# Continental Steel Superfund Site—Contract 5 Hydrogeological (Groundwater Sampling) Investigation

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## Introduction

This memorandum serves to document activities associated with Contract 5 Hydrogeological (Groundwater Sampling) Investigation of the Continental Steel Superfund Site (CSSS) remedial action (RA) project, Work Assignment #056-RARA-05BW funded by the American Recovery and Reinvestment Act (ARRA). Contract 5 includes the groundwater sampling portion of the field investigations. Groundwater monitoring wells are located at the Markland Avenue Quarry, Main Plant Area, and site-wide locations including neighboring commercial, industrial and residential areas. Work associated with these investigations commenced on September 20, 2009 and was completed on November 10, 2009.

This memorandum includes the following:

- Analytical data from the groundwater sampling round completed in the Fall of 2009 (Appendix A)
- Description of specific field activities performed
- Deviations to the Quality Assurance Project Plan (QAPP; May 2001) and Work Plan (July 2009)
- Figures presenting contaminant plume configuration and groundwater surface maps;
- Data usability summary (provided in Appendix B)
- Summary tables of sample results and field observations
- Re-evaluation of the groundwater site model
- Summary of modifications to the groundwater extraction design based on the groundwater model re-evaluation.

The data usability summary has not been included in this draft because not all of the validated data have been received from USEPA. In addition, Appendix A currently contains the draft data reports received from the Contract Laboratory Program (CLP) laboratories and will be updated upon receipt of the final data reports.

## Personnel

Personnel associated with Contract 5 Hydrogeological Investigations and when they were in the field are listed in Table 1 below.

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Personnel associated with the Contract 5 Hydrogeological Investigation and when they were at the site are listed in Table 1.

## Field Activities

The sampling activities were conducted in the Markland Avenue Quarry Area, Main Plant Area, and from the site-wide monitoring well network. Monitoring well locations are presented in Figure 1. The sampling included monitoring wells from each of the three aquifers (upper, intermediate, and lower).

Groundwater samples were analyzed for all of the following: volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and target analyte list (TAL) metals. The samples were analyzed in accordance with the QAPP except as noted below.

### Equipment and Materials

Low-flow purge and sampling procedures were used to the extent possible. The following types of equipment were used to collect representative groundwater samples while minimizing the amount of purge water generated:

- The bladder pump, which is a positive displacement pump, was operated by using a 12-volt power supply and not an external gasoline generator. This pump was used to sample most of the deeper and intermediate wells.
- A Grundfos Redi-Flo® pump was used to develop most of the wells and to sample the deeper wells using low-flow sampling techniques.
- The peristaltic pump, used to sample shallow wells, provides the advantage of non-dedicated sampling equipment. Bailers were only used when a low-flow rate was unable to be achieved.
- Westbay® monitoring wells are specially installed wells that obtain samples from specific ports located at designated depths within each well. This allows for discrete sampling of multiple aquifers from one individual well.

Additional field instruments include those that measure water conditions (pH, specific conductance, temperature, dissolved oxygen, turbidity, etc.). The field instruments were calibrated as specified in Section 2 of the QAPP. The parameters listed in Table 2 were measured with an in-situ TROLL® 9500 water quality meter with an associated flow-through cell.

### Sampling Procedures

The standard operating procedure (SOP) for groundwater sampling can be found in SOP No. 7 of the QAPP. Samples were obtained through bladder pumps, Grundfos pumps, peristaltic pumps, disposable bailers, or specified Westbay MP System® equipment and secured in appropriate bottles. Westbay MP System®-type well systems required the use of personnel trained in Westbay MP System® monitoring wells for sample collection. Metals samples were filtered onsite using 0.45 micrometer (µm) filters.

Figure 1 and Table 2 provide details about sample locations, samples collected, sample method, sample completion dates, and observations. Monitoring well ending parameters and final water levels are presented in Table 3. Table 4 presents selected analytical results including all analytes that have exceeded the constituents of potential concern (COPC) remediation goals, and Table 5 presents details about individual wells and the reasons why wells were not sampled.

Before sampling, the wells were first redeveloped primarily using Grundfos pumps. The sediment present at the bottom of each well was removed using a pump or a disposable bailer. The water was pumped until the water quality parameters stabilized with particular efforts made to meet the turbidity goal of below 10 nephelometric turbidity units (NTUs). Development was continued until the well was pumped dry or 10 casing volumes were removed from the well. The groundwater in several wells did not recover after development; consequently, the wells were not sampled. Recharge in several wells was not sufficient for sampling using low-flow techniques and were sampled using a disposable bailer after the wells recovered from development. Wells were sampled at least 72 hours after the wells were redeveloped.

Trip blanks, equipment blanks, duplicates, and matrix spike (MS)/matrix spike duplicate (MSD) samples were included for quality assurance/quality control measures. Equipment blanks were collected from the Grundfos, bladder pumps, and Westbay well sampling equipment due to the use of non-dedicated equipment.

Tubing used during development in conjunction with the Grundfos pumps was dedicated to each individual well, reused for low-flow sampling, and, in some cases, left in the well for reuse in subsequent rounds. The tubing arrays and pumps were decontaminated according to the process indicated in the work plan. To the extent possible, the wells were sampled according to the expected levels of contamination beginning with the least contaminated and followed by those with higher contaminant concentrations.

## Deviations

Deviations to the sampling specified in the Field Sampling Plan (FSP) and the QAPP are summarized in Table 5.

Samples collected from Wells IA-118, UA-118, IA-131, LA-131, and LA-102C were mistakenly analyzed by the laboratory using a higher detection limit. The analysis was specified for trace VOC analysis with a detection limit of 0.5 micrograms per liter (µg/L), but the laboratory analyzed the samples using characterization analysis with a detection limit of 5 µg/L. Because the detection limits were still below the action limits and results were comparable to historic measurements, the wells were not resampled. The detection limit in a second group of samples was higher than is called for in the QAPP due to elevated concentrations of VOCs, forcing dilutions at the lab.

## Changes from Long-term Monitoring Well List

Of the 85 wells included in the long-term monitoring list, only 58 total wells were sampled during the groundwater event. The 27 wells that were not sampled include the following:

- Wells that have been abandoned in the Main Plant Area: Wells UA-08, UA-12, UA- 26, UA-134, and the well clusters of 122 and 133.
- A group of upper aquifer wells that were dry, many located in the vicinity of the Markland Avenue Quarry: Wells UA-03, EW-28, UA-110, UA-111, UA-114, UA-115, and UA-117.
- Two additional wells that remained dry after development and prior to sampling: Wells UA-109 and UA-124.
- A group of wells that are known to have been abandoned: Wells UA-131, UA-116, UA-113, LA-117, and IA-108.
- Four wells that could not be located: Wells EW-16, UA-108, IA-127, and LA-127.

## Other Observations

Other observations that were noted during the sampling effort are as follows:

- Well locks at the site proved to be too corroded to be unlocked and reused and had to be cut off to access wells. New brass locks keyed alike were placed on the monitoring wells to secure access to the wells.
- Upper aquifer wells in the vicinity of the Markland Avenue Quarry were dry. Backfilling at the Markland Avenue Quarry is nearly complete and dewatering in the area has ceased. It is anticipated that water levels in this area will rebound and may be available for sampling during the next round.

## Data Observations and Trends

### Groundwater Contours

Interpretation of the groundwater contours for the upper, intermediate, and lower aquifers are presented on Figures 2, 3, and 4, respectively.

### Upper Aquifer Groundwater Contour Map

The upper aquifer groundwater contour map (Figure 2) appears similar to historic water levels with respect to gradient direction and approximate elevation. The major difference involves the Markland Quarry; at the time of the water level measurements, the monitoring wells were dry due to dewatering activities at the quarry. The dewatering activities likely caused a groundwater depression in the vicinity of the quarry. This contrasts with historic water levels (October 2001) that showed a groundwater mound due to recharge from the water-filled quarry. This is evidenced by the localized gradient in the area around the Markland Avenue Quarry that shows a change from a radial pattern to a mostly westward flow component. The remaining groundwater flow pattern appears to be controlled by Wildcat Creek and the ongoing pumping in the Martin-Marietta Quarry west of CSSS.

### Intermediate Aquifer Groundwater Contour Map

The intermediate aquifer groundwater contour map (Figure 3) appears to differ in two key areas when compared to the previous groundwater contour map from October 2001. The groundwater elevation in the vicinity of the Markland Avenue Quarry exhibits a depression due to the dewatering activities. The second area that is substantially different is located at Well IA-119, north of the lagoon area, which shows a groundwater elevation significantly higher than the water level from October 2001. The water level measurement at this location is 17 feet higher. The contour map on the western portion of the site is similar in direction and gradient to historical contours. The groundwater in the intermediate aquifer is strongly controlled by the ongoing pumping in the Martin-Marietta Quarry to the west of CSSS. Water level measurements collected from the Westbay® wells on November 9 and 10, 2009, were included in the water level map. Water levels from Monitoring Wells UA-20, UA-18, LA-102C, and LA-105C were included in the intermediate measurements because they are actually screened in the intermediate aquifer unit. Inclusion of these wells on the intermediate aquifer map is consistent with previous maps.

### Lower Aquifer Groundwater Contour Map

The lower aquifer groundwater contour map (Figure 4) is similar to the October 2001 groundwater contour map for the western portion of the site. The eastern portion is dominated by drawdown caused by the dewatering of the Markland Avenue Quarry. The potentiometric surface is on average about 3 to 4 feet higher than the 2001 elevations of groundwater, but the gradient and direction of flow is similar. Water level measurements from the Westbay® wells collected on November 9 and 10, 2009, were included in the lower aquifer map. Six wells (LA-105E, LA-118, LA-120, LA-121, LA-126, and LA-128) were excluded from the lower aquifer map as outliers, because they are screened at different depths.

## Contaminant Plume Maps

### Upper Aquifer Contaminant Plume

Analytical results from the groundwater sampling in the upper aquifer show an overall decline in levels of contamination. Figures 5, 6, 7, and 8 show the contamination plumes for trichloroethene (TCE), cis-1,2-dicholorethene (cis 1,2-DCE), vinyl chloride, and manganese, respectively.

TCE levels have declined in most areas of the site, decreasing on average by 19 percent. The highest concentration of TCE (450 µg/L) was detected in the sample from Well UA-024. This well is located downgradient of the Main Plant Area where historic spills have taken place. Two areas of TCE contamination are indicated by the groundwater data—one at the Markland Avenue Quarry and the other at the Main Plant Area. The wells located near the quarry were dry, so levels of contamination in the vicinity of the quarry are estimated based on previous results.

Cis-1,2-dichloroethene (DCE), a known breakdown product of TCE, was detected at the site with an average decrease of 39 percent from 2001 results. The areas with the highest detected levels of cis-1,2–DCE are located downgradient of the Main Plant Area. The cis-1,2-DCE concentrations from the area northwest of the Markland Avenue Quarry showed the most significant decrease. At Wells UA-028 and UA-121, levels decreased from 240 and

210 µg/L to 61 and 89 µg/L, respectively. For Well UA-28, the cis-1,2-DCE levels dropped below the remediation goal of 70 µg/L.

Vinyl chloride (VC) is a known breakdown product of cis-1,2-DCE that has also been detected at CSSS. The levels of VC have decreased since 2001 on average by 29 percent. Similar to cis-1,2-DCE, the levels of VC have decreased in the vicinity of Wells UA-121 and UA-028; however, VC has migrated downgradient to Well UA-105 (7.7 µg/L) where it was previously not detected. VC levels in Well UA-120, which is near a historic VOC-contaminated soil area near the northwest corner of the Main Plant, increased from 140 to 760 µg/L.

Tetracholorethene (PCE), a chlorinated solvent detected historically at the site, was found in levels that exceed the remedial goal at only three wells within the site (IA-126, UA-124, and UA-28). Due to few exceedances of PCE, maps were not created for this analyte.

### Intermediate and Lower Aquifer Contaminant Plume

The plume maps for the intermediate and lower aquifers are presented in Figures 9 though 12 and Figures 13 through 16, respectively. These aquifers will not be discussed in detail as they are not the subject of the RA. The contamination of the intermediate and lower groundwater aquifers are being addressed through continued pumping at the Martin-Marietta Quarry, invoking a technical impracticability (TI) waiver, and using institutional controls in the form of deed and groundwater use restrictions.

## Groundwater Model Re-evaluation

The original groundwater model was completed as part of the basis of design detailed in the *Basis of Design Report* (CH2M HILL, 2004) and contained information from groundwater sampling (CH2M HILL, 2003), pump test results (CH2M HILL, 2002), and the initial *Remedial Investigation Report* (CDM, 1997). The re-evaluation of the groundwater model focused on the upper aquifer (UA) groundwater and incorporated the most recent physical and analytical data from the fall 2009 groundwater sampling event. This data was augmented with historical pumping test data and other physical parameters to evaluate groundwater conditions at the site.

The shallow aquifer flow system was re-evaluted using a simple, two-dimensional analytical model (Win Flow), which is the same model that was used previously. The model was evaluated to identify any refinements to the design of the extraction well configuration. The specific objectives for the re-evaluation are listed below:

- Estimate the volume of water that will need to be discharged to the Kokomo Waste Water Treatment Plant.
- Determine if the selected locations for extraction wells will be effective in the removal of the most heavily contaminated plumes.
- Identify alternate or additional configurations for maximizing the efficiency of the collection system, while still capturing and containing the entire area of contaminated groundwater.

The original groundwater extraction design was based upon a groundwater model prepared in 2004 using existing groundwater and contamination data to determine the best location for extraction wells. Due to a lengthy time period since the design of the remedial action (RA), it was determined that the extraction design should be re-evaluated using a current set of groundwater data.

The data collected in October 2009 was used to update the parameters in the groundwater model. A major difference between the current and previous model is that the Markland Avenue Quarry will no longer be a source of infiltration. The quarry has or will be filled in by the spring of 2010 when the extraction wells are scheduled for installation. The acid lagoon area will also be filled in and will not be an area of infiltration.

### Initial Calibration

The contour map of the water surface was created and calibrated to achieve the best possible fit to water levels in October 2009 (Figure 17). Information collected from the U.S. Geological Survey (USGS) surface water gauge located along Wildcat Creek and from dewatering activities being conducted at the Martin-Marietta and Markland Quarries were used to augment the water level contour. Although data from the USGS surface water gauge was used, elevations of the surface water upstream of the gauge were estimated and modified to match the groundwater elevations. Infiltration in the acid lagoon area was included in the calibration because it was an active infiltration source at the time of the water level measurements. All other physical parameters were the same as used in the previous model.

### Pre-Extraction Conditions

The groundwater was modeled in the area of the CSSS to determine the condition of the groundwater potentiometric surface as it would appear after the Markland Avenue Quarry and acid lagoons are filled and are no longer sources of infiltration or dewatering (Figure 18). Infiltration into the Markland Avenue Quarry and the acid lagoon area was deleted from the model, so no infiltration would occur in these areas; water levels from wells affected by dewatering around the Markland Avenue Quarry were not included. The Martin-Marietta Quarry was included as it is anticipated that operations will continue during and after completion of the extraction well RA. The groundwater mound that influenced groundwater flow direction in the area around the Markland Avenue Quarry before dewatering does not appear in this model. The Wildcat Creek and Martin-Marietta Quarry have the most influence on the groundwater flow at this stage of the model design.

### Extraction Well Configuration

The effectiveness of the extraction well configuration established in the basis of design (CH2M HILL, 2004) was evaluated using the groundwater conditions and the cis-1,2-DCE concentrations from the fall of 2009 and compared with the new modeled groundwater contours (Figure 19). The model results indicate that the previous design configuration does not capture the extent of the affected groundwater. The extraction wells in the Millbrook Lane area and west of the Markland Avenue Quarry near South Berkley Road will not capture the groundwater plume in these areas. The extraction wells around the Markland Avenue Quarry and West Bank Wildcat Creek (northwest of the Markland Avenue Quarry) appear to be capturing contamination from the Markland Avenue Quarry.

### Extraction Well Configuration Modifications

The configuration of the extraction wells was modified to capture affected groundwater for the existing conditions (Figure 20):

- **Markland Avenue Quarry.** The one extraction well planned for installation at the Markland Avenue Quarry was moved from the middle of the quarry to near the southwest corner of the quarry in an attempt to capture the highest historical contamination levels at the quarry. This well is planned to pump at 10,000 cubic feet per day (cfd) or 52 gallons per minute (gpm)/74,800 gallons per day (gpd). The well will not entirely capture all groundwater from the quarry, especially the north side of the quarry, but groundwater from that area will be extracted by the East Bank Wildcat Creek extraction wells. Drawdown of the groundwater at this location is estimated to be 6.5 feet.

- **East Bank Wildcat Creek, Northwest of Markland Avenue Quarry.** This extraction system consists of seven extraction wells along West Park Avenue. One additional well was added to the six originally designed for this location to extend the capture area near Wildcat Creek. The wells are separated by 125 feet and each well will be pumped at a rate of 1,540 cfd for a total of 10,780 cfd or 80,634 gpd (56 gpm) for the well group. The additional well was added east of the original well locations to intercept the contamination plume based on the changed groundwater conditions. The drawdown in the wells on average is estimated as 2 to 2.5 feet.

- **Millbrook Lane Area.** The five extraction wells in the Millbrook Lane area were removed and redistributed along West Markland Avenue. These wells were removed due to decreasing trends of contamination in the northern part of the plume near Well UA-121.

- **West Markland Avenue.** The extraction well system at this location has been expanded by two wells for a total of eight wells to increase capture at the downgradient edge of the plume. The extraction wells were extended approximately 650 feet to the east of where the previous wells were located. The wells are anticipated to be run at 2,000 cfd with a spacing of 125 feet; this will produce a total of 17,000 cfd or 126,160 gpd (88 gpm). The drawdown in this group of wells is expected to be from 5 to 6 feet below the initial water table.

A total of 37,780 cfd or 282,594 gpd (196 gpm) are estimated for the entire groundwater extraction system at these pumping rates.

## References

CDM (Camp Dresser & McKee). 1997. *Continental Steel Superfund Site Remedial Investigation Report.*

CH2M HILL. 2004. *Continental Steel Superfund Site – Sitewide Groundwater (OU1) Basis of Design*.

CH2M HILL. 2003. *Continental Steel Superfund Site – Contract 5 Hydrogeological Investigations (Groundwater Flow and Quality Conditions).* Technical Memorandum.

CH2M HILL. 2002. *Continental Steel Superfund Site – Contract 5 Hydrogeological Investigations (Pumping Test Analysis).* Technical Memorandum.

Environmental Simulations, Inc. 1995. *WinFlow Version 1.07*. Developed by Jim Rumbaugh and Doug Rumbaugh.

U. S. Environmental Protection Agency (USEPA) and Indiana Department of Environmental Management (IDEM). 1998. *Record of Decisions: Continental Steel Corporation Superfund Site. Kokomo, Howard County, Indiana*.

# Tables

TABLE 1
Project Staff and Field Dates

| Staff | Role | Field Dates |
|---|---|---|
| Michael Niebauer/CH2M HILL | Assistant Site Manager | September 23 through September 26, September 30 through October 7, November 9 and 10 |
| Dave Shekoski/CH2M HILL | Sample Manager | September 23 through September 27 and October 5 through October 7 |
| Adrienne Unger/CH2M HILL | Contract 5 Sample Team Lead, Project Chemist | September 23 through September 7; November 9 and 10 |
| Steve Chumney/CH2M HILL | Contract 5 Sample Team Lead | September 4 through October 1 |
| David Reamer/CH2M HILL | Westbay Well Specialist | November 9 and 10 |

**TABLE 2**

Groundwater Sampling Table

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| Location Identifier | Target Area | Target Aquifer | Sample Date | Sample Method | Comments | Well Diameter | Analyses | | | QA/QC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | VOCs | TAL Metals (Manganese) | PAHs | DUP | MS/MSD | EB |
| **Standard Monitoring Wells** | | | | | | | | | | | | |
| UA-01 | Site-wide | Upper | 10/6/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| UA-02 | Site-wide | Upper | 10/6/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| UA-03 | Site-wide | Upper | NA | NA | dry (Markland Avenue Quarry) | 2" | | | | | | |
| UA-08 | Main Plant | Upper | 9/24/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| EW-11 | Site-wide | Upper | 10/6/2009 | Bailer | | | X | X | X | | | |
| EW-12 | Main Plant | Upper | 10/6/2009 | Low Flow (peristaltic) | | 3" | X | X | X | X | | |
| UA-12 | Main Plant | Upper | 9/25/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| UA-14 | Main Plant | Upper | 9/30/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| EW-16 | Site-wide | Intermediate | NA | NA | unable to locate (most likely abandoned) | | | | | | | |
| UA-18 | Site-wide | Intermediate | 10/6/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| UA-20 | Site-wide | Intermediate | 10/5/2009 | Low Flow (Grundfos) | | | X | X | X | | | |
| UA-24 | Main Plant | Upper | 10/6/2009 | Low Flow (Grundfos) | substitution for UA-113 | 2" | X | X | X | | X | |
| UA-26 | Main Plant | Upper | NA | NA | abandoned (main plant) | | | | | | | |
| EW-28 | Main Plant | Upper | NA | NA | Dry | | | | | | | |
| UA-28 | Site-wide | Upper | 10/1/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| LA-102C | Site-wide | Intermediate | 9/24/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-104E | Main Plant | Lower | 10/2/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | X | |
| UA-105 | Site-wide | Upper | 9/30/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| LA-105C | Site-wide | Intermediate | 9/30/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| LA-105E | Site-wide | Lower | 9/30/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| UA-108 | Markland Avenue Quarry | Upper | 9/25/2001 | NA | unable to locate (most likely abandoned) | 2" | | | | | | |
| IA-108 | Markland Avenue Quarry | Intermediate | NA | NA | Abandoned | | | | | | | |
| LA-108 | Markland Avenue Quarry | Lower | 10/1/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| UA-109 | Markland Avenue Quarry | Upper | 10/1/2001 | NA | dry (Markland Avenue Quarry) | 2" | | | | | | |
| IA-109 | Markland Avenue Quarry | Intermediate | 10/6/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-109 | Markland Avenue Quarry | Lower | 10/6/2009 | Bailer | | 2" | X | X | X | | | |
| UA-110 | Markland Avenue Quarry | Upper | 9/20/2001 | NA | dry (Markland Avenue Quarry) | 2" | | | | | | |
| IA-110 | Markland Avenue Quarry | Intermediate | 10/6/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-110 | Markland Avenue Quarry | Lower | 10/6/2009 | Bailer | | 2" | X | X | X | X | | |
| UA-111 | Markland Avenue Quarry | Upper | 9/25/2001 | NA | dry (Markland Avenue Quarry) | 2" | | | | | | |
| IA-111 | Markland Avenue Quarry | Intermediate | 10/6/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-111 | Markland Avenue Quarry | Lower | 10/2/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| UA-112 | Site-wide | Upper | 10/7/2009 | Bailer | | 2" | X | X | X | | | |
| UA-113 | Site-wide | Upper | NA | NA | Borehole abandoned; no well installed. | | | | | | | |
| UA-114 | Site-wide | Upper | NA | NA | Insufficient water in well (<0.3 feet). | | | | | | | |
| IA-114 | Site-wide | Intermediate | 9/30/2009 | Low Flow | | 2" | X | X | X | | | |
| LA-114 | Site-wide | Lower | 10/1/2009 | Bailer | | 2" | X | X | X | | | |
| UA-115 | Site-wide | Upper | 9/20/2001 | NA | dry (Markland Avenue Quarry) | 2" | | | | | | |
| UA-116 | Site-wide | Upper | NA | NA | Borehole abandoned; no well installed. | | | | | | | |
| IA-116 | Site-wide | Intermediate | 9/30/2009 | Low Flow | | 2" | X | X | X | | | |
| LA-116 | Site-wide | Lower | 9/24/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | X | |
| UA-117 | Site-wide | Upper | 9/26/2001 | NA | dry - several feet of sediment | 2" | | | | | | |
| IA-117 | Site-wide | Intermediate | 10/6/2009 | Bailer | | 2" | X | X | X | | | |
| LA-117 | Site-wide | Lower | 9/21/2001 | NA | Abandoned | 2" | | | | | | |
| UA-118 | Site-wide | Upper | 9/23/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| IA-118 | Site-wide | Intermediate | 9/23/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-118 | Site-wide | Lower | 9/23/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| UA-119 | Site-wide | Upper | 10/1/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| IA-119 | Site-wide | Intermediate | 10/1/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |

