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REDACTED VERSION

OPERATION AND MAINTENANCE REPORT
THIRD QUARTER 2012

DELATTE METALS SUPERFUND SITE
AGENCY INTEREST NO. 2328

DATE SUBMITTED:
NOVEMBER 9, 2012

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1.0 INTRODUCTION AND BACKGROUND

SEMS, Inc. (SEMS) was selected by the Louisiana Department of Environmental Quality (LDEQ) for the continued Operations and Maintenance (O&M) at the Delatte Metals Superfund Site, in Tangipahoa Parish, Ponchatoula, Louisiana in accordance with the bid specifications associated with state solicitation number 2250314 and purchase order number 3835673. The Delatte Metals Superfund Site is currently under quarterly O&M including groundwater sampling to determine if constituents of concern (COCs) remediated at the site are in a declining condition and to ensure that COCs are not migrating horizontally past the permeable reactive barrier (PRB) or vertically into lower water bearing zones. This report summarizes the site activities conducted during this quarter. A facility map depicting the well locations and site features is presented as Figure 1. A brief status and history of the site are provided below.

The physical location of the site is approximately 5.5 miles south-southeast of Hammond, Louisiana, 1.5 miles southeast of Ponchatoula, Louisiana, and adjacent to the new Delatte Recycling, LLC (19113 Weinberger Road, Ponchatoula, Louisiana). The site lies to the north of Weinberger Road, in a rural area with numerous residences within a one-mile radius of the site. The latitude and longitude for the site are 30°25'16"N and 90°24'39"W, respectively. The site is bounded by Weinberger Road followed by residences to the south, drainage ditches and residence to the north and east, and Selser's Creek and a residence to the west.

According to previous reports, the 19-acre Delatte Metals Superfund Site includes the Delatte Metals, Inc. facility and the abandoned North Ponchatoula Battery Facility which performed identical lead salvage operations and generated the same type of waste. Delatte Metals, Inc., which operated a lead smelter to recover additional lead materials, began operation in the early 1970's as the Fuscia Battery Company and ceased operations in 1993. The Ponchatoula Battery Company moved its operation adjacent to the Delatte and Fuscia Battery Company between 1972 and 1978.

During LDEQ and EPA investigations, discharge from the facilities showed a pH range from 0.55 to 2 standard units (s.u.). Analytical samples from on-site soil and groundwater samples indicated the presence of heavy metals including Lead, Arsenic, and Cadmium. An observed

release of Lead and Cadmium to Selser's Creek was documented by the analytical data from the sediment samples collected at three probable points of entry.

Remedial action (RA) operations began on November 18, 2002, and the implementation was completed on September 22, 2003. During the RA, the principle threat wastes were excavated, immobilized, and transported off-site for disposal. A permeable reactive barrier wall (PRB) was installed to neutralize the acidity of the shallow water-bearing zone and limit the migration of dissolved metals. A groundwater monitoring program was put in place to ensure the effectiveness of the selected remedy. Long-term groundwater monitoring of approximately 31 monitoring and water wells includes sampling to determine the groundwater pH downgradient of the PRB and metal concentrations in site groundwater. For the RA to be effective the groundwater downgradient of the PRB should be approaching pH neutrality and the metal concentrations in groundwater should demonstrate either a stable or preferably decreasing trend.

Three distinct and local water bearing zones (WBZ) were identified at the site during previous investigations. The three WBZ are located at the site from ground surface to approximately 100 feet below ground surface (ft-bgs).

- The First WBZ is generally found between 5 and 15 ft-bgs. This zone is semi-confined on its sides and is overlain by sandy/silty clay across the northern section of the site. During the Remedial Investigation (RI), a clay unit was encountered underneath this First WBZ. Currently nine monitor wells are screened in this zone. This WBZ was previously classified according to RECAP as a Class 3B aquifer.

- The Second WBZ encountered at the site generally consists of intermittent layers of gray, tan, and orange clayey silt. At various locations, this WBZ is typically encountered between 15 and 40 ft-bgs. The Second WBZ appears to be confined and relatively continuous across the site. Currently 13 monitor wells are screened in this zone. This WBZ was previously classified according to RECAP as a Class 2C aquifer.

- The Third WBZ encountered at the site consists of light brown to gray silty sand and sand. During the RI, this Third WBZ was encountered between 58 and 62 ft-bgs, extending to the maximum depth of the site borings (100 ft-bgs). The Third WBZ appears to be confined and continuous across the site. There are currently four monitor wells screened in this zone. This WBZ was previously classified according to RECAP as a Class 1B aquifer.

The monitor wells installed in these WBZs and their construction details are summarized in Table 1. Underneath the three local WBZs identified at the site are three regional aquifers: The Shallow Aquifer (also known as the Upland Terrace Aquifer), the Ponchatoula Aquifer (which is subdivided into two units: the upper and lower Ponchatoula Aquifers), and the Tchefuncte Aquifer. Five water wells are also being sampled from below the third water bearing zone and a summary of the water well characteristics is provided as Table 2.

2.0 CHRONOLOGY OF EVENTS

A chronology of events is as follows:

- October 26, 2010 – SEMS received award for O&M from LDEQ.
- November 15, 2010 – SEMS attended the Post-Award Conference with the LDEQ to discuss upcoming site activities.
- December 1, 2010 – SEMS submitted the draft Quality Assurance Project Plan (QAPP) for Delatte Metals to the LDEQ.
- December 13 through 15, 2010 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- January 31, 2011 – SEMS submitted the Final QAPP for Delatte Metals to LDEQ for approval.
- January 31, 2011 – SEMS submitted the Operation and Maintenance Report - Fourth Quarter 2010 to LDEQ for approval.
- February 14 through 16, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- March 15, 2011 – LDEQ requested updates to the QAPP submitted on January 31, 2011.

- April 29, 2011 – SEMS submitted an updated QAPP for Delatte Metals based on LDEQ's request.
- April 29, 2011 – SEMS submitted the Operation and Maintenance Report – First Quarter 2011 to LDEQ for approval.
- May 31 through June 2, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- July 31, 2011 – SEMS submitted the Operation and Maintenance Report - Second Quarter 2011 to the LDEQ for approval.
- August 22 through 24, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- October 14, 2011 – SEMS mobilized to the site and disposed of the purge water and PPE drums from the prior sampling events.
- October 28, 2011 – SEMS submitted the Operation and Maintenance Report – Third Quarter 2011 to the LDEQ for approval. The Recommended Annual O&M/ Remedy Evaluation Checklist for this year was submitted.
- November 14 through 16, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- January 31, 2012 – SEMS submitted the Operation and Maintenance Report – Fourth Quarter 2011 to the LDEQ for approval.
- February 27 through 29, 2012 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- April 30, 2012 – SEMS submitted the Operation and Maintenance Report – First Quarter 2012 to the LDEQ for approval.
- May 7 through 9, 2012 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- July 31, 2012 – SEMS submitted the Operation and Maintenance Report – Second Quarter 2012 to the LDEQ for approval.
- August 20-22, and 24 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- September 27, 2012 – SEMS mobilized to the site for disposal of purgewater and PPE from prior groundwater sampling events.

- November 9, 2012 – SEMS submitted the Operation and Maintenance Report – Third Quarter 2012 to the LDEQ for approval. The Recommended Annual O&M/ Remedy Evaluation Checklist for this year was submitted.

3.0 OPERATION AND MAINTENANCE ACTIVITIES

On August 20th through 22nd, and 24th of 2012, SEMS mobilized to the site and performed quarterly groundwater sampling, including the inspection of the monitor wells and the PRB. Details of activities performed at the site are summarized below.

3.1 ACCESS TO WELLS

Clearing was performed during this sampling event to provide access to the wells.

3.2 MONITOR WELL INSPECTION

The monitor wells were inspected during the groundwater sampling event for damage. Table 1 includes a listing of the monitoring wells at the site, and Figure 1 shows the locations of the wells. The monitor well inspection checklist is included with the field data in Attachment A. Padlocks were replaced at monitor wells BB-01, BC-17, BC-21R, and BA-01. No deficiencies were noticed during this sampling event

3.3 PERMEABLE REACTIVE BARRIER (PRB) INSPECTION

The PRB was cleared by the LDEQ Contractor before the current sampling event and was inspected. Upon inspection it is determined that no areas require fill at this time. The PRB will continue to be monitored quarterly. No cracks or erosion was observed in the PRB during the current sampling event. The ground was saturated in the PRB during this sampling event due to heavy rains.

3.4 REVIEW OF INSTITUTIONAL CONTROLS

Inspections were made of deed files 650403, 674854, and 674853 online at the Tangipahoa website (www.tangiclerk.org) for the institutional controls limiting site reuse to an industrial scenario at the Tangipahoa Parish Clerk of Court. A review of these files showed that they are still on file with the Tangipahoa Parish Clerk of Court.

3.5 GROUNDWATER MONITORING, SAMPLING, AND ANALYTICAL PROCEDURES

During the quarterly sampling events a total of 26 monitoring wells and five (5) water wells were sampled. Some of these water wells are drinking water wells located at residences. It should be noted that the location of the (b) (6) [redacted] WELL was not added to the map, but is located approximately 400 feet east of WW-04.

The monitoring wells were located and opened to allow for water level equilibration. After equilibration, depth-to-water was measured to the nearest one-hundredth of a foot, with an interface probe. The interface probe was decontaminated prior to on-site work, between each well, and after fluid level measurements were completed. Fluid level measurements are summarized in Table 3.

Following gauging, the wells were purged via low flow micro purging technique with a peristaltic pump (Geopump) using dedicated tubing. The purge rates were maintained between 0.1 and 0.5 liters per minute and are recorded on the field forms. The water quality readings were taken from the low flow cell. Groundwater samples were collected following the stabilization of at least three of the following water parameters including temperature, pH, conductivity, turbidity, oxidation–reduction potential, and dissolved oxygen which are summarized on Table 3. The five (5) water wells were sampled after the water was allowed to flow for 20 minutes.

Groundwater samples were collected before the low flow cell and placed in laboratory-supplied, pre-preserved containers. Quality Assurance/Quality Control (QA/QC) samples were also

collected that included four duplicates, two matrix spikes, and two matrix spike duplicates. The groundwater and QA/QC sample containers were labeled and placed in a cooler on ice for transportation to Accutest Laboratories in Scott, Louisiana for analysis. The samples were shipped accompanied by proper chain-of-custody documentation.

Groundwater samples were analyzed for Total Metals including arsenic, cadmium, lead, manganese, nickel, thallium, and zinc via method SW6020 or SW6010. Monitor wells DW-01 and MW-04 had turbidity readings above 10 NTU during sampling and additional samples were field filtered and analyzed for dissolved metals. Dissolved metal analytical results were used to supersede the total metals results on the figures attached and for the historical graphs. Summaries of groundwater analytical data are provided in Table 4 and are further discussed in Section 4.0. A copy of the laboratory reports and chain-of-custody documentation are included in Attachment B.

Groundwater collected at the site during low-flow sampling was contained in a 55-gallon plastic drum and stored at the site south of the "North Well" water well. The personal protective equipment, tubing, and other disposable material that contacted the groundwater at the site are stored in a 55-gallon metal drum. Copies of drum disposal manifests, for this quarter, are included in Attachment A.

It should be noted that additional drums and investigation derived waste is located adjoining the drum storage area that are not generated by SEMS. The United States Geological Survey (USGS) will maintain their drums from their groundwater sampling events.

4.0 ANALYTICAL DATA REVIEW

Below is a summary of SEMS review of the potentiometric and analytical data collected during the current quarter.

4.1 CURRENT MONITORING PERIOD GROUNDWATER FLOW DIRECTION

Potentiometric maps were prepared for each of the three WBZ. The First, Second, and Third WBZ potentiometric maps are presented as Figures 2A, 2B, and 2C respectively. Potentiometric maps show that the groundwater flow direction for this quarter as described below:

First WBZ: The groundwater flow direction appears to be to the north to northwest towards the unnamed creek that flows into Selser's Creek.

Second WBZ: In the area of the PRB, the groundwater flow direction appears to be to the north to northwest towards the unnamed creek that flows into Selser's Creek. In the area just north of the current Delatte Metals facility, the groundwater trends to the west to northwest towards Selser's Creek.

Third WBZ: The groundwater flow direction appears to be to east.

The current period groundwater flow directions are consistent with historic monitoring results and the directions of flow have not changed.

4.2 CURRENT PERIOD CONSTITUENT CONCENTRATION

A file review was performed and only Site Cleanup levels for pH and lead were found. The lead and pH Site Cleanup levels according to the QAPP prepared for the EPA in September 28, 2004 were 0.015 mg/L and 7.0 s.u., respectively. Since a perfect pH of 7.0 s.u. is not practically obtainable, SEMS recommends that an alternative pH be used for the acceptable pH level. The EPA acceptable range for drinking water is 6.5-8.5 s.u. and the acceptable EPA range for storm water discharge is 6.0-9.0 s.u. SEMS will evaluate the First WBZ using the 6.0-9.0 s.u. range for pH since the groundwater of this zone is classified as Groundwater Class 3B. The Second WBZ, Third WBZ, and Water Wells are classified as Groundwater Class 1 and 2 aquifers and their pH will be evaluated using the 6.5-8.5 s.u. range for pH. According to the LDEQ, the LDEQ RECAP Screening Standards (SS) should be used for comparison to the other site COCs.

Below is a brief summary of all COCs exceeding the applicable site SS:

The following wells were outside their pH evaluation:

- **First WBZ**: All monitor wells in the First WBZ were below the pH range of 6.0-9.0 s.u.; with pH readings of 2.73 to 5.10 s.u.
- **Second WBZ**: Monitor wells DW-04, MW-A, MW-04, BA-01, BA-05, BC-07, BC-19, BC-21R, and BC-25 were below the pH range of 6.5-8.5 s.u. with a minimum pH reading of 5.59 s.u. in monitor well BA-01.
- **Third WBZ**: Monitor well BB-01 was above the pH range of 6.5-8.5 s.u. with a pH reading of 9.95 s.u.
- **Water Wells**: The North Well and the South Well were above the pH range of 6.5-8.5 s.u. with a maximum pH reading of 9.33 s.u. in the South Well.

The following wells had arsenic concentrations reported above its RECAP SS of 0.010 mg/L:

- **First WBZ**: Monitor wells DW-01, DW-02, MW-01, MW-06, and BA-09 were above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.155 mg/L in monitor well DW-01.
- **Second WBZ**: Monitor wells BA-05, BC-07, BC-17, and BC-19 were above the arsenic RECAP SS with elevated non-detect arsenic concentrations at each well.
- **Third WBZ**: No monitor wells sampled were reported above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.00586 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the arsenic RECAP SS; all results were reported non-detect for arsenic.

The following wells had cadmium concentrations reported above its RECAP SS of 0.005 mg/L:

- **First WBZ**: Monitor wells DW-02, MW-02, MW-06, and BA-03 were above the cadmium RECAP SS. The highest cadmium concentration was reported to be 0.086 mg/L in monitor well MW-06.

- **Second WBZ**: Monitor wells BA-01 and BC-03 were reported above the cadmium RECAP SS with elevated non-detect arsenic concentrations at each well.
- **Third WBZ**: No monitor wells sampled were reported above the cadmium RECAP SS; the highest cadmium concentration was reported to be 0.000219 mg/L in monitor well BB-01.
- **Water Wells**: No water wells sampled were reported above the cadmium RECAP SS; the highest cadmium concentration was reported to be 0.000117 mg/L in the North Well.

The following wells had lead concentrations reported above the site cleanup level of 0.015 mg/L:

- **First WBZ**: Monitors well DW-02 and BA-03 were reported above the site cleanup level for lead; the highest lead concentration was reported to be 0.0384 mg/L in monitor well BA-03.
- **Second WBZ**: Monitor well BC-17 was reported above the site cleanup level for lead with a lead concentration of 0.0514 mg/L.
- **Third WBZ**: No monitor wells sampled were reported above the site cleanup level for lead; the highest lead concentration was reported to be 0.0054 mg/L in monitor well BB-01.
- **Water Wells**: No water wells sampled were reported above the site cleanup level for lead. The highest reported lead concentration was reported to be 0.00226 mg/L in the (b) (6) Well.

The following wells had manganese concentrations reported above its RECAP SS of 0.51 mg/L:

- **First WBZ**: Monitor wells DW-01, DW-02, MW-01, MW-02, MW-06, PW-04, BA-03, and BA-09 were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 11.8 mg/L in monitor well DW-02.
- **Second WBZ**: Monitor wells MW-03, BA-01, and BA-05 were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 10.1 mg/L in monitor well BA-05.

- **Third WBZ**: No monitor wells sampled were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 0.038 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 0.0233 mg/L in the (b) (6) Well.

The following wells had nickel concentrations reported above its RECAP SS of 0.073 mg/L:

- **First WBZ**: Monitor wells DW-02, MW-01, and BA-09 were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.594 mg/L in monitor well DW-02.
- **Second WBZ**: No monitor wells sampled were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.0602 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells sampled were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.00144 mg/L in monitor well BB-01.
- **Water Wells**: No water wells sampled were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.00177 mg/L in water well WW-09.

The following wells had thallium concentrations reported above the RECAP SS of 0.0020 mg/L:

- **First WBZ**: Monitor wells DW-02, MW-01, and BA-09 were reported above the thallium RECAP SS; the highest thallium concentration was reported to be 0.00221 mg/L in monitor well MW-01.
- **Second WBZ**: Monitor wells DW-04, MW-03, BA-01, BA-05, BC-03, BC-07, BC-17, and BC-19 were reported above the thallium RECAP SS; the highest thallium concentration was reported to be 0.00226 mg/L at monitor wells BC-07 and BC-17.

- **Third WBZ**: No monitor wells sampled were reported above the thallium RECAP SS; the highest thallium concentration was reported to be 0.000424 mg/L in monitor wells BB-01 and BA-03A.
- **Water Wells**: No water wells sampled were reported above the thallium RECAP SS; the highest thallium concentration was reported to be 0.000427 mg/L in water well WW-09.

The following wells had zinc concentrations reported above the RECAP SS of 1.1 mg/L:

- **First WBZ**: Monitor well DW-02 was reported above the zinc RECAP SS with a zinc concentration of 1.49 mg/L.
- **Second WBZ**: No monitor wells were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.0336 mg/L in monitor well MW-04.
- **Third WBZ**: No monitor wells were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.0106 mg/L in monitor well BA-03A
- **Water Wells:** No water wells sampled were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.0425 mg/L in the (b) (6) Well.

Analytical results for this quarter are summarized in Table 4. Isoconcentration maps prepared for each WBZ and the water wells are presented as Figures 3A through 10D. Following a review of the isoconcentration maps the following constituents were found to not be horizontally delineated to their applicable site SS:

- The First WBZ – pH, arsenic, cadmium, lead, manganese, nickel, thallium, and zinc
- The Second WBZ – pH, lead, manganese, and thallium
- The Third WBZ – pH
- The Water Wells – pH

It should be noted that in the Second WBZ, arsenic and cadmium concentrations appear to be horizontally delineated to their applicable site SS, but elevated non-detected results are above the applicable site SS and delineation cannot be confirmed.

The EPA has contracted the USGS to continue with this sampling and reporting of the downgradient PRB piezometers. The USGS is submitting this data separately to the EPA for review.

4.3 HISTORICAL GROUNDWATER MONITORING TRENDS

A historical summary of the past eight quarters groundwater analytical and potentiometric data is presented in Table 5. Historical data trend graphs are presented in Attachment C that show pH, arsenic, cadmium, lead, manganese, nickel, thallium, and zinc concentrations over time. For samples reported below laboratory detection limits, the reporting detection limit was used for graphing purposes. The historical data trend graphs were completed in Excel and a linear regression trendline was generated by Excel using the previous eight quarters of data for each COC.

Only those wells with at least two quarters of analytical data exceeding site cleanup or RECAP SS are considered in the trend evaluation. A review of the graphs and evaluation of constituent trends provides the information below:

First WBZ Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead: Increasing: DW-02 and MW-01
Decreasing: DW-03 and BA-03

Arsenic: Increasing: DW-02, MW-01, and BA-09
Decreasing: DW-03
Stable: DW-01

Manganese: Increasing: MW-01, MW-06, and BA-09
Decreasing: DW-01, DW-02, DW-03, MW-02, PW-04, and BA-03

Nickel: Increasing: DW-02, MW-01, and BA-09

Decreasing: DW-03 and BA-03

Thallium: No exceedances observed for any two of the previous eight quarters sampled.

Cadmium: Increasing: DW-02, MW-01, and MW-06

Decreasing: DW-03, MW-02, and BA-03

Zinc: Increasing: DW-02

pH: Below 6.0 s.u. and increasing: DW-03 and BA-03

Below 6.0 s.u. and decreasing: DW-01, MW-01, MW-06, and BA-09

Below 6.0 s.u. and stable: DW-02, MW-02, and PW-04

Second WBZ Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead: Increasing: BC-17

Arsenic: Increasing: BA-05

Manganese: Increasing: MW-03 and BA-01

Decreasing: BA-05

Nickel: Decreasing: BA-05

Thallium, Cadmium, and Zinc:

No exceedances observed for any two of the previous eight quarters sampled.

pH: Below 6.5 s.u. and decreasing: BA-01 and BA-05

Third WBZ Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead, Arsenic, Manganese, Nickel, Thallium, Cadmium, and Zinc: No metals exceedances observed for any two of the previous eight quarters sampled.

pH: Above 8.5 s.u. and increasing: BB-01

Water Well Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead, Arsenic, Manganese, Nickel, Thallium, Cadmium, and Zinc: No exceedances observed for any two of the previous eight quarters sampled.

pH: Above 8.5 s.u. and increasing: North Well and South Well

Above 8.5 s.u. and decreasing: WW-04

First Water Bearing Zone and PRB Observations

Long term trends of monitor wells in the first water bearing zone were evaluated from 2006 to present to determine if the PRB is working to increase the pH towards neutrality. Upgradient wells (BA-03 and DW-02) and downgradient wells (MW-01 and DW-01) were chosen to evaluate the effectiveness of the PRB. Additionally, a monitor well (DW-03) outside of the PRB was evaluated. These graphs are included in Attachment C. The following significant long term observations have been noted:

- The upgradient monitor wells (BA-03 and DW-02) show that the pH has been decreasing since 2006.
- The monitor well outside of the PRB (DW-03) is also showing decreasing trends for pH since 2006.
- The monitor well DW-01 shows that the PRB has been increasing the pH at this location since 2006.
- The downgradient monitor well MW-01 shows that the PRB has no apparent effect on this well. The pH at this location appears to be decreasing since 2006 and may be affected by another source.

It should be noted that additional downgradient monitoring and sampling of the PRB is being performed by the USGS. This information can be used to make a better determination on the effectiveness of the PRB.

Water Well Observations

Since the pH in the water wells evaluated offsite have had exceedances for pH, the trends for pH have been evaluated from 2006 to present for WW-09 and WW-04 and from 2008 to present for the (b) (6) Well to see if there were long term observations. These additional graphs can be seen following the water well graphs in Attachment C. The trend for WW-09 shows that the pH is decreasing (8.7 s.u. to 7.8 s.u.) and approaching neutrality while the pH of WW-04 and the (b) (6) Well are both increasing (8.4 s.u to 8.8 s.u.) and (7.9 s.u. to 8.4 s.u.) respectively. The groundwater in the third water bearing zone flows to the east. The cause for the changes in the pH at these water wells is unknown.

4.4 QUALITY ASSURANCE/QUALITY CONTROL AND UNUSUAL FINDINGS

A summary of QA/QC samples collected is included in the field data sheets presented in Attachment A. Blank samples included Duplicate #1 (BB-01), Duplicate #2 (BA-01A), Duplicate #3 (MW-A), and Duplicate #4 (MW-02). All QA/QC duplicate sample analytical results were reported within a factor of 10 of the original analytical sample results. All data sets were accepted. Full laboratory analytical reports are included in Attachment B. Each laboratory analytical report includes laboratory QA/QC documentation.

The analytical data was reviewed by TerraBase Incorporated (TerraBase), a third party data validator. TerraBase reviewed ten percent of the samples analyzed including samples BC-03, BA-01, BA-09A, and South Well. The data validation report had the following changes to results of this report:

- Accutest reported the monitor well BC-03 arsenic result as < 0.02 mg/L and the validated result was < 0.00362 mg/L.
- Accutest reported the monitor well BC-03 cadmium result as 0.000517 mg/L with a J flag and the validated result was < 0.01 mg/L.
- Accutest reported the monitor well BC-03 lead result as 0.00303 mg/L with a J flag and the validated result was < 0.005 mg/L.
- Accutest reported the monitor well BC-03 manganese result as 0.021 mg/L and the validated result was 0.021 mg/L with a J flag.
- Accutest reported the monitor well BC-03 nickel result as 0.00154 mg/L with a J flag and the validated result was < 0.01 mg/L.
- Accutest reported the monitor well BC-03 thallium result as 0.0021 mg/L with a J flag and the validated result was < 0.01 mg/L.
- Accutest reported the monitor well BC-03 zinc result as 0.0151 mg/L with a J flag and the validated result was < 0.05 mg/L.
- Accutest reported the monitor well BA-01 arsenic result as < 0.02 mg/L and the validated result was < 0.00362 mg/L.
- Accutest reported the monitor well BA-01 cadmium result as 0.000566 mg/L with a J flag and the validated result was < 0.01 mg/L.

- Accutest reported the monitor well BA-01 lead result as 0.00414 mg/L with a J flag and the validated result was < 0.005 mg/L.
- Accutest reported the monitor well BA-01 manganese result as 1.52 mg/L and the validated result was 1.52 mg/L with a J flag.
- Accutest reported the monitor well BA-01 thallium result as 0.00212 mg/L with a J flag and the validated result was < 0.01 mg/L.
- Accutest reported the monitor well BA-01 zinc result as 0.0839 mg/L and the validated result was < 0.0839 mg/L.
- Accutest reported the monitor well BA-09A arsenic result as 0.00191 mg/L with a J flag and the validated result was 0.00191 mg/L with a J flag.
- Accutest reported the monitor well BA-09A cadmium result as 0.000589 mg/L with a J flag and the validated result was < 0.002 mg/L.
- Accutest reported the monitor well BA-09A lead result as 0.00167 mg/L and the validated result was < 0.001 mg/L.
- Accutest reported the monitor well BA-09A manganese result as 0.0575 mg/L and the validated result was < 0.002 mg/L.
- Accutest reported the monitor well BA-09A nickel result as 0.00603 mg/L and the validated result was < 0.002 mg/L.
- Accutest reported the monitor well BA-09A thallium result as 0.000953 mg/L with a J flag and the validated result was < 0.002 mg/L.
- Accutest reported the South Well arsenic result as < 0.004 mg/L and the validated result was < 0.000724 mg/L.
- Accutest reported the South Well cadmium result as 0.0000926 mg/L with a J flag and the validated result was < 0.001 mg/L.
- Accutest reported the South Well lead result as 0.000623 mg/L with a J flag and the validated result was < 0.001 mg/L.
- Accutest reported the South Well manganese result as 0.0039 mg/L and the validated result was < 0.002 mg/L with a J flag.
- Accutest reported the South Well thallium result as 0.00042 mg/L with a J flag and the validated result was < 0.002 mg/L.

- Accutest reported the South Well zinc result as 0.013 mg/L and the validated result was < 0.013 mg/L.

The tables and graphs have been updated to reflect these changes. No major discrepancies were found in the data validation report, which is included in Attachment D. The Level IV analytical report is attached to this report with a compact disk (CD) in an electronic format as requested by LDEQ.

The following unusual findings were noted during this report:

- The analytical results from monitor wells MW-06, BA-05, BC-07, BC-17, and BC-19 were reported non-detect with detection limits above the RECAP SS for arsenic.
- The analytical results from monitor wells BA-01 and BC-03 were reported non-detect with detection limits above the RECAP SS for cadmium.
- The analytical results from monitor wells BA-01 and BC-03 were reported non-detect with detection limits above the RECAP SS for thallium.
- The pH results were lower at multiple locations vs. historical results. This will continue to be monitored.
- Thallium was reported with a J Flag at several locations in the first and second water bearing zone. This will continue to be monitored.
- The laboratory, Accutest, encountered detrimental instrument issues caused by attempting to run samples with high sodium concentrations. The samples discussed above were diluted and an elevated non-detect result was reported. The lab stated that dilutions were necessary to preserve the instrument.
- As a test, SEMS submitted three samples (BA-09, DW-02, and MW-01) with reporting limits higher than the arsenic RECAP SS to the Accutest Laboratory in Dayton, New Jersey. The Dayton lab had reporting limits less than or equal to the arsenic RECAP SS. If approved by the LDEQ, samples that have historically elevated reporting limits, will be analyzed at the Dayton Laboratory. This laboratory uses an instrument attachment that allows them to run samples with elevated sodium and chlorides without as high of a dilution. The laboratory report

for the three samples analyzed by the Dayton Laboratory is provided as Attachment F.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on evaluation of data presented within this groundwater monitoring report.

- SEMS recommends continuing with quarterly O&M.

TABLES

TABLE 1
MONITORING WELL CONSTRUCTION DATA

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Well ID	Northing	Easting	Latitude	Longitude	Well Diameter (inches)	Total Well Depth (ft bgs)	Top of Casing Elevation (NGVD)	Ground Surface Elevation (NGVD)	Screened Interval Elevation (NGVD)	Screened Interval (ft bgs)
First Water-Bearing Zone										
DW-1	701226.57	3571439.3	30^0 25' 30"	90^0 24' 41"	2	19	13.36	12.03	3.5 to -6.5	8.5 to 18.5
DW-2	700994.96	3571554.5	30^0 25' 28"	90^0 24' 39"	2	11	14.12	12.65	7.2 to 2.2	5.5 to 10.5
DW-3	701096.8	3571730.9	30^0 25' 29"	90^0 24' 37"	2	16	11.59	10.09	4.6 to -5.4	5.5 to 15.5
MW-1	701242.6	3571218.6	30^0 25' 30"	90^0 24' 43"	2	28.5	15.08	13.58	0.6 to -14.4	13.0 to 28.0
MW-2	700954.99	3571119.9	30^0 25' 27"	90^0 24' 44"	2	10.5	14.23	11.79	6.8 to 1.8	5.0 to 10.0
MW-6	700833.83	3571351.4	30^0 25' 26"	90^0 24' 42"	2	16.5	16.77	15.17	NA	NA
MW-7*	701240.79	3571056.2	30^0 25' 30"	90^0 24' 45"	2	15	8.21	6.01	NA	NA
PW-4	701018.61	3571950.1	30^0 25' 28"	90^0 24' 35"	2	19.5	12.22	8.96	NA	NA
BA-03	701018.61	3571248.6	30^0 25' 28"	90^0 24' 43"	2	13.5	14.57	11.8	8.80 to -1.20	3.0 to 13.0
BA-09	701286.58	3571522.6	30^0 25' 31"	90^0 24' 40"	2	18.0	9.46	8.10	0.60 to -9.40	7.5 to 17.5
BC-31*	701305.48	3571090.6	30^0 25' 31"	90^0 24' 48"	2	16	11.36	8.75	3.25 to -6.75	5.5 to 15.5
Second Water-Bearing Zone										
DW-4	7000081.4	3571557.4	30^0 25' 19"	90^0 24' 39"	2	38	14.21	13	-14.5 to -24.5	27.5 to 37.5
MW-A	701114.99	3571481.7	30^0 25' 29"	90^0 24' 40"	2	27.0	15.12	12.35	-4.2 to -14.2	16.5 to 26.5
MW-3	700801.96	3571573.60	30^0 25' 26"	90^0 24' 39"	2	27.5	14.8	12.83	-4.2 to 14.2	17.0 to 27.0
MW-4	701248.27	357817.05	30^0 25' 30"	90^0 24' 36"	2	24.0	17.38	14.67	1.2 to -8.8	13.5 to 23.5
MW-5*	701508.89	3571524.3	30^0 25' 33"	90^0 24' 40"	2	20.0	11.43	8.89	-5.6 to -10.6	14.5 to 19.5

Notes: 1) ft bgs = Feet below ground surface
2) ID = Identification
3) NA= Not available
4) NGVD = National Geodetic Vertical Datum
5) Denotes Well Plugged and Abandoned by the EPA

TABLE 1
MONITORING WELL CONSTRUCTION DATA

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Well ID	Northing	Easting	Latitude	Longitude	Well Diameter (inches)	Total Well Depth (ft bgs)	Top of Casing Elevation (NGVD)	Ground Surface Elevation (NGVD)	Screened Interval Elevation (NGVD)	Screened Interval (ft bgs)
Second Water-Bearing Zone										
BA-01	700965.85	3571654	30^0 25' 27"	90^0 24' 38"	2	26.0	14.57	11.48	-4.02 to -14.02	15.5 to 25.5
BA-05	701084.30	3571574.7	30^0 25' 29"	90^0 24' 39"	2	18.5	14.20	11.02	3.02 to -6.98	8.0 to 18.0
BA-09A	701290.47	3571515.1	30^0 25' 31"	90^0 24' 40"	2	42.0	11.10	7.92	-23.58 to -33.58	31.5 to 41.5
BC-01*	699516.45	3571517.6	30^0 25' 13"	90^0 24' 40"	2	26.5	15.99	13.35	-2.65 to -12.65	16.0 to 26.0
BC-03	699684.61	3571900.1	30^0 25' 15"	90^0 24' 36"	2	28.0	16.32	13.78	-3.72 to -13.72	17.5 to 27.5
BC-07	699855.32	3571454.1	30^0 25' 16"	90^0 24' 41"	2	18.5	11.37	8.19	0.19 to -9.81	8.0 to 18.0
BC-11*	699967.64	3571524.00	30^0 25' 18"	90^0 24' 40"	2	28.5	15.72	12.53	-5.47 to -15.47	18.0 to 28.0
BC-17	700232.77	3571685.2	30^0 25' 20"	90^0 24' 38"	2	28.0	15.18	12.22	-5.28 to -15.28	17.5 to 27.5
BC-19	700257.08	3571479.8	30^0 25' 20"	90^0 24' 40"	2	22.5	13.85	10.92	-1.08 to -11.08	12.0 to 22.0
BC-21R	700499.25	3571655.5	30^0 25' 23"	90^0 24' 38"	2	17.5	15.28	12.62	0.62 to -4.38	12.0 to 17.0
BC-25	700599.29	3571504.10	30^0 25' 24"	90^0 24' 40"	2	32.0	15.73	12.66	-8.84 to -18.84	21.5 to 31.5
BC-27*	700721.57	3571738.1	30^0 25' 25"	90^0 24' 37"	2	28.0	15.91	13.04	-4.46 to -14.46	17.5 to 27.5
Third-Water-Bearing Zone										
BA-03A	701004.96	3571249.7	30^0 25' 43"	90^0 24' 43"	2	100.0	14.76	11.72	-77.78 to -87.78	89.5 to 99.5
BA-05A	701085.48	3571565.3	30^0 25' 29"	90^0 24' 39"	2	54.0	14.42	11.16	-24.84 to -28.34	36.0 to 39.5
BB-01	699827.30	3571572.4	30^0 25' 16"	90^0 24' 39"	2	96.0	15.75	12.69	-72.81 to -82.81	85.5 to 95.5
BA-01A	700957.45	3571661.4	30^0 25' 27"	90^0 24' 38"	2	46.0	15.03	11.61	-23.89 to -33.89	35.5 to 45.5

Notes: 1) ft bgs = Feet below ground surface
2) ID = Identification
3) NA= Not available
4) NGVD = National Geodetic Vertical Datum
5) Denotes Well Plugged and Abandoned by the EPA

TABLE 2
WATER WELL CONSTRUCTION DATA
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Well ID	Address	Depth (feet)	Date Installed
WW-04*	39229 Keaghey Road Ponchatoula, LA 70454	Unknown	Unknown
WW-09*	39233 Keaghey Road Ponchatoula. LA70454	60	10/94
North Well	19119 Weinberger Road Ponchatoula. LA 70454	Unknown	Unknown
South Well	19113 Weinberger Road Ponchatoula, LA 70454	Unknown	Unknown
(b) (6) Well**	Keaghey Road Ponchatoula. LA70454	Unknown	Unknown

Notes: Water Well
*Designations for water wells WW-04 and WW-09 were obtained from the Delatte Metals Remedial Investigation Report (Tetra Tech 2000)
**Designation was named in field based on current owners name

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
FIRST WATER-BEARING ZONE									
DW-01									
December-10	13.36	11.83	1.53	21.36	0.565	0.65	5.66	-23	9.0
February-11	13.36	11.40	1.96	18.30	0.858	1.27	5.56	-97	9.7
May-11	13.36	11.28	2.08	21.74	0.532	0.23	5.83	-152	4.8
August-11	13.36	12.20	1.16	24.91	0.444	2.65	5.90	-56	9.1
November-11	13.36	11.70	1.66	23.87	1.111	0.20	5.48	-110	5.5
February-12	13.36	10.44	2.92	21.05	0.853	3.38	5.59	-9	8.6
May-12	13.36	10.90	2.46	21.23	0.592	0.22	5.73	-58	8.5
August-12	13.36	11.12	2.24	24.06	0.822	0.17	5.10	-135	16.0
DW-02									
December-10	14.12	5.37	8.75	18.04	8.00	1.26	2.81	252	5.51
February-11	14.12	4.25	9.87	14.76	7.05	3.01	2.89	236	6.0
May-11	14.12	6.30	7.82	27.07	6.580	0.30	2.80	83	0.0
August-11	14.12	6.22	7.90	30.69	6.51	0.19	2.98	15	0.0
November-11	14.12	6.60	7.52	24.04	6.35	0.50	2.94	39	0.0
February-12	14.12	4.55	9.57	18.49	5.85	2.98	3.05	79	0.0
May-12	14.12	4.65	9.47	24.73	6.74	0.23	2.92	28	0.0
August-12	14.12	4.40	9.72	29.11	6.34	0.22	2.73	-10	1.6
DW-03									
December-10	11.59	6.44	5.15	19.33	0.638	1.16	3.40	407	3.30
February-11	11.59	5.66	5.93	16.38	0.735	1.09	3.68	364	4.3
May-11	11.59	6.85	4.74	22.30	2.44	0.17	3.47	-88	0.0
August-11	11.59	7.60	3.99	25.33	2.20	0.13	3.73	-76	6.9
November-11	11.59	7.14	4.45	23.73	1.81	0.11	3.79	-94	4.1
February-12	11.59	4.74	6.85	19.00	0.214	3.40	3.95	349	3.4
May-12	11.59	5.66	5.93	21.76	0.377	0.20	4.42	-75	0.5
August-12	11.59	5.77	5.82	24.46	0.291	0.20	4.38	-181	2.7
MW-01									
December-10	15.08	14.30	0.78	20.81	4.36	0.25	3.37	100	2.0
February-11	15.08	14.55	0.53	19.65	4.41	1.56	3.40	18	2.1
May-11	15.08	13.36	1.72	20.82	5.18	0.20	3.49	-65	0.0
August-11	15.08	13.35	1.73	24.33	3.76	1.89	3.69	69	9.7
November-11	15.08	13.72	1.36	22.33	4.71	0.15	3.43	11	7.9
February-12	15.08	13.03	2.05	22.41	4.33	2.01	3.44	74	0.0
May-12	15.08	13.34	1.74	20.65	5.13	0.18	3.35	65	0.4
August-12	15.08	13.52	1.56	21.93	5.22	0.22	3.01	4	3.1
MW-02									
December-10	14.23	8.06	6.17	20.33	1.238	0.46	3.15	424	2.5
February-11	14.23	7.28	6.95	15.96	1.208	2.08	3.23	445	4.5
May-11	14.23	8.19	6.04	24.48	1.157	0.21	3.41	89	0.0
August-11	14.23	9.00	5.23	28.44	1.228	1.97	3.20	399	8.0
November-11	14.23	8.50	5.73	24.37	1.227	0.46	3.25	346	6.1
February-12	14.23	7.15	7.08	19.55	0.999	2.64	3.23	437	0.0
May-12	14.23	8.25	5.98	22.90	1.005	2.22	3.31	294	0.9
August-12	14.23	7.42	6.81	27.57	1.029	0.16	3.01	169	1.7
MW-06									
December-10	16.77	9.38	7.39	18.73	0.799	0.50	3.81	367	3.5
February-11	16.77	8.19	8.58	16.86	0.718	0.62	3.61	424	6.0
May-11	16.77	9.86	6.91	20.00	0.566	0.53	3.82	221	0.6
August-11	16.77	10.40	6.37	21.92	0.857	0.26	3.73	390	2.3
November-11	16.77	10.14	6.63	20.95	0.845	0.42	3.67	364	5.3
February-12	16.77	7.71	9.06	17.82	0.651	3.03	3.65	341	4.6
May-12	16.77	8.44	8.33	19.70	0.600	0.92	3.59	99	9.3
August-12	16.77	9.03	7.74	22.28	1.10	1.45	3.62	352	0.0

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
FIRST WATER-BEARING ZONE (continued)									
PW-04									
December-10	12.22	6.64	5.58	18.59	1.000	0.23	3.87	80	2.8
February-11	12.22	5.28	6.94	16.76	1.056	0.39	4.06	7	2.3
May-11	12.22	6.84	5.38	21.75	1.570	0.19	3.83	-69	0.1
August-11	12.22	7.68	4.54	24.18	0.782	0.14	4.07	-38	0.0
November-11	12.22	7.28	4.94	22.17	0.661	0.17	4.05	-46	1.7
February-12	12.22	5.21	7.01	19.20	0.523	4.88	4.14	77	0.2
May-12	12.22	5.41	6.81	21.32	1.071	0.17	4.08	-35	0.0
August-12	12.22	5.56	6.66	23.33	0.610	0.16	3.72	-89	2.1
BA-03									
December-10	14.57	7.82	6.75	20.29	1.240	0.45	3.46	414	3.4
February-11	14.57	6.73	7.84	15.51	0.257	3.56	4.13	209	6.8
May-11	14.57	7.92	6.65	24.55	2.08	0.39	3.38	404	0.3
August-11	14.57	8.74	5.83	28.75	1.009	1.49	3.79	295	5.5
November-11	14.57	8.34	6.23	24.50	1.240	0.24	3.47	411	1.6
February-12	14.57	6.74	7.83	19.99	1.028	5.40	3.99	269	9.0
May-12	14.57	6.85	7.72	24.69	0.333	2.00	3.95	216	13.5
August-12	14.57	7.21	7.36	28.39	0.513	2.30	4.22	146	9.7
BA-09									
December-10	9.46	9.07	0.39	20.07	3.17	0.34	3.80	16	1.3
February-11	9.46	8.65	0.81	18.06	2.58	0.52	3.50	42	2.7
May-11	9.46	8.68	0.78	21.39	3.85	0.25	3.75	-117	0.0
August-11	9.46	9.48	-0.02	23.63	3.47	0.19	3.79	-49	0.0
November-11	9.46	9.05	0.41	22.58	3.66	0.19	3.69	-61	0.0
February-12	9.46	7.95	1.51	17.21	3.62	4.27	3.34	334	7.0
May-12	9.46	8.08	1.38	21.29	3.48	3.37	3.49	42	0.9
August-12	9.46	8.56	0.90	23.10	3.85	0.25	3.27	-85	3.8
SECOND WATER-BEARING ZONE									
DW-04									
December-10	14.21	5.34	8.87	20.09	1.70	0.36	6.92	336	1.1
February-11	14.21	4.32	9.89	19.61	1.51	2.51	7.12	541	1.8
May-11	14.21	5.66	8.55	23.20	1.69	0.27	7.04	131	0.0
August-11	14.21	6.62	7.59	22.97	1.470	0.22	7.10	-124	0.0
November-11	14.21	7.21	7.00	22.42	1.370	0.61	7.09	276	0.6
February-12	14.21	6.00	8.21	20.44	1.165	1.73	7.18	247	1.7
May-12	14.21	5.40	8.81	21.53	1.292	0.31	7.11	102	1.1
August-12	14.21	5.80	8.41	22.28	2.18	1.13	6.42	43	0.0
MW-A									
December-10	15.12	11.03	4.09	21.38	0.690	1.17	7.02	37	2.6
February-11	15.12	10.68	4.44	19.48	0.646	2.85	7.16	8	4.3
May-11	15.12	10.62	4.50	21.50	0.750	5.18	6.90	45	0.0
August-11	15.12	11.25	3.87	27.33	0.681	3.19	7.01	-39	4.5
November-11	15.12	11.55	3.57	23.71	0.680	0.34	7.10	-43	0.0
February-12	15.12	10.72	4.40	21.88	0.605	4.62	7.11	-47	1.7
May-12	15.12	10.33	4.79	22.11	0.738	0.59	7.17	-44	1.2
August-12	15.12	10.55	4.57	24.19	0.784	0.35	6.47	-84	4.6
MW-03									
December-10	14.80	7.60	7.20	19.75	1.88	0.58	6.53	100	3.3
February-11	14.80	6.19	8.61	19.37	1.72	1.17	6.58	374	2.2
May-11	14.80	7.91	6.89	21.24	1.97	0.25	6.60	-287	0.0
August-11	14.80	8.90	5.90	22.53	1.81	0.22	6.65	-184	0.0
November-11	14.80	9.72	5.08	21.62	1.78	0.19	6.63	-131	0.0
February-12	14.80	8.05	6.75	19.62	1.63	2.21	6.66	119	2.1
May-12	14.80	7.30	7.50	21.00	1.90	0.22	6.60	-286	1.9
August-12	14.80	7.70	7.10	22.47	4.14	1.10	7.64	-112	0.0

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
SECOND WATER-BEARING ZONE (continued)									
MW-04									
December-10	17.38	14.97	2.41	18.87	0.310	2.41	6.56	-51	7.3
February-11	17.38	14.45	2.93	19.34	0.280	2.96	6.59	-82	15.0
May-11	17.38	15.39	1.99	20.75	0.327	2.06	6.66	-143	2.4
August-11	17.38	16.92	0.46	21.95	0.300	1.62	6.69	-81	105
November-11	17.38	16.62	0.76	21.84	0.297	1.93	6.67	-106	14.5
February-12	17.38	14.90	2.48	17.86	0.293	4.16	6.66	103	5.4
May-12	17.38	14.45	2.93	20.58	0.320	1.68	6.59	-123	9.8
August-12	17.38	15.62	1.76	21.43	0.345	1.31	6.19	-120	15.8
BA-01									
December-10	14.57	7.59	6.98	19.98	2.12	0.87	6.10	53	20.9
February-11	14.57	6.56	8.01	20.60	2.21	0.28	6.06	51	42.7
May-11	14.57	7.61	6.96	23.32	2.58	0.20	5.90	45	75.3
August-11	14.57	8.39	6.18	24.50	2.29	0.19	6.08	-17	7.8
November-11	14.57	9.24	5.33	23.90	2.06	0.30	6.15	38	14.0
February-12	14.57	8.08	6.49	21.25	2.41	3.50	5.94	70	83.4
May-12	14.57	7.23	7.34	23.31	2.75	0.20	5.78	5	26.9
August-12	14.57	7.49	7.08	23.61	2.73	0.23	5.59	-73	7.2
BA-05									
December-10	14.20	8.51	5.69	19.41	6.14	7.04	6.29	15	16.1
February-11	14.20	8.09	6.11	18.24	5.60	0.65	6.09	-5	9.6
May-11	14.20	8.40	5.80	24.98	5.50	4.22	6.25	-42	3.1
August-11	14.20	8.91	5.29	27.79	5.35	1.54	6.01	-31	9.8
November-11	14.20	9.39	4.81	25.90	5.69	5.28	6.49	-38	9.8
February-12	14.20	8.55	5.65	21.85	5.53	3.16	6.16	15	9.7
May-12	14.20	7.98	6.22	22.52	6.05	4.99	6.30	-28	7.7
August-12	14.20	8.10	6.10	25.07	5.36	0.18	5.73	-119	5.4
BA-09A									
December-10	11.10	1.13	9.97	17.59	0.239	0.47	6.82	-7	1.7
February-11	11.10	0.84	10.26	18.41	0.212	1.84	6.95	112	1.7
May-11	11.10	1.36	9.74	21.99	0.246	0.37	7.01	98	0.0
August-11	11.10	2.03	9.07	22.74	0.223	0.24	7.00	-82	0.6
November-11	11.10	2.01	9.09	21.30	0.223	0.28	7.08	-115	0.0
February-12	11.10	1.45	9.65	16.22	0.232	5.69	6.60	128	4.7
May-12	11.10	1.47	9.63	21.31	0.233	0.72	7.01	33	1.6
August-12	11.10	1.80	9.30	21.86	0.254	0.27	6.57	-70	6.5
BC-03									
December-10	16.32	7.11	9.21	19.82	3.17	2.39	7.02	2	2.0
February-11	16.32	4.56	11.76	20.25	2.93	2.16	7.06	44	0.7
May-11	16.32	6.87	9.45	23.85	3.39	0.25	7.04	-127	0.0
August-11	16.32	8.29	8.03	24.58	3.08	0.31	7.10	-130	0.0
November-11	16.32	9.19	7.13	24.06	3.07	0.51	7.12	-157	0.0
February-12	16.32	7.90	8.42	19.91	2.92	3.31	7.06	72	5.7
May-12	16.32	6.49	9.83	23.40	3.31	0.36	7.12	-55	2.2
August-12	16.32	6.98	9.34	24.10	3.45	0.23	7.02	-150	3.3
BC-07									
December-10	11.37	3.96	7.41	16.01	2.24	1.78	6.95	448	3.0
February-11	11.37	2.79	8.58	15.08	1.97	3.47	7.09	549	3.9
May-11	11.37	5.58	5.79	21.65	2.42	1.65	7.15	372	0.0
August-11	11.37	5.95	5.42	23.83	2.25	0.58	7.13	129	0.0
November-11	11.37	7.39	3.98	22.87	2.23	5.61	7.44	520	0.0
February-12	11.37	3.91	7.46	17.53	2.14	2.93	7.21	430	0.0
May-12	11.37	4.00	7.37	20.68	2.41	0.37	7.12	416	0.9
August-12	11.37	4.09	7.28	24.03	2.53	0.22	6.43	-50	2.2

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
SECOND WATER-BEARING ZONE (continued)									
BC-17									
December-10	15.18	5.61	9.57	20.94	2.03	5.38	6.94	535	2.5
February-11	15.18	4.38	10.80	18.59	1.87	0.97	6.71	511	3.3
May-11	15.18	7.07	8.11	24.09	2.15	0.36	6.65	-80	0.2
August-11	15.18	7.35	7.83	26.93	1.98	0.26	6.81	-55	0.5
November-11	15.18	9.09	6.09	24.14	1.93	2.31	6.90	166	0.0
February-12	15.18	6.98	8.20	20.14	1.73	3.32	6.60	272	3.9
May-12	15.18	5.90	9.28	24.07	2.25	0.22	6.73	-24	2.2
August-12	15.18	5.88	9.30	26.17	2.32	0.16	6.84	-149	1.7
BC-19									
December-10	13.85	6.03	7.82	19.81	2.73	4.44	7.04	367	1.8
February-11	13.85	4.67	9.18	18.88	2.48	3.35	6.97	435	2.4
May-11	13.85	6.63	7.22	23.02	2.86	0.22	6.85	121	0.0
August-11	13.85	7.49	6.36	24.97	2.65	0.20	6.90	-79	2.2
November-11	13.85	8.40	5.45	23.22	2.62	0.34	6.90	188	0.0
February-12	13.85	6.65	7.20	19.53	2.43	4.19	7.01	287	0.0
May-12	13.85	5.85	8.00	22.54	2.76	0.25	6.88	105	2.5
August-12	13.85	6.25	7.60	22.66	3.92	1.08	5.96	85	0.0
BC-21R									
December-10	15.28	7.39	7.89	19.14	1.246	5.06	6.84	506	2.3
February-11	15.28	5.40	9.88	17.39	1.157	4.26	6.86	551	2.4
May-11	15.28	7.99	7.29	22.81	1.310	0.61	6.69	523	0.0
August-11	15.28	9.00	6.28	25.35	1.194	2.84	6.90	266	0.0
November-11	15.28	9.98	5.30	23.46	1.267	5.44	7.05	453	0.0
February-12	15.28	7.75	7.53	18.95	1.159	5.53	7.01	542	0.0
May-12	15.28	7.20	8.08	22.27	1.312	1.99	6.70	506	6.1
August-12	15.28	7.64	7.64	23.68	1.377	0.37	6.47	393	0.2
BC-25									
December-10	15.73	8.35	7.38	19.40	0.757	0.26	6.78	129	2.0
February-11	15.73	6.74	8.99	19.15	0.700	1.28	6.88	284	1.8
May-11	15.73	8.94	6.79	21.12	0.787	0.22	6.90	109	0.0
August-11	15.73	9.87	5.86	21.70	0.713	0.21	6.97	-80	0.0
November-11	15.73	10.71	5.02	21.21	0.701	0.20	6.94	136	0.0
February-12	15.73	8.82	6.91	19.60	0.650	2.61	7.33	117	0.0
May-12	15.73	8.15	7.58	20.30	0.735	0.21	6.88	188	1.5
August-12	15.73	8.55	7.18	21.50	0.791	0.12	6.24	-94	2.6
THIRD WATER-BEARING ZONE									
BA-03A									
December-10	14.76	1.73	13.03	19.78	0.280	0.46	8.04	-140	4.8
February-11	14.76	1.59	13.17	18.88	0.225	0.52	8.34	-199	53.1
May-11	14.76	2.30	12.46	23.88	0.301	0.55	8.17	-219	1.1
August-11	14.76	3.00	11.76	28.81	0.294	3.85	7.90	-131	6.3
November-11	14.76	2.71	12.05	22.32	0.264	0.24	8.38	-217	0.0
February-12	14.76	2.00	12.76	20.98	0.251	3.65	7.34	-85	0.0
May-12	14.76	2.20	12.56	22.60	0.274	0.18	7.97	-202	3.5
August-12	14.76	2.56	12.20	24.23	0.298	0.21	8.11	-269	7.4
BA-05A									
December-10	14.42	3.31	11.11	19.60	0.244	0.30	7.04	-83	2.30
February-11	14.42	3.11	11.31	18.18	0.222	6.85	7.29	11	3.0
May-11	14.42	3.62	10.80	24.42	0.257	0.56	7.28	-157	0.0
August-11	14.42	4.60	9.82	29.80	0.240	4.00	7.10	-25	2.9
November-11	14.42	4.23	10.19	23.04	0.231	0.23	7.27	-182	0.0
February-12	14.42	3.75	10.67	21.84	0.128	5.22	7.03	-58	0.0
May-12	14.42	3.60	10.82	22.25	0.242	1.16	7.05	28	0.4
August-12	14.42	4.00	10.42	23.92	0.262	0.50	6.87	-194	1.6

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
THIRD WATER-BEARING ZONE (continued)									
BB-01									
December-10	15.75	2.85	12.90	20.08	0.270	0.41	9.63	30	5.1
February-11	15.75	2.67	13.08	18.82	0.244	0.77	9.86	169	4.8
May-11	15.75	3.32	12.43	23.24	0.282	0.35	9.77	-209	1.5
August-11	15.75	4.05	11.70	24.04	0.258	0.50	9.89	-183	3.5
November-11	15.75	3.79	11.96	21.85	0.261	0.28	9.88	-135	4.2
February-12	15.75	3.11	12.64	20.14	0.240	0.69	9.79	91	3.0
May-12	15.75	3.13	12.62	23.01	0.270	0.62	9.95	-68	3.3
August-12	15.75	3.65	12.10	24.98	0.293	0.28	9.95	-242	4.7
BA-01A									
December-10	15.03	4.46	10.57	19.34	0.243	0.27	7.10	18	3.3
February-11	15.03	4.37	10.66	19.48	0.221	2.56	7.36	430	1.9
May-11	15.03	4.77	10.26	23.74	0.252	0.20	7.26	171	0.0
August-11	15.03	5.49	9.54	24.68	0.228	0.17	7.36	-136	0.0
November-11	15.03	5.58	9.45	23.87	0.227	0.27	7.35	23	0.0
February-12	15.03	5.00	10.03	20.82	0.219	4.61	7.40	302	1.4
May-12	15.03	4.91	10.12	23.56	0.238	0.99	7.28	-71	0.9
August-12	15.03	5.50	9.53	23.35	0.201	0.19	7.23	-72	1.3
WATER WELLS									
(b) (6) **Well**									
December-10	NA	NA	NA	19.60	0.259	1.80	8.22	-132	4.5
February-11	NA	NA	NA	20.76	0.233	2.97	8.28	-186	2.6
May-11	NA	NA	NA	22.22	0.271	2.41	8.30	-249	0.0
August-11	NA	NA	NA	22.75	0.245	1.52	8.36	-149	0.8
November-11	NA	NA	NA	21.92	0.244	3.14	8.26	-195	0.0
February-12	NA	NA	NA	19.10	0.230	3.32	8.20	-155	2.4
May-12	NA	NA	NA	21.23	0.257	5.23	9.08	-176	2.3
August-12	NA	NA	NA	21.69	0.279	2.47	8.11	-163	3.7
WW-04									
December-10	NA	NA	NA	19.58	0.262	1.22	8.69	-187	2.1
February-11	NA	NA	NA	20.34	0.236	2.34	8.83	-236	4.4
May-11	NA	NA	NA	21.77	0.273	1.50	8.81	-280	0.0
August-11	NA	NA	NA	21.98	0.067	1.61	8.87	-199	0.5
November-11	NA	NA	NA	21.49	0.248	1.55	8.77	-213	2.0
February-12	NA	NA	NA	16.72	0.236	2.35	8.51	-4	3.2
May-12	NA	NA	NA	20.83	0.261	2.33	8.65	-126	0.0
August-12	NA	NA	NA	21.84	0.284	1.75	8.47	-180	7.2
WW-09									
December-10	NA	NA	NA	18.02	0.259	5.49	7.39	-158	4.3
February-11	NA	NA	NA	19.80	0.234	3.05	7.97	-122	5.5
May-11	NA	NA	NA	24.39	0.262	3.29	8.19	-242	0.0
August-11	NA	NA	NA	21.90	0.187	2.22	8.16	-152	0.0
November-11	NA	NA	NA	20.55	0.242	5.48	8.20	-151	0.0
February-12	NA	NA	NA	15.18	0.231	3.08	7.69	-113	2.9
May-12	NA	NA	NA	21.99	0.254	2.60	7.98	-156	9.2
August-12	NA	NA	NA	24.41	0.275	4.44	7.81	-162	5.0
North Well									
December-10	NA	NA	NA	21.11	0.259	1.61	8.50	235	1.5
February-11	NA	NA	NA	21.15	0.240	5.00	8.63	212	3.4
May-11	NA	NA	NA	22.96	0.269	1.08	8.91	-275	0.2
August-11	NA	NA	NA	24.53	0.247	0.98	8.76	-186	3.1
November-11	NA	NA	NA	22.05	0.259	1.23	8.70	-102	0.0
February-12	NA	NA	NA	20.06	0.257	2.65	8.50	163	0.0
May-12	NA	NA	NA	23.15	0.266	2.10	8.70	-253	—
August-12	NA	NA	NA	24.24	0.282	1.16	8.88	-256	1.2

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
WATER WELLS (continued)									
South Well									
December-10	NA	NA	NA	19.59	0.262	2.29	8.75	-76	3.3
February-11	NA	NA	NA	20.08	0.236	2.47	9.00	-75	1.9
May-11	NA	NA	NA	22.14	0.274	1.07	8.98	-253	0.0
August-11	NA	NA	NA	22.76	0.248	1.62	9.05	-157	1.7
November-11	NA	NA	NA	21.32	0.251	2.10	9.09	-194	0.0
February-12	NA	NA	NA	19.93	0.236	2.55	9.06	-125	0.0
May-12	NA	NA	NA	22.48	0.258	3.41	9.24	-161	0.0
August-12	NA	NA	NA	22.95	0.236	1.66	9.33	-230	2.8

Notes: 1) Top-of-casing (TOC) elevation - (depth to fluid) = Corrected GROUNDWATER (GW) elevation
2) Additional quarters will be added as sampling events continue

Abbrev.: NA = Not Appliciable mg/L = milligrams per Liter NF = Not Found
NM = Not Measured NS = Not Sampled

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
1	Total Arsenic/7440-38-2	SW6020	BA-09A	L0019373-01	120820	RECAP SS	0.01	0.004	0.00191	J	No
2	Total Cadmium/7440-43-9	SW6020	BA-09A	L0019373-01	120820	RECAP SS	0.005	0.002	< 0.002		No
3	Total Lead/7439-92-1	SW6020	BA-09A	L0019373-01	120820	EPA Site Cleanup	0.015	0.001	< 0.001		No
4	Total Manganese/7439-96-5	SW6020	BA-09A	L0019373-01	120820	RECAP SS	0.51	0.002	< 0.002		No
5	Total Nickel/7440-02-0	SW6020	BA-09A	L0019373-01	120820	RECAP SS	0.073	0.002	< 0.002		No
6	Total Thallium/7440-28-0	SW6020	BA-09A	L0019373-01	120820	RECAP SS	0.002	0.002	< 0.002		No
7	Total Zinc/7440-66-6	SW6020	BA-09A	L0019373-01	120820	RECAP SS	1.1	0.01	0.145		No
8	**Total Arsenic/7440-38-2**	**SW6020**	**BA-09**	**L0019373-02**	**120820**	**RECAP SS**	**0.01**	**0.1**	**0.0212**	**J**	**Yes**
9	Total Cadmium/7440-43-9	SW6020	BA-09	L0019373-02	120820	RECAP SS	0.005	0.01	0.000731	J	No
10	Total Lead/7439-92-1	SW6020	BA-09	L0019373-02	120820	EPA Site Cleanup	0.015	0.005	0.00302	J	No
11	**Total Manganese/7439-96-5**	**SW6020**	**BA-09**	**L0019373-02**	**120820**	**RECAP SS**	**0.51**	**0.01**	**4.97**		**Yes**
12	**Total Nickel/7440-02-0**	**SW6020**	**BA-09**	**L0019373-02**	**120820**	**RECAP SS**	**0.073**	**0.01**	**0.223**		**Yes**
13	**Total Thallium/7440-28-0**	**SW6020**	**BA-09**	**L0019373-02**	**120820**	**RECAP SS**	**0.002**	**0.01**	**0.00214**	**J**	**Yes**
14	Total Zinc/7440-66-6	SW6020	BA-09	L0019373-02	120820	RECAP SS	1.1	0.05	0.3		No
15	Total Arsenic/7440-38-2	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.01	0.004	< 0.004		No
16	Total Cadmium/7440-43-9	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.005	0.002	0.000149	J	No
17	Total Lead/7439-92-1	SW6020	MW-4	L0019373-03	120820	EPA Site Cleanup	0.015	0.001	0.00249		No
18	Total Manganese/7439-96-5	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.51	0.002	0.0246		No
19	Total Nickel/7440-02-0	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.073	0.002	0.00188	J	No
20	Total Thallium/7440-28-0	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.002	0.002	0.000437	J	No
21	Total Zinc/7440-66-6	SW6020	MW-4	L0019373-03	120820	RECAP SS	1.1	0.01	0.0336		No
22	Dissolved Arsenic/7440-38-2	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.01	0.004	0.000778	J	No
23	Dissolved Cadmium/7440-43-9	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.005	0.002	0.000153	J	No
24	Dissolved Lead/7439-92-1	SW6020	MW-4	L0019373-03	120820	EPA Site Cleanup	0.015	0.001	< 0.001		No
25	Dissolved Manganese/7439-96-5	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.51	0.002	< 0.002		No
26	Dissolved Nickel/7440-02-0	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.073	0.002	0.000506	J	No
27	Dissolved Thallium/7440-28-0	SW6020	MW-4	L0019373-03	120820	RECAP SS	0.002	0.002	< 0.002		No
28	Dissolved Zinc/7440-66-6	SW6020	MW-4	L0019373-03	120820	RECAP SS	1.1	0.006	0.00547	J	No
29	Total Arsenic/7440-38-2	SW6020	WW-09	L0019373-04	120820	RECAP SS	0.01	0.004	< 0.004		No
30	Total Cadmium/7440-43-9	SW6020	WW-09	L0019373-04	120820	RECAP SS	0.005	0.002	0.000102	J	No
31	Total Lead/7439-92-1	SW6020	WW-09	L0019373-04	120820	EPA Site Cleanup	0.015	0.001	0.00104		No
32	Total Manganese/7439-96-5	SW6020	WW-09	L0019373-04	120820	RECAP SS	0.51	0.002	0.018		No
33	Total Nickel/7440-02-0	SW6020	WW-09	L0019373-04	120820	RECAP SS	0.073	0.002	0.00177	J	No
34	Total Thallium/7440-28-0	SW6020	WW-09	L0019373-04	120820	RECAP SS	0.002	0.002	0.000427	J	No
35	Total Zinc/7440-66-6	SW6020	WW-09	L0019373-04	120820	RECAP SS	1.1	0.01	0.00823	J	No
36	Total Arsenic/7440-38-2	SW6020	WW-04	L0019373-05	120820	RECAP SS	0.01	0.004	< 0.004		No
37	Total Cadmium/7440-43-9	SW6020	WW-04	L0019373-05	120820	RECAP SS	0.005	0.002	0.0000906	J	No
38	Total Lead/7439-92-1	SW6020	WW-04	L0019373-05	120820	EPA Site Cleanup	0.015	0.001	0.000568	J	No
39	Total Manganese/7439-96-5	SW6020	WW-04	L0019373-05	120820	RECAP SS	0.51	0.002	0.00319		No
40	Total Nickel/7440-02-0	SW6020	WW-04	L0019373-05	120820	RECAP SS	0.073	0.002	< 0.002		No
41	Total Thallium/7440-28-0	SW6020	WW-04	L0019373-05	120820	RECAP SS	0.002	0.002	0.000423	J	No
42	Total Zinc/7440-66-6	SW6020	WW-04	L0019373-05	120820	RECAP SS	1.1	0.01	0.00376	J	No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
43	Total Arsenic/7440-38-2	SW6020	(b) (6) WELL	L0019373-06	120820	RECAP SS	0.01	0.004	< 0.004		No
44	Total Cadmium/7440-43-9	SW6020	(b) (6) WELL	L0019373-06	120820	RECAP SS	0.005	0.002	0.000106	J	No
45	Total Lead/7439-92-1	SW6020	(b) (6) WELL	L0019373-06	120820	EPA Site Cleanup	0.015	0.001	0.00226		No
46	Total Manganese/7439-96-5	SW6020	(b) (6) WELL	L0019373-06	120820	RECAP SS	0.51	0.002	0.0233		No
47	Total Nickel/7440-02-0	SW6020	(b) (6) WELL	L0019373-06	120820	RECAP SS	0.073	0.002	0.000572	J	No
48	Total Thallium/7440-28-0	SW6020	(b) (6) WELL	L0019373-06	120820	RECAP SS	0.002	0.002	0.000426	J	No
49	Total Zinc/7440-66-6	SW6020	(b) (6) WELL	L0019373-06	120820	RECAP SS	1.1	0.01	0.0425		No
50	Total Arsenic/7440-38-2	SW6020	BC-03	L0019373-07	120820	RECAP SS	0.01	0.02	< 0.00362		No
51	**Total Cadmium/7440-43-9**	**SW6020**	**BC-03**	**L0019373-07**	**120820**	**RECAP SS**	**0.005**	**0.01**	**< 0.01**		**Yes**
52	Total Lead/7439-92-1	SW6020	BC-03	L0019373-07	120820	EPA Site Cleanup	0.015	0.005	< 0.005		No
53	Total Manganese/7439-96-5	SW6020	BC-03	L0019373-07	120820	RECAP SS	0.51	0.01	0.021	J	No
54	Total Nickel/7440-02-0	SW6020	BC-03	L0019373-07	120820	RECAP SS	0.073	0.01	< 0.01		No
55	**Total Thallium/7440-28-0**	**SW6020**	**BC-03**	**L0019373-07**	**120820**	**RECAP SS**	**0.002**	**0.01**	**< 0.01**		**Yes**
56	Total Zinc/7440-66-6	SW6020	BC-03	L0019373-07	120820	RECAP SS	1.1	0.05	< 0.05		No
57	Total Arsenic/7440-38-2	SW6020	BB-01	L0019373-08	120820	RECAP SS	0.01	0.004	0.00412		No
58	Total Cadmium/7440-43-9	SW6020	BB-01	L0019373-08	120820	RECAP SS	0.005	0.002	0.000219	J	No
59	Total Lead/7439-92-1	SW6020	BB-01	L0019373-08	120820	EPA Site Cleanup	0.015	0.001	0.0054		No
60	Total Manganese/7439-96-5	SW6020	BB-01	L0019373-08	120820	RECAP SS	0.51	0.002	0.0038		No
61	Total Nickel/7440-02-0	SW6020	BB-01	L0019373-08	120820	RECAP SS	0.073	0.002	0.00144	J	No
62	Total Thallium/7440-28-0	SW6020	BB-01	L0019373-08	120820	RECAP SS	0.002	0.002	0.000424	J	No
63	Total Zinc/7440-66-6	SW6020	BB-01	L0019373-08	120820	RECAP SS	1.1	0.01	0.00811	J	No
64	Total Arsenic/7440-38-2	SW6020	SOUTH WELL	L0019373-09	120820	RECAP SS	0.01	0.004	< 0.000724		No
65	Total Cadmium/7440-43-9	SW6020	SOUTH WELL	L0019373-09	120820	RECAP SS	0.005	0.002	< 0.001		No
66	Total Lead/7439-92-1	SW6020	SOUTH WELL	L0019373-09	120820	EPA Site Cleanup	0.015	0.001	< 0.001		No
67	Total Manganese/7439-96-5	SW6020	SOUTH WELL	L0019373-09	120820	RECAP SS	0.51	0.002	0.0039	J	No
68	Total Nickel/7440-02-0	SW6020	SOUTH WELL	L0019373-09	120820	RECAP SS	0.073	0.002	< 0.002		No
69	Total Thallium/7440-28-0	SW6020	SOUTH WELL	L0019373-09	120820	RECAP SS	0.002	0.002	< 0.002		No
70	Total Zinc/7440-66-6	SW6020	SOUTH WELL	L0019373-09	120820	RECAP SS	1.1	0.01	< 0.013		No
71	**Total Arsenic/7440-38-2**	**SW6020**	**BC-17**	**L0019373-10**	**120820**	**RECAP SS**	**0.01**	**0.02**	**< 0.02**		**Yes**
72	Total Cadmium/7440-43-9	SW6020	BC-17	L0019373-10	120820	RECAP SS	0.005	0.01	0.00107	J	No
73	**Total Lead/7439-92-1**	**SW6020**	**BC-17**	**L0019373-10**	**120820**	**EPA Site Cleanup**	**0.015**	**0.005**	**0.0514**		**Yes**
74	Total Manganese/7439-96-5	SW6020	BC-17	L0019373-10	120820	RECAP SS	0.51	0.01	0.279		No
75	Total Nickel/7440-02-0	SW6020	BC-17	L0019373-10	120820	RECAP SS	0.073	0.01	0.00186	J	No
76	**Total Thallium/7440-28-0**	**SW6020**	**BC-17**	**L0019373-10**	**120820**	**RECAP SS**	**0.002**	**0.01**	**0.00226**	**J**	**Yes**
77	Total Zinc/7440-66-6	SW6020	BC-17	L0019373-10	120820	RECAP SS	1.1	0.05	0.00701	J	No
78	Total Arsenic/7440-38-2	SW6020	NORTH WELL	L0019373-11	120820	RECAP SS	0.01	0.004	< 0.004		No
79	Total Cadmium/7440-43-9	SW6020	NORTH WELL	L0019373-11	120820	RECAP SS	0.005	0.002	0.000117	J	No
80	Total Lead/7439-92-1	SW6020	NORTH WELL	L0019373-11	120820	EPA Site Cleanup	0.015	0.001	0.00205		No
81	Total Manganese/7439-96-5	SW6020	NORTH WELL	L0019373-11	120820	RECAP SS	0.51	0.002	0.00676		No
82	Total Nickel/7440-02-0	SW6020	NORTH WELL	L0019373-11	120820	RECAP SS	0.073	0.002	0.00028	J	No
83	Total Thallium/7440-28-0	SW6020	NORTH WELL	L0019373-11	120820	RECAP SS	0.002	0.002	0.000421	J	No
84	Total Zinc/7440-66-6	SW6020	NORTH WELL	L0019373-11	120820	RECAP SS	1.1	0.01	0.00529	J	No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
85	Total Arsenic/7440-38-2	SW6020	BC-21R	L0019373-12	120821	RECAP SS	0.01	0.004	< 0.004		No
86	Total Cadmium/7440-43-9	SW6020	BC-21R	L0019373-12	120821	RECAP SS	0.005	0.002	0.000196	J	No
87	Total Lead/7439-92-1	SW6020	BC-21R	L0019373-12	120821	EPA Site Cleanup	0.015	0.001	0.00117		No
88	Total Manganese/7439-96-5	SW6020	BC-21R	L0019373-12	120821	RECAP SS	0.51	0.002	0.00882		No
89	Total Nickel/7440-02-0	SW6020	BC-21R	L0019373-12	120821	RECAP SS	0.073	0.002	0.00214		No
90	Total Thallium/7440-28-0	SW6020	BC-21R	L0019373-12	120821	RECAP SS	0.002	0.002	0.00043	J	No
91	Total Zinc/7440-66-6	SW6020	BC-21R	L0019373-12	120821	RECAP SS	1.1	0.01	0.00469	J	No
92	Total Arsenic/7440-38-2	SW6020	BA-01A	L0019373-13	120821	RECAP SS	0.01	0.004	0.00586		No
93	Total Cadmium/7440-43-9	SW6020	BA-01A	L0019373-13	120821	RECAP SS	0.005	0.002	0.000102	J	No
94	Total Lead/7439-92-1	SW6020	BA-01A	L0019373-13	120821	EPA Site Cleanup	0.015	0.001	0.000708	J	No
95	Total Manganese/7439-96-5	SW6020	BA-01A	L0019373-13	120821	RECAP SS	0.51	0.002	0.038		No
96	Total Nickel/7440-02-0	SW6020	BA-01A	L0019373-13	120821	RECAP SS	0.073	0.002	0.000448	J	No
97	Total Thallium/7440-28-0	SW6020	BA-01A	L0019373-13	120821	RECAP SS	0.002	0.002	0.000422	J	No
98	Total Zinc/7440-66-6	SW6020	BA-01A	L0019373-13	120821	RECAP SS	1.1	0.01	0.00455	J	No
99	Total Arsenic/7440-38-2	SW6020	BA-01	L0019373-14	120821	RECAP SS	0.01	0.02	< 0.00362		No
100	**Total Cadmium/7440-43-9**	**SW6020**	**BA-01**	**L0019373-14**	**120821**	**RECAP SS**	**0.005**	**0.01**	**< 0.01**		**Yes**
101	Total Lead/7439-92-1	SW6020	BA-01	L0019373-14	120821	EPA Site Cleanup	0.015	0.005	< 0.005		No
102	**Total Manganese/7439-96-5**	**SW6020**	**BA-01**	**L0019373-14**	**120821**	**RECAP SS**	**0.51**	**0.01**	**1.52**	**J**	**Yes**
103	Total Nickel/7440-02-0	SW6020	BA-01	L0019373-14	120821	RECAP SS	0.073	0.01	0.0602		No
104	**Total Thallium/7440-28-0**	**SW6020**	**BA-01**	**L0019373-14**	**120821**	**RECAP SS**	**0.002**	**0.01**	**< 0.01**		**Yes**
105	Total Zinc/7440-66-6	SW6020	BA-01	L0019373-14	120821	RECAP SS	1.1	0.05	< 0.0839		No
106	Total Arsenic/7440-38-2	SW6020	DW-03	L0019373-15	120821	RECAP SS	0.01	0.004	0.0028	J	No
107	Total Cadmium/7440-43-9	SW6020	DW-03	L0019373-15	120821	RECAP SS	0.005	0.002	0.000198	J	No
108	Total Lead/7439-92-1	SW6020	DW-03	L0019373-15	120821	EPA Site Cleanup	0.015	0.001	0.00417		No
109	Total Manganese/7439-96-5	SW6020	DW-03	L0019373-15	120821	RECAP SS	0.51	0.002	0.203		No
110	Total Nickel/7440-02-0	SW6020	DW-03	L0019373-15	120821	RECAP SS	0.073	0.002	0.00942		No
111	Total Thallium/7440-28-0	SW6020	DW-03	L0019373-15	120821	RECAP SS	0.002	0.002	0.000431	J	No
112	Total Zinc/7440-66-6	SW6020	DW-03	L0019373-15	120821	RECAP SS	1.1	0.01	0.02		No
113	Total Arsenic/7440-38-2	SW6020	PW-04	L0019373-16	120821	RECAP SS	0.01	0.004	0.005		No
114	Total Cadmium/7440-43-9	SW6020	PW-04	L0019373-16	120821	RECAP SS	0.005	0.002	0.000977	J	No
115	Total Lead/7439-92-1	SW6020	PW-04	L0019373-16	120821	EPA Site Cleanup	0.015	0.001	0.00134		No
116	**Total Manganese/7439-96-5**	**SW6020**	**PW-04**	**L0019373-16**	**120821**	**RECAP SS**	**0.51**	**0.002**	**0.837**		**Yes**
117	Total Nickel/7440-02-0	SW6020	PW-04	L0019373-16	120821	RECAP SS	0.073	0.002	0.0193		No
118	Total Thallium/7440-28-0	SW6020	PW-04	L0019373-16	120821	RECAP SS	0.002	0.002	0.000451	J	No
119	Total Zinc/7440-66-6	SW6020	PW-04	L0019373-16	120821	RECAP SS	1.1	0.01	0.0514		No
120	**Total Arsenic/7440-38-2**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**RECAP SS**	**0.01**	**0.1**	**0.0589**	**J**	**Yes**
121	**Total Cadmium/7440-43-9**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**RECAP SS**	**0.005**	**0.01**	**0.0272**		**Yes**
122	**Total Lead/7439-92-1**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**EPA Site Cleanup**	**0.015**	**0.005**	**0.0309**		**Yes**
123	**Total Manganese/7439-96-5**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**RECAP SS**	**0.51**	**0.01**	**11.8**		**Yes**
124	**Total Nickel/7440-02-0**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**RECAP SS**	**0.073**	**0.01**	**0.594**		**Yes**
125	**Total Thallium/7440-28-0**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**RECAP SS**	**0.002**	**0.01**	**0.00216**	**J**	**Yes**
126	**Total Zinc/7440-66-6**	**SW6020**	**DW-02**	**L0019373-17**	**120821**	**RECAP SS**	**1.1**	**0.05**	**1.49**		**Yes**

