C	568947.12	137233.81	1.21	9/6/2007	102.20
699-45-69C	568947.12	137233.81	1.26	8/31/2007	109.50
699-45-69C	568947.12	137233.81	0.922	8/15/2007	121.74
699-45-69C	568947.12	137233.81	0.89	8/10/2007	124.17

Attachment B

Input Data for Three-Dimensional Interpolation of Technitium-99 Plume

Annual Average Samples for Technetium							
Well Name	EASTING	NORTHING	Sample Value (pCi/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W10-1	566663.096	136734.565	44.20	1/31/2011	133.64	127.54	121.45
299-W10-14	566017.194	136608.895	0.00	10/15/2013	82.77	79.72	76.67
299-W10-23	566823.729	136815.339	71.97	4/4/2011	133.06	130.39	127.71
299-W10-24	566885.426	136798.78	93.00	5/1/2012	132.79	129.85	126.92
299-W10-26	566843.396	136400.594	1960.00	1/20/2011	132.24	129.56	126.89
299-W10-27	566843.969	136441.778	510.00	2/6/2013	132.24	129.57	126.90
299-W10-28	566701.55	136709.93	47.95	1/20/2011	133.18	130.22	127.25
299-W10-4	566734.643	136578.079	946.67	5/1/2012	133.00	129.38	125.76
299-W10-8	566848.824	136811.222	82.50	1/20/2011	133.06	130.01	126.97
299-W11-39	566908.383	136779.917	360.00	5/1/2012	132.79	129.22	125.65
299-W11-40	566926.838	136709.666	4000.00	5/1/2012	132.53	129.40	126.26
299-W11-41	566935.51	136677.781	3900.00	5/21/2012	132.53	129.62	126.71
299-W11-42	566920.435	136745.665	8000.00	5/2/2012	132.53	129.57	126.62
299-W14-13	566901.718	136282.375	8600.00	5/29/2013	131.79	129.12	126.44
299-W14-14	566898.386	136181.048	690.00	10/21/2013	131.84	129.17	126.50
299-W14-15	566899.685	136230.654	1000.00	5/4/2012	131.84	129.18	126.52
299-W14-16	567001.334	136318.482	260.00	5/4/2012	131.67	129.01	126.35
299-W14-17	567006.773	136218.349	480.00	5/21/2012	131.59	128.92	126.25
299-W14-18	566897.47	136344.15	820.00	5/2/2012	131.79	129.12	126.46
299-W14-6	566899.194	136100.835	193.90	1/5/2011	132.00	129.02	126.05
299-W15-17	566306.891	135718.958	0.00	1/21/2013	80.77	79.24	77.72
299-W15-37	566716.468	135248.316	32.00	2/8/2012	134.16	130.35	126.54
299-W15-763	566809.207	136028.763	570.00	10/22/2013	132.57	129.89	127.22
299-W15-765	566697.02	136373.06	69.00	5/7/2013	132.56	129.89	127.22
299-W18-1	566421.515	135465.21	210.00	1/30/2013	135.20	115.86	96.51
299-W18-15	566380.033	134733.478	66.00	1/30/2013	135.32	130.97	126.62
299-W18-21	566097.7	134978.692	115.00	2/5/2013	136.53	134.24	131.96
299-W18-22	566088.632	134990.157	0.00	1/21/2013	78.22	73.50	68.77
299-W18-30	566870.755	135193.619	1166.67	1/5/2012	133.82	131.06	128.30
299-W18-40	566723.29	134996.41	75.00	7/10/2013	134.27	131.19	128.10
299-W19-101	567939.14	135014.07	89.00	9/17/2013	132.38	127.61	122.85
299-W19-105	567565.15	134745.44	28.50	1/30/2013	132.84	128.42	124.01
299-W19-107	567997.87	135205.66	340.00	9/17/2013	122.25	119.96	117.68
299-W19-12	566897.131	135059.446	785.00	4/4/2013	133.74	130.92	128.11
299-W19-18	567360.647	135012.357	280.00	3/16/2011	133.11	129.59	126.08
299-W19-34A	567673.637	135012.246	323.33	8/12/2013	115.75	113.40	111.06
299-W19-34B	567662.876	135010.654	29.00	10/9/2013	89.17	87.69	86.22
299-W19-35	567992.099	135015.156	250.00	1/30/2013	132.36	130.06	127.77