**TABLE 2**

Groundwater Sampling Table

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | | | | | Analyses | | QA/QC | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Target Area** | **Target Aquifer** | **Sample Date** | **Sample Method** | **Comments** | **Well Diameter** | **VOCs** | **TAL Metals (Manganese)** | **PAHs** | **DUP** | **MS/MSD** | **EB** |
| LA-119 | Site-wide | Lower | 10/1/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| UA-120 | Main Plant | Upper | 10/5/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| IA-120 | Main Plant | Intermediate | 10/5/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| LA-120 | Main Plant | Lower | 10/5/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| UA-121 | Site-wide | Upper | 9/24/2009 | Low Flow (peristaltic) | | 2" | X | X | X | X | | |
| LA-121 | Site-wide | Lower | 10/6/2009 | Bailer | | 2" | X | X | X | | | |
| IA-122 | Main Plant | Intermediate | 9/12/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| LA-122 | Main Plant | Lower | 9/12/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| IA-123 | Main Plant | Intermediate | 9/30/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| LA-123 | Main Plant | Lower | 9/30/2009 | Bailer | | 2" | X | X | X | | | |
| UA-124 | Site-wide | Upper | 9/30/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| IA-124 | Site-wide | Intermediate | NA | NA | dry - did not recover after development | 2" | | | | | | |
| LA-124 | Site-wide | Lower | 9/30/2009 | Low Flow (Grundfos) | | 2" | X | X | X | X | | |
| IA-125 | Site-wide | Intermediate | 10/1/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-125 | Site-wide | Lower | 10/1/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| IA-126 | Main Plant | Intermediate | 10/1/2009 | Low Flow (peristaltic) | | 2" | X | X | X | | | |
| LA-126 | Main Plant | Lower | 10/1/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| IA-127 | Main Plant | Intermediate | 9/18/2001 | NA | unable to located (most likely abandoned) | 2" | | | | | | |
| LA-127 | Main Plant | Lower | 9/26/2001 | NA | unable to located (most likely abandoned) | 2" | | | | | | |
| IA-128 | Main Plant | Intermediate | 10/2/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| LA-128 | Main Plant | Lower | 10/2/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| IA-129 | Main Plant | Intermediate | 10/1/2009 | Low Flow (peristaltic) | | 2" | X | X | X | X | | |
| LA-129 | Main Plant | Lower | 10/1/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| IA-130 | Main Plant | Intermediate | 10/2/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| LA-130 | Main Plant | Lower | 10/6/2009 | Low Flow (bladder) | | 2" | X | X | X | | | |
| UA-131 | Site-wide | Upper | 7/30/2001 | NA | Abandoned | 2" | | | | | | |
| IA-131 | Site-wide | Intermediate | 9/23/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-131 | Site-wide | Lower | 9/23/2009 | Low Flow (Grundfos) | | 2" | X | X | X | | | |
| LA-132 | Site-wide | Lower | 10/6/2009 | Low Flow (bladder) | | 2" | X | X | X | X | | |
| UA-133 | Main Plant | Upper | 9/26/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| IA-133 | Main Plant | Intermediate | 9/18/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| LA-133 | Main Plant | Lower | 9/27/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| UA-134 | Main Plant | Upper | 9/26/2001 | NA | abandoned (main plant) | 2" | | | | | | |
| *Westbay MP System* | | | | | | | | | | | | |
| LA-01 | Site-wide | Intermediate | 11/9/2009 | Westbay MP System | | 2" | X | X | X | | | |
| LA-01 | Site-wide | Lower | 11/9/2009 | Westbay MP System | | 2" | X | X | X | | | |
| LA-04 | Main Plant | Intermediate | 11/9/2009 | Westbay MP System | | 2" | X | X | X | | | |
| LA-04 | Main Plant | Lower | 11/9/2009 | Westbay MP System | | 2" | X | X | X | | | |
| LA-05 | Main Plant | Intermediate | 11/10/2009 | Westbay MP System | | 2" | X | X | X | | | |
| LA-05 | Main Plant | Lower | 11/10/2009 | Westbay MP System | | 2" | X | X | X | | | |

Notes:

a. Sample methods; "Low Flow"= Low impact aquifer sampling, "Bailer"=disposable bailer, "Westbay MP System"=Westbay multiple port system.

b. "VOCs" represents "Volatile Organic Compounds".

c. "TAL Metals" represents "Toxic Analyste List (Inorganics)".

d. "PAH's" represent "Polynuclear Aromatic Hydrocarbons".

e. Refer to *Quality Assurance Project Plan, Continental Steel Superfund Site* (May 2001) for specific analytical test methods used.

f. VOCs, TAL Metals and, PAHs analyses completed by USEPA's Contract Laboratory Program.

**TABLE 3**

Groundwater Sampling Field Parameter Summary

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | | | Ending Field Parameters | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location Identifier | Sample Date | Well/Port Depth (ft) | Initial DTW (ft) | Sampling DTW (ft) | pH | Temp (C) | Conductance (µS/cm) | DO (mg/L) | Turbidity (NTU) | ORP (mV) | 10/5/2009 DTW Measurements (ft) |
| **Standard Monitoring Wells** | | | | | | | | | | | |
| UA-01 | 10/6/2009 | 20.25 | 13.56 | 15.53 | 7.01 | 17.73 | 822 | 5.34 | 19.20 | -10.0 | 6.32 |
| UA-02 | 10/6/2009 | 31.37 | 22.60 | 21.58 | 7.12 | 15.62 | 739 | 4.00 | 2.40 | 12.0 | 17.66 |
| UA-03 | NA | 14.48 | NA | NA | NA | NA | NA | NA | NA | NA | 14.46 |
| UA-08 | 9/24/2001 | 21.67 | NA | NA | NA | NA | NA | NA | NA | NA | 12.47 |
| EW-11 | 10/6/2009 | | | | 6.28 | 13.78 | 2930 | NA | 119.50 | NA | |
| EW-12 | 10/6/2009 | 19.97 | 16.20 | 17.30 | 6.33 | 13.46 | 2371 | 0.46 | 64.90 | -120.0 | 14.10 |
| UA-12 | 9/25/2001 | 34.43 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-14 | 9/30/2009 | 42.92 | 20.60 | 21.23 | 5.78 | 14.43 | 1090 | 2.00 | 18.70 | -76.4 | 19.61 |
| EW-16 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-18 | 10/6/2009 | 57.31 | 41.20 | 43.20 | 7.38 | 13.62 | 1169 | 1.85 | 2.70 | 61.0 | 39.92 |
| UA-20 | 10/5/2009 | 65.20 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-24 | 10/6/2009 | | 12.59 | 13.18 | 6.85 | 14.55 | 846 | 1.50 | 0.20 | -65.0 | |
| UA-26 | NA | 21.40 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EW-28 | NA | 33.20 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-28 | 10/1/2009 | 20.34 | 10.05 | 10.10 | 6.83 | 18.65 | 1583.00 | 1.00 | 14.00 | 53.00 | 7.11 |
| LA-102C | 9/24/2009 | 64.15 | 20.60 | 31.85 | 6.98 | 15.68 | 869 | 5.29 | 0.00 | -64.0 | 17.02 |
| LA-104E | 10/2/2009 | 136.14 | 68.70 | 75.40 | 6.65 | 14.56 | 743 | 0.06 | 1.30 | -87.1 | 71.15 |
| UA-105 | 9/30/2009 | 44.60 | 24.90 | 25.02 | 6.42 | 13.33 | 2573 | 1.22 | 24.00 | -64.0 | 23.54 |
| LA-105C | 9/30/2009 | 72.68 | 39.08 | 39.07 | 6.81 | 13.99 | 1025 | 1.52 | 9.00 | -64.0 | 39.16 |
| LA-105E | 9/30/2009 | 127.75 | 64.45 | 64.46 | 6.82 | 14.18 | 1073 | 1.58 | 103.00 | -99.0 | 66.74 |
| UA-108 | 9/25/2001 | 37.49 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-108 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| LA-108 | 10/1/2009 | 132.48 | 28.70 | 39.30 | 6.78 | 43.05 | 467 | 0.17 | 0.60 | -101.7 | 21.15 |
| UA-109 | 10/1/2001 | 12.45 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-109 | 10/6/2009 | 85.26 | 12.79 | 13.31 | 7.62 | 14.07 | 556 | 0.92 | 27.8 | -202.0 | 52.24 |
| LA-109 | 10/6/2009 | 136.99 | 22.36 | 123.84 | 7.14 | 11.65 | 686.10 | 26.60 | 380.20 | -130.00 | 78.91 |
| UA-110 | 9/20/2001 | 12.89 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-110 | 10/6/2009 | 72.50 | 31.00 | 33.46 | 7.37 | 14.88 | 918 | 1.14 | 4.2 | -177.0 | 16.89 |
| LA-110 | 10/6/2009 | 137.82 | 97.68 | 97.68 | 7.35 | 12.52 | 695.10 | 6.37 | 1028.70 | -92.00 | 126.78 |
| UA-111 | 9/25/2001 | 10.40 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-111 | 10/6/2009 | 84.54 | 28.73 | 27.62 | 6.94 | 14.99 | 961 | 1.28 | 35.1 | -139.0 | 18.32 |
| LA-111 | 10/2/2009 | 135.23 | 32.89 | 16.34 | NA | NA | NA | NA | 5.32 | NA | 17.45 |
| UA-112 | 10/7/2009 | 32.95 | NA | NA | 7.13 | 12.25 | 552.30 | 1.87 | 2687.00 | -88.00 | 25.53 |
| UA-113 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-114 | NA | 39.83 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-114 | 9/30/2009 | 85.17 | 77.00 | 77.10 | 6.46 | 32.43 | 1096 | 1.00 | 4.90 | -85.0 | 74.80 |
| LA-114 | 10/1/2009 | 145.35 | NA | NA | 7.37 | 17.40 | 818 | 2.61 | 252.00 | 25.0 | 119.80 |
| UA-115 | 9/20/2001 | 34.60 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-116 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-116 | 9/30/2009 | 85.70 | 59.10 | 57.82 | 6.64 | 15.44 | 984 | 0.50 | 0.00 | -213.0 | 55.64 |
| LA-116 | 9/24/2009 | 133.50 | 70.16 | 72.10 | 6.95 | 16.53 | 667 | 3.29 | 76.80 | -111.0 | 73.10 |
| UA-117 | 9/26/2001 | 26.12 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-117 | 10/6/2009 | 83.84 | NA | NA | 7.14 | 13.95 | 695 | NA | 25.10 | NA | 26.07 |
| LA-117 | 9/21/2001 | 124.78 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-118 | 9/23/2009 | 36.00 | 20.30 | 20.40 | 6.89 | 16.20 | 928.10 | NA | 8.00 | -84.00 | 20.98 |
| IA-118 | 9/23/2009 | 82.46 | 37.90 | 38.00 | 7.02 | 16.87 | 654 | NA | 38.60 | -139.0 | 37.87 |
| LA-118 | 9/23/2009 | 133.50 | 79.25 | 97.65 | 6.99 | 20.27 | 830.80 | NA | 62.90 | -111.00 | 125.38 |
| UA-119 | 10/1/2009 | 27.27 | 19.96 | 20.20 | 6.83 | 12.70 | 1379 | 1.08 | 4.00 | -79.0 | 18.87 |
| IA-119 | 10/1/2009 | 72.02 | 36.86 | 36.89 | 6.89 | 12.80 | 811 | 1.52 | 126.00 | -91.0 | 37.23 |

**TABLE 3**

Groundwater Sampling Field Parameter Summary

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | | | Ending Field Parameters | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location Identifier | Sample Date | Well/Port Depth (ft) | Initial DTW (ft) | Sampling DTW (ft) | pH | Temp (C) | Conductance (µS/cm) | DO (mg/L) | Turbidity (NTU) | ORP (mV) | 10/5/2009 DTW Measurements (ft) |
| LA-119 | 10/1/2009 | 132.08 | 63.05 | 63.07 | 6.99 | 14.18 | 807 | 1.84 | 9.00 | -67.0 | 65.25 |
| UA-120 | 10/5/2009 | 26.10 | 11.57 | 11.58 | 6.96 | 14.87 | 799 | 1.00 | 9.90 | -151.0 | 10.86 |
| IA-120 | 10/5/2009 | 59.29 | 16.35 | 16.40 | 6.90 | 14.36 | 1047 | 6.23 | 224.00 | -56.0 | 16.92 |
| LA-120 | 10/5/2009 | 122.45 | 72.30 | 73.94 | 6.98 | 15.26 | 1281.00 | 5.14 | 153.0 | -12.00 | 106.69 |
| UA-121 | 9/24/2009 | 38.58 | 17.29 | 17.32 | 6.83 | 13.82 | 939 | 1.43 | 18.90 | -267.0 | 16.63 |
| LA-121 | 9/24/2009 | 130.12 | 117.63 | NA | 7.32 | 13.32 | 741.80 | 6.69 | 665.30 | -55.00 | 116.92 |
| IA-122 | 9/12/2001 | 65.18 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| LA-122 | 9/12/2001 | 124.55 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-123 | 9/30/2009 | 54.29 | 12.58 | 12.55 | 6.02 | 13.35 | 1084 | 1.30 | 7.70 | -127.8 | 11.81 |
| LA-123 | 9/30/2009 | 124.86 | NA | NA | 7.36 | 13.91 | 575.00 | NA | 57.10 | NA | 19.03 |
| UA-124 | 9/30/2009 | 49.69 | 30.96 | 30.97 | 6.86 | 12.87 | 841 | 1.00 | 6.00 | -105.0 | 30.94 |
| IA-124 | NA | 108.86 | 100.85 | NA | NA | NA | NA | NA | NA | NA | 107.70 |
| LA-124 | 9/30/2009 | 141.65 | 53.30 | 73.50 | 6.90 | 14.23 | 866 | 5.00 | 9.20 | -41.8 | 65.78 |
| IA-125 | 10/1/2009 | 70.30 | 28.50 | 31.60 | 7.07 | 14.12 | 803 | 1.50 | 2.50 | -56.3 | 14.43 |
| LA-125 | 10/1/2009 | 135.52 | 29.42 | 31.09 | 6.71 | 14.23 | 806 | 0.17 | 9.4 | -67.3 | 10.96 |
| IA-126 | 10/1/2009 | 57.33 | 22.61 | 23.62 | 6.77 | 14.75 | 911 | 1.74 | 125.00 | -87.0 | 24.05 |
| LA-126 | 10/1/2009 | 130.13 | 101.26 | 108.60 | 6.92 | 14.19 | 1033.00 | 1.33 | 275.00 | -82.00 | 125.45 |
| IA-127 | 9/18/2001 | 74.63 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| LA-127 | 9/26/2001 | 122.40 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-128 | 10/2/2009 | 72.73 | 32.08 | 32.10 | 6.91 | 15.21 | 1100 | 0.32 | 2.00 | -62.0 | 32.75 |
| LA-128 | 10/2/2009 | 130.06 | 92.93 | 98.55 | 7.15 | 15.15 | 816.50 | 1.13 | 11.0 | -3.00 | 107.99 |
| IA-129 | 10/1/2009 | 62.15 | 14.22 | 14.20 | 6.84 | 14.71 | 1103 | 1.19 | 12.00 | -125.0 | 14.21 |
| LA-129 | 10/1/2009 | 122.10 | 36.48 | 47.98 | 7.21 | 14.48 | 790.40 | 1.20 | 26.00 | -87.00 | 110.26 |
| IA-130 | 10/2/2009 | 75.10 | 31.00 | 31.15 | 6.94 | 14.30 | 1113 | 3.35 | 20.00 | -65.0 | 31.59 |
| LA-130 | 10/6/2009 | 132.42 | 44.50 | 45.90 | 7.15 | 14.95 | 794 | 1.73 | 120.00 | -50.0 | 46.77 |
| UA-131 | 7/30/2001 | 29.29 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-131 | 9/23/2009 | 82.09 | 37.39 | 37.49 | 6.70 | 14.64 | 1087 | NA | 1.50 | -47.0 | 37.67 |
| LA-131 | 9/23/2009 | 129.50 | 47.29 | 47.50 | 6.86 | 17.11 | 1043 | NA | 9.90 | -60.0 | 49.69 |
| LA-132 | 10/6/2009 | 124.58 | 56.02 | 56.02 | 7.05 | 13.23 | 797 | 3.82 | 28.60 | -69.0 | 57.89 |
| UA-133 | 9/26/2001 | 29.12 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| IA-133 | 9/18/2001 | 62.30 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| LA-133 | 9/27/2001 | 122.08 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| UA-134 | 9/26/2001 | 30.45 | NA | NA | NA | NA | NA | NA | NA | NA | NA |

*Westbay MP System*

| | | | | Ending Field Parameters | | | | | | 10/3/2001 DTW |
|---|---|---|---|---|---|---|---|---|---|---|
| Location Identifier | Sample Date | Well/Port depth (ft) | Sample Zone Pressue (psi) | | | | | | | Measurements (ft) |
| LA-01 | 11/9/2009 | 74.60 | 43.18 | 7.12 | 15.42 | 923 | 4.77 | 0.30 | 35.0 | NA |
| LA-01 | 11/9/2009 | 117.00 | 55.30 | 7.26 | 21.27 | 760 | 43.70 | 1.30 | -37.0 | NA |
| LA-04 | 11/9/2009 | 57.90 | 32.88 | 6.96 | 15.52 | 1069 | 4.98 | 0.00 | -26.0 | NA |
| LA-04 | 11/9/2009 | 107.70 | 55.53 | 7.05 | 17.17 | 1123 | 3.40 | 0.00 | -11.0 | NA |
| LA-05 | 11/10/2009 | 57.00 | 32.21 | 7.42 | 14.29 | 804 | 3.31 | 8.80 | -53.0 | NA |
| LA-05 | 11/10/2009 | 112.20 | 58.18 | 7.21 | 13.57 | 702 | 6.05 | 0.00 | -13.0 | NA |

Notes:

a. Refer to *Quality Assurance Project Plan, Continental Steel Superfund Site* (May 2001) for specific analytical test methods used.

b. All depth to water measurements are below top of casing.

c. "DTW" represents "Depth To Water"

d. Water quality parameters used in stabilization criteria were pH, temperature, conductance, dissolved oxygen, and turbidity.

e. "Temp" represents "Temperature"

f. "DO" represents "Dissolved Oxygen"

g. "NTU" represents "Nephelometric Turbidity Units"

h. "ORP" represents "Oxidation Reduction Potential"

i. "psi" represents "Pounds Per Square Inch"

TABLE 4

*Selected Groundwater Analytical Results*

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | Sample Method | Selected Analytical Results | | | | |
|---|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Area** | **Sample Date** | **Low Flow/Bailer/ Westbay MP System** | **TCE (µm/L)** | **PCE (µm/L)** | **Cis 1,2-DCE (µm/L)** | **Vinyl Chloride (µm/L)** | **Manganese (µm/L)** |
| **Remediation Action Goals** | | | | **5 µg/L** | **5 µg/L** | **70 µg/L** | **2 µg/L** | **50 µg/L** |
| ***Standard Monitoring Wells*** | | | | | | | | |
| UA-01 | Site-wide | 10/6/2009 | Low Flow | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 15 U |
| UA-02 | Site-wide | 10/6/2009 | Low Flow | 0.26 J | 0.5 U | 0.5 U | 0.5 U | 15 U |
| UA-03 | Site-wide | NA | Bailer | NA | NA | NA | NA | NA |
| UA-08 | Main Plant | 9/24/2001 | Low Flow | NA | NA | NA | NA | NA |
| EW-11 | Site-wide | 10/6/2009 | Bailer | 0.71 | 0.5 U | 9.30 | 0.80 | **1,530** |
| EW-12 | Main Plant | 10/6/2009 | Low Flow | 0.5 U | 0.5 U | 0.5 U | 0.5 U | **1,140** |
| UA-12 | Main Plant | 9/25/2001 | Low Flow | NA | NA | NA | NA | NA |
| UA-14 | Main Plant | 9/30/2009 | Low Flow | 0.5 U | 0.5 U | 0.38 | 0.5 U | **55.4** |
| EW-16 | Site-wide | NA | NA | NA | NA | NA | NA | NA |
| UA-18 | Site-wide | 10/6/2009 | Low Flow | 0.22 J | 0.5 U | 0.36 J | 0.5 U | 15 U |
| UA-20 | Site-wide | 10/5/2009 | Low Flow | 2.8 | 0.9 U | **110** | **11** | **88** |
| UA-24 | Site-wide | 10/6/2009 | Low Flow | **450** | 3.4 U | **250** | **2.5 J** | **357** |
| UA-26 | Main Plant | NA | Low Flow | NA | NA | NA | NA | NA |
| EW-28 | Main Plant | NA | Low Flow | NA | NA | NA | NA | NA |
| UA-28 | Site-wide | 10/1/2009 | Bailer | **27** | **86** | 61 | **11** | **775** |
| LA-102C | Site-wide | 9/24/2009 | Low Flow | 5 U | 5 U | **100** | **14** | **55.7** |
| LA-104E | Main Plant | 10/2/2009 | Low Flow | 1.4 | 0.5 U | 18 | **8.3** | 15 U |
| UA-105 | Site-wide | 9/30/2009 | Low Flow | 2.2 U | 2.2 U | **260** | **7.7** | **625** |
| LA-105C | Site-wide | 9/30/2009 | Low Flow | 1.4 U | 1.4 U | **170** | **11** | **124** |
| LA-105E | Site-wide | 9/30/2009 | Low Flow | **120** | 4.4 | **570** | **26** | **124** |
| UA-108 | Markland Avenue Quarry | 9/25/2001 | Low Flow | NA | NA | NA | NA | NA |
| IA-108 | Markland Avenue Quarry | NA | Low Flow | NA | NA | NA | NA | NA |
| LA-108 | Markland Avenue Quarry | 10/1/2009 | Low Flow | 2 | 0.5 U | 8.4 | 0.34 | 17.6 |
| UA-109 | Markland Avenue Quarry | 10/1/2001 | Bailer | NA | NA | NA | NA | NA |
| IA-109 | Markland Avenue Quarry | 10/6/2009 | Low Flow | 17 | 5 U | **320** | **130** | 20.5 |
| LA-109 | Markland Avenue Quarry | 10/6/2009 | Bailer | 0.39 | 0.5 U | 16 | 0.68 | **228** |
| UA-110 | Markland Avenue Quarry | 9/20/2001 | Bailer | NA | NA | NA | NA | NA |