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
127	Total Arsenic/7440-38-2	SW6020	BA-05A	L0019373-18	120821	RECAP SS	0.01	0.004	0.00148	J	No
128	Total Cadmium/7440-43-9	SW6020	BA-05A	L0019373-18	120821	RECAP SS	0.005	0.002	0.00011	J	No
129	Total Lead/7439-92-1	SW6020	BA-05A	L0019373-18	120821	EPA Site Cleanup	0.015	0.001	0.00114		No
130	Total Manganese/7439-96-5	SW6020	BA-05A	L0019373-18	120821	RECAP SS	0.51	0.002	0.0358		No
131	Total Nickel/7440-02-0	SW6020	BA-05A	L0019373-18	120821	RECAP SS	0.073	0.002	0.000613	J	No
132	Total Thallium/7440-28-0	SW6020	BA-05A	L0019373-18	120821	RECAP SS	0.002	0.002	0.000421	J	No
133	Total Zinc/7440-66-6	SW6020	BA-05A	L0019373-18	120821	RECAP SS	1.1	0.01	0.00816	J	No
134	**Total Arsenic/7440-38-2**	**SW6020**	**BA-05**	**L0019373-19**	**120821**	**RECAP SS**	**0.01**	**0.02**	**< 0.02**		**Yes**
135	Total Cadmium/7440-43-9	SW6020	BA-05	L0019373-19	120821	RECAP SS	0.005	0.01	0.000454	J	No
136	Total Lead/7439-92-1	SW6020	BA-05	L0019373-19	120821	EPA Site Cleanup	0.015	0.005	0.00259	J	No
137	**Total Manganese/7439-96-5**	**SW6020**	**BA-05**	**L0019373-19**	**120821**	**RECAP SS**	**0.51**	**0.01**	**10.1**		**Yes**
138	Total Nickel/7440-02-0	SW6020	BA-05	L0019373-19	120821	RECAP SS	0.073	0.01	0.0404		No
139	**Total Thallium/7440-28-0**	**SW6020**	**BA-05**	**L0019373-19**	**120821**	**RECAP SS**	**0.002**	**0.01**	**0.00211**	**J**	**Yes**
140	Total Zinc/7440-66-6	SW6020	BA-05	L0019373-19	120821	RECAP SS	1.1	0.05	0.0132	J	No
141	Total Arsenic/7440-38-2	SW6020	MW-A	L0019373-20	120821	RECAP SS	0.01	0.004	< 0.004		No
142	Total Cadmium/7440-43-9	SW6020	MW-A	L0019373-20	120821	RECAP SS	0.005	0.002	0.000131	J	No
143	Total Lead/7439-92-1	SW6020	MW-A	L0019373-20	120821	EPA Site Cleanup	0.015	0.001	0.00157		No
144	Total Manganese/7439-96-5	SW6020	MW-A	L0019373-20	120821	RECAP SS	0.51	0.002	0.00715		No
145	Total Nickel/7440-02-0	SW6020	MW-A	L0019373-20	120821	RECAP SS	0.073	0.002	0.00118	J	No
146	Total Thallium/7440-28-0	SW6020	MW-A	L0019373-20	120821	RECAP SS	0.002	0.002	0.000424	J	No
147	Total Zinc/7440-66-6	SW6020	MW-A	L0019373-20	120821	RECAP SS	1.1	0.01	0.00595	J	No
148	**Dissolved Arsenic/7440-38-2**	**SW6020**	**DW-01**	**L0019373-21**	**120821**	**RECAP SS**	**0.01**	**0.004**	**0.155**		**Yes**
149	Dissolved Cadmium/7440-43-9	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.005	0.002	0.000365	J	No
150	Dissolved Lead/7439-92-1	SW6020	DW-01	L0019373-21	120821	EPA Site Cleanup	0.015	0.001	< 0.001		No
151	**Dissolved Manganese/7439-96-5**	**SW6020**	**DW-01**	**L0019373-21**	**120821**	**RECAP SS**	**0.51**	**0.002**	**0.554**		**Yes**
152	Dissolved Nickel/7440-02-0	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.073	0.002	0.00736		No
153	Dissolved Thallium/7440-28-0	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.002	0.002	< 0.002		No
154	Dissolved Zinc/7440-66-6	SW6020	DW-01	L0019373-21	120821	RECAP SS	1.1	0.006	0.0169		No
155	**Total Arsenic/7440-38-2**	**SW6020**	**DW-01**	**L0019373-21**	**120821**	**RECAP SS**	**0.01**	**0.004**	**0.239**		**Yes**
156	Total Cadmium/7440-43-9	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.005	0.002	0.000718	J	No
157	Total Lead/7439-92-1	SW6020	DW-01	L0019373-21	120821	EPA Site Cleanup	0.015	0.001	0.00191		No
158	Total Manganese/7439-96-5	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.51	0.002	0.458		No
159	Total Nickel/7440-02-0	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.073	0.002	0.00675		No
160	Total Thallium/7440-28-0	SW6020	DW-01	L0019373-21	120821	RECAP SS	0.002	0.002	0.000444	J	No
161	Total Zinc/7440-66-6	SW6020	DW-01	L0019373-21	120821	RECAP SS	1.1	0.01	0.0177		No
162	**Total Arsenic/7440-38-2**	**SW6020**	**MW-01**	**L0019373-22**	**120821**	**RECAP SS**	**0.01**	**0.1**	**0.048**	**J**	**Yes**
163	Total Cadmium/7440-43-9	SW6020	MW-01	L0019373-22	120821	RECAP SS	0.005	0.01	0.00405	J	No
164	Total Lead/7439-92-1	SW6020	MW-01	L0019373-22	120821	EPA Site Cleanup	0.015	0.005	0.00559		No
165	**Total Manganese/7439-96-5**	**SW6020**	**MW-01**	**L0019373-22**	**120821**	**RECAP SS**	**0.51**	**0.01**	**5.3**		**Yes**
166	**Total Nickel/7440-02-0**	**SW6020**	**MW-01**	**L0019373-22**	**120821**	**RECAP SS**	**0.073**	**0.01**	**0.232**		**Yes**
167	**Total Thallium/7440-28-0**	**SW6020**	**MW-01**	**L0019373-22**	**120821**	**RECAP SS**	**0.002**	**0.01**	**0.00221**	**J**	**Yes**
168	Total Zinc/7440-66-6	SW6020	MW-01	L0019373-22	120821	RECAP SS	1.1	0.05	0.3		No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
169	Total Arsenic/7440-38-2	SW6020	BA-03A	L0019373-23	120822	RECAP SS	0.01	0.004	0.00144	J	No
170	Total Cadmium/7440-43-9	SW6020	BA-03A	L0019373-23	120822	RECAP SS	0.005	0.002	0.00017	J	No
171	Total Lead/7439-92-1	SW6020	BA-03A	L0019373-23	120822	EPA Site Cleanup	0.015	0.001	0.0025		No
172	Total Manganese/7439-96-5	SW6020	BA-03A	L0019373-23	120822	RECAP SS	0.51	0.002	0.0363		No
173	Total Nickel/7440-02-0	SW6020	BA-03A	L0019373-23	120822	RECAP SS	0.073	0.002	0.00125	J	No
174	Total Thallium/7440-28-0	SW6020	BA-03A	L0019373-23	120822	RECAP SS	0.002	0.002	0.000424	J	No
175	Total Zinc/7440-66-6	SW6020	BA-03A	L0019373-23	120822	RECAP SS	1.1	0.01	0.0106		No
176	Total Arsenic/7440-38-2	SW6020	BA-03	L0019373-24	120822	RECAP SS	0.01	0.004	0.00163	J	No
177	**Total Cadmium/7440-43-9**	**SW6020**	**BA-03**	**L0019373-24**	**120822**	**RECAP SS**	**0.005**	**0.002**	**0.0485**		**Yes**
178	**Total Lead/7439-92-1**	**SW6020**	**BA-03**	**L0019373-24**	**120822**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0384**		**Yes**
179	**Total Manganese/7439-96-5**	**SW6020**	**BA-03**	**L0019373-24**	**120822**	**RECAP SS**	**0.51**	**0.002**	**0.72**		**Yes**
180	Total Nickel/7440-02-0	SW6020	BA-03	L0019373-24	120822	RECAP SS	0.073	0.002	0.0256		No
181	Total Thallium/7440-28-0	SW6020	BA-03	L0019373-24	120822	RECAP SS	0.002	0.002	0.00053	J	No
182	Total Zinc/7440-66-6	SW6020	BA-03	L0019373-24	120822	RECAP SS	1.1	0.01	0.101		No
183	Total Arsenic/7440-38-2	SW6020	MW-2	L0019373-25	120822	RECAP SS	0.01	0.004	0.00153	J	No
184	**Total Cadmium/7440-43-9**	**SW6020**	**MW-2**	**L0019373-25**	**120822**	**RECAP SS**	**0.005**	**0.002**	**0.0532**		**Yes**
185	Total Lead/7439-92-1	SW6020	MW-2	L0019373-25	120822	EPA Site Cleanup	0.015	0.001	0.00204		No
186	**Total Manganese/7439-96-5**	**SW6020**	**MW-2**	**L0019373-25**	**120822**	**RECAP SS**	**0.51**	**0.002**	**0.761**		**Yes**
187	Total Nickel/7440-02-0	SW6020	MW-2	L0019373-25	120822	RECAP SS	0.073	0.002	0.0516		No
188	Total Thallium/7440-28-0	SW6020	MW-2	L0019373-25	120822	RECAP SS	0.002	0.002	0.000741	J	No
189	Total Zinc/7440-66-6	SW6020	MW-2	L0019373-25	120822	RECAP SS	1.1	0.01	0.16		No
190	**Total Arsenic/7440-38-2**	**SW6020**	**BC-07**	**L0019373-26**	**120822**	**RECAP SS**	**0.01**	**0.02**	**< 0.02**		**Yes**
191	Total Cadmium/7440-43-9	SW6020	BC-07	L0019373-26	120822	RECAP SS	0.005	0.01	0.000474	J	No
192	Total Lead/7439-92-1	SW6020	BC-07	L0019373-26	120822	EPA Site Cleanup	0.015	0.005	0.00278	J	No
193	Total Manganese/7439-96-5	SW6020	BC-07	L0019373-26	120822	RECAP SS	0.51	0.01	0.0655		No
194	Total Nickel/7440-02-0	SW6020	BC-07	L0019373-26	120822	RECAP SS	0.073	0.01	0.00429	J	No
195	**Total Thallium/7440-28-0**	**SW6020**	**BC-07**	**L0019373-26**	**120822**	**RECAP SS**	**0.002**	**0.01**	**0.00226**	**J**	**Yes**
196	Total Zinc/7440-66-6	SW6020	BC-07	L0019373-26	120822	RECAP SS	1.1	0.05	0.00996	J	No
197	Total Arsenic/7440-38-2	SW6020	BC-25	L0019373-27	120822	RECAP SS	0.01	0.004	0.00158	J	No
198	Total Cadmium/7440-43-9	SW6020	BC-25	L0019373-27	120822	RECAP SS	0.005	0.002	0.000227	J	No
199	Total Lead/7439-92-1	SW6020	BC-25	L0019373-27	120822	EPA Site Cleanup	0.015	0.001	0.000568	J	No
200	Total Manganese/7439-96-5	SW6020	BC-25	L0019373-27	120822	RECAP SS	0.51	0.002	0.181		No
201	Total Nickel/7440-02-0	SW6020	BC-25	L0019373-27	120822	RECAP SS	0.073	0.002	0.00203		No
202	Total Thallium/7440-28-0	SW6020	BC-25	L0019373-27	120822	RECAP SS	0.002	0.002	0.000423	J	No
203	Total Zinc/7440-66-6	SW6020	BC-25	L0019373-27	120822	RECAP SS	1.1	0.01	0.00972	J	No
204	Total Arsenic/7440-38-2	SW6020	DW-04	L0019373-28	120824	RECAP SS	0.01	0.02	0.00436	J	No
205	Total Cadmium/7440-43-9	SW6020	DW-04	L0019373-28	120824	RECAP SS	0.005	0.01	0.000684	J	No
206	Total Lead/7439-92-1	SW6020	DW-04	L0019373-28	120824	EPA Site Cleanup	0.015	0.005	0.00281	J	No
207	Total Manganese/7439-96-5	SW6020	DW-04	L0019373-28	120824	RECAP SS	0.51	0.01	0.0543		No
208	Total Nickel/7440-02-0	SW6020	DW-04	L0019373-28	120824	RECAP SS	0.073	0.01	0.00428	J	No
209	**Total Thallium/7440-28-0**	**SW6020**	**DW-04**	**L0019373-28**	**120824**	**RECAP SS**	**0.002**	**0.01**	**0.0021**	**J**	**Yes**
210	Total Zinc/7440-66-6	SW6020	DW-04	L0019373-28	120824	RECAP SS	1.1	0.05	0.0185	J	No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
211	**Total Arsenic/7440-38-2**	**SW6020**	**BC-19**	**L0019373-29**	**120824**	**RECAP SS**	**0.01**	**0.02**	**< 0.02**		**Yes**
212	Total Cadmium/7440-43-9	SW6020	BC-19	L0019373-29	120824	RECAP SS	0.005	0.01	0.000754	J	No
213	Total Lead/7439-92-1	SW6020	BC-19	L0019373-29	120824	EPA Site Cleanup	0.015	0.005	0.00282	J	No
214	Total Manganese/7439-96-5	SW6020	BC-19	L0019373-29	120824	RECAP SS	0.51	0.01	0.0266		No
215	Total Nickel/7440-02-0	SW6020	BC-19	L0019373-29	120824	RECAP SS	0.073	0.01	0.00478	J	No
216	**Total Thallium/7440-28-0**	**SW6020**	**BC-19**	**L0019373-29**	**120824**	**RECAP SS**	**0.002**	**0.01**	**0.00211**	**J**	**Yes**
217	Total Zinc/7440-66-6	SW6020	BC-19	L0019373-29	120824	RECAP SS	1.1	0.05	0.0154	J	No
218	Total Arsenic/7440-38-2	SW6020	MW-3	L0019373-30	120824	RECAP SS	0.01	0.02	0.00516	J	No
219	Total Cadmium/7440-43-9	SW6020	MW-3	L0019373-30	120824	RECAP SS	0.005	0.01	0.000687	J	No
220	Total Lead/7439-92-1	SW6020	MW-3	L0019373-30	120824	EPA Site Cleanup	0.015	0.005	0.00304	J	No
221	**Total Manganese/7439-96-5**	**SW6020**	**MW-3**	**L0019373-30**	**120824**	**RECAP SS**	**0.51**	**0.01**	**0.722**		**Yes**
222	Total Nickel/7440-02-0	SW6020	MW-3	L0019373-30	120824	RECAP SS	0.073	0.01	0.00529	J	No
223	**Total Thallium/7440-28-0**	**SW6020**	**MW-3**	**L0019373-30**	**120824**	**RECAP SS**	**0.002**	**0.01**	**0.00211**	**J**	**Yes**
224	Total Zinc/7440-66-6	SW6020	MW-3	L0019373-30	120824	RECAP SS	1.1	0.05	0.0256	J	No
225	**Total Arsenic/7440-38-2**	**SW6020**	**MW-6**	**L0019373-31**	**120824**	**RECAP SS**	**0.01**	**0.02**	**< 0.02**		**Yes**
226	**Total Cadmium/7440-43-9**	**SW6020**	**MW-6**	**L0019373-31**	**120824**	**RECAP SS**	**0.005**	**0.002**	**0.086**		**Yes**
227	Total Lead/7439-92-1	SW6020	MW-6	L0019373-31	120824	EPA Site Cleanup	0.015	0.001	0.00136		No
228	**Total Manganese/7439-96-5**	**SW6020**	**MW-6**	**L0019373-31**	**120824**	**RECAP SS**	**0.51**	**0.002**	**3.58**		**Yes**
229	Total Nickel/7440-02-0	SW6020	MW-6	L0019373-31	120824	RECAP SS	0.073	0.002	0.041		No
230	Total Thallium/7440-28-0	SW6020	MW-6	L0019373-31	120824	RECAP SS	0.002	0.002	0.000561	J	No
231	Total Zinc/7440-66-6	SW6020	MW-6	L0019373-31	120824	RECAP SS	1.1	0.01	0.143		No
232	Total Arsenic/7440-38-2	SW6020	DUPLICATE #1	L0019373-32	120820	RECAP SS	0.01	0.004	0.0052		No
233	Total Cadmium/7440-43-9	SW6020	DUPLICATE #1	L0019373-32	120820	RECAP SS	0.005	0.002	0.000259	J	No
234	Total Lead/7439-92-1	SW6020	DUPLICATE #1	L0019373-32	120820	EPA Site Cleanup	0.015	0.001	0.00503		No
235	Total Manganese/7439-96-5	SW6020	DUPLICATE #1	L0019373-32	120820	RECAP SS	0.51	0.002	0.00413		No
236	Total Nickel/7440-02-0	SW6020	DUPLICATE #1	L0019373-32	120820	RECAP SS	0.073	0.002	0.00177	J	No
237	Total Thallium/7440-28-0	SW6020	DUPLICATE #1	L0019373-32	120820	RECAP SS	0.002	0.002	0.000423	J	No
238	Total Zinc/7440-66-6	SW6020	DUPLICATE #1	L0019373-32	120820	RECAP SS	1.1	0.01	0.0095	J	No
239	Total Arsenic/7440-38-2	SW6020	DUPLICATE #2	L0019373-33	120821	RECAP SS	0.01	0.004	0.00756		No
240	Total Cadmium/7440-43-9	SW6020	DUPLICATE #2	L0019373-33	120821	RECAP SS	0.005	0.002	0.000152	J	No
241	Total Lead/7439-92-1	SW6020	DUPLICATE #2	L0019373-33	120821	EPA Site Cleanup	0.015	0.001	0.000846	J	No
242	Total Manganese/7439-96-5	SW6020	DUPLICATE #2	L0019373-33	120821	RECAP SS	0.51	0.002	0.0394		No
243	Total Nickel/7440-02-0	SW6020	DUPLICATE #2	L0019373-33	120821	RECAP SS	0.073	0.002	0.00113	J	No
244	Total Thallium/7440-28-0	SW6020	DUPLICATE #2	L0019373-33	120821	RECAP SS	0.002	0.002	0.000422	J	No
245	Total Zinc/7440-66-6	SW6020	DUPLICATE #2	L0019373-33	120821	RECAP SS	1.1	0.01	0.0076	J	No
246	Total Arsenic/7440-38-2	SW6020	DUPLICATE #3	L0019373-34	120821	RECAP SS	0.01	0.004	0.00136	J	No
247	Total Cadmium/7440-43-9	SW6020	DUPLICATE #3	L0019373-34	120821	RECAP SS	0.005	0.002	0.000172	J	No
248	Total Lead/7439-92-1	SW6020	DUPLICATE #3	L0019373-34	120821	EPA Site Cleanup	0.015	0.001	0.00107		No
249	Total Manganese/7439-96-5	SW6020	DUPLICATE #3	L0019373-34	120821	RECAP SS	0.51	0.002	0.00341		No
250	Total Nickel/7440-02-0	SW6020	DUPLICATE #3	L0019373-34	120821	RECAP SS	0.073	0.002	0.00188	J	No
251	Total Thallium/7440-28-0	SW6020	DUPLICATE #3	L0019373-34	120821	RECAP SS	0.002	0.002	0.000423	J	No
252	Total Zinc/7440-66-6	SW6020	DUPLICATE #3	L0019373-34	120821	RECAP SS	1.1	0.01	0.00757	J	No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
253	Total Arsenic/7440-38-2	SW6020	DUPLICATE #4	L0019373-35	120822	RECAP SS	0.01	0.004	0.00173	J	No
254	**Total Cadmium/7440-43-9**	**SW6020**	**DUPLICATE #4**	**L0019373-35**	**120822**	**RECAP SS**	**0.005**	**0.002**	**0.0502**		**Yes**
255	Total Lead/7439-92-1	SW6020	DUPLICATE #4	L0019373-35	120822	EPA Site Cleanup	0.015	0.001	0.00231		No
256	**Total Manganese/7439-96-5**	**SW6020**	**DUPLICATE #4**	**L0019373-35**	**120822**	**RECAP SS**	**0.51**	**0.002**	**0.694**		**Yes**
257	Total Nickel/7440-02-0	SW6020	DUPLICATE #4	L0019373-35	120822	RECAP SS	0.073	0.002	0.0502		No
258	Total Thallium/7440-28-0	SW6020	DUPLICATE #4	L0019373-35	120822	RECAP SS	0.002	0.002	0.000728	J	No
259	Total Zinc/7440-66-6	SW6020	DUPLICATE #4	L0019373-35	120822	RECAP SS	1.1	0.01	0.154		No

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
FIRST WATER-BEARING ZONE																		
DW-01																		
December-10	13.36	11.83	1.53	**5.66**	**0.0519**	0.00268	0.000477 J	**0.592**	0.00618	<0.002	0.0190	NA	NA	NA	NA	NA	NA	NA
February-11	13.36	11.40	1.96	**5.56**	**0.0819 N**	**0.0154 N**	0.00383	**1.58**	0.0206 N	0.000385 J	0.0579 N	NA	NA	NA	NA	NA	NA	NA
May-11	13.36	11.28	2.08	**5.83**	**0.131**	0.000702 J	0.000388 J	0.257	0.00253	<0.002	0.0114	NA	NA	NA	NA	NA	NA	NA
August-11	13.36	12.20	1.16	**5.90**	**1.22**	0.00204	**0.0257**	0.107	<0.002	< 0.002	0.00598 J	NA	NA	NA	NA	NA	NA	NA
November-11	13.36	11.70	1.66	**5.48**	**0.144**	0.00150 J	0.00168	**1.09**	0.0147	0.000275 J	0.0395	NA	NA	NA	NA	NA	NA	NA
February-12	13.36	10.44	2.92	**5.59**	**0.203**	0.00154 J	0.00178	**0.776**	0.0128	< 0.002	0.0333	NA	NA	NA	NA	NA	NA	NA
May-12	13.36	10.90	2.46	**5.73**	**0.229 J**	**<0.01**	<0.005	0.453	<0.01	**<0.01**	<0.05 J	NA	NA	NA	NA	NA	NA	NA
August-12	13.36	11.12	2.24	**5.10**	**0.239**	0.000718 J	0.00191	0.458	0.00675	0.000444 J	0.0177	**0.155**	0.000365 J	<0.001	**0.554**	0.00736	<0.002	0.0169
DW-02																		
December-10	14.12	5.37	8.75	**2.81**	**0.0484 J**	**0.0182**	0.00554	**14.5**	**0.527**	<0.002	**1.36**	NA	NA	NA	NA	NA	NA	NA
February-11	14.12	4.25	9.87	**2.89**	**0.0425 JN**	**0.0187 N**	0.00865	**12.9**	**0.575 N**	**<0.01**	**1.41 N**	NA	NA	NA	NA	NA	NA	NA
May-11	14.12	6.30	7.82	**2.80**	**0.0644 J**	**0.0277**	**0.0244**	**11.4**	**0.484**	<0.002	**1.14**	NA	NA	NA	NA	NA	NA	NA
August-11	14.12	6.22	7.90	**2.98**	**0.0738**	**0.0245**	0.0132	**13.5**	**0.653**	**< 0.01**	**1.76**	NA	NA	NA	NA	NA	NA	NA
November-11	14.12	6.60	7.52	**2.94**	**0.0564 J**	**0.0520**	**0.0899**	**11.6**	**0.482**	<0.002	1.03	NA	NA	NA	NA	NA	NA	NA
February-12	14.12	4.55	9.57	**3.05**	**0.0548 J**	**0.0173**	**0.0299**	**11.4**	**0.508**	**< 0.01**	**1.23**	NA	NA	NA	NA	NA	NA	NA
May-12	14.12	4.65	9.47	**2.92**	**0.0448 J**	**0.0269**	**0.0192**	**14.5**	**0.682**	0.00188 J	**1.79**	NA	NA	NA	NA	NA	NA	NA
August-12	14.12	4.40	9.72	**2.73**	**0.0589 J**	**0.0272**	**0.0309**	**11.8**	**0.594**	**0.00216 J**	**1.49**	NA	NA	NA	NA	NA	NA	NA
DW-03																		
December-10	11.59	6.44	5.15	**3.40**	**0.0110**	**0.00639**	**0.132**	**1.26**	0.0309	<0.002	0.0541	NA	NA	NA	NA	NA	NA	NA
February-11	11.59	5.66	5.93	**3.68**	**0.0139 J**	**0.230 N**	**0.407**	**1.09**	0.0482 N	0.000700 J	0.0889 N	NA	NA	NA	NA	NA	NA	NA
May-11	11.59	6.85	4.74	**3.47**	**0.0475 J**	0.00259	**0.0356**	**3.83**	**0.132**	<0.002	0.153	NA	NA	NA	NA	NA	NA	NA
August-11	11.59	7.60	3.99	**3.73**	**0.0461 J**	0.00217	0.00899	**2.4**	**0.125**	< 0.002	0.149	NA	NA	NA	NA	NA	NA	NA
November-11	11.59	7.14	4.45	**3.79**	**0.0260 J**	0.00118 J	0.00976	**2.75**	**0.103**	0.000336 J	0.132	NA	NA	NA	NA	NA	NA	NA
February-12	11.59	4.74	6.85	**3.95**	**0.0105**	**0.00583**	**0.0689**	0.243	0.0122	< 0.002	0.0265	NA	NA	NA	NA	NA	NA	NA
May-12	11.59	5.66	5.93	**4.42**	**0.016**	0.00189 J	0.015	**0.835**	0.023	0.000415 J	0.0425	NA	NA	NA	NA	NA	NA	NA
August-12	11.59	5.77	5.82	**4.38**	0.0028 J	0.000198 J	0.00417	0.203	0.00942	0.000431 J	0.02	NA	NA	NA	NA	NA	NA	NA
MW-01																		
December-10	15.08	14.30	0.78	**3.37**	**0.0329 J**	**0.00636**	0.00182	**5.22**	**0.186**	<0.002	0.246	NA	NA	NA	NA	NA	NA	NA
February-11	15.08	14.55	0.53	**3.40**	**0.0395 JN**	0.00475 N	0.00578	**5.69**	**0.226 N**	**<0.01**	0.258 N	NA	NA	NA	NA	NA	NA	NA
May-11	15.08	13.36	1.72	**3.49**	**0.026 J**	**0.00577**	0.00384	**5.98**	**0.225**	<0.002	0.243	NA	NA	NA	NA	NA	NA	NA
August-11	15.08	13.35	1.73	**3.69**	**0.131**	**0.00627**	**0.0185**	**2.62**	**0.0855**	< 0.002	0.121	NA	NA	NA	NA	NA	NA	NA
November-11	15.08	13.72	1.36	**3.43**	**0.0245 J**	**0.00733**	0.00616	**6.13**	**0.227**	0.000345 J	0.270	NA	NA	NA	NA	NA	NA	NA
February-12	15.08	13.03	2.05	**3.44**	**0.0761 J**	**0.0247**	**0.0248**	**5.84**	**0.237**	**< 0.01**	0.283	NA	NA	NA	NA	NA	NA	NA
May-12	15.08	13.34	1.74	**3.35**	**0.0253 J**	**0.00878 J**	0.00748	**7.31**	**0.305**	0.00197 J	0.417	NA	NA	NA	NA	NA	NA	NA
August-12	15.08	13.52	1.56	**3.01**	**0.048 J**	0.00405 J	0.00559	**5.3**	**0.232**	**0.00221 J**	0.3	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
FIRST WATER-BEARING ZONE																		
MW-02																		
December-10	14.23	8.06	6.17	**3.15**	<0.004	**0.0918**	0.00234	**0.940**	0.0494	<0.002	0.237	NA	NA	NA	NA	NA	NA	NA
February-11	14.23	7.28	6.95	**3.23**	<0.004	**0.112 N**	0.00382	**1.11**	0.0612 N	0.000341 J	0.270 N	NA	NA	NA	NA	NA	NA	NA
May-11	14.23	8.19	6.04	**3.41**	<0.004	**0.111**	0.00196 J	**1.37**	0.0544	<0.002	0.279	NA	NA	NA	NA	NA	NA	NA
August-11	14.23	9.00	5.23	**3.20**	0.00101 J	**0.46**	0.0124	**1.01**	0.0705	0.000377 J	0.395	NA	NA	NA	NA	NA	NA	NA
November-11	14.23	8.50	5.73	**3.25**	0.000802 J	**0.185**	0.00601	**1.81**	0.0679	0.000935 J	0.333	NA	NA	NA	NA	NA	NA	NA
February-12	14.23	7.15	7.08	**3.23**	**< 0.02**	**0.0854**	0.00503	**0.816**	0.0646	0.000276 J	0.23	NA	NA	NA	NA	NA	NA	NA
May-12	14.23	8.25	5.98	**3.31**	**< 0.02**	**0.0925**	0.00629	**1.12**	0.0698	**0.0023 J**	0.303	NA	NA	NA	NA	NA	NA	NA
August-12	14.23	7.42	6.81	**3.01**	0.00153 J	**0.0532**	0.00204	**0.761**	0.0516	0.000741 J	0.16	NA	NA	NA	NA	NA	NA	NA
MW-06																		
December-10	16.77	9.38	7.39	**3.81**	**<0.02**	**0.0617**	<0.001	**3.38**	0.0317	<0.002	0.110	NA	NA	NA	NA	NA	NA	NA
February-11	16.77	8.19	8.58	**3.61**	0.00241 J	**0.0675**	0.00175	**3.14**	0.0354	0.000523 J	0.128	NA	NA	NA	NA	NA	NA	NA
May-11	16.77	9.86	6.91	**3.82**	<0.01	**0.0373**	<0.002	**2.31**	0.0229	<0.002	0.0818	NA	NA	NA	NA	NA	NA	NA
August-11	16.77	10.40	6.37	**3.73**	0.00587 J	**0.0742**	0.00215	**3.78**	0.0418	< 0.002	0.145	NA	NA	NA	NA	NA	NA	NA
November-11	16.77	10.14	6.63	**3.67**	**<0.02**	**0.0778**	0.00155	**4.11**	0.0403	0.000423 J	0.138	NA	NA	NA	NA	NA	NA	NA
February-12	16.77	7.71	9.06	**3.65**	**< 0.02**	**0.0561**	0.000571 J	**3.13**	0.0316	< 0.002	0.115	NA	NA	NA	NA	NA	NA	NA
May-12	16.77	8.44	8.33	**3.59**	**< 0.02**	**0.045**	0.00029 J	**2.94**	0.0282	< 0.002	0.091	NA	NA	NA	NA	NA	NA	NA
August-12	16.77	9.03	7.74	**3.62**	**< 0.02**	**0.086**	0.00136	**3.58**	0.041	0.000561 J	0.143	NA	NA	NA	NA	NA	NA	NA
PW-04																		
December-10	12.22	6.64	5.58	**3.87**	0.00168 J	0.00111 J	0.000757 J	**1.40**	0.0342	<0.002	0.0708	NA	NA	NA	NA	NA	NA	NA
February-11	12.22	5.28	6.94	**4.06**	0.00245 JN	0.000849 JN	0.002	**1.57**	0.0408 N	0.000438 J	0.0921 N	NA	NA	NA	NA	NA	NA	NA
May-11	12.22	6.84	5.38	**3.83**	0.00587 J	**0.00737**	0.00142 J	**2.46**	0.0561	<0.002	0.128	NA	NA	NA	NA	NA	NA	NA
August-11	12.22	7.68	4.54	**4.07**	< 0.004	0.00182 J	0.00093 J	**0.968**	0.0242	< 0.002	0.0628	NA	NA	NA	NA	NA	NA	NA
November-11	12.22	7.28	4.94	**4.05**	0.00515	0.00134 J	0.00181	**0.995**	0.0215	0.000307 J	0.0568	NA	NA	NA	NA	NA	NA	NA
February-12	12.22	5.21	7.01	**4.14**	0.00977	0.000232 J	0.000134 J	0.497	0.0141	< 0.002	0.029	NA	NA	NA	NA	NA	NA	NA
May-12	12.22	5.41	6.81	**4.08**	<0.00362 J	**<0.01**	<0.005	**2.27**	**0.215**	**<0.01**	0.319 J	NA	NA	NA	NA	NA	NA	NA
August-12	12.22	5.56	6.66	**3.72**	0.005	0.000977 J	0.00134	**0.837**	0.0193	0.000451 J	0.0514	NA	NA	NA	NA	NA	NA	NA
BA-03																		
December-10	14.57	7.82	6.75	**3.46**	<0.01	**0.130**	**0.111**	**2.14**	0.0671	<0.002	0.304	NA	NA	NA	NA	NA	NA	NA
February-11	14.57	6.73	7.84	**4.13**	<0.004	**0.0517 N**	**0.0321**	**0.674**	0.0240 N	0.000599 J	0.115 N	NA	NA	NA	NA	NA	NA	NA
May-11	14.57	7.92	6.65	**3.38**	**0.0118**	**0.212**	**0.244**	**3.54**	**0.137**	<0.002	0.629	NA	NA	NA	NA	NA	NA	NA
August-11	14.57	8.74	5.83	**3.79**	0.001 J	**0.0639**	**0.0735**	**0.638**	0.0216	< 0.002	0.119	NA	NA	NA	NA	NA	NA	NA
November-11	14.57	8.34	6.23	**3.47**	**<0.02**	**0.144**	**0.104**	**2.60**	**0.0905**	0.000611 J	0.402	NA	NA	NA	NA	NA	NA	NA
February-12	14.57	6.74	7.83	**3.99**	0.00396 J	**0.0398**	**0.0186**	**0.534**	0.0234	< 0.002	0.0887	NA	NA	NA	NA	NA	NA	NA
May-12	14.57	6.85	7.72	**3.95**	**< 0.02**	**0.0435**	**0.0285**	**0.812**	0.0279	0.00193 J	0.121	**< 0.1**	0.00203 J	< 0.005	**1.58**	**0.0917**	**< 0.01**	0.111
August-12	14.57	7.21	7.36	**4.22**	0.00163 J	**0.0485**	**0.0384**	**0.72**	0.0256	0.00053 J	0.101	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
FIRST WATER-BEARING ZONE																		
BA-09																		
December-10	9.46	9.07	0.39	**3.80**	**0.0239 J**	<0.002	<0.001	**2.05**	**0.104**	<0.002	0.161	NA	NA	NA	NA	NA	NA	NA
February-11	9.46	8.65	0.81	**3.50**	**0.0268 J**	0.000453 J	0.00123	**2.61**	**0.141**	0.000442 J	0.440	NA	NA	NA	NA	NA	NA	NA
May-11	9.46	8.68	0.78	**3.75**	**0.0322 J**	0.000653 J	<0.002	**4.29**	**0.192**	<0.002	0.258	NA	NA	NA	NA	NA	NA	NA
August-11	9.46	9.48	-0.02	**3.79**	**0.032 J**	<0.002	0.000408 J	**4.26**	**0.196**	< 0.002	0.28	NA	NA	NA	NA	NA	NA	NA
November-11	9.46	9.05	0.41	**3.69**	**0.0446 J**	<0.002	0.00103	**4.49**	**0.186**	0.000293 J	0.248	NA	NA	NA	NA	NA	NA	NA
February-12	9.46	7.95	1.51	**3.34**	**0.0264 J**	0.000504 J	0.0022	**4.41**	**0.195**	< 0.002	0.359	NA	NA	NA	NA	NA	NA	NA
May-12	9.46	8.08	1.38	**3.49**	**< 0.1**	**< 0.01**	< 0.005	**4.9**	**0.209**	**< 0.01**	0.293	NA	NA	NA	NA	NA	NA	NA
August-12	9.46	8.56	0.90	**3.27**	**0.0212 J**	0.000731 J	0.00302 J	**4.97**	**0.223**	**0.00214 J**	0.3	NA	NA	NA	NA	NA	NA	NA
SECOND WATER-BEARING ZONE																		
DW-04																		
December-10	14.21	5.34	8.87	6.92	<0.004	<0.002	<0.001	0.0614	0.00121 J	<0.002	0.00314 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.21	4.32	9.89	7.12	0.00187 J	**<0.002**	0.000841 J	0.00260	0.00100 J	0.000412 J	0.00239 J	NA	NA	NA	NA	NA	NA	NA
May-11	14.21	5.66	8.55	7.04	<0.004	0.000365 J	<0.002	0.0619	<0.002	<0.002	0.00147 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.21	6.62	7.59	7.10	0.00104 J	<0.002	0.000784 J	0.0659	0.000528 J	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
November-11	14.21	7.21	7.00	7.09	0.00386 J	<0.002	0.00119	0.0659	0.000773 J	0.000256 J	0.00534 J	NA	NA	NA	NA	NA	NA	NA
February-12	14.21	6.00	8.21	7.18	0.00282 J	<0.002	0.000463 J	0.0709	<0.002	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
May-12	14.21	5.40	8.81	7.11	**< 0.02**	**< 0.01**	< 0.005	0.0577	< 0.01	**< 0.01**	< 0.05	NA	NA	NA	NA	NA	NA	NA
August-12	14.21	5.80	8.41	**6.42**	0.00436 J	0.000684 J	0.00281 J	0.0543	0.00428 J	**0.0021 J**	0.0185 J	NA	NA	NA	NA	NA	NA	NA
MW-A																		
December-10	15.12	11.03	4.09	7.02	<0.004	<0.002	<0.001	0.00425	0.000523 J	<0.002	0.00300 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.12	10.68	4.44	7.16	0.00134 JN	<0.002	0.000617 J	0.00471	0.00102 JN	<0.002	0.00390 JN	NA	NA	NA	NA	NA	NA	NA
May-11	15.12	10.62	4.50	6.90	<0.004	0.000358 J	<0.002	0.00411	0.00111 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	15.12	11.25	3.87	7.01	< 0.004	0.000982 J	0.00279	0.0132	0.00124 J	< 0.002	0.0323	NA	NA	NA	NA	NA	NA	NA
November-11	15.12	11.55	3.57	7.10	0.00109 J	0.000304 J	0.000880 J	0.00546	0.000665 J	0.000269 J	0.00261 J	NA	NA	NA	NA	NA	NA	NA
February-12	15.12	10.72	4.40	7.11	0.00165 J	0.000146 J	0.000222 J	0.016	0.00105 J	< 0.002	0.00377 J	NA	NA	NA	NA	NA	NA	NA
May-12	15.12	10.33	4.79	7.17	**< 0.02**	0.00332 J	0.00275 J	0.00314 J	< 0.01	0.00183 J	0.045 J	NA	NA	NA	NA	NA	NA	NA
August-12	15.12	10.55	4.57	**6.47**	< 0.004	0.000131 J	0.00157	0.00715	0.00118 J	0.000424 J	0.00595 J	NA	NA	NA	NA	NA	NA	NA
MW-03																		
December-10	14.80	7.60	7.20	6.53	<0.004	<0.002	0.00318	**0.850**	0.00193 J	<0.002	0.00144 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.80	6.19	8.61	6.58	<0.004	<0.002	0.00240	0.509	0.00219	0.000418 J	0.00235 J	NA	NA	NA	NA	NA	NA	NA
May-11	14.80	7.91	6.89	6.60	<0.004	0.000362 J	0.00747	**0.83**	0.00262	<0.002	0.00621 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.80	8.90	5.90	6.65	< 0.004	0.000618 J	0.00535	**0.783**	0.00201	< 0.002	0.00783 J	NA	NA	NA	NA	NA	NA	NA
November-11	14.80	9.72	5.08	6.63	0.00214 J	<0.002	0.00250	**0.838**	0.00189 J	0.000279 J	0.00237 J	NA	NA	NA	NA	NA	NA	NA
February-12	14.80	8.05	6.75	6.66	0.00114 J	0.0001 J	0.00259	0.0911	0.00107 J	< 0.002	0.0236	NA	NA	NA	NA	NA	NA	NA
May-12	14.80	7.30	7.50	6.60	< 0.004	0.000578 J	0.00321	**1.8**	0.00447	< 0.002	0.00619 J	NA	NA	NA	NA	NA	NA	NA
August-12	14.80	7.70	7.10	7.64	0.00516 J	0.000687 J	0.00304 J	**0.722**	0.00529 J	**0.00211 J**	0.0256 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
SECOND WATER-BEARING ZONE																		
MW-04																		
December-10	17.38	14.97	2.41	6.56	<0.004	<0.002	<0.001	0.0106	0.000668 J	<0.002	0.00342 J	NA	NA	NA	NA	NA	NA	NA
February-11	17.38	14.45	2.93	6.59	<0.004	<0.002	0.00154	0.0134	0.0011 J	0.000417 J	0.00537 J	<0.004	0.000979 J	<0.001	0.000235 J	0.00148 JB	0.000592 J	0.00204 J
May-11	17.38	15.39	1.99	6.66	<0.004	0.000358 J	<0.002	0.00743	<0.002	<0.002	0.00205 J	NA	NA	NA	NA	NA	NA	NA
August-11	17.38	16.92	0.46	6.69	0.00134 J	0.000655 J	0.00318	0.0367	0.00241	< 0.002	0.00964 J	<0.004	0.000372 J	<0.001	<0.002	0.000691 J	<0.002	0.00262 J
November-11	17.38	16.62	0.76	6.67	0.00242 J	<0.002	0.00197	0.0126	0.00142 J	0.000279 J	0.0154	0.00218 J	<0.002	0.000652 J	<0.002	0.000657 J	0.000276 J	0.00891
February-12	17.38	14.90	2.48	6.66	0.00327 J	0.000249 J	0.011	0.0999	0.00728	< 0.002	0.0314	NA	NA	NA	NA	NA	NA	NA
May-12	17.38	14.45	2.93	6.59	0.00112 J	< 0.002	0.00079 J	0.0193	0.000887 J	< 0.002	0.00519 J	NA	NA	NA	NA	NA	NA	NA
August-12	17.38	15.62	1.76	**6.19**	<0.004	0.000149 J	0.00249	0.0246	0.00188 J	0.000437 J	0.0336	0.000778 J	0.000153 J	<0.001	<0.002	0.000506 J	<0.000166	0.00547 J
BA-01																		
December-10	14.57	7.59	6.98	**6.10**	<0.004	<0.002	<0.001	**1.03**	0.0188	<0.002	0.0174	<0.004	0.000236 J	<0.001	**1.06**	0.0216	<0.002	0.02
February-11	14.57	6.56	8.01	**6.06**	0.00241 J	0.0000733 J	0.00102	**1.37**	0.0499	0.000421 J	0.0553	0.0033 J	0.00104 J	<0.001	**1.23**	0.0445 B	0.000386 J	0.051
May-11	14.57	7.61	6.96	**5.90**	**<0.05**	0.000412 J	<0.002	**1.22**	0.0442	<0.002	0.0527	**<0.05**	<0.002	<0.002	**1.69**	0.0628 JB	<0.002	0.0719
August-11	14.57	8.39	6.18	**6.08**	0.00448 J	0.000956 J	0.0000898 J	**1.09**	0.0344	< 0.002	0.043	NA	NA	NA	NA	NA	NA	NA
November-11	14.57	9.24	5.33	**6.15**	**<0.02**	<0.002	0.000913 J	**1.22**	0.0283	0.000261 J	0.0323	**<0.02**	<0.002	0.000724 J	**1.29**	0.0315	0.00029 J	0.0372
February-12	14.57	8.08	6.49	**5.94**	**< 0.02**	0.000256 J	0.000223 J	**1.84**	0.0715	< 0.002	0.0809	**<0.02**	0.000095 J	<0.001	**1.88**	**0.162**	<0.002	0.0842
May-12	14.57	7.23	7.34	**5.78**	**< 0.1**	**< 0.01**	< 0.005	**1.58**	0.067	**< 0.01**	0.125	< 0.004	**0.0383**	**0.0232**	**0.755**	0.0334	< 0.002	0.103
August-12	14.57	7.49	7.08	**5.59**	< 0.00362	**< 0.01**	< 0.005	**1.52 J**	0.0602	**< 0.01**	< 0.0839	NA	NA	NA	NA	NA	NA	NA
BA-05																		
December-10	14.20	8.51	5.69	**6.29**	0.00212 J	0.0000547 J	<0.001	**24.0**	**0.079**	<0.002	0.0119	<0.004	0.000229 J	<0.001	**22.3**	**0.0808**	<0.002	0.00821
February-11	14.20	8.09	6.11	**6.09**	**0.0162 J**	<0.002	0.000582 J	**18.5**	**0.0806 N**	<0.002	0.0133 N	NA	NA	NA	NA	NA	NA	NA
May-11	14.20	8.40	5.80	**6.25**	0.00248 J	0.00034 J	<0.002	**12**	0.0404	<0.002	0.00743 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.20	8.91	5.29	**6.01**	**0.0169**	0.000909 J	0.000361 J	**7.56**	0.0264	< 0.002	0.00753 J	NA	NA	NA	NA	NA	NA	NA
November-11	14.20	9.39	4.81	**6.49**	0.00323 J	0.000332 J	0.00136	**18.1**	0.0465	0.000273 J	0.0105	NA	NA	NA	NA	NA	NA	NA
February-12	14.20	8.55	5.65	**6.16**	**< 0.02**	0.000138 J	0.0000547 J	**17.7**	0.0729	< 0.002	0.0105	NA	NA	NA	NA	NA	NA	NA
May-12	14.20	7.98	6.22	**6.30**	<0.00362 J	**<0.01**	<0.005	<0.01	<0.0013	**<0.01**	<0.05 J	NA	NA	NA	NA	NA	NA	NA
August-12	14.20	8.10	6.10	**5.73**	**< 0.02**	0.000454 J	0.00259 J	**10.1**	0.0404	**0.00211 J**	0.0132 J	NA	NA	NA	NA	NA	NA	NA
BA-09A																		
December-10	11.10	1.13	9.97	6.82	0.00201 J	<0.002	<0.001	0.0283	0.00182 J	<0.002	0.00188 J	NA	NA	NA	NA	NA	NA	NA
February-11	11.10	0.84	10.26	6.95	0.00279 J	<0.002	0.000878 J	0.0267	0.000516 J	0.000424 J	0.00341 J	NA	NA	NA	NA	NA	NA	NA
May-11	11.10	1.36	9.74	7.01	0.0018 J	<0.002	<0.002	0.0389	<0.002	<0.002	0.00364 J	NA	NA	NA	NA	NA	NA	NA
August-11	11.10	2.03	9.07	7.00	0.00214 J	0.000882 J	**0.0198**	0.0382	0.001 J	< 0.002	0.022	NA	NA	NA	NA	NA	NA	NA
November-11	11.10	2.01	9.09	7.08	<0.00407	<0.002	0.00128	0.0367	0.000285 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
February-12	11.10	1.45	9.65	6.60	0.00213 J	0.000134 J	0.0014	0.00133 J	< 0.002	< 0.002	0.00818 J	NA	NA	NA	NA	NA	NA	NA
May-12	11.10	1.47	9.63	7.01	0.00282 J	< 0.002	0.000245 J	0.0136	0.000485 J	< 0.002	0.00384 J	NA	NA	NA	NA	NA	NA	NA
August-12	11.10	1.80	9.30	6.57	0.00191 J	< 0.002	< 0.001	< 0.002	< 0.002	< 0.002	0.145	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data															
					Total Metals							Dissolved							
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
SECOND WATER-BEARING ZONE																			
BC-03																			
December-10	16.32	7.11	9.21	7.02	<0.004	<0.002	<0.001	0.00873	0.00129 J	<0.002	0.00187 J	NA	NA	NA	NA	NA	NA	NA
February-11	16.32	4.56	11.76	7.06	<0.004	0.0000556 J	0.000948 J	0.00403	0.00186 J	0.000424 J	0.00298 J	NA	NA	NA	NA	NA	NA	NA
May-11	16.32	6.87	9.45	7.04	<0.004	0.000417 J	<0.002	0.00932	0.00119 J	<0.002	0.00254 J	NA	NA	NA	NA	NA	NA	NA
August-11	16.32	8.29	8.03	7.10	< 0.004	<0.002	0.00019 J	0.0244	0.0015 J	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
November-11	16.32	9.19	7.13	7.12	0.00155 J	<0.002	0.000920 J	0.0267	0.00185 J	0.000266 J	0.00838 J	NA	NA	NA	NA	NA	NA	NA
February-12	16.32	7.90	8.42	7.06	0.00141 J	<0.002	<0.001	<0.00414	<0.002	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
May-12	16.32	6.49	9.83	7.12	**< 0.02**	**< 0.01**	< 0.005	0.0141	< 0.01	**< 0.01**	< 0.05	NA	NA	NA	NA	NA	NA	NA
August-12	16.32	6.98	9.34	7.02	< 0.00362	**< 0.01**	< 0.005	0.021 J	< 0.01	**< 0.01**	< 0.05	NA	NA	NA	NA	NA	NA	NA
BC-07																			
December-10	11.37	3.96	7.41	6.95	<0.004	<0.002	0.000352 J	0.0461	0.00185 J	<0.002	0.00202 J	NA	NA	NA	NA	NA	NA	NA
February-11	11.37	2.79	8.58	7.09	0.00277 J	<0.002 J	<0.00137 J	0.0290	0.00317 J	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	11.37	5.58	5.79	7.15	<0.004	0.000383 J	<0.002	0.0720	0.000914 J	<0.002	0.00522 J	NA	NA	NA	NA	NA	NA	NA
August-11	11.37	5.95	5.42	7.13	0.000943 J	0.000637 J	0.00118	0.0647	0.00105 J	< 0.002	0.00428 J	NA	NA	NA	NA	NA	NA	NA
November-11	11.37	7.39	3.98	7.44	0.00375 J	<0.002	0.000901 J	0.0188	0.00153 J	0.000264 J	0.00453 J	NA	NA	NA	NA	NA	NA	NA
February-12	11.37	3.91	7.46	7.21	0.00142 J	0.000103 J	< 0.001	0.0149	0.00119 J	< 0.002	0.00526 J	NA	NA	NA	NA	NA	NA	NA
May-12	11.37	4.00	7.37	7.12	**< 0.02**	**< 0.01**	< 0.005	0.0193	< 0.01	**< 0.01**	< 0.05	NA	NA	NA	NA	NA	NA	NA
August-12	11.37	4.09	7.28	**6.43**	**< 0.02**	0.000474 J	0.00278 J	0.0655	0.00429 J	**0.00226 J**	0.00996 J	NA	NA	NA	NA	NA	NA	NA
BC-17																			
December-10	15.18	5.61	9.57	6.94	0.00270 J	<0.002	0.0144	0.0227	0.00143 J	<0.002	0.00366 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.18	4.38	10.80	6.71	0.00374 J	0.000764 J	**0.0243**	0.114	0.00362	0.000439 J	0.00406 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.18	7.07	8.11	6.65	<0.004	0.00117 J	**0.0538**	0.423	0.00289	<0.002	0.00442 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.18	7.35	7.83	6.81	0.00237 J	0.00116 J	**0.0269**	0.42	0.00257	< 0.002	0.00419 J	NA	NA	NA	NA	NA	NA	NA
November-11	15.18	9.09	6.09	6.90	<0.00569	<0.002	**0.0498**	0.314	0.00273	<0.002	<0.0101	NA	NA	NA	NA	NA	NA	NA
February-12	15.18	6.98	8.20	6.60	0.0023 J	<0.002	**0.0223**	0.23	<0.00222	< 0.002	<0.0125	NA	NA	NA	NA	NA	NA	NA
May-12	15.18	5.90	9.28	6.73	0.00275 J	0.000541 J	**0.0263**	0.337	0.00276	< 0.002	0.00961 J	NA	NA	NA	NA	NA	NA	NA
August-12	15.18	5.88	9.30	6.84	**< 0.02**	0.00107 J	**0.0514**	0.279	0.00186 J	**0.00226 J**	0.00701 J	NA	NA	NA	NA	NA	NA	NA
BC-19																			
December-10	13.85	6.03	7.82	7.04	0.00165 J	<0.002	<0.001	0.00136 J	0.00142 J	<0.002	0.00235 J	NA	NA	NA	NA	NA	NA	NA
February-11	13.85	4.67	9.18	6.97	<0.004	<0.002	0.000850 J	0.00272	0.00179 J	0.000474 J	0.00365 J	NA	NA	NA	NA	NA	NA	NA
May-11	13.85	6.63	7.22	6.85	<0.00133 J	<0.002	<0.002	0.0168	0.00171 J	<0.002	0.00359 J	NA	NA	NA	NA	NA	NA	NA
August-11	13.85	7.49	6.36	6.90	< 0.004	0.00112 J	< 0.001	0.0259	0.00114 J	< 0.002	0.00301 J	NA	NA	NA	NA	NA	NA	NA
November-11	13.85	8.40	5.45	6.90	<0.004	<0.002	0.000721 J	0.0274	0.00227	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
February-12	13.85	6.65	7.20	7.01	0.00099 J	0.000134 J	< 0.001	0.00227	0.003	< 0.002	0.00622 J	NA	NA	NA	NA	NA	NA	NA
May-12	13.85	5.85	8.00	6.88	**< 0.02**	**< 0.01**	< 0.005	0.0143	< 0.01	**< 0.01**	< 0.05	NA	NA	NA	NA	NA	NA	NA
August-12	13.85	6.25	7.60	**5.96**	**< 0.02**	0.000754 J	0.00282 J	0.0266	0.00478 J	**0.00211 J**	0.0154 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
SECOND WATER-BEARING ZONE																		
BC-21R																		
December-10	15.28	7.39	7.89	6.84	<0.004	<0.002	<0.001	0.00649	0.00141 J	<0.002	0.00285 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.28	5.40	9.88	6.86	<0.004	<0.002	0.000912 J	0.00758	0.00250	0.000416 J	0.00462 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.28	7.99	7.29	6.69	<0.004	0.000456 J	<0.002	0.019	0.00171 J	<0.002	0.0032 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.28	9.00	6.28	6.90	< 0.004	0.000772 J	0.000276 J	0.0397	0.00168 J	< 0.002	0.00541 J	NA	NA	NA	NA	NA	NA	NA
November-11	15.28	9.98	5.30	7.05	0.00202 J	<0.002	0.000914 J	0.0753	0.00216	0.000260 J	0.00462 J	NA	NA	NA	NA	NA	NA	NA
February-12	15.28	7.75	7.53	7.01	0.000776 J	<0.002	0.000762 J	<0.00921	<0.0025	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
May-12	15.28	7.20	8.08	6.70	< 0.004	< 0.002	0.000058 J	0.00753	0.00216	< 0.002	0.00474 J	NA	NA	NA	NA	NA	NA	NA
August-12	15.28	7.64	7.64	**6.47**	< 0.004	0.000196 J	0.00117	0.00882	0.00214	0.00043 J	0.00469 J	NA	NA	NA	NA	NA	NA	NA
BC-25																		
December-10	15.73	8.35	7.38	6.78	<0.004	<0.002	<0.001	0.170	0.000532 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
February-11	15.73	6.74	8.99	6.88	<0.004 J	<0.002 J	<0.001 J	0.0264	0.000680 J	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.73	8.94	6.79	6.90	<0.004	0.000375 J	<0.002	0.177	0.000606 J	<0.002	0.00319 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.73	9.87	5.86	6.97	< 0.004	0.000661 J	0.00029 J	0.196	0.000842 J	< 0.002	0.00562 J	NA	NA	NA	NA	NA	NA	NA
November-11	15.73	10.71	5.02	6.94	0.00295 J	<0.002	0.000792 J	0.192	0.000715 J	0.000254 J	0.00461 J	NA	NA	NA	NA	NA	NA	NA
February-12	15.73	8.82	6.91	7.33	0.000834 J	0.000119 J	0.000106 J	0.0646	0.000705 J	< 0.002	0.00596 J	NA	NA	NA	NA	NA	NA	NA
May-12	15.73	8.15	7.58	6.88	0.00166 J	< 0.002	< 0.001	0.234	0.000707 J	< 0.002	0.00402 J	NA	NA	NA	NA	NA	NA	NA
August-12	15.73	8.55	7.18	**6.24**	0.00158 J	0.000227 J	0.000568 J	0.181	0.00203	0.000423 J	0.00972 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**
THIRD WATER-BEARING ZONE																		
BA-03A																		
December-10	14.76	1.73	13.03	8.04	<0.004	<0.002	0.000492 J	0.0327	<0.002	<0.002	0.00335 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.76	1.59	13.17	8.34	<0.004	**0.0443**	**0.0241**	0.507	0.0178	<0.002	0.0798	0.00165 J	0.000969 J	<0.001	0.0395	0.00363 B	0.000364 J	0.0032 J
May-11	14.76	2.30	12.46	8.17	<0.004	0.000351 J	0.000695 J	0.0345	0.000531 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	14.76	3.00	11.76	7.90	< 0.004	0.00115 J	0.00722	0.0153	0.00262	< 0.002	0.0404	NA	NA	NA	NA	NA	NA	NA
November-11	14.76	2.71	12.05	8.38	0.00208 J	0.000289 J	0.00181	0.0368	0.000590 J	0.000269 J	0.00491 J	NA	NA	NA	NA	NA	NA	NA
February-12	14.76	2.00	12.76	7.34	0.00178 J	0.000208 J	0.00152	0.0372	0.00251	< 0.002	0.106	NA	NA	NA	NA	NA	NA	NA
May-12	14.76	2.20	12.56	7.97	<0.00362 J	**<0.01**	<0.005	0.0441	<0.0013	**<0.01**	<0.05	NA	NA	NA	NA	NA	NA	NA
August-12	14.76	2.56	12.20	8.11	0.00144 J	0.00017 J	0.0025	0.0363	0.00125 J	0.000424 J	0.0106	NA	NA	NA	NA	NA	NA	NA
BA-05A																		
December-10	14.42	3.31	11.11	7.04	0.00147 J	<0.002	<0.001	0.0320	<0.002	<0.002	0.00232 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.42	3.11	11.31	7.29	0.00203 JN	<0.002	0.000601 J	0.00329	0.00107 JN	<0.002	0.00395 JN	NA	NA	NA	NA	NA	NA	NA
May-11	14.42	3.62	10.80	7.28	0.00134 J	0.000351 J	<0.002	0.00202	0.00058 J	<0.002	0.00466 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.42	4.60	9.82	7.10	0.00111 J	0.000988 J	0.00238	0.0177	0.000609 J	< 0.002	0.0139	NA	NA	NA	NA	NA	NA	NA
November-11	14.42	4.23	10.19	7.27	0.00193 J	0.000283 J	0.00145	0.0328	0.000446 J	0.000264 J	0.00413 J	NA	NA	NA	NA	NA	NA	NA
February-12	14.42	3.75	10.67	7.03	0.00191 J	0.000115 J	0.000606 J	0.0101	0.00072 J	< 0.002	0.00616 J	NA	NA	NA	NA	NA	NA	NA
May-12	14.42	3.60	10.82	7.05	0.0022 J	0.000674 J	0.000753 J	0.00674	0.000866 J	0.000451 J	0.00442 J	NA	NA	NA	NA	NA	NA	NA
August-12	14.42	4.00	10.42	6.87	0.00148 J	0.00011 J	0.00114	0.0358	0.000613 J	0.000421 J	0.00816 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
THIRD WATER-BEARING ZONE																		
BB-01																		
December-10	15.75	2.85	12.90	**9.63**	0.00507	0.0000958 J	0.00499	0.00323	0.000982 J	<0.002	0.00382 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.75	2.67	13.08	**9.86**	0.00555	0.000109 J	0.00571	0.00455	0.00334	0.000416 J	0.00690 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.75	3.32	12.43	**9.77**	0.00409 J	<0.002	0.00354	0.0029	0.000723 J	<0.002	0.00343 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.75	4.05	11.70	**9.89**	0.00461	<0.002	0.00547	0.00372	0.00182 J	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
November-11	15.75	3.79	11.96	**9.88**	0.00673	<0.002	0.00654	0.00395	0.00125 J	0.000421 J	0.00517 J	NA	NA	NA	NA	NA	NA	NA
February-12	15.75	3.11	12.64	**9.79**	0.00519	0.000229 J	0.00535	0.00351	0.00133 J	< 0.002	0.0072 J	NA	NA	NA	NA	NA	NA	NA
May-12	15.75	3.13	12.62	**9.95**	0.00569	< 0.002	0.00488	0.00347	0.00105 J	< 0.002	0.0127	NA	NA	NA	NA	NA	NA	NA
August-12	15.75	3.65	12.10	**9.95**	0.00412	0.000219 J	0.0054	0.0038	0.00144 J	0.000424 J	0.00811 J	NA	NA	NA	NA	NA	NA	NA
BA-01A																		
December-10	15.03	4.46	10.57	7.10	0.00624	<0.002	<0.001	0.0123	<0.002	<0.002	0.00301 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.03	4.37	10.66	7.36	0.00706	<0.002	0.00121	0.00700	0.00139 J	0.000410 J	0.00288 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.03	4.77	10.26	7.26	0.00633	0.000355 J	<0.002	0.0185	0.000478 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	15.03	5.49	9.54	7.36	0.00754	0.000602 J	0.000296 J	0.0239	< 0.002	< 0.002	0.00372 J	NA	NA	NA	NA	NA	NA	NA
November-11	15.03	5.58	9.45	7.35	0.00866	<0.002	0.00165	0.0234	0.000532 J	0.000253 J	0.0123	NA	NA	NA	NA	NA	NA	NA
February-12	15.03	5.00	10.03	7.40	0.00766	0.0000961 J	0.000122 J	0.00421	0.00112 J	< 0.002	0.00667 J	NA	NA	NA	NA	NA	NA	NA
May-12	15.03	4.91	10.12	7.28	0.00765	< 0.002	< 0.001	0.00703	< 0.002	< 0.002	0.00203 J	NA	NA	NA	NA	NA	NA	NA
August-12	15.03	5.50	9.53	7.23	0.00586	0.000102 J	0.000708 J	0.038	0.000448 J	0.000422 J	0.00455 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**
WATER WELLS																		
(b) (6) **Well**																		
December-10	NA	NA	NA	8.22	<0.004	<0.002	0.00188	0.0213	0.000527 J	<0.002	0.00202 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	8.28	0.00186 J	<0.002	0.00341	0.0230	0.000568 J	0.000413 J	0.00368 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	8.30	0.00137 J	0.000364 J	0.00164 J	0.0222	<0.002	<0.002	0.00145 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	8.36	0.00172 J	0.000637 J	0.00334	0.0252	0.000268 J	< 0.002	0.00393 J	NA	NA	NA	NA	NA	NA	NA
November-11	NA	NA	NA	8.26	0.00368 J	<0.002	0.00379	0.0264	0.000651 J	0.000256 J	0.00577 J	NA	NA	NA	NA	NA	NA	NA
February-12	NA	NA	NA	8.20	0.00206 J	0.000123 J	0.00343	0.0239	0.000616 J	< 0.002	0.0288	NA	NA	NA	NA	NA	NA	NA
May-12	NA	NA	NA	**9.08**	0.00174 J	< 0.002	0.00192	0.0241	< 0.002	< 0.002	0.00396 J	NA	NA	NA	NA	NA	NA	NA
August-12	NA	NA	NA	8.11	< 0.004	0.000106 J	0.00226	0.0233	0.000572 J	0.000426 J	0.0425	NA	NA	NA	NA	NA	NA	NA
WW-04																		
December-10	NA	NA	NA	**8.69**	<0.004	<0.002	<0.001	0.00333	<0.002	<0.002	0.00256 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	**8.83**	<0.004	<0.002	0.000794 J	0.00355	<0.002	0.000413 J	0.00205 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	**8.81**	<0.004	0.000353 J	<0.002	0.00247	<0.002	<0.002	0.00136 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	**8.87**	< 0.004	0.000605 J	0.0000632 J	0.00304	< 0.002	< 0.002	0.00138 J	NA	NA	NA	NA	NA	NA	NA
November-11	NA	NA	NA	**8.77**	<0.004	<0.002	0.000733 J	<0.00284	<0.002	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
February-12	NA	NA	NA	**8.51**	< 0.004	0.0000898 J	0.00457	0.00333	0.000438 J	< 0.002	0.0222	NA	NA	NA	NA	NA	NA	NA
May-12	NA	NA	NA	**8.65**	< 0.004	< 0.002	< 0.001	0.00299	< 0.002	< 0.002	0.00626 J	NA	NA	NA	NA	NA	NA	NA
August-12	NA	NA	NA	8.47	< 0.004	0.0000906 J	0.000568 J	0.00319	< 0.002	0.000423 J	0.00376 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)
WATER WELLS																		
WW-09																		
December-10	NA	NA	NA	7.39	<0.004	<0.002	<0.001	0.0164	<0.002	<0.002	0.0731	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	7.97	<0.004 J	<0.002 J	<0.00123 J	0.0161	<0.002 J	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	8.19	<0.00133 J	<0.002	<0.002	0.0158	<0.002	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	8.16	< 0.004	0.00061 J	0.000394 J	0.017	< 0.002	< 0.002	0.00451 J	NA	NA	NA	NA	NA	NA	NA
November-11	NA	NA	NA	8.20	0.00177 J	<0.002	0.00104	0.0184	<0.002	0.000273 J	0.00888 J	NA	NA	NA	NA	NA	NA	NA
February-12	NA	NA	NA	7.69	< 0.004	0.0000958 J	0.000719 J	0.0172	0.000668 J	< 0.002	0.0134	NA	NA	NA	NA	NA	NA	NA
May-12	NA	NA	NA	7.98	< 0.004	< 0.002	< 0.001	0.0173	< 0.002	< 0.002	0.00341 J	NA	NA	NA	NA	NA	NA	NA
August-12	NA	NA	NA	7.81	< 0.004	0.000102 J	0.00104	0.018	0.00177 J	0.000427 J	0.00823 J	NA	NA	NA	NA	NA	NA	NA
North Well																		
December-10	NA	NA	NA	8.50	<0.004	<0.002	<0.001	0.00347	<0.002	<0.002	0.00179 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	**8.63**	<0.004	<0.002	0.00135	0.00405	0.00148 J	0.000412 J	0.00277 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	**8.91**	<0.004	0.00034 J	<0.002	0.00253	<0.002	<0.002	0.00164 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	**8.76**	< 0.004	0.000615 J	0.000934 J	0.00369	< 0.002	< 0.002	0.00237 J	NA	NA	NA	NA	NA	NA	NA
November-11	NA	NA	NA	**8.70**	0.00198 J	<0.002	0.00505	0.00369	0.000704 J	0.000251 J	0.00740 J	NA	NA	NA	NA	NA	NA	NA
February-12	NA	NA	NA	8.50	< 0.004	0.0000963 J	0.00119	0.000726 J	0.000394 J	< 0.002	0.00686 J	NA	NA	NA	NA	NA	NA	NA
May-12	NA	NA	NA	**8.70**	0.000872 J	< 0.002	0.00107	0.00324	0.000908 J	< 0.002	0.00325 J	NA	NA	NA	NA	NA	NA	NA
August-12	NA	NA	NA	**8.88**	< 0.004	0.000117 J	0.00205	0.00676	0.00028 J	0.000421 J	0.00529 J	NA	NA	NA	NA	NA	NA	NA
South Well																		
December-10	NA	NA	NA	**8.75**	<0.004	<0.002	<0.001	0.00413	<0.002	<0.002	0.00560 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	**9.00**	<0.004 J	<0.002 J	<0.001 J	0.00484	0.00204	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	**8.98**	<0.004	0.00034 J	<0.002	0.00346	<0.002	<0.002	0.00235 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	**9.05**	< 0.004	0.000618 J	0.000186 J	0.00358	< 0.002	< 0.002	0.0118	NA	NA	NA	NA	NA	NA	NA
November-11	NA	NA	NA	**9.09**	0.00178 J	<0.002	0.000779 J	0.00434	<0.002	0.000255 J	0.0142	NA	NA	NA	NA	NA	NA	NA
February-12	NA	NA	NA	**9.06**	< 0.004	0.000106 J	< 0.001	0.00484	< 0.002	< 0.002	0.00646 J	NA	NA	NA	NA	NA	NA	NA
May-12	NA	NA	NA	**9.24**	< 0.004	< 0.002	< 0.001	0.00366	< 0.002	< 0.002	0.0119	NA	NA	NA	NA	NA	NA	NA
August-12	NA	NA	NA	**9.33**	< 0.000724	< 0.001	< 0.001	0.0039 J	< 0.002	< 0.002	< 0.013	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

Notes:

1) Top-of-casing (TOC) elevation - (depth to fluid) = Corrected GROUNDWATER (GW) elevation

2) Site specific cleanup standards were found in previous reports for Lead and pH only. The additional screening standards are from the LDEQ RECAP Screening Standards (SS). Screening Standards were provided by the LDEQ.