Annual Average Samples for Technetium							
Well Name	EASTING	NORTHING	Sample Value (pCi/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W19-36	567634.738	135017.052	20500.00	9/16/2013	132.70	129.68	126.66
299-W19-39	567901.739	134886.74	130.00	1/30/2013	132.46	128.42	124.38
299-W19-4	567949.931	135350.792	0.00	1/9/2012	131.96	122.97	113.99
299-W19-41	566896.532	135004.51	160.00	4/4/2013	133.74	131.07	128.39
299-W19-42	566896.812	135122.901	1800.00	4/4/2013	133.68	131.00	128.33
299-W19-43	567699.15	135004.02	3700.00	1/30/2013	132.59	128.81	125.04
299-W19-44	566896.95	135041.97	1275.00	1/18/2013	133.74	129.94	126.13
299-W19-45	566897.65	135087.65	4800.00	1/14/2013	133.68	130.82	127.97
299-W19-46	567782.67	134842.46	86.50	1/30/2013	132.61	128.25	123.89
299-W19-47	566895.31	135161.86	2200.00	2/27/2013	133.68	130.21	126.74
299-W19-48	567822.93	134925.99	225.00	1/30/2013	132.55	127.23	121.91
299-W19-49	567568.04	134894.38	313.33	1/30/2013	132.85	128.50	124.15
299-W21-2	568124.39	134573.79	120.00	5/7/2013	132.33	127.75	123.17
299-W22-26	567205.187	134465.229	4150.00	7/19/2012	133.20	129.86	126.52
299-W22-44	566955.99	134484.42	8100.00	2/7/2013	133.57	130.76	127.95
299-W22-45	566945.16	134292.51	635.00	6/5/2012	133.69	130.96	128.23
299-W22-47	566908.74	134076.28	2763.33	3/4/2013	133.67	129.04	124.42
299-W22-48	566996.641	134425.096	880.00	6/18/2012	133.44	132.30	131.15
299-W22-49	566904.383	134201.625	2450.00	6/18/2012	133.73	133.35	132.97
299-W22-50	566904.21	134139.71	8140.00	3/5/2013	133.72	132.57	131.43
299-W22-69	567179.6	134347.83	190.00	6/10/2013	133.33	128.83	124.32
299-W22-72	567237.37	134207.08	190.00	6/5/2013	133.19	129.02	124.85
299-W22-81	567000.263	134354.189	26.00	6/10/2013	133.49	129.80	126.10
299-W22-82	567004.731	134167.07	2700.00	6/5/2013	133.51	129.90	126.29
299-W22-83	567009.082	134092.546	18000.00	6/5/2013	133.51	130.01	126.52
299-W22-84	566978.76	134547.62	20.00	6/5/2013	133.57	129.66	125.75
299-W22-85	566902.9	134260.58	250.00	7/29/2013	133.73	130.76	127.80
299-W22-86	567186.74	134041.31	7850.00	6/4/2013	133.11	129.72	126.32
299-W22-87	567541.75	134539.88	7.50	2/12/2013	132.86	128.50	124.14
299-W22-88	568046.48	134390.53	16.00	1/30/2013	132.41	127.37	122.32
299-W22-89	566906.77	134031.67	0.00	6/4/2013	133.67	128.89	124.10
299-W22-94	567009.82	134429.75	280.00	8/27/2013	132.19	126.85	121.52
299-W22-95	567170.54	134549.11	280.00	8/20/2013	132.29	126.18	120.08
299-W22-96	567351.93	134145.58	1000.00	2/12/2013	133.03	129.09	125.15
299-W23-19	566759.115	134166.653	41333.33	3/4/2013	134.18	133.41	132.64
299-W23-20	566717.669	134446.189	8.00	6/4/2013	134.11	131.09	128.06
299-W23-21	566707.737	134293.994	80.00	6/4/2013	134.19	130.92	127.65
299-W23-4	566628.216	134391.881	130.00	1/30/2013	134.37	129.17	123.97

Annual Average Samples for Technetium							
Well Name	EASTING	NORTHING	Sample Value (pCi/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W26-13	566424.387	133293.598	0.00	8/10/2011	134.50	130.98	127.47
299-W26-14	566682.69	133539.21	0.00	5/2/2012	133.88	129.11	124.34
299-W27-2	566908.267	133670.351	0.00	5/2/2013	81.80	80.26	78.72
299-W6-3	567118.18	137299.13	47.00	6/26/2012	87.73	86.17	84.61
299-W6-6	567318.74	137638.72	0.00	1/30/2012	88.17	86.54	84.91
299-W7-3	566292.031	137638.641	0.00	5/8/2012	69.91	66.71	63.51
299-W7-4	566408.771	137308.243	7.30	5/16/2011	135.09	132.81	130.52
699-30-66	569990.98	132739.19	0.00	11/7/2012	91.28	89.75	88.23
699-32-62	571009.564	133215.925	34.00	11/7/2012	128.06	120.02	111.99
699-32-72A	567942.676	133362.612	190.00	4/15/2013	132.33	111.16	89.99
699-32-76	566683.94	133137.73	0.00	1/12/2011	133.69	129.13	124.56
699-33-74	567472.65	133552.16	510.00	4/11/2013	132.71	128.23	123.75
699-33-75	566907.78	133662.48	0.00	10/15/2013	133.52	128.42	123.31
699-33-76	566621.21	133600.43	0.00	1/12/2011	134.13	129.11	124.08
699-34-72	567859.97	133785.33	140.00	1/24/2013	132.35	128.65	124.95
699-35-66A	569857.861	134099.244	97.00	3/4/2013	130.15	126.41	122.67
699-35-78A	566063.586	134271.27	0.00	1/4/2012	135.56	131.75	127.94
699-36-61A	571395.472	134557.106	11.00	5/20/2013	123.72	121.85	119.98
699-36-70A	568466.679	134308.839	27.00	3/6/2013	131.91	129.61	127.30
699-36-70B	568427.79	134625.98	195.00	4/24/2012	131.84	128.11	124.38
699-38-65	570090.185	135039.847	98.00	5/20/2013	128.08	118.88	109.68
699-38-68A	569180.305	134931.603	710.00	2/7/2013	130.61	128.32	126.04
699-38-70B	568469.1	135331.04	0.00	4/11/2013	98.04	95.75	93.46
699-38-70C	569084.11	135325.58	660.00	6/11/2013	105.79	103.50	101.21
699-40-62	571164.26	135764.42	66.00	1/23/2013	122.67	119.95	117.23
699-40-65	570057.48	135881.16	375.00	4/15/2013	126.42	123.06	119.71