TABLE 4

*Selected Groundwater Analytical Results*

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | Sample Method | Selected Analytical Results | | | | |
|---|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Area** | **Sample Date** | **Low Flow/Bailer/ Westbay MP System** | **TCE (µm/L)** | **PCE (µm/L)** | **Cis 1,2-DCE (µm/L)** | **Vinyl Chloride (µm/L)** | **Manganese (µm/L)** |
| IA-110 | Markland Avenue Quarry | 10/6/2009 | Low Flow | **7.6** | 0.5 U | 54 | **46** | 29.2 |
| LA-110 | Markland Avenue Quarry | 10/6/2009 | Bailer | 0.5 U | 0.5 U | 33 | 0.5 U | 43.7 |
| UA-111 | Markland Avenue Quarry | 9/25/2001 | Low Flow | NA | NA | NA | NA | NA |
| IA-111 | Markland Avenue Quarry | 10/6/2009 | Low Flow | **11** | 3.2 U | **380** | **39** | **108** |
| LA-111 | Markland Avenue Quarry | 10/2/2009 | Bailer | 2.3 | 0.5 U | 9.7 | 1.1 | 28.2 |
| UA-112 | Site-wide | 10/7/2009 | Bailer | 0.5 U | 0.5 U | 0.5 U | 0.5 U | **100** |
| UA-113 | Abandoned. | NA | NA | NA | NA | NA | NA | NA |
| UA-114 | Site-wide | NA | Bailer | NA | NA | NA | NA | NA |
| IA-114 | Site-wide | 9/30/2009 | Low Flow | 1.5 J | 2.3 U | **290** | **39** | **130** |
| LA-114 | Site-wide | 10/1/2009 | Low Flow | 0.5 U | 0.5 U | 28 | **39** | 37.5 |
| UA-115 | Site-wide | 9/20/2001 | Low Flow | NA | NA | NA | NA | NA |
| UA-116 | Site-wide | NA | NA | NA | NA | NA | NA | NA |
| IA-116 | Site-wide | 9/30/2009 | Low Flow | **5.3** | 0.5 U | 8.7 | 1.8 | **75.7** |
| LA-116 | Site-wide | 9/24/2009 | Low Flow | 0.38 | 0.5 U | 12 | **14** | 22.4 |
| UA-117 | Site-wide | 9/26/2001 | Low Flow | NA | NA | NA | NA | NA |
| IA-117 | Site-wide | 10/6/2009 | Low Flow | 1.7 J | 3.4 U | **410** | **39** | **73.4** |
| LA-117 | Site-wide | 9/21/2001 | Bailer | NA | NA | NA | NA | NA |
| UA-118 | Site-wide | 9/23/2009 | Low Flow | 0.5 U | 0.5 U | 0.5 U | 0.5 U | **336** |
| IA-118 | Site-wide | 9/23/2009 | Low Flow | 1.1 J | 5 U | 13 | **2.8 J** | 37.9 |
| LA-118 | Site-wide | 9/23/2009 | Bailer | 1.6 | 0.5 U | 9.5 | 0.67 | **118** |
| UA-119 | Site-wide | 10/1/2009 | Low Flow | 0.5 U | 0.5 U | 0.5 U | 0.5 U | **171** |
| IA-119 | Site-wide | 10/1/2009 | Low Flow | 0.5 U | 0.5 U | 58 | **5.3** | **85.2** |
| LA-119 | Site-wide | 10/1/2009 | Low Flow | 0.5 U | 0.5 U | 15 | **2.9** | **52.1** |
| UA-120 | Main Plant | 10/5/2009 | Low Flow | **22 J** | 9.2 U | **1,200** | **760** | **757** |
| IA-120 | Main Plant | 10/5/2009 | Low Flow | **600** | 4.8 U | **410** | **25** | **168** |
| LA-120 | Main Plant | 10/5/2009 | Bailer | 3.6 | 0.5 U | 11 | **6** | **157** |
| UA-121 | Site-wide | 9/24/2009 | Low Flow | **12** | 4.7 | **87** | **3.1** | **83.3** |
| LA-121 | Site-wide | 9/24/2009 | Bailer | 0.5 U | 0.5 U | 0.98 | 0.96 | 16.7 |
| IA-122 | Main Plant | 9/12/2001 | Low Flow | NA | NA | NA | NA | NA |

TABLE 4

*Selected Groundwater Analytical Results*

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | Sample Method | Selected Analytical Results | | | | |
|---|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Area** | **Sample Date** | **Low Flow/Bailer/ Westbay MP System** | **TCE (µm/L)** | **PCE (µm/L)** | **Cis 1,2-DCE (µm/L)** | **Vinyl Chloride (µm/L)** | **Manganese (µm/L)** |
| LA-122 | Main Plant | 9/12/2001 | Low Flow | NA | NA | NA | NA | NA |
| IA-123 | Main Plant | 9/30/2009 | Low Flow | 0.5 U | 0.5 U | 1.5 | 0.24 | **66.4** |
| LA-123 | Main Plant | 9/30/2009 | Bailer | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 44.1 |
| UA-124 | Site-wide | 9/30/2009 | Low Flow | **39** | **26** | **340** | **11** | **109** |
| IA-124 | Site-wide | NA | Bailer | NA | NA | NA | NA | NA |
| LA-124 | Site-wide | 9/30/2009 | Low Flow | **14** | 0.5 U | 10 | 0.5 U | 15 |
| IA-125 | Site-wide | 10/1/2009 | Low Flow | **5.4** | 0.5 U | 13 | 0.5 U | 23.6 |
| LA-125 | Site-wide | 10/1/2009 | Low Flow | 2.1 | 0.5 U | 1.8 | 0.5 U | 33.7 |
| IA-126 | Main Plant | 10/1/2009 | Low Flow | **38** | **21** | **130** | **4.4** | **117** |
| LA-126 | Main Plant | 10/1/2009 | Bailer | 0.5 U | 0.5 U | 3.1 | 0.5 U | **89.1** |
| IA-127 | Main Plant | 9/18/2001 | Low Flow | NA | NA | NA | NA | NA |
| LA-127 | Main Plant | 9/26/2001 | Bailer | NA | NA | NA | NA | NA |
| IA-128 | Main Plant | 10/2/2009 | Low Flow | **29** | 3 U | **370** | **33** | **243** |
| LA-128 | Main Plant | 10/2/2009 | Bailer | 0.25 J | 0.5 U | 1.8 | 0.5 U | **103** |
| IA-129 | Main Plant | 10/1/2009 | Low Flow | 0.95 U | 0.95 U | **120** | **37** | **114** |
| LA-129 | Main Plant | 10/1/2009 | Bailer | 0.5 U | 0.5 U | 0.8 | 0.49 | 15 |
| IA-130 | Main Plant | 10/2/2009 | Low Flow | **1,000** | 12 U | **1,600** | **53** | **155** |
| LA-130 | Main Plant | 10/6/2009 | Low Flow | 0.5 U | 0.5 U | 3.6 | 1.1 | 44.9 |
| UA-131 | Site-wide | 7/30/2001 | NA | NA | NA | NA | NA | NA |
| IA-131 | Site-wide | 9/23/2009 | Low Flow | **80** | 5 U | **610** | **47** | **182** |
| LA-131 | Site-wide | 9/23/2009 | Low Flow | 3.1 | 5 U | **300** | **66** | **68.9** |
| LA-132 | Site-wide | 10/6/2009 | Low Flow | 1 U | 1 U | **140** | **26** | **69.1** |
| UA-133 | Main Plant | 9/26/2001 | Low Flow | NA | NA | NA | NA | NA |
| IA-133 | Main Plant | 9/18/2001 | Low Flow | NA | NA | NA | NA | NA |
| LA-133 | Main Plant | 9/27/2001 | Bailer | NA | NA | NA | NA | NA |
| UA-134 | Main Plant | 9/26/2001 | Low Flow | NA | NA | NA | NA | NA |
| ***Westbay MP System*** | | | | | | | | |
| LA-01-074 | Site-wide | 11/9/2009 | Westbay MP System | 5 U | 5 U | 5 U | 5 U | **73.7** |
| LA-01-114 | Site-wide | 11/9/2009 | Westbay MP System | 5 U | 5 U | 5 U | 5 U | 5.9 |

TABLE 4

*Selected Groundwater Analytical Results*

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | Sample Method | Selected Analytical Results | | | | |
|---|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Area** | **Sample Date** | **Low Flow/Bailer/ Westbay MP System** | **TCE (µm/L)** | **PCE (µm/L)** | **Cis 1,2-DCE (µm/L)** | **Vinyl Chloride (µm/L)** | **Manganese (µm/L)** |
| LA-04-058 | Main Plant | 11/9/2009 | Westbay MP System | 5 U | 5 U | 55 | **25** | **95.7** |
| LA-04-109 | Main Plant | 11/9/2009 | Westbay MP System | 5 U | 5 U | 21 | **31** | 9.2 |
| LA-05-057 | Main Plant | 11/10/2009 | Westbay MP System | 5 U | 5 U | 1.2 J | 5 U | **86.5** |
| LA-05-112 | Main Plant | 11/10/2009 | Westbay MP System | 5 U | 5 U | 5 U | 5 U | 15 U |

Notes:

a. Refer to *Quality Assurance Project Plan, Continental Steel Superfund Site* (May 2001) for specific analytical test methods used.

b. VOCs,PCBs, TAL Metals and, PAHs analyses completed by USEPA's Contract Laboratory Program.

c. "U" - Not Detected above Reporting Limit

d. "J" Estimated detected Result

e. Results in **Bold** exceed the remediation goals

**TABLE 5**

Site-specific Monitoring Well Sampling Deviations and Comments

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | | | Analyses | | |
|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Target Area** | **Target Aquifer** | **Sample Date** | **Deviations/Comments** | **VOCs** | **PAHs** | **TAL Metals** |
| **Standard Monitoring Wells** | | | | | | | |
| UA-03 | Markland Avenue Quarry | Upper | NA | Dry - dewatering in the Markland Avenue Quarry area is causing Upper Aquifer wells to go dry. | NA | NA | NA |
| UA-08 | Main Plant | Upper | NA | Abandoned (Main Plant Area) | NA | NA | NA |
| UA-12 | Main Plant | Upper | NA | Abandoned (Main Plant Area) | NA | NA | NA |
| EW-16 | Site-wide | Intermediate | NA | Unable to locate the extraction well. This well was not sampled previously because of its proximity to one of Haynes International's landfills. Given its location, it is unlikely that the analytical results would have represented groundwater from the Continental Steel Superfund Site. | NA | NA | NA |
| UA-26 | Main Plant | Upper | NA | Abandoned (Main Plant Area) | NA | NA | NA |
| EW-28 | Main Plant | Upper | NA | Dry | NA | NA | NA |
| UA-108 | Markland Avenue Quarry | Upper | NA | Unable to locate the monitoring well, the well is most likely abandoned. LA-108 from the cluster was located, leading to the belief that the location is correct. | NA | NA | NA |
| IA-108 | Markland Avenue Quarry | Intermediate | NA | Unable to locate the monitoring well, the well is most likely abandoned. LA-108 from the cluster was located, leading to the belief that the location is correct. | NA | NA | NA |
| UA-109 | Markland Avenue Quarry | Upper | NA | Dry (Markland Quarry) | NA | NA | NA |
| UA-110 | Markland Avenue Quarry | Upper | NA | Dry (Markland Quarry) | NA | NA | NA |
| UA-111 | Markland Avenue Quarry | Upper | NA | Dry (Markland Quarry) | NA | NA | NA |
| UA-113 | Site-wide | Upper | NA | Abandoned borehole after auger refusal above water table. | NA | NA | NA |
| UA-114 | Site-wide | Upper | NA | Dry - could potentially be dry from the Martin - Marietta dewatering. | NA | NA | NA |
| UA-115 | Markland Avenue Quarry | Upper | NA | Dry (Markland Quarry) | NA | NA | NA |
| UA-116 | Site-wide | Upper | NA | Dry - Could potentially be dry from the Martin - Marietta dewatering. | NA | NA | NA |
| UA-117 | Site-wide | Upper | NA | Abandoned - Trailer Park | NA | NA | NA |
| LA-117 | Site-wide | Lower | NA | Dry - Several feet of sediment was detected at the bottom of the well. | NA | NA | NA |
| IA-122 | Main Plant | Intermediate | NA | Abandoned (Main Plant Area) | NA | NA | NA |
| LA-122 | Main Plant | Lower | NA | Abandoned (Main Plant Area) | NA | NA | NA |
| UA-124 | Site-wide | Intermediate | NA | Water level declined with purging. Water level had not recovered after several days and was not able to be sampled. | NA | NA | NA |
| IA-127 | Site-wide | Intermediate | NA | Could not locate well on the Wastewater Treatment Plant property; most likely destroyed | NA | NA | NA |

**TABLE 5**

Site-specific Monitoring Well Sampling Deviations and Comments

*Pre-Design Field Investigation*

*Continental Steel Superfund Site*

| | | | | | Analyses | | |
|---|---|---|---|---|---|---|---|
| **Location Identifier** | **Target Area** | **Target Aquifer** | **Sample Date** | **Deviations/Comments** | **VOCs** | **PAHs** | **TAL Metals** |
| LA-127 | Site-wide | Lower | NA | Could not located well on the Wastewater Treatment Plant property; most likely destroyed | NA | NA | NA |
| UA-131 | Site-wide | Upper | 7/30/2001 | Drilled, installed, and abandoned prior to the planned groundwater sampling event. Though the drilling location was cleared by the relevant parties, the constructed well was determined to be within the construction area of a new sewer inlet. The well was sampled on 7/30/2001 (just prior to abandonment) for VOCs, PCBs, and TAL Metals and submitted to IDEM for analysis. | NA | NA | NA |
| UA-133 | Main Plant | Upper | NA | Could not locate well. Well was located along the shore of Wildcat Creek near the Main Plant Area. Most likely destroyed. | NA | NA | NA |
| IA-133 | Main Plant | Intermediate | NA | Could not locate well. Well was located along the shore of Wildcat Creek near the Main Plant Area. Most likely destroyed. | NA | NA | NA |
| LA-133 | Main Plant | Lower | NA | Could not locate well. Well was located along the shore of Wildcat Creek near the Main Plant Area. Most likely destroyed. | NA | NA | NA |
| UA-134 | Main Plant | Upper | 9/26/2001 | Was to be sampled for TPH but USEPA's Contract Laboratory Program (CLP) could not do the analysis. Instead the TPH sample was sent to USEPA's Region V Central Regional Laboratory (CRL) for oil and grease analysis by Standard Method 1664. UA-134 was also sampled for TAL Metals, although an unfiltered metals sample was not planned for collection at this location (QAPP). The sample was collected to provide additional field information. | NA | NA | NA |

Notes:

Sample methods; "Low Flow"=QED bladder pump, "Bailer"=stainless steel bailer, "Westbay MP System"=Westbay multiple port system.

a. "VOCs" represents "Volatile Organic Compounds"

b. "TAL Metals" represents "Toxic Analyste List (Inorganics)"

c. "PAHs" represent "Polycyclic Aromatic Hydrocarbons"

d. Refer to *Quality Assurance Project Plan, Continental Steel Superfund Site* (QAPP, May 2001) for specific analytical test methods used.

e. VOCs, TAL Metals and, PAHs analyses completed by USEPA's Contract Laboratory Program.

# Figures

N

0 300 600 1,200

Feet

IA-119
UA-119
LA-119
LA-102C
LA-121
UA-121
UA-028
IA-124
LA-124
UA-124
PU-13
PU-14
PU-15
LA-117
UA-117
IA-109
UA-109
PU-06
PU-07
IA-125
LA-125
UA-003
LA-109
PU-08
PU-09
UA-110
UA-113
UA-115
IA-110
LA-110
UA-108
IA-108
LA-108
UA-111
IA-111
LA-111
LA-01
UA-001
LA-105C
LA-105E
UA-105
IA-131
UA-131
LA-131
LA-132
UA-018
LA-104E
EW-28
IA-126
LA-126
IA-128
LA-128
IA-127
LA-127
UA-120
LA-120
LA-04
UA-020
PU-12
UA-002
IA-130
LA-130
PU-11
UA-024
PU-05
PU-10
IA-129
LA-129
LA-133
IA-133
UA-133
EW-16
UA-012
LA-05
IA-122
UA-026
UA-134
LA-122
LA-114
UA-114
IA-114
PU-03
EW-11
PU-04
PU-02
PU-01
IA-116
LA-116
UA-116
UA-008
EW-12
UA-014
IA-123
LA-123
IA-118
UA-118
LA-118
UA-112

**Legend**

- Upper Aquifer Monitoring Well
- Intermediate Aquifer Monitoring Well
- Lower Aquifer Monitoring Well
- Upper Aquifer Piezometer

FIGURE 1
Long Term Monitoring
Well Location Plan
*Continental Steel Superfund Site*

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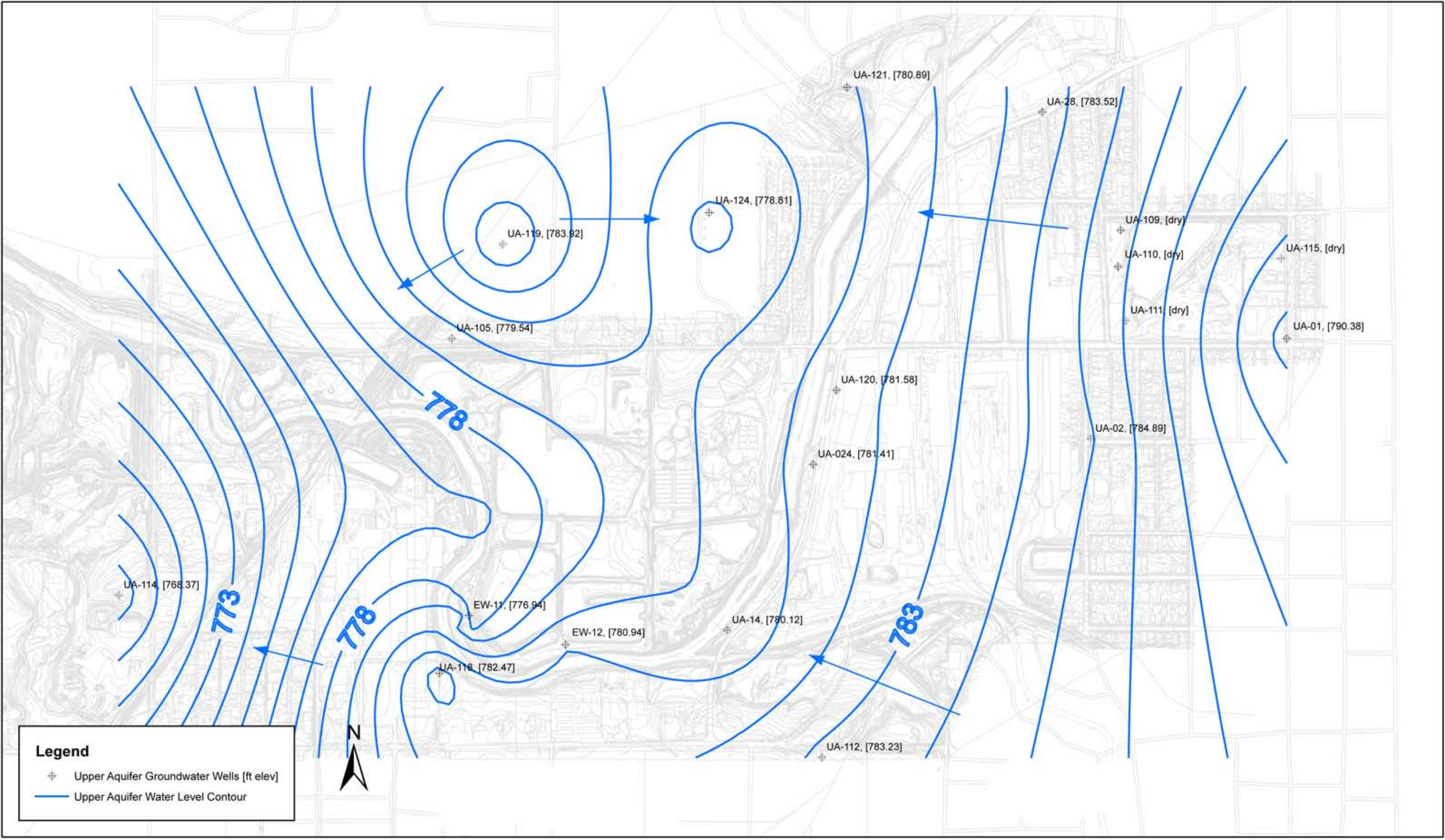
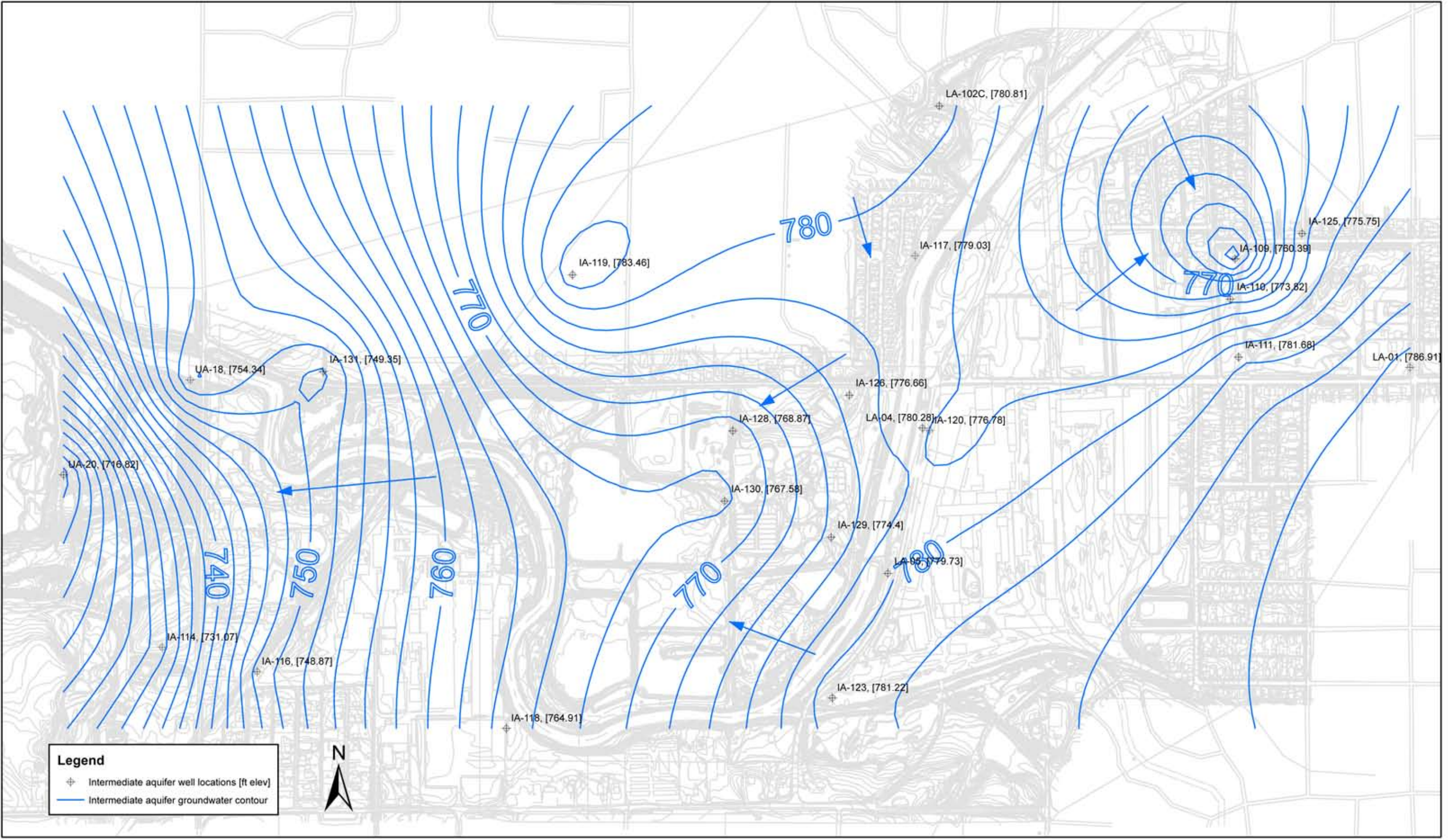
File Path: I:\Continental Steel\GIS\GW\cs_allwells.mxd, 6-16-09 MPN