3) The Site Cleanup Standard for pH = 7.0 s.u.; however EPA Drinking Water Standards for pH = 6.5-8.5 s.u. and the EPA Storm Water Discharge Standards for pH=6.0-9.0 s.u are being used for comparison purposes.

4) Bold Values Exceed Site Cleanup or RECAP SS

5) Reporting Limits from the analytical reports are used for non-detect results

Abrev.: NA = Not Applicable mg/L= milligrams per Liter NF = Not Found

NM = Not Measured NS=Not Sampled J = Flagged by lab due Estimated Value between MDL and PQL

D= Surrogate Recovery Unreportable due to Dilution B/V = Analyte Detected in the associated Method Blank above Rep. Limit

N = Recovery in the Matrix Spike and Matrix Spike Duplicate exceeded the control limit acce E= Concentrations Exceeding Calibration Rand of Instrument

FIGURES

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
BC-27
NORTH WELL
BC-17
BC-21R
BA-01A
BA-01
BA-05
BA-05A
DW-02
MW-05
BA-09
TEPA9-H
BA-09A
DW-01
TEPA8-G
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
BC-01
BC-07
BC-03
FORMER BUILDINGS
(BURNED DOWN)
TEPA7-H
MW-06
BA-03
BA-03A
MW-01
TEPA-P14
TEPA-6H
TEPA5-H
TEPA-P10
MW-02
TEPA-P9
BC-31
MW-07
TEPA2-H
TEPA-1H
TEPA-P6
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) SITE LOCATED IMMEDIATELY ADJACENT TO 19113 WEINBERGER ROAD, PONCHATOULA, LOUISIANA
3) SITE IS LOCATED AT GRID COORDINATES 30° 25' 16" N. AND 90° 24' 39" W.
4) EPA PIEZOMETERS WERE ADDED BASED ON LOCATIONS PROVIDED BY EPA.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 06/16/09	CHECKED BY	DRAWING #
		APPROVED BY	010

FIGURE 1

FACILITY MAP

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
6.00
4.00
8.00
2.00
PW-04
(6.66)
BC-03
MW-04
WW-09
DW-03
(5.82)
BC-27
NORTH WELL
BC-17
BA-01A
BA-01
BC-21R
BA-05
BA-05A
DW-02
(9.72)
MW-03
BB-01
SOUTH WELL
BC-11
DW-04
BC-01
MW-05
(0.90)
BA-09
BA-09A
TEPA9-H
BC-25
BC-19
MW-A
BC-07
DW-01
(2.24)
TEPA7-H
TEPA8-G
FORMER BUILDINGS
(BURNED DOWN)
MW-06
(7.74)
(7.36)
BA-03
BA-03A
TEPA-P14
MW-01
(1.56)
TEPA-6H
TEPA-P10
TEPA5-H
BC-31
MW-07
MW-02
(6.81)
TEPA-P9
TEPA2-H
TEPA-IH
TEPA-P6
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (7.08) GROUNDWATER ELEVATION (NGVD)
- 8.00 GROUNDWATER CONTOUR ELEVATION
- GROUNDWATER FLOW DIRECTION

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/10/2012	CHECKED BY	DRAWING # 12/3RD QTR/001
		APPROVED BY	

FIGURE 2A
FIRST WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

2.00

4.00

6.00

8.00

MW-04 (1.76)

WW-09

DW-03

BC-27

NORTH WELL

BC-17 (9.30)

BA-01 (7.08)

BA-01A

(6.10)
BA-05

BC-21R (7.64)

(9.34)
BC-03

MW-05

BA-09

BA-09A
(9.30)
(NU)

DW-01

BA-05A

DW-02

MW-03 (7.10)

BC-25 (7.18)

DW-04 (8.41)

BC-11

BB-01

SOUTH WELL

BC-01

MW-A (4.57)

(7.60)
BC-19

BC-07 (7.28)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (7.13) GROUNDWATER ELEVATION (NGVD)
- 6.00 GROUNDWATER CONTOUR ELEVATION
- GROUNDWATER FLOW DIRECTION
- NU = NOT USED FOR CONTOURING

NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/11/2012	CHECKED BY	DRAWING # POT-002
		APPROVED BY	

FIGURE 2B
SECOND WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
AI NO. 2328
PONCHATULA, LOUISIANA
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
BC-27
10.00
NORTH WELL
11.00
BC-17
BC-03
(9.53)
BA-01A
BA-01
BC-21R
BA-05
BA-05A
(10.42)
DW-02
MW-05
BA-09
BA-09A
DW-04
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(12.10)
SOUTH WELL
BC-01
BC-07
12.00
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(12.20)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (12.76) GROUNDWATER ELEVATION (NGVD)
- 11.00 GROUNDWATER CONTOUR ELEVATION
- GROUNDWATER FLOW DIRECTION

NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/11/2012	CHECKED BY	DRAWING #
		APPROVED BY	POT-003

FIGURE 2C
THIRD WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(3.72)
PW-04

MW-04

WW-09

4.00
DW-03
(4.38)

BC-27

NORTH WELL

BC-17

BA-01A
BA-01

BC-21R

BC-03

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

(3.27)
BA-09

TEPA9-H

BA-05

BA-05A

3.00
DW-02
(2.73)

MW-03

DW-04

BC-25

BC-19

BA-09A

MW-A

DW-01
(5.10)

TEPA8-G

5.00

TEPA7-H

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA-P14

MW-06
(3.62)

4.00
BA-03
(4.22)

BA-03A

MW-01
(3.01)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(3.01)

BC-31

MW-07

TEPA-P9

TEPA2-H

TEPA-IH

TEPA-P6

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (5.59) pH LEVEL IN STANDARD UNITS
- -3.00- pH CONTOUR

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/2012	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/004

FIGURE 3A
FIRST WATER BEARING ZONE
pH CONTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

(7.02)
BC-03

MW-04
(6.19)

WW-09

DW-03

BC-27

NORTH WELL

BC-17
(6.84)

BA-01A

BA-01
(5.59)

BC-21R
(6.47)

6.50

6.50

(5.73)
BA-05

BA-05A

DW-02

MW-03
(7.64)

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

BA-09

BA-09A
(6.57)

DW-01

MW-A
(6.47)

BC-25
(6.24)

(5.96)
BC-19

DW-04
(6.42)

BC-07
(6.43)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (7.12) pH LEVEL IN STANDARD UNITS
- pH CONTOUR

NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/2012	CHECKED BY APPROVED BY	DRAWING # 12/3RD QTR/005

FIGURE 3B
SECOND WATER BEARING ZONE pH COUNTOUR MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
BC-27
8.00
9.00
NORTH WELL
BC-17
BC-21R
(7.23)
BA-01A
BA-01
BA-05
BA-05A
(6.87)
DW-02
MW-03
BC-25
BC-19
DW-04
BC-11
(9.95)
BB-01
SOUTH WELL
BC-01
BC-03
BC-07
MW-05
BA-09
BA-09A
DW-01
MW-A
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(8.11)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (8.11) pH LEVEL IN STANDARD UNITS
- pH CONTOUR

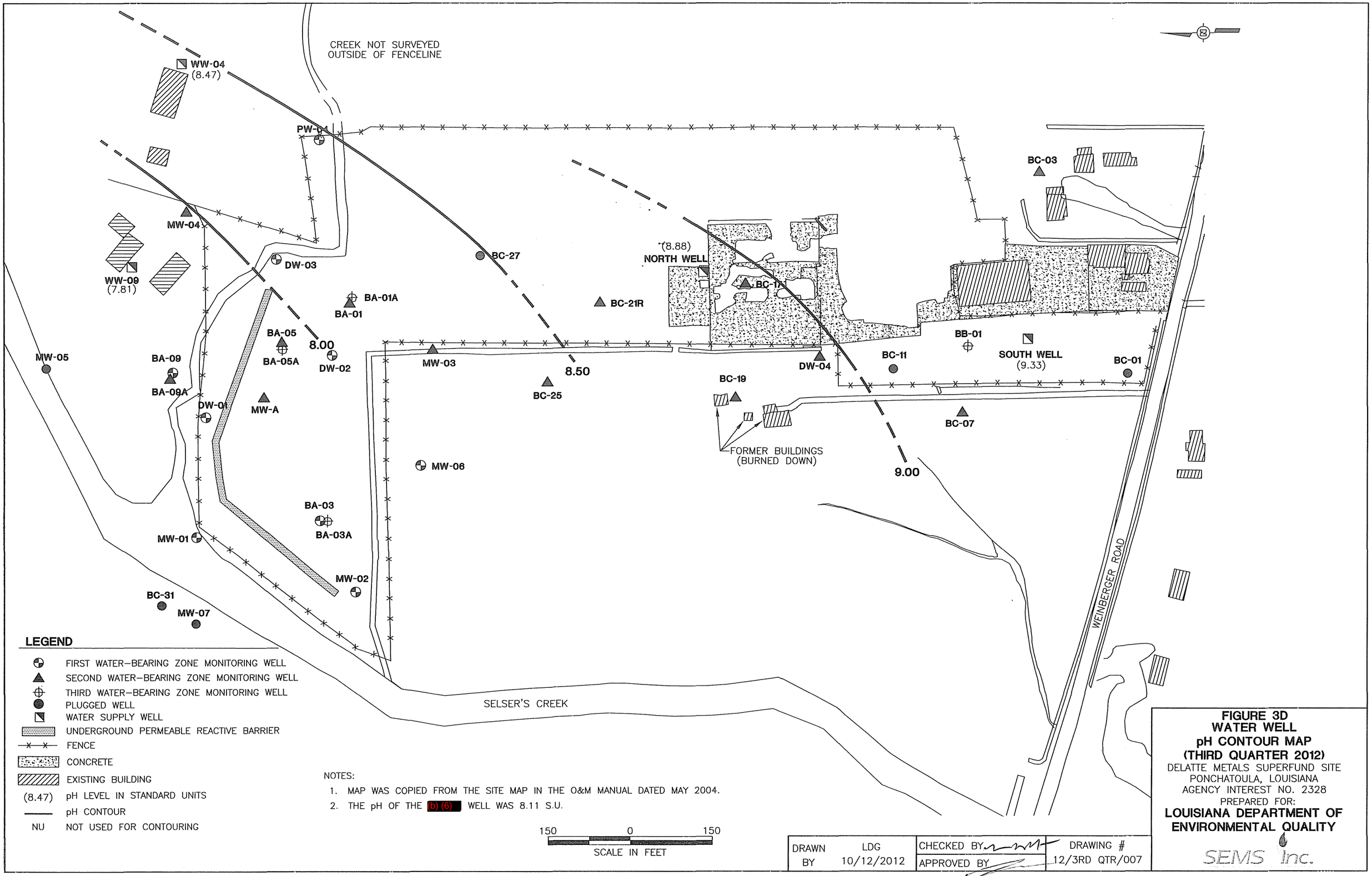
NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/2012	CHECKED BY	DRAWING # 12/3RD QTR/006
		APPROVED BY	

FIGURE 3C
THIRD WATER BEARING ZONE
pH CONTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(8.47)
PW-04
MW-04
WW-09
(7.81)
DW-03
BA-01A
BA-01
BC-27
BC-21R
(8.88)
NORTH WELL
BC-17
BC-03
BA-05
BA-05A
8.00
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
8.50
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
(9.33)
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
9.00
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
(8.47) pH LEVEL IN STANDARD UNITS
pH CONTOUR
NU NOT USED FOR CONTOURING
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE pH OF THE (b) (6) WELL WAS 8.11 S.U.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/12/2012
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/007
FIGURE 3D
WATER WELL
pH CONTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
(0.005)
MW-04
WW-09
DW-03
(0.0028)
BA-01A
BA-01
BC-27
BC-21R
NORTH WELL
BC-17
BC-03
BA-05
BA-05A
(0.0212)
BA-09
TEPA9-H
BA-09A
DW-02
(0.0589)
MW-A
DW-01
(0.155)
TEPA8-G
0.1
TEPA7-H
0.01
TEPA-P14
BA-03
(0.00163)
BA-03A
MW-01
(0.048)
TEPA-6H
TEPA5-H
TEPA-P10
MW-02
(0.00153)
TEPA-P9
TEPA2-H
TEPA-1H
TEPA-P6
BC-31
MW-07
MW-05
MW-03
MW-06
(<0.02)
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
WEINBERGER ROAD
SELSER'S CREEK

150 0 150
SCALE IN FEET

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- 0.010 — CONCENTRATION CONTOUR (mg/L)
- mg/L MILLIGRAMS PER LITER
- (0.155) ARSENIC CONCENTRATIONS IN mg/L

NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.
4) MONITORING WELL MW-06 EXCEEDED FOR DETECTION LIMITS ONLY.

DRAWN BY	LDG 10/15/2012	CHECKED BY / APPROVED BY	DRAWING # 12/3RD QTR/011

FIGURE 4A
FIRST WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
(0.000778)
WW-09
DW-03
BC-27
NORTH WELL
BA-01A
BA-01
(<0.00362)
(<0.02)
BA-05
BA-05A
DW-02
(<0.004)
BC-21R
BC-17
(<0.02)
(<0.00362)
BC-03
BB-01
SOUTH WELL
BC-11
BC-01
MW-05
BA-09
BA-09A
(0.00191)
DW-01
MW-A
(<0.004)
MW-03
(0.00516)
BC-25
(0.00158)
(<0.02)
BC-19
DW-04
(0.00436)
BC-07
(<0.02)
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (0.00436) — ARSENIC CONCENTRATION IN mg/L
- —0.01— CONCENTRATION CONTOUR (mg/L)

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3. MONITORING WELLS BA-05, BC-07, BC-17, AND BC-19 EXCEEDED FOR DETECTION LIMITS ONLY.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/15/2012	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/012

FIGURE 4B

SECOND WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2012)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
(0.00586)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
(0.00148)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(0.00412)
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.00144)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.00144) ARSENIC CONCETRATIONS IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3. NO WELLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ARSENIC

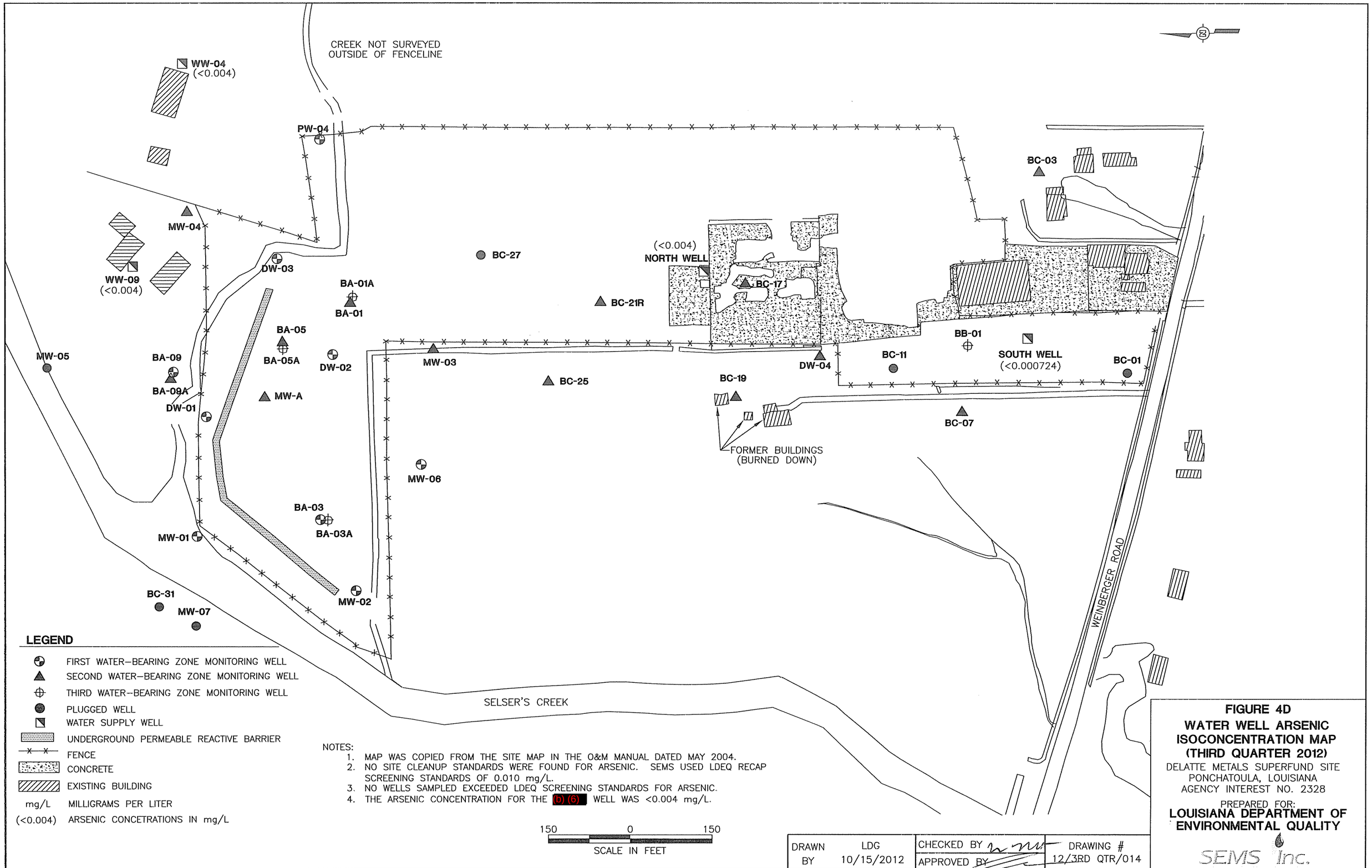
150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/15/2012	CHECKED BY	DRAWING # 12/3RD QTR/013
		APPROVED BY	

FIGURE 4C
THIRD WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(<0.004)
PW-04
MW-04
WW-09
(<0.004)
DW-03
BA-01A
BA-01
BC-27
BC-21R
(<0.004)
NORTH WELL
BC-17
BC-03
BA-05
BA-05A
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
(<0.000724)
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER--BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(<0.004) ARSENIC CONCETRATIONS IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3. NO WELLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ARSENIC.
4. THE ARSENIC CONCENTRATION FOR THE (b) (6) WELL WAS <0.004 mg/L.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/15/2012
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/014
FIGURE 4D
WATER WELL ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(0.000977)
PW-04

MW-04

WW-09

DW-03
(0.000198)

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BA-01A

BA-01

BA-05

(0.000731)
BA-09

TEPA9-H

BA-05A

DW-02
(0.0272)

MW-05

MW-03

BC-25

BC-19

DW-04

BC-11

BB-01

SOUTH WELL

BC-01

BA-09A

DW-01
(0.000365)

MW-A

TEPA8-G

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

0.005

TEPA-P14

MW-06
(0.086)

BA-03
(0.0485)

BA-03A

0.05

MW-01
(0.00405)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(0.0532)

BC-31

TEPA-P9

MW-07

TEPA2-H

TEPA-P6

TEPA-1H

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- -0.005- CONCENTRATION CONTOUR (mg/L)
- mg/L MILLIGRAMS PER LITER
- (0.00365) CADMIUM CONCENTRATION IN mg/L

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/17/12	CHECKED BY APPROVED BY	DRAWING # 12/3RD QTR/032

FIGURE 5A
FIRST WATER BEARING ZONE CADMIUM CONTOUR MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
(0.000153)
WW-09
DW-03
BC-27
NORTH WELL
BC-17
(0.00107)
(<0.01)
BC-03
BA-01A
BA-01
(<0.01)
(0.000454)
BA-05
BA-05A
DW-02
BC-21R
(0.000196)
BB-01
SOUTH WELL
MW-05
BA-09
BA-09A
(<0.002)
DW-01
MW-A
(0.000131)
MW-03
(0.000687)
BC-25
(0.000227)
(0.000754)
BC-19
DW-04
(0.000684)
BC-11
BC-01
BC-07
(0.000474)
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.000684) CADMIUM CONCENTRATION IN mg/L

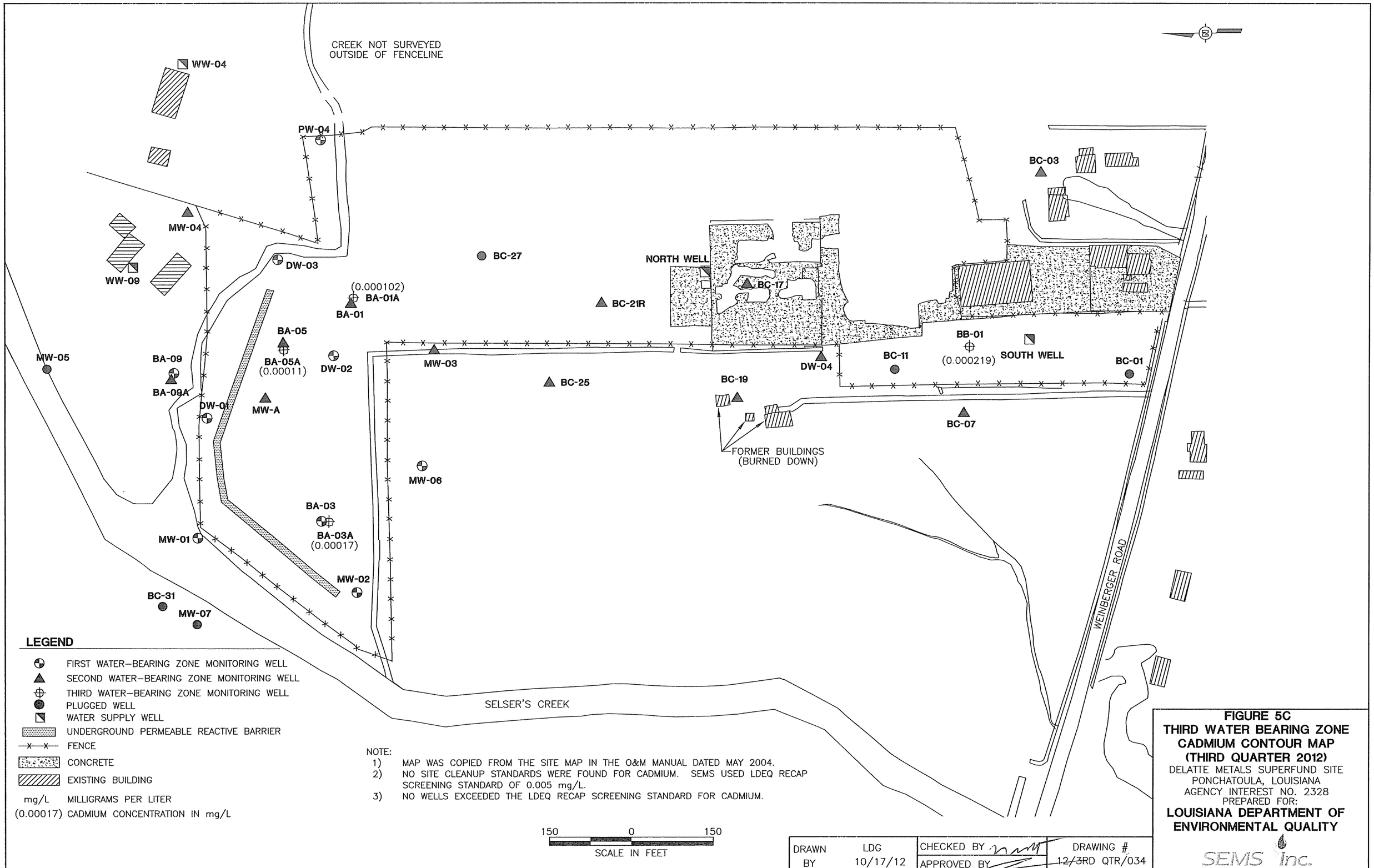
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) MONITORING WELLS BA-01 AND BC-03 EXCEEDED FOR DETECTION LIMITS ONLY.

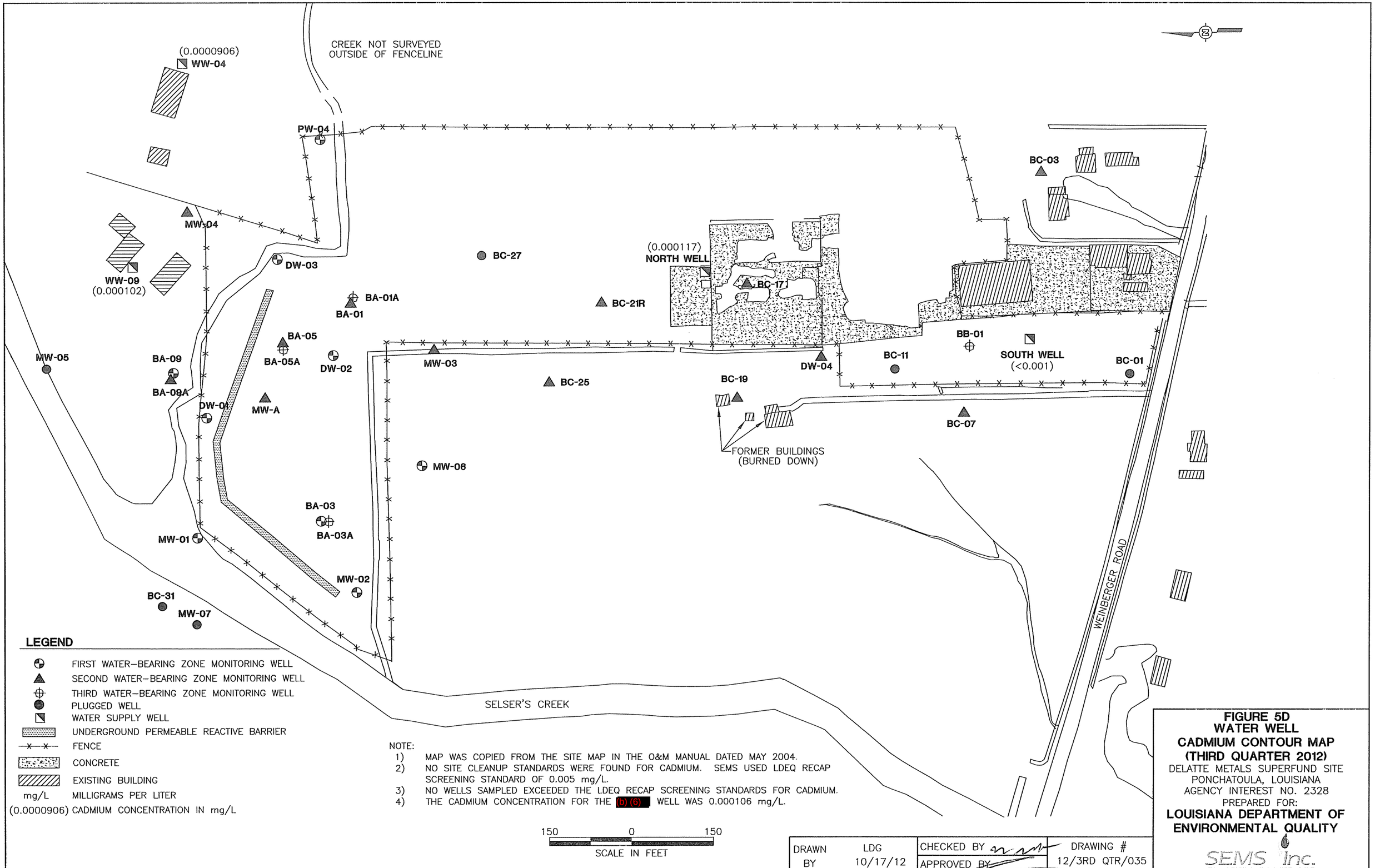
150 0 150
SCALE IN FEET

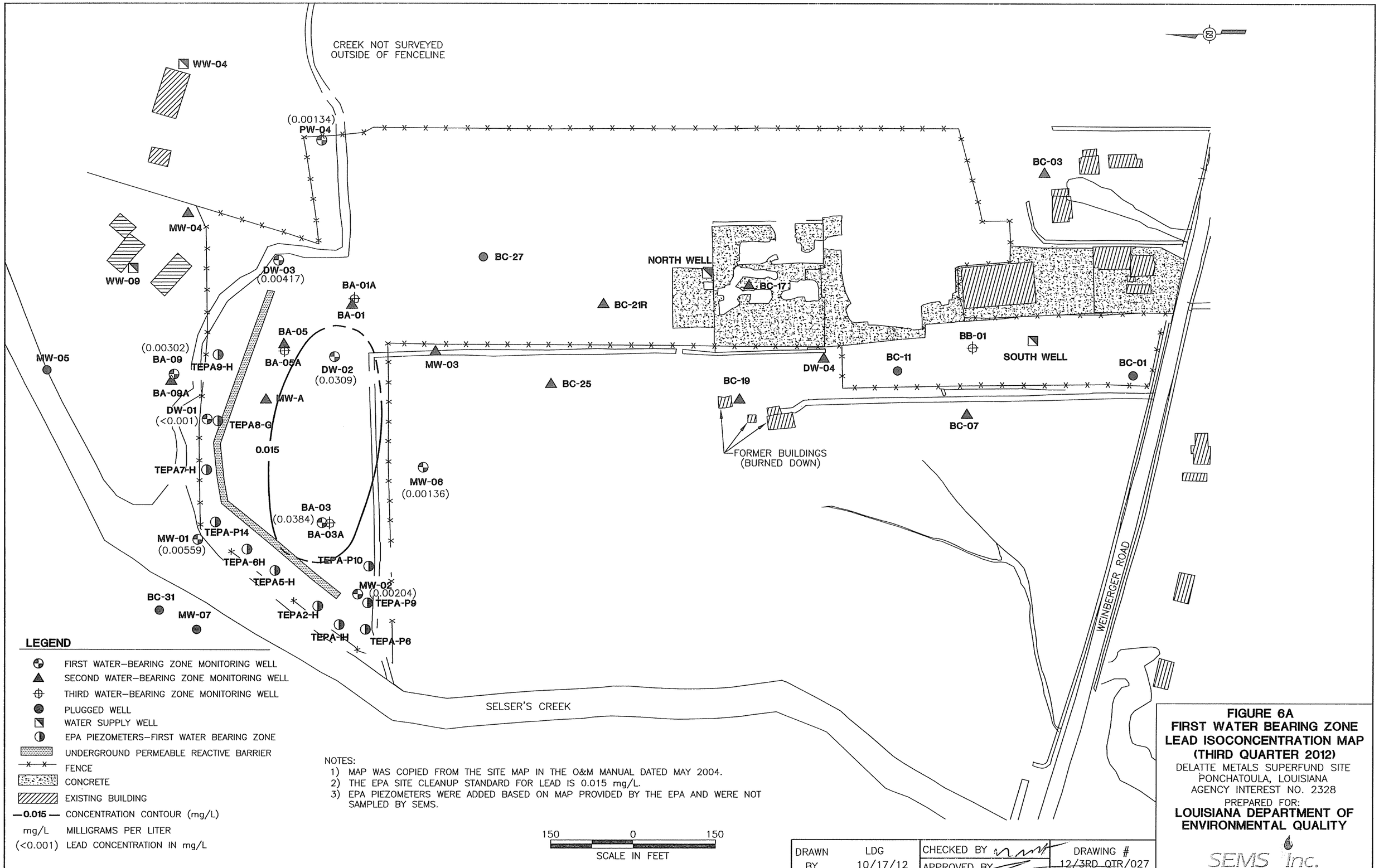
DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/033

FIGURE 5B
SECOND WATER BEARING ZONE CADMIUM COUNTOUR MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
PW-04
MW-04
WW-09
DW-03
BC-27
NORTH WELL
BC-17
BC-03
(0.000102)
BA-01A
BA-01
BC-21R
BA-05
BA-05A
(0.00011)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(0.000219)
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.00017)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.00017) CADMIUM CONCENTRATION IN mg/L
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) NO WELLS EXCEEDED THE LDEQ RECAP SCREENING STANDARD FOR CADMIUM.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/17/12
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/034
FIGURE 5C
THIRD WATER BEARING ZONE
CADMIUM CONTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
(0.0000906)
WW-04
PW-04
MW-04
WW-09
(0.000102)
DW-03
BC-27
(0.000117)
NORTH WELL
BC-17
BC-21R
BA-01A
BA-01
BA-05
BA-05A
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
(<0.001)
BC-01
BC-03
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.0000906) CADMIUM CONCENTRATION IN mg/L
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR CADMIUM.
4) THE CADMIUM CONCENTRATION FOR THE (b) (6) WELL WAS 0.000106 mg/L.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/17/12
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/035
FIGURE 5D
WATER WELL
CADMIUM CONTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(0.00134)
PW-04
MW-04
WW-09
DW-03
(0.00417)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
DW-02
(0.0309)
MW-05
(0.00302)
BA-09
TEPA9-H
BA-09A
DW-01
(<0.001)
TEPA8-G
MW-A
0.015
TEPA7-H
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
(0.00136)
BA-03
(0.0384)
BA-03A
MW-01
(0.00559)
TEPA-P14
TEPA-6H
TEPA-P10
TEPA5-H
MW-02
(0.00204)
TEPA-P9
BC-31
MW-07
TEPA2-H
TEPA-1H
TEPA-P6
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
EPA PIEZOMETERS-FIRST WATER BEARING ZONE
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
0.015 CONCENTRATION CONTOUR (mg/L)
mg/L MILLIGRAMS PER LITER
(<0.001) LEAD CONCENTRATION IN mg/L
NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/17/12
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/027
FIGURE 6A
FIRST WATER BEARING ZONE
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(<0.001)

WW-09

DW-03

BA-01A

BA-01
(<0.005)

(0.00259)
BA-05

BA-05A

DW-02

BC-27

NORTH WELL

0.015

BC-17
(0.0514)

BC-21R
(0.00117)

(<0.005)
BC-03

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

BA-09

BA-09A
(<0.001)

DW-01

MW-A
(0.00157)

MW-03
(0.00304)

BC-25
(0.000568)

(0.00282)
BC-19

DW-04
(0.00281)

BC-07
(0.00278)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.00281) LEAD CONCENTRATION IN mg/L
- —0.015— CONCENTRATION CONTOUR (mg/L)

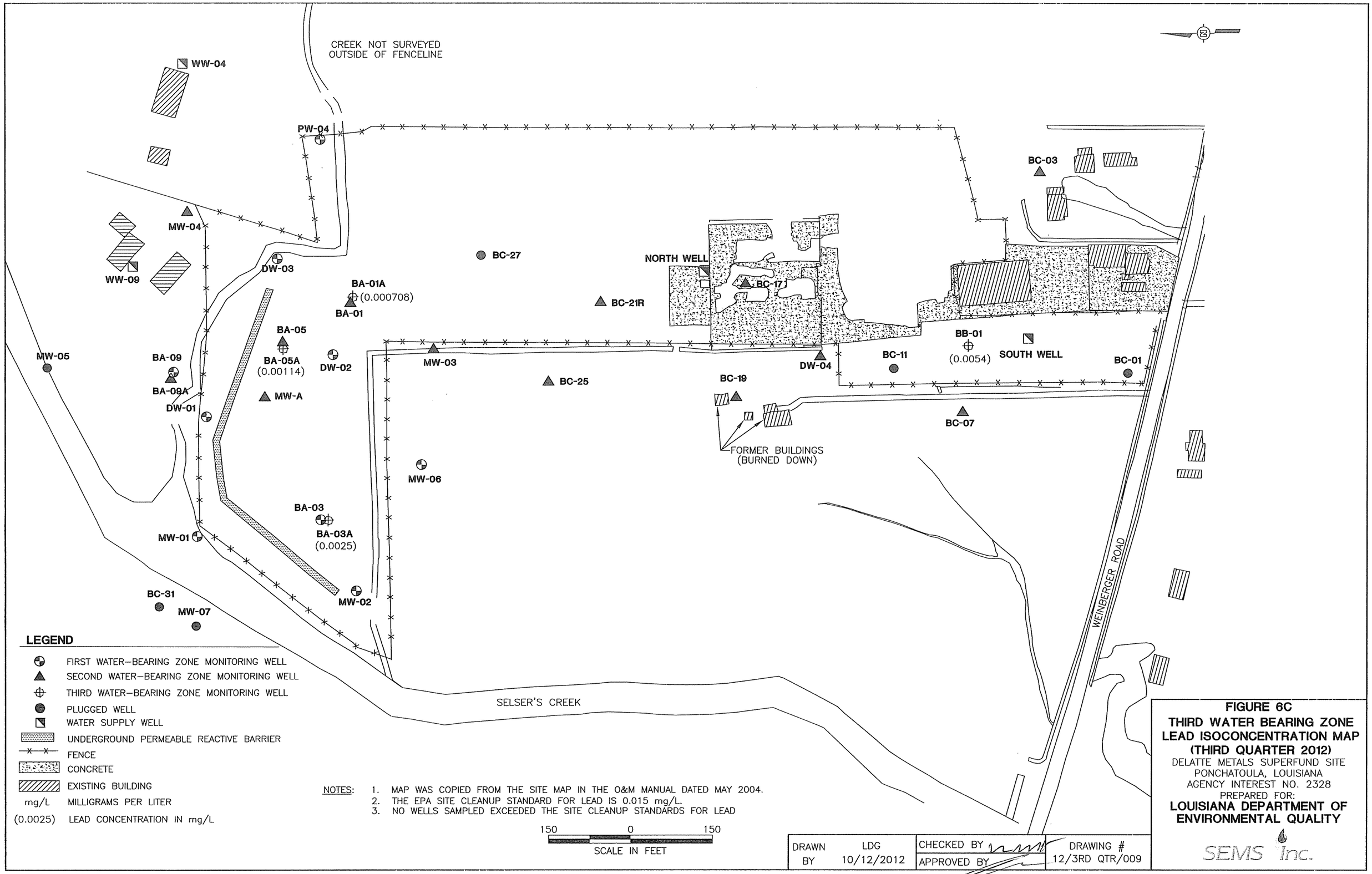
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.

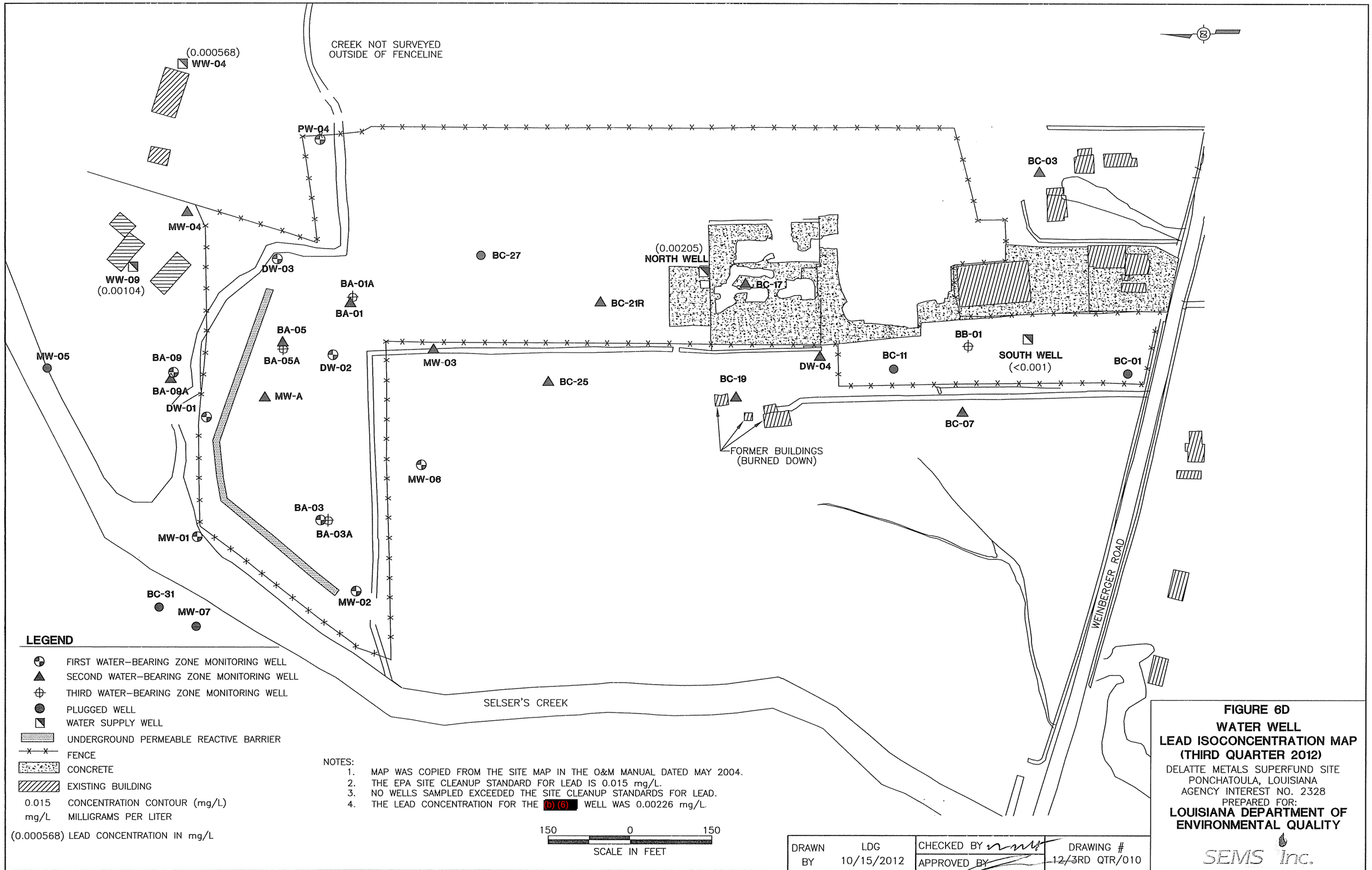
150 0 150
SCALE IN FEET

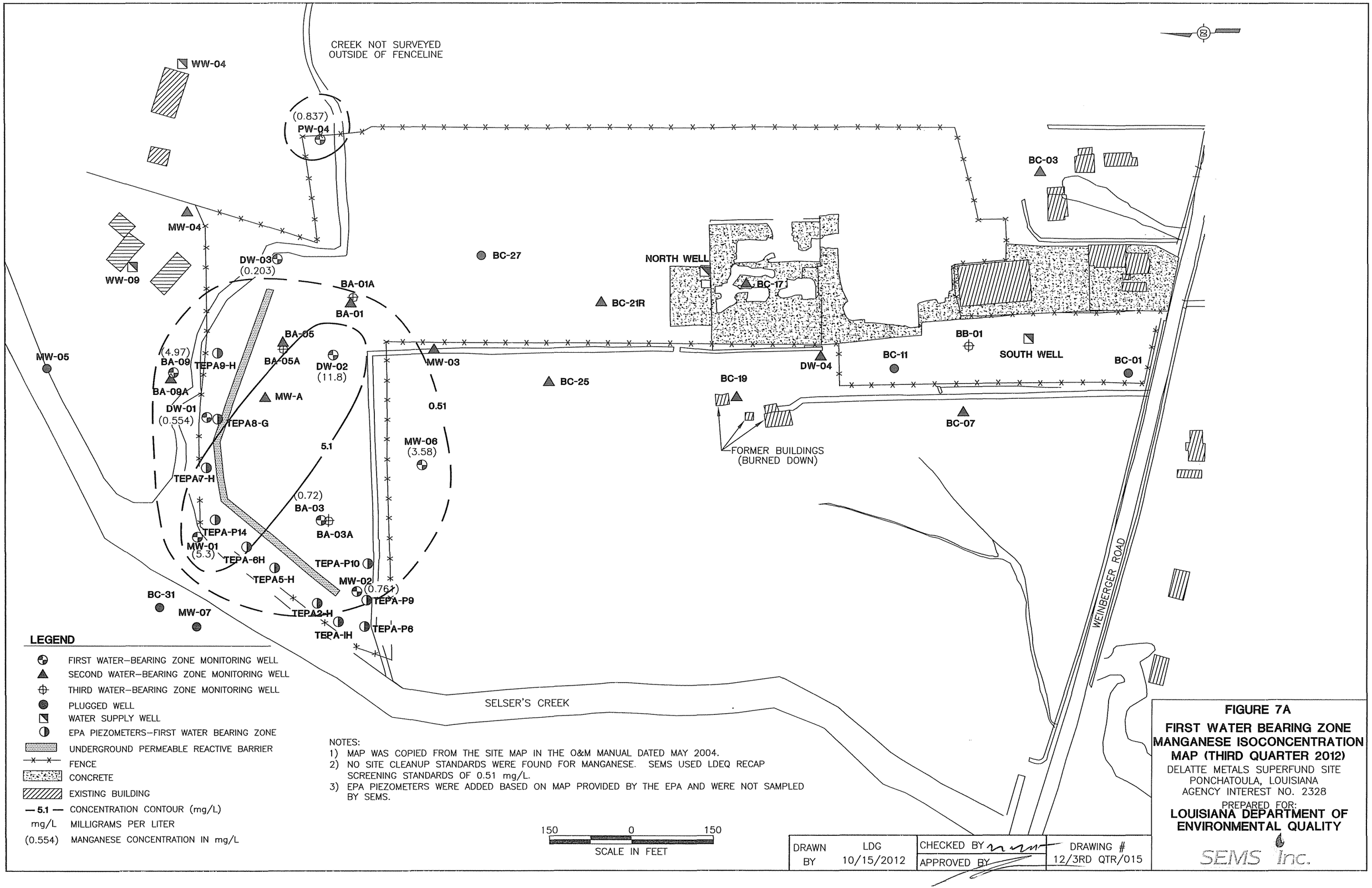
DRAWN BY	LDG 10/12/2012	CHECKED BY / APPROVED BY	DRAWING # 12/3RD QTR/008

FIGURE 6B
SECOND WATER BEARING ZONE
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
PW-04
MW-04
WW-09
DW-03
BA-01A
(0.000708)
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
(0.00114)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(0.0054)
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.0025)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.0025) LEAD CONCENTRATION IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE SITE CLEANUP STANDARDS FOR LEAD
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/12/2012
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/009
FIGURE 6C
THIRD WATER BEARING ZONE
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
(0.000568)
WW-04
PW-04
MW-04
WW-09
(0.00104)
DW-03
BA-01A
BA-01
BC-27
(0.00205)
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
(<0.001)
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
0.015 CONCENTRATION CONTOUR (mg/L)
mg/L MILLIGRAMS PER LITER
(0.000568) LEAD CONCENTRATION IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE SITE CLEANUP STANDARDS FOR LEAD.
4. THE LEAD CONCENTRATION FOR THE (b) (6) WELL WAS 0.00226 mg/L.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/15/2012
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/010
FIGURE 6D
WATER WELL
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(0.837)
PW-04
MW-04
WW-09
DW-03
(0.203)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BB-01
SOUTH WELL
BC-11
BC-01
DW-04
MW-05
(4.97)
BA-09
TEPA9-H
BA-09A
BA-05
BA-05A
DW-02
(11.8)
MW-03
BC-25
BC-19
MW-A
DW-01
(0.554)
TEPA8-G
0.51
5.1
MW-06
(3.58)
BC-07
FORMER BUILDINGS
(BURNED DOWN)
TEPA7-H
(0.72)
BA-03
BA-03A
TEPA-P14
MW-01
(5.3)
TEPA-6H
TEPA-P10
TEPA5-H
MW-02
(0.761)
TEPA-P9
BC-31
MW-07
TEPA2-H
TEPA-P6
TEPA-1H
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
EPA PIEZOMETERS-FIRST WATER BEARING ZONE
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
5.1 CONCENTRATION CONTOUR (mg/L)
mg/L MILLIGRAMS PER LITER
(0.554) MANGANESE CONCENTRATION IN mg/L
NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.51 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/15/2012
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/015
FIGURE 7A
FIRST WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
(<0.002)
WW-09
DW-03
BA-01A
BA-01
(1.52)
(10.1)
BA-05
5.1
BA-05A
DW-02
0.51
MW-05
BA-09
BA-09A
(<0.002)
DW-01
MW-A
(0.00715)
MW-03
(0.722)
BC-27
(0.00882)
BC-21R
NORTH WELL
BC-17
(0.279)
BC-25
(0.181)
(0.0266)
BC-19
DW-04
(0.0543)
BC-11
BB-01
SOUTH WELL
BC-01
(0.021)
BC-03
BC-07
(0.0655)
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- 0.51 CONCENTRATION CONTOUR
- mg/L MILLIGRAMS PER LITER
- (0.0543) MANGANESE CONCETRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.51 mg/L

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/15/2012	CHECKED BY / APPROVED BY	DRAWING # 12/3RD QTR/016

FIGURE 7B
SECOND WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
(0.038)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
(0.0358)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(0.0038)
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.0363)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.0363) MANGANESE CONCENTRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.51 mg/L
3. NO WELLS SAMPLED EXCEEDING THE LDEQ SCREENING STANDARDS FOR MANGANESE

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/15/2012	CHECKED BY / APPROVED BY	DRAWING # 12/3RD QTR/017

FIGURE 7C
THIRD WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
(0.00319)

PW-04

MW-04

WW-09
(0.018)

DW-03

BA-01A

BA-01

BC-27

BC-21R

(0.00676)
NORTH WELL

BC-17

BC-03

BA-05

BA-05A

DW-02

MW-05

BA-09

BA-09A

DW-01

MW-A

MW-03

BC-25

BC-19

DW-04

BC-11

BB-01

SOUTH WELL
(0.0039)

BC-01

BC-07

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.00299) MANGANESE CONCENTRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.51 mg/L.
3. NO WELLS SAMPLED EXCEEDING THE LDEQ SCREENING STANDARDS FOR MANGANESE.
4. THE MANGANESE CONCENTRATION FOR THE (b) (6) WELL WAS 0.0233 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/15/2012	CHECKED BY	DRAWING #
		APPROVED BY	~~12/3RD~~ QTR/018

FIGURE 7D
WATER WELL MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2012)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(0.0193)
PW-04

MW-04

WW-09

DW-03
(0.00942)

BA-01A

BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

0.073

(0.223)
BA-09

TEPA9-H

BA-05

BA-05A

DW-02
(0.594)

MW-05

MW-03

BC-25

DW-04

BC-11

BB-01

SOUTH WELL

BC-01

BA-09A

MW-A

DW-01
(0.00736)

TEPA8-G

BC-19

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

MW-06
(0.041)

0.073

TEPA-P14

BA-03
(0.0256)

BA-03A

MW-01
(0.232)

TEPA-6H

TEPA-P10

TEPA2-H

MW-02
(0.0516)

TEPA-P9

BC-31

TEPA2-H

MW-07

TEPA-1H

TEPA-P6

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- 0.073 CONCENTRATION CONTOUR (mg/L)
- mg/L MILLIGRAMS PER LITER
- (0.00736) NICKEL CONCENTRATION IN mg/L

NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/15/2012	CHECKED BY / APPROVED BY	DRAWING # 12/~~3RD~~ QTR/019

FIGURE 8A

FIRST WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2012)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(0.000506)

WW-09

DW-03

BA-01A

BA-01
(0.0602)

(0.0404)
BA-05

0.073

BA-05A

DW-02

MW-05

BA-09

BA-09A
(<0.002)

DW-01

MW-A
(0.00118)

MW-01

BA-03

BA-03A

MW-02

BC-31

MW-07

MW-06

BC-27

MW-03
(0.00529)

BC-25
(0.00203)

BC-21R
(0.00214)

NORTH WELL

BC-17
(<0.00186)

(0.00478)
BC-19

DW-04
(0.00428)

FORMER BUILDINGS
(BURNED DOWN)

BC-11

BB-01

SOUTH WELL

BC-01

(<0.001)
BC-03

BC-07
(0.00429)

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.00428) NICKEL CONCENTRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARD WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR NICKEL.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/16/12	CHECKED BY	DRAWING # 12/3RD QTR/020
		APPROVED BY	

FIGURE 8B
SECOND WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2012)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
(0.000448)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
(0.000613)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(0.00144)
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.00125)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.00125) NICKEL CONCENTRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARD WERE FOUND FROM NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR NICKEL

150 0 150
SCALE IN FEET

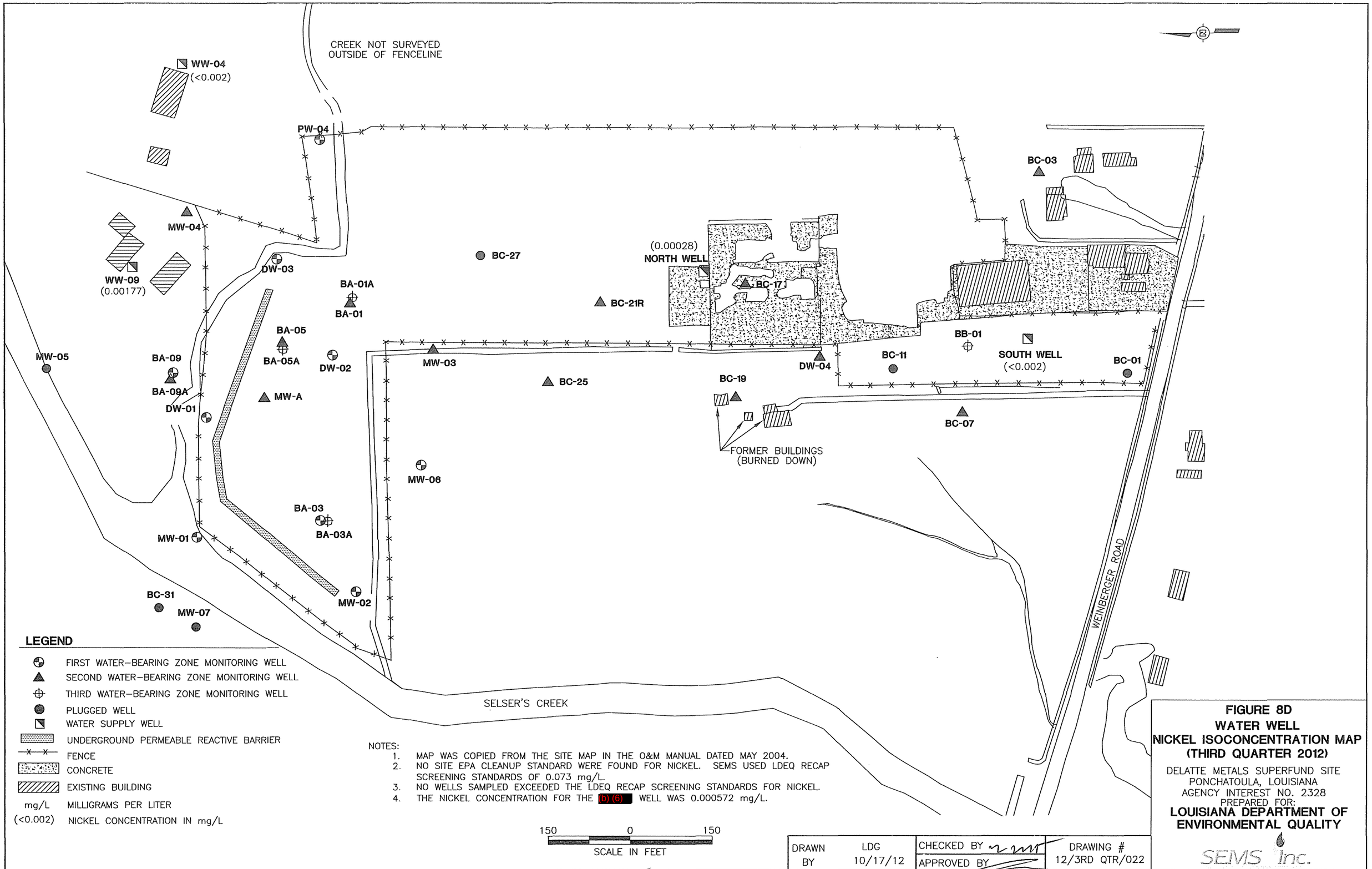
DRAWN BY	LDG 10/16/12	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/021

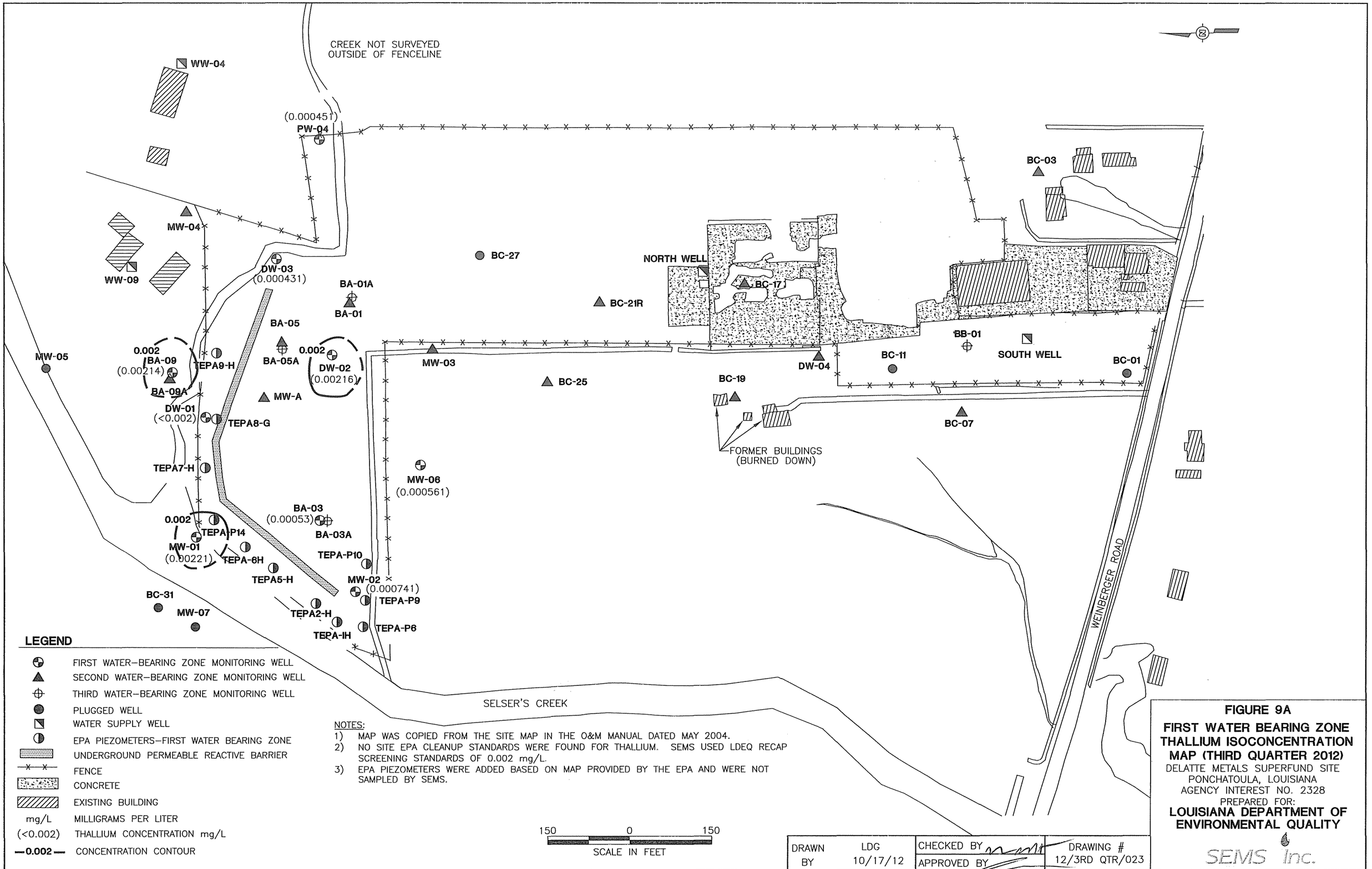
FIGURE 8C
THIRD WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2012)

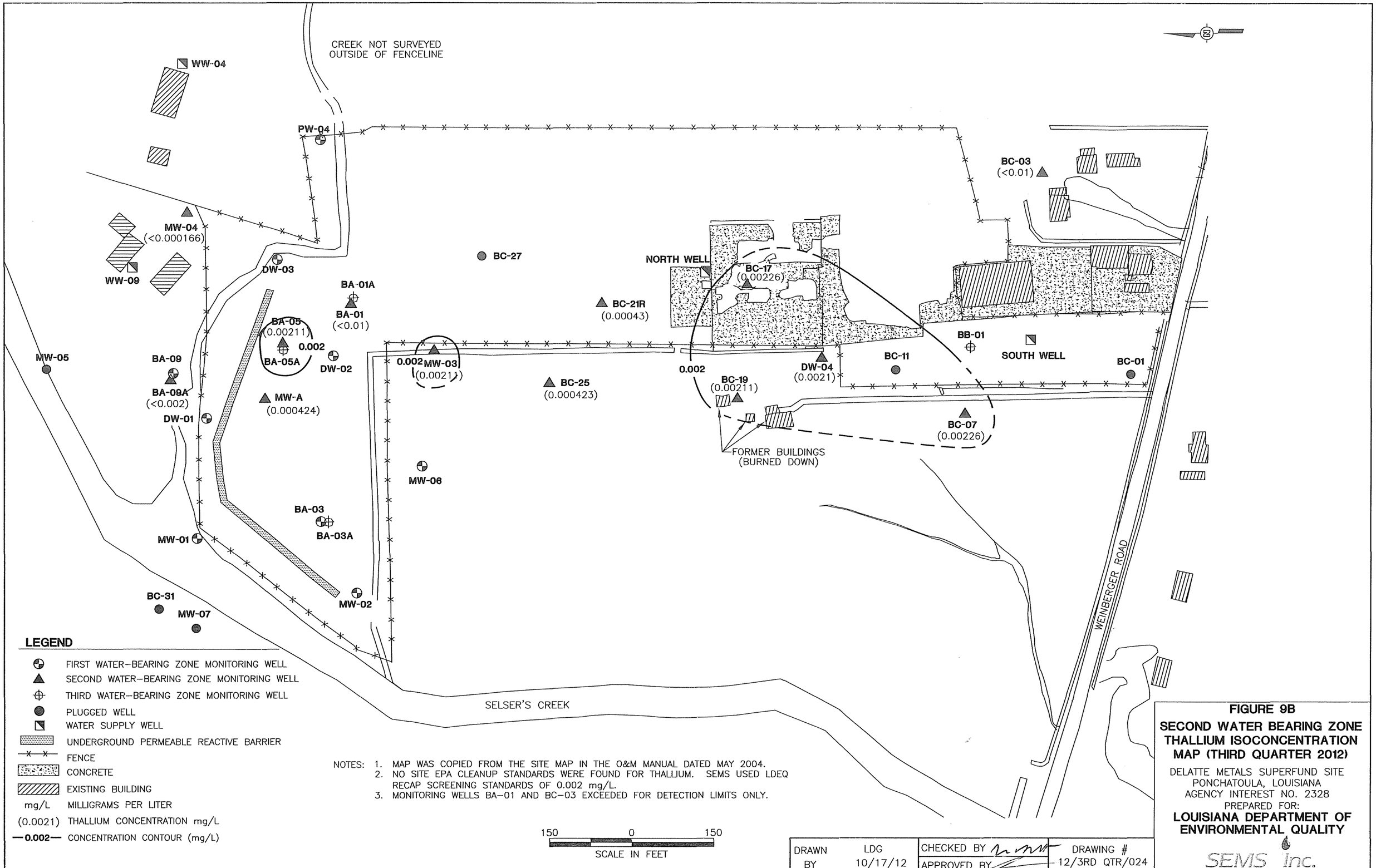
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(<0.002)
PW-04
MW-04
WW-09
(0.00177)
DW-03
BA-01A
BA-01
BC-27
(0.00028)
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
(<0.002)
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(<0.002) NICKEL CONCENTRATION IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARD WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR NICKEL.
4. THE NICKEL CONCENTRATION FOR THE (b) (6) WELL WAS 0.000572 mg/L.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/17/12
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/022
FIGURE 8D
WATER WELL
NICKEL ISOCONCENTRATION MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(0.000451)
PW-04
MW-04
WW-09
DW-03
(0.000431)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
0.002
DW-02
(0.00216)
MW-05
0.002
BA-09
(0.00214)
TEPA9-H
BA-09A
MW-A
DW-01
(<0.002)
TEPA8-G
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
TEPA7-H
MW-06
(0.000561)
BA-03
(0.00053)
BA-03A
0.002
TEPA-P14
MW-01
(0.00221)
TEPA-6H
TEPA-P10
TEPA5-H
MW-02
(0.000741)
TEPA-P9
BC-31
MW-07
TEPA2-H
TEPA-IH
TEPA-P6
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
EPA PIEZOMETERS-FIRST WATER BEARING ZONE
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(<0.002) THALLIUM CONCENTRATION mg/L
0.002 CONCENTRATION CONTOUR
NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.002 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/17/12
CHECKED BY
APPROVED BY
DRAWING # 12/3RD QTR/023
FIGURE 9A
FIRST WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.



LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (0.0021) — THALLIUM CONCENTRATION mg/L
- —0.002— CONCENTRATION CONTOUR (mg/L)

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.002 mg/L.
3. MONITORING WELLS BA-01 AND BC-03 EXCEEDED FOR DETECTION LIMITS ONLY.

DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/024

FIGURE 9B

SECOND WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2012)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
(0.000422)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
(0.000421)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
(0.000424)
SOUTH WELL
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.000424)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.000424) THALLIUM CONCENTRATION mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SS OF 0.002 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARD FOR THALLIUM.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/025

FIGURE 9C
THIRD WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2012)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
(0.000423)

PW-04

MW-04

WW-09
(0.000427)

DW-03

BA-01A

BA-01

BC-27

BC-21R

(0.000421)
NORTH WELL

BC-17

BC-03

BA-05

BA-05A

DW-02

MW-05

BA-09

BA-09A

DW-01

MW-A

MW-03

BC-25

BC-19

DW-04

BC-11

BB-01

SOUTH WELL
(<0.002)

BC-01

BC-07

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.000423) THALLIUM CONCENTRATION mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.002 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ SCREENING STANDARDS FOR THALLIUM.
4. THE THALLIUM CONCENTRATIONS FOR THE (b) (6) WELL IS 0.000426 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 07/02/12	CHECKED BY	DRAWING #
		APPROVED BY	12/2ND QTR/026

FIGURE 9D
WATER WELLS
THALLIUM ISOCONCENTRATION MAP (SECOND QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(0.0514)
PW-04

MW-04

WW-09

DW-03
(0.02)

BC-27

NORTH WELL

BC-17

BC-21R

BA-01A

BA-01

BA-05

DW-02
(1.49)

TEPA9-H

(0.3)
BA-09

BA-05A

MW-05

BA-09A

MW-A

DW-01
(0.0169)

TEPA8-G

1.1

MW-03

BC-25

BC-19

DW-04

BC-11

BB-01

SOUTH WELL

BC-01

BC-03

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

TEPA-P14

MW-06
(0.143)

BA-03
(0.101)

BA-03A

MW-01
(0.3)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(0.16)

TEPA-P9

BC-31

MW-07

TEPA2-H

TEPA-1H

TEPA-P6

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.0169) ZINC CONCENTRATION IN mg/L
- —1.1— CONCENTRATION CONTOUR IN mg/L
- mg/L MILLIGRAMS PER LITER

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING # 12/3RD QTR/028
		APPROVED BY	

FIGURE 10A
FIRST WATER BEARING ZONE ZINC CONTOUR MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(0.00547)

WW-09

DW-03

BC-27

NORTH WELL

BC-17
(<0.05)

(<0.05)
BC-03

BA-01A

BA-01
(<0.0839)

BC-21R
(0.00469)

(0.0132)
BA-05

BA-05A

DW-02

MW-05

BA-09

BA-09A
(0.145)

DW-01

MW-A
(0.00595)

MW-03
(0.0256)

BC-25
(0.00972)

(0.0154)
BC-19

DW-04
(0.0185)

BC-11

BB-01

SOUTH WELL

BC-01

BC-07
(0.00996)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.0185) ZINC CONCETRATIONS IN mg/L
- mg/L MILLIGRAMS PER LITER

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARD FOR ZINC.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING #
		APPROVED BY	12/3RD QTR/029

FIGURE 10B
SECOND WATER BEARING ZONE
ZINC COUNTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04
WW-09
DW-03
BC-27
NORTH WELL
BC-17
BC-21R
BA-01
BA-01A
(0.00455)
BA-05
BA-05A
(0.00816)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
BC-19
DW-04
BC-11
(0.00811)
BB-01
SOUTH WELL
BC-01
BC-03
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.0106)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.0106) ZINC CONCETRATIONS IN mg/L
- mg/L MILLIGRAMS PER LITER

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) NO WELLLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ZINC.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING #
		APPROVED BY	~~12/~~3RD QTR/030

FIGURE 10C
THIRD WATER BEARING ZONE ZINC CONTOUR MAP (THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

(0.00376)
WW-04

PW-04

MW-04

WW-09
(0.00823)

DW-03

BC-27

(0.00529)
NORTH WELL

BC-17

BC-21R

BA-01A

BA-01

BA-05

BA-05A

DW-02

MW-05

BA-09

BA-09A

DW-01

MW-A

MW-03

BC-25

BC-19

DW-04

BC-11

BB-01

SOUTH WELL
(<0.013)

BC-01

BC-07

BC-03

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.00376) ZINC CONCETRATIONS IN mg/L
- mg/L MILLIGRAMS PER LITER

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) NO WELLLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ZINC.
4) THE ZINC CONCENTRATION FOR THE (b) (6) WELL WAS 0.0425 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/17/12	CHECKED BY	DRAWING # 12/3RD QTR/031
		APPROVED BY	

FIGURE 10D
WATER WELL
ZINC CONTOUR MAP
(THIRD QUARTER 2012)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

ATTACHMENT A

FIELD DATA SHEETS & WASTE MANIFESTS

DELATTE METALS SUPERFUND SITE OPERATION AND MAINTENANCE ACTIVITY LOG

PROJECT GENERAL INFORMATION

Client: LDEQ

Date: 8/20 - 8/22, 8/24

Facility #: Delatte Metals Superfund Site

Activities: Notify facility of arrival. Inspect facility monitoring wells and PRB for integrity. Gauge, and sample appropriate wells.

Address: Weinberger Road, Ponchatoula, LA

Project #: 207-0016

SEMS ACTIVITY DOCUMENTATION (Continued On Back)

Time (Military)	Notes & Observations
Arrived : (7:30)	Notified facility personnel of arrival : (YES) NO Have H&S plan : (YES) NO
	Potentiometric data collection procedures: Locate monitoring wells, open to allow for water level equilibration, inspect/document well integrity, measure total well depth, measure depth-to-water (to 0.00'). Measure wells from least contaminated to most contaminated. Well purging procedures: Use low flow micro purge methods and monitor water quality characteristics. When water quality characteristics stabilize record characteristics and collect sample. Transport purge water to on-site 55-gallon drums for containment and disposal. Groundwater sample collection procedures: Collect samples with dedicated well equipment by low flow micro purge methods after water quality characteristics have stabilized. Transfer samples to a proper container (on ice) for transport to the designated lab for analyses. Ship samples for overnight delivery, with completed chain-of-custody documentation. Sample wells in the same order as they were purged.
Departed : (16:00)	

SEMS EQUIPMENT & MATERIALS USED

Task	Description	Accounting Code	Unit	Quantity
005	Operation, maintenance and related activities per well.		well	31
0006	Return to grade area of PRB		yards	—
00007	Well labels		each	—
00008	Well Locks		each	4
00009	Concrete Pad		each	—
00010	Well cover		each	—

SEMS PERSONNEL INFORMATION

Employee Name: Nick Rodehorst

Employee Signature: [signature]

SEMS, Inc.

DELATTE METALS SUPERFUND SITE OPERATION AND MAINTENANCE ACTIVITY LOG

SEMS EQUIPMENT & MATERIALS USED

Task	Description	Accounting Code	Unit	Quantity
00011	Repainting		well	—
00012	Post Replacement		each	—
00013	Clearing access to wells		event	1
00014	Characterization, profiling related to disposal		event	—
00015	Disposal of decon water and purge water, Haz		gallon	—
00016	Disposal of decon water and purge water, Non-Haz		gallon	—
00017	Disposal of PPE, and sampling equipment, Haz		drum	—
00018	Disposal of PPE, and sampling equipment, Non-Haz		drum	—

Employee Name: Nick Rodehorst Employee Signature:

SEMS, Inc.

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company: SEMS, INC

Date: 8/20/2012 Time: 7:30 Job Number: 490-0066

Customer: LDEQ Address: Weinberger Rd, Ponchatoula, LA

Job Location: Ponchatoula, LA

Type of Work: Groundwater Sampling

Protective Clothing/Equipment: Level D (gloves, long pants, safety boots)

SAFETY TOPICS

Chemical Hazards: Metals and Low pH (acidic groundwater)

Physical Hazards: Heat, bees/hornets, snakes, blades

Emergency Procedures: First Aid, Call 911 and proceed to hospital. Meet at front entrance if problems occur.

Hospital/Clinic: North Oaks Hospital Phone: (985) 345-2700

Hospital Address: 15790 Paul Vega Dr. Hammond, LA

Special Equipment: Level D

Other:

ATTENDEES

NAME PRINTED	SIGNATURE
Nick Rodeberg	[signature]
LANCE MEAUX	[signature]
SITE SUPERVISOR	SIGNATURE

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company SEMS, INC

Date 8/21/2012 Time 7:30 Job Number 490-0066

Customer LDEQ Address Weinberger Rd, Ponchatoula, LA

Job Location Ponchatoula, LA

Type of Work Groundwater Sampling

Protective Clothing/Equipment Level D (gloves, long pants, safety boots)

SAFETY TOPICS

Chemical Hazards Metals and Low pH (acidic groundwater)

Physical Hazards Heat, bees/hornets, snakes, blades

Emergency Procedures First Aid, Call 911 and proceed to hospital. Meet at front entrance if problems occur.

Hospital/Clinic North Oaks Hospital Phone (985) 345-2700

Hospital Address 15790 Paul Vega Dr. Hammond, LA

Special Equipment Level D

Other

ATTENDEES

NAME PRINTED	SIGNATURE
Nick Rockhouse	[signature]
LANCE MEAUX	[signature]
SITE SUPERVISOR	SIGNATURE

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company: SEMS, INC

Date: 8/22/2012 Time: 7:45 Job Number: 490-0066

Customer: LDEQ Address: Weinberger Rd, Ponchatoula, LA

Job Location: Ponchatoula, LA

Type of Work: Groundwater Sampling

Protective Clothing/Equipment: Level D (gloves, long pants, safety boots)

SAFETY TOPICS

Chemical Hazards: Metals and Low pH (acidic groundwater)

Physical Hazards: Heat, bees/hornets, snakes, blades

Emergency Procedures: First Aid, Call 911 and proceed to hospital. Meet at front entrance if problems occur.

Hospital/Clinic: North Oaks Hospital Phone: (985) 345-2700

Hospital Address: 15790 Paul Vega Dr. Hammond, LA

Special Equipment: Level D

Other:

ATTENDEES

NAME PRINTED	SIGNATURE
Guy Guinot	
Nick Rodeheaver	

SITE SUPERVISOR SIGNATURE

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company: SEMS, INC

Date: 8/24/2012 Time: 10:00 Job Number: 490-0066

Customer: LDEQ Address: Weinberger Rd, Ponchatoula, LA

Job Location: Ponchatoula, LA

Type of Work: Groundwater Sampling

Protective Clothing/Equipment: Level D (gloves, long pants, safety boots)

SAFETY TOPICS

Chemical Hazards: Metals and Low pH (acidic groundwater)

Physical Hazards: Heat, bees/hornets, snakes, blades

Emergency Procedures: First Aid, Call 911 and proceed to hospital. Meet at front entrance if problems occur.

Hospital/Clinic: North Oaks Hospital Phone: (985) 345-2700

Hospital Address: 15790 Paul Vega Dr. Hammond, LA

Special Equipment: Level D

Other:

ATTENDEES

NAME PRINTED	SIGNATURE
Nick Prochaska	
LANCE MEAUX	

SITE SUPERVISOR SIGNATURE

Delatte Metals O&M QA/QC Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rodehorst
Lance Meaux
Guy Guinot

MS/MSD (Every 20 Samples)
Field Duplicate (Every 10 Samples)

MS/ MSD	Field Duplicate	Sample ID on COC	Sample Location ID of Original Sample (Field Duplicate)	Date	Time	Notes
	X	Duplicate #1	BB-01	8/20	14:09	
	X	Duplicate #2	BA-01 A	8/21/12	8:49	
	X	Duplicate #3	MW-A	8/21	14:11	
	X	Duplicate #4	MW-2	8/22	9:46	
X		MS/MSD #1	BC-17	8/20	14:55	
X		MS/MSD #2	BC-07	8/22	10:23	

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rodehorst
Lance Meaux
Guy Guinot

Well No.	Date Inspected	Wells Labeled	Wells Locked	Post Condition	Paint Needed	Pad Condition	Well Access	Standing/ Ponded Water	Collision Damage	Frost Heaving	Casing Degradation	Well Subsidence	Photos Taken	Notes
BA-09A	8/20/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
BA-09		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
MW-4		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
WW-09		—	—	—	—	—	✓	No	No	No	No	No	X	
WW-04		—	—	—	—	—	✓	No	No	No	No	No	X	
Reagan Well		—	—	—	—	—	✓	No	No	No	No	No	X	
BC-03		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
BC-07	8/22/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
DW-04	8/24/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
BC-19	8/24/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
BC-25	8/22/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
MW-3	8/24/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rodehorst
Lane Meaux
Guy Guinot

Well No.	Date Inspected	Wells Labeled	Wells Locked	Post Condition	Paint Needed	Pad Condition	Well Access	Standing/ Ponded Water	Collision Damage	Frost Heaving	Casing Degradation	Well Subsidence	Photos Taken	Notes
MW-6	8/24/12	✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	
BB-01	8/20/12	✓	✓	—	NO	✓	✓	NO	NO	NO	NO	NO	X	Replaced Lock
South Well		—	—	—	—	—	✓	NO	NO	NO	NO	NO	X	
BC-17		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	Replaced Lock
North Well		—	—	—	—	—	✓	NO	NO	NO	NO	NO	X	
BC-21R	8/21/12	✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	Replaced Lock
BA-01A		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	Replaced Lock
BA-01		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	
DW-3		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	
PW-4		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	
DW-2		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	
BA-05A		✓	✓	✓	NO	✓	✓	NO	NO	NO	NO	NO	X	

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rockhorst
Lance Meaux
Guy Guinot

Well No.	Date Inspected	Wells Labeled	Wells Locked	Post Condition	Paint Needed	Pad Condition	Well Access	Standing/ Ponded Water	Collision Damage	Frost Heaving	Casing Degradation	Well Subsidence	Photos Taken	Notes
BA-05	8/21/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
MW-A		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
DW-01		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
MW-01		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
BA-03A	8/22/12	✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
BA-03		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	
MW-2		✓	✓	✓	No	✓	✓	No	No	No	No	No	X	

Delatte Metals O&M PRB Inspection Checklist

SEMS Project #: 207-0016

Field Crew: Nick Rockhorst, Lance Meaux, Guy Guinot

Date Inspected 8/21/2012

Is the soil overlying the PRB cracked, eroded, or show any other pathways that could allow for surface water to enter the subsurface?	
PRB Cleared	Yes
PRB Accessible	Yes
PRB Cracks Identified	No
PRB Erosion Identified	No
Photos Taken	NO

NOTES:

Ground is saturated around the PRB due to heavy rains.

PRB=Permeable reactive barrier

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-09 A
Date Purged/Sampled: 8/20/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 42.0 ft.
Static Depth to Groundwater (DTW): 1.80 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 31.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: 1 gallons
Date/Time of Sample: 8/20 @923 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
915	240 mL/min	—	—	—	—	—	—	1.80
920	"	22.09	0.257	0.48	6.46	-54	15.0	2.33
923	"	21.97	0.254	0.29	6.55	-60	8.0	4.09
926	"	21.90	0.254	0.29	6.54	-66	6.8	4.52
929	"	21.86	0.254	0.27	6.57	-70	6.5	4.92

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-09
Date Purged/Sampled: 8/20/12 Sampled By: LM/KR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18 ft.
Static Depth to Groundwater (DTW): ____ ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 7.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: 1 gallons
Date/Time of Sample: 8/20 @ 952 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
935	240	—	—	—	—	—	—	8.56
940	"	23.48	3.85	0.38	3.30	-22	7.6	8.83
943	"	23.22	3.85	0.30	3.30	-57	4.8	8.83
946	"	23.13	3.86	0.27	3.30	-71	4.0	"
949	"	23.12	3.86	0.26	3.28	-79	3.3	"
952	"	23.10	3.85	0.25	3.27	-85	3.8	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-4
Date Purged/Sampled: 8/20/12 Sampled By: LM/MR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 24 ft.
Static Depth to Groundwater (DTW): 15.62 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 13.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: 1 gallons
Date/Time of Sample: 8/20 @1014 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
957	270	–	–	–	–	–	–	15.62
1002	"	21.48	0.347	1.29	6.00	-148	10.5	16.94
1005	"	21.50	0.344	1.35	6.06	-143	8.1	17.01
1008	"	21.46	0.344	1.33	6.13	-133	8.6	17.18
1011	"	21.39	0.345	1.31	6.15	-126	10.4	17.25
1014	"	21.43	0.345	1.31	6.19	-120	15.8	17.35

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	✓

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: WW-09
Date Purged/Sampled: 8/20/12 Sampled By: Im / NA

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 60 ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: NA mL/min
Volume Purged: NA gallons
Date/Time of Sample: 8/20 @1035 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☒ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1015	—	—	—	—	—	—	—	—
1035	—	24.41	0.275	4.44	7.81	-162	5.0	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: WW-04
Date Purged/Sampled: 8/20/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: NA mL/min
Volume Purged: NA gallons
Date/Time of Sample: 8/20 @1110 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☒ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/-1°C	+/-3%	+/-10%	+/-0.1	+/-10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1050	—	—	—	—	—	—	—	—
1110	—	21.84	0.284	1.75	8.47	-180	7.2	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: Reagan Well
Date Purged/Sampled: 8/20/12 Sampled By: LBM/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: NA mL/min
Volume Purged: NA gallons
Date/Time of Sample: 8/20@1126 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☒ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
1106	—	—	—	—	—	—	—	—
1126	—	21.69	0.279	2.47	8.11	-163	3.7	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-03
Date Purged/Sampled: 8/20/12 Sampled By: LM/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.0 ft.
Static Depth to Groundwater (DTW): 6.94 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 17.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/20 @ 1203 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1143	270	—	—	—	—	—	—	6.94
1148	〃	24.68	3.46	0.40	7.33	-186	5.0	8.21
1151	〃	24.68	3.45	0.27	7.27	-176	1.7	8.79
1154	〃	24.81	3.45	0.24	7.16	-171	2.2	9.19
1157	〃	24.75	3.46	0.22	7.10	-164	1.0	9.45
1200	〃	24.45	3.45	0.23	7.05	-154	3.0	9.56
1203	〃	24.40	3.45	0.23	7.02	-150	3.3	9.66

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BB-01
Date Purged/Sampled: 8/20/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 96.0 ft.
Static Depth to Groundwater (DTW): 3.65 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 85.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: 1 gallons
Date/Time of Sample: 8/20 @ 1409 Time

WELL CASING VOLUME CALCULATIONS

[x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
[ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
[ ] Other: ____

PURGING METHOD

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Water Well
[ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Bailer [ ] Dedicated [ ] Disposable
[ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1355	240	—	—	—	—	—	—	~~3.65~~ 3.6
1400	"	25.16	0.291	0.34	9.99	-263	6.8	3.85
1403	"	25.13	0.292	0.30	9.96	-256	6.1	3.90
1406	"	25.05	0.292	0.29	9.97	-251	4.4	3.93
1409	"	24.98	0.293	0.28	9.95	-242	4.7	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

Dup #1
Replaced lock

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: South Well
Date Purged/Sampled: 8/20/12 Sampled By: LM/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: NA mL/min
Volume Purged: NA gallons
Date/Time of Sample: 8/20 @1420 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1400	—	—	—	—	—	—	—	—
1420	—	22.95	0.236	1.66	9.33	-230	2.8	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-17
Date Purged/Sampled: 8/20/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 25.0 ft.
Static Depth to Groundwater (DTW): 5.88 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 17.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/20 @1455 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1435	240	—	—	—	—	—	—	5.88
1440	200	26.37	2.32	0.31	6.95	-145	0.2	8.31
1443	"	26.55	2.32	0.25	6.91	-144	1.8	8.85
1446	"	26.40	2.32	0.20	6.88	-142	1.5	9.54
1449	"	26.27	2.32	0.17	6.87	-140	1.6	10.59
1452	"	26.22	2.32	0.16	6.85	-140	2.9	11.10
1455	"	26.17	2.32	0.16	6.84	-140	1.7	11.20

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

MS/MD #1
CHANGED LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: North Well
Date Purged/Sampled: 8/20/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: NA mL/min
Volume Purged: NA gallons
Date/Time of Sample: 8/20@1458 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1438	—	—	—	—	—	—	—	—
1458	—	24.24	0.282	1.16	8.88	-256	1.2	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-21R
Date Purged/Sampled: 8/21/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 17.5 ft.
Static Depth to Groundwater (DTW): 7.64 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 12.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @ ____ Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [✓] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [✓] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
807	240	—	—	—	—	—	—	7.64
8:12	"	24.87	1.385	0.46	6.44	294	5.2	8.95
8:15	"	24.42	1.383	0.38	6.47	372	0.7	9.31
8:20	"	24.08	1.381	0.36	6.47	397	0.3	9.50
8:23	"	23.68	1.377	0.37	6.47	393	0.2	9.55

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

CHANGED LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-01A
Date Purged/Sampled: 8/21/12 Sampled By: lsm / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 46.0 ft.
Static Depth to Groundwater (DTW): 5.50 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 35.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @849 Time

WELL CASING VOLUME CALCULATIONS

[X] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
[ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
[ ] Other: ____

PURGING METHOD

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Water Well
[ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Bailer [ ] Dedicated [ ] Disposable
[ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
838	270	—	—	—	—	—	—	5.50
843	"	23.43	0.265	0.18	7.23	-49	1.7	7.00
846	"	23.39	0.261	0.18	7.23	-62	2.1	7.49
849	"	23.35	0.201	0.19	7.23	-72	1.3	7.88

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

Changed Lock
Dup #2

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-01
Date Purged/Sampled: 8/21/12 Sampled By: LM NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 26.0 ft.
Static Depth to Groundwater (DTW): 7.49 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 15.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @ 915 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
855	240	—	—	—	—	—	—	7.49
900	"	24.19	2.75	0.32	5.62	-72	30.0	8.70
905	"	23.62	2.80	0.25	5.54	-71	21.6	9.24
910	"	23.68	2.77	0.24	5.53	-68	6.1	9.09
915	"	23.61	2.73	0.23	5.54	-73	7.2	9.30
920	"							

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-03
Date Purged/Sampled: 5/21/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 16 ft.
Static Depth to Groundwater (DTW): 5.77 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 5.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 5/21 @ 955 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
935	240	—	—	—	—	—	—	5.77
940	"	24.81	0.249	0.30	4.36	-152	4.5	5.90
943	"	24.67	0.253	0.24	4.36	-164	2.8	5.90
946	"	24.57	0.272	0.22	4.36	-170	2.5	"
949	"	24.52	0.283	0.20	4.37	-176	2.2	"
952	"	24.48	0.290	0.20	4.37	-179	3.1	"
955	"	24.46	0.291	0.20	4.38	-181	2.7	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: PW-04
Date Purged/Sampled: 8/21/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 19.5 ft.
Static Depth to Groundwater (DTW): 5.56 ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @1022 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1002	270	—	—	—	—	—	—	5.56
1007	"	23.63	0.528	0.23	3.89	-108	0.2	6.11
1010	"	23.53	0.549	0.20	3.82	-103	1.0	6.12
1013	"	23.41	0.560	0.18	3.79	-97	0.7	"
1016	"	23.35	0.584	0.17	3.74	-93	1.2	"
1019	"	23.33	0.602	0.17	3.72	-90	1.6	"
1022	"	23.33	0.610	0.16	3.72	-89	2.1	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

NEEDS LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-02
Date Purged/Sampled: 8/21/12 Sampled By: LM / MR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 11 ft.
Static Depth to Groundwater (DTW): 4.40 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 5.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @ 1049 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/-1°C	+/-3%	+/-10%	+/-0.1	+/-10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1035	300	—	—	—	—	—	—	4.40
1040	240	25.73	6.36	0.26	2.82	-19	13.0	4.50
1043	"	28.86	6.30	0.22	2.75	-13	5.3	4.50
1046	"	29.02	6.30	0.21	2.74	-12	2.9	4.50
1049	"	29.11	6.34	0.22	2.73	-10	1.6	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1 NEEDS LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: RA-05A
Date Purged/Sampled: 5/21/12 Sampled By: LM NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 54.0 ft.
Static Depth to Groundwater (DTW): 4.00 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 36.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 5/21 @ 1145 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [ ] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [ ] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
1131	240	–	–	–	–	–	–	4.00
1136	"	23.94	0.264	0.44	6.60	-197	6.5	7.00
1139	"	23.78	0.263	0.52	6.73	-200	4.6	8.04
1142	"	24.15	0.262	0.53	6.78	-199	6.4	–
1145	"	24.10	0.262	0.51	6.55	-193	2.7	8.49
1148	"	23.92	0.262	0.50	6.57	-194	1.6	8.74

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1 NEEDS LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-05
Date Purged/Sampled: 8/21/12 Sampled By: KN NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18.5 ft.
Static Depth to Groundwater (DTW): 5.10 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 8.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 200 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @ 1240 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1155	240	—	—	—	—	—	—	8.10
1200	"	27.27	5.79	0.37	5.63	-124	31.5	9.86
1205	"	26.62	5.85	0.90	6.14	-132	27.9	10.63
1210	"	25.42	6.09	0.23	5.85	-121	13.7	10.80
1215	"	25.06	6.17	0.19	5.85	-122	9.7	—
1220	"	24.45	5.91	0.18	5.92	-124	5.4	11.22
1225	200	24.35	5.72	0.15	5.78	-125	3.5	—
1230	"	24.60	5.61	0.18	5.76	-124	5.1	11.16
1235	"	24.57	5.38	0.18	5.75	-120	4.4	11.10
1240	"	25.07	5.36	0.18	5.73	-119	5.4	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

NEEDS LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-A
Date Purged/Sampled: 8/21/12 Sampled By: LM / MR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 27 ft.
Static Depth to Groundwater (DTW): 10.55 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 16.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @ 1411 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1400	240	–	–	–	–	–	–	10.55
1405	"	24.15	0.780	0.38	6.48	-87	5.7	11.80
1406	"	24.18	0.783	0.36	6.47	-85	4.6	"
1411	"	24.19	0.784	0.35	6.47	-84	4.6	11.77

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

DUP # 3
MEETS LOW

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-01
Date Purged/Sampled: 8/21/12 Sampled By: LM/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 19 ft.
Static Depth to Groundwater (DTW): 11.12 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 8.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @1450 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1424	240	—	—	—	—	—	—	11.12
1429	"	24.31	0.505	0.26	5.38	-46	21.5	11.57
1432	"	24.23	0.555	0.22	5.31	-69	17.0	11.60
1435	"	24.25	0.604	0.19	5.27	-89	17.1	"
1438	"	24.18	0.650	0.19	5.22	-110	16.0	"
1441	"	24.10	0.734	0.18	5.18	-121	16.6	"
1444	"	24.09	0.769	0.17	5.15	-126	16.0	"
1447	"	24.06	0.797	0.17	5.13	-132	15.4	"
1450	"	24.06	0.822	0.17	5.10	-135	16.0	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	✓

SHEET 1 OF 1

NEEDS LOCK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-01
Date Purged/Sampled: 8/21/12 Sampled By: LM / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 23.5 ft.
Static Depth to Groundwater (DTW): 13.52 ft.
Screen Length (SL) from Boring Logs: 15 ft.
Depth to Top of Well Screen (TD-SL): 13 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/21 @ 1511 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1500	240	—	—	—	—	—	—	13.52
1505	"	21.91	5.20	0.23	3.04	12	3.6	13.60
1508	"	21.94	5.21	0.22	3.02	5	3.3	"
1511	"	21.93	5.22	0.22	3.01	4	3.1	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

Needs Lock

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-03 A
Date Purged/Sampled: 8/22/12 Sampled By: NR / GG

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 100 ft.
Static Depth to Groundwater (DTW): 2.56 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 89.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 210 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/12 @ 828 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] Other: _____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:09	210	"	"	"	"	"	"	2.56
8:14	"	24.22	0.303	1.06	7.67	-274	62.4	2.60
8:17	"	24.51	0.299	0.77	7.92	-269	25.3	"
8:22	"	24.35	0.298	0.50	8.05	-268	10.3	"
8:25	"	24.24	0.298	0.34	8.08	-268	9.3	"
8:28	"	24.23	0.298	0.21	8.11	-269	7.4	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

Neal's Lock

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-03
Date Purged/Sampled: 8/22/12 Sampled By: NB/GG

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 13.5 ft.
Static Depth to Groundwater (DTW): 7.21 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 3 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/12 @ 9:08 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:34	270	—	—	—	—	—	—	7.21
8:39	"	28.05	0.111	2.32	5.22	0	21.8	7.26
8:44	"	28.20	0.157	2.34	4.99	41	15.2	"
8:49	"	28.31	0.274	2.33	4.67	80	11.7	"
8:54	"	28.39	0.373	2.29	4.43	106	12.3	"
8:59	"	28.37	0.432	2.31	4.34	121	11.2	"
9:02	"	28.41	0.476	2.27	4.28	133	10.8	"
9:05	"	28.43	0.492	2.30	4.24	143	10.2	"
9:08	"	28.39	0.513	2.30	4.22	146	9.7	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF ____

Needs Lock

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-2
Date Purged/Sampled: 8/22/2012 Sampled By: NB/GG

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 10.5 ft.
Static Depth to Groundwater (DTW): 7.42 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/12 @ 9:46 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] Other: _____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
9:17	270	—	—	—	—	—	—	7.42
9:22	"	27.88	0.850	0.26	3.42	39	2.6	8.44
9:27	"	27.57	0.922	0.24	3.35	75	4.5	"
9:30	"	27.56	0.936	0.22	3.20	99	3.6	"
9:35	"	27.47	0.964	0.19	3.08	121	2.3	"
9:40	"	27.51	0.997	0.16	3.03	155	1.9	"
9:43	"	27.53	1.008	0.16	3.02	164	1.4	"
9:46	"	27.57	1.029	0.16	3.01	169	1.7	

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

Dup. #4

SHEET 1 OF 1

Needs Lock

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: RC-07
Date Purged/Sampled: ~~[illegible]~~ 8/22/12 Sampled By: ~~[illegible]~~ NR/GG

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 15.5 ft.
Static Depth to Groundwater (DTW): ____ ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 5.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: ____ mL/min
Volume Purged: ____ gallons
Date/Time of Sample: ~~[illegible]~~ 8/22 @ 10:23 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
- [ ] Other: ____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:09	240	—	—	—	—	—	—	4.09
10:14	"	24.34	2.52	0.26	6.37	-94	1.2	5.86
10:17	"	24.23	2.53	0.21	6.42	-90	1.4	6.20
10:20	"	24.15	2.53	0.22	6.41	-84	2.4	6.48
10:23	"	24.03	2.53	0.22	6.43	-50	2.2	

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected		Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-25
Date Purged/Sampled: 8/22/12 Sampled By: NB/GG

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 32.0 ft.
Static Depth to Groundwater (DTW): 8.55 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 21.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 300 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/12 @ 10:55 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:44	300	—	—	—	—	—	—	8.55
10:49	"	21.74	0.790	0.17	6.27	-100	4.8	8.81
10:52	"	21.59	0.790	0.13	6.26	-97	2.8	8.81
10:55	"	21.50	0.791	0.12	6.24	-94	2.6	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-6
Date Purged/Sampled: 8/24/12 Sampled By: NR/LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 16.5 ft.
Static Depth to Groundwater (DTW): 9.03 ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 210 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24 @1337 Time

WELL CASING VOLUME CALCULATIONS

[X] 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
[ ] 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
[ ] Other: _____

PURGING METHOD

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Water Well
[ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Bailer [ ] Dedicated [ ] Disposable
[ ] Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
13:17	210	—	—	—	—	—	—	9.03
13:22	"	22.44	1.99	1.55	3.22	335	100	9.41
13:27	"	22.40	1.09	1.47	3.58	342	10.1	9.42
13:32	"	22.35	1.09	1.45	3.61	349	0.0	"
13:37	"	22.28	1.10	1.45	3.62	352	0.0	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-3
Date Purged/Sampled: 8/24/22 Sampled By: NR/LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 27.5 ft.
Static Depth to Groundwater (DTW): 7.70 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 17.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/24 @ 1250 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
12:30	240	—	—	—	—	—	—	7.70
12:35	"	22.44	2.18	1.82	7.24	-81	0.0	7.76
12:38	"	22.65	3.97	1.49	7.28	-86	0.0	9.05
12:41	"	22.66	4.80	1.28	7.47	-101	0.0	9.06
12:44	"	22.46	3.82	1.17	7.63	-111	0.0	9.07
12:47	"	22.29	4.18	1.12	7.63	-110	0.0	"
12:50	"	22.47	4.14	1.10	7.64	-112	0.0	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-19
Date Purged/Sampled: 8/24/12 Sampled By: NR/LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 22.5 ft.
Static Depth to Groundwater (DTW): 6.25 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 12.0 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24 @ 1135 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] Other: _____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/-1°C	+/-3%	+/-10%	+/-0.1	+/-10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
11:13	240	—	—	—	—	—	—	6.25
11:19	"	23.62	3.08	1.54	5.99	79	0.0	8.20
11:22	"	23.50	3.11	1.33	6.02	78	0.0	8.49
11:25	"	23.18	3.28	1.25	6.01	80	0.0	8.85
11:28	"	23.05	3.54	1.19	6.00	81	0.0	8.90
11:32	"	22.74	3.87	1.11	5.96	85	0.0	"
11:35	"	22.66	3.92	1.08	5.96	85	0.0	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-04
Date Purged/Sampled: 8/24/12 Sampled By: LM/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 38 ft.
Static Depth to Groundwater (DTW): 5.80 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 27.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 210 mL/min
Volume Purged: 2 gallons
Date/Time of Sample: 8/24 @1102 Time

WELL CASING VOLUME CALCULATIONS

[X] 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
[ ] 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
[ ] Other: ____

PURGING METHOD

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Water Well
[ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

[✓] Peristaltic Pump
[ ] Low-flow Submersible Pump
[ ] Bailer [ ] Dedicated [ ] Disposable
[ ] Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/-1°C	+/-3%	+/-10%	+/-0.1	+/-10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:30	210	—	—	—	—	—	—	5.80
10:35	"	22.53	2.41	1.84	6.62	22	0.0	6.75
10:38	"	22.58	3.77	1.45	6.65	26	0.0	6.79
10:44	"	22.50	3.90	1.37	6.64	27	0.0	6.80
10:47	"	22.38	3.43	1.27	6.60	32	0.0	"
10:50	"	22.41	3.04	1.24	6.57	33	0.0	"
10:53	"	22.30	2.83	1.22	6.54	36	0.0	"
10:56	"	22.29	2.40	1.17	6.48	41	0.0	"
10:59	"	22.30	2.29	1.15	6.48	41	0.0	"
11:02	"	22.28	2.18	1.13	6.42	43	0.0	"

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected		Dissolved Metals Collected	

SHEET 1 OF 1

ACCUTEST®
LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name:

Street Address:

City State Zip:

Project Contact E-mail:

Phone # Fax #:

Sampler(s) Name(s) Phone #:

Project Information

Project Name:

Street:

City State:

Project #:

Client Purchase Order #:

Project Manager:

Billing Information (if different from Report to)

Company Name:

Street Address:

City State Zip:

Attention:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals	Total Metals	Total Metals								LAB USE ONLY
	MW 2	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3				3									X		X								
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X										

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [illegible]	[illegible]	1 [illegible]	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [ ] On Ice [ ] Cooler Temp.

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name

Street Address

City State Zip

Project Contact E-mail

Phone # Fax #

Sampler(s) Name(s) Phone #

Project Information

Project Name:

Street

City State

Project #

Client Purchase Order #

Project Manager

Billing Information (if different from Report to)

Company Name

Street Address

City State Zip

Attention:

Requested Analyses

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	LAB USE ONLY

Turnaround Time (Business days)

- ☐ Standard
- ☐ 5 Day *RUSH*
- ☐ 4 Day *RUSH*
- ☐ 3 Day *RUSH*
- ☐ 2 Day *RUSH*
- ☐ 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☒ Commercial "B" (Level 2)
- ☐ FULT1 (Level 3+4)
- ☐ REDT1 (Level 3+4)
- ☐ Commercial "C"
- ☐ TRRP
- ☐ EDD Format
- ☐ Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp.

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name: SEM

Street Address: [illegible]

City / State / Zip: [illegible]

Project Contact / E-mail: [illegible]

Phone # / Fax #: [illegible]

Sampler(s) Name(s) / Phone #: [illegible]

Project Information

Project Name: [illegible]

Street: [illegible]

City / State: [illegible] / LA

Project #: [illegible]

Client Purchase Order #:

Project Manager: [illegible]

Billing Information (if different from Report to)

Company Name:

Street Address:

City / State / Zip:

Attention:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	LAB USE ONLY
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	MW-4	[illegible]	[illegible]	[illegible]	[illegible]	2				2									X	X								
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3				3									X		X							
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X									
	[illegible]					1				1									X									

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

[illegible]

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [illegible]	[illegible]	1 [illegible]	2		2
3		3	4		4
5		5			

Relinquished by: 5 | Date Time: | Received By: 5 | Custody Seal # | [ ] Intact [ ] Not intact | Preserved where applicable [ ] | On Ice [ ] | Cooler Temp.

Please print or type.

A NON HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. WM - 130795

5. Generator's Name and Mailing Address Delatte Metals Superfund Site
LDEQ, 602 North 5th Street
Baton Rouge, LA 70802
Generator's Phone: 225-219-3687

Generator's Site Address (If different than mailing address)
Delatte Metals Superfund Site
19113 Weinberger Rd.
Ponchatoula, LA 70454

6. Transporter 1 Company Name: CEI, 11298 Florida Blvd, Walker, LA — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Woodside Landfill, Woodside Dr., Walker, LA — U.S. EPA ID Number:

Facility's Phone:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste No.
	1. Purge Water (Profile # 951190LA) 50%	3	Drum	—	—	902
A	2. Sampling Debris (Profile # 951195LA) 2%	1	Drum	—	—	902
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Bill to SEMS, Inc. (ATTN: Jesse Hoppes)

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable and national governmental regulations and is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law.

Generator's/Offeror's Printed/Typed Name: Fernando A. Iturralde — Signature: [signature] — Month 9 Day 27 Year 12

Transporter Acknowledgement of Receipt of Materials

16. Transporter 1 Printed/Typed Name: R Place III — Signature: R Place III — Month 9 Day 27 Year 12

17. Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

18. Discrepancy Comments

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest ReferenceNumber:

19. Management Method Codes

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month 9 Day 27 Year 12

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

Please print or type.

NON HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. WM - 130796

5. Generator's Name and Mailing Address: Delatte Metals Superfund Site, USGS, 3538 S. Sherwood Forest Suite 120, Baton Rouge, LA 70816
Generator's Phone: 225-298-5481

Generator's Site Address (If different than mailing address): Delatte Metals Superfund Site, 19113 Weinberger Road, Ponchatoula, LA 70454

6. Transporter 1 Company Name: CEI, 11298 Florida Blvd., Walker, LA — U.S. EPA ID Number:

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Woodside Landfill, Woodside Dr., Walker, LA — U.S. EPA ID Number:

Facility's Phone:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste No.
B	1. Purge water (Profile #951397 LA) 48%	2	Drum	—	—	902
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable and national governmental regulations and is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law.

Generator's/Offeror's Printed/Typed Name: Robert B. Fendick Jr — Signature: [signature] — Month 09 Day 27 Year 12

Transporter Acknowledgement of Receipt of Materials

16. Transporter 1 Printed/Typed Name: R L Pace Jr — Signature: [signature] — Month 09 Day 27 Year 12

17. Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy Comments

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest ReferenceNumber:

19. Management Method Codes

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [signature] — Signature: [signature] — Month 9 Day 27 Year

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

L0019373

Report To:		Project Name:	207-0016
SEMS, INC.		Site:	DELATTE METALS
JESSE HOPPES		Site Address:	
11628 S. CHOCTAW DRIVE			PONCHATOULA LA
BATON ROUGE		PO Number:	
LA		State:	Louisiana
70815-		State Cert. No.:	02048
ph: (225) 924-2002	fax: (225) 924-2004	Date Reported:	9/21/2012

I. SAMPLE RECEIPT

A. All samples were received intact. The internal ice chest temperatures were measured upon receipt and recorded on the Sample Receipt Checklist included in this data package.

II. ANALYSIS

A. Holding Times: All analyses were completed within the recommended holding time.

B. Measurement Basis: "J" values may be presented for the analyses in this report. Programmatically, "J" values are those confirmed values for components detected less than the "Rep. Limit" but greater than the laboratory method detection limit (MDL). Thus, it should be noted that positive values may appear on quantitation reports but not on Form I if those values are below the MDL.

C. Analytical Exceptions: Total Metals by SW846 method 6020: Lab batch 114705-The sample selected for use in Accutest Gulf Coast's quality control program had Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries that were outside of the advisable quality control limits due to possible matrix interference. Other samples of like matrix collected from this site also may be affected. A Post Digestion Spike (PDS) and Post Digestion Spike Duplicate (PDSD) was performed and all recoveries were within quality control limits. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

Dissolved Metals by SW846 method 6020: Lab batch 114734-The sample selected for use in Accutest Gulf Coast's quality control program had Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries that were outside of the advisable quality control limits due to possible matrix interference. Other samples of like matrix collected from this site also may be affected. A Post Digestion Spike (PDS) and Post Digestion Spike Duplicate (PDSD) was performed and the Zinc recoveries exceeded quality control limits, indicating matrix interference. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

III. QUALITY CONTROL

A. Analytical Protocol and Deliverables: The samples were analyzed in accordance with the protocol requirements.

B. Initial and Continuing Calibrations: All QA acceptance criteria were met for initial and continuing calibration samples

C. Blanks: Method and calibration blanks met the method criteria.

NOTE: This data package was produced using software base on CLP type deliverables. The forms and documentation in this data package are to be considered "CLP-like" and may not meet all the criteria specified in the CLP protocols. The data are reported based on the method requirements.

CERTIFICATION:

9/21/2012

Amy K. Jackson
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

L0019373

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

9/21/2012

Amy K. Jackson
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

L0019373

Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

BATON ROUGE
LA
70815-
ph: (225) 924-2002 fax: (225) 924-2004

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/21/2012

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-09A	L0019373-01	Water	08/20/2012 9:29	8/27/2012 4:10:00 PM		☐
BA-09	L0019373-02	Water	08/20/2012 9:52	8/27/2012 4:10:00 PM		☐
MW-4	L0019373-03	Water	08/20/2012 10:14	8/27/2012 4:10:00 PM		☐
WW-09	L0019373-04	Water	08/20/2012 10:35	8/27/2012 4:10:00 PM		☐
WW-04	L0019373-05	Water	08/20/2012 11:10	8/27/2012 4:10:00 PM		☐
(b) (6) [redacted] WELL	L0019373-06	Water	08/20/2012 11:26	8/27/2012 4:10:00 PM		☐
BC-03	L0019373-07	Water	08/20/2012 12:03	8/27/2012 4:10:00 PM		☐
BB-01	L0019373-08	Water	08/20/2012 14:09	8/27/2012 4:10:00 PM		☐
SOUTH WELL	L0019373-09	Water	08/20/2012 14:20	8/27/2012 4:10:00 PM		☐
BC-17	L0019373-10	Water	08/20/2012 14:55	8/27/2012 4:10:00 PM		☐
BC-17MS	L0019373-10MS	Water	08/20/2012 14:55	8/27/2012 4:10:00 PM		☐
BC-17MSD	L0019373-10MSD	Water	08/20/2012 14:55	8/27/2012 4:10:00 PM		☐
NORTH WELL	L0019373-11	Water	08/20/2012 14:58	8/27/2012 4:10:00 PM		☐
BC-21R	L0019373-12	Water	08/21/2012 8:23	8/27/2012 4:10:00 PM		☐
BA-01A	L0019373-13	Water	08/21/2012 8:49	8/27/2012 4:10:00 PM		☐
BA-01	L0019373-14	Water	08/21/2012 9:15	8/27/2012 4:10:00 PM		☐
DW-03	L0019373-15	Water	08/21/2012 9:55	8/27/2012 4:10:00 PM		☐
PW-04	L0019373-16	Water	08/21/2012 10:22	8/27/2012 4:10:00 PM		☐
DW-02	L0019373-17	Water	08/21/2012 10:49	8/27/2012 4:10:00 PM		☐
BA-05A	L0019373-18	Water	08/21/2012 11:48	8/27/2012 4:10:00 PM		☐
BA-05	L0019373-19	Water	08/21/2012 12:40	8/27/2012 4:10:00 PM		☐
MW-A	L0019373-20	Water	08/21/2012 14:11	8/27/2012 4:10:00 PM		☐

9/21/2012

Amy K. Jackson
Project Manager

Date

Ron Benjamin
Laboratory Director

Rebecca Haryett
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

L0019373

Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

BATON ROUGE
LA
70815-
ph: (225) 924-2002 fax: (225) 924-2004

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/21/2012

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
DW-01	L0019373-21	Water	08/21/2012 14:50	8/27/2012 4:10:00 PM		☐
MW-01	L0019373-22	Water	08/21/2012 15:11	8/27/2012 4:10:00 PM		☐
BA-03A	L0019373-23	Water	08/22/2012 8:28	8/27/2012 4:10:00 PM		☐
BA-03	L0019373-24	Water	08/22/2012 9:08	8/27/2012 4:10:00 PM		☐
MW-2	L0019373-25	Water	08/22/2012 9:46	8/27/2012 4:10:00 PM		☐
BC-07	L0019373-26	Water	08/22/2012 10:23	8/27/2012 4:10:00 PM		☐
BC-07MS	L0019373-26MS	Water	08/22/2012 10:23	8/27/2012 4:10:00 PM		☐
BC-07MSD	L0019373-26MSD	Water	08/22/2012 10:23	8/27/2012 4:10:00 PM		☐
BC-25	L0019373-27	Water	08/22/2012 10:55	8/27/2012 4:10:00 PM		☐
DW-04	L0019373-28	Water	08/24/2012 11:02	8/27/2012 4:10:00 PM		☐
BC-19	L0019373-29	Water	08/24/2012 11:35	8/27/2012 4:10:00 PM		☐
MW-3	L0019373-30	Water	08/24/2012 12:50	8/27/2012 4:10:00 PM		☐
MW-6	L0019373-31	Water	08/24/2012 13:37	8/27/2012 4:10:00 PM		☐
DUPLICATE #1	L0019373-32	Water	08/20/2012 14:09	8/27/2012 4:10:00 PM		☐
DUPLICATE #2	L0019373-33	Water	08/21/2012 8:49	8/27/2012 4:10:00 PM		☐
DUPLICATE #3	L0019373-34	Water	08/21/2012 14:11	8/27/2012 4:10:00 PM		☐
DUPLICATE #4	L0019373-35	Water	08/22/2012 10:23	8/27/2012 4:10:00 PM		☐

9/21/2012

Amy K. Jackson
Project Manager

Date

Ron Benjamin
Laboratory Director

Rebecca Haryett
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-09A **Collected:** 08/20/2012 9:29 **Lab Sample ID:** L0019373-01

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00191	J	0.000724	0.004	0.01	1	09/06/12 18:51	RJD	4709655
Cadmium	0.000589	J	6.02E-05	0.002	0.005	1	09/06/12 18:51	RJD	4709655
Lead	0.00167		0.000047	0.001	0.015	1	09/06/12 18:51	RJD	4709655
Manganese	0.0575		0.00021	0.002		1	09/10/12 16:18	RJD	4712884
Nickel	0.00603		0.000259	0.002	0.073	1	09/10/12 16:18	RJD	4712884
Thallium	0.000953	J	0.000166	0.002	0.002	1	09/06/12 18:51	RJD	4709655
Zinc	0.145		0.000548	0.01	1.1	1	09/10/12 16:18	RJD	4712884

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:33 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-09 **Collected:** 08/20/2012 9:52 **Lab Sample ID:** L0019373-02

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	**0.0212**	**J>MCL**	**0.0181**	**0.1**	**0.01**	**25**	**09/11/12 12:06**	**RJD**	**4713650**
Cadmium	0.000731	J	0.000301	0.01	0.005	5	09/06/12 18:54	RJD	4709656
Lead	0.00302	J	0.000235	0.005	0.015	5	09/06/12 18:54	RJD	4709656
Manganese	4.97		0.00105	0.01		5	09/10/12 16:21	RJD	4712885
Nickel	**0.223**	**>MCL**	**0.0013**	**0.01**	**0.073**	**5**	**09/10/12 16:21**	**RJD**	**4712885**
Thallium	**0.00214**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 18:54**	**RJD**	**4709656**
Zinc	0.3		0.00274	0.05	1.1	5	09/10/12 16:21	RJD	4712885

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:36 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-4 **Collected:** 08/20/2012 10:14 **Lab Sample ID:** L0019373-03

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
DISSOLVED METALS BY ICP/MS					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.000778	J	0.000724	0.004	0.01	1	09/11/12 14:49	RJD	4714017
Cadmium	0.000153	J	6.02E-05	0.002	0.005	1	09/11/12 14:49	RJD	4714017
Lead	ND		0.000047	0.001	0.015	1	09/11/12 14:49	RJD	4714017
Manganese	ND		0.00021	0.002		1	09/11/12 14:49	RJD	4714017
Nickel	0.000506	J	0.000259	0.002	0.073	1	09/11/12 14:49	RJD	4714017
Thallium	ND		0.000166	0.002	0.002	1	09/11/12 14:49	RJD	4714017
Zinc	0.00547	J	0.000548	0.006	1.1	1	09/11/12 14:49	RJD	4714017

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005	08/27/2012 16:30	LAB	1.00

METALS BY METHOD 6020 (ICP/MS), TOTAL					MCL		SW6020 Units: mg/L		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 18:57	RJD	4709657
Cadmium	0.000149	J	6.02E-05	0.002	0.005	1	09/06/12 18:57	RJD	4709657
Lead	0.00249		0.000047	0.001	0.015	1	09/06/12 18:57	RJD	4709657
Manganese	0.0246		0.00021	0.002		1	09/10/12 16:24	RJD	4712886
Nickel	0.00188	J	0.000259	0.002	0.073	1	09/10/12 16:24	RJD	4712886
Thallium	0.000437	J	0.000166	0.002	0.002	1	09/06/12 18:57	RJD	4709657
Zinc	0.0336		0.000548	0.01	1.1	1	09/10/12 16:24	RJD	4712886

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:39 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: WW-09 **Collected:** 08/20/2012 10:35 **Lab Sample ID:** L0019373-04

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:00	RJD	4709658
Cadmium	0.000102	J	6.02E-05	0.002	0.005	1	09/06/12 19:00	RJD	4709658
Lead	0.00104		0.000047	0.001	0.015	1	09/06/12 19:00	RJD	4709658
Manganese	0.018		0.00021	0.002		1	09/10/12 16:27	RJD	4712887
Nickel	0.00177	J	0.000259	0.002	0.073	1	09/10/12 16:27	RJD	4712887
Thallium	0.000427	J	0.000166	0.002	0.002	1	09/06/12 19:00	RJD	4709658
Zinc	0.00823	J	0.000548	0.01	1.1	1	09/10/12 16:27	RJD	4712887

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:41 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: WW-04 **Collected:** 08/20/2012 11:10 **Lab Sample ID:** L0019373-05

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:03	RJD	4709659
Cadmium	0.0000906	J	6.02E-05	0.002	0.005	1	09/06/12 19:03	RJD	4709659
Lead	0.000568	J	0.000047	0.001	0.015	1	09/06/12 19:03	RJD	4709659
Manganese	0.00319		0.00021	0.002		1	09/10/12 16:29	RJD	4712888
Nickel	ND		0.000259	0.002	0.073	1	09/10/12 16:29	RJD	4712888
Thallium	0.000423	J	0.000166	0.002	0.002	1	09/06/12 19:03	RJD	4709659
Zinc	0.00376	J	0.000548	0.01	1.1	1	09/10/12 16:29	RJD	4712888

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:43 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: (b) (6) WELL **Collected:** 08/20/2012 11:26 **Lab Sample ID:** L0019373-06

Site: **DELATTE METALS**

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:06	RJD	4709660
Cadmium	0.000106	J	6.02E-05	0.002	0.005	1	09/06/12 19:06	RJD	4709660
Lead	0.00226		0.000047	0.001	0.015	1	09/06/12 19:06	RJD	4709660
Manganese	0.0233		0.00021	0.002		1	09/10/12 16:32	RJD	4712889
Nickel	0.000572	J	0.000259	0.002	0.073	1	09/10/12 16:32	RJD	4712889
Thallium	0.000426	J	0.000166	0.002	0.002	1	09/06/12 19:06	RJD	4709660
Zinc	0.0425		0.000548	0.01	1.1	1	09/10/12 16:32	RJD	4712889

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:46 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-03 **Collected:** 08/20/2012 12:03 **Lab Sample ID:** L0019373-07

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/06/12 19:08	RJD	4709661
Cadmium	0.000517	J	0.000301	0.01	0.005	5	09/06/12 19:08	RJD	4709661
Lead	0.00303	J	0.000235	0.005	0.015	5	09/06/12 19.08	RJD	4709661
Manganese	0.021		0.00105	0.01		5	09/10/12 16:35	RJD	4712890
Nickel	0 00154	J	0.0013	0.01	0.073	5	09/10/12 16:35	RJD	4712890
Thallium	**0.0021**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 19:08**	**RJD**	**4709661**
Zinc	0.0151	J	0.00274	0.05	1.1	5	09/10/12 16:35	RJD	4712890

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17.00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:48 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BB-01 **Collected:** 08/20/2012 14:09 **Lab Sample ID:** L0019373-08

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00412		0.000724	0.004	0.01	1	09/06/12 19:11	RJD	4709662
Cadmium	0.000219	J	6.02E-05	0.002	0.005	1	09/06/12 19:11	RJD	4709662
Lead	0.0054		0.000047	0.001	0.015	1	09/06/12 19:11	RJD	4709662
Manganese	0.0038		0.00021	0.002		1	09/10/12 16:38	RJD	4712891
Nickel	0.00144	J	0.000259	0.002	0.073	1	09/10/12 16:38	RJD	4712891
Thallium	0.000424	J	0.000166	0.002	0.002	1	09/06/12 19:11	RJD	4709662
Zinc	0.00811	J	0.000548	0.01	1.1	1	09/10/12 16:38	RJD	4712891

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:50 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: SOUTH WELL **Collected:** 08/20/2012 14:20 **Lab Sample ID:** L0019373-09

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:14	RJD	4709663
Cadmium	0.0000926	J	6.02E-05	0.002	0.005	1	09/06/12 19:14	RJD	4709663
Lead	0.000623	J	0.000047	0.001	0.015	1	09/06/12 19:14	RJD	4709663
Manganese	0.0039		0.00021	0.002		1	09/10/12 16:41	RJD	4712892
Nickel	ND		0.000259	0.002	0.073	1	09/10/12 16:41	RJD	4712892
Thallium	0.00042	J	0.000166	0.002	0.002	1	09/06/12 19:14	RJD	4709663
Zinc	0.013		0.000548	0.01	1.1	1	09/10/12 16:41	RJD	4712892

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:52 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-17 **Collected:** 08/20/2012 14:55 **Lab Sample ID:** L0019373-10

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/06/12 18:29	RJD	4709647
Cadmium	0.00107	J	0.000301	0.01	0.005	5	09/06/12 18:29	RJD	4709647
Lead	**0.0514**	**>MCL**	**0.000235**	**0.005**	**0.015**	**5**	**09/06/12 18:29**	**RJD**	**4709647**
Manganese	0.279		0.00105	0.01		5	09/10/12 15:54	RJD	4712876
Nickel	0.00186	J	0.0013	0.01	0.073	5	09/10/12 15:54	RJD	4712876
Thallium	**0.00226**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 18:29**	**RJD**	**4709647**
Zinc	0.00701	J	0.00274	0.05	1.1	5	09/10/12 15:54	RJD	4712876

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:54 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: NORTH WELL **Collected:** 08/20/2012 14:58 **Lab Sample ID:** L0019373-11

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:17	RJD	4709664
Cadmium	0.000117	J	6.02E-05	0.002	0.005	1	09/06/12 19:17	RJD	4709664
Lead	0.00205		0.000047	0.001	0.015	1	09/06/12 19:17	RJD	4709664
Manganese	0.00676		0.00021	0.002		1	09/10/12 16:44	RJD	4712893
Nickel	0.00028	J	0.000259	0.002	0.073	1	09/10/12 16:44	RJD	4712893
Thallium	0.000421	J	0.000166	0.002	0.002	1	09/06/12 19:17	RJD	4709664
Zinc	0.00529	J	0.000548	0.01	1.1	1	09/10/12 16:44	RJD	4712893

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:57 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-21R **Collected:** 08/21/2012 8:23 **Lab Sample ID:** L0019373-12

Site: **DELATTE METALS**

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:25	RJD	4709667
Cadmium	0.000196	J	6.02E-05	0.002	0.005	1	09/06/12 19:25	RJD	4709667
Lead	0.00117		0.000047	0.001	0.015	1	09/06/12 19:25	RJD	4709667
Manganese	0.00882		0.00021	0.002		1	09/10/12 16:58	RJD	4712896
Nickel	0.00214		0.000259	0.002	0.073	1	09/10/12 16:58	RJD	4712896
Thallium	0.00043	J	0.000166	0.002	0.002	1	09/06/12 19:25	RJD	4709667
Zinc	0.00469	J	0.000548	0.01	1.1	1	09/10/12 16:58	RJD	4712896

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:00:59 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-01A **Collected:** 08/21/2012 8:49 **Lab Sample ID:** L0019373-13

Site: **DELATTE METALS**

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00586		0.000724	0.004	0.01	1	09/06/12 19:28	RJD	4709668
Cadmium	0.000102	J	6.02E-05	0.002	0.005	1	09/06/12 19:28	RJD	4709668
Lead	0.000708	J	0.000047	0.001	0.015	1	09/06/12 19:28	RJD	4709668
Manganese	0.038		0.00021	0.002		1	09/10/12 17:06	RJD	4712897
Nickel	0.000448	J	0.000259	0.002	0.073	1	09/10/12 17:06	RJD	4712897
Thallium	0.000422	J	0.000166	0.002	0.002	1	09/06/12 19:28	RJD	4709668
Zinc	0.00455	J	0.000548	0.01	1.1	1	09/10/12 17:06	RJD	4712897

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17.00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:01 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-01 **Collected:** 08/21/2012 9:15 **Lab Sample ID:** L0019373-14

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/06/12 19:31	RJD	4709669
Cadmium	0.000566	J	0.000301	0.01	0.005	5	09/06/12 19:31	RJD	4709669
Lead	0.00414	J	0.000235	0.005	0.015	5	09/06/12 19:31	RJD	4709669
Manganese	1.52		0.00105	0.01		5	09/10/12 17:09	RJD	4712898
Nickel	0.0602		0.0013	0.01	0.073	5	09/10/12 17:09	RJD	4712898
Thallium	**0.00212**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 19:31**	**RJD**	**4709669**
Zinc	0.0839		0.00274	0.05	1.1	5	09/10/12 17:09	RJD	4712898

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:03 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-03 **Collected:** 08/21/2012 9:55 **Lab Sample ID:** L0019373-15

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.0028	J	0.000724	0.004	0.01	1	09/06/12 19:34	RJD	4709670
Cadmium	0.000198	J	6.02E-05	0.002	0.005	1	09/06/12 19:34	RJD	4709670
Lead	0.00417		0.000047	0.001	0.015	1	09/06/12 19:34	RJD	4709670
Manganese	0.203		0.00021	0.002		1	09/10/12 17:11	RJD	4712899
Nickel	0.00942		0.000259	0.002	0.073	1	09/10/12 17:11	RJD	4712899
Thallium	0.000431	J	0.000166	0.002	0.002	1	09/06/12 19:34	RJD	4709670
Zinc	0.02		0.000548	0.01	1.1	1	09/10/12 17:11	RJD	4712899

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:05 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: PW-04 **Collected:** 08/21/2012 10:22 **Lab Sample ID:** L0019373-16

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.005		0.000724	0.004	0.01	1	09/06/12 19:37	RJD	4709671
Cadmium	0.000977	J	6.02E-05	0.002	0.005	1	09/06/12 19:37	RJD	4709671
Lead	0.00134		0.000047	0.001	0.015	1	09/06/12 19:37	RJD	4709671
Manganese	0.837		0.00021	0.002		1	09/10/12 17:14	RJD	4712900
Nickel	0.0193		0.000259	0.002	0.073	1	09/10/12 17:14	RJD	4712900
Thallium	0.000451	J	0.000166	0.002	0.002	1	09/06/12 19:37	RJD	4709671
Zinc	0.0514		0.000548	0.01	1.1	1	09/10/12 17:14	RJD	4712900

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:08 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-02 **Collected:** 08/21/2012 10:49 **Lab Sample ID:** L0019373-17

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	**0.0589**	**J>MCL**	**0.0181**	**0.1**	**0.01**	**25**	**09/11/12 12:09**	**RJD**	**4713651**
Cadmium	**0.0272**	**>MCL**	**0.000301**	**0.01**	**0.005**	**5**	**09/06/12 19:40**	**RJD**	**4709672**
Lead	**0.0309**	**>MCL**	**0.000235**	**0.005**	**0.015**	**5**	**09/06/12 19:40**	**RJD**	**4709672**
Manganese	11.8		0.00105	0.01		5	09/10/12 17:17	RJD	4712901
Nickel	**0.594**	**>MCL**	**0.0013**	**0.01**	**0.073**	**5**	**09/10/12 17:17**	**RJD**	**4712901**
Thallium	**0.00216**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 19:40**	**RJD**	**4709672**
Zinc	**1.49**	**>MCL**	**0.00274**	**0.05**	**1.1**	**5**	**09/10/12 17:17**	**RJD**	**4712901**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:10 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-05A **Collected:** 08/21/2012 11:48 **Lab Sample ID:** L0019373-18

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00148	J	0.000724	0.004	0.01	1	09/06/12 19:42	RJD	4709673
Cadmium	0.00011	J	6.02E-05	0.002	0.005	1	09/06/12 19:42	RJD	4709673
Lead	0.00114		0.000047	0.001	0.015	1	09/06/12 19:42	RJD	4709673
Manganese	0.0358		0.00021	0.002		1	09/10/12 17:20	RJD	4712902
Nickel	0.000613	J	0.000259	0.002	0.073	1	09/10/12 17:20	RJD	4712902
Thallium	0.000421	J	0.000166	0.002	0.002	1	09/06/12 19:42	RJD	4709673
Zinc	0.00816	J	0.000548	0.01	1.1	1	09/10/12 17:20	RJD	4712902

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-05 **Collected:** 08/21/2012 12:40 **Lab Sample ID:** L0019373-19

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/06/12 19:45	RJD	4709674
Cadmium	0.000454	J	0.000301	0.01	0.005	5	09/06/12 19:45	RJD	4709674
Lead	0.00259	J	0.000235	0.005	0.015	5	09/06/12 19:45	RJD	4709674
Manganese	10.1		0.00105	0.01		5	09/10/12 17:23	RJD	4712903
Nickel	0.0404		0.0013	0.01	0.073	5	09/10/12 17:23	RJD	4712903
Thallium	**0.00211**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 19:45**	**RJD**	**4709674**
Zinc	0.0132	J	0.00274	0.05	1.1	5	09/10/12 17:23	RJD	4712903

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:14 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-A **Collected:** 08/21/2012 14:11 **Lab Sample ID:** L0019373-20

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/12 19:48	RJD	4709675
Cadmium	0.000131	J	6.02E-05	0.002	0.005	1	09/06/12 19:48	RJD	4709675
Lead	0.00157		0.000047	0.001	0.015	1	09/06/12 19:48	RJD	4709675
Manganese	0.00715		0.00021	0.002		1	09/10/12 17:26	RJD	4712904
Nickel	0.00118	J	0.000259	0.002	0.073	1	09/10/12 17:26	RJD	4712904
Thallium	0.000424	J	0.000166	0.002	0.002	1	09/06/12 19:48	RJD	4709675
Zinc	0.00595	J	0.000548	0.01	1.1	1	09/10/12 17:26	RJD	4712904

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:17 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-01 **Collected:** 08/21/2012 14:50 **Lab Sample ID:** L0019373-21

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
DISSOLVED METALS BY ICP/MS					**MCL**		**SW6020 Units: mg/L**		
Arsenic	**0.155**	**>MCL**	**0.000724**	**0.004**	**0.01**	**1**	**09/11/12 15:13**	**RJD**	**4714025**
Cadmium	0.000365	J	6.02E-05	0.002	0.005	1	09/11/12 15:13	RJD	4714025
Lead	ND		0.000047	0.001	0.015	1	09/11/12 15:13	RJD	4714025
Manganese	0.554		0.00021	0.002		1	09/11/12 15:13	RJD	4714025
Nickel	0.00736		0.000259	0.002	0.073	1	09/11/12 15:13	RJD	4714025
Thallium	ND		0.000166	0.002	0.002	1	09/11/12 15:13	RJD	4714025
Zinc	0.0169		0.000548	0.006	1.1	1	09/11/12 15:13	RJD	4714025

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005	08/27/2012 16:30	LAB	1.00

METALS BY METHOD 6020 (ICP/MS), TOTAL					MCL		SW6020 Units: mg/L		
Arsenic	**0.239**	**>MCL**	**0.000724**	**0.004**	**0.01**	**1**	**09/11/12 12:11**	**RJD**	**4713652**
Cadmium	0.000718	J	6.02E-05	0.002	0.005	1	09/11/12 12:11	RJD	4713652
Lead	0.00191		0.000047	0.001	0.015	1	09/06/12 20:31	RJD	4709690
Manganese	0.458		0.00021	0.002		1	09/06/12 20:31	RJD	4709690
Nickel	0.00675		0.000259	0.002	0.073	1	09/06/12 20:31	RJD	4709690
Thallium	0.000444	J	0.000166	0.002	0.002	1	09/06/12 20:31	RJD	4709690
Zinc	0.0177		0.000548	0.01	1.1	1	09/06/12 20:31	RJD	4709690

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:20 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-01 **Collected:** 08/21/2012 15:11 **Lab Sample ID:** L0019373-22

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	**0.048**	**J>MCL**	**0.0181**	**0.1**	**0.01**	**25**	**09/11/12 13:55**	**RJD**	**4713668**
Cadmium	0.00405	J	0.000301	0.01	0.005	5	09/11/12 12:14	RJD	4713653
Lead	0.00559		0.000235	0.005	0.015	5	09/06/12 20:33	RJD	4709691
Manganese	5.3		0.00105	0.01		5	09/06/12 20:33	RJD	4709691
Nickel	**0.232**	**>MCL**	**0.0013**	**0.01**	**0.073**	**5**	**09/06/12 20:33**	**RJD**	**4709691**
Thallium	**0.00221**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 20:33**	**RJD**	**4709691**
Zinc	0.3		0.00274	0.05	1.1	5	09/06/12 20:33	RJD	4709691

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:22 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-03A **Collected:** 08/22/2012 8:28 **Lab Sample ID:** L0019373-23

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00144	J	0.000724	0.004	0.01	1	09/11/12 12:17	RJD	4713654
Cadmium	0.00017	J	6.02E-05	0.002	0.005	1	09/11/12 12:17	RJD	4713654
Lead	0.0025		0.000047	0.001	0.015	1	09/06/12 20:36	RJD	4709692
Manganese	0.0363		0.00021	0.002		1	09/06/12 20:36	RJD	4709692
Nickel	0.00125	J	0.000259	0.002	0.073	1	09/06/12 20:36	RJD	4709692
Thallium	0.000424	J	0.000166	0.002	0.002	1	09/06/12 20:36	RJD	4709692
Zinc	0.0106		0.000548	0.01	1.1	1	09/06/12 20:36	RJD	4709692

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17.00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:24 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-03 **Collected:** 08/22/2012 9:08 **Lab Sample ID:** L0019373-24

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00163	J	0.000724	0.004	0.01	1	09/11/12 12:20	RJD	4713655
Cadmium	**0.0485**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/11/12 12:20**	**RJD**	**4713655**
Lead	**0.0384**	**>MCL**	**0.000047**	**0.001**	**0.015**	**1**	**09/06/12 20:39**	**RJD**	**4709693**
Manganese	0.72		0.00021	0.002		1	09/06/12 20:39	RJD	4709693
Nickel	0.0256		0.000259	0.002	0.073	1	09/06/12 20:39	RJD	4709693
Thallium	0.00053	J	0.000166	0.002	0.002	1	09/06/12 20:39	RJD	4709693
Zinc	0.101		0.000548	0.01	1.1	1	09/06/12 20:39	RJD	4709693

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:27 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-2 **Collected:** 08/22/2012 9:46 **Lab Sample ID:** L0019373-25

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00153	J	0.000724	0.004	0.01	1	09/11/12 12:23	RJD	4713656
Cadmium	**0.0532**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/11/12 12:23**	**RJD**	**4713656**
Lead	0.00204		0.000047	0.001	0.015	1	09/06/12 20:42	RJD	4709694
Manganese	0.761		0.00021	0.002		1	09/06/12 20:42	RJD	4709694
Nickel	0.0516		0.000259	0.002	0.073	1	09/06/12 20:42	RJD	4709694
Thallium	0.000741	J	0.000166	0.002	0.002	1	09/06/12 20:42	RJD	4709694
Zinc	0.16		0.000548	0.01	1.1	1	09/06/12 20:42	RJD	4709694

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:31 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-07 **Collected:** 08/22/2012 10:23 **Lab Sample ID:** L0019373-26

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/06/12 20:08	RJD	4709682
Cadmium	0.000474	J	0.000301	0.01	0.005	5	09/06/12 20:08	RJD	4709682
Lead	0.00278	J	0.000235	0.005	0.015	5	09/06/12 20:08	RJD	4709682
Manganese	0.0655		0.00105	0.01		5	09/06/12 20:08	RJD	4709682
Nickel	0.00429	J	0.0013	0.01	0.073	5	09/06/12 20:08	RJD	4709682
Thallium	**0.00226**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 20:08**	**RJD**	**4709682**
Zinc	0.00996	J	0.00274	0.05	1.1	5	09/06/12 20:08	RJD	4709682

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:35 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-25 **Collected:** 08/22/2012 10:55 **Lab Sample ID:** L0019373-27

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00158	J	0.000724	0.004	0.01	1	09/11/12 12:26	RJD	4713657
Cadmium	0.000227	J	6.02E-05	0.002	0.005	1	09/11/12 12:26	RJD	4713657
Lead	0.000568	J	0.000047	0.001	0.015	1	09/06/12 20:45	RJD	4709695
Manganese	0.181		0.00021	0.002		1	09/06/12 20:45	RJD	4709695
Nickel	0.00203		0.000259	0.002	0.073	1	09/06/12 20:45	RJD	4709695
Thallium	0.000423	J	0.000166	0.002	0.002	1	09/06/12 20:45	RJD	4709695
Zinc	0.00972	J	0.000548	0.01	1.1	1	09/06/12 20:45	RJD	4709695

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-04 **Collected:** 08/24/2012 11:02 **Lab Sample ID:** L0019373-28

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00436	J	0.00362	0.02	0.01	5	09/11/12 13:31	RJD	4713660
Cadmium	0.000684	J	0.000301	0.01	0.005	5	09/11/12 13:31	RJD	4713660
Lead	0.00281	J	0.000235	0.005	0.015	5	09/06/12 20:48	RJD	4709696
Manganese	0.0543		0.00105	0.01		5	09/06/12 20:48	RJD	4709696
Nickel	0.00428	J	0.0013	0.01	0.073	5	09/06/12 20:48	RJD	4709696
Thallium	**0.0021**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 20:48**	**RJD**	**4709696**
Zinc	0.0185	J	0.00274	0.05	1.1	5	09/06/12 20:48	RJD	4709696

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:41 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-19 **Collected:** 08/24/2012 11:35 **Lab Sample ID:** L0019373-29

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/11/12 13:34	RJD	4713661
Cadmium	0.000754	J	0.000301	0.01	0.005	5	09/11/12 13:34	RJD	4713661
Lead	0.00282	J	0.000235	0.005	0.015	5	09/06/12 20:50	RJD	4709697
Manganese	0.0266		0.00105	0.01		5	09/06/12 20:50	RJD	4709697
Nickel	0.00478	J	0.0013	0.01	0.073	5	09/06/12 20:50	RJD	4709697
Thallium	**0.00211**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 20:50**	**RJD**	**4709697**
Zinc	0.0154	J	0.00274	0.05	1.1	5	09/06/12 20:50	RJD	4709697

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:43 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-3 **Collected:** 08/24/2012 12:50 **Lab Sample ID:** L0019373-30

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00516	J	0.00362	0.02	0.01	5	09/11/12 13:37	RJD	4713662
Cadmium	0.000687	J	0.000301	0.01	0.005	5	09/11/12 13:37	RJD	4713662
Lead	0.00304	J	0.000235	0.005	0.015	5	09/06/12 20:53	RJD	4709698
Manganese	0.722		0.00105	0.01		5	09/06/12 20:53	RJD	4709698
Nickel	0.00529	J	0.0013	0.01	0.073	5	09/06/12 20:53	RJD	4709698
Thallium	**0.00211**	**J>MCL**	**0.000828**	**0.01**	**0.002**	**5**	**09/06/12 20:53**	**RJD**	**4709698**
Zinc	0.0256	J	0.00274	0.05	1.1	5	09/06/12 20:53	RJD	4709698