Control Points/Soft Data for Technetium						
Name	EASTING	NORTHING	Sample Value (pCi/L)	Top Elev.	Middle Elev.	Bot. Elev.
CP_24	567445.00	133650.00	1000	132.74	131.24	129.74
CP_25	567600.00	133700.00	1000	132.59	131.09	129.59
CP_26	567250.00	134170.00	1000	133.15	131.65	130.15
CP_27	566628.00	134214.00	0	134.43	132.93	131.43
CP_28	567552.99	133626.83	1000	132.64	131.14	129.64
CP_29	567225.97	133877.10	1000	133.01	131.51	130.01
CP_30	567535.45	134015.44	1000	132.78	131.28	129.78
CP_31	566869.47	134137.36	20000	133.87	130.87	127.87
CP_32	567081.09	134520.57	1000	133.37	131.87	130.37
CP_33	567096.63	134420.30	1000	133.36	131.86	130.36
CP_34	567029.78	134444.14	1000	133.44	130.44	127.44
CP_34b	566887.26	134481.56	300	133.70	130.70	127.70
CP_35	567000.30	134515.57	1000	133.48	130.48	127.48
CP_36	567647.99	135104.94	300	132.62	131.12	129.62
CP_37	567757.07	135016.49	300	132.57	131.07	129.57
CP_38	567639.14	134945.74	300	132.73	131.23	129.73
CP_39	567538.91	135043.03	300	132.81	131.31	129.81
CP_40	566956.60	135098.07	300	133.64	132.14	130.64
CP_41	566934.77	135216.34	300	133.55	132.05	130.55
CP_42	566834.10	135125.52	300	133.93	132.43	130.93
CP_43	567169.85	134058.31	10000	133.22	130.22	127.22
CP_44	567063.67	134043.59	2763.33	133.67	124.42	129.04

Attachment C

Input Data for Three-Dimensional Interpolation of Nitrate Plume

Annual Average Samples for Nitrate Plume							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W10-1	566663.096	136734.565	44.20	1/31/2011	133.64	127.54	121.45
299-W10-1	566663.10	136734.57	118000	11/2/2012	133.51	127.42	121.32
299-W10-14	566017.19	136608.90	21000	10/15/2013	82.69	79.64	76.60
299-W10-23	566823.73	136815.34	131000	11/2/2012	133.06	130.39	127.71
299-W10-24	566885.43	136798.78	177500	5/1/2012	132.79	129.85	126.92
299-W10-26	566843.40	136400.59	679500	5/6/2013	132.17	129.50	126.82
299-W10-27	566843.97	136441.78	674666.67	2/6/2013	132.23	129.57	126.90
299-W10-28	566701.55	136709.93	191000	10/16/2013	133.18	130.22	127.25
299-W10-4	566734.64	136578.08	4426666.67	5/1/2012	132.90	131.30	126.34
299-W10-8	566848.82	136811.22	136000	11/2/2012	133.06	131.50	126.74
299-W11-39	566908.38	136779.92	153000	10/17/2013	132.79	130.91	126.19
299-W11-40	566926.84	136709.67	366000	5/2/2013	132.53	83.82	80.77
299-W11-41	566935.51	136677.78	468000	5/2/2013	132.53	129.29	125.67
299-W11-42	566920.44	136745.67	293000	5/2/2013	132.53	130.12	126.69
299-W14-13	566901.72	136282.38	162000	5/29/2013	131.91	130.01	126.97
299-W14-14	566898.39	136181.05	133300	5/2/2013	132.02	126.78	121.92
299-W14-15	566899.69	136230.65	170500	5/29/2013	131.94	128.13	122.95
299-W14-16	567001.33	136318.48	75300	10/21/2013	131.71	126.77	121.89
299-W14-17	567006.77	136218.35	124000	10/22/2013	131.66	129.22	125.65
299-W14-18	566897.47	136344.15	192500	5/7/2013	131.93	129.40	126.26
299-W14-6	566899.19	136100.84	54090	1/5/2011	132.00	129.62	126.71
299-W15-17	566306.89	135718.96	22000	1/21/2013	80.72	129.57	126.61
299-W15-37	566716.47	135248.32	59300	2/11/2013	134.20	84.77	82.49
299-W15-763	566809.21	136028.76	314500	5/6/2013	132.65	124.31	122.08
299-W15-765	566697.02	136373.06	131850	5/7/2013	132.79	125.97	122.92
299-W18-1	566421.52	135465.21	122000	1/30/2013	135.21	121.26	116.61
299-W18-15	566380.03	134733.48	47400	1/30/2013	135.18	110.45	96.73
299-W18-21	566097.70	134978.69	75266.67	2/5/2013	136.55	103.92	101.63
299-W18-22	566088.63	134990.16	18550	1/21/2013	78.24	78.62	72.52
299-W18-30	566870.76	135193.62	43440	1/5/2012	133.75	127.82	125.16
299-W18-40	566723.29	134996.41	63700	7/10/2013	134.30	98.97	93.64
299-W19-101	567939.14	135014.07	55800	9/17/2013	132.39	124.04	122.51
299-W19-105	567565.15	134745.44	10195	1/30/2013	132.81	129.23	126.56
299-W19-107	567997.87	135205.66	129000	9/17/2013	122.33	129.35	126.69
299-W19-12	566897.13	135059.45	76350	4/4/2013	133.74	129.28	126.63
299-W19-18	567360.65	135012.36	54900	3/16/2011	133.07	129.04	126.38