CH2MHILL

0 375 750 1,500 2,250 3,000 Feet

**Figure 2**
Groundwater Contour Map
Upper Aquifer
Continental Steel Superfund Site




CH2MHILL

0 312.5 625 1,250 1,875 2,500 Feet

**Figure 3**
Groundwater Contour Map
Intermediate Aquifer
Continental Steel Superfund Site

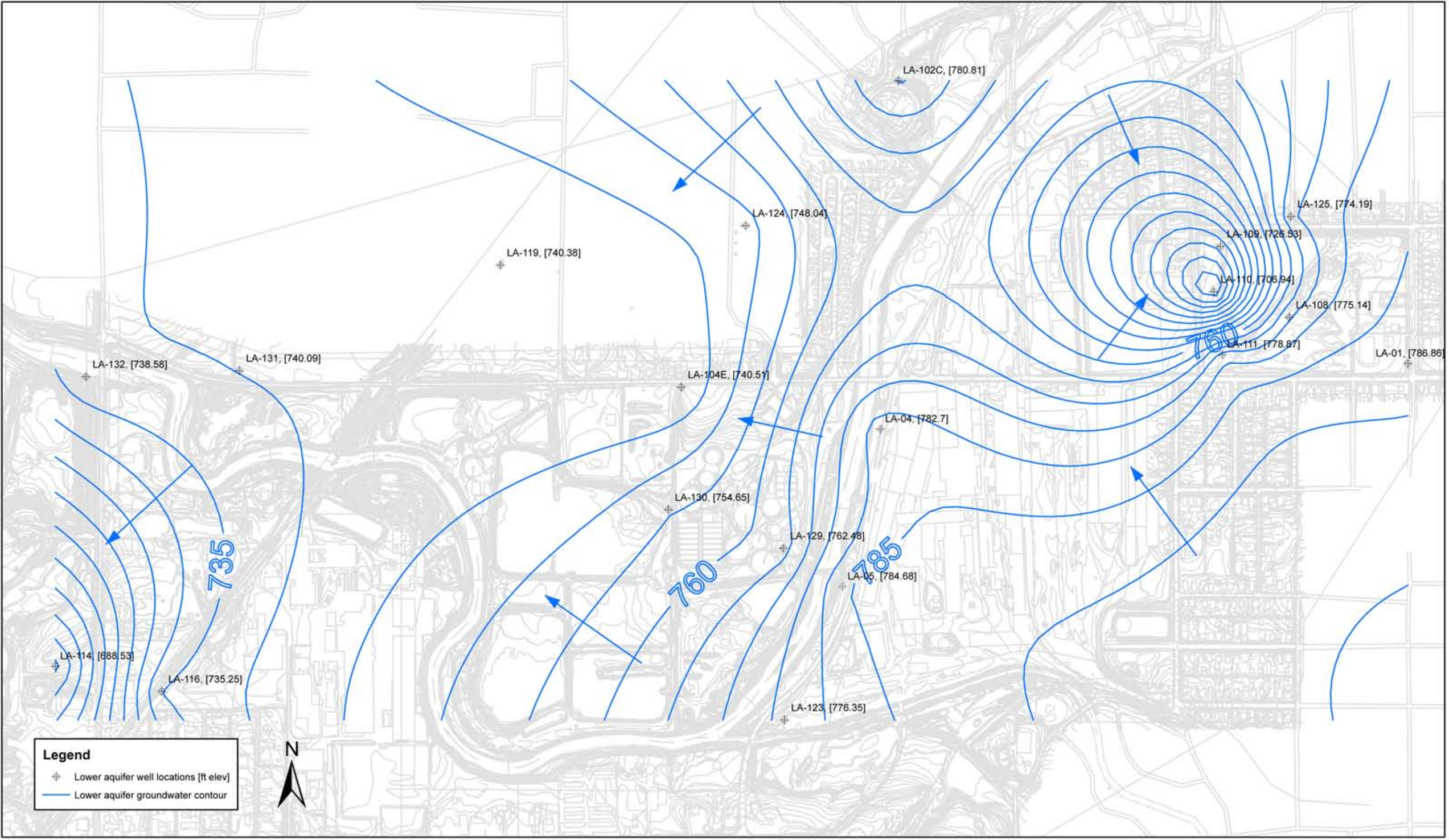



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**Figure 4**

Groundwater Contour Map
Lower Aquifer
Continental Steel Superfund Site

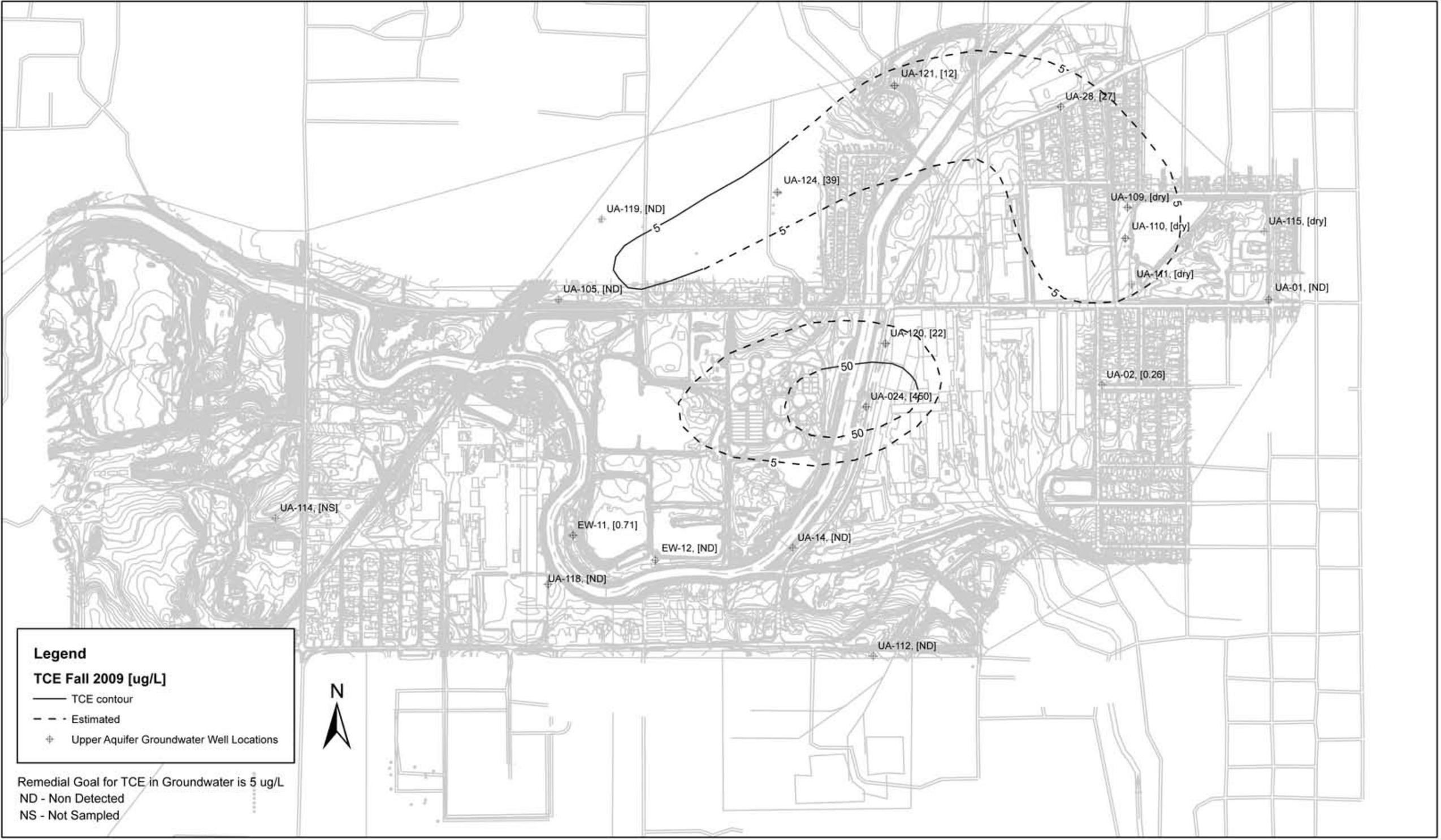


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**Figure 5**
Upper Groundwater Aquifer
TCE Concentration Map
Continental Steel Superfund Site

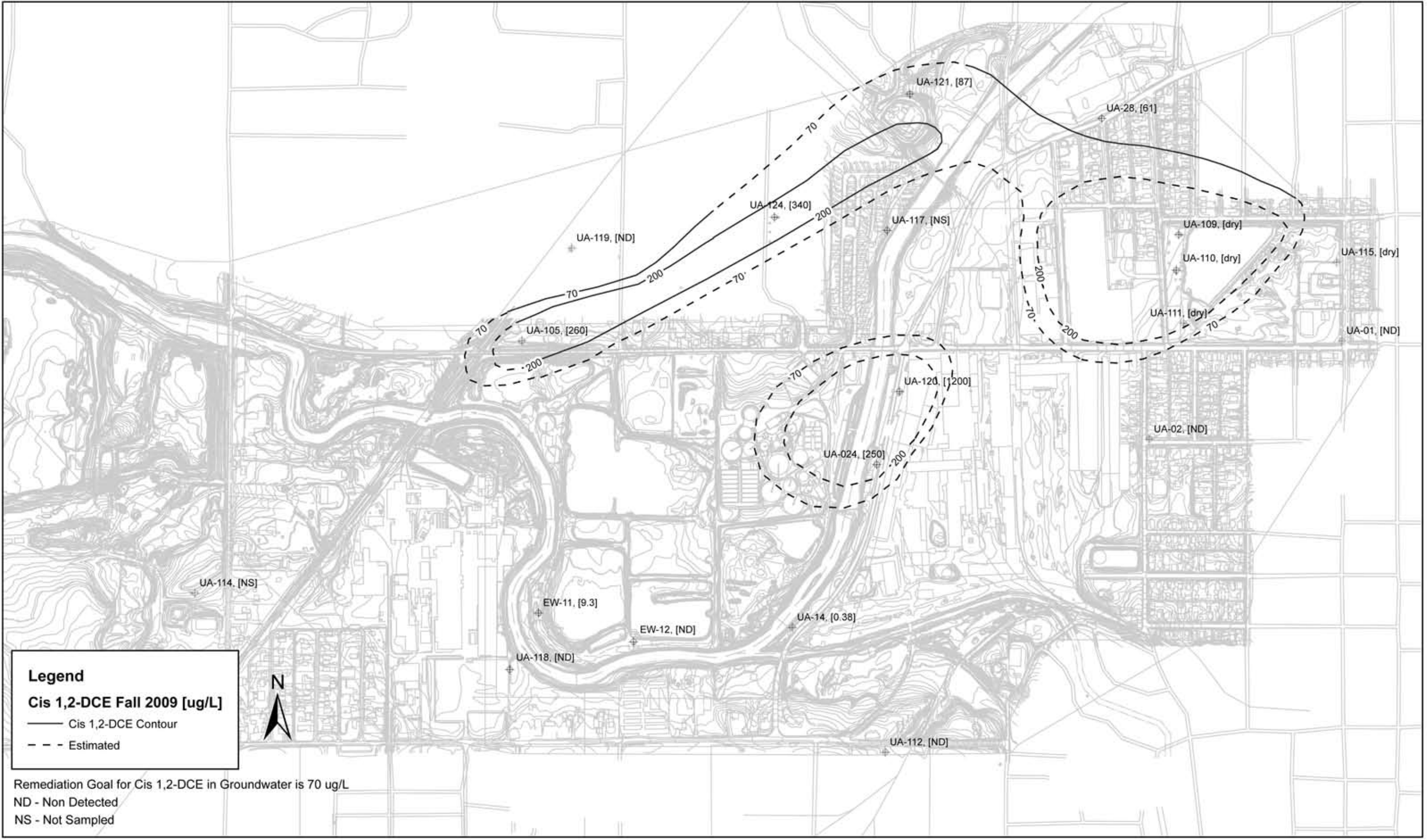


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**Figure 6**

Upper Groundwater Aquifer
Cis 1,2-DCE Concentration Map
Continental Steel Superfund Site

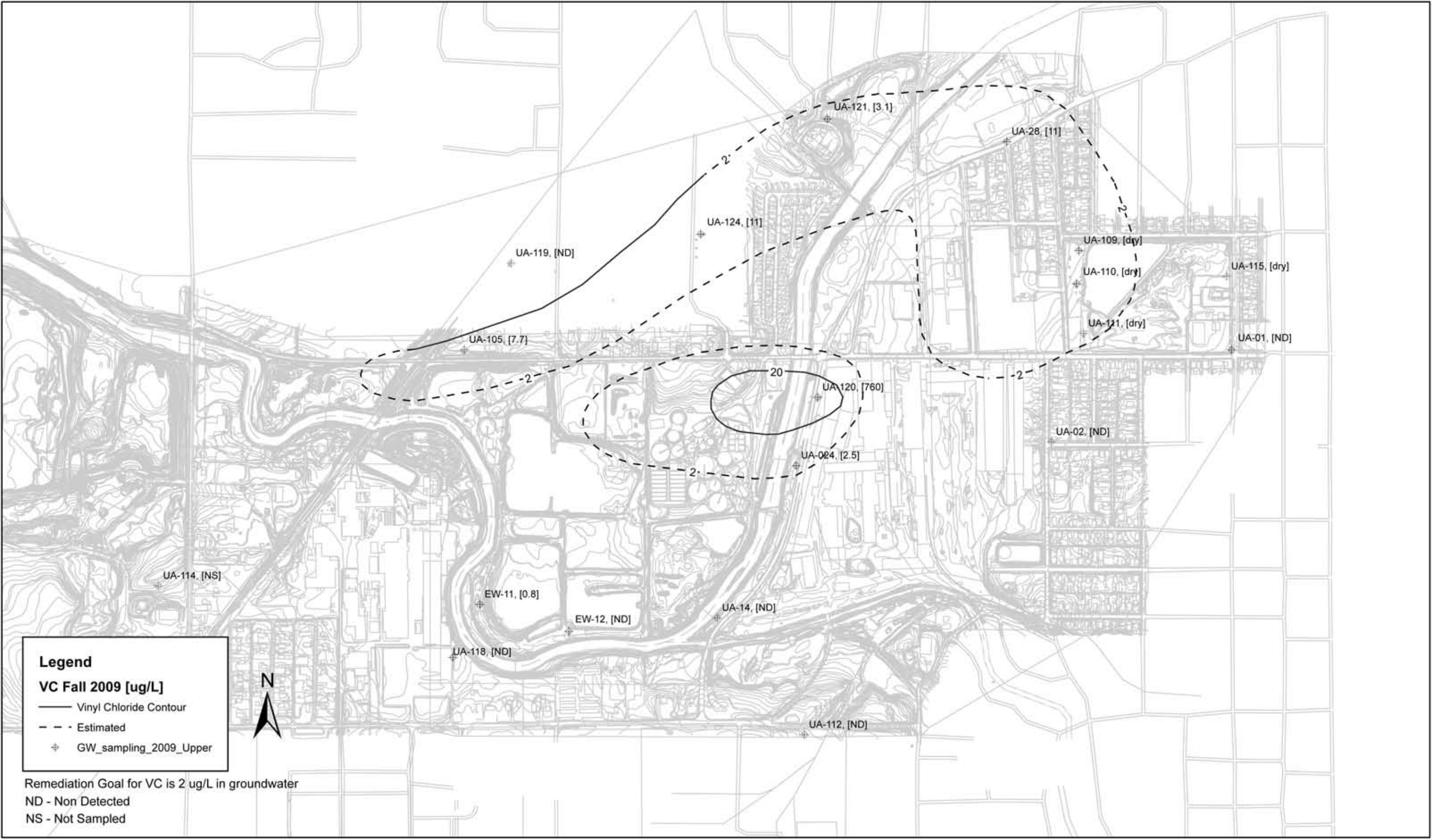


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**Figure 7**

Upper Groundwater Aquifer
Vinyl Chloride Concentration Map
Continental Steel Superfund Site

UA-121, [83.3]
UA-28, [775]
UA-124, [109]
UA-119, [171]
UA-109, [dry]
UA-110, [dry]
UA-115, [dry]
UA-111, [dry]
UA-105, [625]
UA-01, [ND]
UA-120, [757]
UA-02, [ND]
UA-024, [357]
UA-114, [NS]
EW-11, [1530]
EW-12, [1140]
UA-14, [55.4]
UA-118, [336]
UA-112, [100]
50
100
1000

**Legend**

**Manganese Fall 2009 [ug/L]**

- Manganese Contour
- Estimated
- Upper Aquifer Groundwater Well Locations

N

Remediation Goal for Manganese in Groundwater is 50 ug/L
ND - Non Detected
NS - Not Sampled

CH2MHILL

0 395 790 1,580 2,370 3,160 Feet

**Figure 8**
Upper Groundwater Aquifer
Manganese Concentration Map
Continental Steel Superfund Site

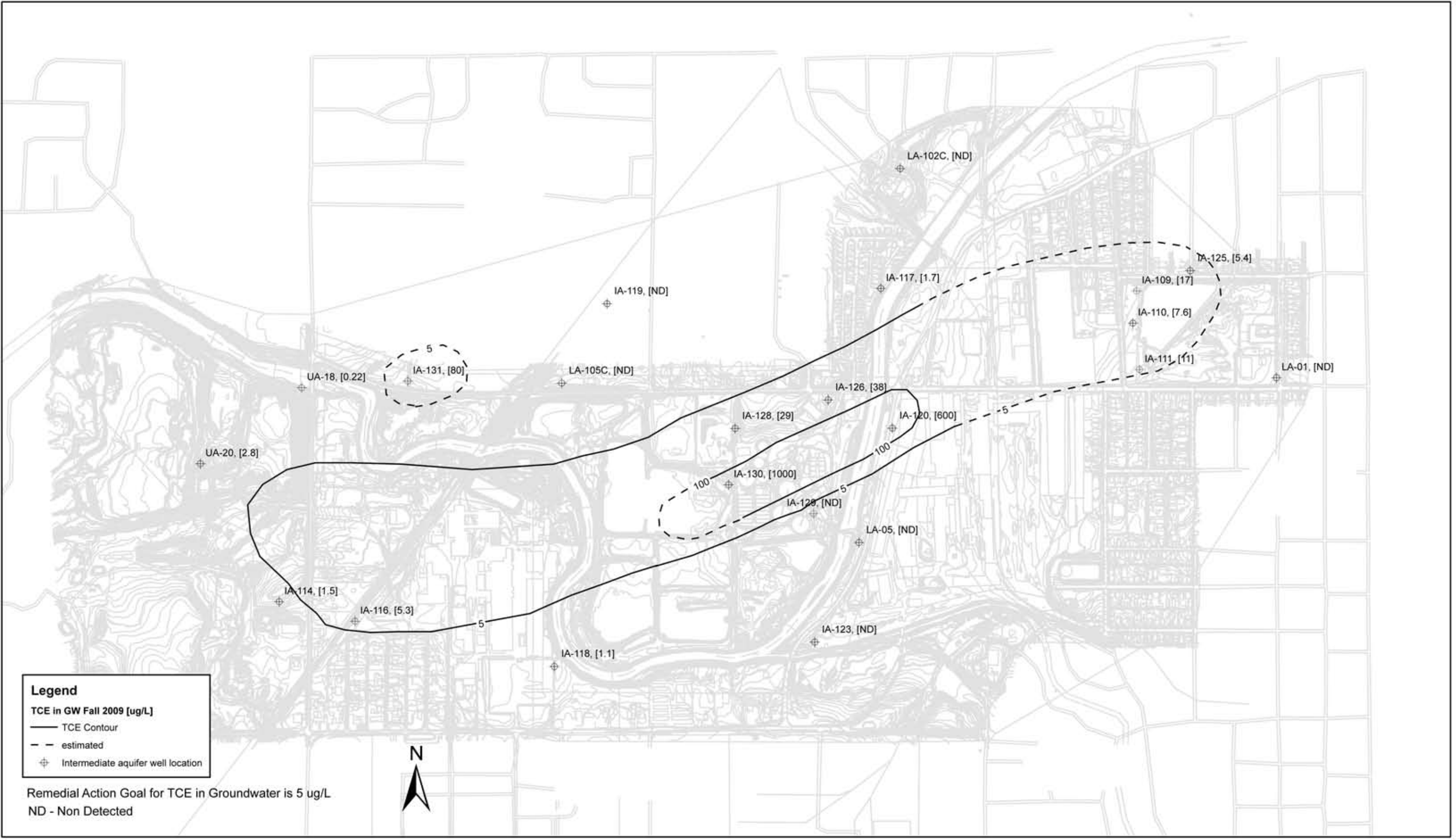


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**Figure 9**
Intermediate Groundwater Aquifer
TCE Concentration Map
Continental Steel Superfund Site

LA-102C, [100]

70

200

IA-125, [13]

IA-117, [410]

IA-109, [320]

IA-119, [58]

70

IA-110, [54]

IA-111, [380]

LA-01, [ND]

UA-18, [0.36]

70

IA-131, [610]

LA-105C, [170]

200

IA-126, [130]

IA-128, [370]

200

IA-120, [410]

UA-20, [110]

IA-130, [1600]

200

IA-129, [120]

LA-05, [1.2]

IA-114, [290]

70

IA-116, [8.7]

IA-123, [1.5]

IA-118, [13]