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:46 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-6 **Collected:** 08/24/2012 13:37 **Lab Sample ID:** L0019373-31

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00362	0.02	0.01	5	09/11/12 13:58	RJD	4713669
Cadmium	**0.086**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/11/12 13:40**	**RJD**	**4713663**
Lead	0.00136		0.000047	0.001	0.015	1	09/06/12 20:56	RJD	4709699
Manganese	3.58		0.00021	0.002		1	09/06/12 20:56	RJD	4709699
Nickel	0.041		0.000259	0.002	0.073	1	09/06/12 20:56	RJD	4709699
Thallium	0.000561	J	0.000166	0.002	0.002	1	09/06/12 20:56	RJD	4709699
Zinc	0.143		0.000548	0.01	1.1	1	09/06/12 20:56	RJD	4709699

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/21/2012 1:01:48 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DUPLICATE #1 **Collected:** 08/20/2012 14:09 **Lab Sample ID:** L0019373-32

Site: **DELATTE METALS**

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.0052		0.000724	0.004	0.01	1	09/11/12 13:43	RJD	4713664
Cadmium	0.000259	J	6.02E-05	0.002	0.005	1	09/11/12 13:43	RJD	4713664
Lead	0.00503		0.000047	0.001	0.015	1	09/06/12 21:05	RJD	4709702
Manganese	0.00413		0.00021	0.002		1	09/06/12 21:05	RJD	4709702
Nickel	0.00177	J	0.000259	0.002	0.073	1	09/06/12 21:05	RJD	4709702
Thallium	0.000423	J	0.000166	0.002	0.002	1	09/06/12 21:05	RJD	4709702
Zinc	0.0095	J	0.000548	0.01	1.1	1	09/06/12 21:05	RJD	4709702

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

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Client Sample ID: DUPLICATE #2 **Collected:** 08/21/2012 8:49 **Lab Sample ID:** L0019373-33

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00756		0.000724	0.004	0.01	1	09/11/12 13:46	RJD	4713665
Cadmium	0.000152	J	6.02E-05	0.002	0.005	1	09/11/12 13:46	RJD	4713665
Lead	0.000846	J	0.000047	0.001	0.015	1	09/06/12 21:07	RJD	4709703
Manganese	0.0394		0.00021	0.002		1	09/06/12 21:07	RJD	4709703
Nickel	0.00113	J	0.000259	0.002	0.073	1	09/06/12 21:07	RJD	4709703
Thallium	0.000422	J	0.000166	0.002	0.002	1	09/06/12 21:07	RJD	4709703
Zinc	0.0076	J	0.000548	0.01	1.1	1	09/06/12 21:07	RJD	4709703

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

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Client Sample ID: DUPLICATE #3 **Collected:** 08/21/2012 14:11 **Lab Sample ID:** L0019373-34

Site: **DELATTE METALS**

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00136	J	0.000724	0.004	0.01	1	09/11/12 13:49	RJD	4713666
Cadmium	0.000172	J	6.02E-05	0.002	0.005	1	09/11/12 13:49	RJD	4713666
Lead	0.00107		0.000047	0.001	0.015	1	09/06/12 21:10	RJD	4709704
Manganese	0.00341		0.00021	0.002		1	09/06/12 21:10	RJD	4709704
Nickel	0.00188	J	0.000259	0.002	0.073	1	09/06/12 21:10	RJD	4709704
Thallium	0.000423	J	0.000166	0.002	0.002	1	09/06/12 21:10	RJD	4709704
Zinc	0.00757	J	0.000548	0.01	1.1	1	09/06/12 21:10	RJD	4709704

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17:00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

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Client Sample ID: DUPLICATE #4 **Collected:** 08/22/2012 10:23 **Lab Sample ID:** L0019373-35

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00173	J	0.000724	0.004	0.01	1	09/11/12 13:52	RJD	4713667
Cadmium	**0.0502**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/11/12 13:52**	**RJD**	**4713667**
Lead	0.00231		0.000047	0.001	0.015	1	09/06/12 21:13	RJD	4709705
Manganese	0.694		0.00021	0.002		1	09/06/12 21:13	RJD	4709705
Nickel	0.0502		0.000259	0.002	0.073	1	09/06/12 21:13	RJD	4709705
Thallium	0.000728	J	0.000166	0.002	0.002	1	09/06/12 21:13	RJD	4709705
Zinc	0.154		0.000548	0.01	1.1	1	09/06/12 21:13	RJD	4709705

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/30/2012 17.00	LAB	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

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Quality Control Documentation

Version 2.1 - Modified February 11, 2011

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: L0019373
Lab Batch ID: 114705-I

Method Blank

RunID: ICPMS_120910C-4712874 Units: mg/L
Analysis Date: 09/10/2012 15:48 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Manganese	ND		0.002	0.00021
Nickel	0.000581	J	0.002	0.000259
Zinc	0.00327	J	0.01	0.000548

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0019373-01A	BA-09A
L0019373-02A	BA-09
L0019373-03A	MW-4
L0019373-04A	WW-09
L0019373-05A	WW-04
L0019373-06A	(b) (6) [redacted] WELL
L0019373-07A	BC-03
L0019373-08A	BB-01
L0019373-09A	SOUTH WELL
L0019373-10A	BC-17
L0019373-11A	NORTH WELL
L0019373-12A	BC-21R
L0019373-13A	BA-01A
L0019373-14A	BA-01
L0019373-15A	DW-03
L0019373-16A	PW-04
L0019373-17A	DW-02
L0019373-18A	BA-05A
L0019373-19A	BA-05
L0019373-20A	MW-A

Laboratory Control Sample (LCS)

RunID: ICPMS_120910C-4712875 Units: mg/L
Analysis Date: 09/10/2012 15:51 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Manganese	0.1000	0.09610	96.10		80	120
Nickel	0.1000	0.09777	97.77		80	120
Zinc	0.1000	0.08854	88.54		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0019373
Method: SW6020 **Lab Batch ID:** 114705-I

Sample Spiked: L0019373-10
RunID: ICPMS_120910C-4712878 Units: mg/L
Analysis Date: 09/10/2012 16:00 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Manganese	0.2792		0.1	0.4252	146.0	*	0.1	0.4025	123.4		5.474		20	75	125
Nickel	0.001856	JB	0.1	0.1074	105.6		0.1	0.1011	99.20		6.134		20	75	125
Zinc	0.007011	JB	0.1	0.1141	107.0		0.1	0.1055	98.44		7.838		20	75	125

Post Digestion Spike (PDS) / Post Digestion Spike Duplicate (PDSD)

Sample Spiked: L0019373-10
RunID: ICPMS_120910C-4712880 Units: mg/L
Analysis Date: 09/10/2012 16:06 Analyst: RJD

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Manganese	0.279	2.5	2.693	96.55	2.5	2.724	97.78	1.135	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: L0019373
Lab Batch ID: 114705-I

Method Blank

RunID: ICPMS_120906E-4709645 Units: mg/L
Analysis Date: 09/06/2012 18:23 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.000724
Cadmium	0.0000903	J	0.002	0.0000602
Lead	0.000511	J	0.001	0.000047
Thallium	0.000422	J	0.002	0.000166

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0019373-01A	BA-09A
L0019373-02A	BA-09
L0019373-03A	MW-4
L0019373-04A	WW-09
L0019373-05A	WW-04
L0019373-06A	(b) (6) [redacted] WELL
L0019373-07A	BC-03
L0019373-08A	BB-01
L0019373-09A	SOUTH WELL
L0019373-10A	BC-17
L0019373-11A	NORTH WELL
L0019373-12A	BC-21R
L0019373-13A	BA-01A
L0019373-14A	BA-01
L0019373-15A	DW-03
L0019373-16A	PW-04
L0019373-17A	DW-02
L0019373-18A	BA-05A
L0019373-19A	BA-05
L0019373-20A	MW-A

Laboratory Control Sample (LCS)

RunID: ICPMS_120906E-4709646 Units: mg/L
Analysis Date: 09/06/2012 18:26 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09126	91.26		80	120
Cadmium	0.1000	0.09387	93.87		80	120
Lead	0.1000	0.09613	96.13		80	120
Thallium	0.1000	0.09523	95.23		80	120

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0019373
Method: SW6020 **Lab Batch ID:** 114705-I

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0019373-10
RunID: ICPMS_120906E-4709649 Units: mg/L
Analysis Date: 09/06/2012 18:34 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.09402	94.02		0.1	0.1014	101.4		7.537		20	75	125
Cadmium	0.001067	JB	0.1	0.09371	92.64		0.1	0.09603	94.96		2.448		20	75	125
Lead	0.051433	>MCL	0.1	0.1420	90.54		0.1	0.1433	91.85		0.9147		20	75	125
Thallium	0.002264	B>MC	0.1	0.09400	91.73		0.1	0.09529	93.03		1.371		20	75	125

Post Digestion Spike (PDS)

Sample Spiked: L0019373-10
RunID: ICPMS_120906E-4709651 Units: mg/L
Analysis Date: 09/06/2012 18:40 Analyst: RJD

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	Low Limit	High Limit
Manganese	0.297	0.5	2.804	501.4 *	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: L0019373
Lab Batch ID: 114706-I

Method Blank

RunID: ICPMS_120906E-4709680 Units: mg/L
Analysis Date: 09/06/2012 20:02 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.000724
Cadmium	0.0000921	J	0.002	0.0000602
Lead	0.000517	J	0.001	0.000047
Manganese	0.0013	J	0.002	0.00021
Nickel	0.00132	J	0.002	0.000259
Thallium	0.000421	J	0.002	0.000166
Zinc	0.0087		0.01	0.000548

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0019373-21A	DW-01
L0019373-22A	MW-01
L0019373-23A	BA-03A
L0019373-24A	BA-03
L0019373-25A	MW-2
L0019373-26A	BC-07
L0019373-27A	BC-25
L0019373-28A	DW-04
L0019373-29A	BC-19
L0019373-30A	MW-3
L0019373-31A	MW-6
L0019373-32A	DUPLICATE #1
L0019373-33A	DUPLICATE #2
L0019373-34A	DUPLICATE #3
L0019373-35A	DUPLICATE #4

Laboratory Control Sample (LCS)

RunID: ICPMS_120906E-4709681 Units: mg/L
Analysis Date: 09/06/2012 20:05 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09627	96.27		80	120
Cadmium	0.1000	0.09772	97.72		80	120
Lead	0.1000	0.09721	97.21		80	120
Manganese	0.1000	0.09653	96.53		80	120
Nickel	0.1000	0.09624	96.24		80	120
Thallium	0.1000	0.09699	96.99		80	120
Zinc	0.1000	0.08645	86.45		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0019373
Method: SW6020 **Lab Batch ID:** 114706-I

Sample Spiked: L0019373-26
RunID: ICPMS_120906E-4709684 Units: mg/L
Analysis Date: 09/06/2012 20:14 Analyst: RJD
Preparation Date: 08/30/2012 17:00 Prep By: LAB Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.09126	91.26		0.1	0.09341	93.41		2.324		20	75	125
Cadmium	0.0004737	JB	0.1	0.08868	88.21		0.1	0.08904	88.57		0.4040		20	75	125
Lead	0.002777	JB	0.1	0.08668	83.90		0.1	0.08848	85.70		2.060		20	75	125
Manganese	0.06551	B	0.1	0.1496	84.08		0.1	0.1462	80.67		2.307		20	75	125
Nickel	0.004292	JB	0.1	0.08707	82.77		0.1	0.08658	82.29		0.5623		20	75	125
Thallium	0.002262	B>MC	0.1	0.08641	84.15		0.1	0.08867	86.41		2.583		20	75	125
Zinc	0.009958	JB	0.1	0.08872	78.77		0.1	0.09160	81.64		3.194		20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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Quality Control Report

SEMS, INC.

207-0016

Analysis: Dissolved Metals by ICP/MS
Method: SW6020
WorkOrder: L0019373
Lab Batch ID: 114734-I

Method Blank

RunID: ICPMS_120911B-4714015 Units: mg/L
Analysis Date: 09/11/2012 14:42 Analyst: RJD
Preparation Date: 08/27/2012 16:30 Prep By: LAB Method: SW3005

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0019373-03B	MW-4
L0019373-21B	DW-01

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.000724
Cadmium	0.000134	J	0.002	0.0000602
Lead	ND		0.001	0.000047
Manganese	ND		0.002	0.00021
Nickel	ND		0.002	0.000259
Thallium	ND		0.002	0.000166
Zinc	0.0021	J	0.006	0.000548

Laboratory Control Sample (LCS)

RunID: ICPMS_120911B-4714016 Units: mg/L
Analysis Date: 09/11/2012 14:45 Analyst: RJD
Preparation Date: 08/27/2012 16:30 Prep By: LAB Method: SW3005

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09102	91.02		80	120
Cadmium	0.1000	0.09329	93.29		80	120
Lead	0.1000	0.1049	104.9		80	120
Manganese	0.1000	0.1019	101.9		80	120
Nickel	0.1000	0.1046	104.6		80	120
Thallium	0.1000	0.1042	104.2		80	120
Zinc	0.1000	0.09806	98.06		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0019373-03
RunID: ICPMS_120911B-4714019 Units: mg/L
Analysis Date: 09/11/2012 14.55 Analyst: RJD
Preparation Date: 08/27/2012 16.30 Prep By: LAB Method: SW3005

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: **Dissolved Metals by ICP/MS** **WorkOrder:** **L0019373**
Method: **SW6020** **Lab Batch ID:** **114734-I**

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	0.0007783	J	0.1	0.09159	90.81		0.1	0.09163	90.86		0.04893		20	75	125
Cadmium	0.0001530	JB	0.1	0.09499	94.84		0.1	0.09661	96.46		1.694		20	75	125
Lead	ND		0.1	0.1051	105.1		0.1	0.1031	103.1		1.913		20	75	125
Manganese	ND		0.1	0.1084	108.4		0.1	0.09939	99.39		8.715		20	75	125
Nickel	0.0005060	J	0.1	0.1048	104.3		0.1	0.1007	100.2		3.982		20	75	125
Thallium	ND		0.1	0.1029	102.9		0.1	0.1013	101.3		1.546		20	75	125
Zinc	0.005467	JB	0.1	0.1499	144.4	*	0.1	0.09648	91.01		43.34	*	20	75	125

Post Digestion Spike (PDS) / Post Digestion Spike Duplicate (PDSD)

Sample Spiked: L0019373-03
RunID: ICPMS_120911B-4714021 Units: mg/L
Analysis Date: 09/11/2012 15:01 Analyst: RJD

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Zinc	0.00547	0.5	0.6693	132.8 *	0.5	0.5336	105.6	22.56 *	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/21/2012 1:02:13 PM

Sample Receipt Checklist
And
Chain of Custody

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Sample Receipt Checklist

Workorder:	L0019373	Received By:	EMB
Date and Time Received:	8/27/2012 4:10:00 PM	Carrier name:	Accutest-Delivery
Temperature:	2°C	Chilled by:	Water Ice

1.	Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2.	Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
3.	Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4.	Chain of custody present?	Yes ☑	No ☐	
5.	Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
6.	Chain of custody agrees with sample labels?	Yes ☑	No ☐	
7.	Samples in proper container/bottle?	Yes ☑	No ☐	
8.	Sample containers intact?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test?	Yes ☑	No ☐	
10.	All samples received within holding time?	Yes ☑	No ☐	
11.	Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
12.	Water - VOA vials have zero headspace?	Yes ☐	No ☐	VOA Vials Not Present ☑
13.	Water - Preservation checked upon receipt (except VOA*)?	Yes ☑	No ☐	Not Applicable ☐

*VOA Preservation Checked After Sample Analysis

Accutest Representative: _____ Contact Date & Time: _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX 337-237-7838
www.accutest.com

FED-EX Tracking #
Bottle Order Control #
Accutest Quote #
Accutest Job # L0019373

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway Blvd. Ste 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Jesse Hoppes jhoppes@semsinc.net
Phone # / Fax #: (504) 342-2340
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504) 451-8083

Project Information

Project Name: Delatte Metals Superfund
Street: Weinberger Rd.
City / State: Ponchatoula, LA
Project #: 207-00.6
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (If different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAcOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals	Dissolved Metals	MS/MSD								LAB USE ONLY
	BA-09 A	8/20/12	9:29	NR	GW	1				1									X									1	
	BA-09	8/20/12	9:52	NR	GW	1				1									X									1	
	MW-4	8/20/12	10:14	NR	GW	2				2									X	X								2	
	WW-09	8/20/12	10:35			1				1									X									1	
	WW-04	8/20/12	11:10			1				1									X									1	
	Reagan Well	8/20/12	11:26			1				1									X									1	
	BC-03	8/20/12	12:03			1				1									X									1	
	BB-01	8/20/12	14:09			1				1									X									1	
	South Well	8/20/12	14:20			1				1									X									1	
	BC-17	8/20/12	14:55			3				3									X		X							3	
	North Well	8/20/12	14:58			1				1									X									1	
	BC-21 R					1				1									X									1	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day RUSH
- [ ] 4 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Dissolved Samples were field filtered

Received at Baton Rouge Service Center

(BW) PHL2

Accutest PM

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nick Rodehorst [signature]	8/27/12	1 [signature]	2 [signature]	8.27.12	2 1460 R E Guillis
3 R E Guillis	8/27 1610	3 [signature]	4		4
5		5	Custody Seal # CSOC ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 2.0 (AC)

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337 237 4775 FAX: 337 237 7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name: SEMS, Inc
Street Address: 3801 N. Causeway Blvd. STE 209
City / State / Zip: Metairie LA 70002
Project Contact: Jesse Hoppes jhopp@[illegible]
Phone #: (504) 342-2340
Fax #:
Sampler(s) Name(s): Nick Rodeboro
Phone #: (504) 451-8083

Project Information

Project Name: Delatte Metals Superfund
Street: Weinberger Rd.
City: Ponchatoula, LA
Project #: 207-0016
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAcOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals	Dissolved Metals	LAB USE ONLY
	BA-01A	8/21/12	8:49	NA	GW	1				1									X		1
	BA-01	8/21/12	9:15			1				1									X		1
	DW-03	8/21/12	9:55			1				1									X		1
	PW-04	8/21/12	10:22			1				1									X		1
	DW-02	8/21/12	10:49			1				1									X		1
	BA-05A	8/21/12	11:48			1				1									X		1
	BA-05	8/21/12	12:40			1				1									X		1
	MW-A	8/21/12	14:11			1				1									X		1
	DW-01	8/21/12	14:50			2				2									X	X	2
	MW-01	8/21/12	15:11			1				1									X		1
	BA-03A	8/22/12	8:28			1				1									X		1
	BA-03	8/22/12	9:08			1				1									X		1

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

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1 Nick Rodeboro [signature]	8/27/12 1410	1 [signature]	2 [signature]	8.27.12	2 1420 R E Guillot
3 R E Guillot	8/27 1610	3 [signature]	4		4
5		5	Custody Seal # CSOC	☐ Intact ☐ Not intact	Preserved where applicable ☑ On Ice ☐ Cooler Temp. 2.0 (AH)

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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Phone #: (504) 451-8083

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City / State: Pearlstown, LA
Project #: 207-0016
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)
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	MW-2	8/22/12	9:46	NR	GW	1				1									X									1	
	BC-07	8/22/12	10:23	NR	GW	3				3									X		X							3	
	BC-25	8/22/12	10:55			1				1									X									1	
	DW-04	8/24/12	1102			1				1									X									1	
	BC-19	8/24/12	1135			1				1									X									1	
	MW-3	8/24/12	1250			1				1									X									1	
	MW-6	8/24/12	1337			1				1									X									1	
	Duplicate #1	8/20/12	1409			1				1									X									1	
	Duplicate #2	8/21/12	8:49			1				1									X									1	
	Duplicate #3	8/21/12	14:11			1				1									X									1	
	Duplicate #4	8/22/12	10:23			1				1									X									1	

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GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
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TB - Trip Blank

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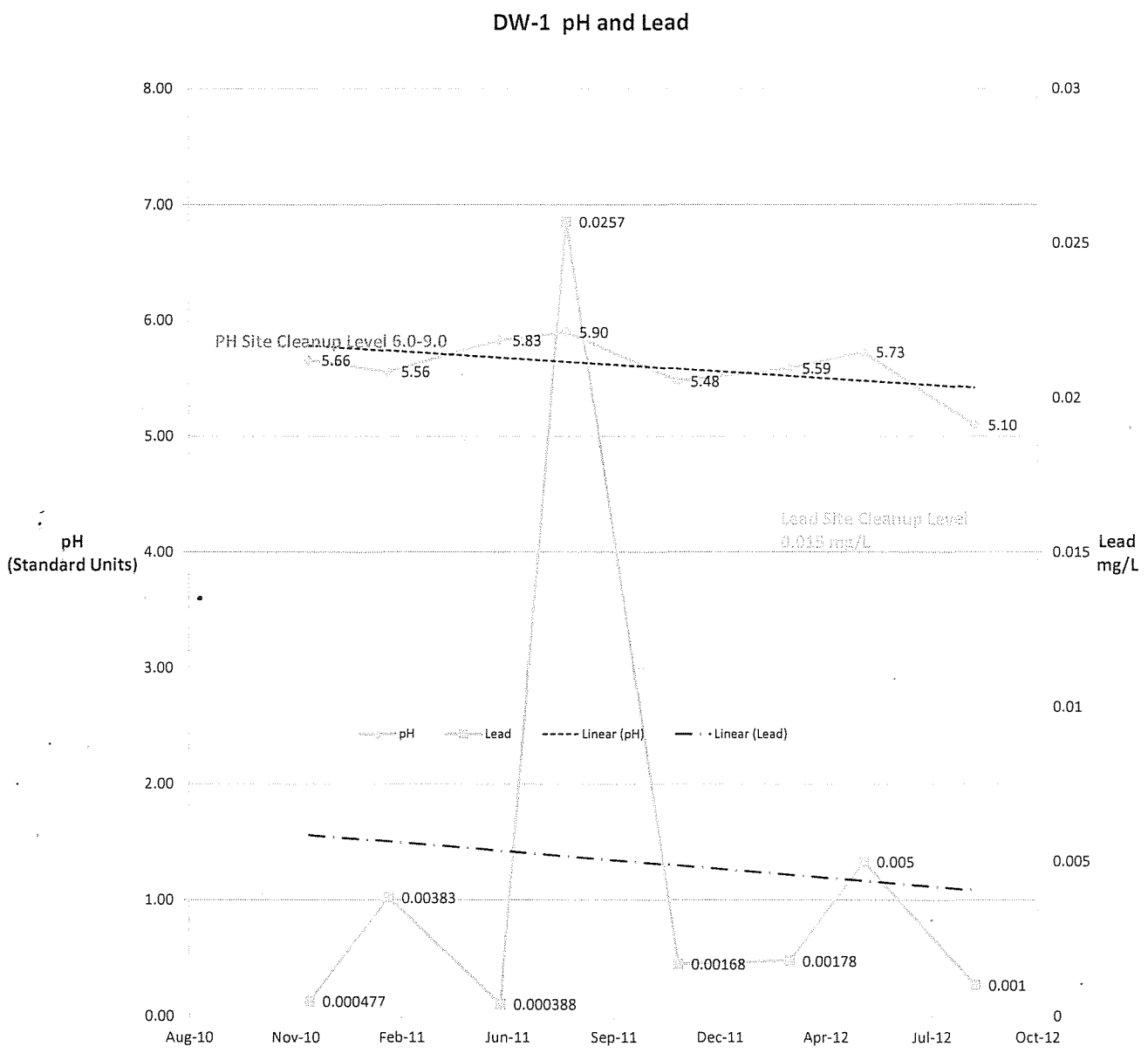
3 R E Guillot	8/27 1610	3 [signature]	4		4
5		5	Custody Seal # CSOC ☐ Intact ☐ Not intact	Preserved where applicable	On Ice ☐ Cooler Temp 2.0 (A-10)

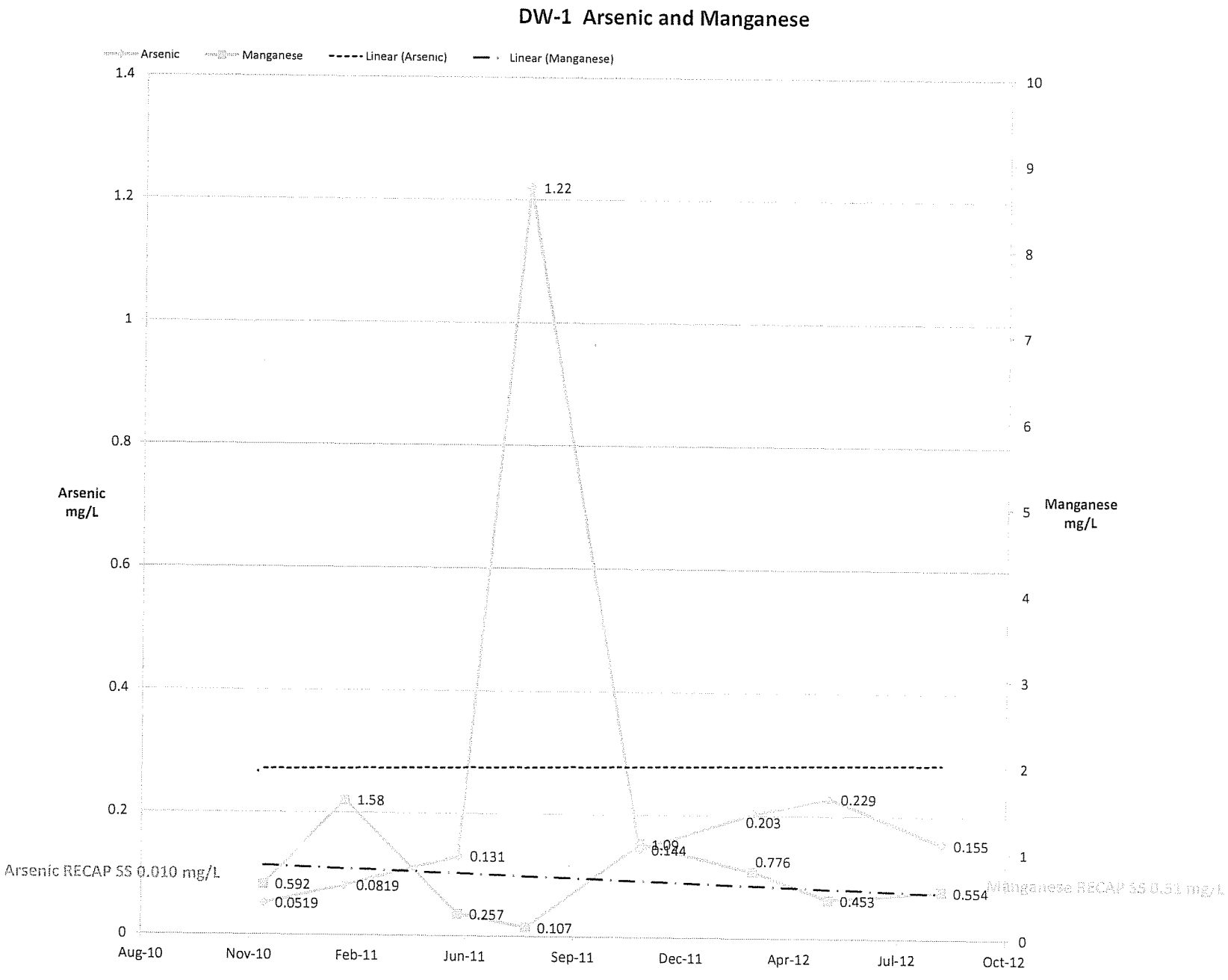
ATTACHMENT C

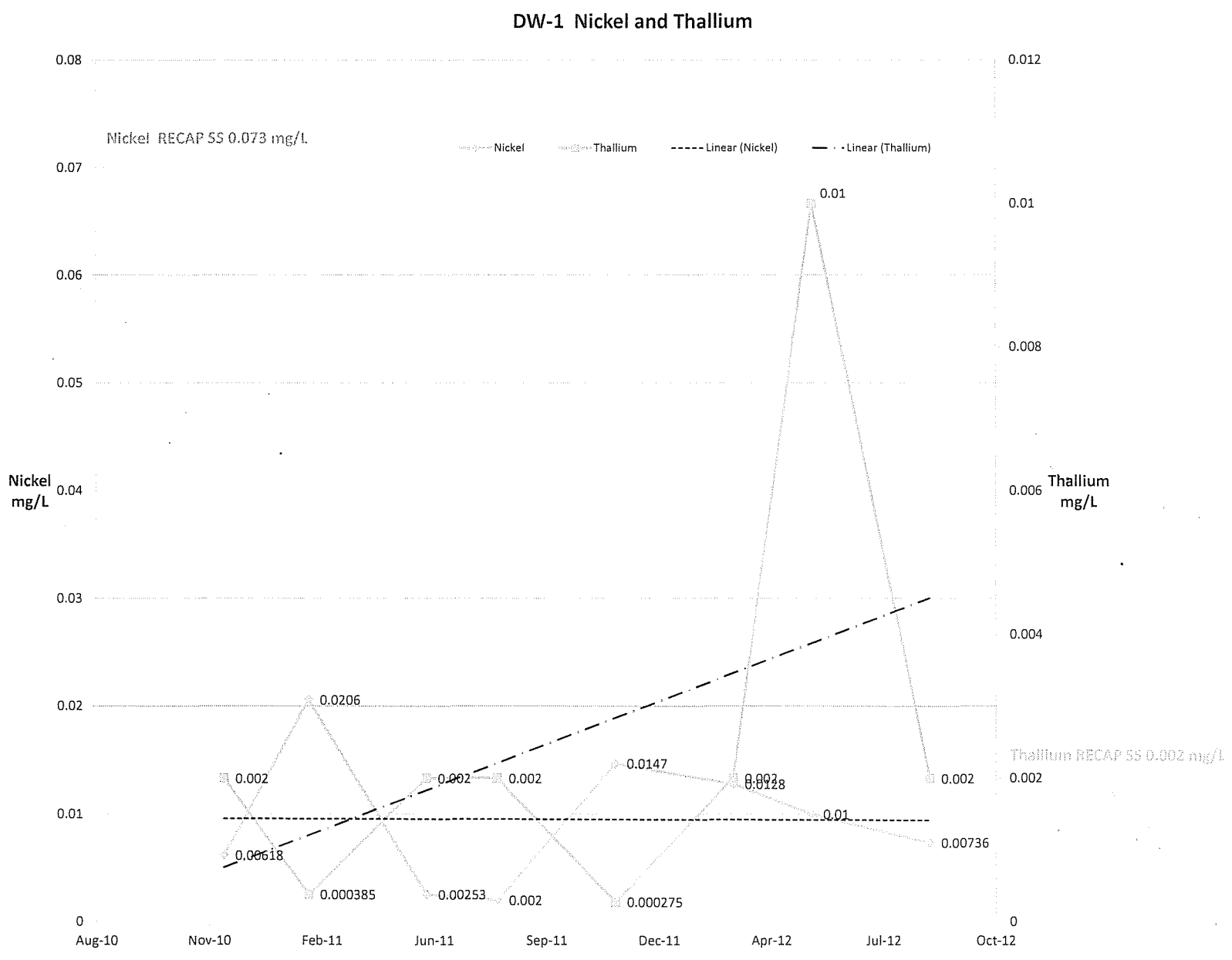
HISTORICAL CONCENTRATION
VS.
TIME GRAPHS

FIRST WATER BEARING ZONE

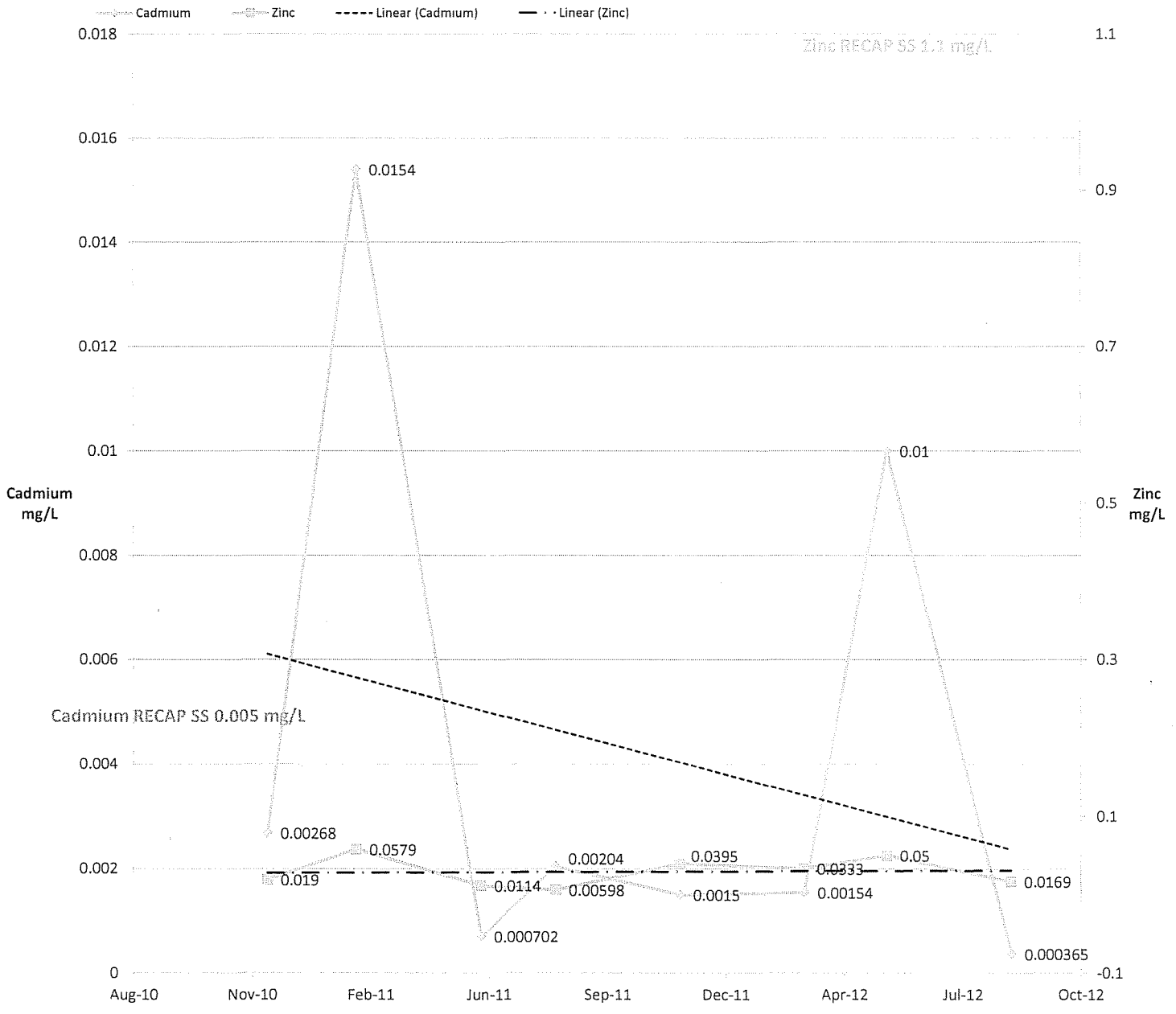
(PAST EIGHT QUARTERS)

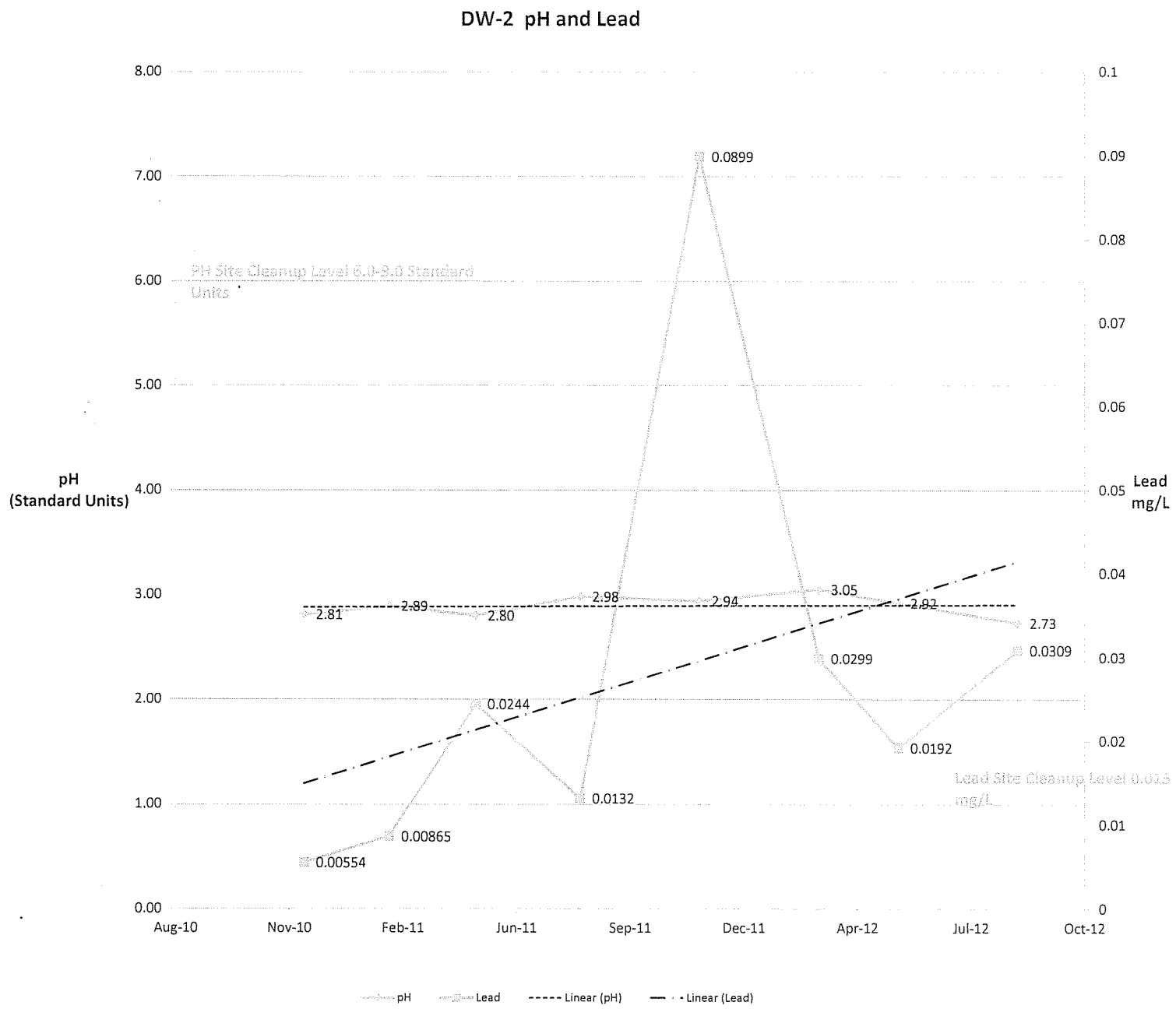

DW-1 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.03
0.025
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.0-9.0
Lead Site Cleanup Level
0.015 mg/L
5.66
5.56
5.83
5.90
5.48
5.59
5.73
5.10
0.0257
0.000477
0.00383
0.000388
0.00168
0.00178
0.005
0.001
pH
Lead
Linear (pH)
Linear (Lead)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

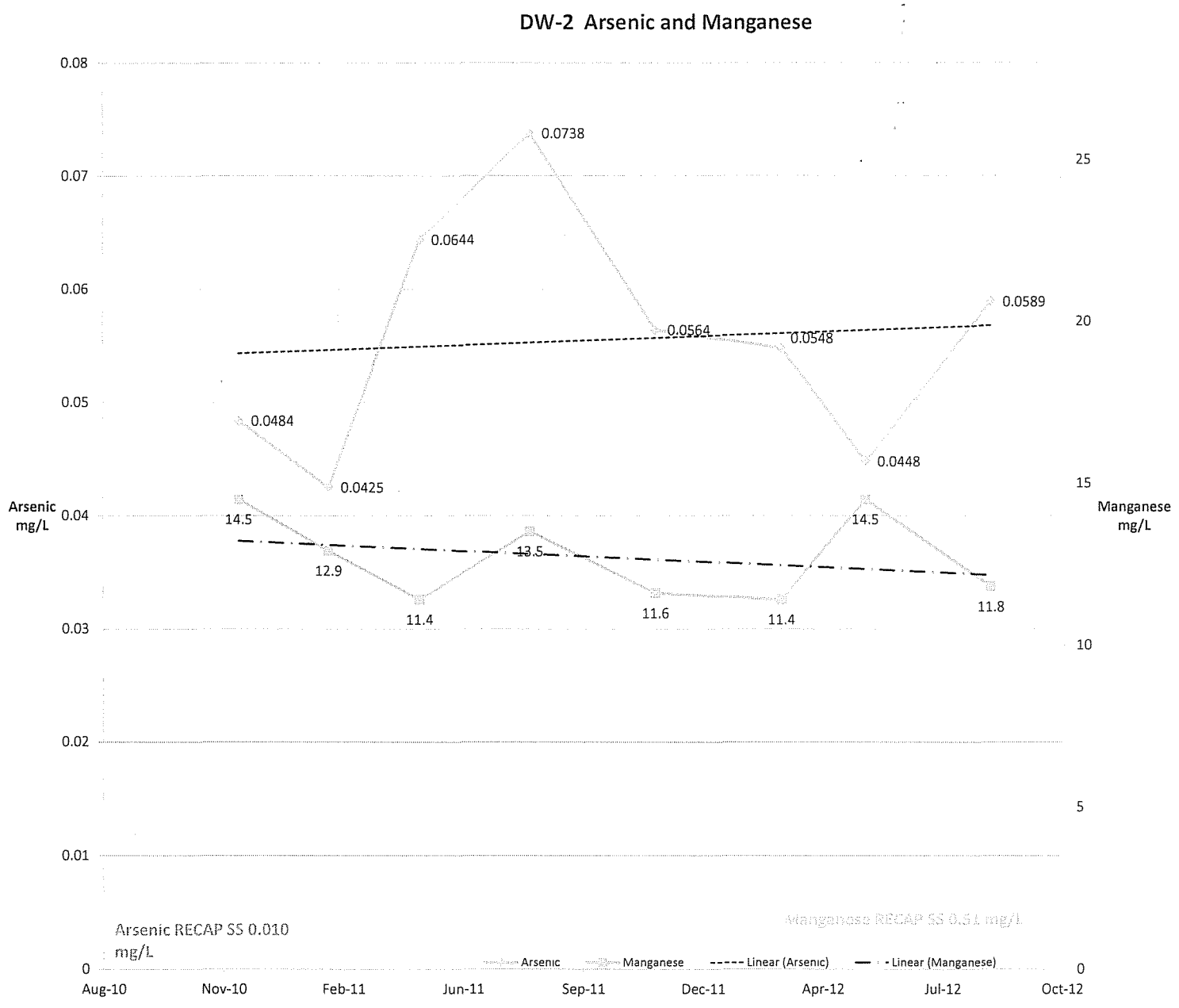

DW-1 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
1.4
1.2
1
0.8
0.6
0.4
0.2
0
10
9
8
7
6
5
4
3
2
1
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
1.22
1.58
0.592
0.0519
0.0819
0.131
0.257
0.107
1.09
0.144
0.203
0.776
0.229
0.453
0.155
0.554
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L

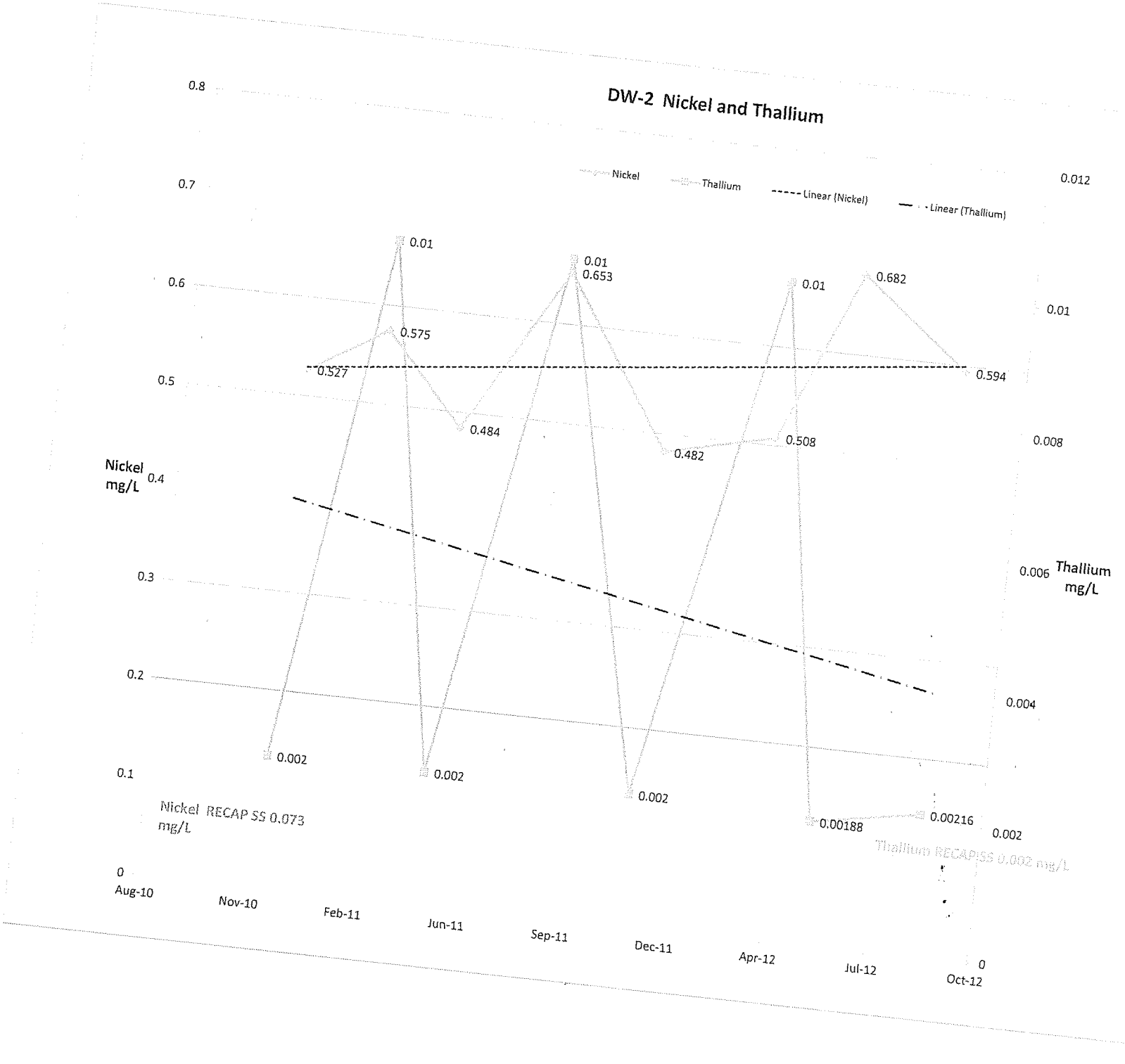

DW-1 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.01
0.0206
0.002
0.002
0.002
0.0147
0.002
0.0128
0.01
0.002
0.00736
0.00618
0.000385
0.00253
0.002
0.000275

DW-1 Cadmium and Zinc

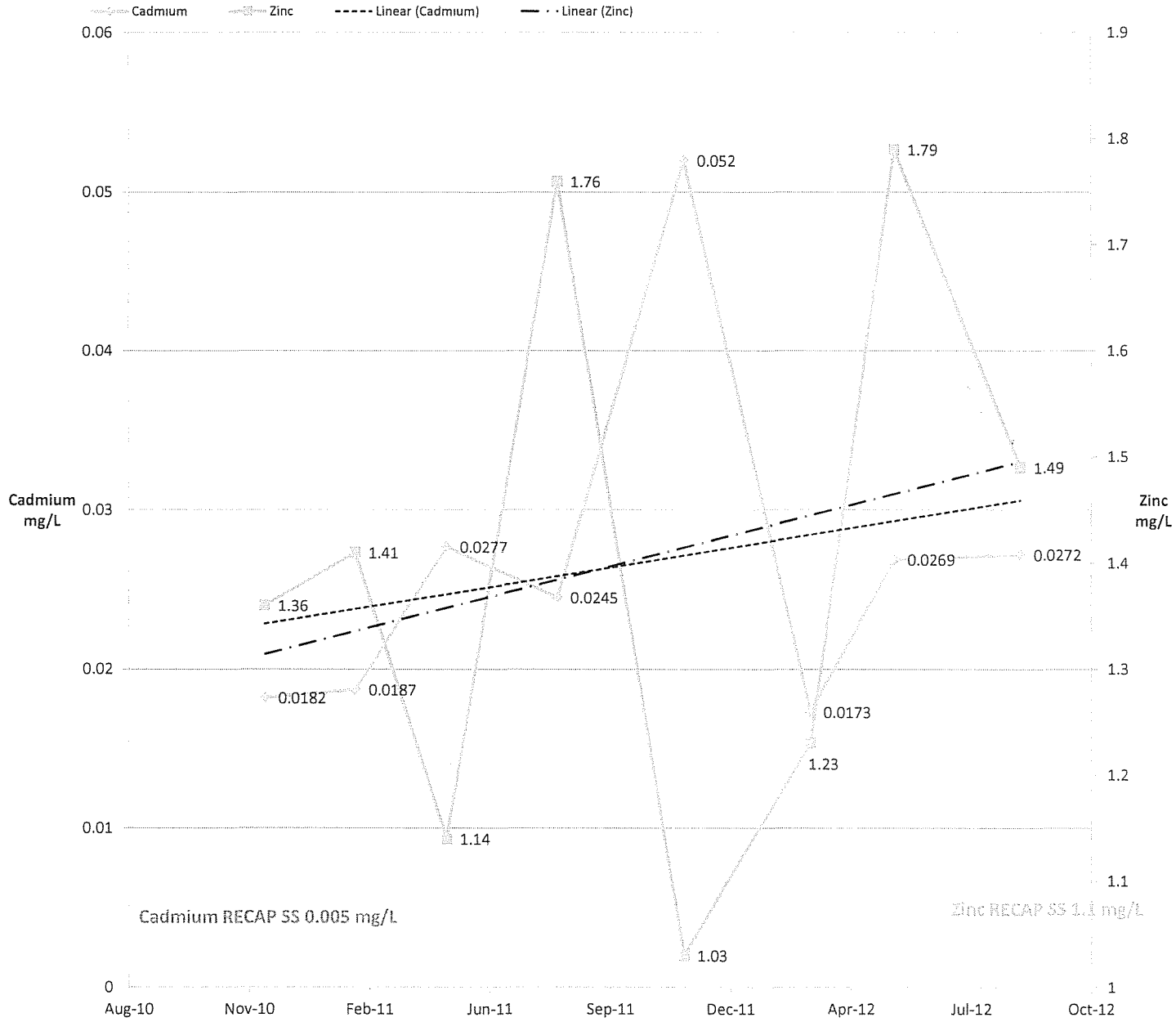


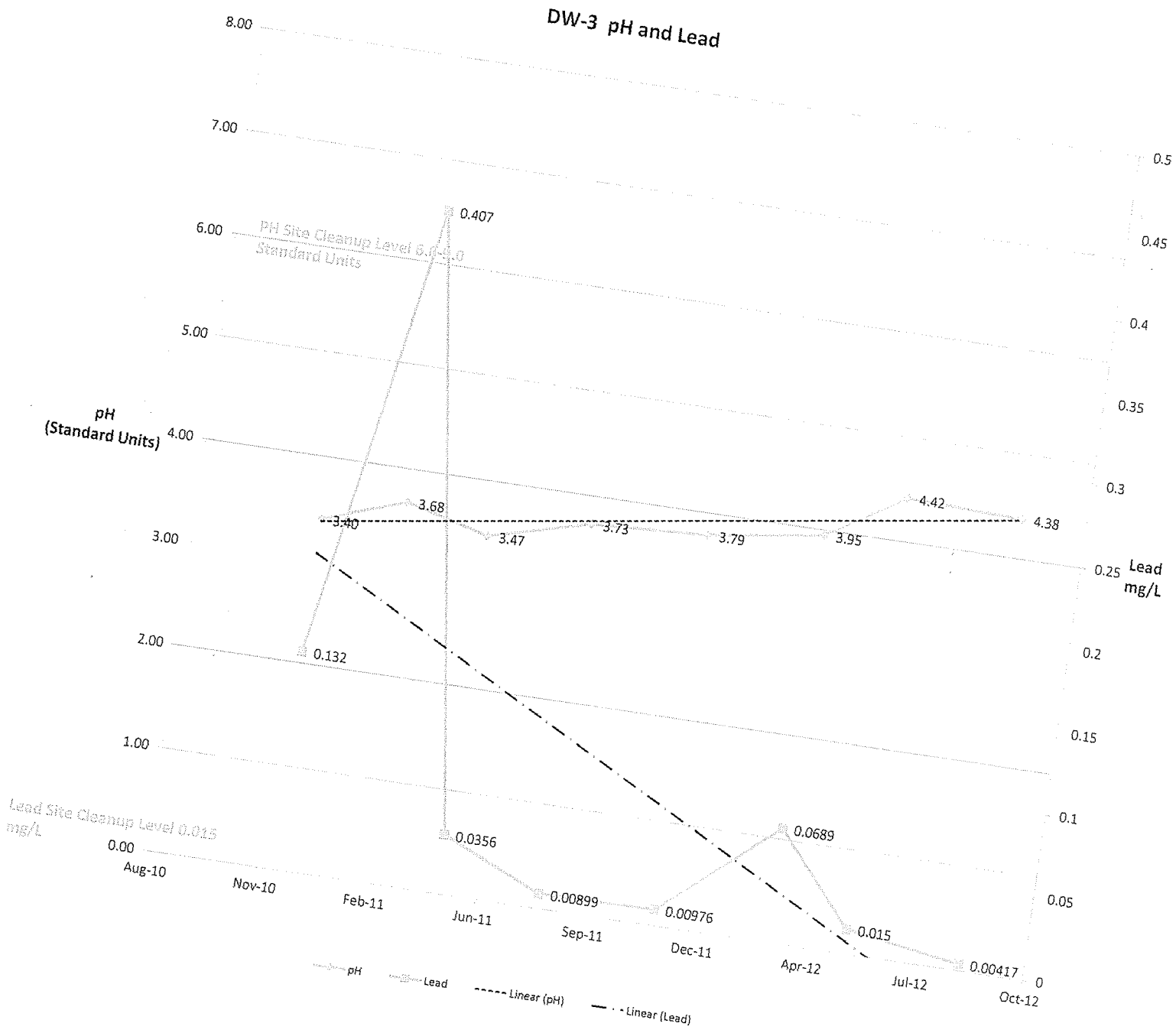

DW-2 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
0.0899
2.81
2.89
2.80
2.98
2.94
3.05
2.92
2.73
0.0299
0.0309
0.0244
0.0192
0.0132
0.00865
0.00554
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

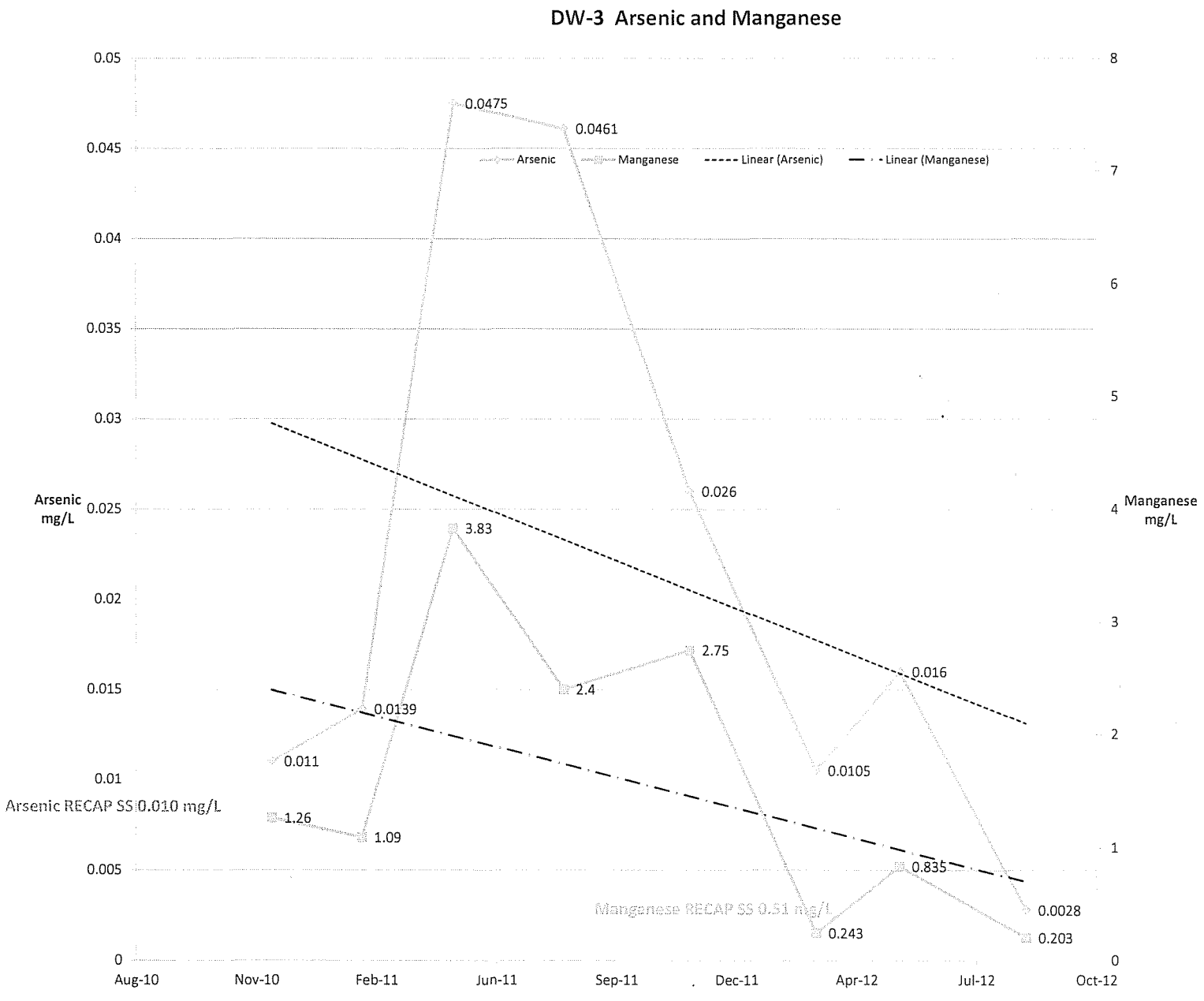

DW-2 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
25
20
15
10
5
0
0.0484
0.0425
0.0644
0.0738
0.0564
0.0548
0.0448
0.0589
14.5
12.9
11.4
13.5
11.6
11.4
14.5
11.8
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.61 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

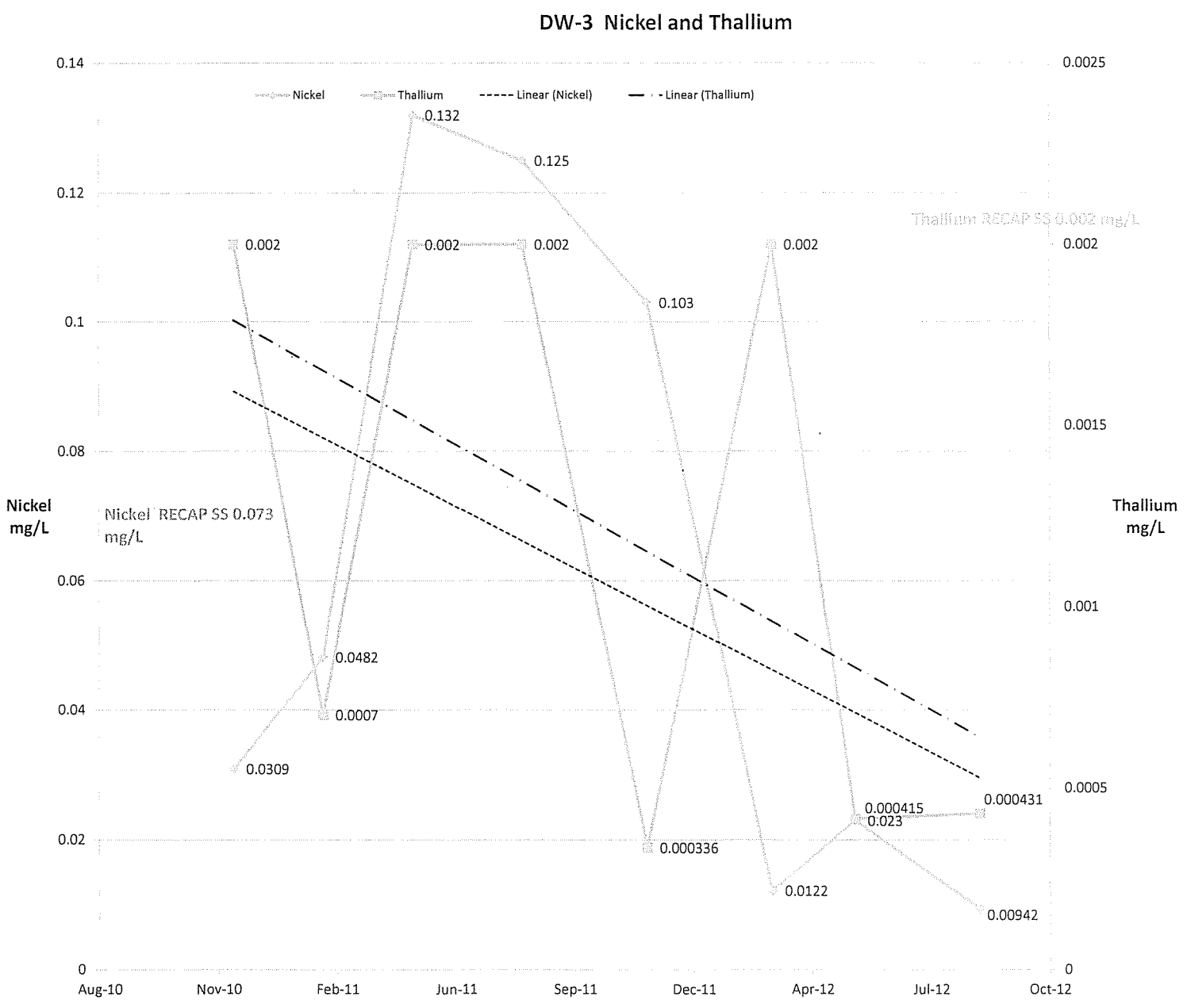

DW-2 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.012
0.01
0.008
0.006
0.004
0.002
0
0.01
0.575
0.527
0.484
0.01
0.653
0.482
0.01
0.682
0.508
0.594
0.002
0.002
0.002
0.00188
0.00216
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

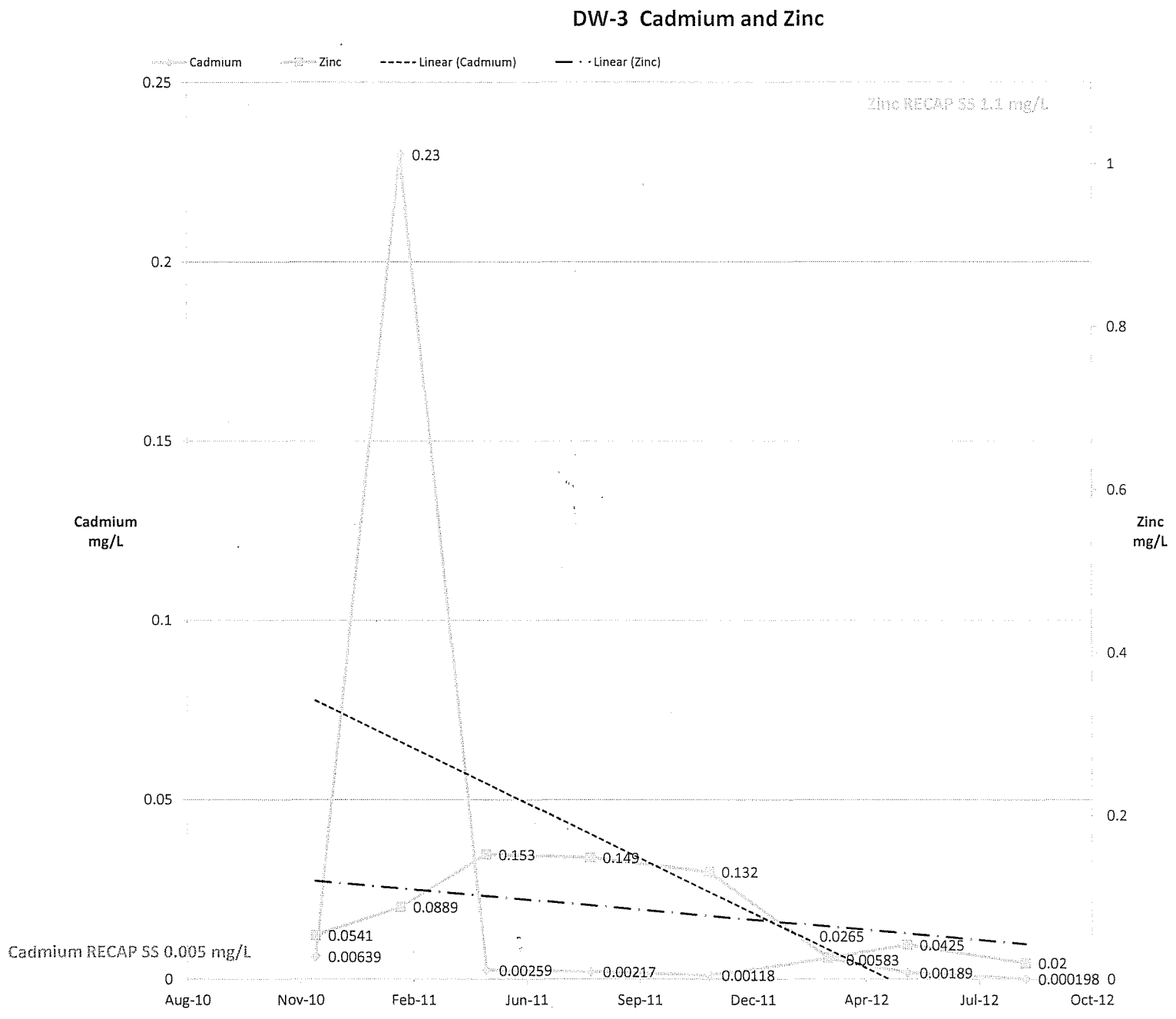
DW-2 Cadmium and Zinc

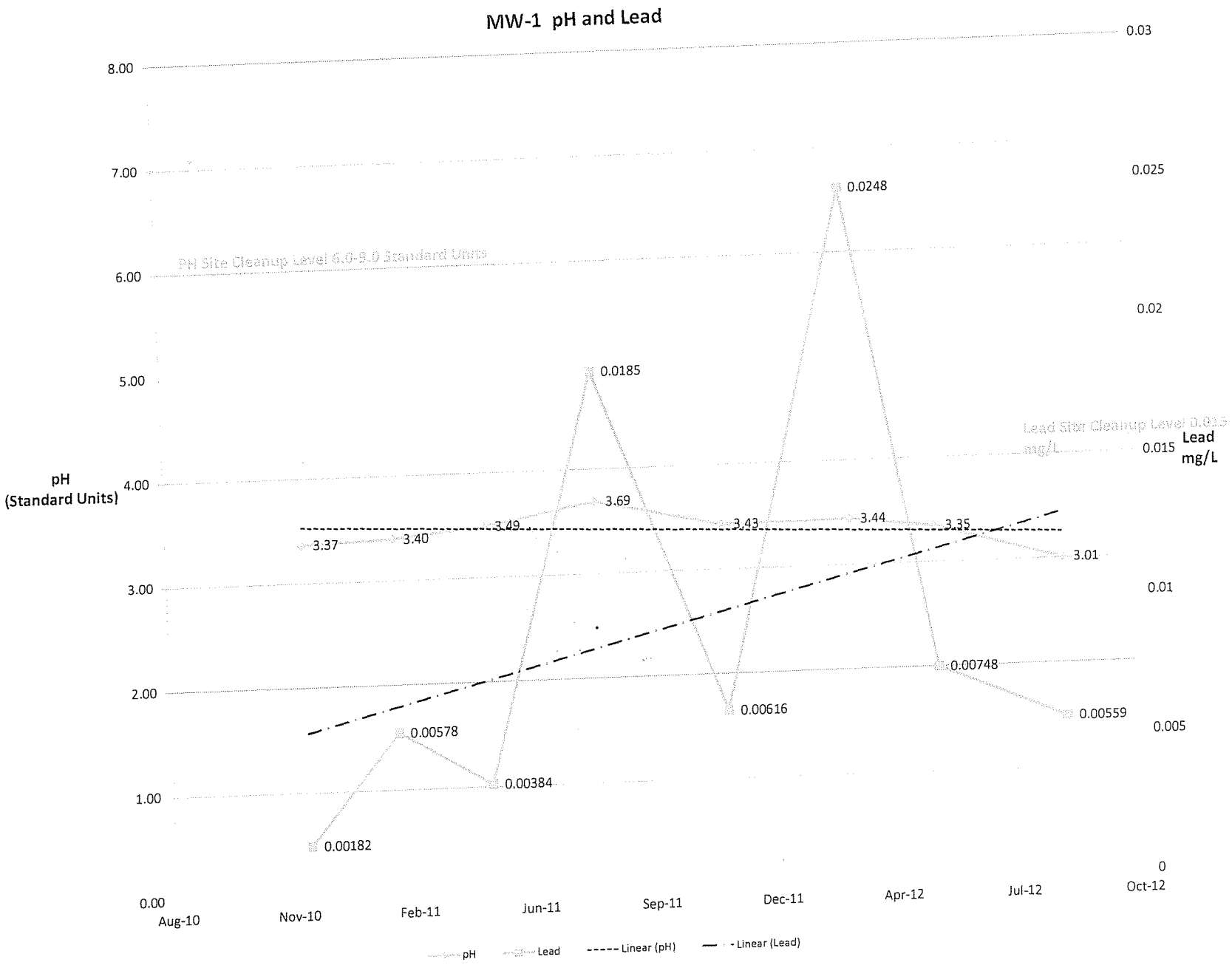


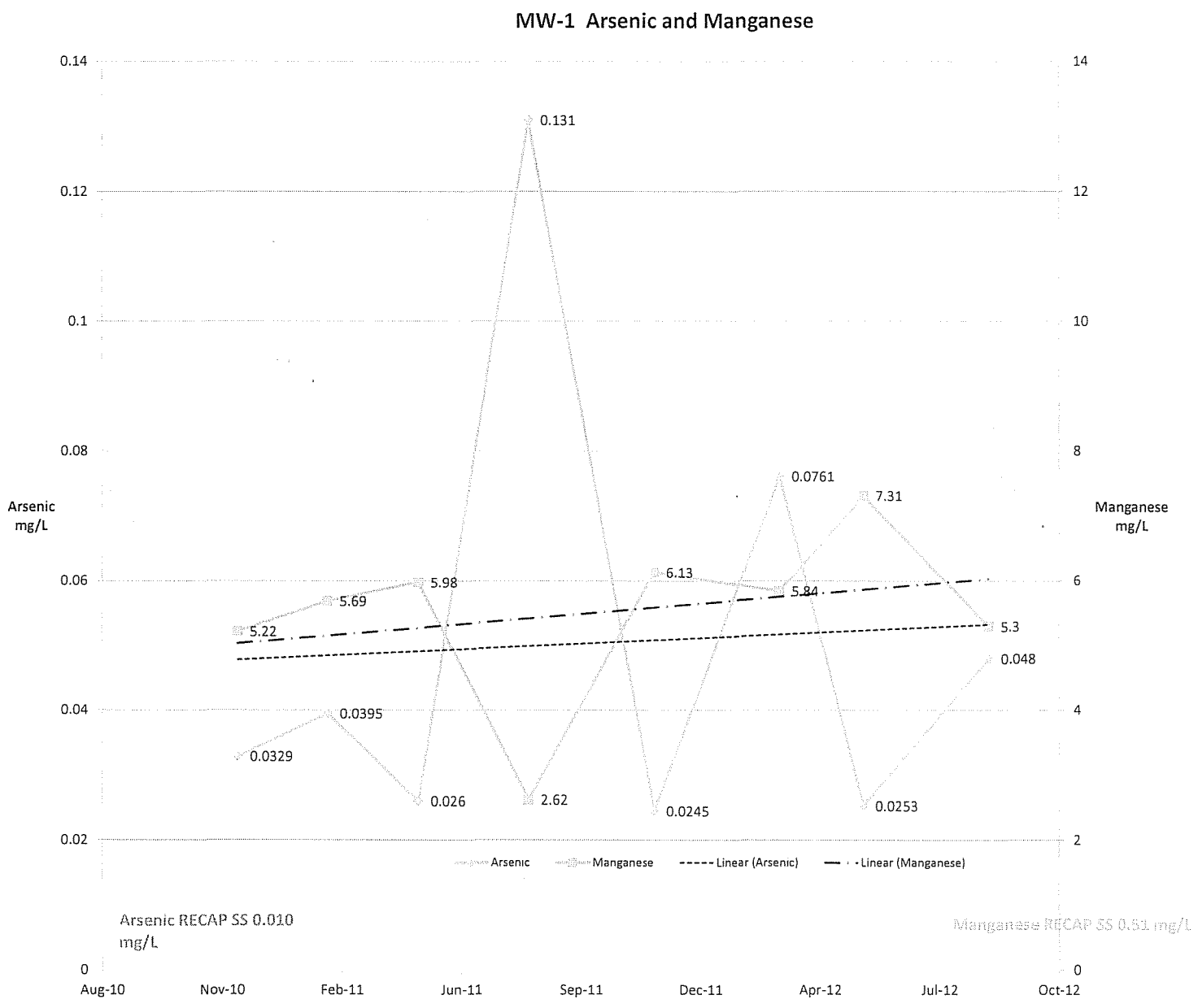

DW-3 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0
Standard Units
Lead Site Cleanup Level 0.015
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.407
3.68
3.40
3.47
3.73
3.79
3.95
4.42
4.38
0.132
0.0356
0.00899
0.00976
0.0689
0.015
0.00417
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