Annual Average Samples for Nitrate Plume							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W19-34A	567673.64	135012.25	23466.67	8/12/2013	115.74	128.99	126.32
299-W19-34B	567662.88	135010.65	10600	10/9/2013	89.18	129.26	126.59
299-W19-35	567992.10	135015.16	90100	1/30/2013	132.37	129.29	126.48
299-W19-36	567634.74	135017.05	313500	9/16/2013	132.70	129.02	126.05
299-W19-39	567901.74	134886.74	56400	1/30/2013	132.51	91.50	89.22
299-W19-4	567949.93	135350.79	9960	1/9/2012	131.89	87.33	85.05
299-W19-41	566896.53	135004.51	38600	4/4/2013	133.83	127.89	121.79
299-W19-42	566896.81	135122.90	52966.67	4/4/2013	133.68	125.86	117.09
299-W19-43	567699.15	135004.02	3165000	1/30/2013	132.64	131.48	127.29
299-W19-44	566896.95	135041.97	84100	1/18/2013	133.74	79.19	77.67
299-W19-45	566897.65	135087.65	99200	1/14/2013	133.68	130.66	126.06
299-W19-46	567782.67	134842.46	49650	1/30/2013	132.63	132.43	129.39
299-W19-47	566895.31	135161.86	64850	2/27/2013	133.72	131.95	128.91
299-W19-48	567822.93	134925.99	101000	1/30/2013	132.56	130.95	127.33
299-W19-49	567568.04	134894.38	34000	1/30/2013	132.81	129.82	125.99
299-W21-2	568124.39	134573.79	45200	5/7/2013	132.33	129.51	125.70
299-W22-26	567205.19	134465.23	76100	7/19/2012	133.23	130.39	126.58
299-W22-44	566955.99	134484.42	189000	2/7/2013	133.55	128.15	121.88
299-W22-45	566945.16	134292.51	80100	6/5/2012	133.68	130.60	127.19
299-W22-47	566908.74	134076.28	27633.33	3/4/2013	133.75	130.43	127.77
299-W22-48	566996.64	134425.10	51400	6/18/2012	133.50	133.81	133.05
299-W22-49	566904.38	134201.63	82600	6/18/2012	133.79	124.70	115.63
299-W22-50	566904.21	134139.71	76133.33	3/5/2013	133.78	130.51	125.80
299-W22-69	567179.60	134347.83	22300	6/10/2013	133.27	124.56	119.23
299-W22-72	567237.37	134207.08	40100	6/5/2013	133.17	115.98	98.51
299-W22-81	567000.26	134354.19	21400	6/10/2013	133.54	129.98	127.31
299-W22-82	567004.73	134167.07	62000	6/5/2013	133.57	130.10	127.42
299-W22-83	567009.08	134092.55	125000	6/5/2013	133.54	132.87	128.73
299-W22-84	566978.76	134547.62	21800	6/5/2013	133.52	115.85	96.48
299-W22-85	566902.90	134260.58	49100	7/29/2013	133.79	130.84	126.49
299-W22-86	567186.74	134041.31	63300	6/4/2013	133.19	129.58	124.63
299-W22-87	567541.75	134539.88	6600	2/12/2013	132.85	134.26	131.98
299-W22-88	568046.48	134390.53	14250	1/30/2013	132.39	73.51	68.79
299-W22-89	566906.77	134031.67	11600	6/4/2013	133.73	130.99	128.23
299-W22-94	567009.82	134429.75	30600	8/27/2013	132.19	131.19	128.08
299-W22-95	567170.54	134549.11	37500	8/20/2013	132.29	127.56	122.73
299-W22-96	567351.93	134145.58	18433.33	2/12/2013	133.02	128.45	124.09
299-W23-19	566759.12	134166.65	313333.33	3/4/2013	134.13	120.05	117.76