**Legend**

Intermediate aquifer well locations

**Cis 1,2-DCE Fall 2009 [ug/L]**

Estimated

Cis 1,2-DCE contour

Remedial Action Goal for Cis 1,2-DCE in Groundwater is 70 ug/L
ND - Non Detected

N

CH2MHILL

0 360 720 1,440 2,160 2,880 Feet

**Figure 10**
Intermediate Groundwater Aquifer
CIS 1,2- DCE Concentration Map
Continental Steel Superfund Site

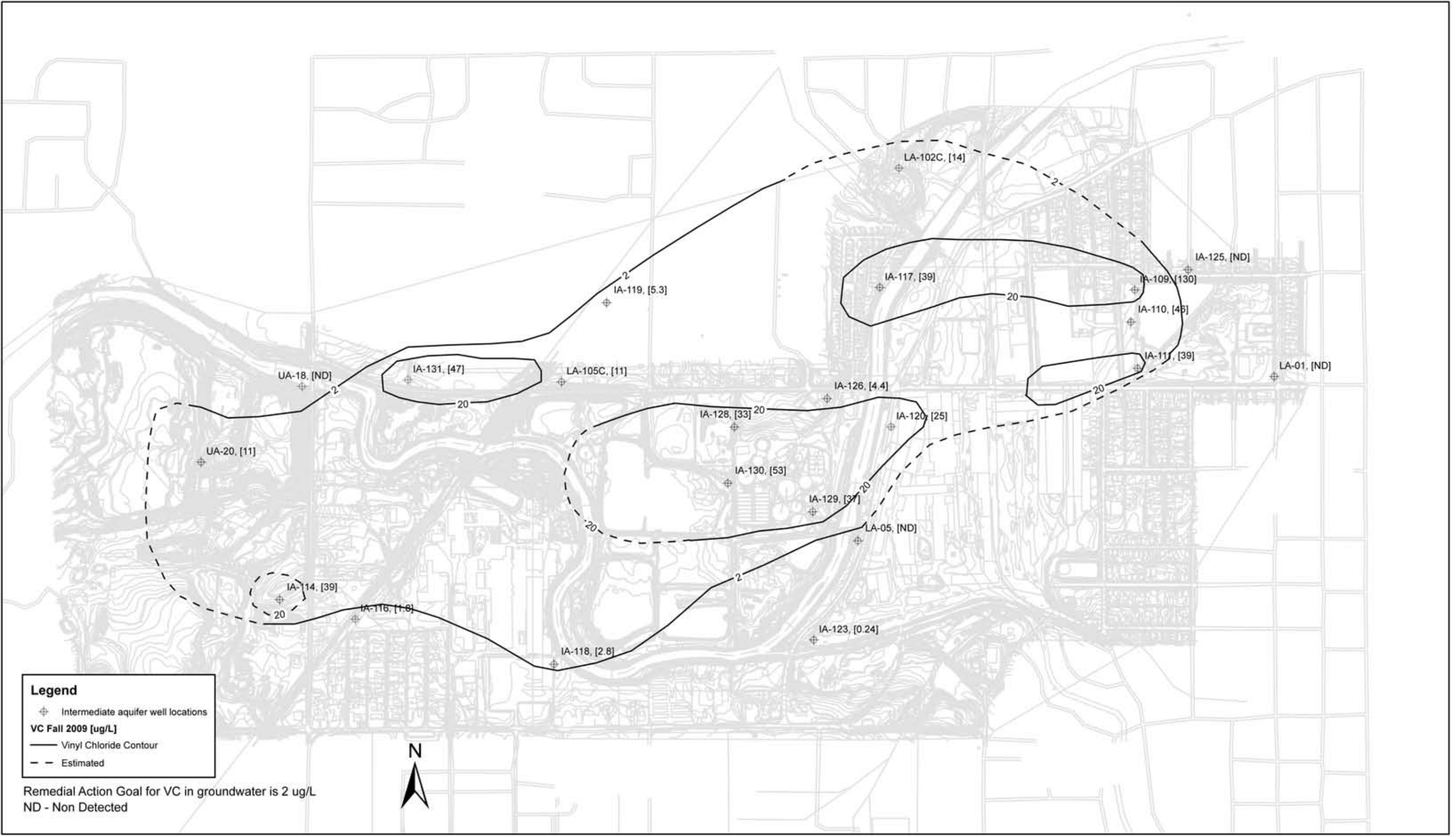


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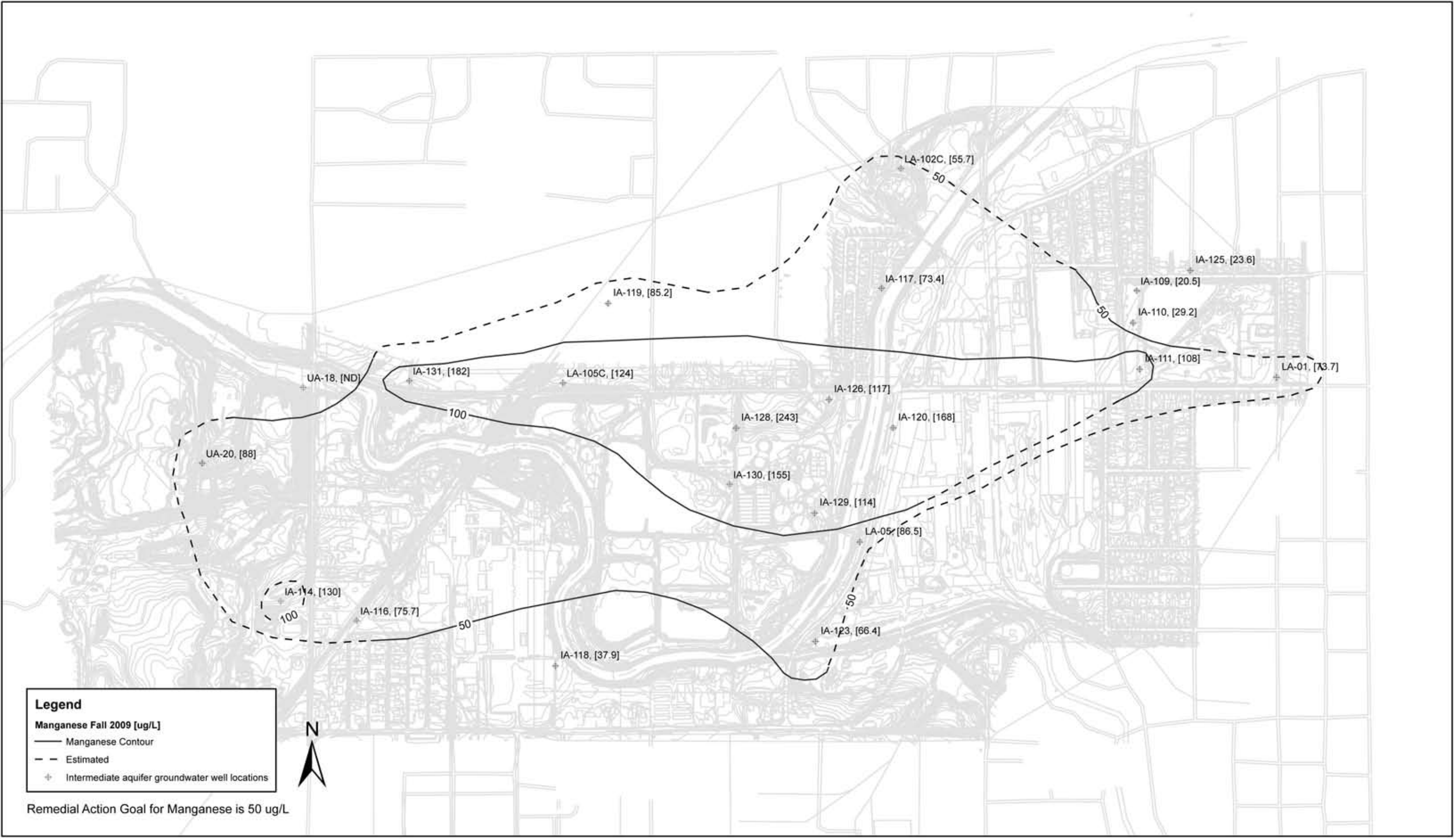
**Figure 11**
Intermediate Groundwater Aquifer
Vinyl Chloride Concentration Map
Continental Steel Superfund Site

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0 365 730 1,460 2,190 2,920 Feet

**Figure 12**
Intermediate Groundwater Aquifer
Manganese Concentration Map
Continental Steel Superfund Site

LA-121, [ND]
LA-124, [14]
LA-125, [2.1]
LA-109, [0.39]
LA-119, [ND]
LA-110, [ND]
LA-108, [2]
LA-111, [2.3]
LA-01, [ND]
LA-132, [ND]
LA-131, [3.1]
LA-105E, [120]
LA-104E, [1.4]
LA-126, [ND]
LA-128, [0.25]
LA-120, [3.6]
LA-04, [ND]
LA-130, [ND]
LA-129, [ND]
LA-05, [ND]
LA-114, [ND]
LA-116, [0.38]
LA-123, [ND]
LA-118, [1.6]

5
100
5
5

**Legend**

**TCE Fall 2009 [ug/L]**

TCE Contour

Estimated

Lower Aquifer Groundwater Well Locations

Remedial Action Goal for TCE in groundwater is 5 ug/L

ND - Non Detected

N

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0 340 680 1,360 2,040 2,720 Feet

**Figure 13**

Lower Groundwater Aquifer
TCE Concentration Map
Continental Steel Superfund Site

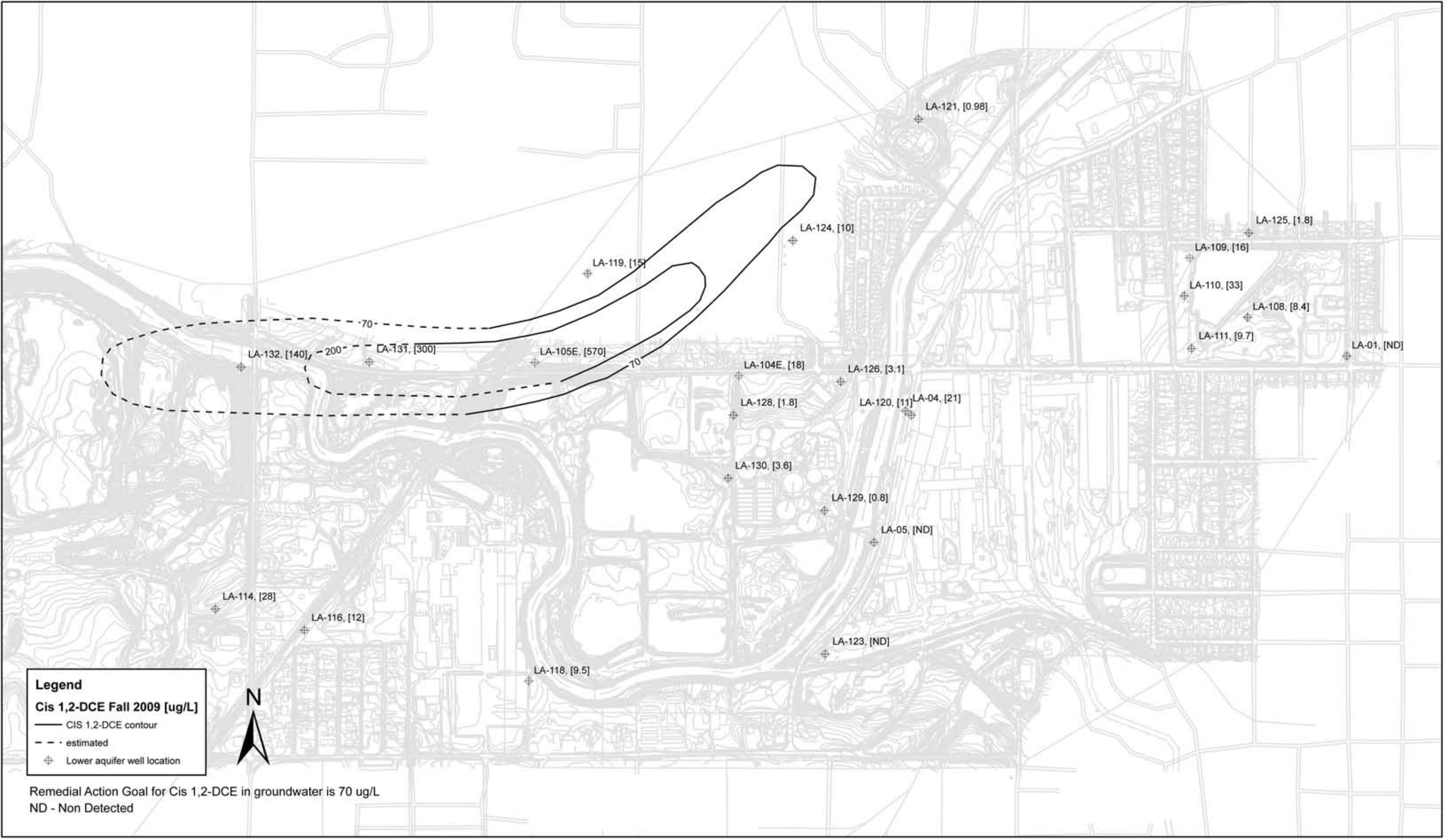


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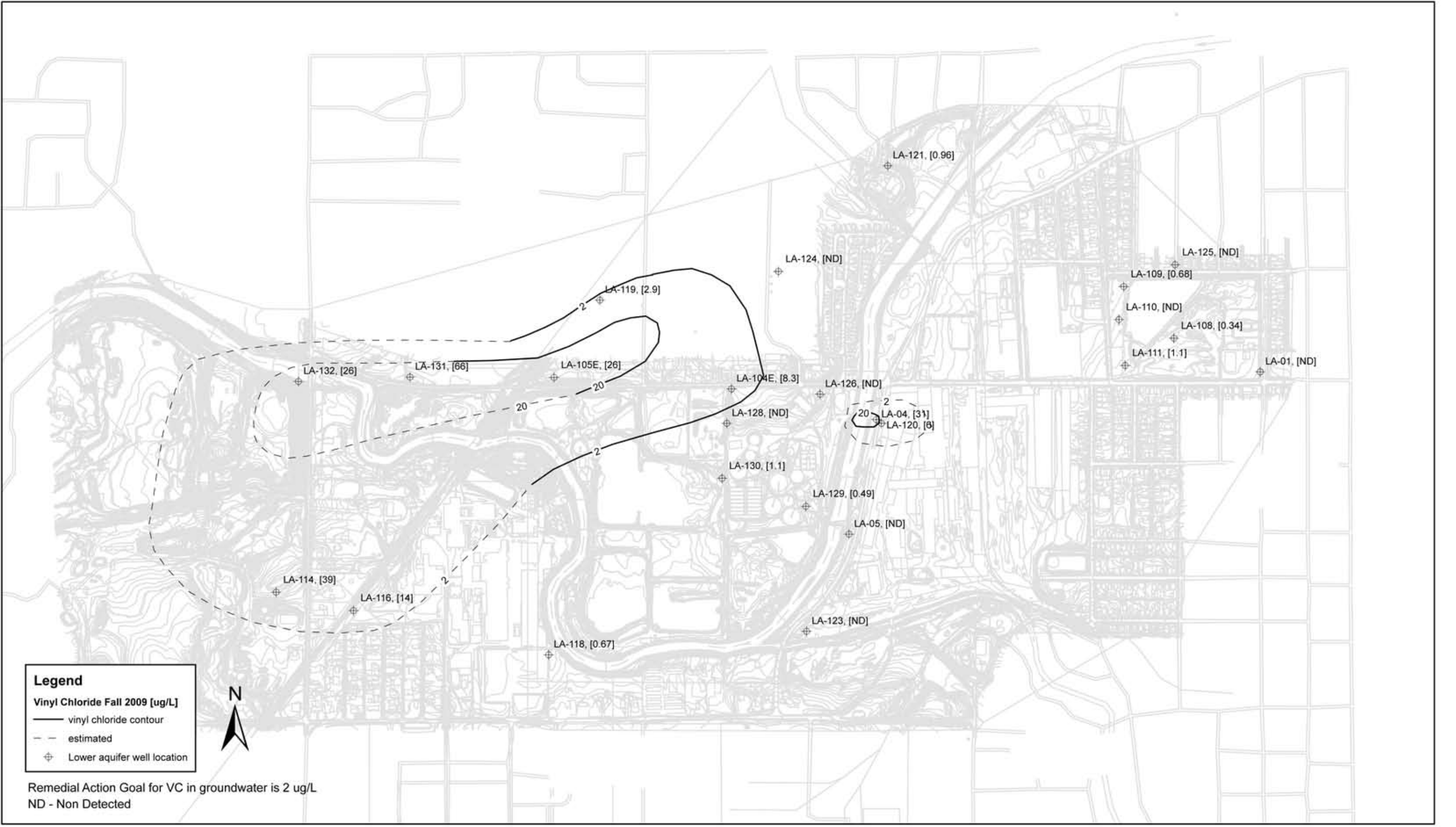
**Figure 14**
Lower Groundwater Aquifer
Cis 1,2 DCE Concentration Map
Continental Steel Superfund Site

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0 365 730 1,460 2,190 2,920 Feet

**Figure 15**
Lower Groundwater Aquifer
Vinyl Chloride Concentration Map
Continental Steel Superfund Site

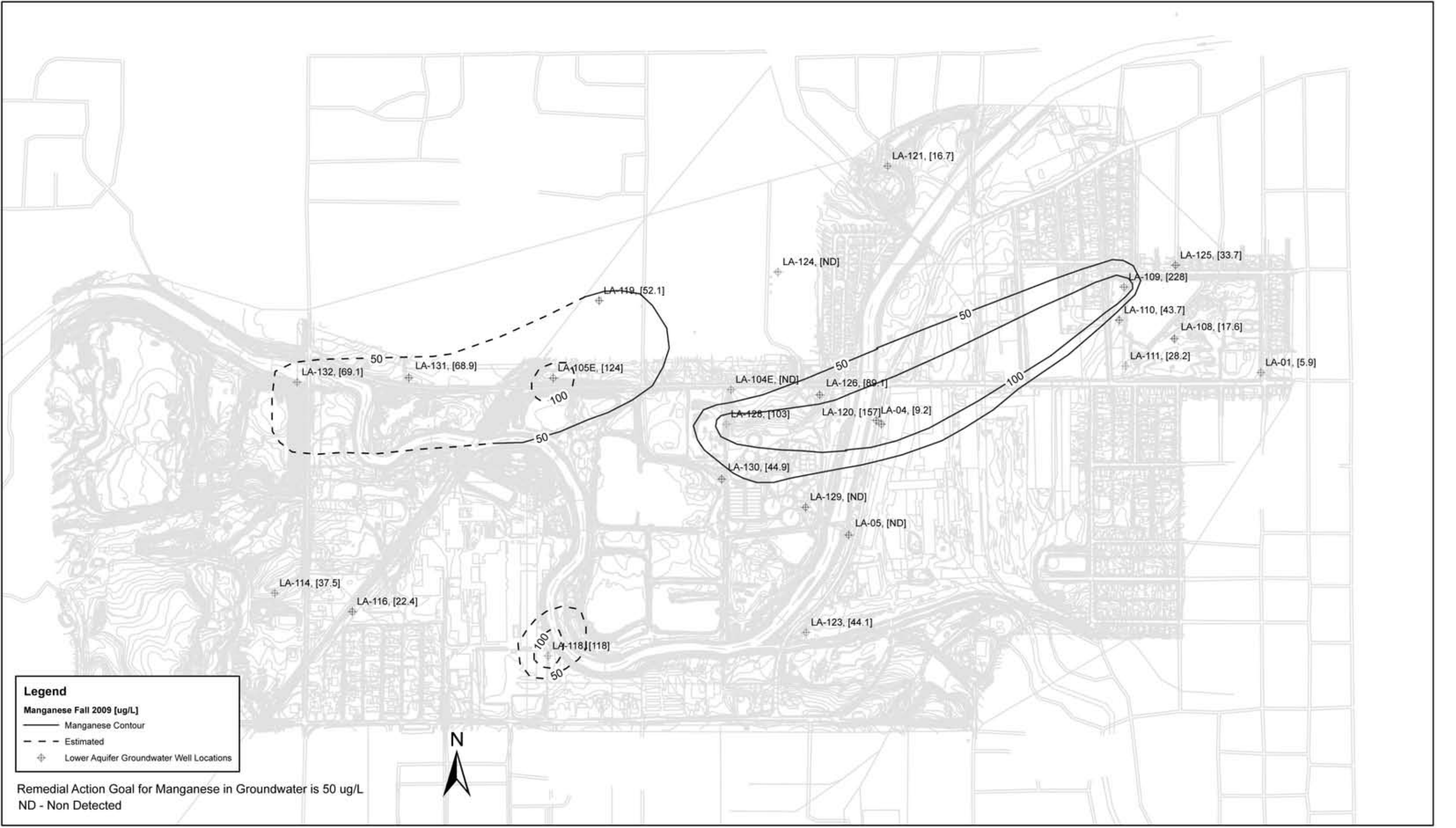


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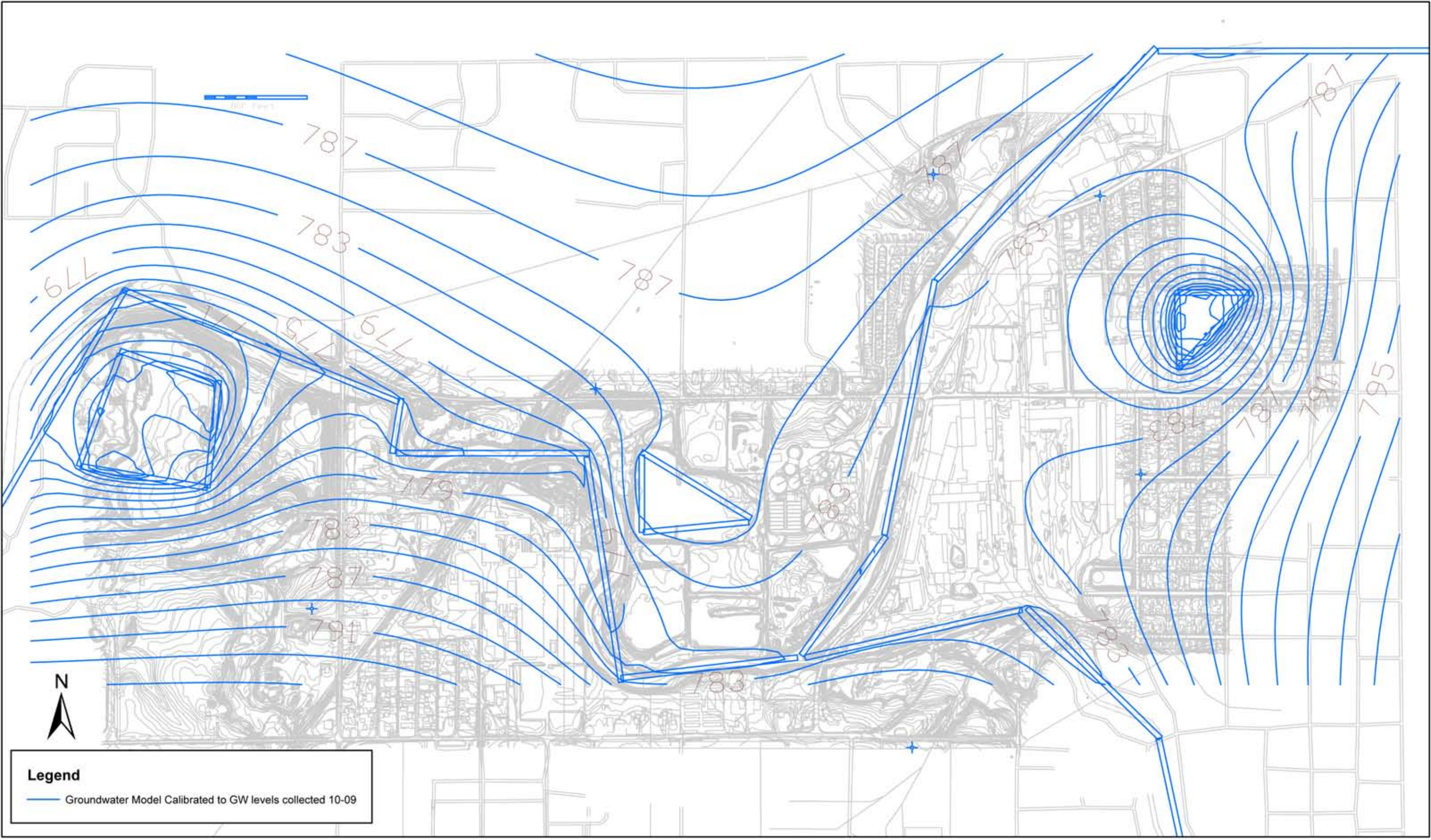
**Figure 16**
Lower Groundwater Aquifer
Manganese Concentration Map
Continental Steel Superfund Site