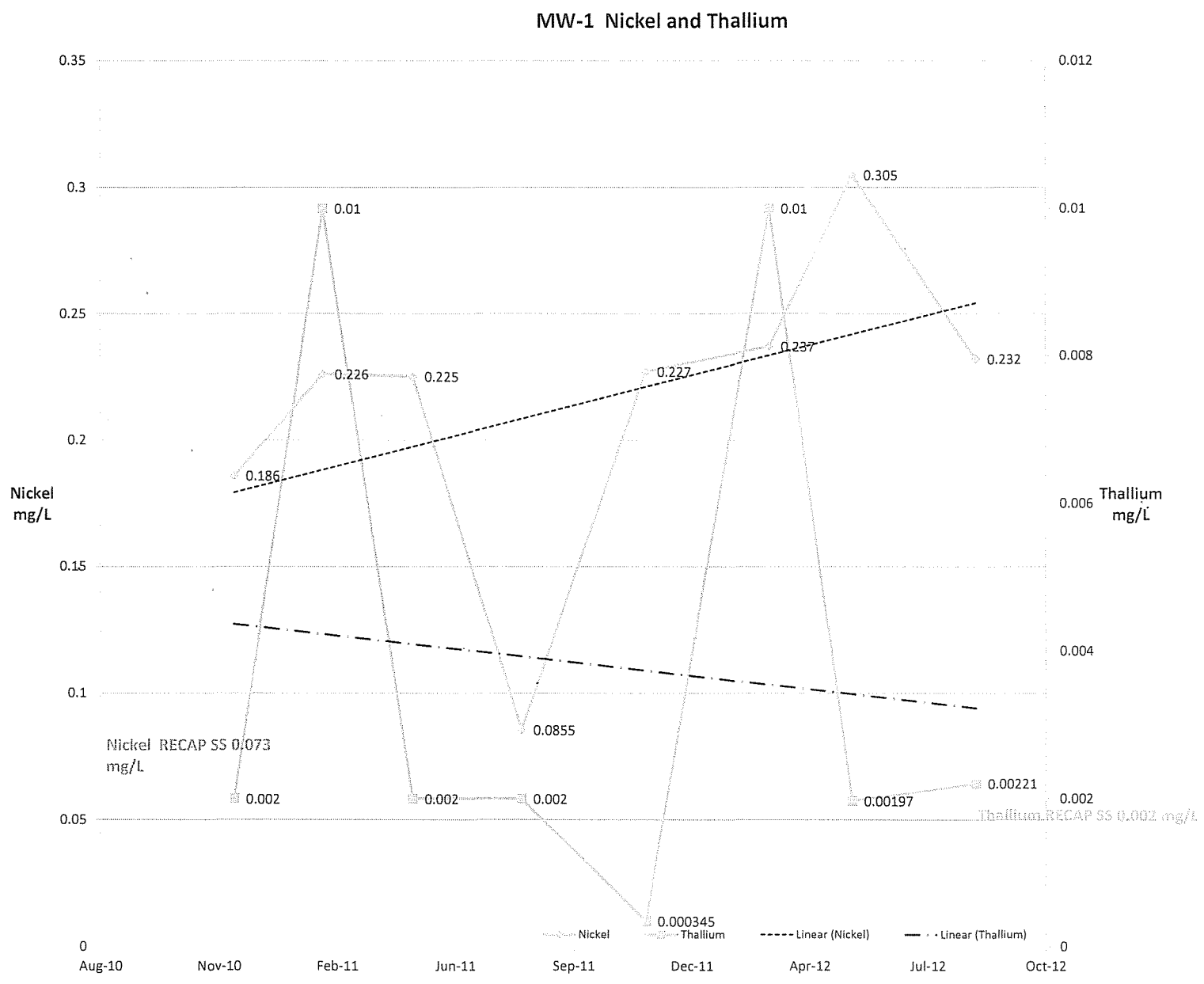

DW-3 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
8
7
6
5
4
3
2
1
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.0475
0.0461
0.026
0.016
0.011
0.0139
0.0105
0.0028
3.83
2.4
2.75
1.26
1.09
0.835
0.243
0.203
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L

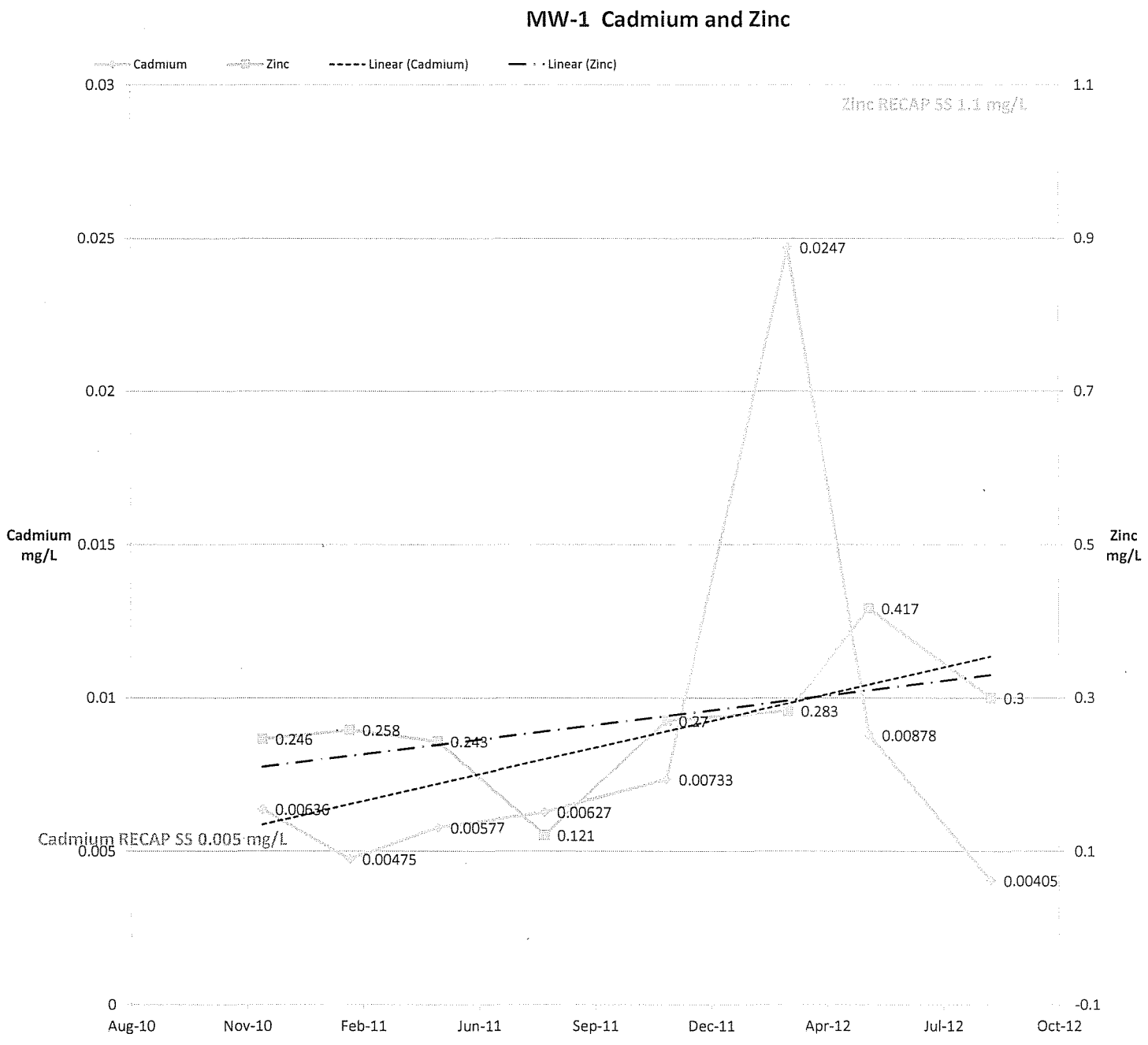

DW-3 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.0025
0.002
0.0015
0.001
0.0005
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.132
0.125
0.103
0.002
0.002
0.002
0.002
0.0482
0.0007
0.0309
0.000336
0.0122
0.000415
0.023
0.000431
0.00942

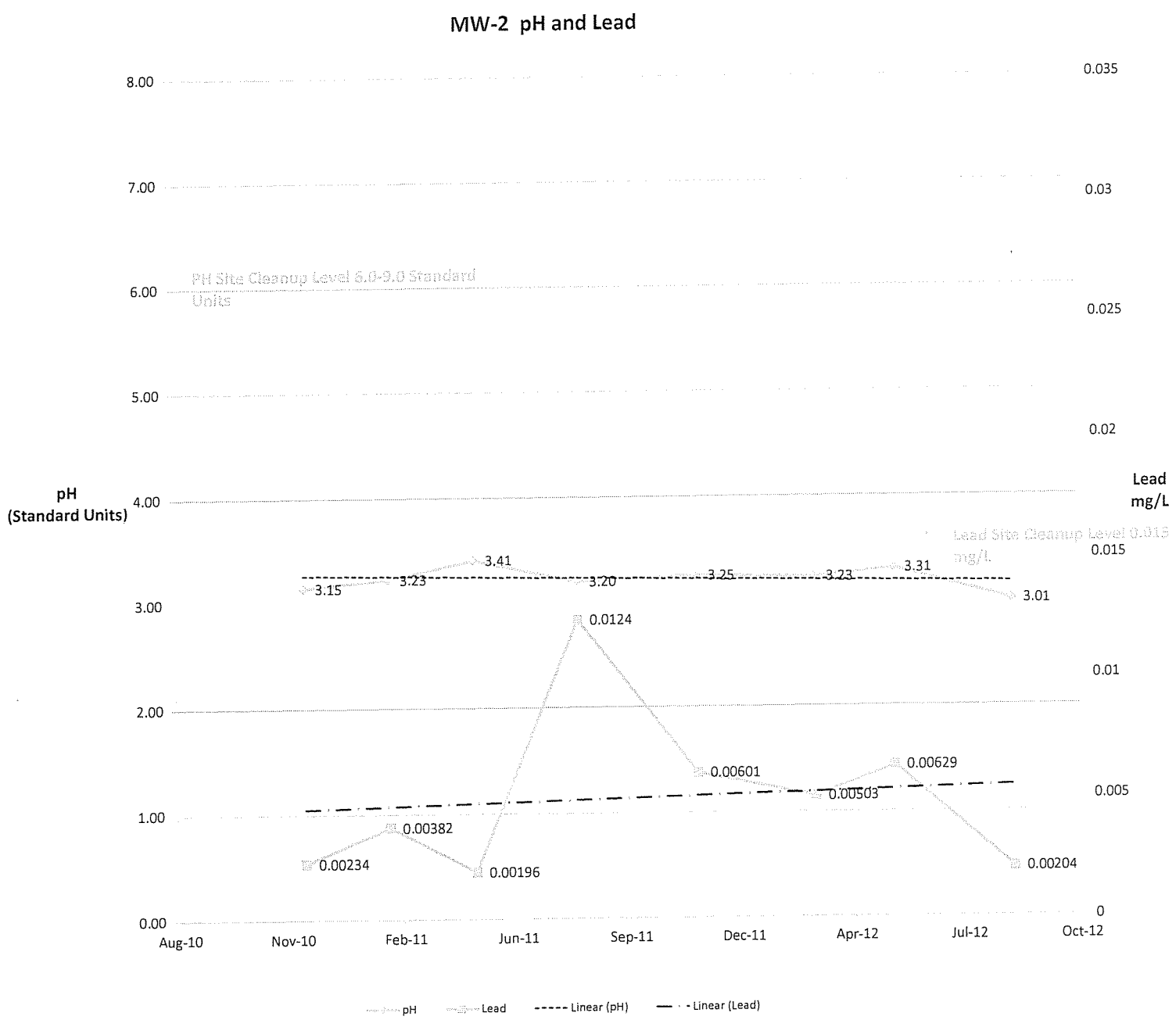

DW-3 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.25
0.2
0.15
0.1
0.05
0
1
0.8
0.6
0.4
0.2
0
0.23
0.153
0.149
0.132
0.0889
0.0541
0.00639
0.00259
0.00217
0.00118
0.0265
0.00583
0.0425
0.00189
0.02
0.000198
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

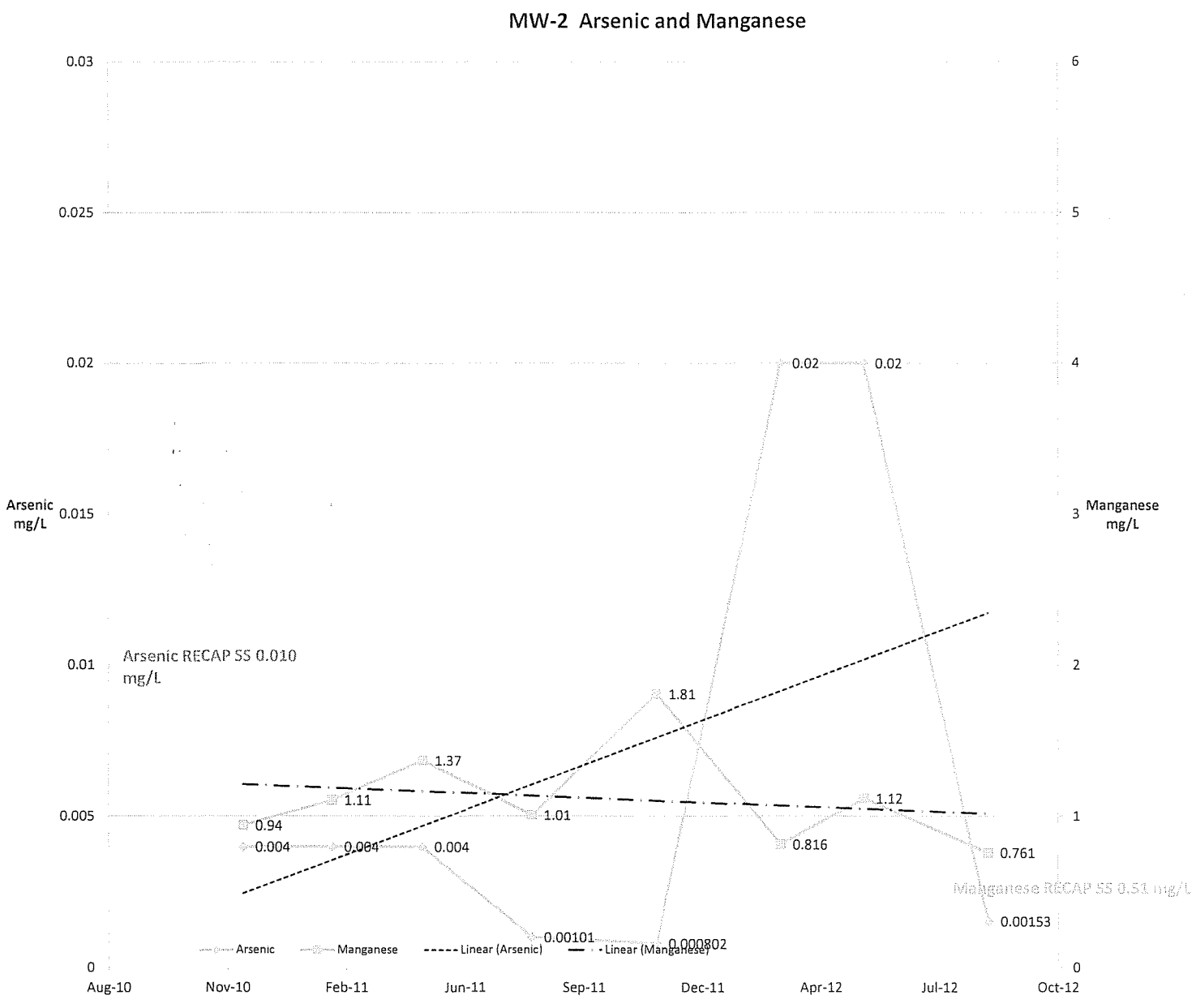

MW-1 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.03
0.025
0.02
0.015
0.01
0.005
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
3.37
3.40
3.49
3.69
3.43
3.44
3.35
3.01
0.00182
0.00578
0.00384
0.0185
0.00616
0.0248
0.00748
0.00559
pH
Lead
Linear (pH)
Linear (Lead)

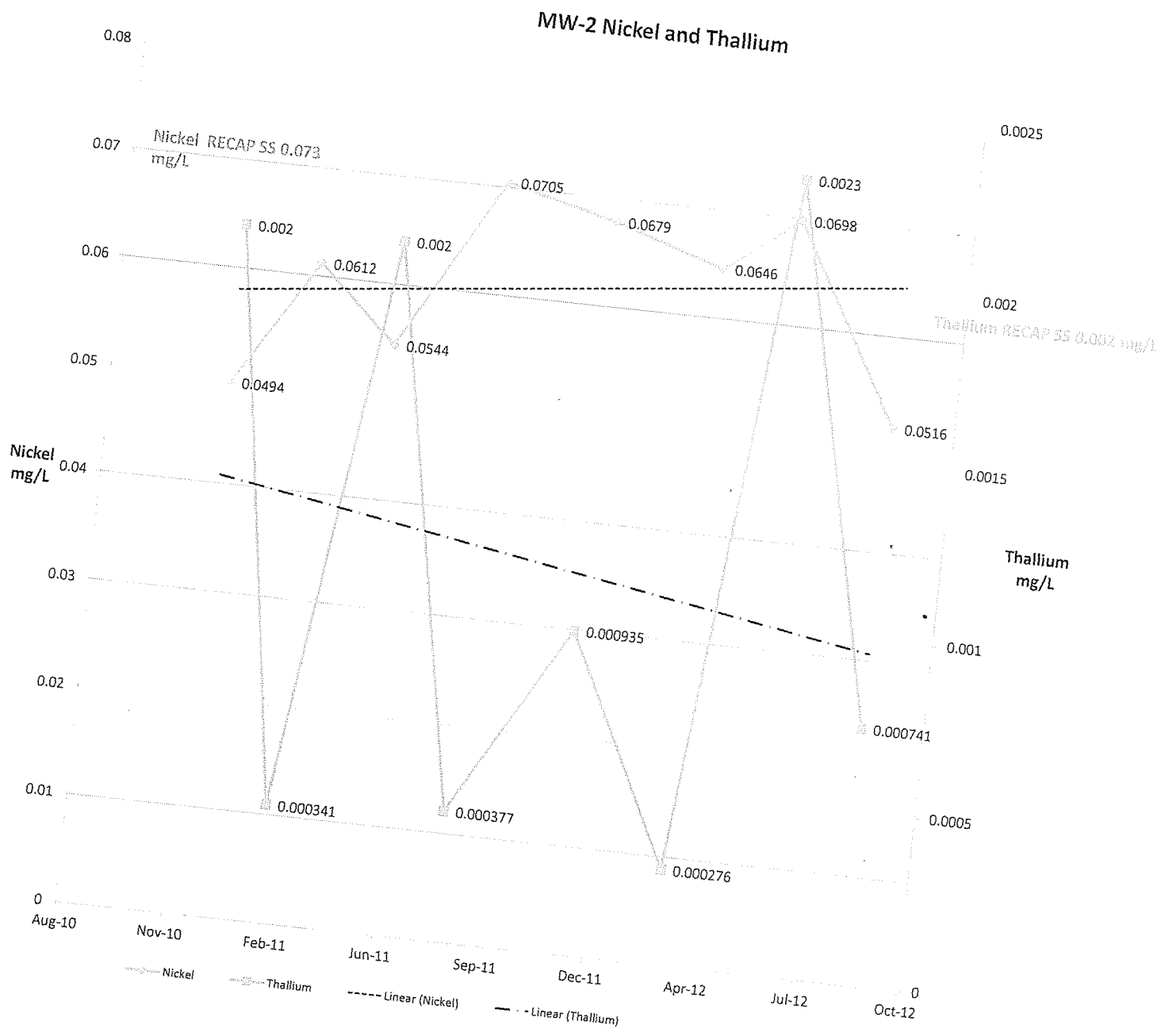

MW-1 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
14
12
10
8
6
4
2
0
0.131
0.0761
7.31
6.13
5.98
5.69
5.84
5.22
5.3
0.048
0.0395
0.0329
0.026
2.62
0.0245
0.0253
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12


MW-1 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.186
0.226
0.225
0.0855
0.227
0.237
0.232
0.002
0.002
0.002
0.000345
0.01
0.01
0.305
0.00197
0.00221
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

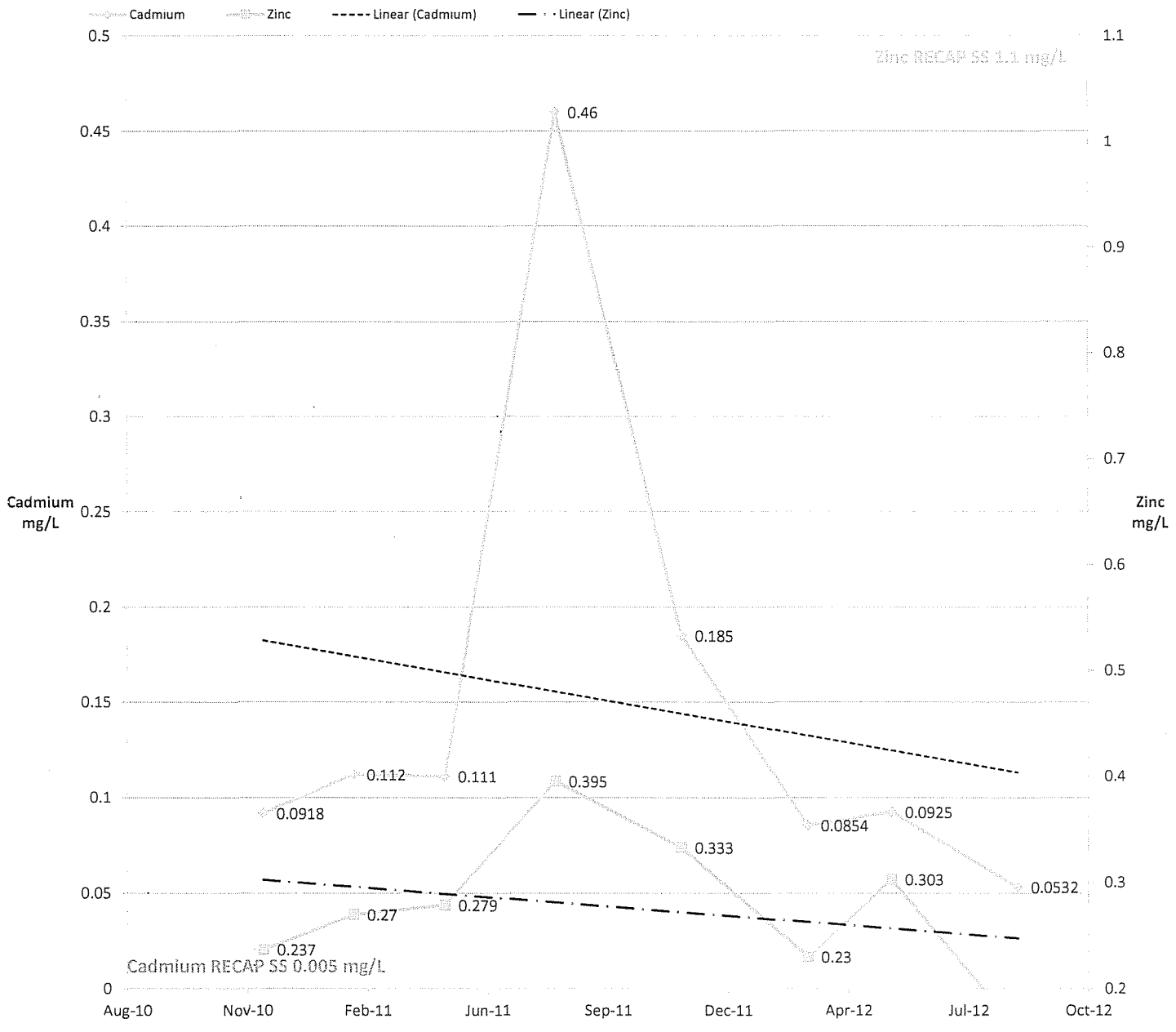

MW-1 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium mg/L
Zinc mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
1.1
0.9
0.7
0.5
0.3
0.1
-0.1
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
0.0247
0.417
0.3
0.283
0.27
0.258
0.246
0.243
0.121
0.00878
0.00733
0.00636
0.00627
0.00577
0.00475
0.00405
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

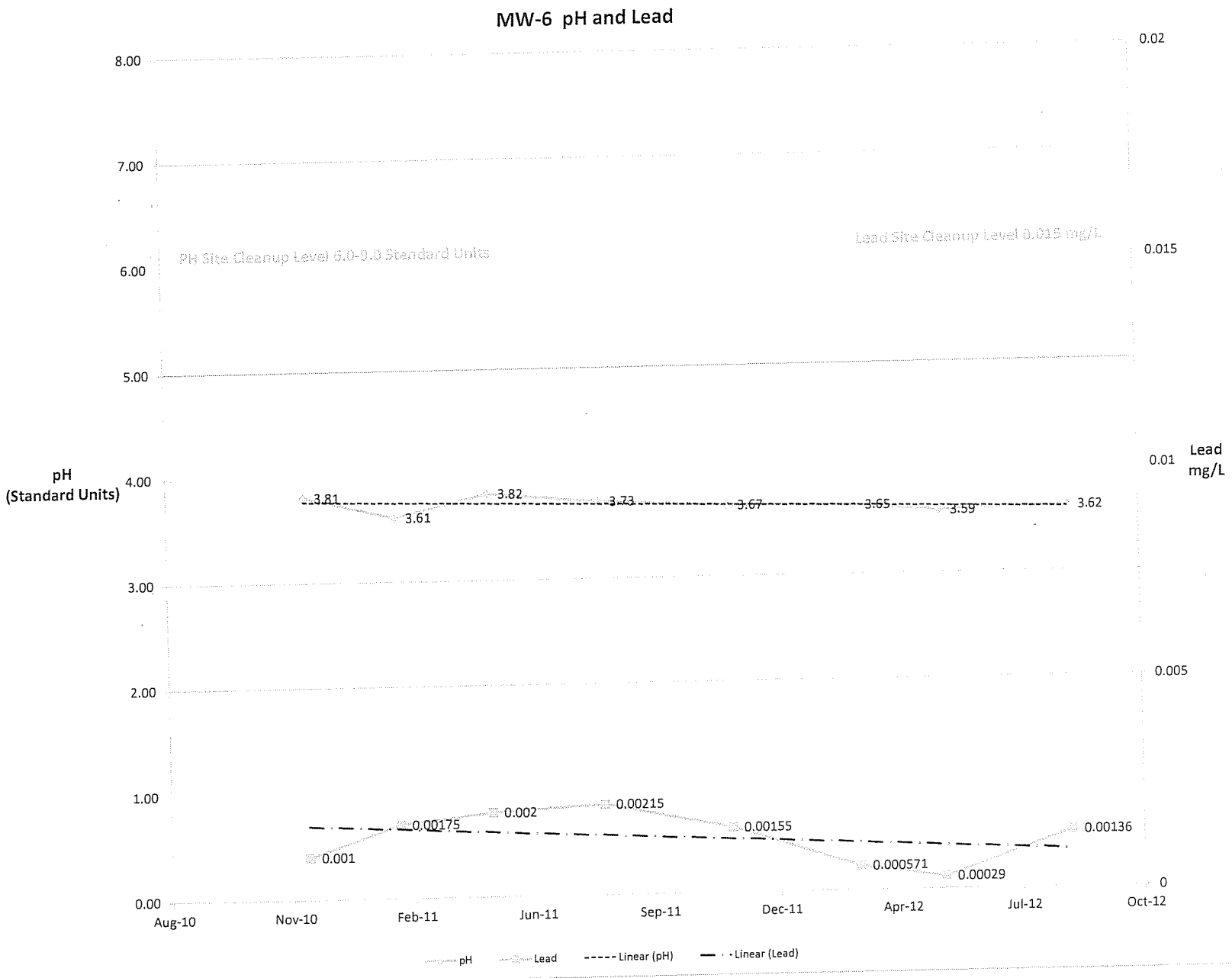

MW-2 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/l.
3.15
3.23
3.41
3.20
3.25
3.23
3.31
3.01
0.00234
0.00382
0.00196
0.0124
0.00601
0.00503
0.00629
0.00204
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


MW-2 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.94
1.11
1.37
1.01
1.81
0.816
1.12
0.761
0.004
0.004
0.004
0.00101
0.000802
0.02
0.02
0.00153
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

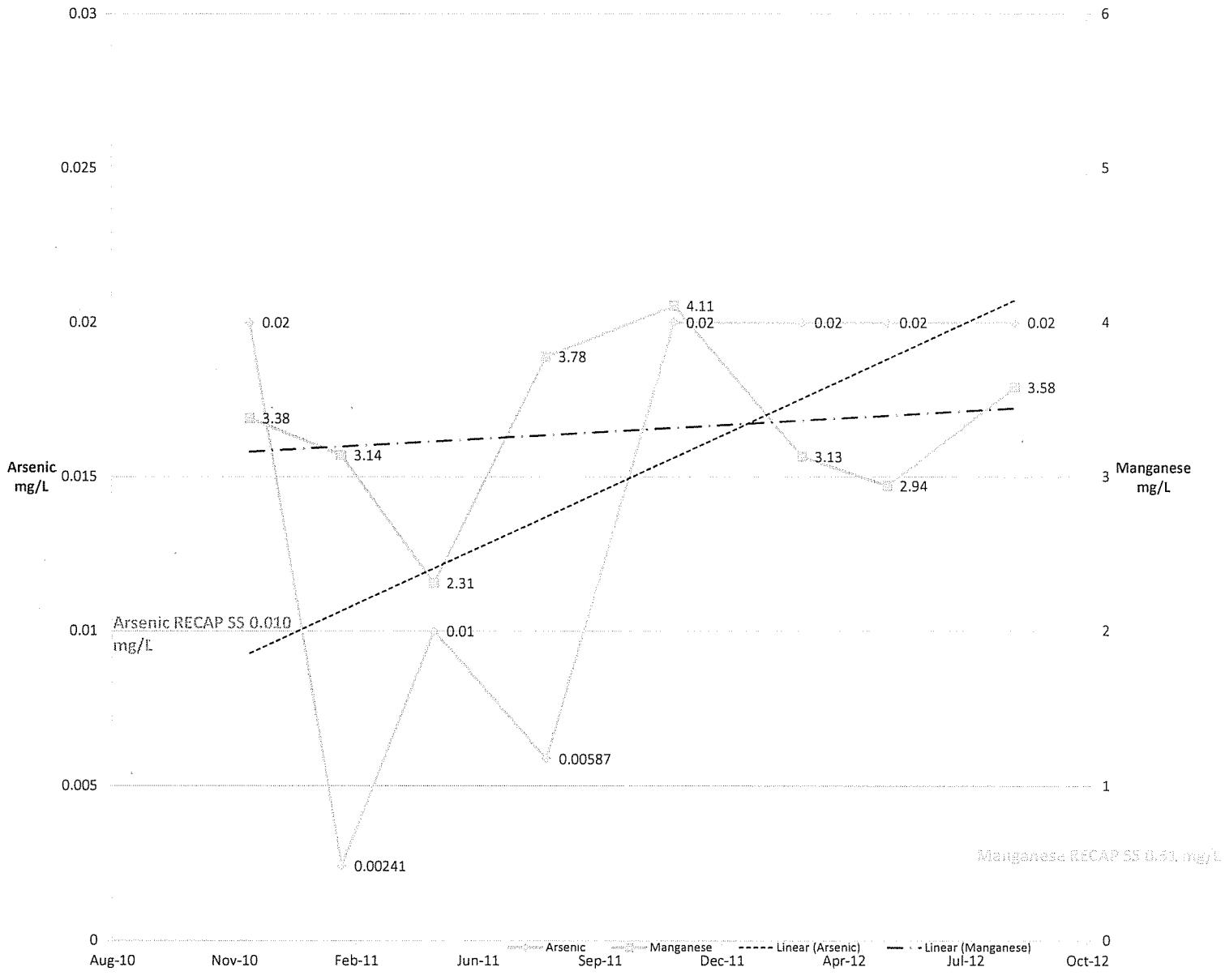

MW-2 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.0494
0.0612
0.0544
0.0705
0.0679
0.0646
0.0698
0.0516
0.002
0.002
0.000341
0.000377
0.000935
0.000276
0.0023
0.000741
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

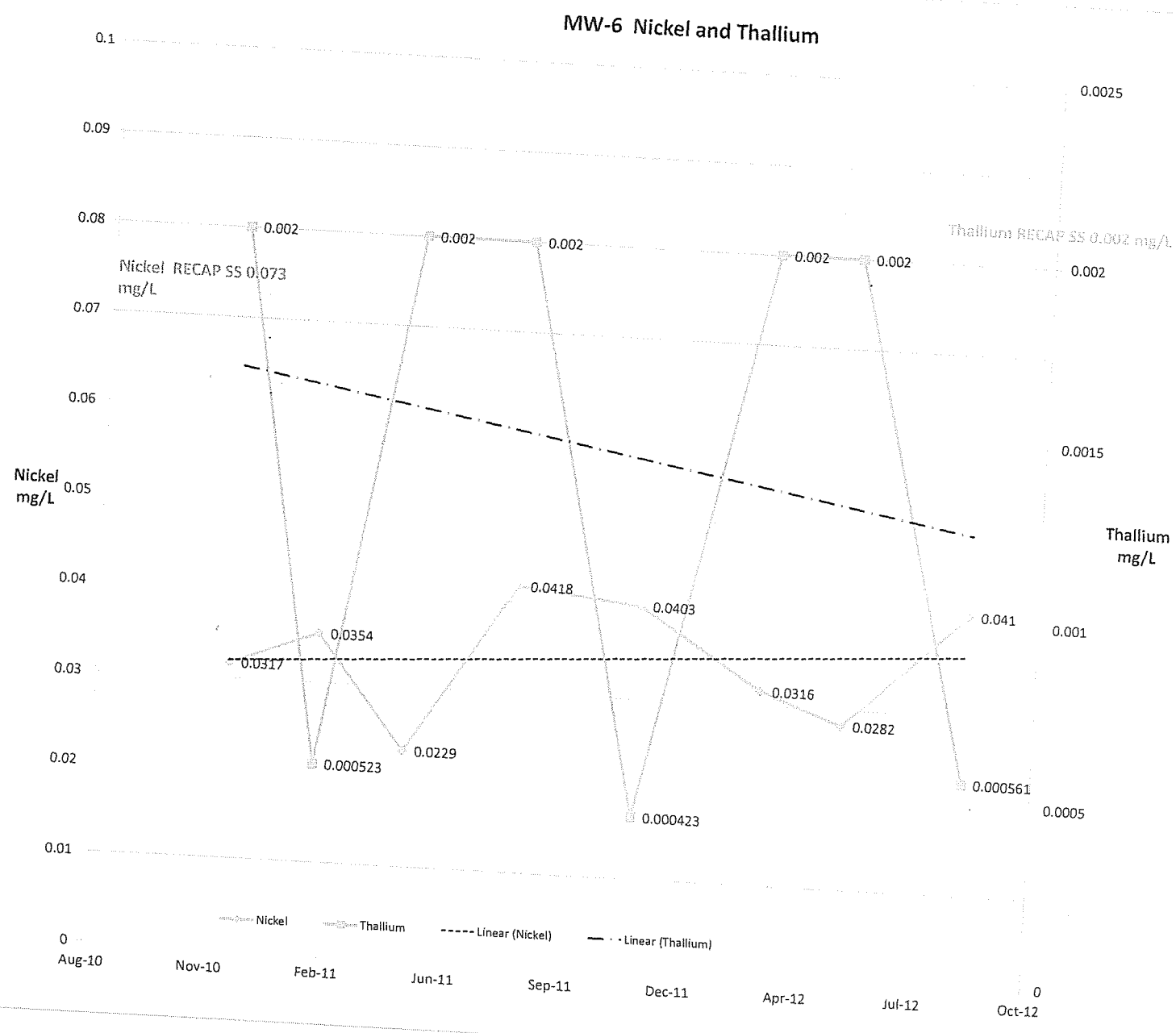
MW-2 Cadmium and Zinc



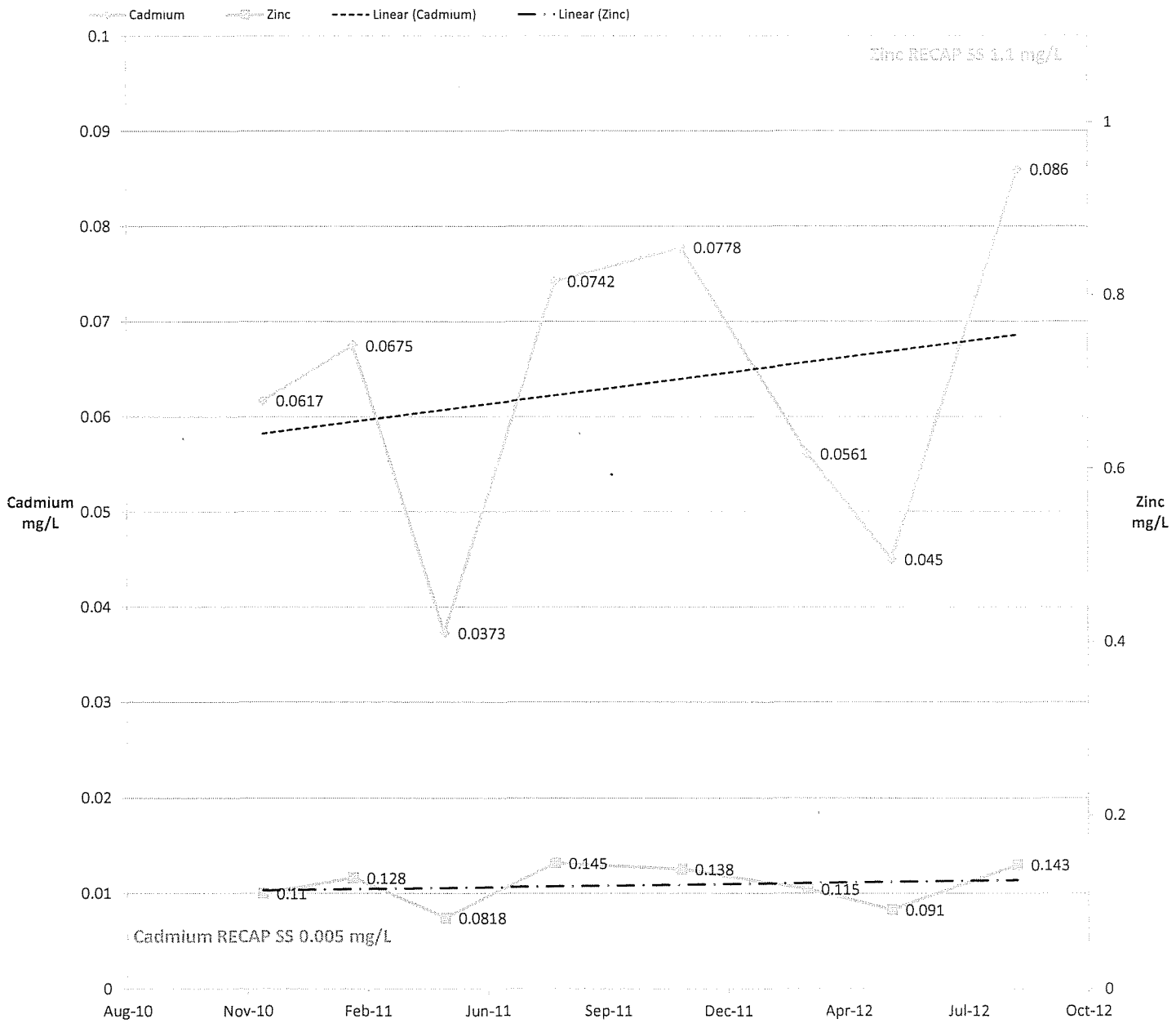

MW-6 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
3.81
3.61
3.82
3.73
3.67
3.65
3.59
3.62
0.001
0.00175
0.002
0.00215
0.00155
0.000571
0.00029
0.00136
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

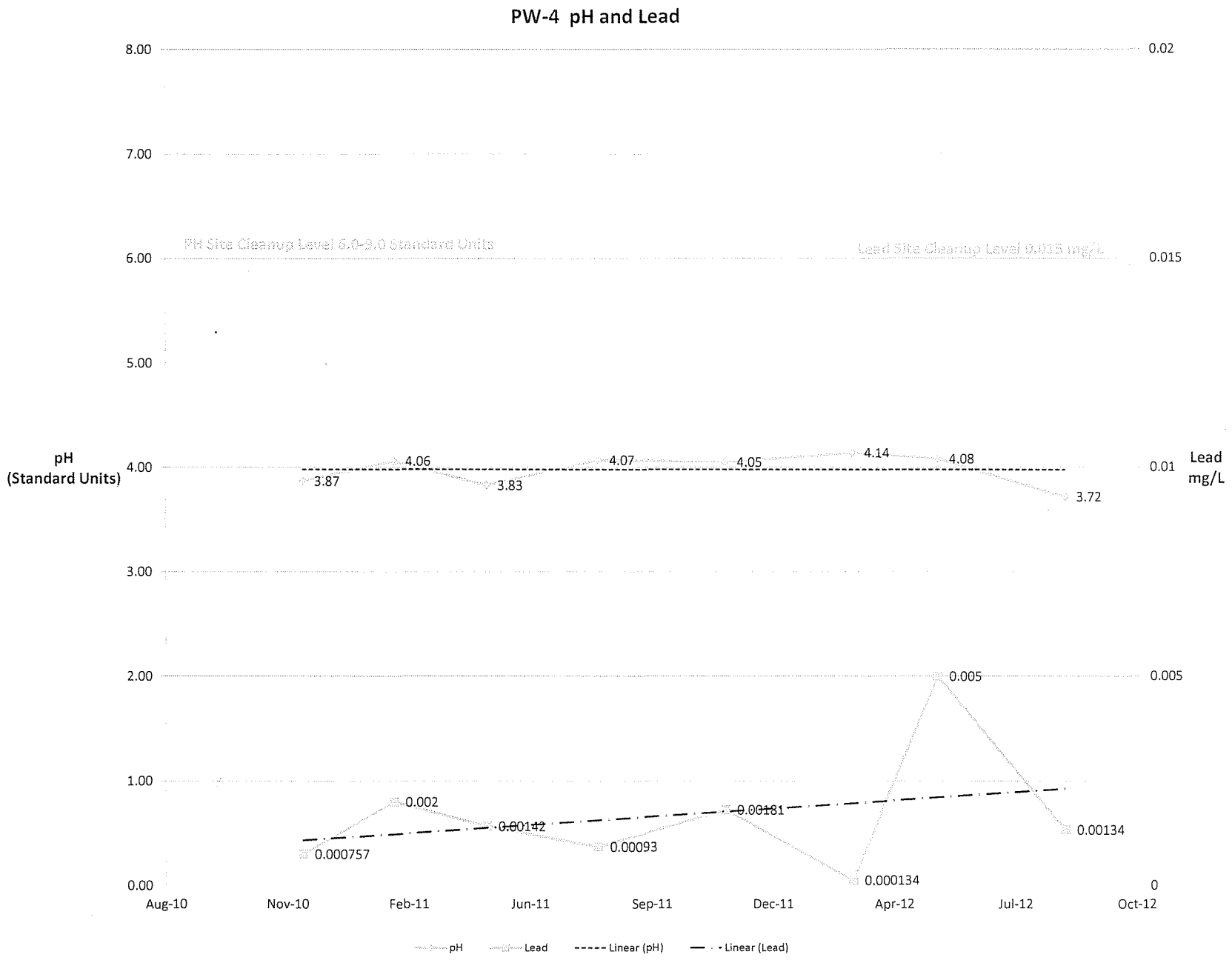
MW-6 Arsenic and Manganese



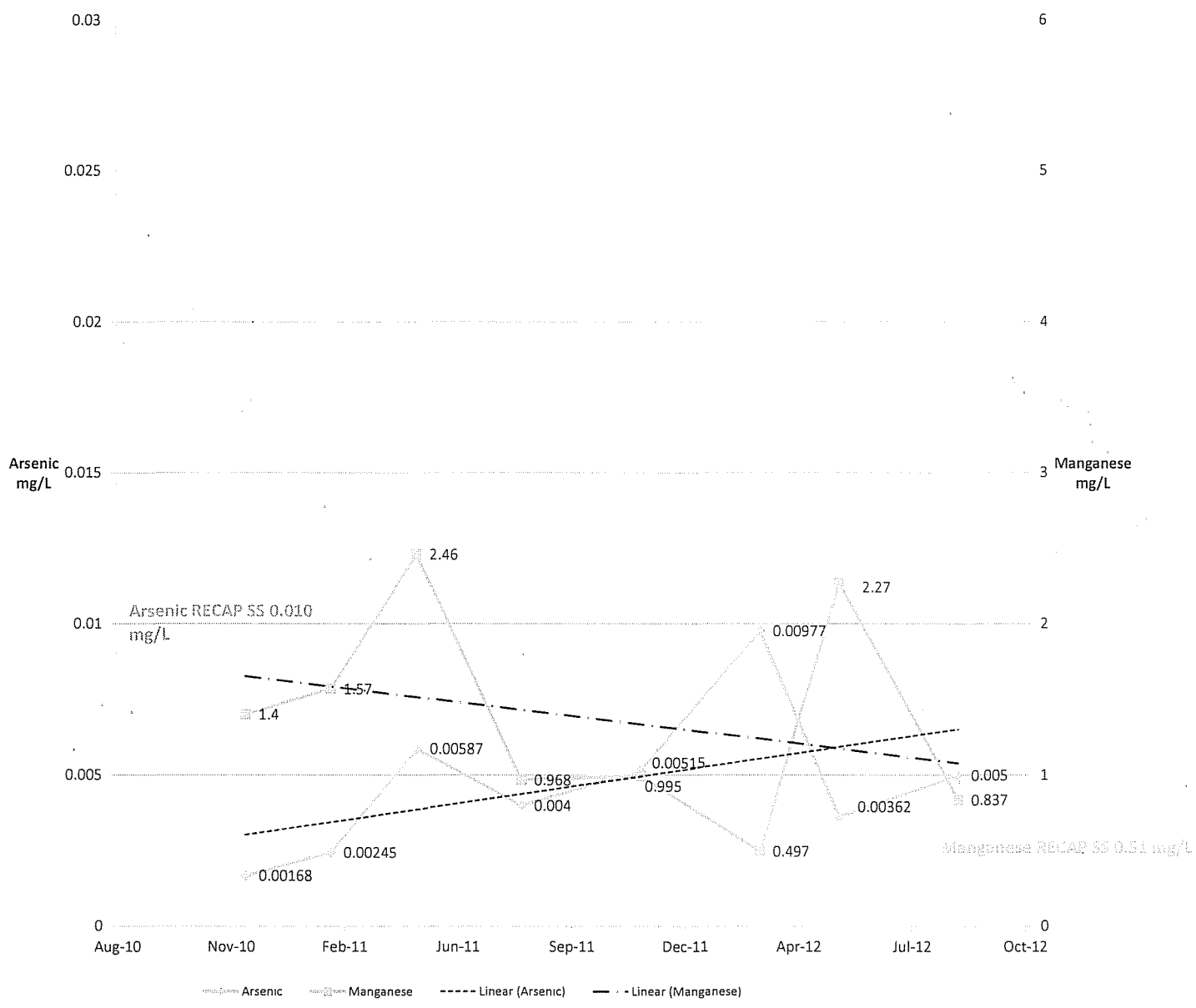

MW-6 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.0317
0.0354
0.000523
0.0229
0.0418
0.000423
0.0403
0.0316
0.0282
0.041
0.000561
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

MW-6 Cadmium and Zinc

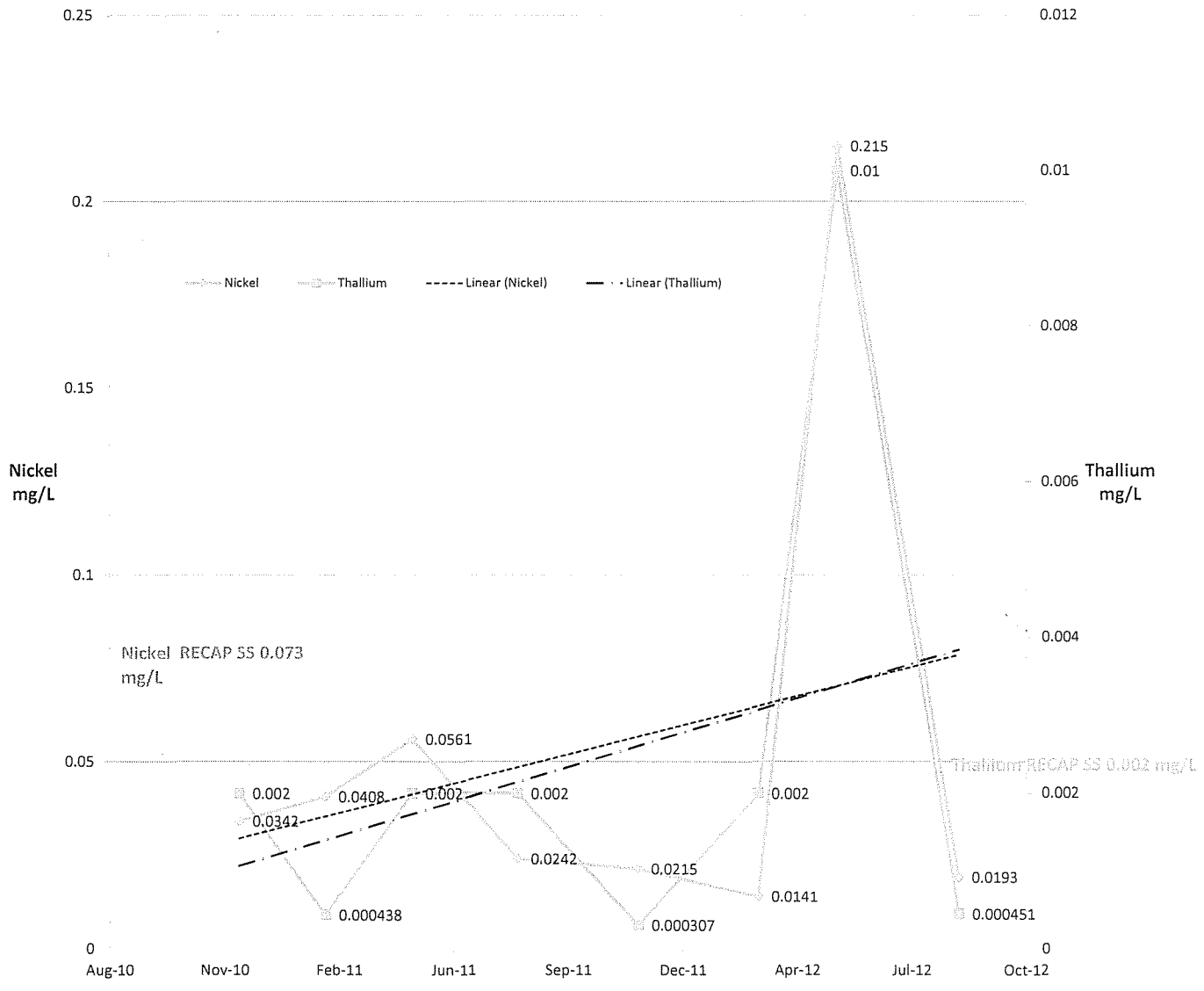



PW-4 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
3.87
4.06
3.83
4.07
4.05
4.14
4.08
3.72
0.000757
0.002
0.00142
0.00093
0.00181
0.000134
0.005
0.00134
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

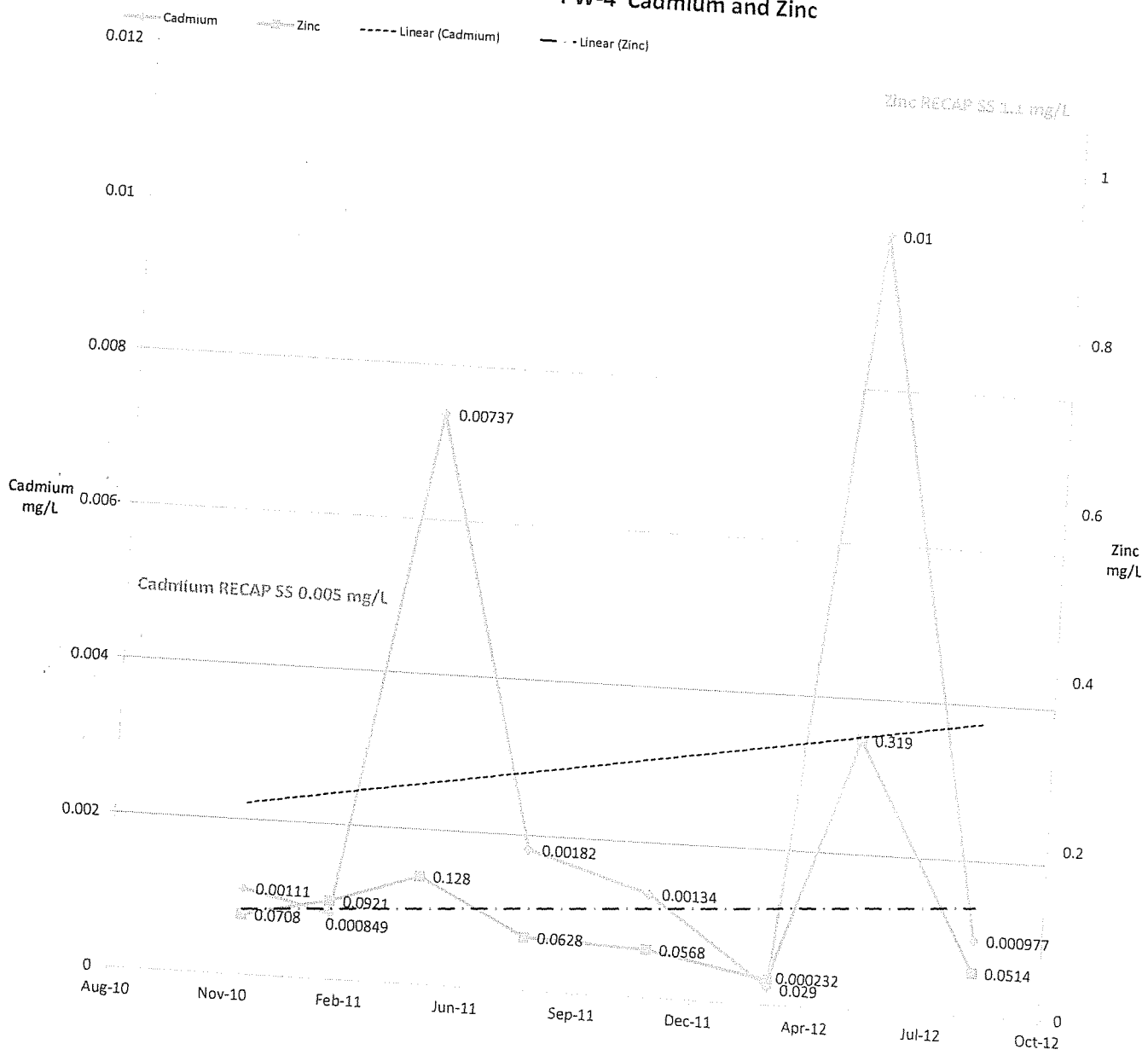
PW-4 Arsenic and Manganese

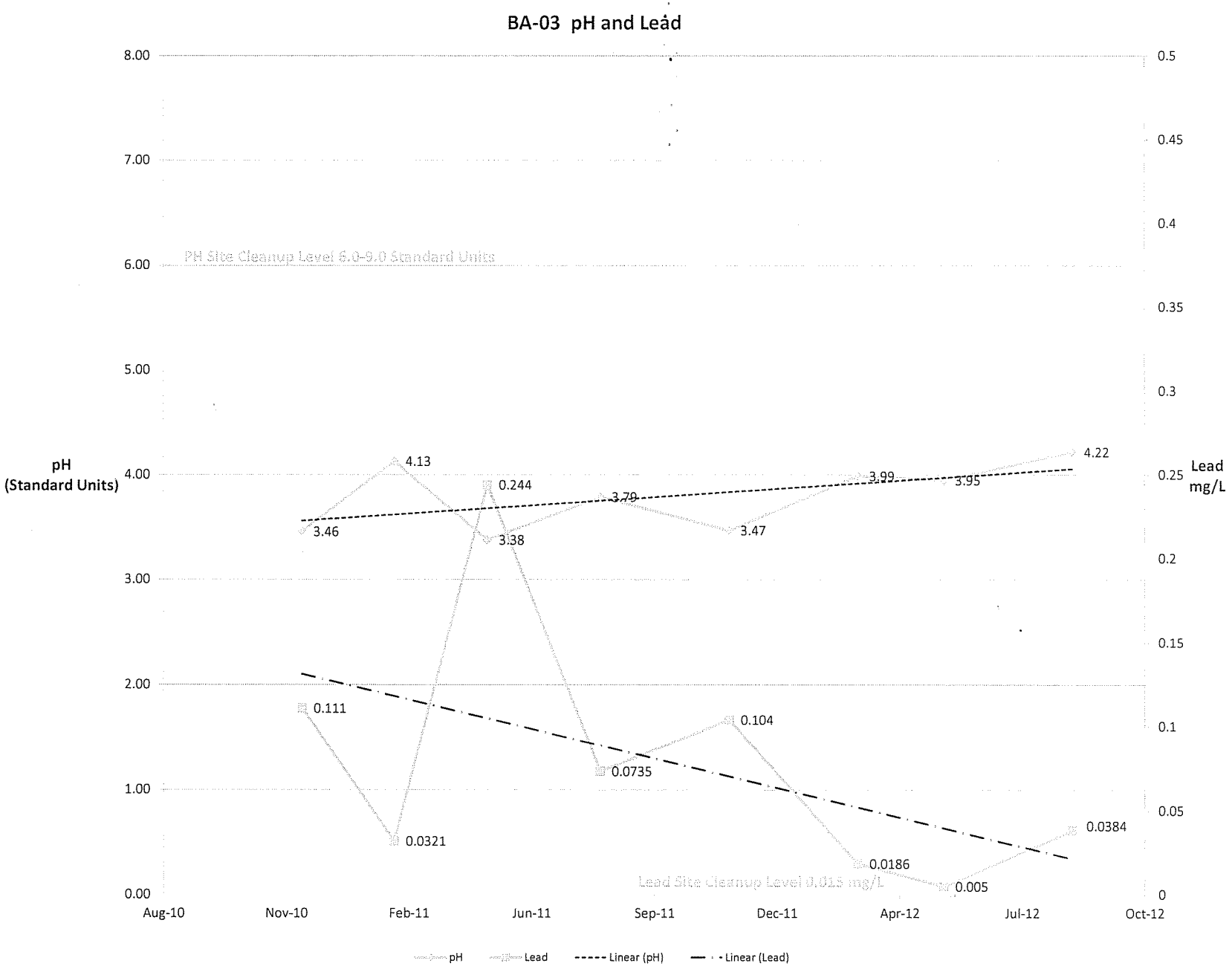


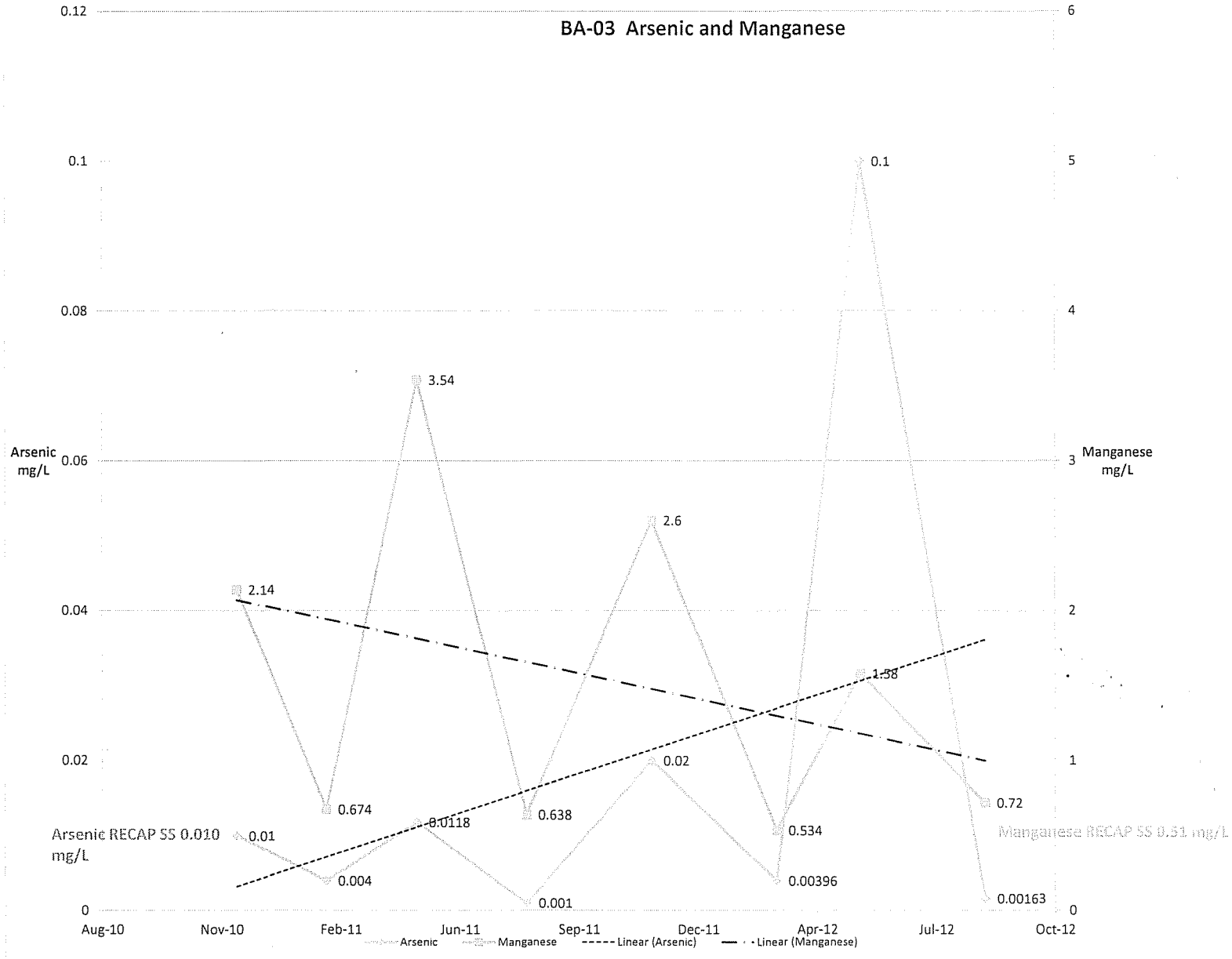
PW-4 Nickel and Thallium

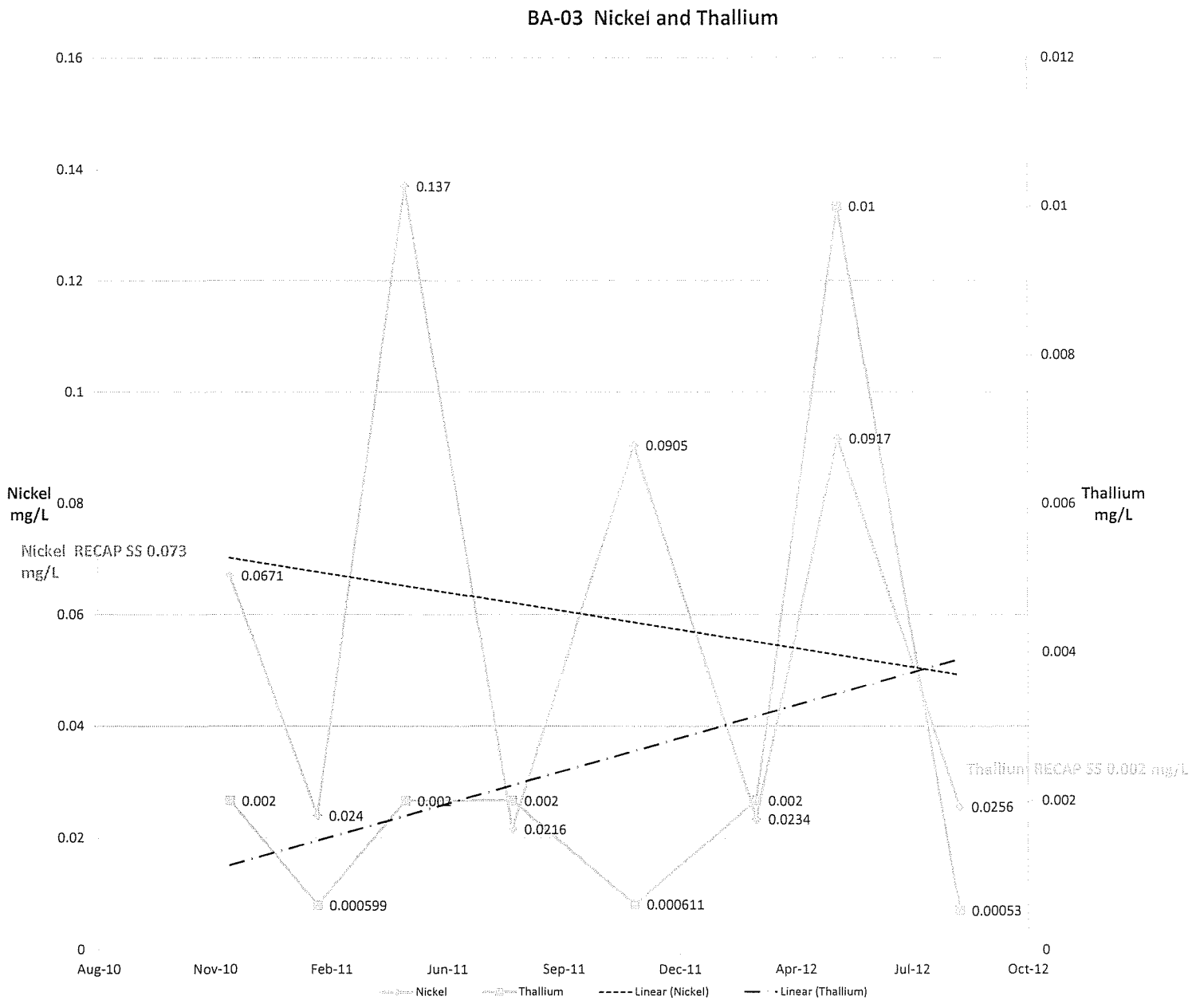


PW-4 Cadmium and Zinc

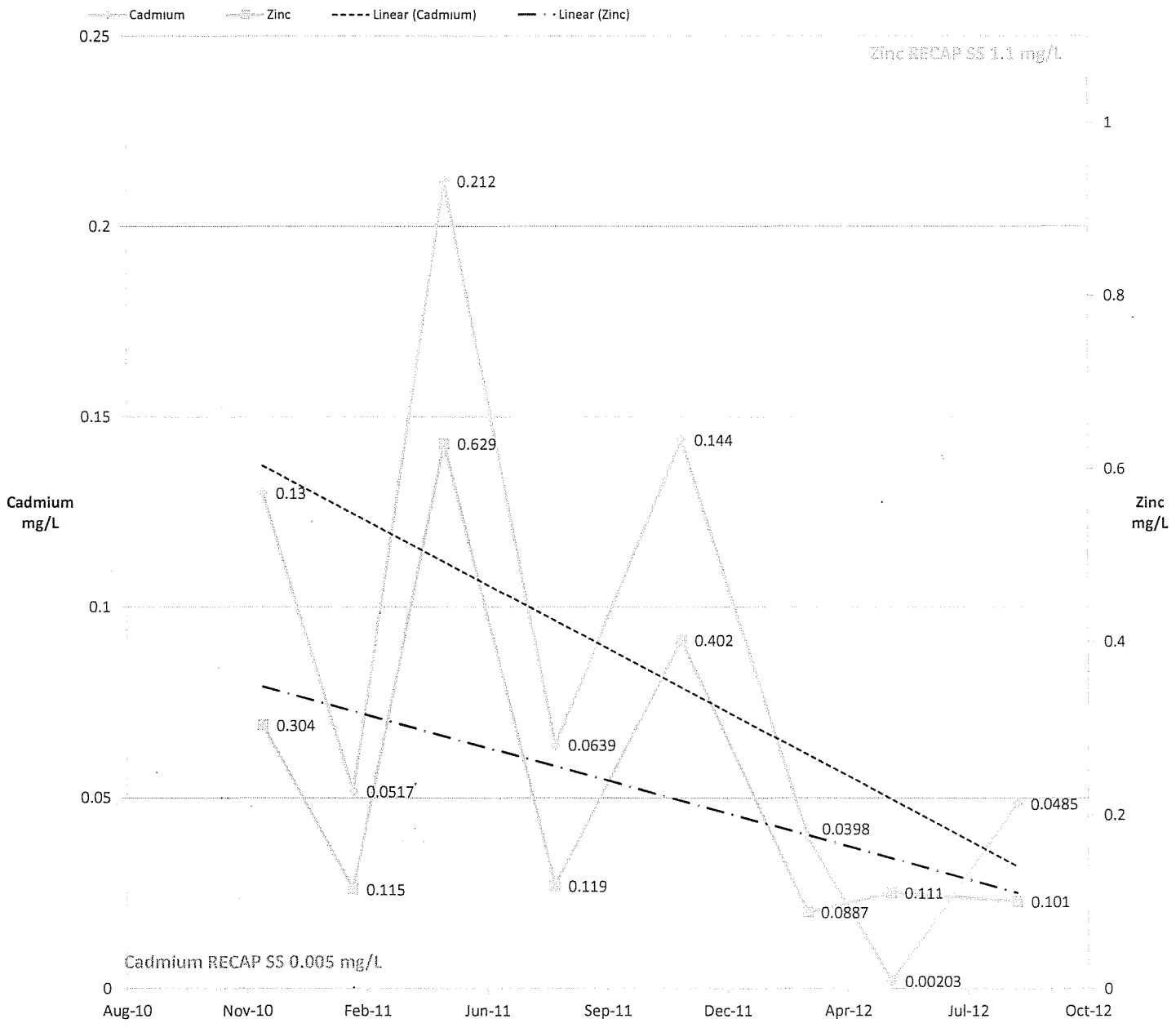


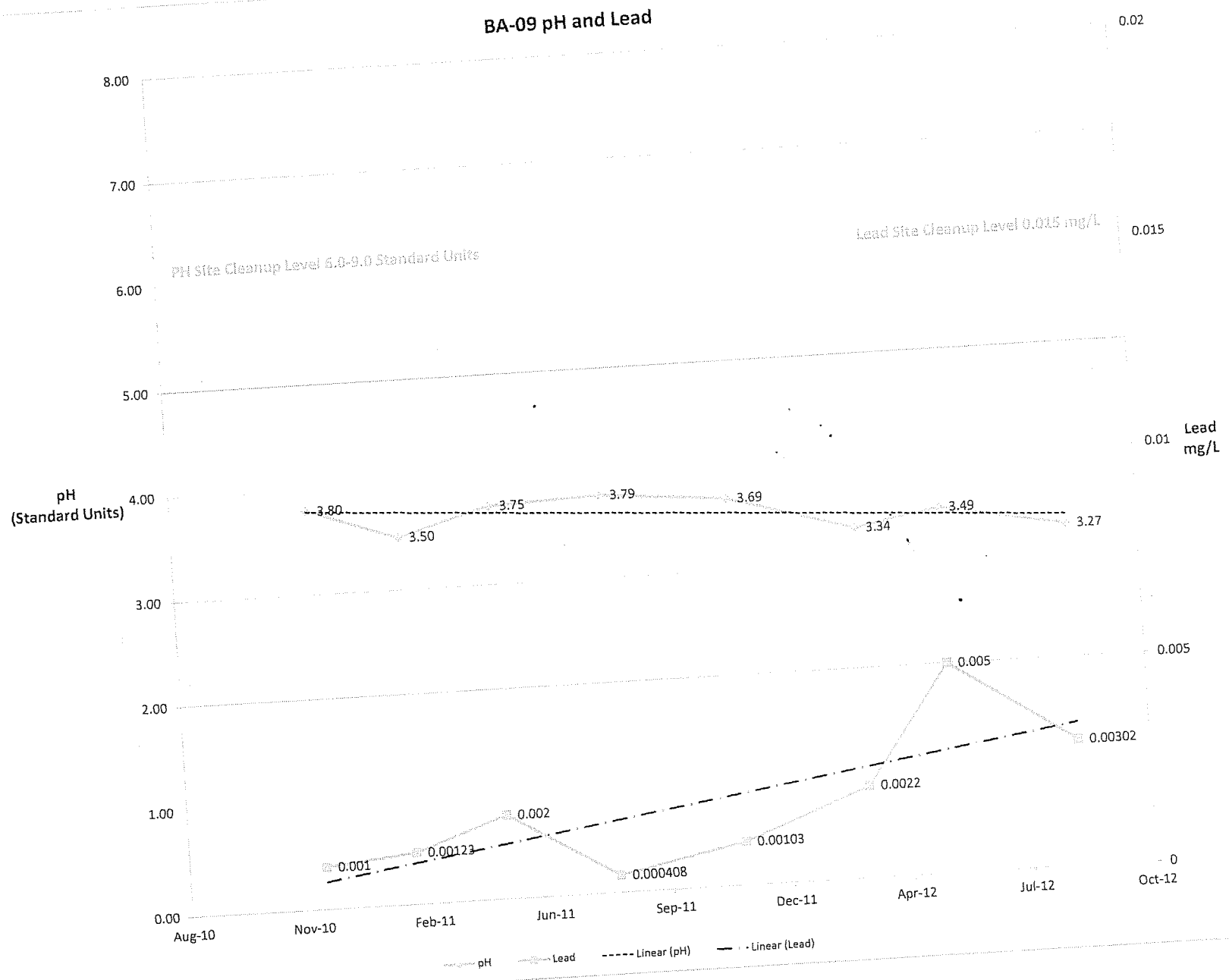

BA-03 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
4.13
0.244
3.46
3.38
3.79
3.47
3.99
3.95
4.22
0.111
0.0321
0.0735
0.104
0.0186
0.005
0.0384
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