Annual Average Samples for Nitrate Plume							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W23-20	566717.67	134446.19	10600	6/4/2013	134.14	130.92	128.10
299-W23-21	566707.74	134293.99	81900	6/4/2013	134.25	129.56	126.04
299-W23-4	566628.22	134391.88	26500	1/30/2013	134.39	113.39	111.05
299-W26-13	566424.39	133293.60	29650	6/11/2013	134.52	87.71	86.23
299-W26-14	566682.69	133539.21	4465	5/7/2013	133.98	130.08	127.79
299-W27-2	566908.27	133670.35	4960	5/2/2013	81.81	129.73	126.75
299-W6-3	567118.18	137299.13	214000	6/26/2012	87.79	128.44	124.38
299-W6-6	567318.74	137638.72	25500	1/30/2012	88.20	122.93	113.97
299-W7-3	566292.03	137638.64	6730	5/8/2012	69.93	131.16	128.48
299-W7-4	566408.77	137308.24	25500	5/16/2011	135.17	131.00	128.33
699-30-66	569990.98	132739.19	20950	4/11/2013	91.28	128.81	124.99
699-32-62	571009.56	133215.93	21600	11/7/2012	128.12	129.94	126.13
699-32-72A	567942.68	133362.61	11700	4/15/2013	132.32	130.82	127.97
699-32-76	566683.94	133137.73	14150	5/2/2013	133.82	128.26	123.90
699-33-74	567472.65	133552.16	19700	4/11/2013	132.68	130.27	126.81
699-33-75	566907.78	133662.48	3605	5/2/2013	133.57	127.27	121.99
699-33-76	566621.21	133600.43	6350	5/2/2013	134.13	128.46	124.11
699-34-72	567859.97	133785.33	34000	1/24/2013	132.33	127.75	123.16
699-35-66A	569857.86	134099.24	23250	3/4/2013	130.10	129.89	126.55
699-35-78A	566063.59	134271.27	10236.67	1/4/2012	135.54	130.74	127.92
699-36-61A	571395.47	134557.11	18500	5/20/2013	123.81	130.95	128.22
699-36-70A	568466.68	134308.84	28633.33	3/6/2013	131.89	129.07	124.40
699-36-70B	568427.79	134625.98	94750	4/24/2012	131.85	132.35	131.21
699-38-65	570090.19	135039.85	198000	5/20/2013	128.21	133.41	133.03
699-38-68A	569180.31	134931.60	210000	2/7/2013	130.52	132.64	131.50
699-38-70B	568469.10	135331.04	20500	4/11/2013	98.03	128.80	124.34
699-38-70C	569084.11	135325.58	138000	6/11/2013	105.76	129.01	124.85
699-40-62	571164.26	135764.42	123000	1/18/2012	122.53	129.81	126.09
699-40-65	570057.48	135881.16	209000	4/15/2013	126.42	129.91	126.24
699-48-77C	566468.95	138086.80	492.25	1/15/2013	117.60	130.03	126.53
699-48-77D	566433.30	138119.27	2236	1/15/2013	134.70	129.66	125.81
299-W10-29	566082.98	136828.74	28200	3/4/2013	136.27	130.78	127.77
299-W10-30	566082.78	136739.33	34166.67	3/4/2013	136.25	129.77	126.36
299-W10-31	566266.44	136968.34	59300	3/4/2013	135.64	128.49	124.13
299-W10-33	566772.75	136610.19	16200	1/18/2013	86.87	127.37	122.36
299-W10-5	566578.60	136474.83	47150	4/4/2011	133.55	128.94	124.15
299-W11-13	567099.36	136424.03	159000	10/24/2013	131.64	126.85	121.51
299-W11-18	567181.92	137161.48	109000	10/3/2013	133.31	126.19	120.09

Annual Average Samples for Nitrate Plume							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W11-37	567635.18	137018.00	99600	2/13/2012	131.65	129.06	125.10
299-W11-43	567269.74	136971.04	422000	2/11/2013	87.06	133.36	132.59
299-W11-45	566992.84	136775.64	365500	6/21/2011	126.53	131.12	128.09
299-W11-46	566914.86	136773.27	353000	5/31/2012	129.01	130.94	127.63
299-W11-47	566933.82	136680.70	403000	5/2/2013	125.91	129.20	124.00
299-W11-48	566881.97	136846.18	313000	9/17/2013	124.17	130.92	127.33
299-W11-87	568141.08	136608.70	65300	4/30/2013	106.20	129.15	124.32
299-W11-88	567874.67	137113.09	56200	3/18/2013	84.72	80.27	78.72
299-W12-1	568331.25	137206.12	55300	2/10/2012	130.49	86.23	84.67
299-W13-1	568148.74	136048.60	16600	2/8/2013	104.30	86.57	84.94
299-W14-11	566901.69	136287.62	179000	5/7/2013	125.56	66.73	63.53
299-W14-19	566898.60	136135.06	137000	5/29/2013	132.10	132.88	130.59
299-W14-71	567733.43	135567.81	8410	8/12/2013	93.79	89.76	88.23
299-W14-72	567328.44	135941.28	22300	6/18/2012	89.62	120.08	112.03
299-W15-1	566554.31	135942.94	102000	9/19/2011	133.98	111.14	89.97
299-W15-11	566412.30	136000.72	86100	2/16/2011	134.63	129.16	124.49
299-W15-152	566309.40	135550.00	118000	1/21/2013	135.66	128.22	123.75
299-W15-224	566307.89	135926.08	111000	1/21/2013	135.25	128.45	123.32
299-W15-30	566304.62	135748.94	117000	1/18/2013	135.47	129.10	124.07
299-W15-31A	566377.11	135856.10	118000	4/5/2011	135.00	128.68	125.03
299-W15-33	566433.30	135966.70	108000	2/20/2013	134.57	126.36	122.62
299-W15-34	566613.41	135960.44	86800	5/11/2011	133.66	131.73	127.92
299-W15-35	566739.26	135853.07	96050	5/10/2011	133.33	121.94	120.07
299-W15-42	566581.83	135627.02	115000	1/6/2012	134.42	129.58	127.28
299-W15-43	566490.13	136210.03	29250	2/16/2011	134.01	128.12	124.38
299-W15-44	566685.02	136066.47	78350	5/7/2013	133.10	138.16	135.99
299-W15-45	566432.94	135961.16	101000	2/16/2011	134.58	119.00	109.80
299-W15-46	566752.23	135586.67	116000	3/18/2013	133.77	128.23	125.95
299-W15-49	566307.20	135972.91	104000	10/3/2013	135.21	95.74	93.45
299-W15-50	566793.47	135790.72	110500	5/13/2013	129.89	103.47	101.18
299-W15-7	566675.88	135920.20	46000	5/13/2013	133.46	119.81	117.09
299-W17-1	565310.68	135038.74	20600	4/6/2011	137.00	123.07	119.72
299-W18-16	566605.05	135425.69	419500	1/6/2012	134.52	99.07	93.74
699-36-93	561549.89	134415.60	49600	5/17/2012	140.33	121.15	118.73
699-43-69	568967.03	136488.48	31400	11/11/2013	104.41	126.82	124.11
699-44-64	570390.65	136897.43	68200	9/12/2012	123.58	106.93	104.65
699-45-69A	568729.30	137182.68	34550	1/4/2012	129.53	127.87	124.61
699-45-69C	568947.12	137233.81	186000	7/29/2013	109.22	133.35	131.82