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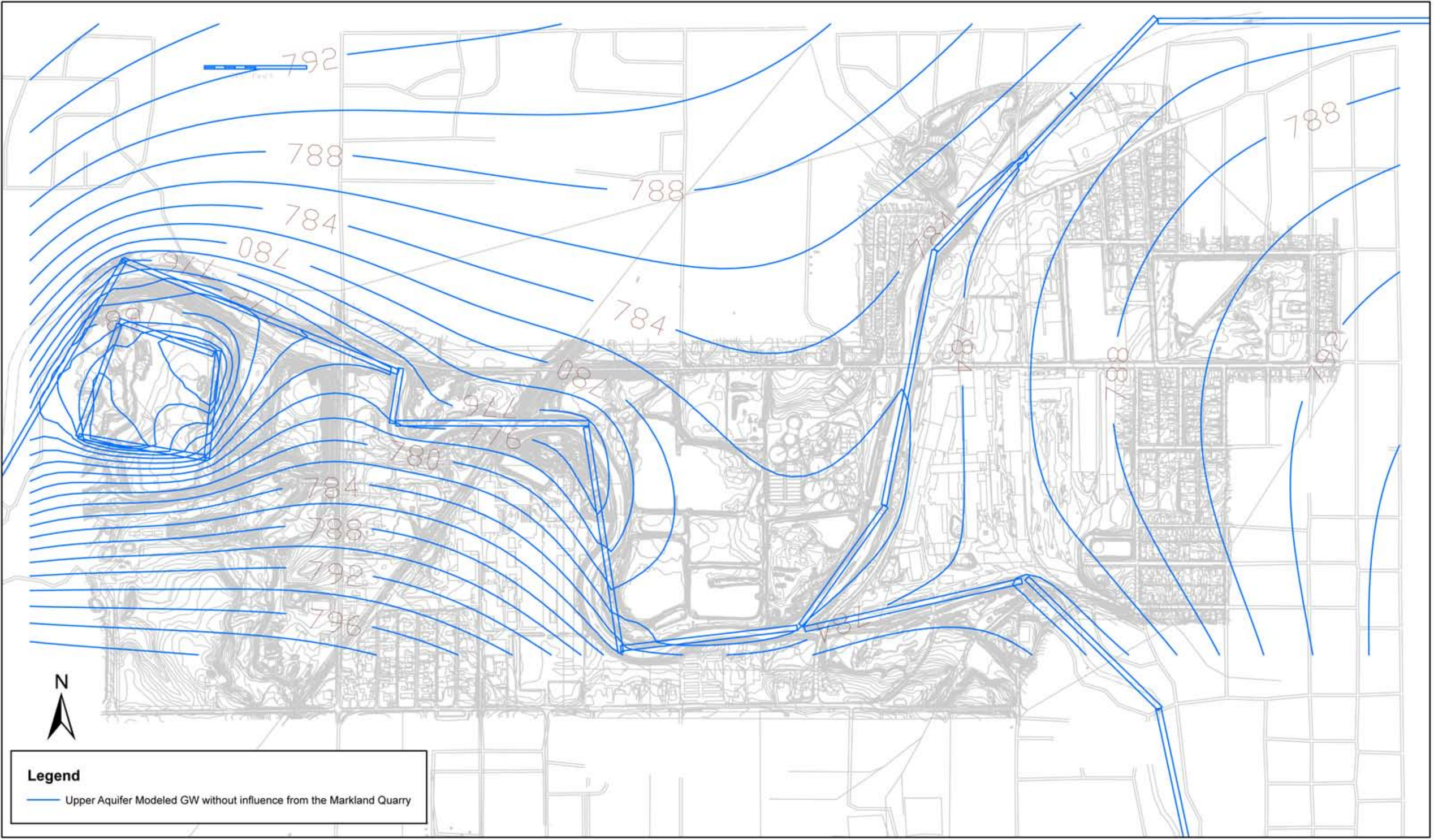
0 445 890 1,780 2,670 3,560 Feet

**Figure 17**

Upper Groundwater Aquifer
Calibration to Current Groundwater
Continental Steel Superfund Site

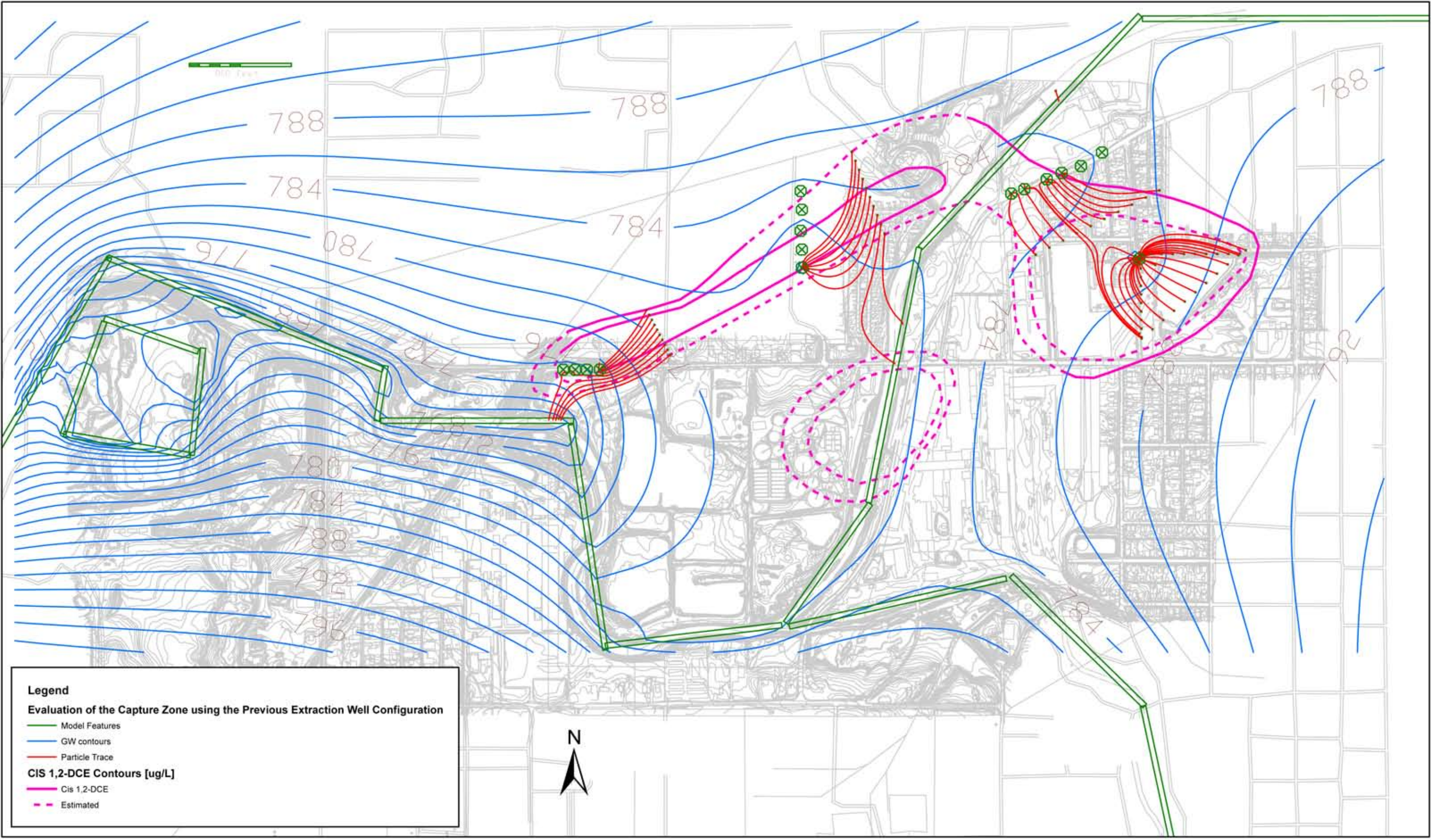



CH2MHILL

0 445 890 1,780 2,670 3,560 Feet

**Figure 18**

Upper Groundwater Aquifer
Modeled Water Levels - Filled Markland Quarry
Continental Steel Superfund Site

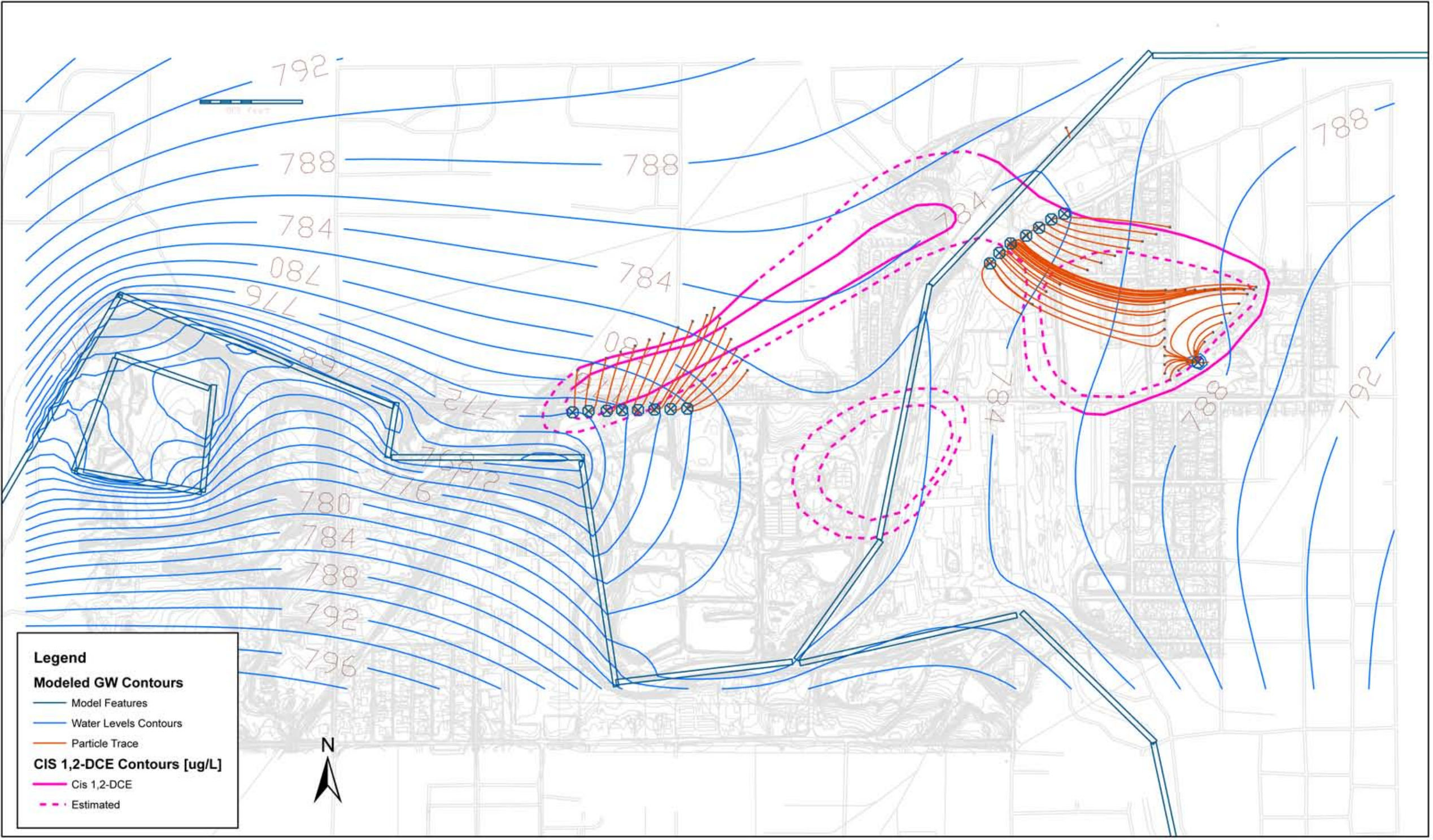



CH2MHILL

0 445 890 1,780 2,670 3,560 Feet

**Figure 19**

Upper Groundwater Aquifer
Previous Extraction Well Configuration
Continental Steel Superfund Site

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0 455 910 1,820 2,730 3,640 Feet

**Figure 20**

Upper Groundwater Aquifer Model
Extraction Well Configuration Modification
Continental Steel Superfund Site

# Appendix A
# Groundwater Results

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (Groundwater Sampling) Investigation*

| | Station ID | EW-11 | EW12-02 | IA109-02 | IA110-02 | IA111-02 | IA114-02 | IA116-02 | IA117-02 | IA118-02 | IA119-02 | IA120-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample Date | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/1/2009 | 9/30/2009 | 10/6/2009 | 9/23/2009 | 10/1/2009 | 10/5/2009 |
| ***Metals*** | | | | | | | | | | | | |
| ALUMINUM (FUME OR DUST) | µg/L | 200 U | 200 U | 200 U | 200 U | 258 | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| ANTIMONY | µg/L | 3.5 J+ | 4.5 J+ | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U |
| ARSENIC | µg/L | 4.7 J | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 3.1 J | 3.2 J |
| BARIUM | µg/L | 200 U | 200 U | 200 U | 133 J | 124 J | 93 J | 211 | 200 U | 250 | 98.6 J | 37.4 J |
| BERYLLIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CADMIUM | µg/L | 5 UJ | 5 UJ | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CALCIUM METAL | µg/L | 508,000 | 554,000 | 53,700 | 99,900 | 135,000 | 156,000 | 117,000 | 102,000 | 88,100 | 127,000 | 184,000 |
| CHROMIUM, TOTAL | µg/L | 27.5 | 11.3 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| COBALT | µg/L | 50 UJ | 50 UJ | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| COPPER | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 1.9 J |
| IRON | µg/L | 120,000 | 152,000 | 172 | 290 | 968 | 1,300 | 100 U | 26.1 J | 144 | 954 | 2,550 |
| LEAD | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| MAGNESIUM | µg/L | 206,000 | 56,100 | 19,000 | 46,200 | 27,900 | 56,700 | 41,700 | 28,800 | 35,300 | 38,800 | 33,200 |
| MANGANESE | µg/L | 1,530 | 1,140 | 20.5 | 29.2 | 108 | 130 | 75.7 | 73.4 | 37.9 | 85.2 | 168 |
| MERCURY | µg/L | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| NICKEL | µg/L | 265 | 100 | 0.96 J | 1 J | 3.5 J | 16.6 J | 2.5 J | 3.9 J | 40 U | 40 U | 16.6 J |
| POTASSIUM | µg/L | 29,400 | 36,300 | 16,600 | 13,100 | 8,710 | 4,250 J | 2,280 J | 3,370 J | 2,460 J | 1,930 J | 7,410 |
| SELENIUM | µg/L | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U |
| SILVER | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| SODIUM | µg/L | 88,600 | 54,700 | 44,200 | 52,900 | 70,000 | 51,400 | 28,900 | 44,700 | 21,600 | 26,900 | 52,800 |
| THALLIUM | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| VANADIUM (FUME OR DUST) | µg/L | 50 U | 50 U | 50 U | 0.92 J | 0.87 J | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| ZINC | µg/L | 29.4 J | 150 | 60 U | 60 U | 9 J | 12.1 J | 60 U | 9.3 J | 60 U | 60 U | 323 |
| | | | | | | | | | | | | |
| ***Semivolatile Organic Compounds*** | | | | | | | | | | | | |
| 1,2,4,5-TETRACHLOROBENZENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 1,2-BENZPHENANTHRACENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2,4,5-TRICHLOROPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2,4,6-TRICHLOROPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2,4-DICHLOROPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2,4-DIMETHYLPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2,4-DINITROPHENOL | µg/L | 24 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 UJ | 9.5 U |
| 2,4-DINITROTOLUENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2,6-DINITROTOLUENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2-CHLORONAPHTHALENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2-CHLOROPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2-METHYLNAPHTHALENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2-METHYLPHENOL (O-CRESOL) | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 2-NITROANILINE | µg/L | 24 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 2-NITROPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (Groundwater Sampling) Investigation*

| Station ID | | EW-11 | EW12-02 | IA109-02 | IA110-02 | IA111-02 | IA114-02 | IA116-02 | IA117-02 | IA118-02 | IA119-02 | IA120-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/1/2009 | 9/30/2009 | 10/6/2009 | 9/23/2009 | 10/1/2009 | 10/5/2009 |
| 3,3'-DICHLOROBENZIDINE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 3-NITROANILINE | µg/L | 24 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 4,6-DINITRO-2-METHYLPHENOL | µg/L | 24 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 4-BROMOPHENYL PHENYL ETHER | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 4-CHLORO-3-METHYLPHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 4-CHLOROPHENYL PHENYL ETHER | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 4-METHYLPHENOL (P-CRESOL) | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 4-NITROPHENOL | µg/L | 24 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| ACENAPHTHENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| ACENAPHTHYLENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| ACETOPHENONE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| ANTHRACENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| ATRAZINE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZALDEHYDE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZO(A)ANTHRACENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZO(A)PYRENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZO(B)FLUORANTHENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZO(G,H,I)PERYLENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZO(K)FLUORANTHENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 UJ | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BENZYL BUTYL PHTHALATE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BIPHENYL (DIPHENYL) | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BIS(2-CHLOROETHOXY) METHANE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER) | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BIS(2-CHLOROISOPROPYL) ETHER | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | µg/L | 12 U | 4.8 U | 1.5 J | 0.65 J | 1.9 J | 4.7 U | 0.68 J | 4.9 | 0.84 J | 5.1 U | 4.7 U |
| CAPROLACTAM | µg/L | 130 | 4.8 U | 0.51 J | 4.7 U | 0.58 J | 4.7 U | 4.7 U | 220 J | 4.7 U | 5.1 U | 4.7 U |
| CARBAZOLE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| CHLOROPHENOLS | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| DIBENZ(A,H)ANTHRACENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| DIBENZOFURAN | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| DIETHYL PHTHALATE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| DIMETHYL PHTHALATE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| DI-N-BUTYL PHTHALATE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| DI-N-OCTYLPHTHALATE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| FLUORANTHENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (Groundwater Sampling) Investigation*

| Station ID | | EW-11 | EW12-02 | IA109-02 | IA110-02 | IA111-02 | IA114-02 | IA116-02 | IA117-02 | IA118-02 | IA119-02 | IA120-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/1/2009** | **9/30/2009** | **10/6/2009** | **9/23/2009** | **10/1/2009** | **10/5/2009** |
| FLUORENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| HEXACHLORO-1,3-BUTADIENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| HEXACHLOROBENZENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| HEXACHLOROCYCLOPENTADIENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| HEXACHLOROETHANE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| INDENO(1,2,3-C,D)PYRENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| NAPHTHALENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| NITROBENZENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| N-NITROSODIPHENYLAMINE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| P-CHLOROANILINE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| PENTACHLOROPHENOL | µg/L | 24 U | 9.5 U | 9.5 UJ | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| PHENANTHRENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| PHENOL | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| P-NITROANILINE | µg/L | 24 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| ***Volatile Organic Compounds*** | µg/L | | | | | | | | | | | |
| PYRENE | µg/L | 12 U | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.7 U | 5.1 U | 4.7 U |
| 1,1,1-TRICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,1,2-TRICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,1-DICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,1-DICHLOROETHYLENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2,3-TRICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2,4-TRICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2-DICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,2-DICHLOROPROPANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,4-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| 1,4-DIOXANE (P-DIOXANE) | µg/L | | | | | | | | | 100 R | | |
| ACETONE | µg/L | 5 U | 5 U | 110 U | 22 U | 160 U | 120 U | 5 U | 170 U | 10 U | 26 U | 240 U |
| BENZENE | µg/L | 0.32 J | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| BROMODICHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| BROMOMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CARBON DISULFIDE | µg/L | 0.31 J | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CARBON TETRACHLORIDE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CFC-11 | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (Groundwater Sampling) Investigation*