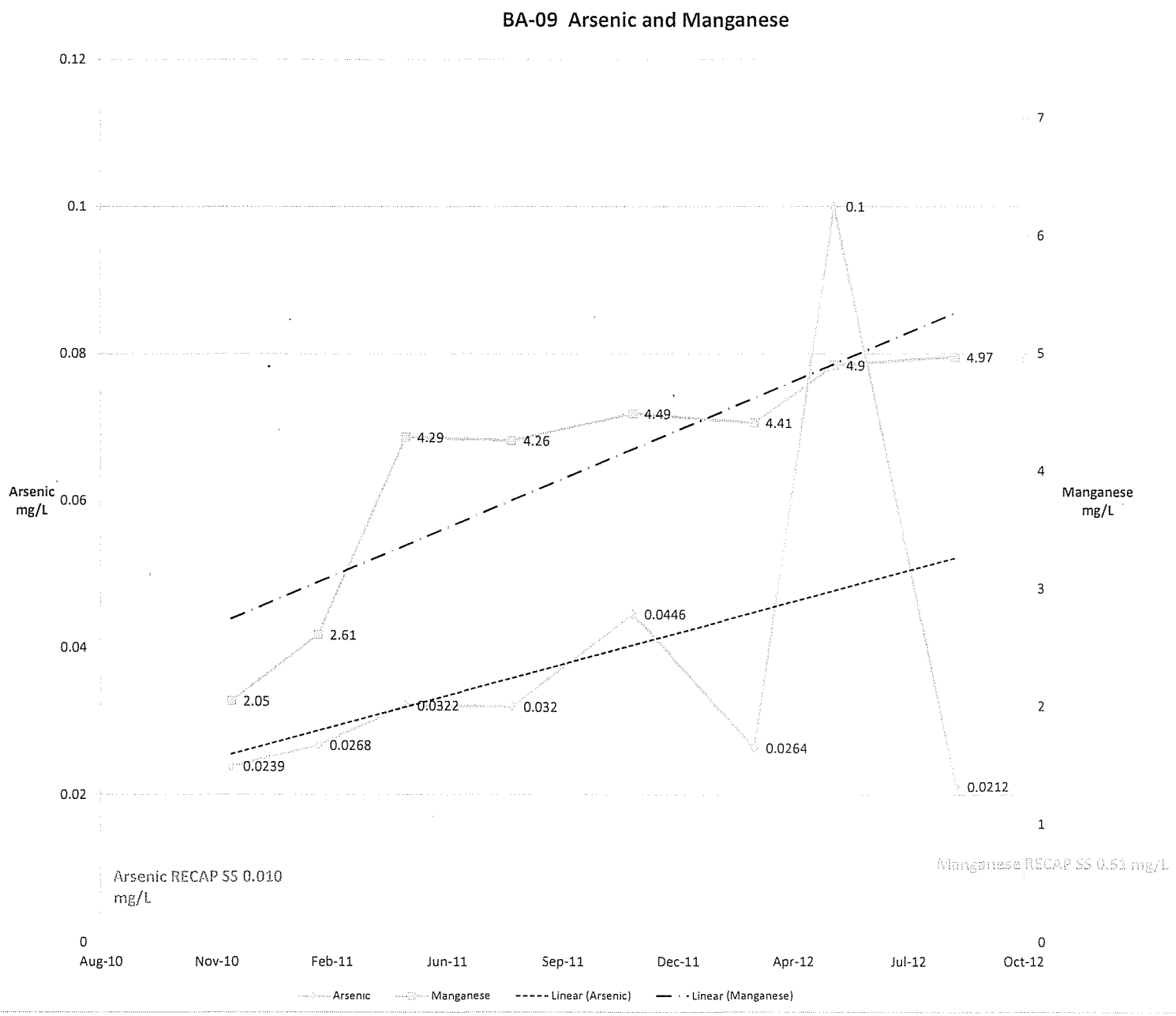

BA-03 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.12
0.1
0.08
0.06
0.04
0.02
0
6
5
4
3
2
1
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
2.14
0.674
3.54
0.638
2.6
0.02
0.534
0.1
1.58
0.72
0.01
0.004
0.0118
0.001
0.00396
0.00163
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

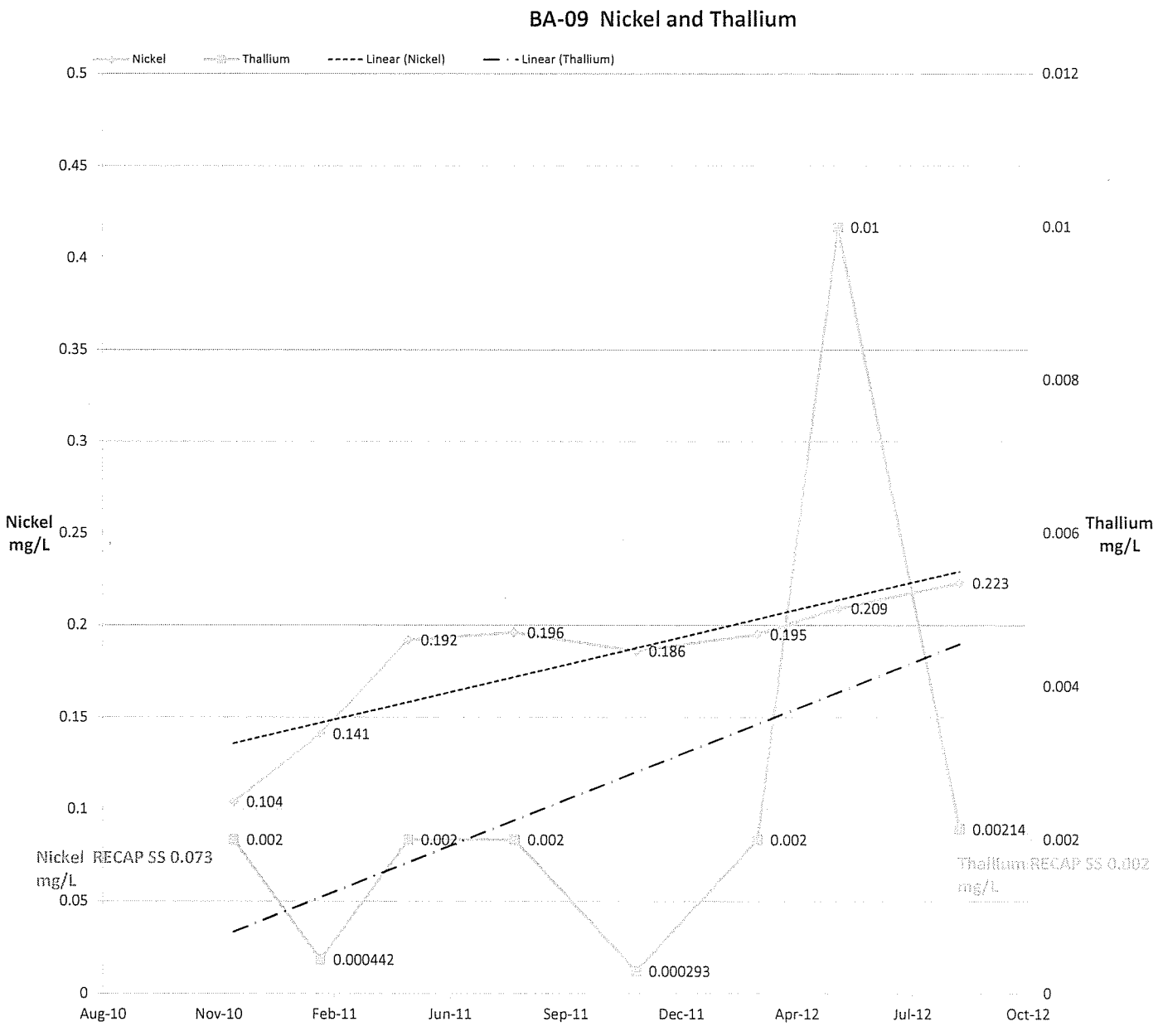

BA-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.0671
0.137
0.0905
0.01
0.0917
0.002
0.024
0.002
0.002
0.0216
0.002
0.0234
0.0256
0.000599
0.000611
0.00053
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

BA-03 Cadmium and Zinc

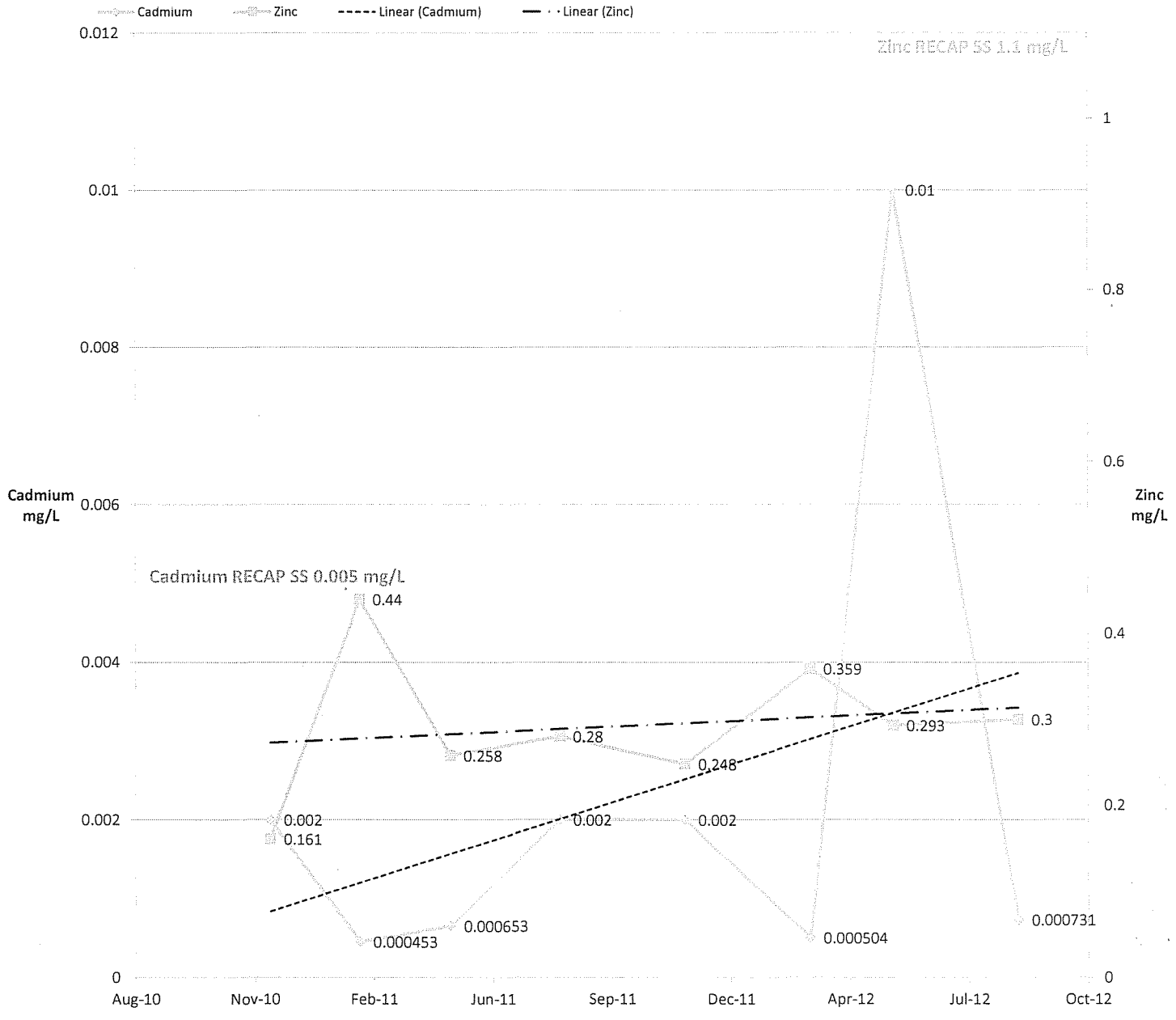



BA-09 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
3.80
3.50
3.75
3.79
3.69
3.34
3.49
3.27
0.001
0.00123
0.002
0.000408
0.00103
0.0022
0.005
0.00302
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


BA-09 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.12
0.1
0.08
0.06
0.04
0.02
0
7
6
5
4
3
2
1
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.1
4.97
4.9
4.49
4.41
4.29
4.26
2.61
2.05
0.0446
0.0322
0.032
0.0268
0.0264
0.0239
0.0212
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

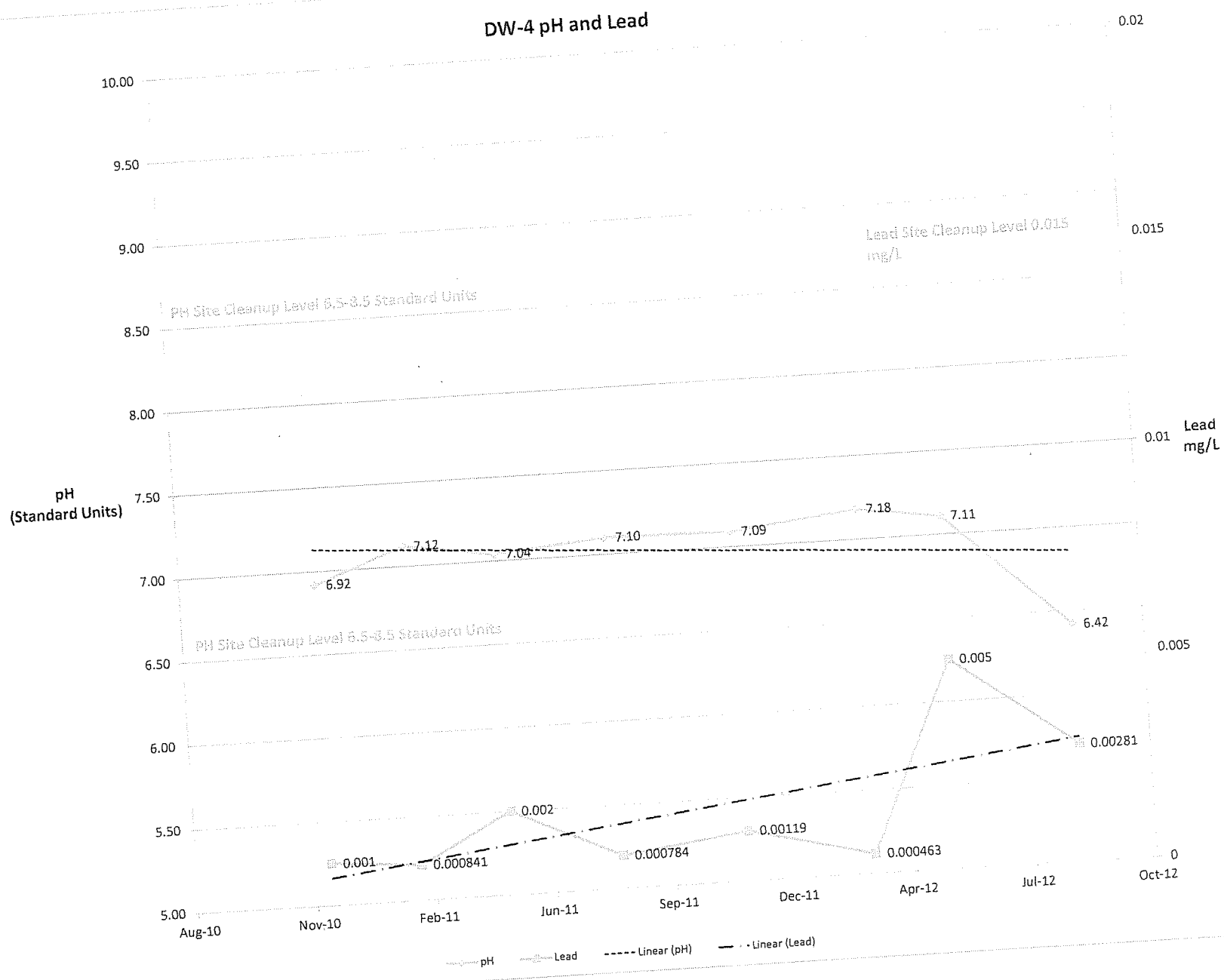

BA-09 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.01
0.223
0.209
0.192
0.196
0.186
0.195
0.141
0.104
0.002
0.002
0.002
0.002
0.00214
0.000442
0.000293
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L

BA-09 Cadmium and Zinc

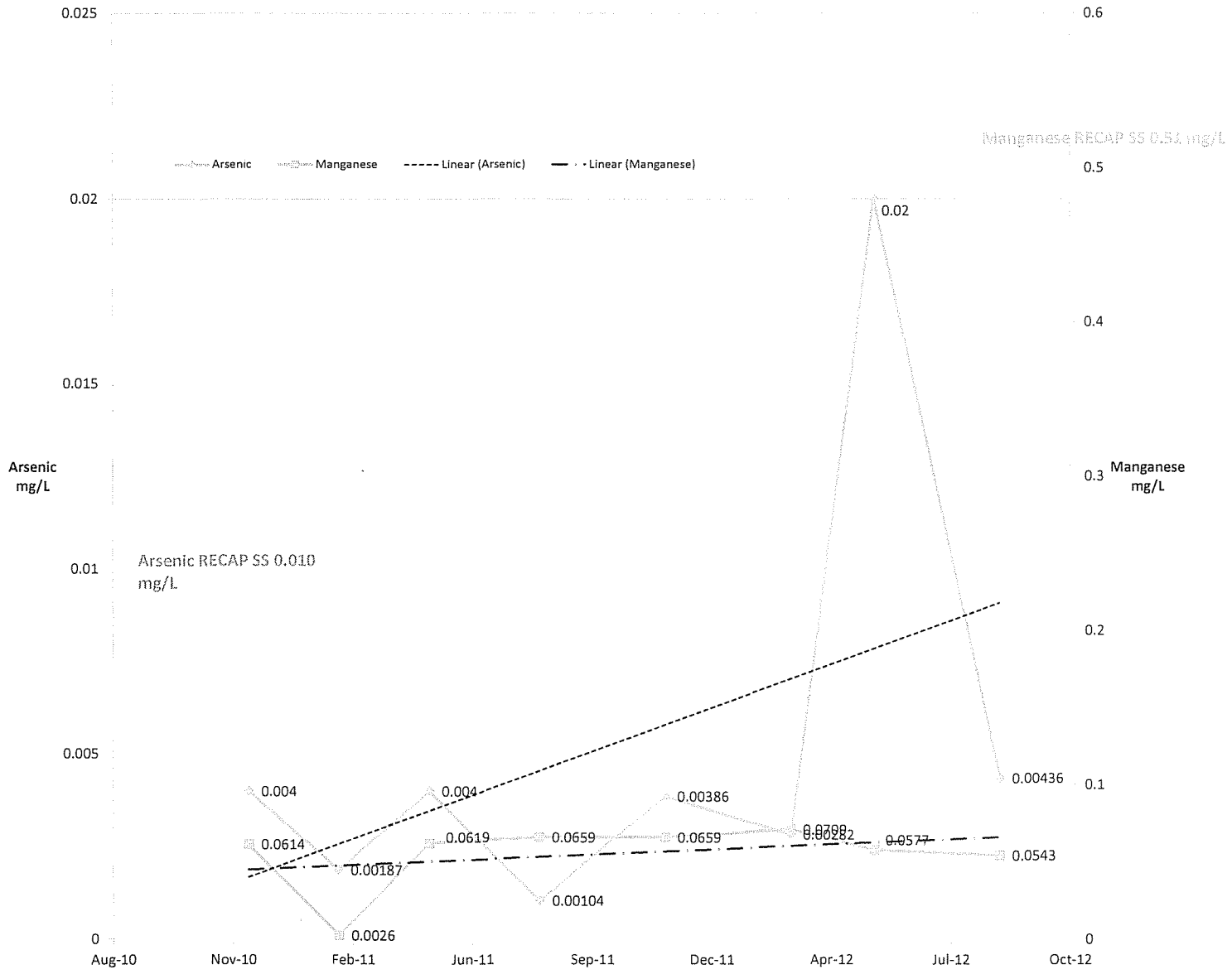


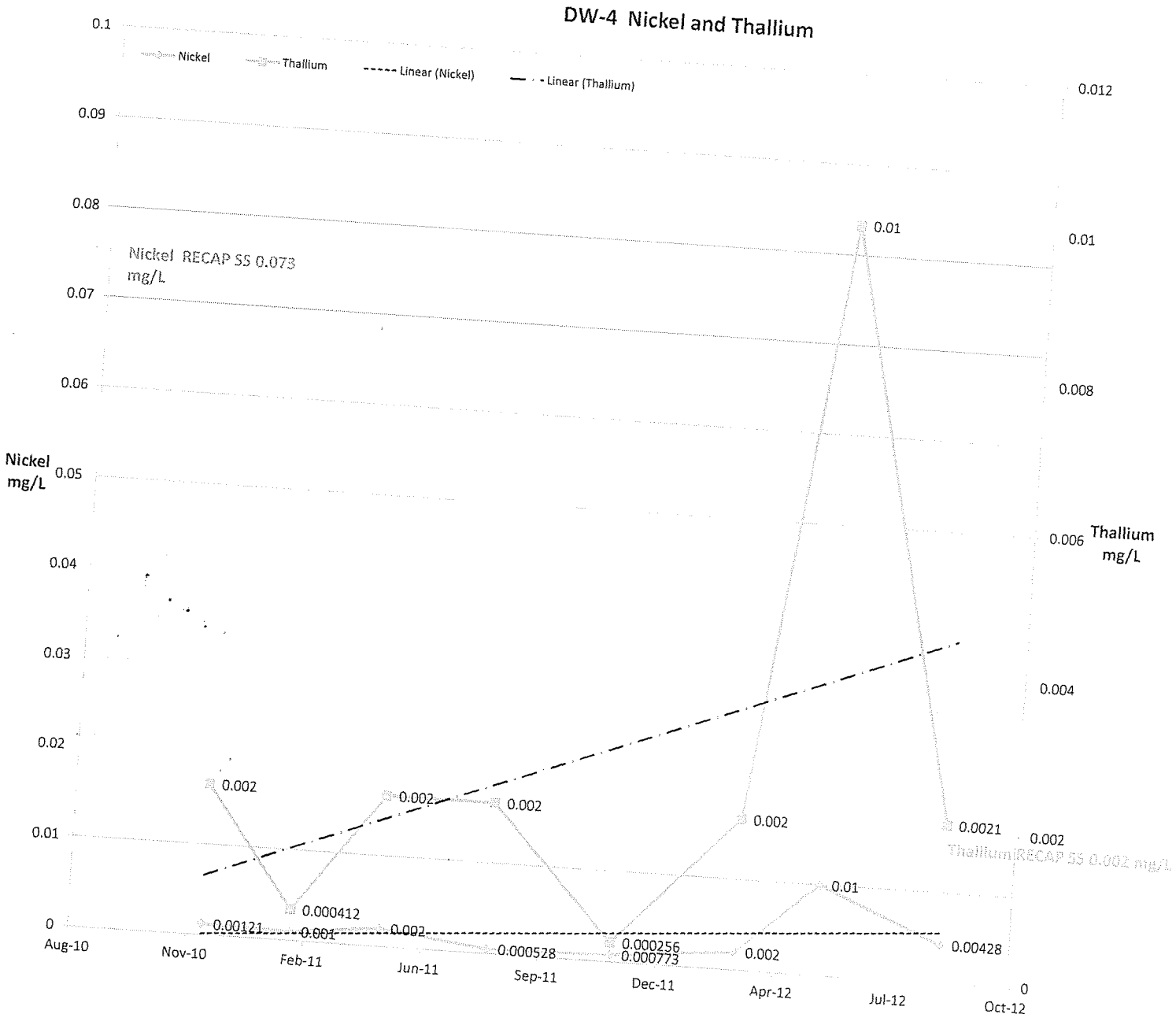
SECOND WATER BEARING ZONE

(PAST EIGHT QUARTERS)

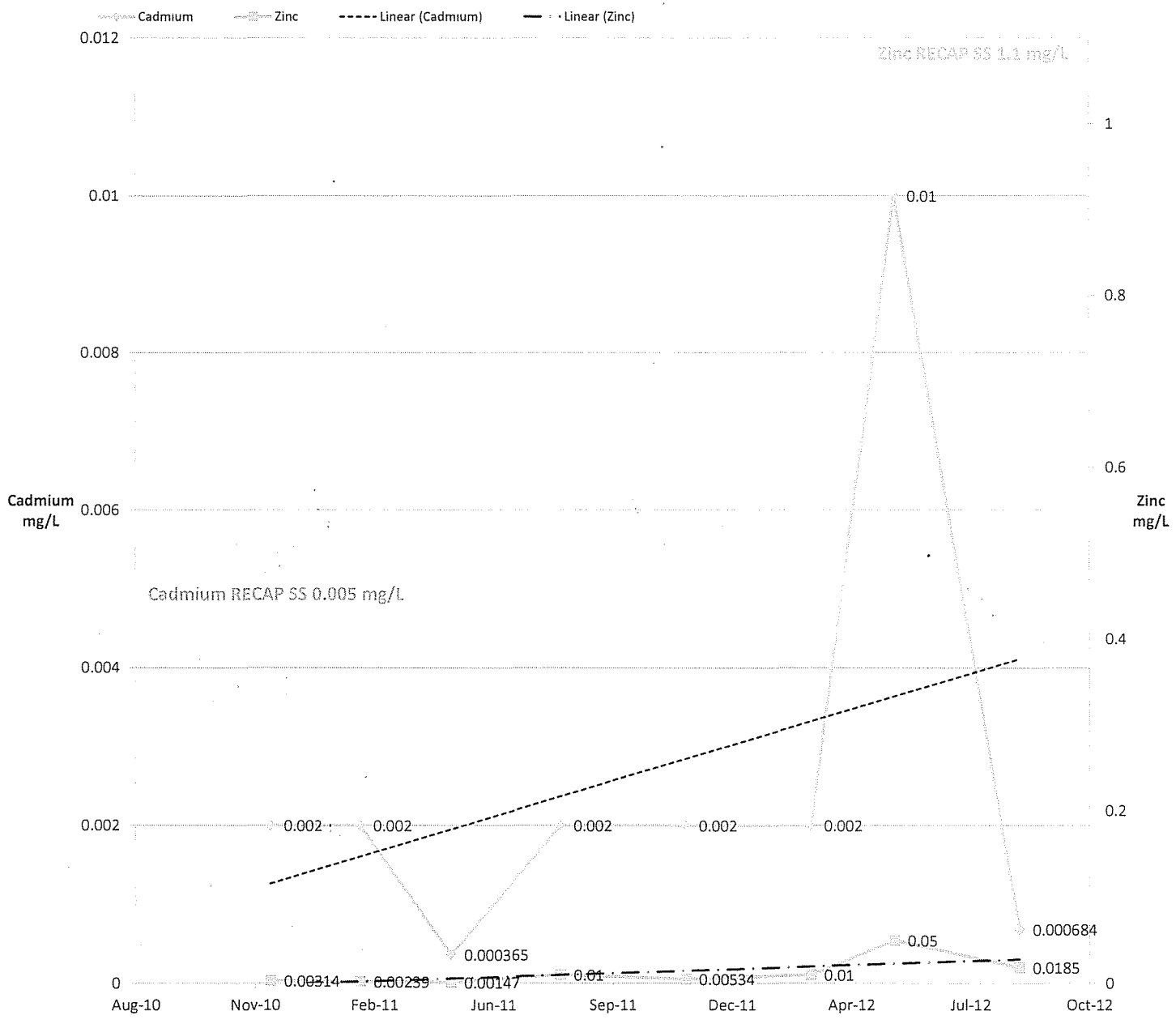

DW-4 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.92
7.12
7.04
7.10
7.09
7.18
7.11
6.42
0.001
0.000841
0.002
0.000784
0.00119
0.000463
0.005
0.00281
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

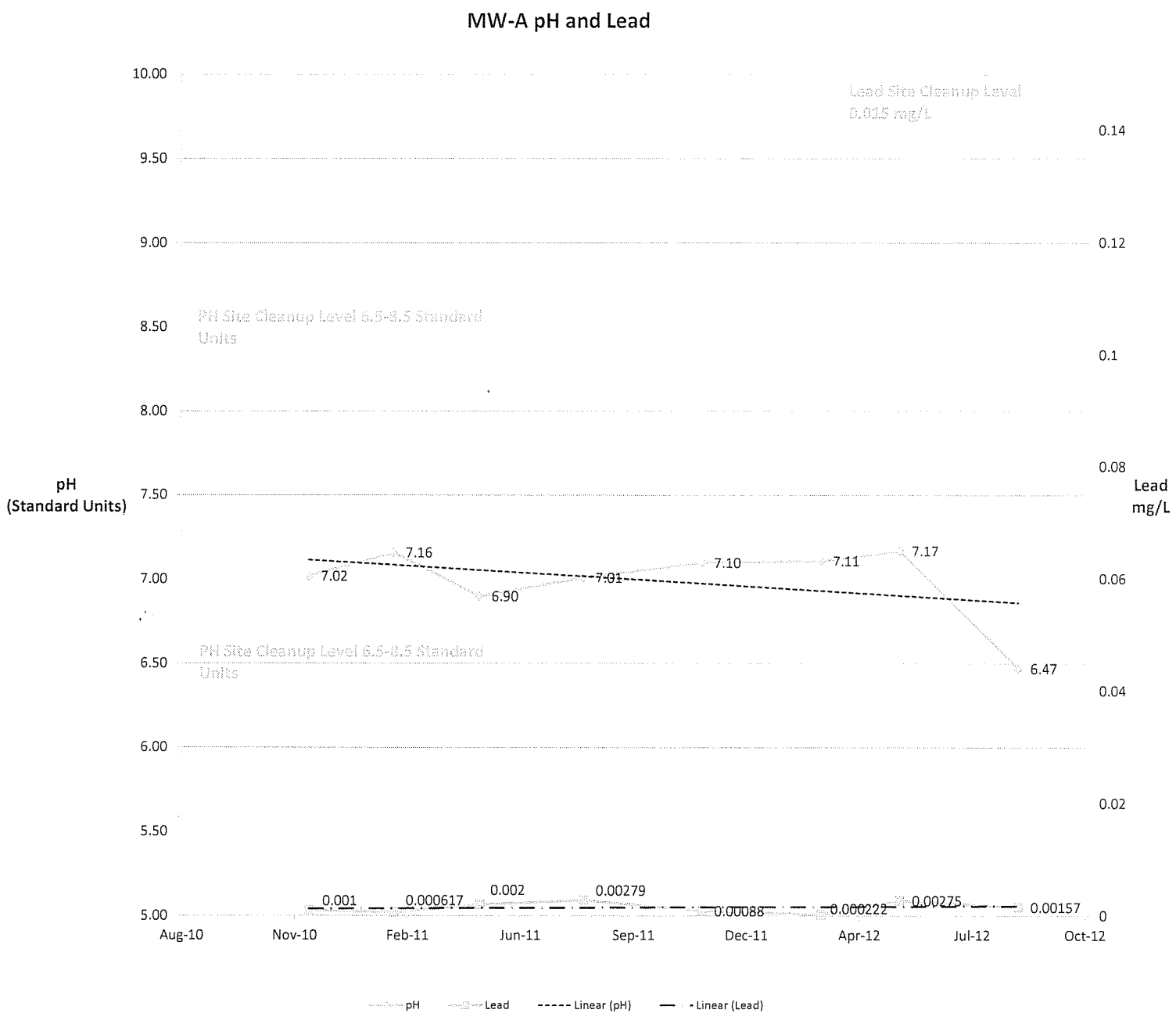
DW-4 Arsenic and Manganese

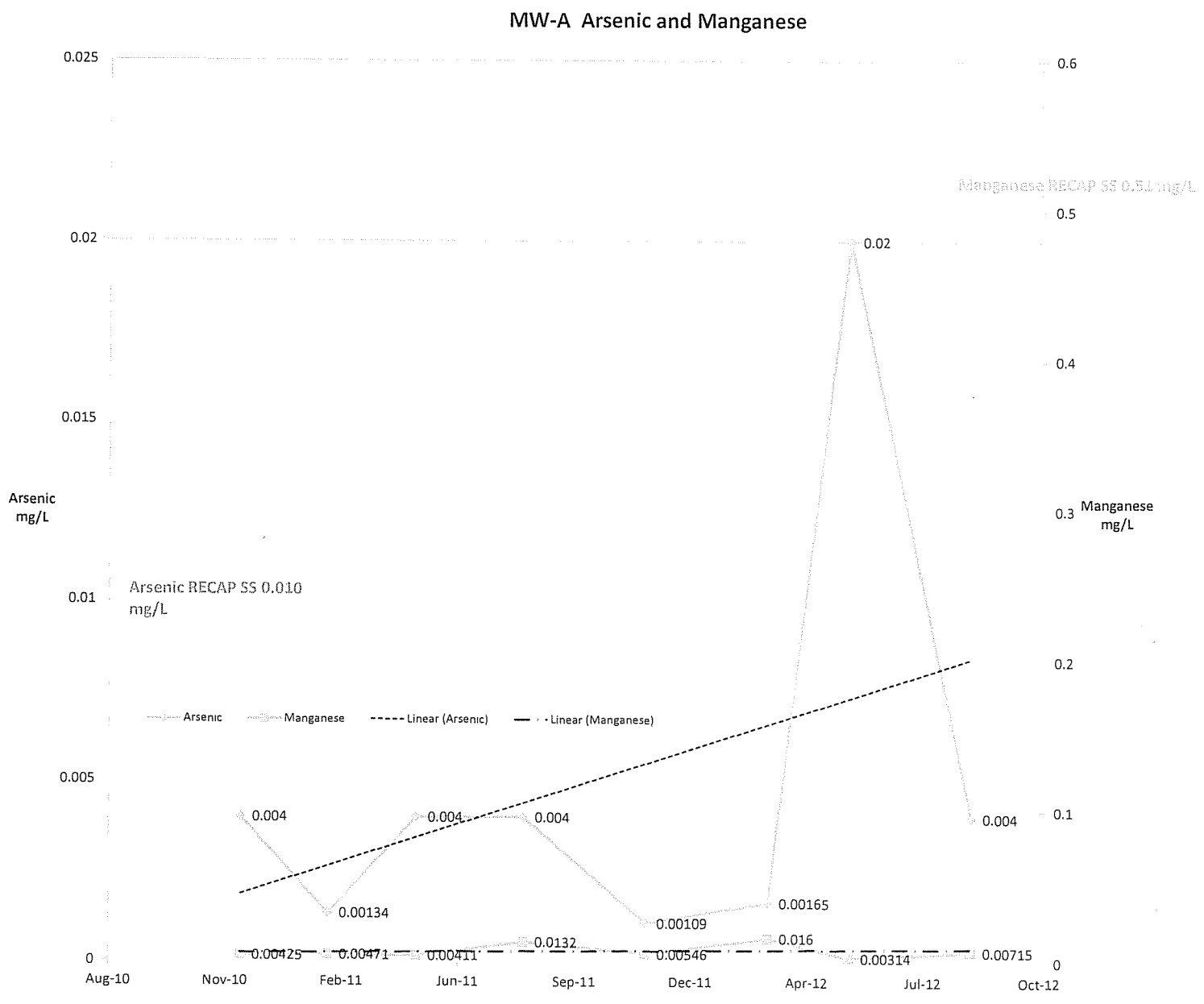


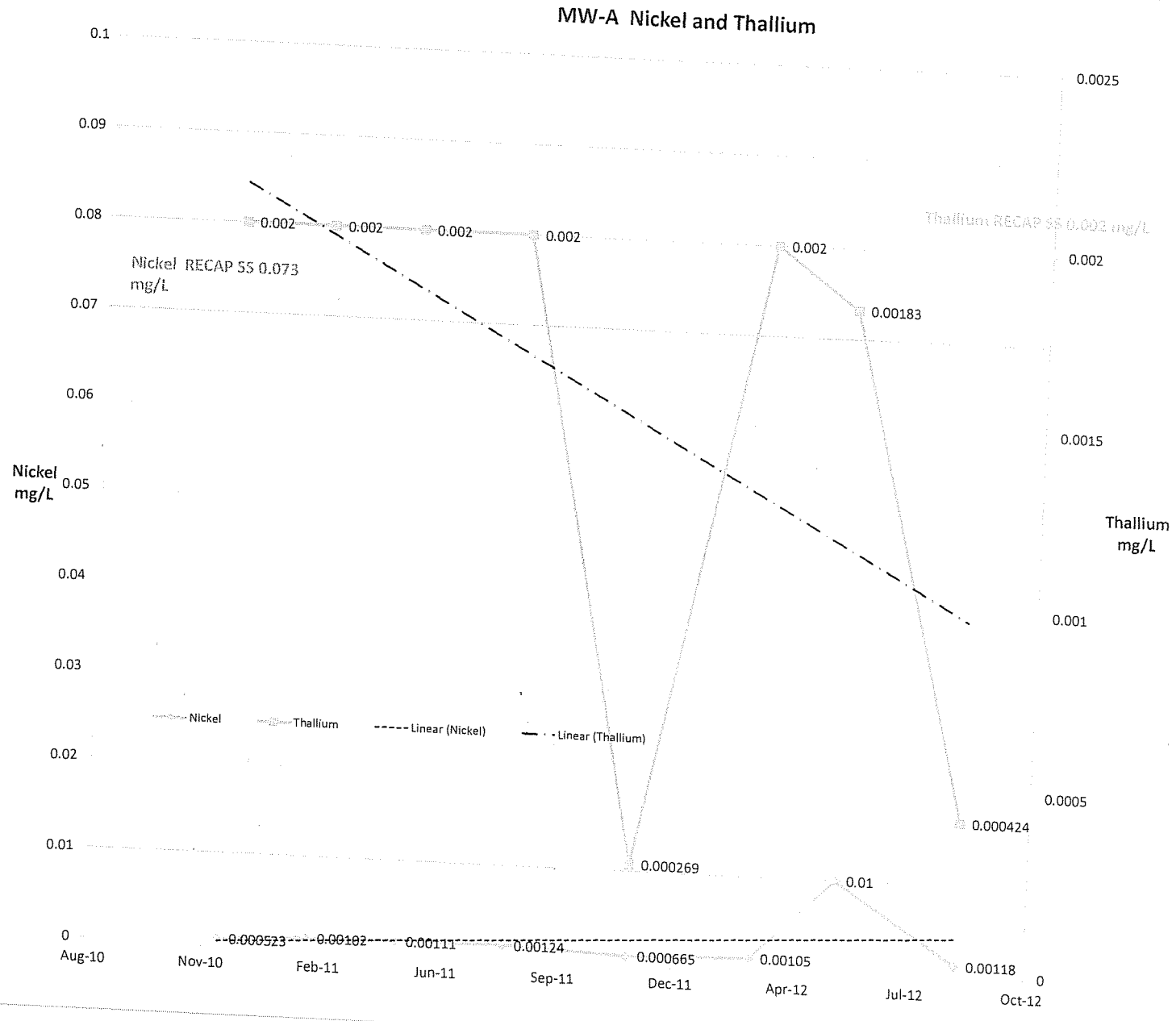

DW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.00121
0.001
0.002
0.000412
0.002
0.002
0.000528
0.000256
0.000773
0.002
0.002
0.01
0.01
0.0021
0.00428

DW-4 Cadmium and Zinc

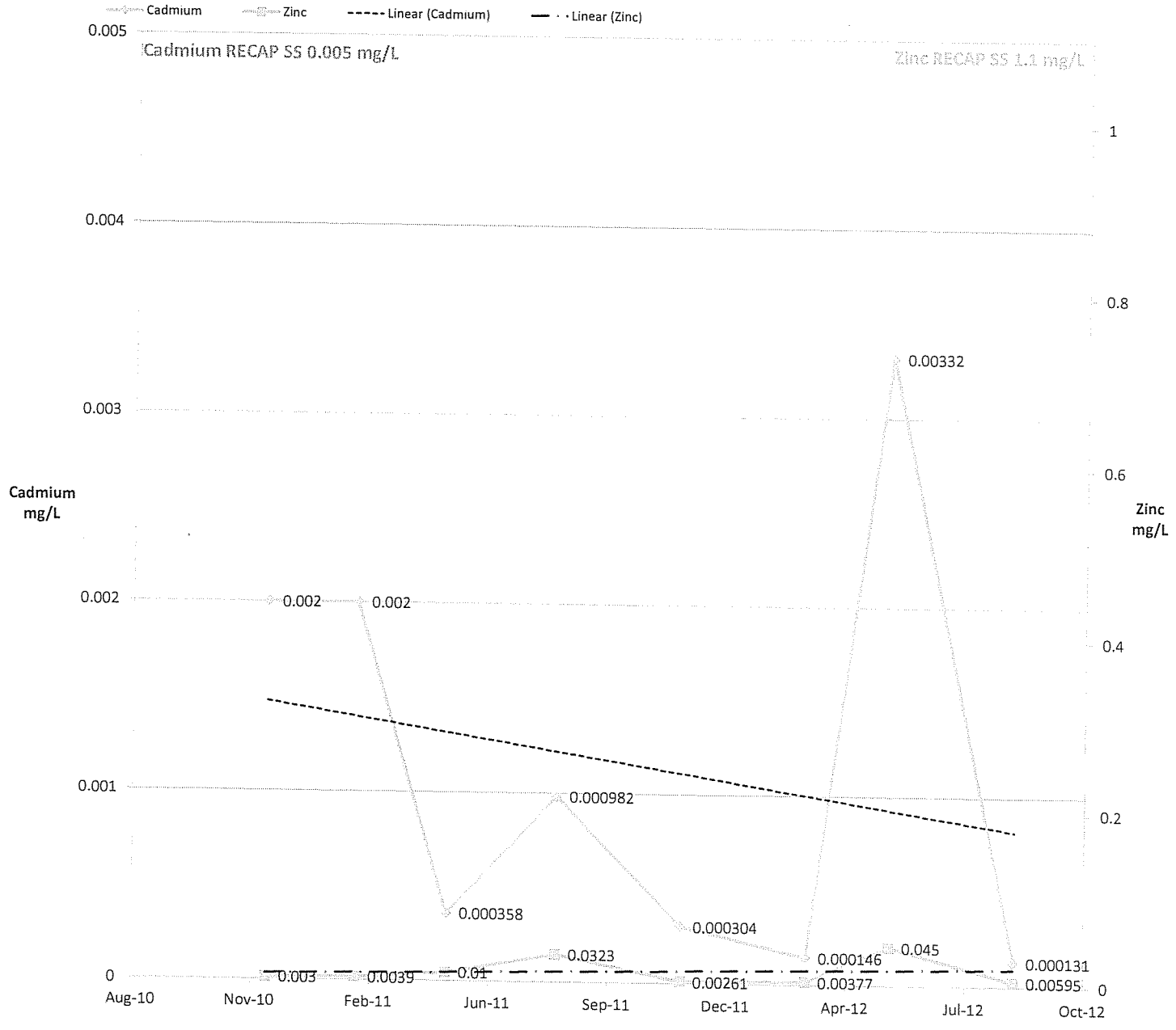


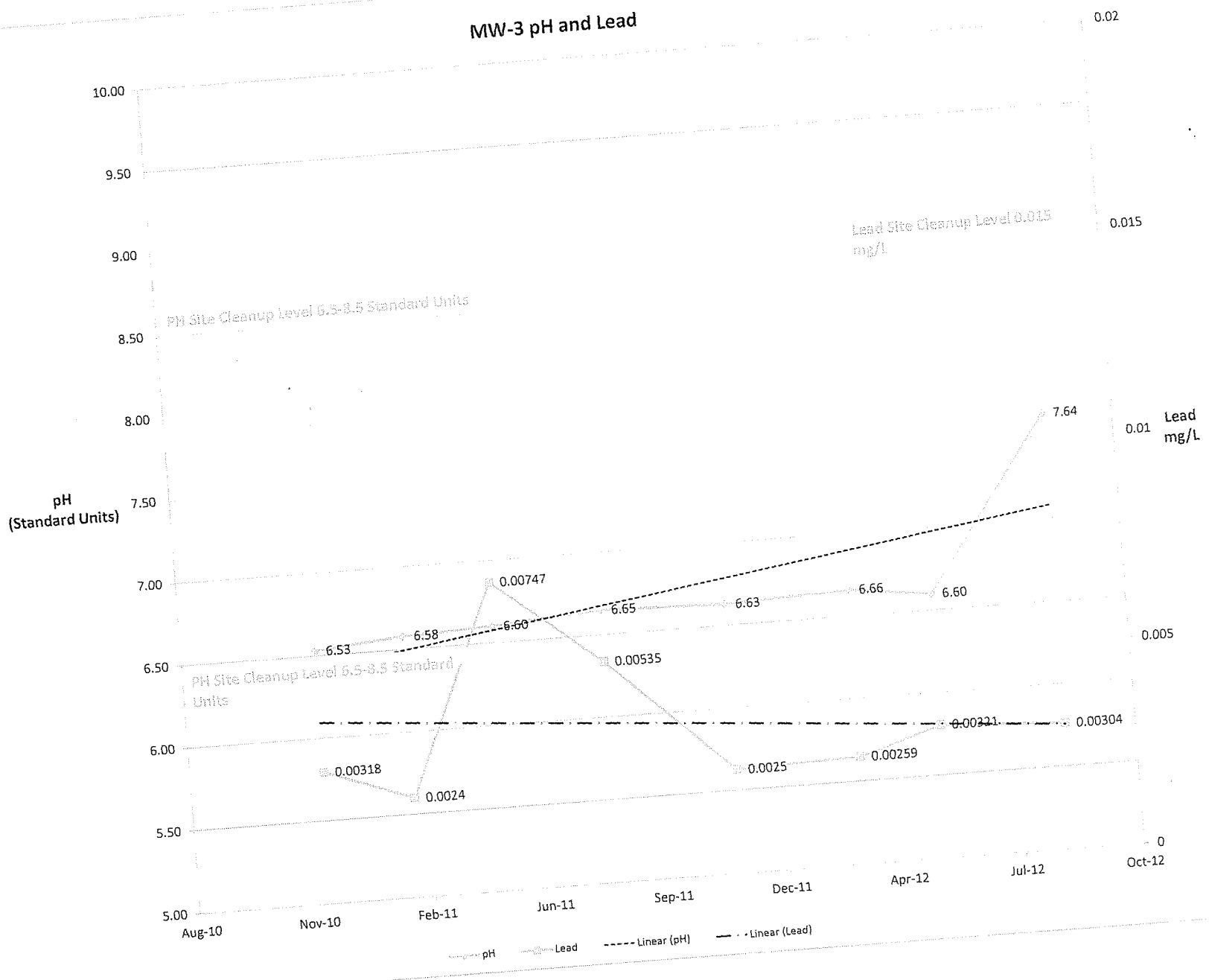

MW-A pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard
Units
PH Site Cleanup Level 6.5-8.5 Standard
Units
7.02
7.16
6.90
7.01
7.10
7.11
7.17
6.47
0.001
0.000617
0.002
0.00279
0.00088
0.000222
0.00275
0.00157
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


MW-A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.5L mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.004
0.00134
0.004
0.004
0.00109
0.00165
0.02
0.004
0.00425
0.00471
0.00411
0.0132
0.00546
0.016
0.00314
0.00715

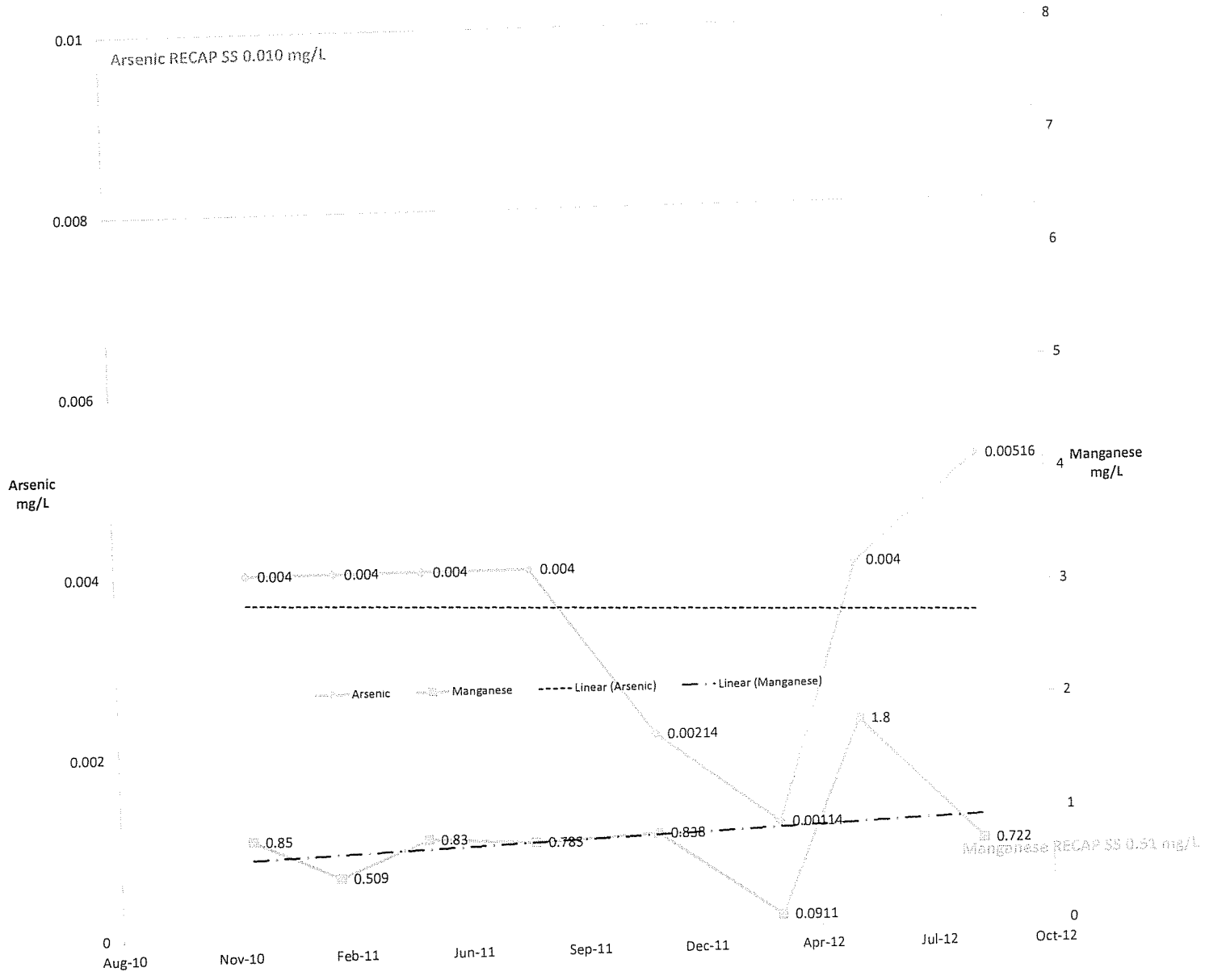

MW-A Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.00183
0.000424
0.000269
0.01
0.000523
0.00102
0.00111
0.00124
0.000665
0.00105
0.00118
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

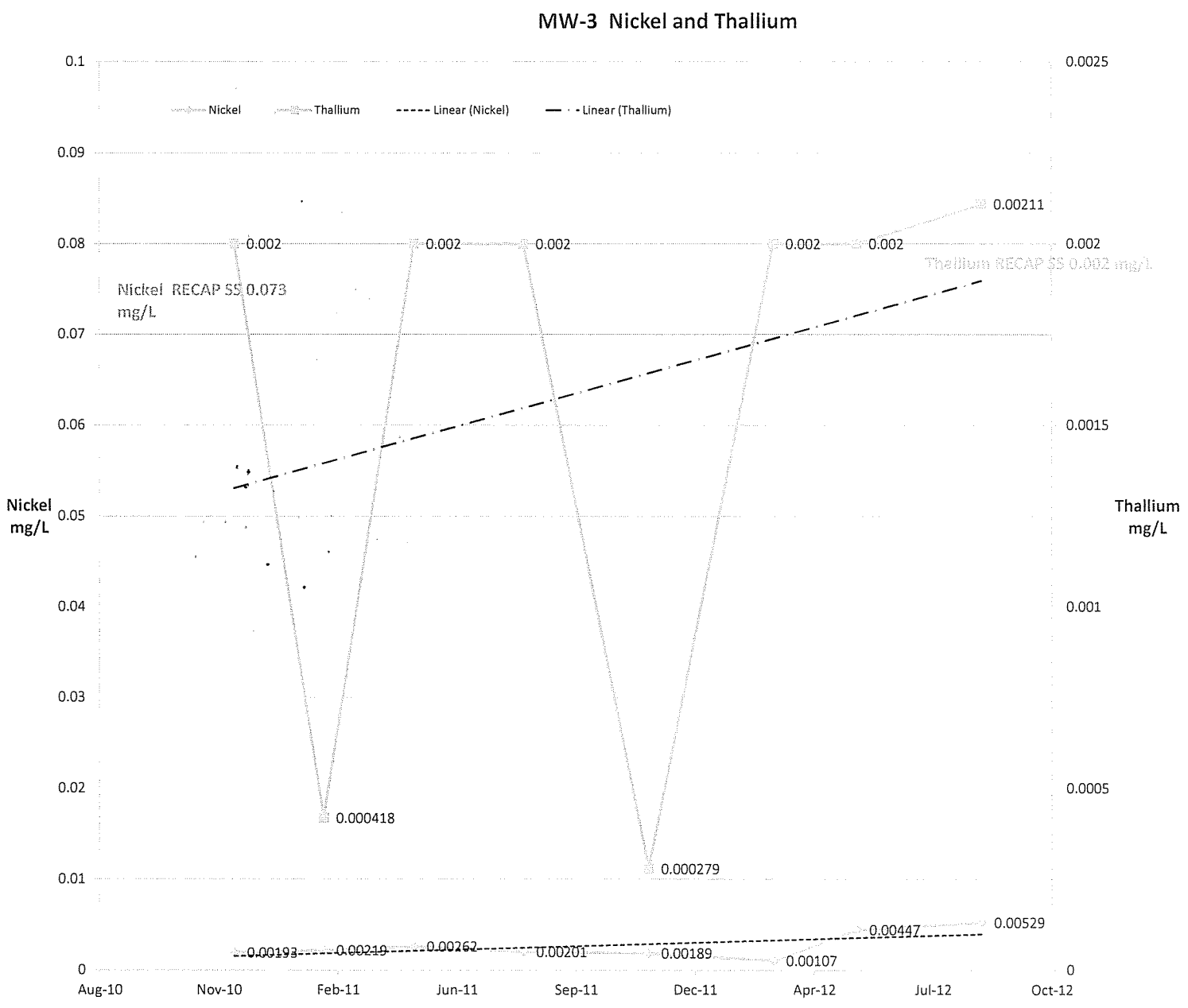
MW-A Cadmium and Zinc



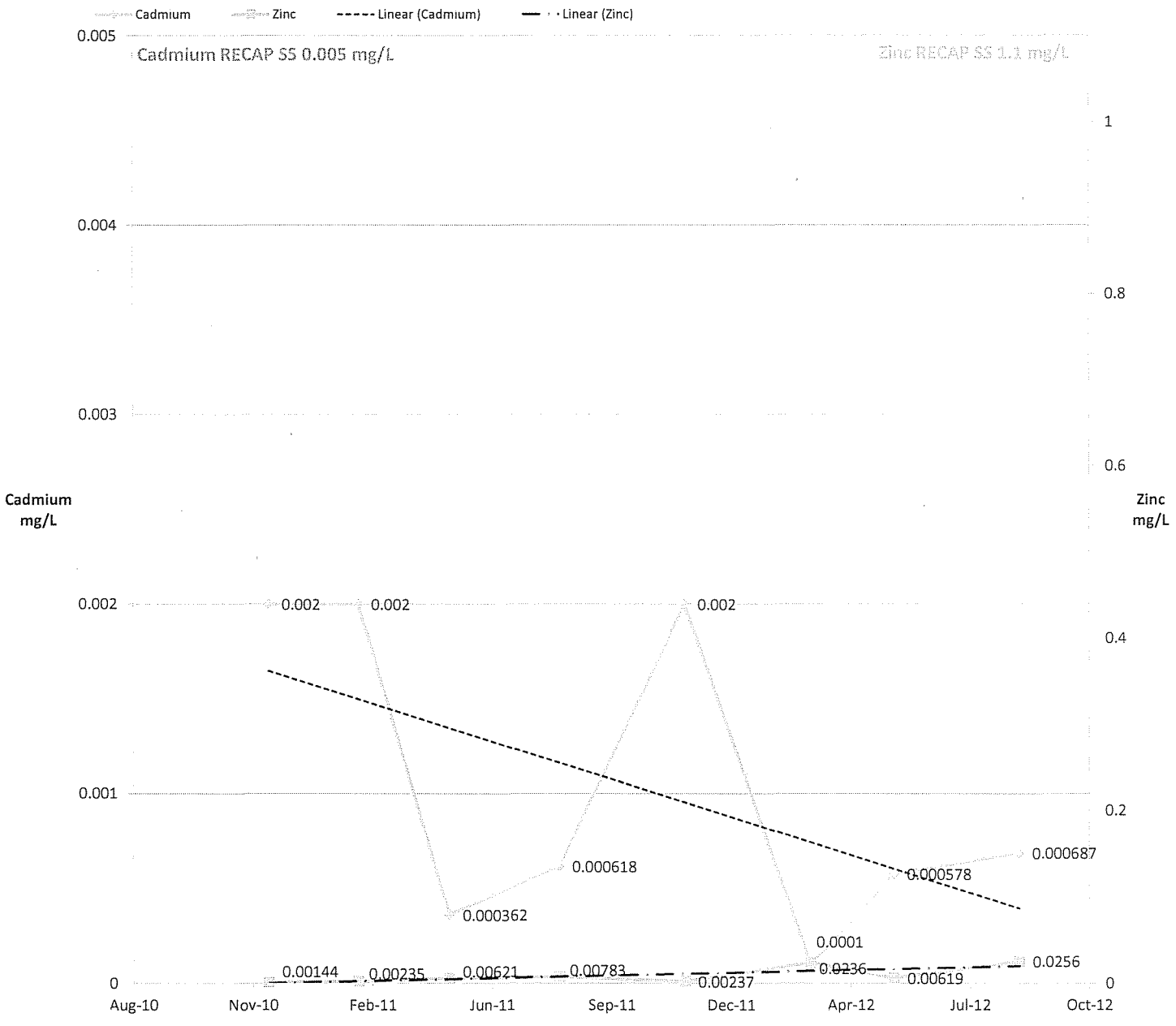

MW-3 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
6.53
6.58
6.60
6.65
6.63
6.66
6.60
7.64
0.00318
0.0024
0.00747
0.00535
0.0025
0.00259
0.00321
0.00304
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

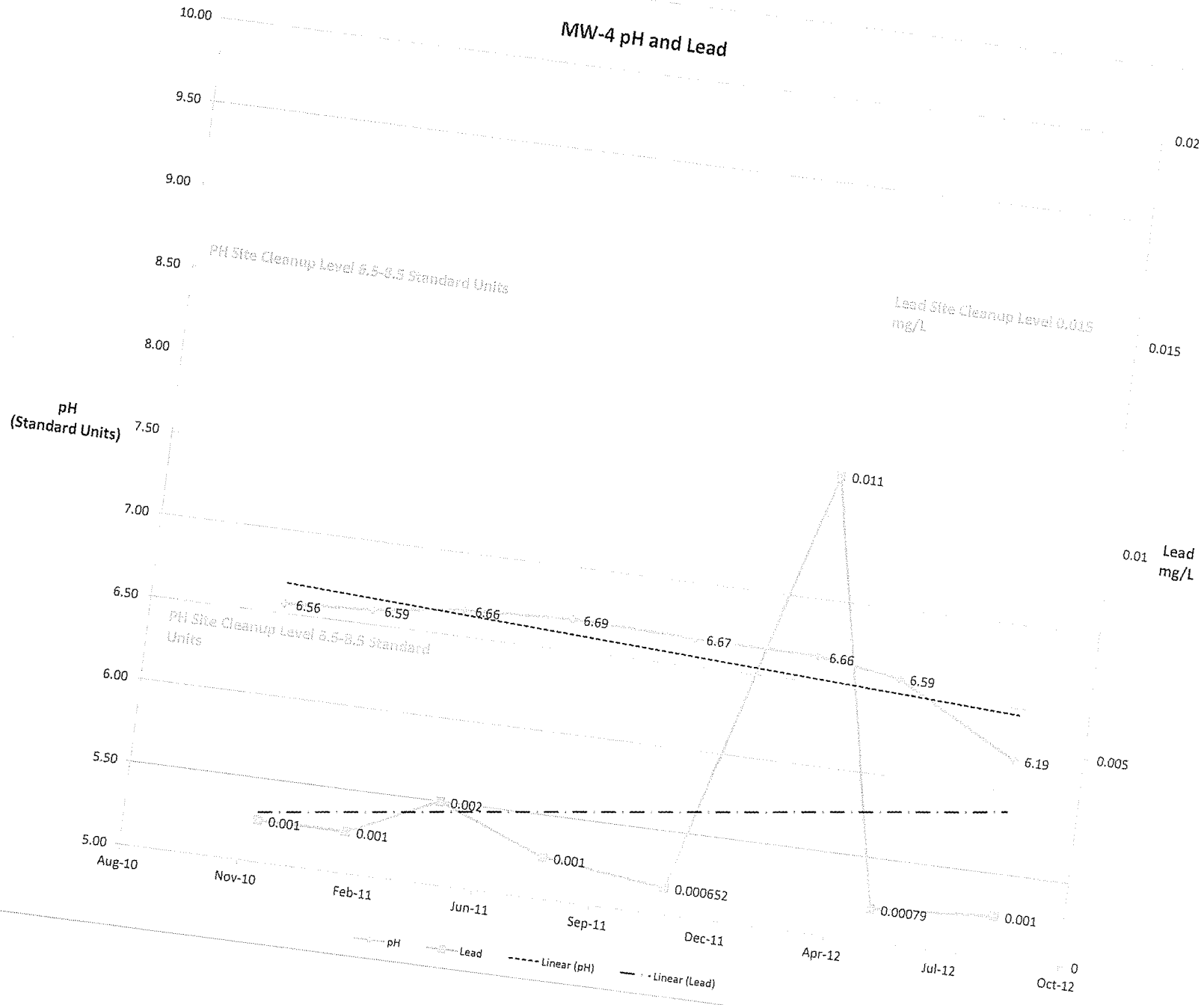
MW-3 Arsenic and Manganese



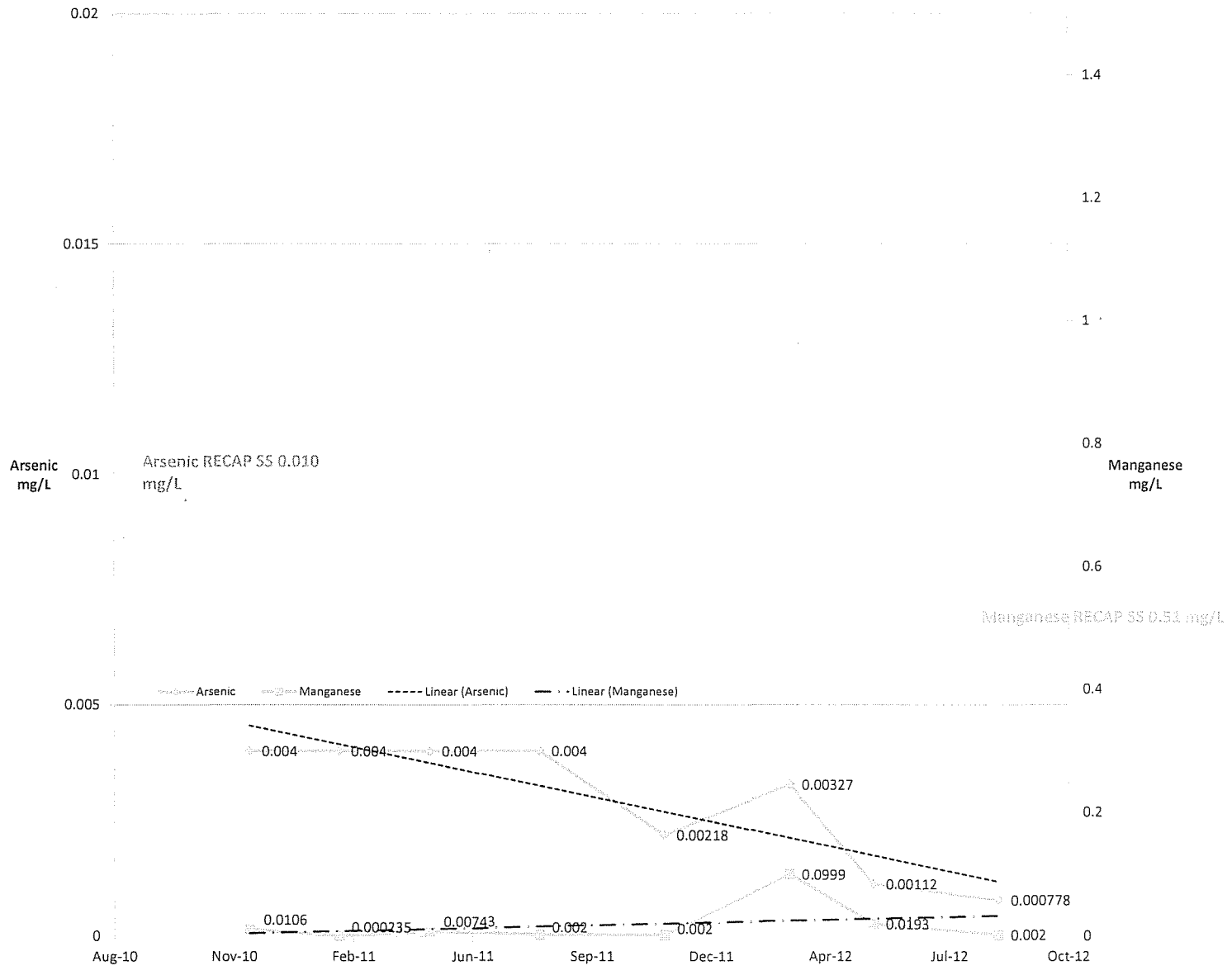

MW-3 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.00211
0.000418
0.000279
0.00193
0.00219
0.00262
0.00201
0.00189
0.00107
0.00447
0.00529
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