Annual Average Samples for Nitrate Plume							
Well Name	EASTING	NORTHING	Sample Value (µg/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
699-48-71	568387.91	138056.94	385000	1/15/2013	131.14	114.55	111.50
699-48-77A	566413.23	137968.86	381.5	3/1/2011	134.87	133.17	131.65
699-50-74	567359.52	138646.73	9120	5/13/2013	131.98	126.64	121.31
699-50-85	564130.20	138669.32	23500	4/26/2012	135.51	134.13	132.76

Injection Wells used for Nitrate Plume						
Name	EASTING	NORTHING	Sample Value (µg/L)	Top Elev.	Middle Elev.	Bot. Elev.
299-W10-36	566019.19	137451.97	37022	113.16	96.38	79.60
299-W15-29	565921.17	135506.00	37022	137.97	130.75	123.54
299-W18-36	565908.61	135419.40	37022	138.18	132.12	126.06
299-W18-37	565904.37	135323.43	37022	138.22	132.25	126.28
299-W18-38	565892.13	135232.92	37022	138.09	130.78	123.46
299-W18-39	565885.56	135141.11	37022	137.81	132.63	127.45
299-W6-13	567313.33	137630.55	37022	111.93	96.72	81.51
299-W6-14	566939.64	137388.93	37022	113.40	91.33	69.26

Control Points/Soft Data used for Nitrate Plume						
Name	EASTING	NORTHING	Sample Value (µg/L)	Top Elev.	Middle Elev.	Bot. Elev.
299-W10-35	566024.73	136995.48	33300	113.86	94.05	74.24
299-W15-226	566033.30	136450.23	21500	112.41	95.65	78.88
299-W15-227	566034.04	135966.56	37022	111.23	94.49	77.75
299-W22-20	567593.09	133879.25	104000	132.64	124.72	116.81
CP40	571050.00	138585.00	0	122.18	119.18	116.18
CP41	567087.18	134471.15	100000	133.36	125.86	118.36
CP42	566932.81	134365.77	20000	133.65	121.15	108.65
CP43	567584.24	133952.88	40000	132.70	125.20	117.70
CP44	567719.38	133883.66	40000	132.52	125.02	117.52
CP45	567590.83	133809.49	40000	132.65	125.15	117.65
CP46	567463.93	133883.66	40000	132.82	125.32	117.82
CP51	566559.96	134232.68	40000	134.56	127.06	119.56
CP52[4]	567593.09	133879.25	10000			114.81
CP53	567568.04	135240.24	30000	132.56	127.56	122.56
CP at 299-W17-3	566925.89	135325.02	22350	133.41	132.65	131.89
CP at 699-45-69A	568476.23	136982.51	34550	129.53	126.82	124.11

[4] CP52 was only added to constrain the bottom extent – hence there is only one elevation for this control point.