| Station ID | | EW-11 | EW12-02 | IA109-02 | IA110-02 | IA111-02 | IA114-02 | IA116-02 | IA117-02 | IA118-02 | IA119-02 | IA120-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/1/2009** | **9/30/2009** | **10/6/2009** | **9/23/2009** | **10/1/2009** | **10/5/2009** |
| CFC-12 | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLORINATED FLUOROCARBON (FREON 113) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLOROBENZENE | µg/L | 0.26 J | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLOROBROMOMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLORODIBROMOMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLOROETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLOROFORM | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 9.3 | 0.5 U | 320 D | 54 D | 380 D | 290 D | 8.7 | 410 D | 13 | 58 D | 410 D |
| CIS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| CYCLOHEXANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| DICHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| ETHYLBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| ISOPROPYLBENZENE (CUMENE) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| m,p-Xylene | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| M-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| METHYL ACETATE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| METHYL ETHYL KETONE (2-BUTANONE) | µg/L | 5 U | 5 U | 110 U | 22 U | 160 U | 120 U | 5 U | 170 U | 10 U | 26 U | 240 U |
| METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE) | µg/L | 5 U | 5 U | 110 U | 22 U | 160 U | 120 U | 5 U | 170 U | 10 U | 26 U | 240 U |
| METHYL N-BUTYL KETONE | µg/L | 5 U | 5 U | 110 U | 22 U | 160 U | 120 U | 5 U | 170 U | 10 U | 26 U | 240 U |
| METHYLBENZENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| METHYLCYLOHEXANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| O-XYLENE (1,2-DIMETHYLBENZENE) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| STYRENE (MONOMER) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| TERT-BUTYL METHYL ETHER | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| TETRACHLOROETHYLENE(PCE) | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| TRANS-1,2-DICHLOROETHENE | µg/L | 0.42 J | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| TRANS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| TRIBOMOMETHANE | µg/L | 0.5 U | 0.5 U | 11 U | 2.2 U | 16 U | 12 U | 0.5 U | 17 U | 5 U | 2.6 U | 24 U |
| TRICHLOROETHYLENE | µg/L | 0.71 | 0.5 U | 17 D | 7.8 D | 12 J | 12 U | 5.3 | 17 U | 1.1 J | 2.6 U | 600 D |
| VINYL CHLORIDE | µg/L | 0.8 | 0.5 U | 140 D | 46 D | 43 D | 36 D | 1.8 | 41 D | 2.8 J | 4.6 D | 24 DJ |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | IA123-02 | IA125-02 | IA126-02 | IA128-02 | IA129-02 | IA130-02 | IA131-02 | LA01-074-02 | LA01-114-02 | LA04-058-02 | LA04-109-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 9/30/2009 | 10/1/2009 | 10/1/2009 | 10/2/2009 | 10/1/2009 | 10/2/2009 | 9/23/2009 | 11/9/2009 | 11/9/2009 | 11/9/2009 | 11/9/2009 |
| ***Metals*** | | | | | | | | | | | | |
| ALUMINUM (FUME OR DUST) | µg/L | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 108 UJ | 85.5 UJ | 118 UJ | 100 J |
| ANTIMONY | µg/L | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U |
| ARSENIC | µg/L | 10 U | 10 U | 5.3 J | 3.3 J | 10 U | 3.8 J | 4.1 J | 3.7 UJ | 4.6 UJ | 6.1 UJ | 7.2 J |
| BARIUM | µg/L | 221 | 122 J | 74.8 J | 200 U | 45.5 J | 200 U | 77.7 J | 103 J | 94.8 J | 200 U | 200 U |
| BERYLLIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CADMIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CALCIUM METAL | µg/L | 124,000 | 76,700 | 120,000 | 168,000 | 163,000 | 167,000 | 162,000 | 121,000 | 85,700 | 163,000 | 131,000 |
| CHROMIUM, TOTAL | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| COBALT | µg/L | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| COPPER | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 9.6 J | 25 U | 25 U | 25 U |
| IRON | µg/L | 120 | 100 U | 684 | 1,610 | 4,020 | 2,670 | 1,810 | 140 | 69.8 J | 2,350 | 666 |
| LEAD | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 4.5 J | 10 U | 10 U | 10 U |
| MAGNESIUM | µg/L | 41,000 | 18,000 | 35,500 | 44,000 | 36,300 | 38,100 | 45,800 | 34,500 | 31,400 | 29,700 | 53,100 |
| MANGANESE | µg/L | 66.4 | 23.6 | 117 | 243 | 114 | 155 | 182 | 73.7 | 5.9 J | 95.7 | 9.2 J |
| MERCURY | µg/L | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 R | 0.2 R | 0.2 R | 0.2 R |
| NICKEL | µg/L | 40 U | 2.1 J | 4.6 J | 40 U | 3.7 J | 40 U | 8.1 J | 40 U | 40 U | 40 U | 40 U |
| POTASSIUM | µg/L | 3,340 J | 15,300 | 3,940 J | 5,880 | 5,910 | 7,860 | 6,380 | 2,500 J | 3,480 J | 4,190 J | 13,900 |
| SELENIUM | µg/L | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U |
| SILVER | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| SODIUM | µg/L | 40,500 | 47,400 | 46,700 | 70,900 | 52,200 | 84,500 | 69,500 | 58,900 | 14,800 | 49,600 | 46,900 |
| THALLIUM | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| VANADIUM (FUME OR DUST) | µg/L | 50 U | 1 J | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| ZINC | µg/L | 60 U | 5.9 J | 72 | 60 U | 7.6 J | 60 U | 9.8 J | 31.3 J | 60 U | 88.8 | 60 U |
| ***Semivolatile Organic Compounds*** | | | | | | | | | | | | |
| 1,2,4,5-TETRACHLOROBENZENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-BENZPHENANTHRACENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2,4,5-TRICHLOROPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2,4,6-TRICHLOROPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2,4-DICHLOROPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2,4-DIMETHYLPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 UJ | 5 UJ | 5 UJ | 5 UJ |
| 2,4-DINITROPHENOL | µg/L | 9.4 U | 9.5 UJ | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-DINITROTOLUENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2,6-DINITROTOLUENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2-CHLORONAPHTHALENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2-CHLOROPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2-METHYLNAPHTHALENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2-METHYLPHENOL (O-CRESOL) | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 2-NITROANILINE | µg/L | 9.4 U | 9.5 U | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| 2-NITROPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | IA123-02 | IA125-02 | IA126-02 | IA128-02 | IA129-02 | IA130-02 | IA131-02 | LA01-074-02 | LA01-114-02 | LA04-058-02 | LA04-109-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 9/30/2009 | 10/1/2009 | 10/1/2009 | 10/2/2009 | 10/1/2009 | 10/2/2009 | 9/23/2009 | 11/9/2009 | 11/9/2009 | 11/9/2009 | 11/9/2009 |
| 3,3'-DICHLOROBENZIDINE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 3-NITROANILINE | µg/L | 9.4 U | 9.5 U | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| 4,6-DINITRO-2-METHYLPHENOL | µg/L | 9.4 U | 9.5 U | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| 4-BROMOPHENYL PHENYL ETHER | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 4-CHLORO-3-METHYLPHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 4-CHLOROPHENYL PHENYL ETHER | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 4-METHYLPHENOL (P-CRESOL) | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 4-NITROPHENOL | µg/L | 9.4 U | 9.5 U | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| ACENAPHTHENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| ACENAPHTHYLENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| ACETOPHENONE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| ANTHRACENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| ATRAZINE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZALDEHYDE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZO(A)ANTHRACENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZO(A)PYRENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZO(B)FLUORANTHENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZO(G,H,I)PERYLENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZO(K)FLUORANTHENE | µg/L | 4.7 UJ | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BENZYL BUTYL PHTHALATE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BIPHENYL (DIPHENYL) | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BIS(2-CHLOROETHOXY) METHANE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER) | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BIS(2-CHLOROISOPROPYL) ETHER | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | µg/L | 4.7 U | 1.7 J | 5 U | 10 | 4.8 U | 4.8 U | 3.8 J | 5 U | 5 U | 5 U | 5 U |
| CAPROLACTAM | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 13 | 5 U | 5 U |
| CARBAZOLE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| CHLOROPHENOLS | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| DIBENZ(A,H)ANTHRACENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| DIBENZOFURAN | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| DIETHYL PHTHALATE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| DIMETHYL PHTHALATE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| DI-N-BUTYL PHTHALATE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| DI-N-OCTYLPHTHALATE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| FLUORANTHENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | IA123-02 | IA125-02 | IA126-02 | IA128-02 | IA129-02 | IA130-02 | IA131-02 | LA01-074-02 | LA01-114-02 | LA04-058-02 | LA04-109-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **9/30/2009** | **10/1/2009** | **10/1/2009** | **10/2/2009** | **10/1/2009** | **10/2/2009** | **9/23/2009** | **11/9/2009** | **11/9/2009** | **11/9/2009** | **11/9/2009** |
| FLUORENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| HEXACHLORO-1,3-BUTADIENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| HEXACHLOROBENZENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| HEXACHLOROCYCLOPENTADIENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| HEXACHLOROETHANE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| INDENO(1,2,3-C,D)PYRENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| NAPHTHALENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| NITROBENZENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| N-NITROSODIPHENYLAMINE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| P-CHLOROANILINE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| PENTACHLOROPHENOL | µg/L | 9.4 U | 9.5 UJ | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| PHENANTHRENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| PHENOL | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| P-NITROANILINE | µg/L | 9.4 U | 9.5 U | 10 U | 9.4 U | 9.7 U | 9.6 U | 9.5 U | 10 U | 10 U | 10 U | 10 U |
| ***Volatile Organic Compounds*** | µg/L | | | | | | | | | | | |
| PYRENE | µg/L | 4.7 U | 4.7 U | 5 U | 4.7 U | 4.8 U | 4.8 U | 4.8 U | 5 U | 5 U | 5 U | 5 U |
| 1,1,1-TRICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1,2-TRICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1-DICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1-DICHLOROETHYLENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 1.3 J | 5 U |
| 1,2,3-TRICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2,4-TRICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-DICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-DICHLOROPROPANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,4-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,4-DIOXANE (P-DIOXANE) | µg/L | | | | | | | 100 R | 100 R | 100 R | 100 R | 100 R |
| ACETONE | µg/L | 5 U | 5 U | 54 U | 150 U | 48 U | 610 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| BENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| BROMODICHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| BROMOMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CARBON DISULFIDE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CARBON TETRACHLORIDE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CFC-11 | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | IA123-02 | IA125-02 | IA126-02 | IA128-02 | IA129-02 | IA130-02 | IA131-02 | LA01-074-02 | LA01-114-02 | LA04-058-02 | LA04-109-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **9/30/2009** | **10/1/2009** | **10/1/2009** | **10/2/2009** | **10/1/2009** | **10/2/2009** | **9/23/2009** | **11/9/2009** | **11/9/2009** | **11/9/2009** | **11/9/2009** |
| CFC-12 | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLORINATED FLUOROCARBON (FREON 113) | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLOROBROMOMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLORODIBROMOMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLOROETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLOROFORM | µg/L | 0.5 U | 2 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 1.5 | 13 | 130 D | 370 D | 120 D | 1,600 D | 610 J | 5 U | 5 U | 55 J | 21 |
| CIS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CYCLOHEXANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| DICHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| ETHYLBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| ISOPROPYLBENZENE (CUMENE) | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| m,p-Xylene | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| M-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHYL ACETATE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHYL ETHYL KETONE (2-BUTANONE) | µg/L | 5 U | 5 U | 54 U | 150 U | 48 U | 610 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE) | µg/L | 5 U | 5 U | 54 U | 150 U | 48 U | 610 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| METHYL N-BUTYL KETONE | µg/L | 5 U | 5 U | 54 U | 150 U | 48 U | 610 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| METHYLBENZENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHYLCYLOHEXANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| O-XYLENE (1,2-DIMETHYLBENZENE) | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| STYRENE (MONOMER) | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TERT-BUTYL METHYL ETHER | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TETRACHLOROETHYLENE(PCE) | µg/L | 0.5 U | 0.5 U | 21 D | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TRANS-1,2-DICHLOROETHENE | µg/L | 0.5 U | 1.7 | 5.4 U | 15 U | 4.8 U | 61 U | 4 J | 5 U | 5 U | 5 U | 5 U |
| TRANS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TRIBOMOMETHANE | µg/L | 0.5 U | 0.5 U | 5.4 U | 15 U | 4.8 U | 61 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TRICHLOROETHYLENE | µg/L | 0.5 U | 5.4 | 35 D | 28 D | 4.8 U | 1,000 D | 80 | 5 U | 5 U | 5 U | 5 U |
| VINYL CHLORIDE | µg/L | 0.24 J | 0.5 U | 4.3 J | 32 D | 38 D | 55 J | 47 | 5 U | 5 U | 25 | 31 |

| Station ID | | LA05-057-02 | LA05-112-02 | LA102C-02 | LA104E-02 | LA105C-02 | LA105E-02 | LA108-02 | LA109-02 | LA110-02 | LA111-02 | LA114-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **11/10/2009** | **11/10/2009** | **9/24/2009** | **10/2/2009** | **9/30/2009** | **9/30/2009** | **10/1/2009** | **10/6/2009** | **10/6/2009** | **10/2/2009** | **10/1/2009** |
| ***Metals*** | | | | | | | | | | | | |
| ALUMINUM (FUME OR DUST) | µg/L | 96.7 J | 69.8 J | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 146 J | 200 U | 200 U |
| ANTIMONY | µg/L | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 2 J |
| ARSENIC | µg/L | 3.4 J | 3.7 J | 3.9 J | 10 U | 2.4 J | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| BARIUM | µg/L | 76.7 J | 97.3 J | 162 J | 200 U | 200 U | 200 U | 200 U | 200 U | 80.3 J | 200 U | 80.4 J |
| BERYLLIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CADMIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CALCIUM METAL | µg/L | 103,000 | 77,600 | 116,000 | 106,000 | 155,000 | 168,000 | 105,000 | 82,500 | 89,800 | 106,000 | 81,000 |
| CHROMIUM, TOTAL | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| COBALT | µg/L | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| COPPER | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 1.3 J | 25 U | 25 U | 25 U |
| IRON | µg/L | 614 | 177 | 1,030 | 505 | 1,000 | 3,150 | 365 | 399 | 185 | 367 | 58.3 J |
| LEAD | µg/L | 10 U | 4 J | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| MAGNESIUM | µg/L | 30,400 | 33,000 | 42,700 | 47,000 | 42,700 | 38,100 | 40,000 | 39,100 | 40,300 | 43,500 | 32,800 |
| MANGANESE | µg/L | 86.5 | 15 U | 55.7 | 15 U | 124 | 124 | 17.6 | 228 | 43.7 | 28.2 | 37.5 |
| MERCURY | µg/L | 0.2 R | 0.2 R | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| NICKEL | µg/L | 40 U | 40 U | 40 U | 4.4 J | 3.5 J | 6.8 J | 40 U | 9 J | 2.8 J | 40 U | 5.4 J |
| POTASSIUM | µg/L | 4,970 J | 10,200 | 2,780 J | 11,700 | 3,630 J | 7,040 | 8,700 | 10,800 | 12,500 | 9,760 | 9,140 |
| SELENIUM | µg/L | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U |
| SILVER | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| SODIUM | µg/L | 39,400 | 46,400 | 34,800 | 63,400 | 45,500 | 56,300 | 23,200 | 29,500 | 26,200 | 24,100 | 60,100 |
| THALLIUM | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| VANADIUM (FUME OR DUST) | µg/L | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 0.79 J | 50 U | 1.4 J | 50 U | 50 U |
| ZINC | µg/L | 60 U | 60 U | 17 J | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U |
| ***Semivolatile Organic Compounds*** | | | | | | | | | | | | |
| 1,2,4,5-TETRACHLOROBENZENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 1,2-BENZPHENANTHRACENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2,4,5-TRICHLOROPHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2,4,6-TRICHLOROPHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2,4-DICHLOROPHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2,4-DIMETHYLPHENOL | µg/L | 5 UJ | 5 UJ | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2,4-DINITROPHENOL | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 UJ | 9.4 UJ | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| 2,4-DINITROTOLUENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2,6-DINITROTOLUENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2-CHLORONAPHTHALENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2-CHLOROPHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2-METHYLNAPHTHALENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2-METHYLPHENOL (O-CRESOL) | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 2-NITROANILINE | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| 2-NITROPHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |

| Station ID | | LA05-057-02 | LA05-112-02 | LA102C-02 | LA104E-02 | LA105C-02 | LA105E-02 | LA108-02 | LA109-02 | LA110-02 | LA111-02 | LA114-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 11/10/2009 | 11/10/2009 | 9/24/2009 | 10/2/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 10/6/2009 | 10/6/2009 | 10/2/2009 | 10/1/2009 |
| 3,3'-DICHLOROBENZIDINE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 3-NITROANILINE | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| 4,6-DINITRO-2-METHYLPHENOL | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| 4-BROMOPHENYL PHENYL ETHER | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 4-CHLORO-3-METHYLPHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 4-CHLOROPHENYL PHENYL ETHER | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 4-METHYLPHENOL (P-CRESOL) | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 4-NITROPHENOL | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| ACENAPHTHENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| ACENAPHTHYLENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| ACETOPHENONE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| ANTHRACENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| ATRAZINE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZALDEHYDE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZO(A)ANTHRACENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZO(A)PYRENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZO(B)FLUORANTHENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZO(G,H,I)PERYLENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZO(K)FLUORANTHENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BENZYL BUTYL PHTHALATE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BIPHENYL (DIPHENYL) | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BIS(2-CHLOROETHOXY) METHANE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER) | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BIS(2-CHLOROISOPROPYL) ETHER | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | µg/L | 5 U | 5 U | 2.4 J | 0.47 J | 0.97 J | 1.8 J | 0.53 J | 1,600 U | 610 U | 1.6 J | 3.1 J |
| CAPROLACTAM | µg/L | 1.6 J | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 14,000 | 7,400 | 4.7 U | 92 J |
| CARBAZOLE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| CHLOROPHENOLS | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| DIBENZ(A,H)ANTHRACENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| DIBENZOFURAN | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| DIETHYL PHTHALATE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| DIMETHYL PHTHALATE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| DI-N-BUTYL PHTHALATE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| DI-N-OCTYLPHTHALATE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| FLUORANTHENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |

| Station ID | | LA05-057-02 | LA05-112-02 | LA102C-02 | LA104E-02 | LA105C-02 | LA105E-02 | LA108-02 | LA109-02 | LA110-02 | LA111-02 | LA114-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **11/10/2009** | **11/10/2009** | **9/24/2009** | **10/2/2009** | **9/30/2009** | **9/30/2009** | **10/1/2009** | **10/6/2009** | **10/6/2009** | **10/2/2009** | **10/1/2009** |
| FLUORENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| HEXACHLORO-1,3-BUTADIENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| HEXACHLOROBENZENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| HEXACHLOROCYCLOPENTADIENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| HEXACHLOROETHANE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| INDENO(1,2,3-C,D)PYRENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| NAPHTHALENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| NITROBENZENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| N-NITROSODIPHENYLAMINE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| P-CHLOROANILINE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| PENTACHLOROPHENOL | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| PHENANTHRENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| PHENOL | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| P-NITROANILINE | µg/L | 10 U | 10 U | 9.6 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 3,200 U | 1,200 U | 9.5 U | 9.6 U |
| ***Volatile Organic Compounds*** | µg/L | | | | | | | | | | | |
| PYRENE | µg/L | 5 U | 5 U | 4.8 U | 4.7 U | 4.7 U | 4.7 U | 4.8 U | 1,600 U | 610 U | 4.7 U | 4.8 U |
| 1,1,1-TRICHLOROETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,1,2-TRICHLOROETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,1-DICHLOROETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 3.8 D |
| 1,1-DICHLOROETHYLENE | µg/L | 1 J | 1.4 J | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2,3-TRICHLOROBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2,4-TRICHLOROBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2-DICHLOROBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2-DICHLOROETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,2-DICHLOROPROPANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,4-DICHLOROBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| 1,4-DIOXANE (P-DIOXANE) | µg/L | 100 R | 100 R | 100 R | | | | | | | | |
| ACETONE | µg/L | 10 U | 10 U | 10 U | 5 U | 67 U | 220 U | 5 U | 5 U | 15 U | 5 U | 12 U |
| BENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| BROMODICHLOROMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| BROMOMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CARBON DISULFIDE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CARBON TETRACHLORIDE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CFC-11 | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | LA05-057-02 | LA05-112-02 | LA102C-02 | LA104E-02 | LA105C-02 | LA105E-02 | LA108-02 | LA109-02 | LA110-02 | LA111-02 | LA114-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **11/10/2009** | **11/10/2009** | **9/24/2009** | **10/2/2009** | **9/30/2009** | **9/30/2009** | **10/1/2009** | **10/6/2009** | **10/6/2009** | **10/2/2009** | **10/1/2009** |
| CFC-12 | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLORINATED FLUOROCARBON (FREON 113) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLOROBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLOROBROMOMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLORODIBROMOMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLOROETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLOROFORM | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CHLOROMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 1.2 J | 5 U | 100 | 18 | 170 D | 570 D | 8.4 | 16 | 33 D | 9.7 | 28 D |
| CIS-1,3-DICHLOROPROPENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| CYCLOHEXANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| DICHLOROMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| ETHYLBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| ISOPROPYLBENZENE (CUMENE) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| m,p-Xylene | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| M-DICHLOROBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| METHYL ACETATE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| METHYL ETHYL KETONE (2-BUTANONE) | µg/L | 10 U | 10 U | 10 U | 5 U | 67 U | 220 U | 5 U | 5 U | 15 U | 5 U | 12 U |
| METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE) | µg/L | 10 U | 10 U | 10 U | 5 U | 67 U | 220 U | 5 U | 5 U | 15 U | 5 U | 12 U |
| METHYL N-BUTYL KETONE | µg/L | 10 U | 10 U | 10 U | 5 U | 67 U | 220 U | 5 U | 5 U | 15 U | 5 U | 12 U |
| METHYLBENZENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| METHYLCYLOHEXANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| O-XYLENE (1,2-DIMETHYLBENZENE) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| STYRENE (MONOMER) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| TERT-BUTYL METHYL ETHER | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| TETRACHLOROETHYLENE(PCE) | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| TRANS-1,2-DICHLOROETHENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 0.6 J | 0.5 U | 1.2 U |
| TRANS-1,3-DICHLOROPROPENE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| TRIBOMOMETHANE | µg/L | 5 U | 5 U | 5 U | 0.5 U | 6.7 U | 22 U | 0.5 U | 0.5 U | 1.5 U | 0.5 U | 1.2 U |
| TRICHLOROETHYLENE | µg/L | 5 U | 5 U | 5 U | 1.4 | 6.7 U | 130 D | 2 | 0.39 J | 1.5 U | 2.3 | 1.2 U |
| VINYL CHLORIDE | µg/L | 5 U | 5 U | 14 | 8.3 | 11 D | 27 D | 0.34 J | 0.68 | 1.5 U | 1.1 | 39 D |

APPENDIX A
Groundwater Results
*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | LA116-02 | LA118-02 | LA119-02 | LA120-02 | LA121-02 | LA123-02 | LA124-02 | LA125-02 | LA126-02 | LA128-02 | LA129-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 9/24/2009 | 9/23/2009 | 10/1/2009 | 10/5/2009 | 10/6/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 10/1/2009 | 10/2/2009 | 10/1/2009 |
| ***Metals*** | | | | | | | | | | | | |
| ALUMINUM (FUME OR DUST) | µg/L | 200 U | 200 U | 200 U | 200 U | 273 | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| ANTIMONY | µg/L | 2.6 J | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U |
| ARSENIC | µg/L | 10 U | 10.9 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| BARIUM | µg/L | 146 J | 261 | 79.5 J | 67.2 J | 134 J | 352 | 200 U | 103 J | 200 U | 200 U | 200 U |
| BERYLLIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CADMIUM | µg/L | 5 U | 0.15 J | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CALCIUM METAL | µg/L | 72,100 | 62,300 | 99,300 | 161,000 | 94,200 | 68,800 | 64,200 | 98,600 | 111,000 | 89,700 | 67,200 |
| CHROMIUM, TOTAL | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| COBALT | µg/L | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| COPPER | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| IRON | µg/L | 902 | 7,030 | 38.9 J- | 326 | 394 | 100 U | 277 | 738 | 230 | 109 | 100 U |
| LEAD | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| MAGNESIUM | µg/L | 29,000 | 35,600 | 39,600 | 59,500 | 41,300 | 32,500 | 30,100 | 33,600 | 51,500 | 36,700 | 30,300 |
| MANGANESE | µg/L | 22.4 | 118 | 52.1 | 157 | 16.7 | 44.1 | 15 U | 33.7 | 89.1 | 103 | 15 U |
| MERCURY | µg/L | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| NICKEL | µg/L | 3 J | 7.9 J | 1.5 J | 4.5 J | 5.6 J | 40 U | 2.3 J | 40 U | 4.4 J | 40 U | 40 U |
| POTASSIUM | µg/L | 7,300 | 12,600 | 7,630 | 11,900 | 10,600 | 14,400 | 11,900 | 5,080 | 15,700 | 16,300 | 18,400 |
| SELENIUM | µg/L | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U |
| SILVER | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| SODIUM | µg/L | 51,600 | 86,600 | 40,000 | 90,000 | 29,000 | 51,500 | 62,500 | 21,400 | 66,800 | 77,700 | 74,800 |
| THALLIUM | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| VANADIUM (FUME OR DUST) | µg/L | 50 U | 50 U | 50 U | 50 U | 1.5 J | 50 U | 50 U | 50 U | 50 U | 50 U | 0.84 J |
| ZINC | µg/L | 9.2 J | 27.1 J | 4.8 J | 60 U | 60 U | 60 U | 60 U | 13.2 J | 60 U | 60 U | 60 U |
| ***Semivolatile Organic Compounds*** | | | | | | | | | | | | |
| 1,2,4,5-TETRACHLOROBENZENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 1,2-BENZPHENANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2,4,5-TRICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2,4,6-TRICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2,4-DICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2,4-DIMETHYLPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2,4-DINITROPHENOL | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 2,4-DINITROTOLUENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2,6-DINITROTOLUENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2-CHLORONAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2-CHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2-METHYLNAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2-METHYLPHENOL (O-CRESOL) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 2-NITROANILINE | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 2-NITROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | LA116-02 | LA118-02 | LA119-02 | LA120-02 | LA121-02 | LA123-02 | LA124-02 | LA125-02 | LA126-02 | LA128-02 | LA129-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 9/24/2009 | 9/23/2009 | 10/1/2009 | 10/5/2009 | 10/6/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 10/1/2009 | 10/2/2009 | 10/1/2009 |
| 3,3'-DICHLOROBENZIDINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 3-NITROANILINE | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 4,6-DINITRO-2-METHYLPHENOL | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| 4-BROMOPHENYL PHENYL ETHER | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 4-CHLORO-3-METHYLPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 4-CHLOROPHENYL PHENYL ETHER | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 4-METHYLPHENOL (P-CRESOL) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 4-NITROPHENOL | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| ACENAPHTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| ACENAPHTHYLENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| ACETOPHENONE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| ATRAZINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZALDEHYDE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZO(A)ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZO(A)PYRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZO(B)FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZO(G,H,I)PERYLENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZO(K)FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 UJ | 4.7 UJ | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BENZYL BUTYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BIPHENYL (DIPHENYL) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BIS(2-CHLOROETHOXY) METHANE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BIS(2-CHLOROISOPROPYL) ETHER | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | µg/L | 14 | 7.6 | 4.7 U | 3.2 J | 0.98 J | 1.2 J | 13 | 0.5 J | 4.7 J | 2.6 J | 3.3 J |
| CAPROLACTAM | µg/L | 4.8 U | 1.2 J | 4.7 U | 0.97 J | 88 J | 230 J | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| CARBAZOLE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| CHLOROPHENOLS | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| DIBENZ(A,H)ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| DIBENZOFURAN | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| DIETHYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| DIMETHYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| DI-N-BUTYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| DI-N-OCTYLPHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |

| Station ID | | LA116-02 | LA118-02 | LA119-02 | LA120-02 | LA121-02 | LA123-02 | LA124-02 | LA125-02 | LA126-02 | LA128-02 | LA129-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 9/24/2009 | 9/23/2009 | 10/1/2009 | 10/5/2009 | 10/6/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 10/1/2009 | 10/2/2009 | 10/1/2009 |
| FLUORENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| HEXACHLORO-1,3-BUTADIENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| HEXACHLOROBENZENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| HEXACHLOROCYCLOPENTADIENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| HEXACHLOROETHANE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| INDENO(1,2,3-C,D)PYRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| NAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| NITROBENZENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| N-NITROSODIPHENYLAMINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| P-CHLOROANILINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| PENTACHLOROPHENOL | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| PHENANTHRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| PHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| P-NITROANILINE | µg/L | 9.6 U | 9.6 U | 9.4 U | 9.5 U | 9.6 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 10 U | 9.5 U |
| ***Volatile Organic Compounds*** | µg/L | | | | | | | | | | | |
| PYRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 U | 5.2 U | 4.8 U |
| 1,1,1-TRICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,2-TRICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-DICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-DICHLOROETHYLENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,3-TRICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,4-TRICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-DICHLOROETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-DICHLOROPROPANE | µg/L | 0.5 U | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,4-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,4-DIOXANE (P-DIOXANE) | µg/L | | | | | | | | | | | |
| ACETONE | µg/L | 5 U | 1.2 J | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 1.8 J | 5 U | 5 U |
| BENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.22 J | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| BROMODICHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| BROMOMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CARBON DISULFIDE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CARBON TETRACHLORIDE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CFC-11 | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | LA116-02 | LA118-02 | LA119-02 | LA120-02 | LA121-02 | LA123-02 | LA124-02 | LA125-02 | LA126-02 | LA128-02 | LA129-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **9/24/2009** | **9/23/2009** | **10/1/2009** | **10/5/2009** | **10/6/2009** | **9/30/2009** | **9/30/2009** | **10/1/2009** | **10/1/2009** | **10/2/2009** | **10/1/2009** |
| CFC-12 | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CHLORINATED FLUOROCARBON (FREON 113) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CHLOROBROMOMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CHLORODIBROMOMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CHLOROETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CHLOROFORM | µg/L | 0.5 U | 1.9 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.22 J | 0.5 U | 0.5 U |
| CHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 12 | 9.5 | 15 | 11 | 0.98 | 0.5 U | 10 | 1.8 | 3.1 | 1.8 | 0.8 |
| CIS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| CYCLOHEXANE | µg/L | 0.5 U | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| DICHLOROMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| ETHYLBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| ISOPROPYLBENZENE (CUMENE) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| m,p-Xylene | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| M-DICHLOROBENZENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| METHYL ACETATE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| METHYL ETHYL KETONE (2-BUTANONE) | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE) | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHYL N-BUTYL KETONE | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHYLBENZENE | µg/L | 0.5 U | 0.5 U | 0.86 | 0.24 J | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.58 | 0.86 | 0.36 J |
| METHYLCYLOHEXANE | µg/L | 0.5 U | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| O-XYLENE (1,2-DIMETHYLBENZENE) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| STYRENE (MONOMER) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TERT-BUTYL METHYL ETHER | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TETRACHLOROETHYLENE(PCE) | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TRANS-1,2-DICHLOROETHENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TRANS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TRIBOMOMETHANE | µg/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TRICHLOROETHYLENE | µg/L | 0.38 J | 1.6 | 0.5 U | 3.6 | 0.5 U | 0.5 U | 14 | 2.1 | 0.5 U | 0.25 J | 0.5 U |
| VINYL CHLORIDE | µg/L | 14 | 0.67 | 2.9 | 6 | 0.96 | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.49 J |

| Station ID | | LA130-05 | LA131-02 | LA132-02 | UA001-02 | UA002-02 | UA018-03 | UA020-02 | UA024-02 | UA105-02 | UA112-02 | UA118-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/6/2009 | 9/23/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/5/2009 | 10/6/2009 | 9/30/2009 | 10/7/2009 | 9/23/2009 |
| ***Metals*** | | | | | | | | | | | | |
| ALUMINUM (FUME OR DUST) | µg/L | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 93.3 J | 200 U |
| ANTIMONY | µg/L | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U |
| ARSENIC | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 40.8 | 10 U |
| BARIUM | µg/L | 47.7 J | 61.1 J | 93.1 J | 59.8 J | 43.8 J | 75.6 J | 60.4 J | 200 U | 200 U | 278 | 139 J |
| BERYLLIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| CADMIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 UJ | 5 U | 5 U |
| CALCIUM METAL | µg/L | 79,500 | 148,000 | 129,000 | 84,100 | 114,000 | 117,000 | 136,000 | 137,000 | 557,000 | 90,600 | 144,000 |
| CHROMIUM, TOTAL | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 4.3 J | 10 U | 10 U |
| COBALT | µg/L | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U | 50 UJ | 50 U | 50 U |
| COPPER | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 2.5 J | 25 U | 25 U | 25 U | 25 U | 25 U |
| IRON | µg/L | 656 | 2,490 | 1,820 | 100 U | 100 U | 100 U | 561 | 100 U | 14,600 | 3,520 | 3,020 |
| LEAD | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 UJ | 10 U | 10 U |
| MAGNESIUM | µg/L | 38,300 | 39,900 | 40,000 | 8,980 | 29,200 | 35,000 | 40,800 | 38,500 | 54,600 | 33,200 | 43,200 |
| MANGANESE | µg/L | 44.9 | 68.9 | 69.1 | 15 U | 15 U | 15 U | 88 | 357 | 625 | 100 | 336 |
| MERCURY | µg/L | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| NICKEL | µg/L | 40 U | 5.4 J | 1.6 J | 2.1 J | 40 U | 10.3 J | 11.4 J | 5.4 J | 100 | 0.98 J | 40 U |
| POTASSIUM | µg/L | 14,400 | 7,810 | 4,000 J | 2,230 J | 1,230 J- | 4,280 J | 8,760 | 7,850 | 10,900 | 2,110 J | 1,530 J |
| SELENIUM | µg/L | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U |
| SILVER | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| SODIUM | µg/L | 74,500 | 51,200 | 40,900 | 96,200 | 38,400 | 144,000 | 58,000 | 29,700 | 120,000 | 17,900 | 32,100 |
| THALLIUM | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| VANADIUM (FUME OR DUST) | µg/L | 0.79 J | 50 U | 50 U | 0.86 J | 1.1 J | 0.89 J | 1.1 J | 50 U | 50 UJ | 1.2 J | 50 U |
| ZINC | µg/L | 60 U | 25.4 J | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U | 60 U |
| ***Semivolatile Organic Compounds*** | | | | | | | | | | | | |
| 1,2,4,5-TETRACHLOROBENZENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 1,2-BENZPHENANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2,4,5-TRICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2,4,6-TRICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2,4-DICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2,4-DIMETHYLPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2,4-DINITROPHENOL | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 UJ | 9.4 U | 9.6 U |
| 2,4-DINITROTOLUENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2,6-DINITROTOLUENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2-CHLORONAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2-CHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2-METHYLNAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2-METHYLPHENOL (O-CRESOL) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 2-NITROANILINE | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 U | 9.4 U | 9.6 U |
| 2-NITROPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | LA130-05 | LA131-02 | LA132-02 | UA001-02 | UA002-02 | UA018-03 | UA020-02 | UA024-02 | UA105-02 | UA112-02 | UA118-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/6/2009 | 9/23/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/6/2009 | 10/5/2009 | 10/6/2009 | 9/30/2009 | 10/7/2009 | 9/23/2009 |
| 3,3'-DICHLOROBENZIDINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 3-NITROANILINE | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 U | 9.4 U | 9.6 U |
| 4,6-DINITRO-2-METHYLPHENOL | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 U | 9.4 U | 9.6 U |
| 4-BROMOPHENYL PHENYL ETHER | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 4-CHLORO-3-METHYLPHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 4-CHLOROPHENYL PHENYL ETHER | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 4-METHYLPHENOL (P-CRESOL) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 4-NITROPHENOL | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 U | 9.4 U | 9.6 U |
| ACENAPHTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| ACENAPHTHYLENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| ACETOPHENONE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| ATRAZINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZALDEHYDE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZO(A)ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZO(A)PYRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZO(B)FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZO(G,H,I)PERYLENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZO(K)FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BENZYL BUTYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BIPHENYL (DIPHENYL) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BIS(2-CHLOROETHOXY) METHANE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER) | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BIS(2-CHLOROISOPROPYL) ETHER | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | µg/L | 4.8 U | 0.66 J | 3.6 J | 0.57 J | 4.7 U | 4.7 U | 31 U | 1.2 J | 4.8 U | 1 J | 4.8 U |
| CAPROLACTAM | µg/L | 4.8 U | 4.8 U | 4.7 U | 2.2 J | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 35 | 4.8 U |
| CARBAZOLE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| CHLOROPHENOLS | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| DIBENZ(A,H)ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| DIBENZOFURAN | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| DIETHYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| DIMETHYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| DI-N-BUTYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| DI-N-OCTYLPHTHALATE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |

| Station ID | | LA130-05 | LA131-02 | LA132-02 | UA001-02 | UA002-02 | UA018-03 | UA020-02 | UA024-02 | UA105-02 | UA112-02 | UA118-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **10/6/2009** | **9/23/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/5/2009** | **10/6/2009** | **9/30/2009** | **10/7/2009** | **9/23/2009** |
| FLUORENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| HEXACHLORO-1,3-BUTADIENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| HEXACHLOROBENZENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| HEXACHLOROCYCLOPENTADIENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| HEXACHLOROETHANE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| INDENO(1,2,3-C,D)PYRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| NAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| NITROBENZENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| N-NITROSODIPHENYLAMINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| P-CHLOROANILINE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| PENTACHLOROPHENOL | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 U | 9.4 U | 9.6 U |
| PHENANTHRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| PHENOL | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| P-NITROANILINE | µg/L | 9.5 U | 9.6 U | 9.4 U | 9.6 U | 9.5 U | 9.4 U | 9.6 U | 9.6 UJ | 9.5 U | 9.4 U | 9.6 U |
| ***Volatile Organic Compounds*** | µg/L | | | | | | | | | | | |
| PYRENE | µg/L | 4.8 U | 4.8 U | 4.7 U | 4.8 U | 4.7 U | 4.7 U | 4.8 U | 4.8 UJ | 4.8 U | 4.7 U | 4.8 U |
| 1,1,1-TRICHLOROETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.95 | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,1,2-TRICHLOROETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,1-DICHLOROETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 2.4 | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,1-DICHLOROETHYLENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 UJ | 11 U | 0.5 U | 0.5 U |
| 1,2,3-TRICHLOROBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,2,4-TRICHLOROBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,2-DICHLOROBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,2-DICHLOROETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,2-DICHLOROPROPANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,4-DICHLOROBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| 1,4-DIOXANE (P-DIOXANE) | µg/L | | 100 R | | | | | | | | | |
| ACETONE | µg/L | 5 U | 10 U | 10 U | 5 U | 5 U | 5 U | 9 U | 170 U | 110 U | 3.2 J | 5 U |
| BENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 UJ | 11 U | 0.5 U | 0.5 U |
| BROMODICHLOROMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| BROMOMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CARBON DISULFIDE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CARBON TETRACHLORIDE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CFC-11 | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |

| Station ID | | LA130-05 | LA131-02 | LA132-02 | UA001-02 | UA002-02 | UA018-03 | UA020-02 | UA024-02 | UA105-02 | UA112-02 | UA118-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Date** | | **10/6/2009** | **9/23/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/6/2009** | **10/5/2009** | **10/6/2009** | **9/30/2009** | **10/7/2009** | **9/23/2009** |
| CFC-12 | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLORINATED FLUOROCARBON (FREON 113) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLOROBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLOROBROMOMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLORODIBROMOMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLOROETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLOROFORM | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 5 | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CHLOROMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 3.6 | 310 J | 130 J | 0.5 U | 0.5 U | 0.36 J | 110 J | 250 D | 260 D | 0.5 U | 0.5 U |
| CIS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| CYCLOHEXANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| DICHLOROMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| ETHYLBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| ISOPROPYLBENZENE (CUMENE) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| m,p-Xylene | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| M-DICHLOROBENZENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| METHYL ACETATE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| METHYL ETHYL KETONE (2-BUTANONE) | µg/L | 5 U | 10 U | 10 U | 5 U | 5 U | 5 U | 9 U | 170 U | 110 U | 5 U | 5 U |
| METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE) | µg/L | 5 U | 10 U | 10 U | 5 U | 5 U | 5 U | 9 U | 170 U | 110 U | 5 U | 5 U |
| METHYL N-BUTYL KETONE | µg/L | 5 U | 10 U | 10 U | 5 U | 5 U | 5 U | 9 U | 170 U | 110 U | 5 U | 5 U |
| METHYLBENZENE | µg/L | 0.31 J | 5 U | 1 U | 0.5 U | 0.5 U | 0.37 J | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| METHYLCYLOHEXANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| O-XYLENE (1,2-DIMETHYLBENZENE) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| STYRENE (MONOMER) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| TERT-BUTYL METHYL ETHER | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| TETRACHLOROETHYLENE(PCE) | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| TRANS-1,2-DICHLOROETHENE | µg/L | 0.5 U | 1.1 J | 0.44 J | 0.5 U | 0.5 U | 0.5 U | 0.55 J | 17 U | 11 U | 0.5 U | 0.5 U |
| TRANS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| TRIBOMOMETHANE | µg/L | 0.5 U | 5 U | 1 U | 0.5 U | 0.5 U | 0.5 U | 0.9 U | 17 U | 11 U | 0.5 U | 0.5 U |
| TRICHLOROETHYLENE | µg/L | 0.5 U | 3.1 J | 1 U | 0.5 U | 0.26 J | 0.22 J | 2.8 | 450 D | 11 U | 0.5 U | 0.5 U |
| VINYL CHLORIDE | µg/L | 1.1 | 66 | 26 | 0.5 U | 0.5 U | 0.5 U | 11 | 17 U | 7.2 J | 0.5 U | 0.5 U |

APPENDIX A
Groundwater Results
*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | UA119-02 | UA120-02 | UA121-02 | UA124-02 | UA14-02 | UA28-02 | WCC-SW |
|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/1/2009 | 10/5/2009 | 9/24/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 11/9/2009 |
| ***Metals*** | | | | | | | | |
| ALUMINUM (FUME OR DUST) | µg/L | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | |
| ANTIMONY | µg/L | 2.5 J+ | 60 U | 60 U | 60 U | 60 U | 2.2 J | |
| ARSENIC | µg/L | 10 U | 4.1 J | 6.5 J | 4.2 J | 10 U | 4.2 J | |
| BARIUM | µg/L | 20.2 J | 130 J | 134 J | 200 U | 200 U | 171 J | |
| BERYLLIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | |
| CADMIUM | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | |
| CALCIUM METAL | µg/L | 307,000 | 109,000 | 132,000 | 128,000 | 119,000 | 160,000 | |
| CHROMIUM, TOTAL | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | |
| COBALT | µg/L | 50 UJ | 50 U | 50 U | 50 U | 50 U | 0.93 J | |
| COPPER | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | |
| IRON | µg/L | 1,470 | 3,950 | 1,450 | 1,140 | 3,230 | 11.6 J- | |
| LEAD | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | |
| MAGNESIUM | µg/L | 35,800 | 19,100 | 48,900 | 34,300 | 50,000 | 89,500 | |
| MANGANESE | µg/L | 171 | 757 | 83.3 | 109 | 55.4 | 775 | |
| MERCURY | µg/L | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | |
| NICKEL | µg/L | 40 U | 1.5 J | 40 U | 40 U | 1.4 J | 11.3 J | |
| POTASSIUM | µg/L | 5,310 | 3,850 J | 2,670 J | 2,250 J | 4,100 J | 5,080 | |
| SELENIUM | µg/L | 35 U | 35 U | 35 U | 35 U | 35 U | 35 U | |
| SILVER | µg/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | |
| SODIUM | µg/L | 22,800 | 54,700 | 42,600 | 38,500 | 38,600 | 108,000 | |
| THALLIUM | µg/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | |
| VANADIUM (FUME OR DUST) | µg/L | 50 U | 50 U | 50 U | 50 U | 50 U | 1.1 J | |
| ZINC | µg/L | 16.7 J+ | 60 U | 60 U | 60 U | 60 U | 9.1 J | |
| ***Semivolatile Organic Compounds*** | | | | | | | | |
| 1,2,4,5-TETRACHLOROBENZENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 1,2-BENZPHENANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2,4,5-TRICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2,4,6-TRICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2,4-DICHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2,4-DIMETHYLPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 UJ |
| 2,4-DINITROPHENOL | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 UJ | 9.5 U | 10 U |
| 2,4-DINITROTOLUENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2,6-DINITROTOLUENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2-CHLORONAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2-CHLOROPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2-METHYLNAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2-METHYLPHENOL (O-CRESOL) | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 2-NITROANILINE | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 U | 9.5 U | 10 U |
| 2-NITROPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | UA119-02 | UA120-02 | UA121-02 | UA124-02 | UA14-02 | UA28-02 | WCC-SW |
|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/1/2009 | 10/5/2009 | 9/24/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 11/9/2009 |
| 3,3'-DICHLOROBENZIDINE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 3,5,5-TRIMETHYL-2-CYCLOHEXENE-1-ONE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 3-NITROANILINE | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 U | 9.5 U | 10 U |
| 4,6-DINITRO-2-METHYLPHENOL | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 U | 9.5 U | 10 U |
| 4-BROMOPHENYL PHENYL ETHER | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 4-CHLORO-3-METHYLPHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 4-CHLOROPHENYL PHENYL ETHER | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 4-METHYLPHENOL (P-CRESOL) | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| 4-NITROPHENOL | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 U | 9.5 U | 10 U |
| ACENAPHTHENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| ACENAPHTHYLENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| ACETOPHENONE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| ATRAZINE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BENZALDEHYDE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BENZO(A)ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BENZO(A)PYRENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BENZO(B)FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BENZO(G,H,I)PERYLENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BENZO(K)FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 UJ | 4.8 U | 4.7 U | 5 U |
| BENZYL BUTYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BIPHENYL (DIPHENYL) | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BIS(2-CHLOROETHOXY) METHANE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER) | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BIS(2-CHLOROISOPROPYL) ETHER | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | µg/L | 4.8 U | 4.8 U | 0.53 J | 4.8 U | 4.8 U | 4.7 U | 5 U |
| CAPROLACTAM | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| CARBAZOLE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| CHLOROPHENOLS | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| DIBENZ(A,H)ANTHRACENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| DIBENZOFURAN | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| DIETHYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| DIMETHYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| DI-N-BUTYL PHTHALATE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| DI-N-OCTYLPHTHALATE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| FLUORANTHENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | UA119-02 | UA120-02 | UA121-02 | UA124-02 | UA14-02 | UA28-02 | WCC-SW |
|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/1/2009 | 10/5/2009 | 9/24/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 11/9/2009 |
| FLUORENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| HEXACHLORO-1,3-BUTADIENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| HEXACHLOROBENZENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| HEXACHLOROCYCLOPENTADIENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| HEXACHLOROETHANE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| INDENO(1,2,3-C,D)PYRENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| NAPHTHALENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| NITROBENZENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| N-NITROSODIPHENYLAMINE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| P-CHLOROANILINE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 1.1 J |
| PENTACHLOROPHENOL | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 U | 9.5 U | 10 U |
| PHENANTHRENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| PHENOL | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 5 U |
| P-NITROANILINE | µg/L | 9.7 U | 9.6 U | 9.7 U | 9.5 U | 9.5 U | 9.5 U | 10 U |
| ***Volatile Organic Compounds*** | µg/L | | | | | | | |
| PYRENE | µg/L | 4.8 U | 4.8 U | 4.9 U | 4.8 U | 4.8 U | 4.7 U | 1.4 J |
| 1,1,1-TRICHLOROETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,1,2-TRICHLOROETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,1-DICHLOROETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,1-DICHLOROETHYLENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2,3-TRICHLOROBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2,4-TRICHLOROBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE) | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2-DICHLOROBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2-DICHLOROETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,2-DICHLOROPROPANE | µg/L | 0.5 UJ | 47 U | 3.4 U | 13 U | 0.5 UJ | 3.8 U | |
| 1,4-DICHLOROBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| 1,4-DIOXANE (P-DIOXANE) | µg/L | | | | | | | |
| ACETONE | µg/L | 5 U | 470 U | 34 U | 130 U | 5 U | 38 U | |
| BENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| BROMODICHLOROMETHANE | µg/L | 0.5 UJ | 47 U | 3.4 U | 13 U | 0.5 UJ | 3.8 U | |
| BROMOMETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CARBON DISULFIDE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CARBON TETRACHLORIDE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CFC-11 | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |

APPENDIX A

Groundwater Results

*Continental Steel Superfund Site—Contract 5 Hydrogeological (*

| Station ID | | UA119-02 | UA120-02 | UA121-02 | UA124-02 | UA14-02 | UA28-02 | WCC-SW |
|---|---|---|---|---|---|---|---|---|
| Sample Date | | 10/1/2009 | 10/5/2009 | 9/24/2009 | 9/30/2009 | 9/30/2009 | 10/1/2009 | 11/9/2009 |
| CFC-12 | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLORINATED FLUOROCARBON (FREON 113) | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLOROBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLOROBROMOMETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLORODIBROMOMETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLOROETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLOROFORM | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CHLOROMETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 0.5 U | 1,200 D | 87 D | 340 D | 0.38 J | 61 D | |
| CIS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| CYCLOHEXANE | µg/L | 0.5 UJ | 47 U | 3.4 U | 13 U | 0.5 UJ | 3.8 U | |
| DICHLOROMETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| ETHYLBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| ISOPROPYLBENZENE (CUMENE) | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| m,p-Xylene | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| M-DICHLOROBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| METHYL ACETATE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| METHYL ETHYL KETONE (2-BUTANONE) | µg/L | 5 U | 470 U | 34 U | 130 U | 5 U | 38 U | |
| METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE) | µg/L | 5 U | 470 U | 34 U | 130 U | 5 U | 38 U | |
| METHYL N-BUTYL KETONE | µg/L | 5 U | 470 U | 34 U | 130 U | 5 U | 38 U | |
| METHYLBENZENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| METHYLCYLOHEXANE | µg/L | 0.5 UJ | 47 U | 3.4 U | 13 U | 0.5 UJ | 3.8 U | |
| O-XYLENE (1,2-DIMETHYLBENZENE) | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| STYRENE (MONOMER) | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| TERT-BUTYL METHYL ETHER | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| TETRACHLOROETHYLENE(PCE) | µg/L | 0.5 U | 47 U | 4.7 D | 26 D | 0.5 U | 86 D | |
| TRANS-1,2-DICHLOROETHENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| TRANS-1,3-DICHLOROPROPENE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| TRIBOMOMETHANE | µg/L | 0.5 U | 47 U | 3.4 U | 13 U | 0.5 U | 3.8 U | |
| TRICHLOROETHYLENE | µg/L | 0.5 U | 22 J | 13 D | 40 D | 0.5 U | 25 D | |
| VINYL CHLORIDE | µg/L | 0.5 U | 760 D | 3.2 J | 12 J | 0.5 U | 11 D | |