Attachment D

Input Data for Three-Dimensional Interpolation of Iodine-129 Plume

Annual Average Samples for Iodine-129							
Well Name	EASTING	NORTHING	Sample Value (pCi/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W10-1	566663.10	136734.57	0.0858	11/15/2011	133.64	127.54	121.45
299-W10-14	566017.19	136608.90	0.00541	10/15/2013	82.77	79.72	76.67
299-W10-24	566885.43	136798.78	0.100367	1/31/2011	132.79	129.85	126.92
299-W10-27	566843.97	136441.78	0.204	2/6/2013	132.24	129.57	126.90
299-W10-4	566734.64	136578.08	1.195	11/5/2012	133.00	129.38	125.76
299-W11-41	566935.51	136677.78	0.309	11/15/2011	132.53	129.62	126.71
299-W11-42	566920.44	136745.67	0.378	5/12/2011	132.53	129.57	126.62
299-W14-13	566901.72	136282.38	0.644	5/29/2013	131.79	129.12	126.44
299-W14-14	566898.39	136181.05	0.123	10/21/2013	131.84	129.17	126.50
299-W14-15	566899.69	136230.65	1.84	5/4/2012	131.84	129.18	126.52
299-W14-16	567001.33	136318.48	0.0706	5/4/2012	131.67	129.01	126.35
299-W14-17	567006.77	136218.35	0.6	5/21/2012	131.59	128.92	126.25
299-W14-18	566897.47	136344.15	0.155	5/2/2012	131.79	129.12	126.46
299-W14-71	567733.44	135567.81	0		124.46	112.27	100.08
299-W15-17	566306.89	135718.96	0.01705	1/21/2013	80.77	79.24	77.72
299-W15-37	566716.47	135248.32	0.0829	2/8/2012	134.16	130.35	126.54
299-W15-40	566652.50	136204.97	0	1/15/2011	133.05	130.37	127.69
299-W15-763	566809.21	136028.76	0	10/22/2013	132.57	129.89	127.22
299-W15-765	566697.02	136373.06	0.202	5/7/2013	132.56	129.89	127.22
299-W18-1	566421.52	135465.21	0.0305	1/30/2013	135.20	115.86	96.51
299-W18-15	566380.03	134733.48	0.00964	1/30/2013	135.32	130.97	126.62
299-W18-21	566097.70	134978.69	0.4	2/1/2012	136.53	134.24	131.96
299-W18-22	566088.63	134990.16	0.0771	1/21/2013	78.22	73.50	68.77
299-W18-30	566870.76	135193.62	0.0829	7/13/2012	133.82	131.06	128.30
299-W18-40	566723.29	134996.41	0	7/16/2012	134.27	131.19	128.10
299-W19-101	567939.14	135014.07	0.954	9/17/2013	132.38	127.61	122.85
299-W19-105	567565.15	134745.44	0.12085	1/30/2013	132.84	128.42	124.01
299-W19-107	567997.87	135205.66	0.3	9/17/2013	122.25	119.96	117.68
299-W19-18	567360.65	135012.36	1.86	3/16/2011	133.11	129.59	126.08
299-W19-34A	567673.64	135012.25	0.322333	8/12/2013	115.75	113.40	111.06
299-W19-34B	567662.88	135010.65	0.0709	10/9/2013	89.17	87.69	86.22
299-W19-35	567992.10	135015.16	0.9355	1/30/2013	132.36	130.06	127.77
299-W19-36	567634.74	135017.05	0.4565	9/16/2013	132.70	129.68	126.66
299-W19-39	567901.74	134886.74	1.017	1/30/2013	132.46	128.42	124.38
299-W19-4	567949.93	135350.79	0	1/9/2012	131.96	122.97	113.99
299-W19-41	566896.53	135004.51	0.0163	10/8/2013	133.74	131.07	128.39
299-W19-43	567699.15	135004.02	0.499	1/30/2013	132.59	128.81	125.04
299-W19-46	567782.67	134842.46	0.6125	1/30/2013	132.61	128.25	123.89

Annual Average Samples for Iodine-129							
Well Name	EASTING	NORTHING	Sample Value (pCi/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
299-W19-47	566895.31	135161.86	0.03805	7/11/2012	133.68	130.21	126.74
299-W19-48	567822.93	134925.99	0.865	1/30/2013	132.55	127.23	121.91
299-W19-49	567568.04	134894.38	2.273333	1/30/2013	132.85	128.50	124.15
299-W19-6	567133.31	134693.77	0.00834		133.35	128.35	123.35
299-W21-2	568124.39	134573.79	3.53	5/7/2013	132.33	127.75	123.17
299-W22-26	567205.19	134465.23	2.66	6/7/2011	133.20	129.86	126.52
299-W22-44	566955.99	134484.42	0.0495	2/7/2013	133.57	130.76	127.95
299-W22-45	566945.16	134292.51	0.00186	6/5/2012	133.69	130.96	128.23
299-W22-47	566908.74	134076.28	0.161	6/6/2013	133.67	129.04	124.42
299-W22-48	566996.64	134425.10	0.0191	6/18/2012	133.44	132.30	131.15
299-W22-49	566904.38	134201.63	0	6/18/2012	133.73	133.35	132.97
299-W22-50	566904.21	134139.71	0.124	3/5/2013	133.72	132.57	131.43
299-W22-69	567179.60	134347.83	0	6/10/2013	133.33	128.83	124.32
299-W22-72	567237.37	134207.08	2.36	6/5/2013	133.19	129.02	124.85
299-W22-82	567004.73	134167.07	0.0582	6/5/2012	133.51	129.90	126.29
299-W22-83	567009.08	134092.55	0.361	6/5/2013	133.51	130.01	126.52
299-W22-86	567186.74	134041.31	0.1855	6/4/2013	133.11	129.72	126.32
299-W22-87	567541.75	134539.88	0.0524	2/12/2013	132.86	128.50	124.14
299-W22-88	568046.48	134390.53	6.58	1/30/2013	132.41	127.37	122.32
299-W22-89	566906.77	134031.67	0.0226	6/18/2012	133.67	128.89	124.10
299-W22-90	566961.39	134483.24	0.054967	1/9/2013	130.57	124.47	118.37
299-W22-91	566911.76	134134.53	0.383	1/9/2013	131.53	123.91	116.28
299-W22-92	567167.84	134029.77	0.191	1/9/2013	133.27	126.91	120.54
299-W22-95	567170.54	134549.11	0.0589	8/20/2013	132.29	126.18	120.08
299-W22-96	567351.93	134145.58	3.286667	2/12/2013	133.03	129.09	125.15
299-W23-19	566759.12	134166.65	1.78	7/9/2013	134.18	133.41	132.64
299-W23-20	566717.67	134446.19	0	6/4/2013	134.11	131.09	128.06
299-W23-21	566707.74	134293.99	0.0109	6/4/2013	134.19	130.92	127.65
299-W23-4	566628.22	134391.88	0	1/30/2013	134.37	129.17	123.97
299-W26-13	566424.39	133293.60	0.0505	11/30/2012	134.50	130.98	127.47
299-W26-14	566682.69	133539.21	0.00574	5/2/2012	133.88	129.11	124.34
299-W27-2	566908.27	133670.35	0.0344	5/2/2013	81.80	80.26	78.72
299-W6-3	567118.18	137299.13	0.0256	6/26/2012	87.73	86.17	84.61
299-W6-6	567318.74	137638.72	0	1/30/2012	88.17	86.54	84.91
299-W7-3	566292.03	137638.64	0.0167	5/8/2012	69.91	66.71	63.51
299-W7-4	566408.77	137308.24	0	5/16/2011	135.09	132.81	130.52
699-30-66	569990.98	132739.19	0	4/11/2013	91.28	89.75	88.23
699-32-62	571009.56	133215.93	0	11/7/2012	128.06	120.02	111.99

Annual Average Samples for Iodine-129							
Well Name	EASTING	NORTHING	Sample Value (pCi/L)	Sample Date	Top Elev.	Middle Elev.	Bot. Elev.
699-32-72A	567942.68	133362.61	0.107	4/15/2013	132.33	111.16	89.99
699-32-76	566683.94	133137.73	0	11/7/2012	133.69	129.13	124.56
699-33-74	567472.65	133552.16	0.319	4/11/2013	132.71	128.23	123.75
699-33-75	566907.78	133662.48	0.01085	5/2/2013	133.52	128.42	123.31
699-33-76	566621.21	133600.43	0.0506	10/15/2013	134.13	129.11	124.08
699-34-61	571395.88	133809.86	0.12		125.73	120.73	115.73
699-34-72	567859.97	133785.33	4.78	1/24/2013	132.35	128.65	124.95
699-35-66A	569857.86	134099.24	2.505	3/4/2013	130.15	126.41	122.67
699-35-78A	566063.59	134271.27	0.0447	1/4/2012	135.56	131.75	127.94
699-36-61A	571395.47	134557.11	0.33	5/20/2013	123.72	121.85	119.98
699-36-66B	569731.31	134469.02	6.165		130.19	125.19	120.19
699-36-70A	568466.68	134308.84	6.336667	3/6/2013	131.91	129.61	127.30
699-36-70B	568427.79	134625.98	3.65	4/24/2012	131.84	128.11	124.38
699-37-66	569730.31	134797.16	1.333333		129.64	124.64	119.64
699-38-65	570090.19	135039.85	0.647	5/20/2013	128.08	118.88	109.68
699-38-68A	569180.31	134931.60	1.32	2/7/2013	130.61	128.32	126.04
699-38-70B	568469.10	135331.04	0.14	4/11/2013	98.04	95.75	93.46
699-38-70C	569084.11	135325.58	0.81	6/11/2013	105.79	103.50	101.21
699-40-62	571164.26	135764.42	0.0654	1/23/2013	122.67	119.95	117.23
699-40-65	570057.48	135881.16	0.342	4/15/2013	126.42	123.06	119.71

Control Points/Soft Data for Iodine-129						
Name	EASTING	NORTHING	Sample Value (pCi/L)	Top Elev.	Middle Elev.	Bot. Elev.
299-W22-79	567629.54	134464.85	2.18	132.77	129.74	126.71
299-W22-9	567739.69	134042.73	30.1	132.57	127.57	122.57
699-35-70	568566.48	133987.58	37.1	131.84	131.08	130.32
699-36-67	569279.50	134425.02	15.4	130.98	125.98	120.98
699-37-68	569273.69	134629.48	3.07	130.82	125.82	120.82
CP1	570347.83	134679.10	1.25	128.00	123.00	118.00

Attachment E

Excel® Spreadsheet with Plume Values Extracted at Model Grid Points

Spreadsheet 'ECF-200UP1-14-0019-r0_content_Attachment1.xlsx' is as an electronic attachment to this ECF.

Attachment F

Software Installation and Checkout Forms for Controlled Use Software