MW-3 Cadmium and Zinc

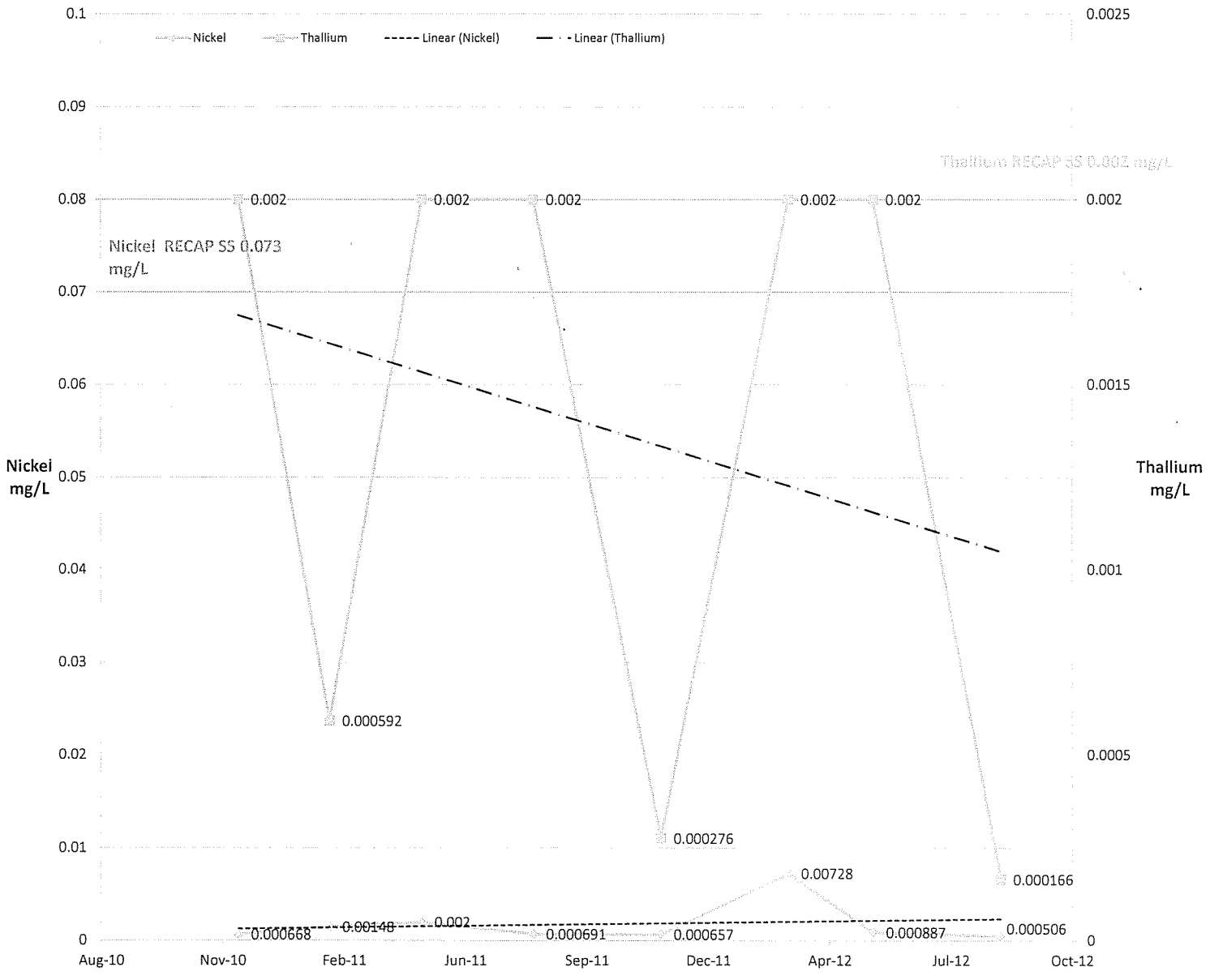


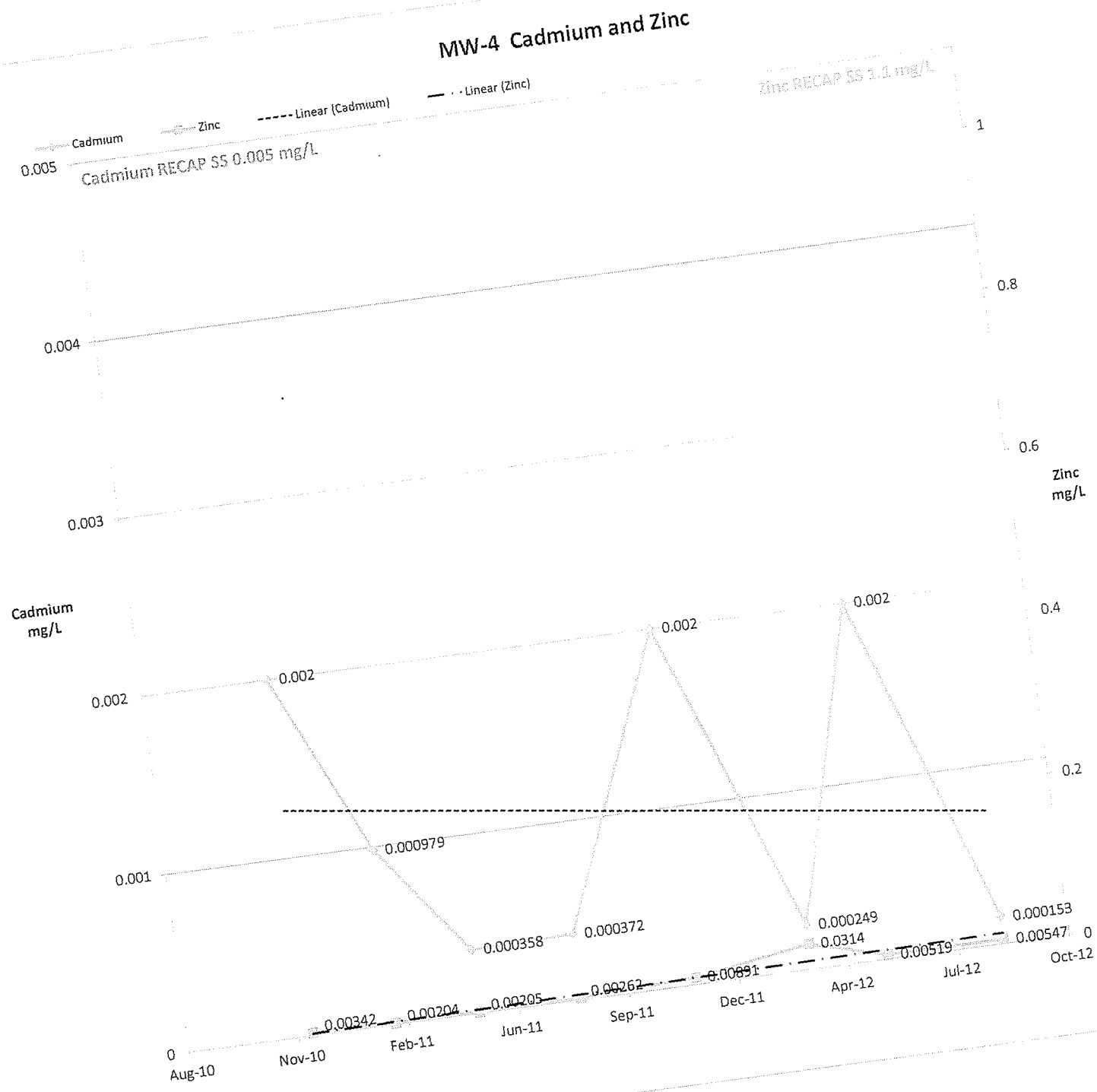

MW-4 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.56
6.59
6.66
6.69
6.67
6.66
6.59
6.19
0.001
0.001
0.002
0.001
0.000652
0.011
0.00079
0.001
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

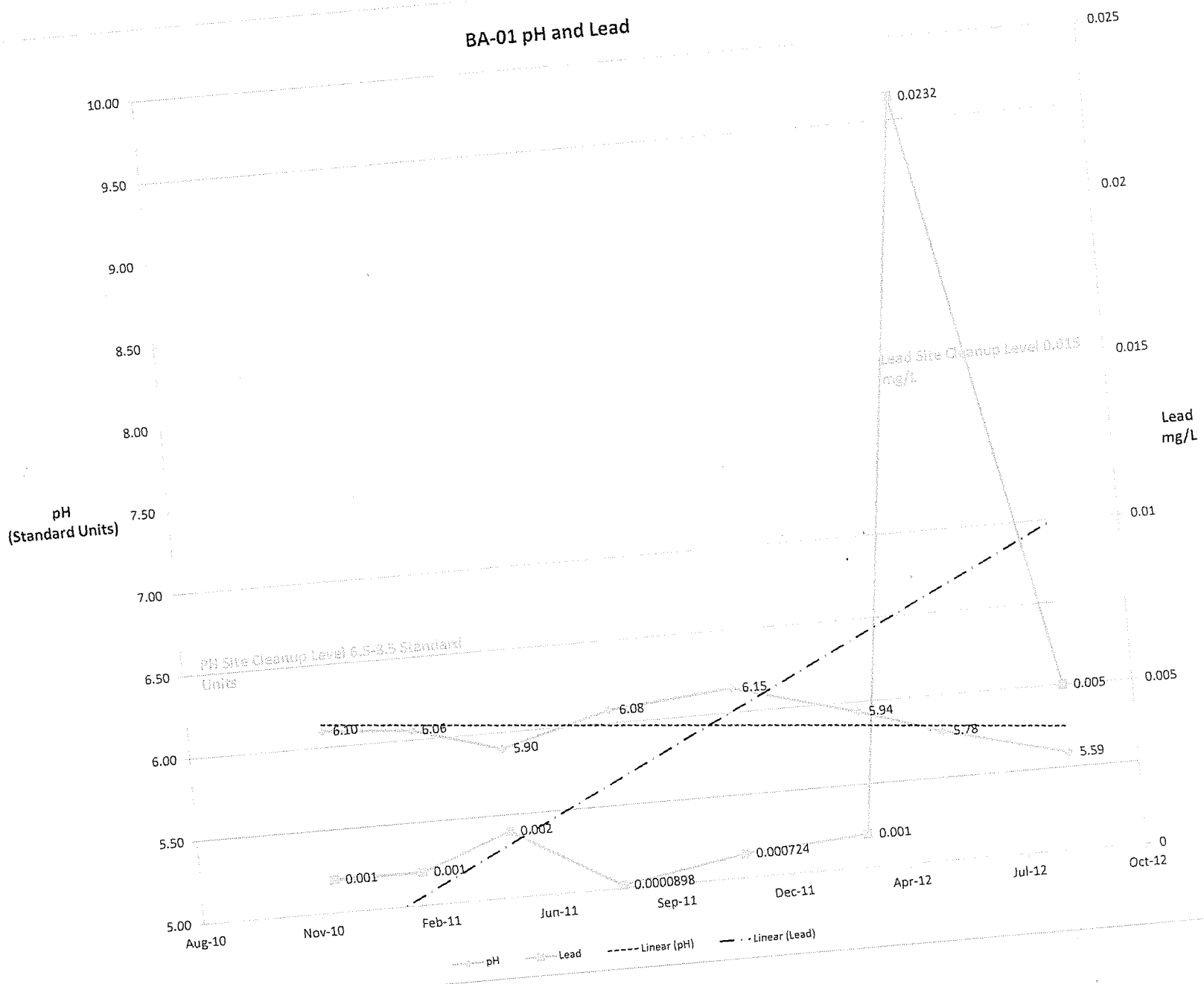
MW-4 Arsenic and Manganese

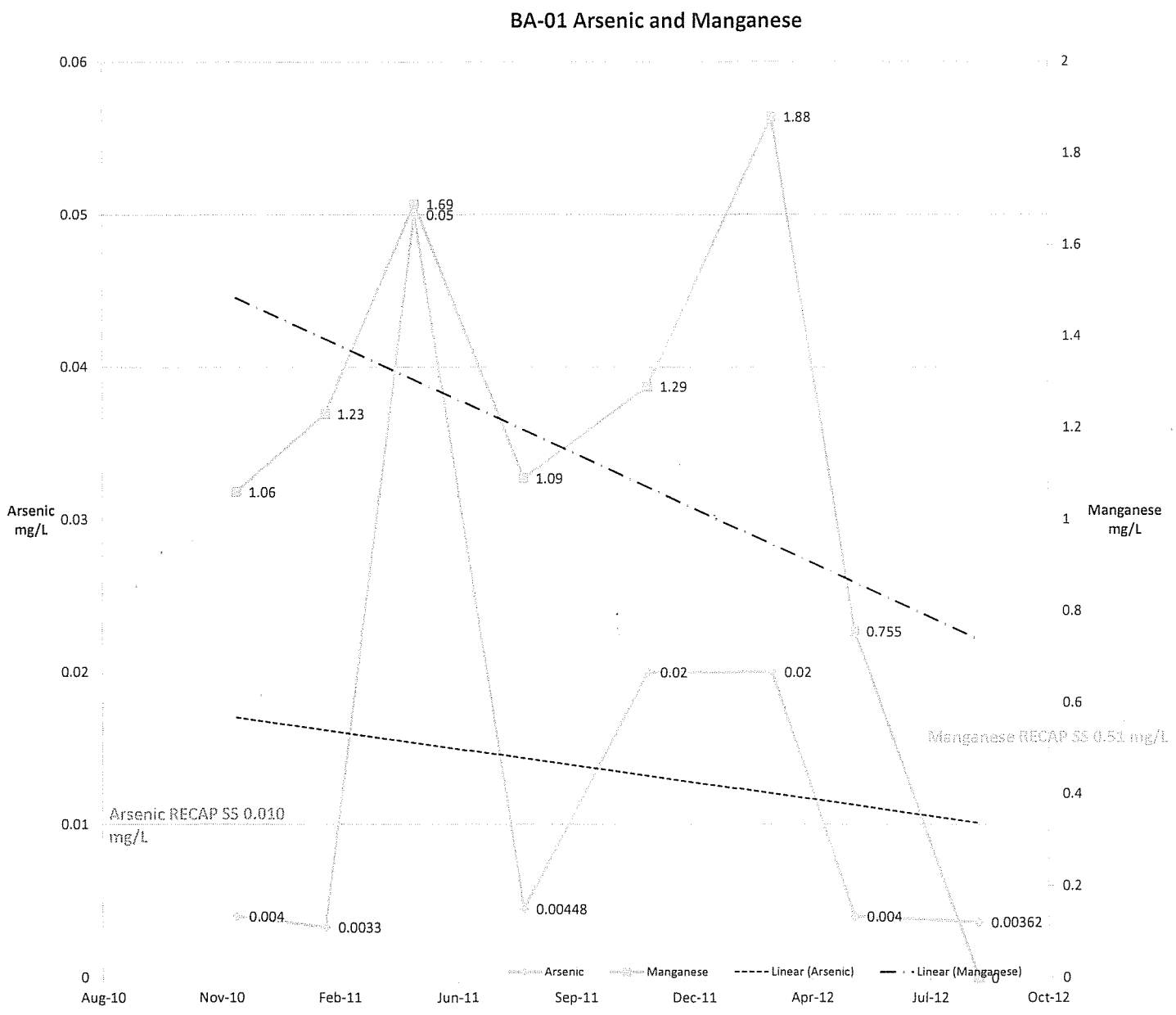


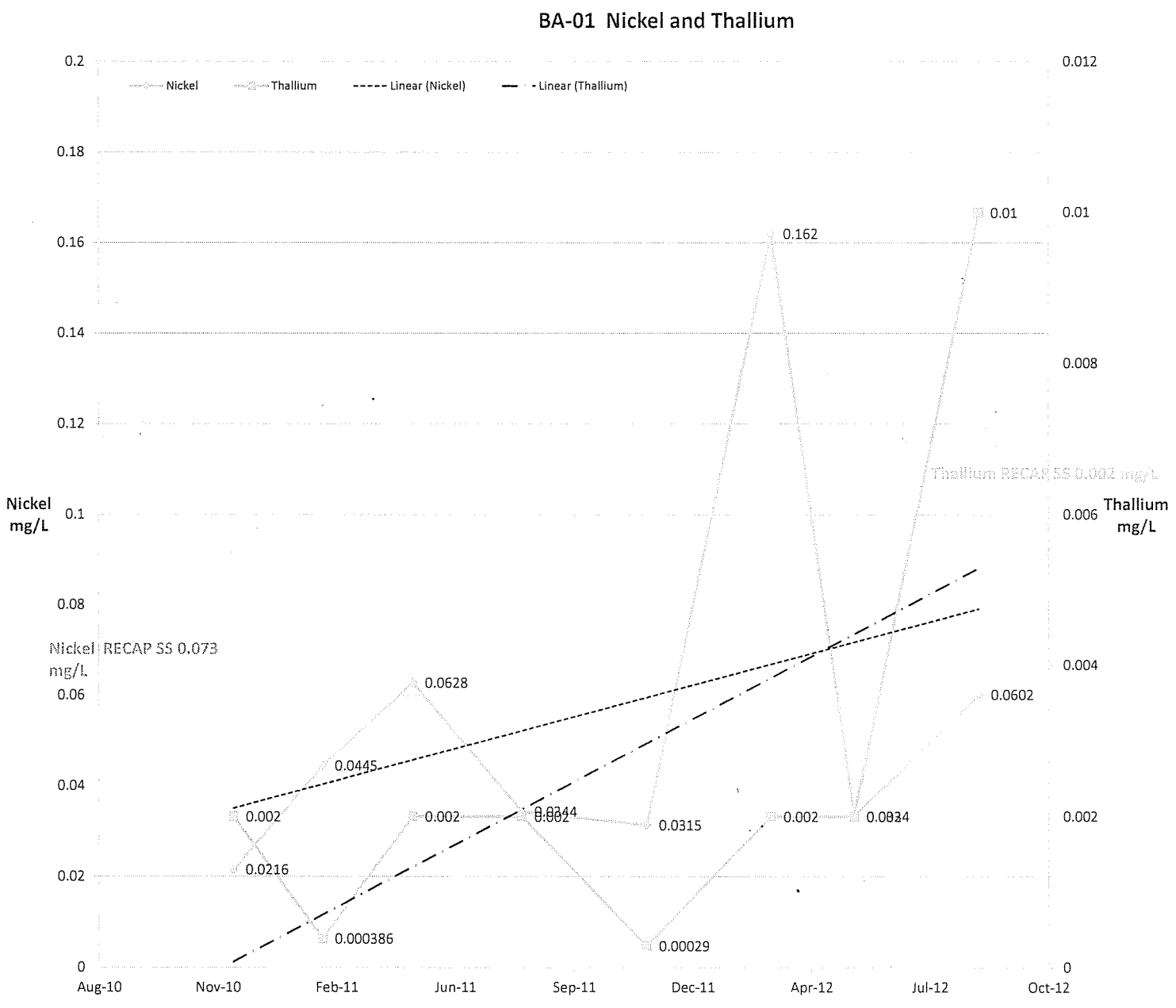
MW-4 Nickel and Thallium




MW-4 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.002
0.002
0.000979
0.000358
0.000372
0.000249
0.000153
0.00342
0.00204
0.00205
0.00262
0.00851
0.0314
0.00519
0.00547
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

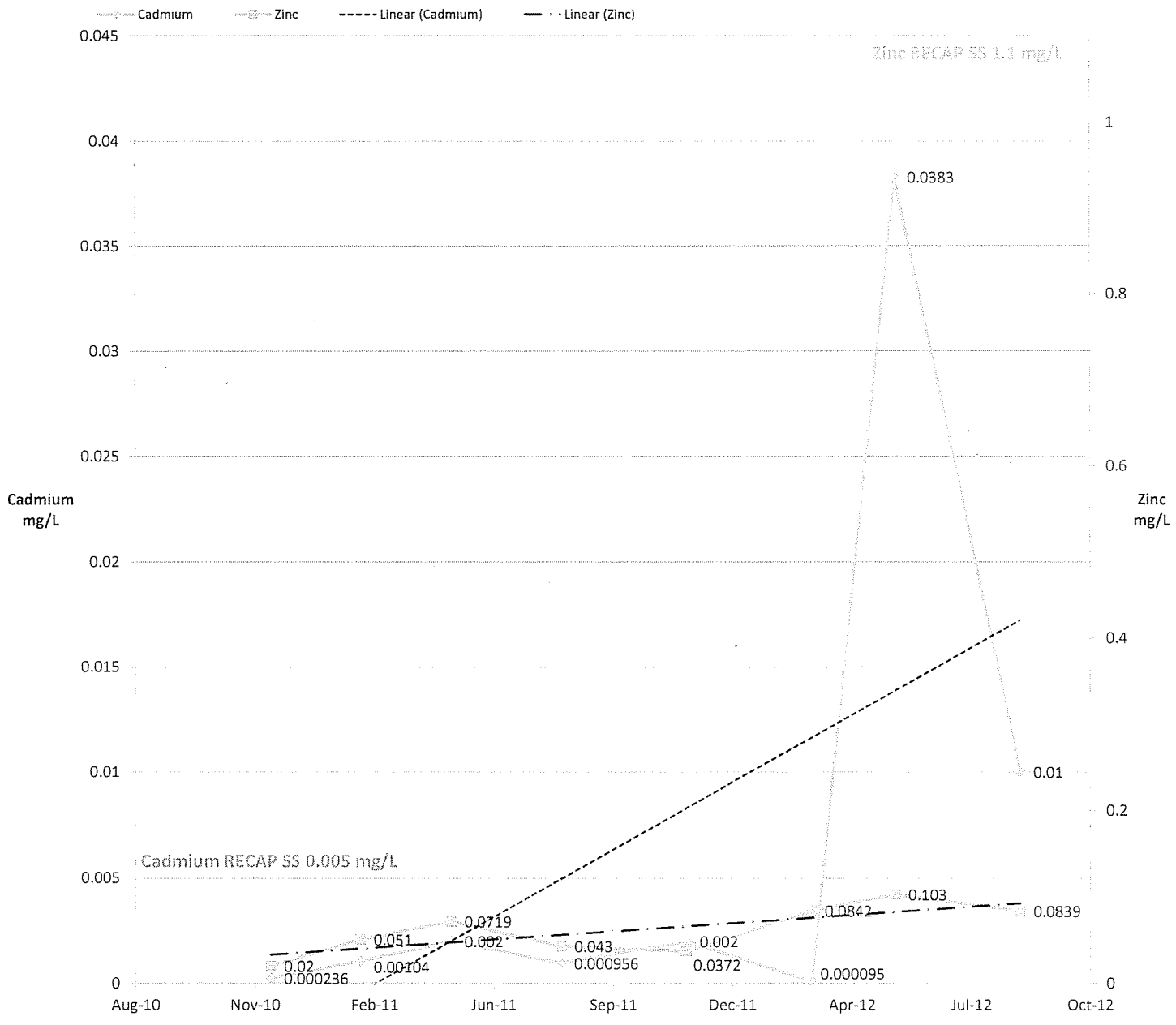

BA-01 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.025
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
pH Site Cleanup Level 6.5-8.5 Standard Units
0.0232
0.005
6.10
6.06
5.90
6.08
6.15
5.94
5.78
5.59
0.001
0.001
0.002
0.0000898
0.000724
0.001
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

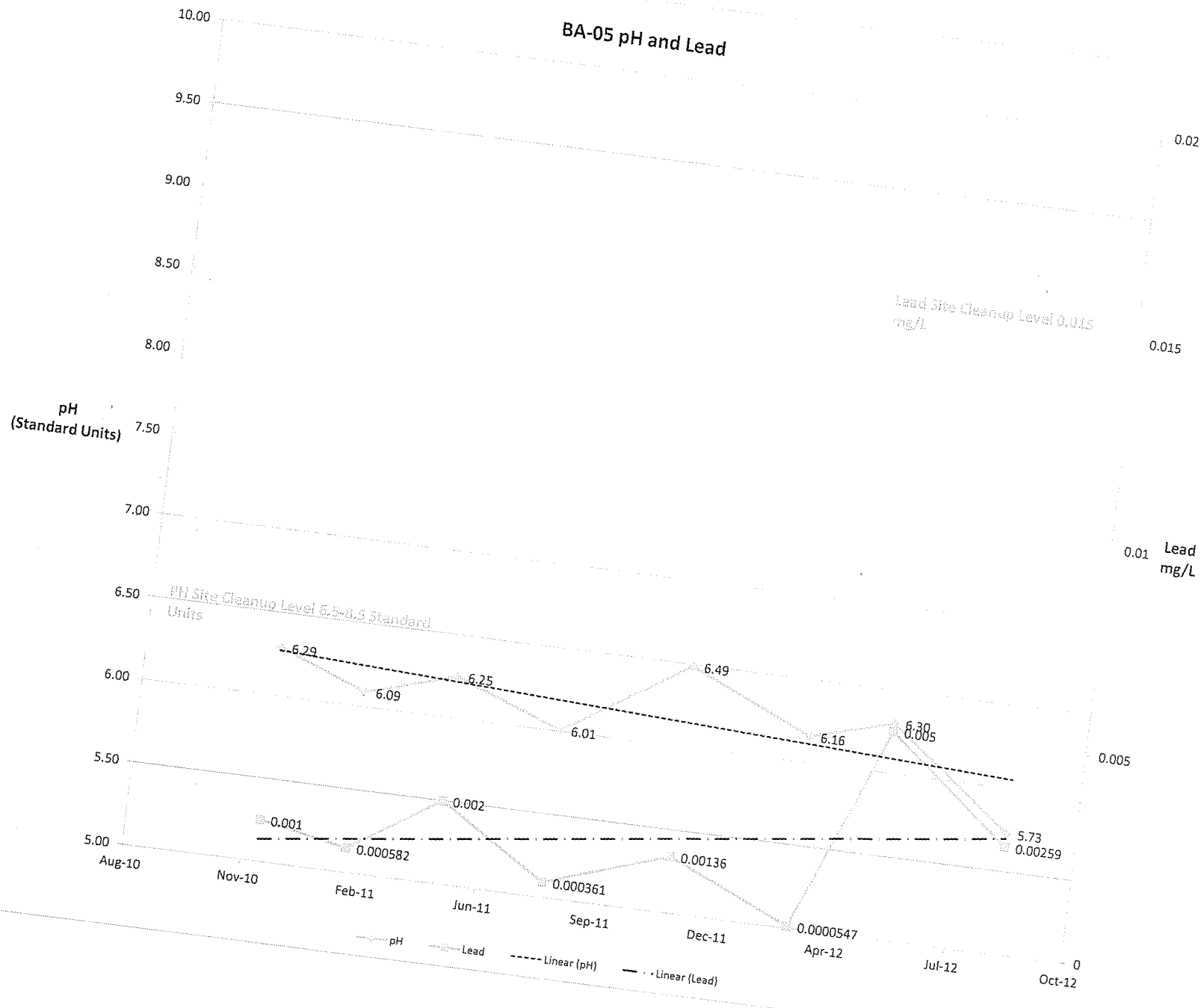

BA-01 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
1.88
1.69
0.05
1.29
1.23
1.09
1.06
0.755
0.02
0.02
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.004
0.0033
0.00448
0.004
0.00362
0
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

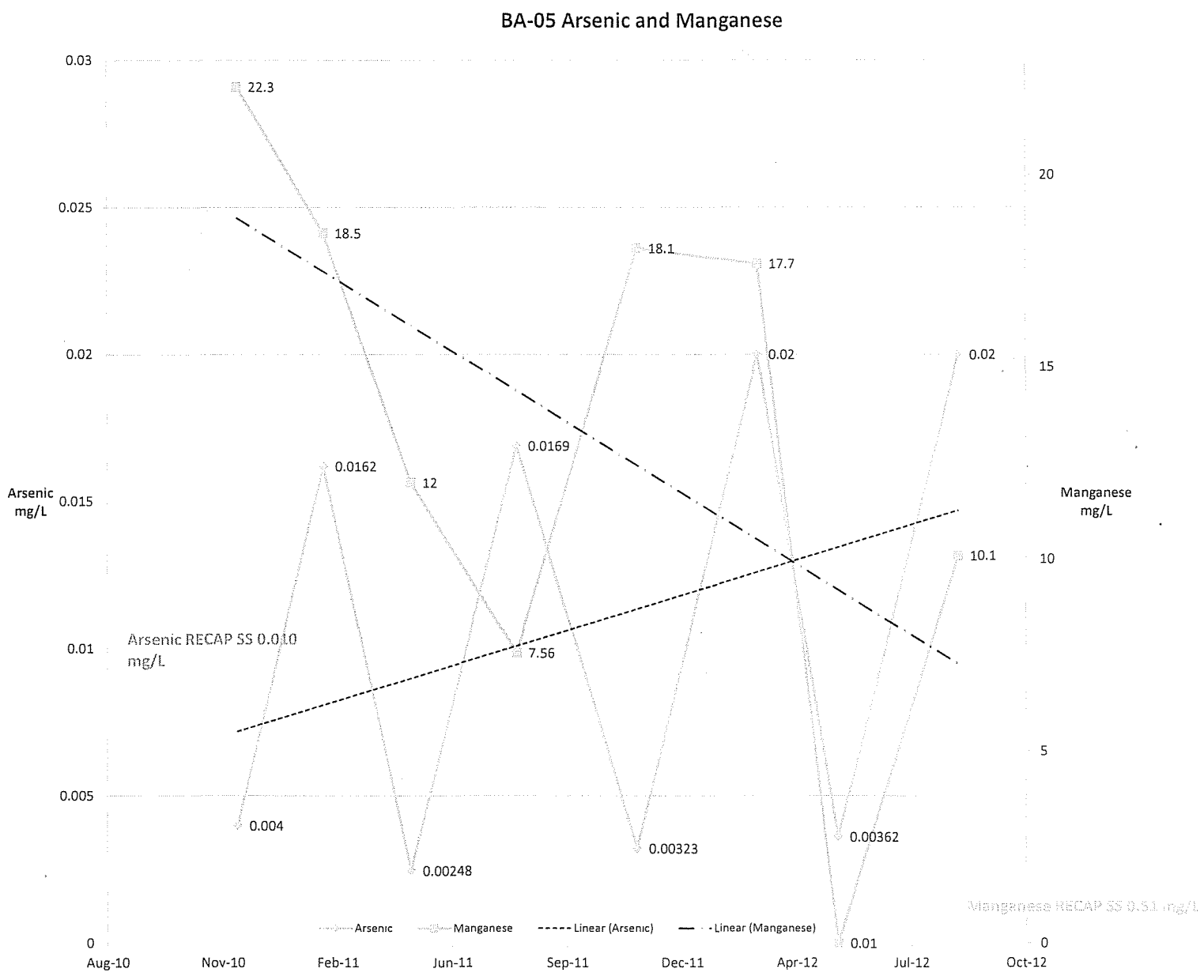


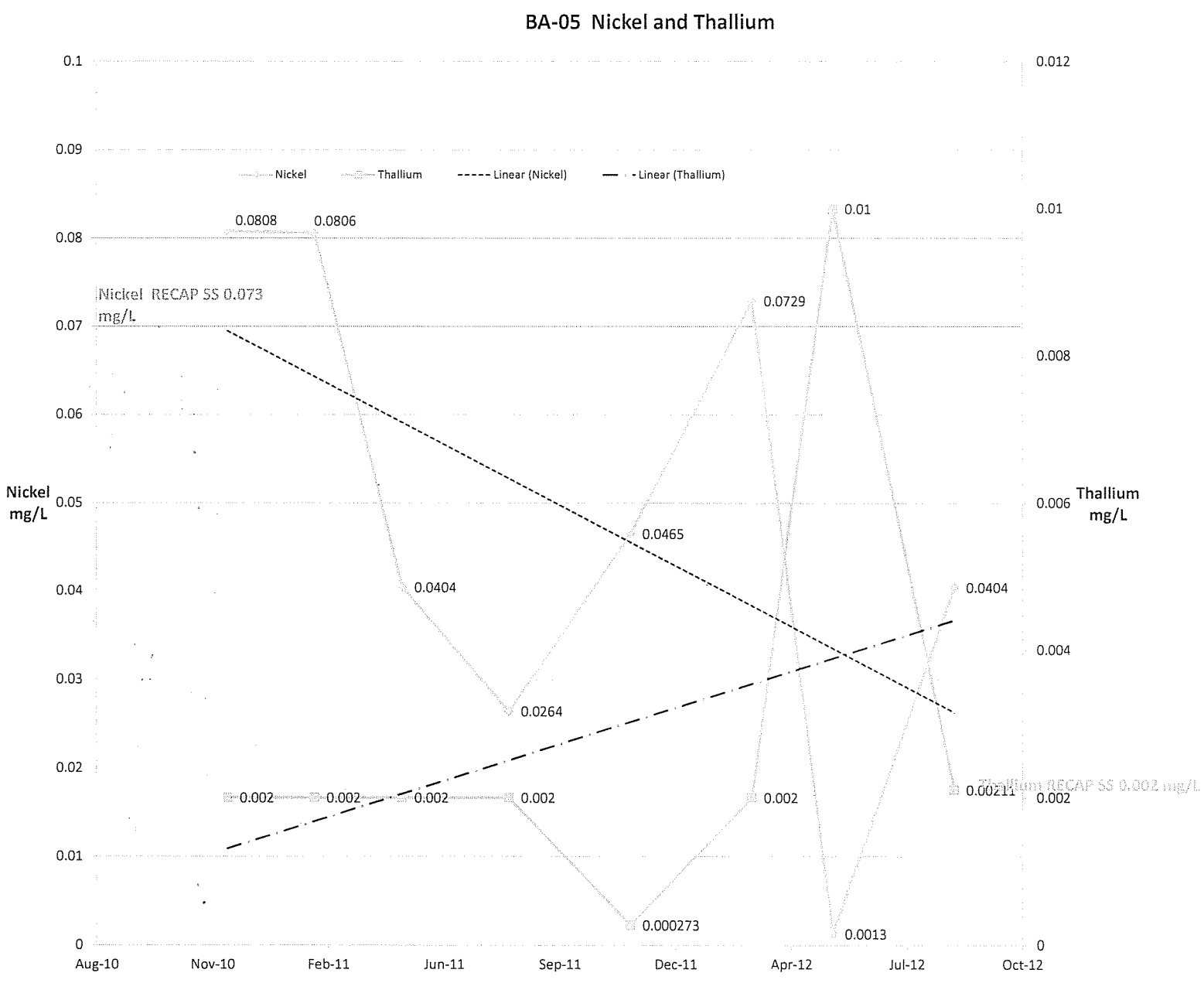
BA-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.0628
0.0445
0.002
0.0216
0.000386
0.002
0.0244
0.002
0.0315
0.00029
0.162
0.002
0.0324
0.01
0.0602

BA-01 Cadmium and Zinc

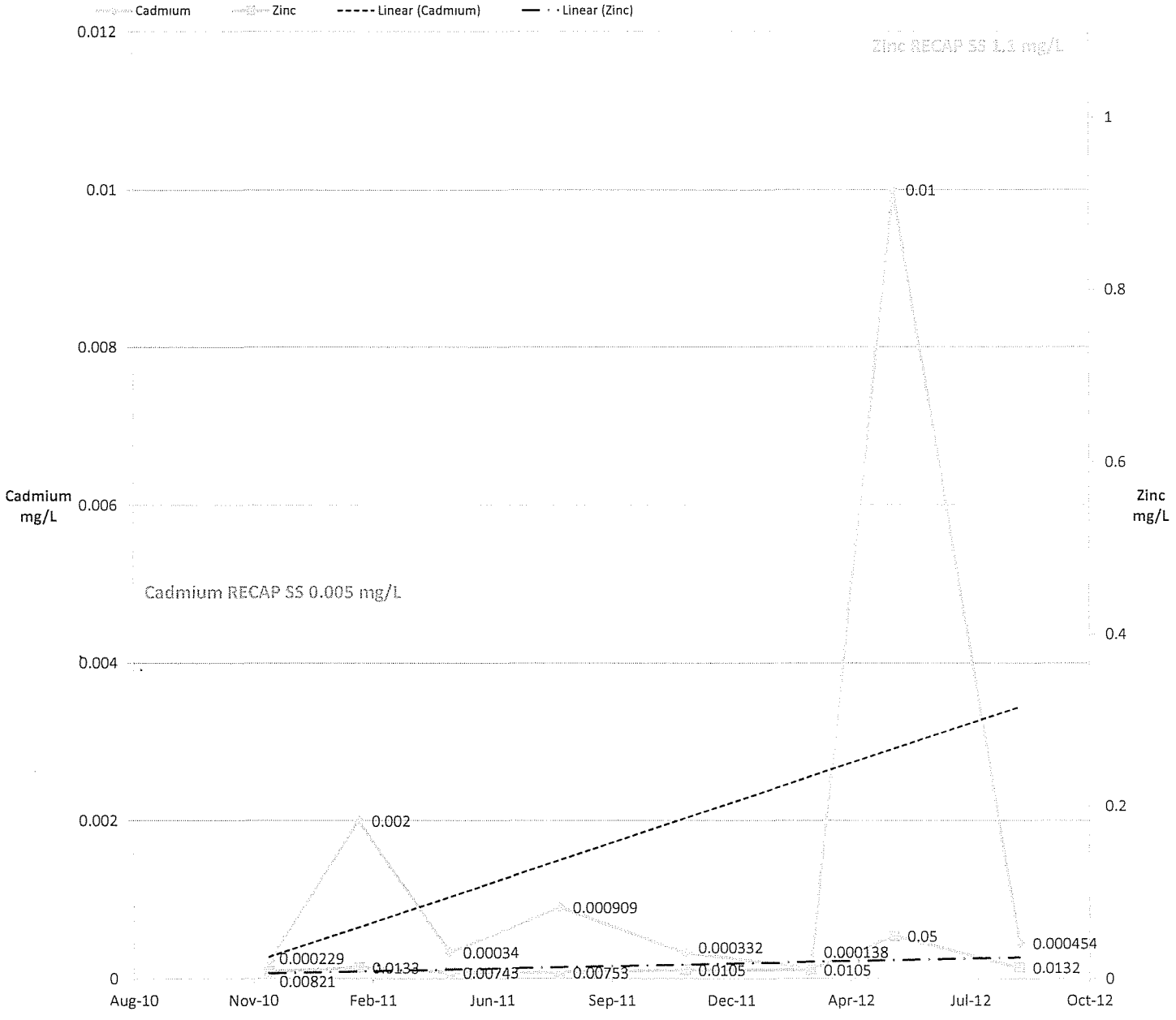


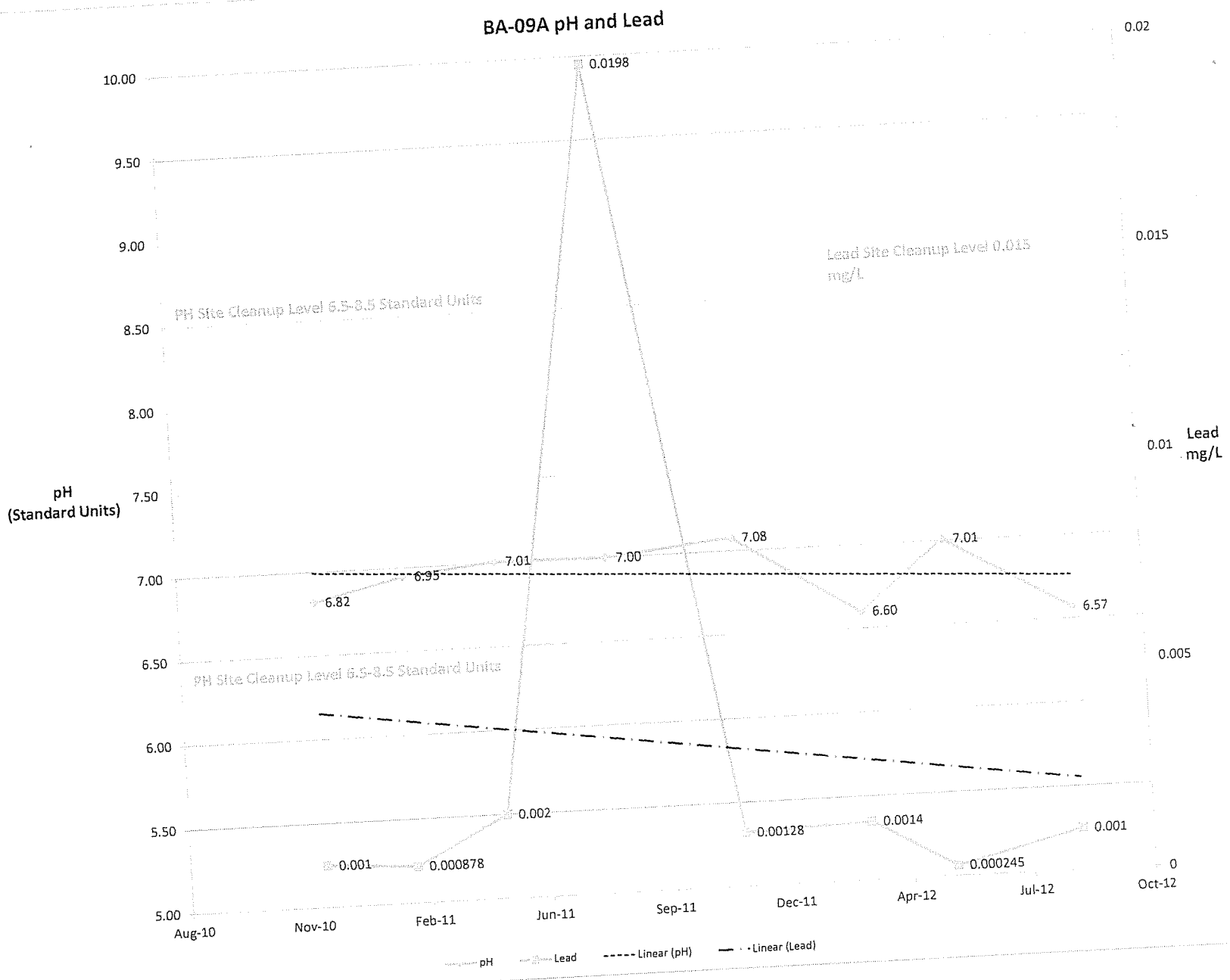

BA-05 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
FW Site Cleanup Level 6.5-8.5 Standard Units
6.29
6.09
6.25
6.01
6.49
6.16
6.30
0.005
5.73
0.001
0.000582
0.002
0.000361
0.00136
0.0000547
0.00259
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

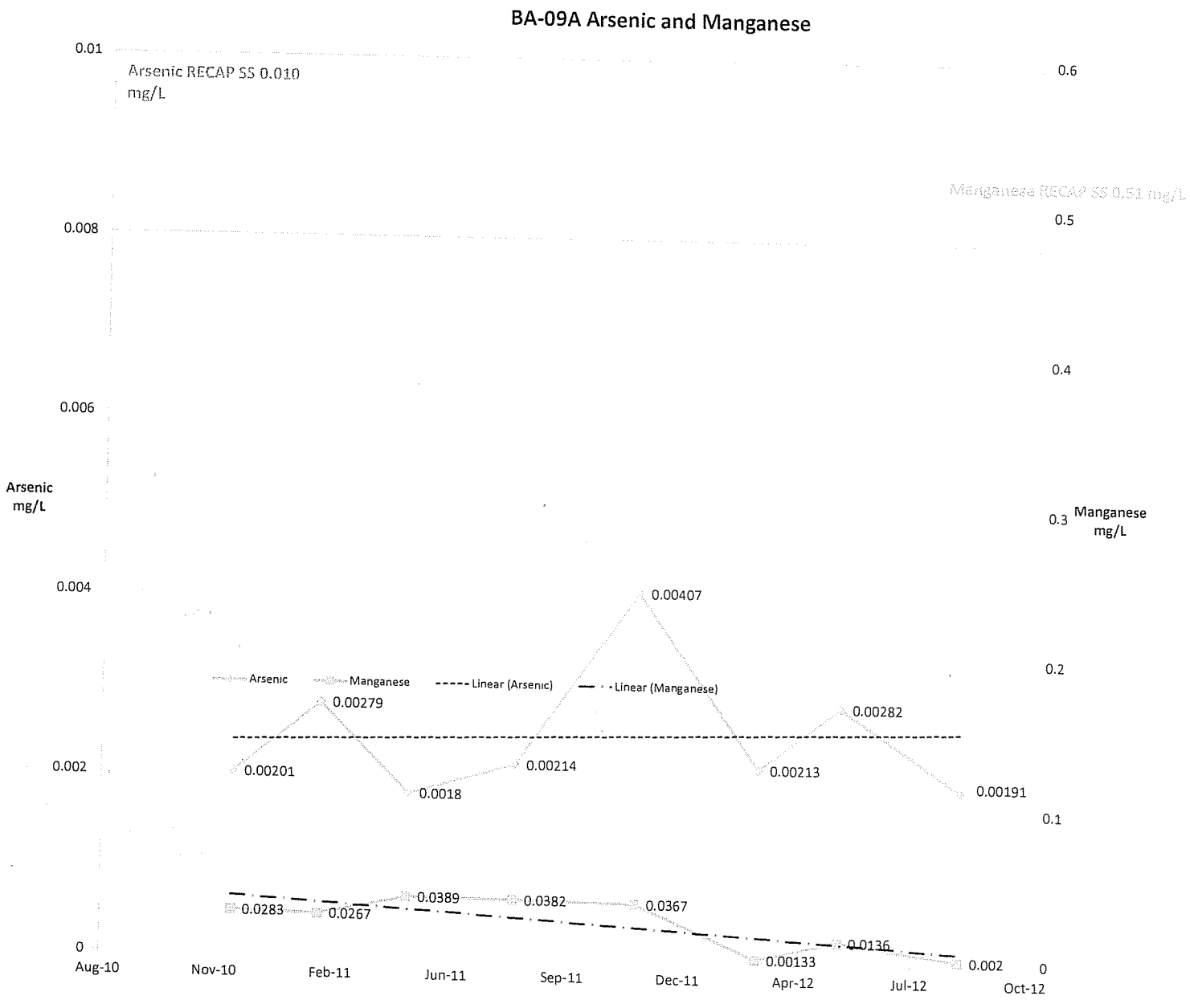

BA-05 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
20
15
10
5
0
22.3
18.5
12
7.56
18.1
17.7
0.02
0.01
0.02
10.1
0.0162
0.0169
0.004
0.00248
0.00323
0.00362
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

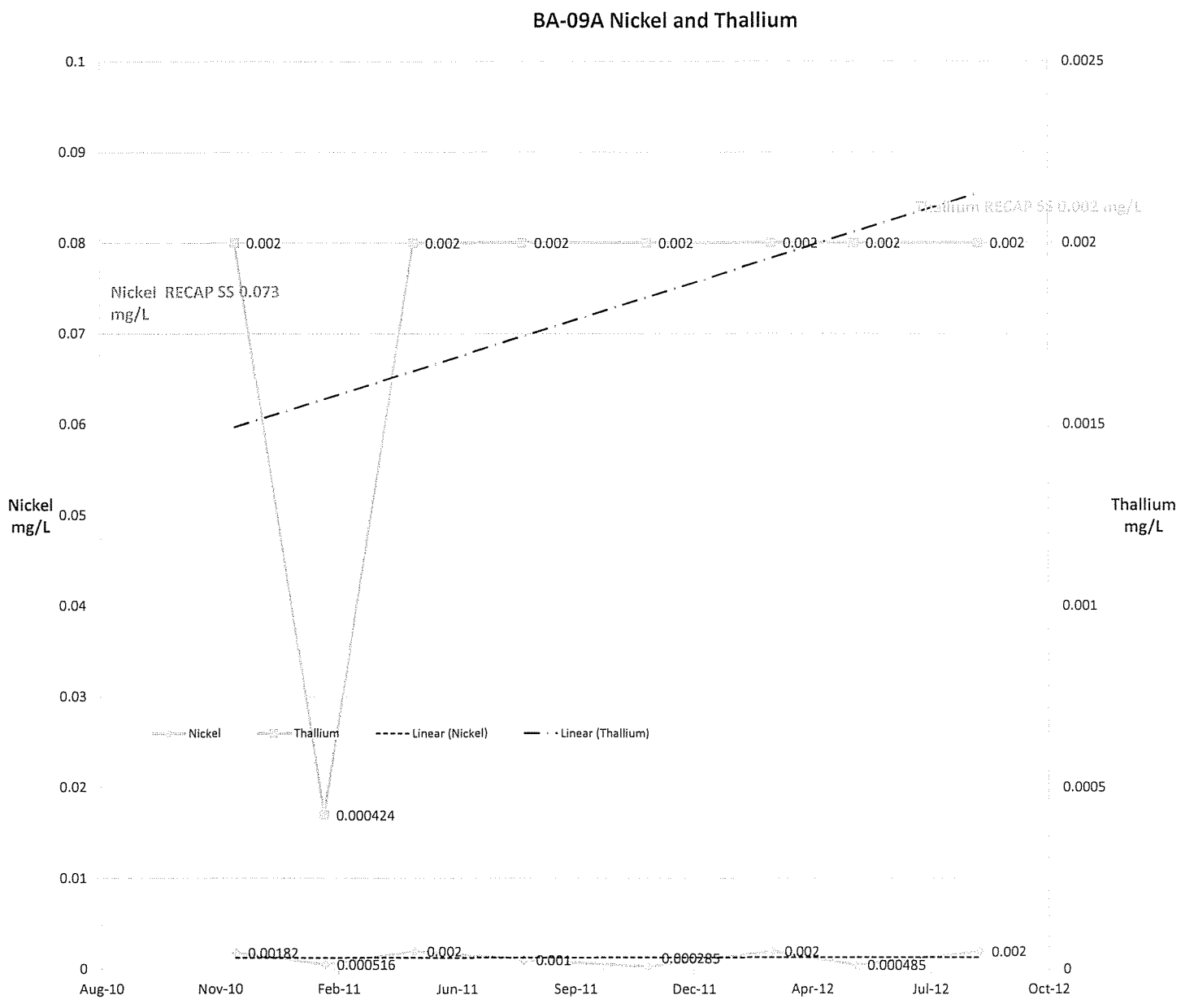

BA-05 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.0808
0.0806
0.0404
0.0264
0.0465
0.0729
0.01
0.0013
0.000273
0.0404
0.00211
0.002
0.002
0.002
0.002
0.002
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

BA-05 Cadmium and Zinc

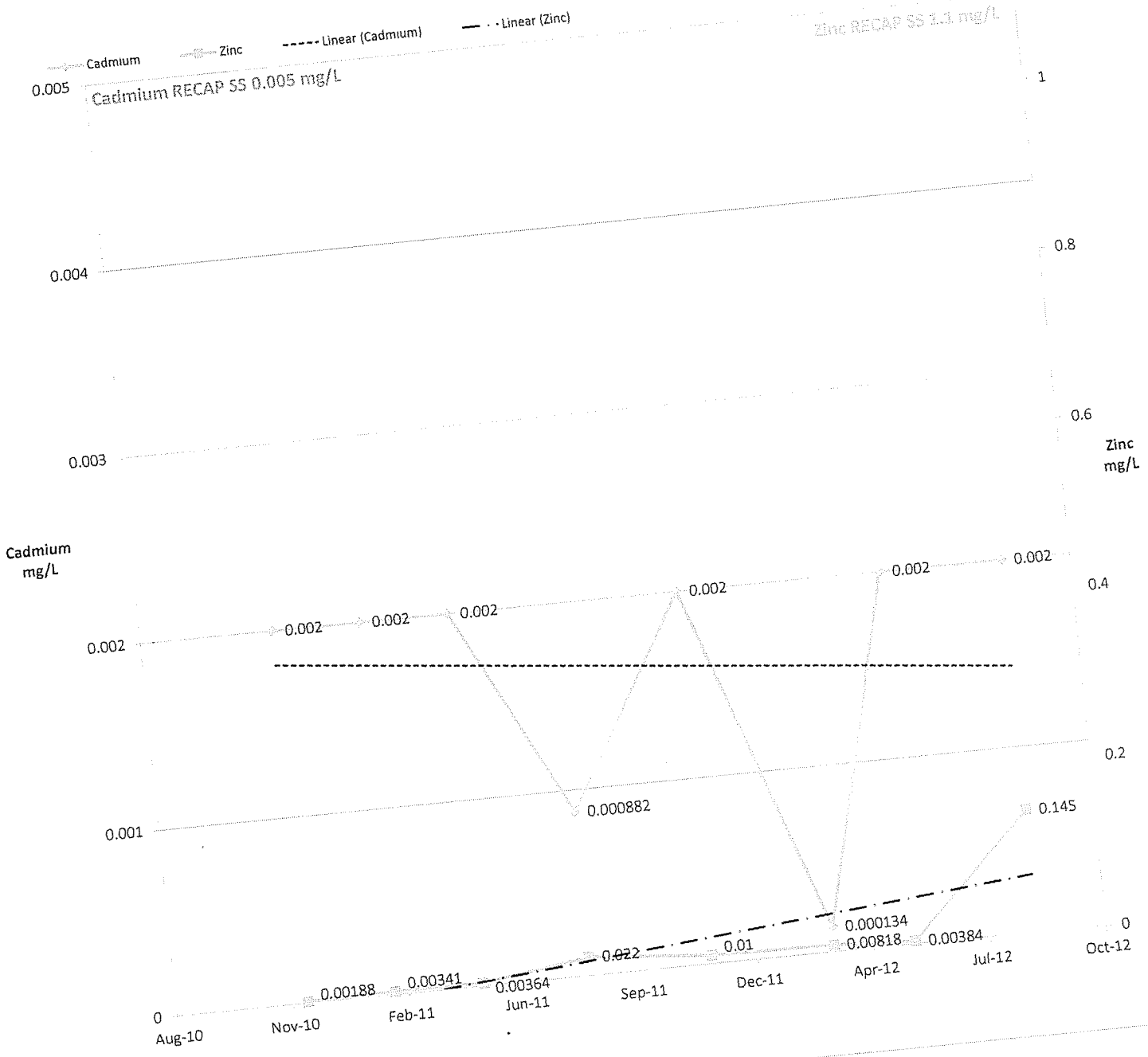


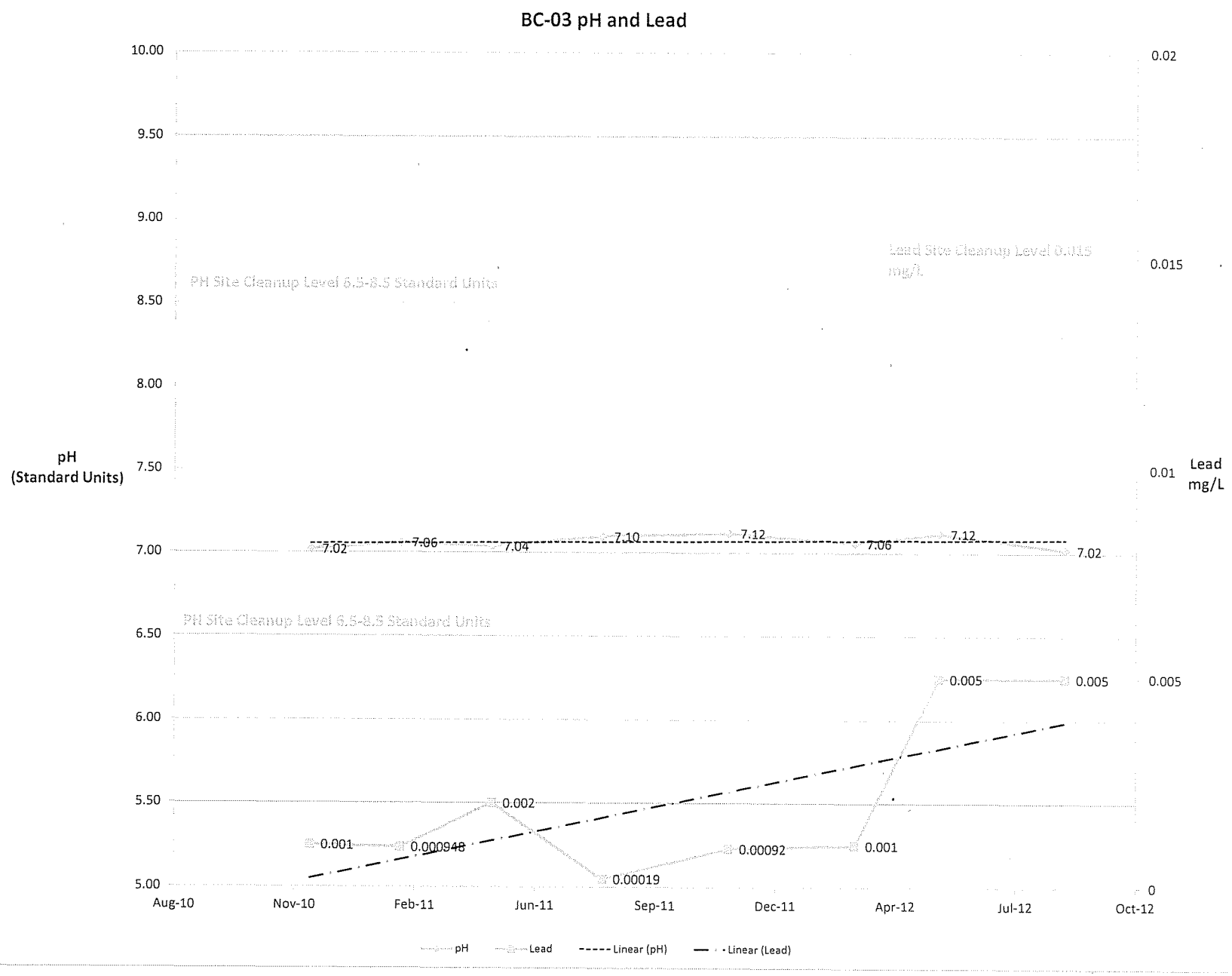

BA-09A pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
0.0198
7.08
7.01
7.01
7.00
6.95
6.82
6.60
6.57
0.002
0.00128
0.0014
0.001
0.001
0.000878
0.000245
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


BA-09A Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic mg/L
Manganese mg/L
0.01
0.008
0.006
0.004
0.002
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.00201
0.00279
0.0018
0.00214
0.00407
0.00213
0.00282
0.00191
0.0283
0.0267
0.0389
0.0382
0.0367
0.00133
0.0136
0.002
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

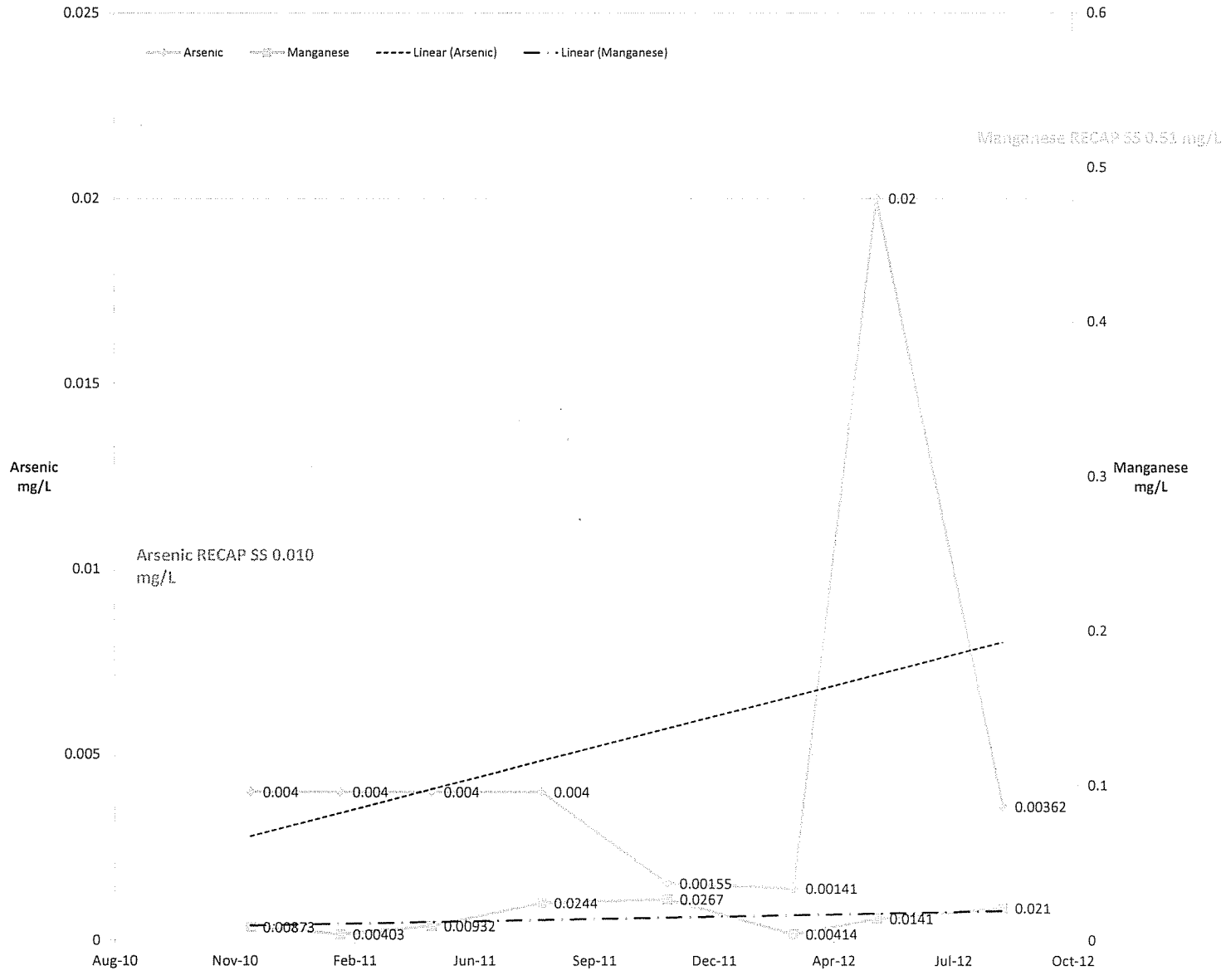

BA-09A Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.00182
0.000516
0.002
0.001
0.000285
0.002
0.000485
0.002
0.000424
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

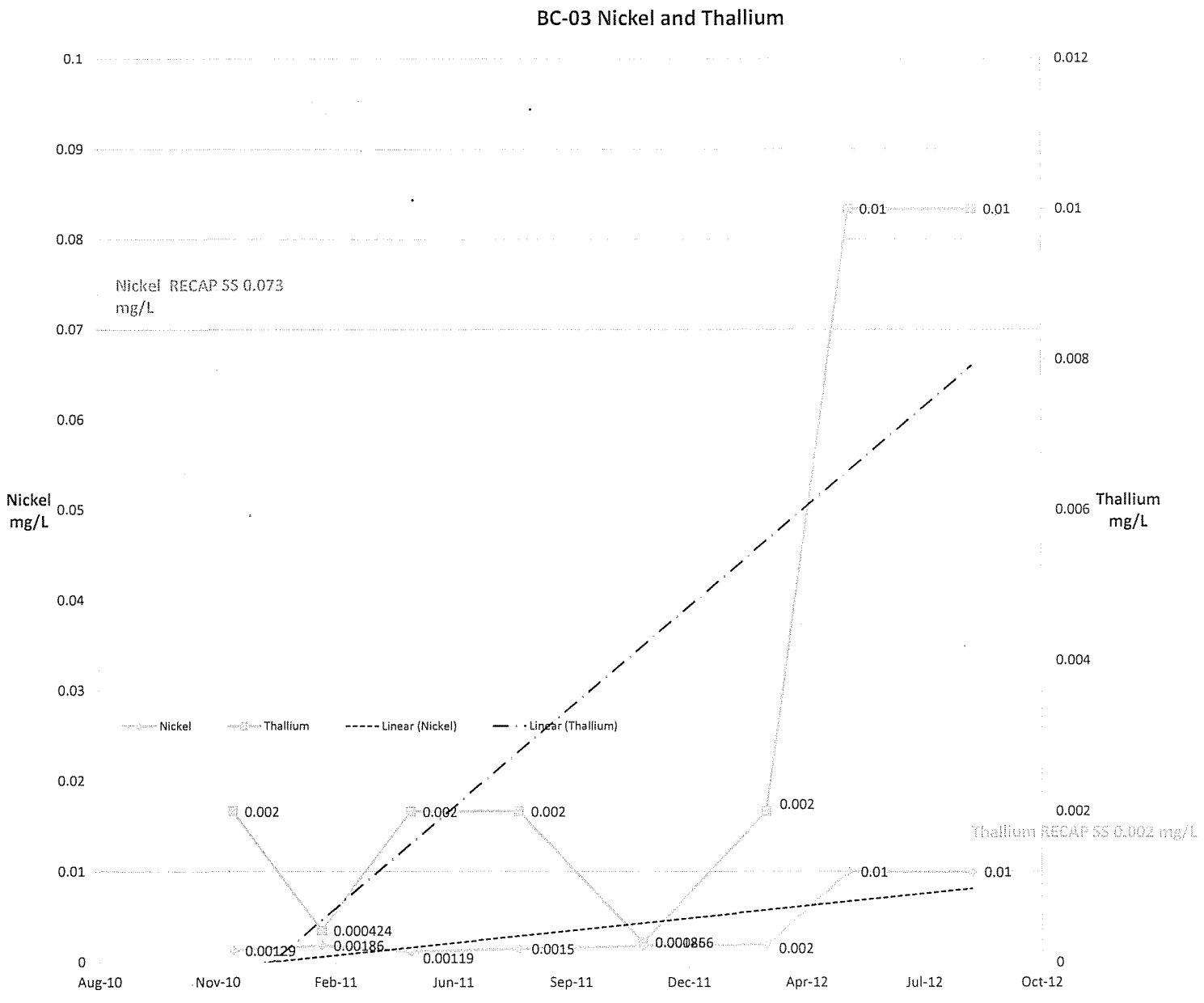
BA-09A Cadmium and Zinc



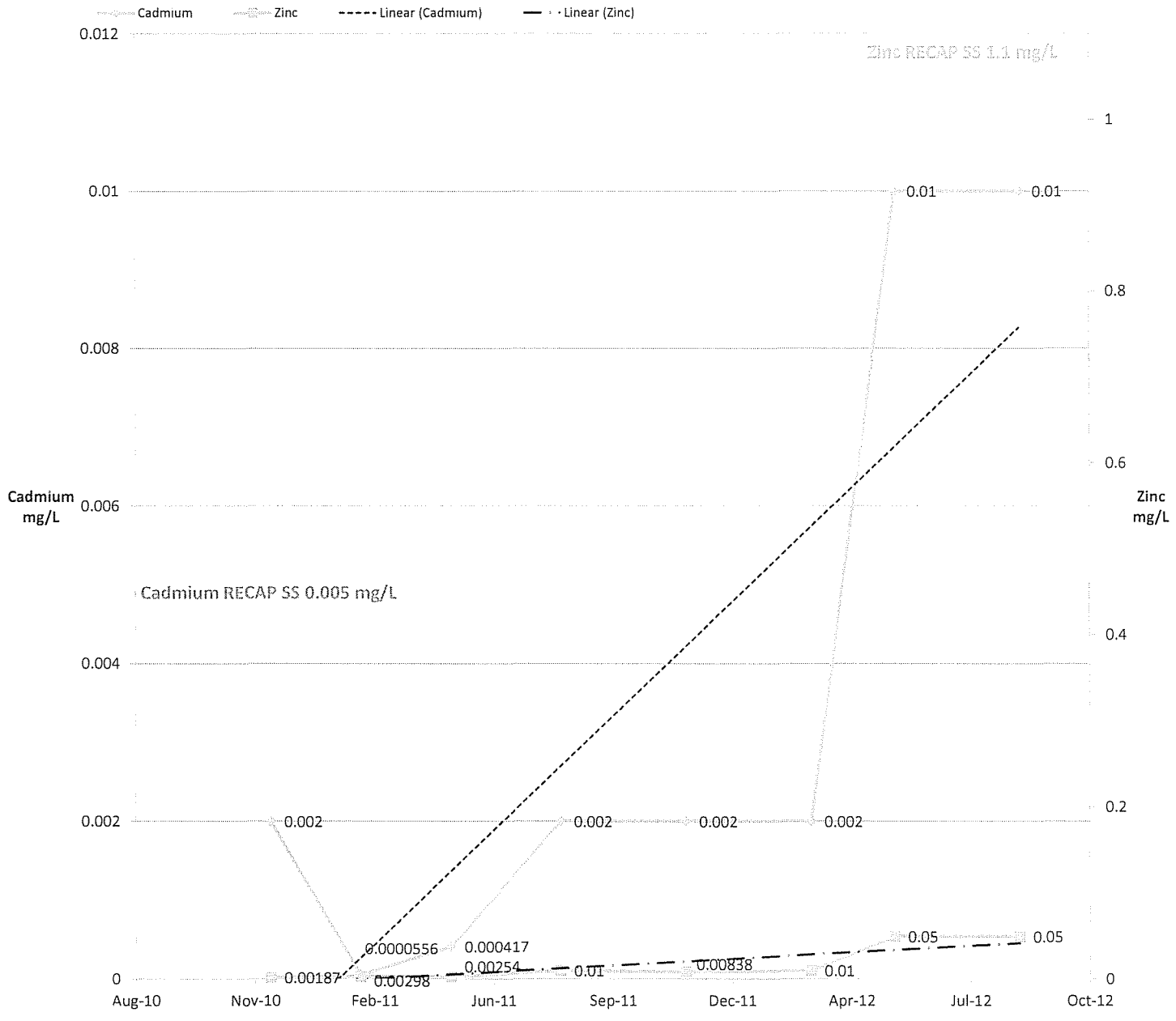

BC-03 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.02
7.06
7.04
7.10
7.12
7.06
7.12
7.02
0.001
0.000948
0.002
0.00019
0.00092
0.001
0.005
0.005
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

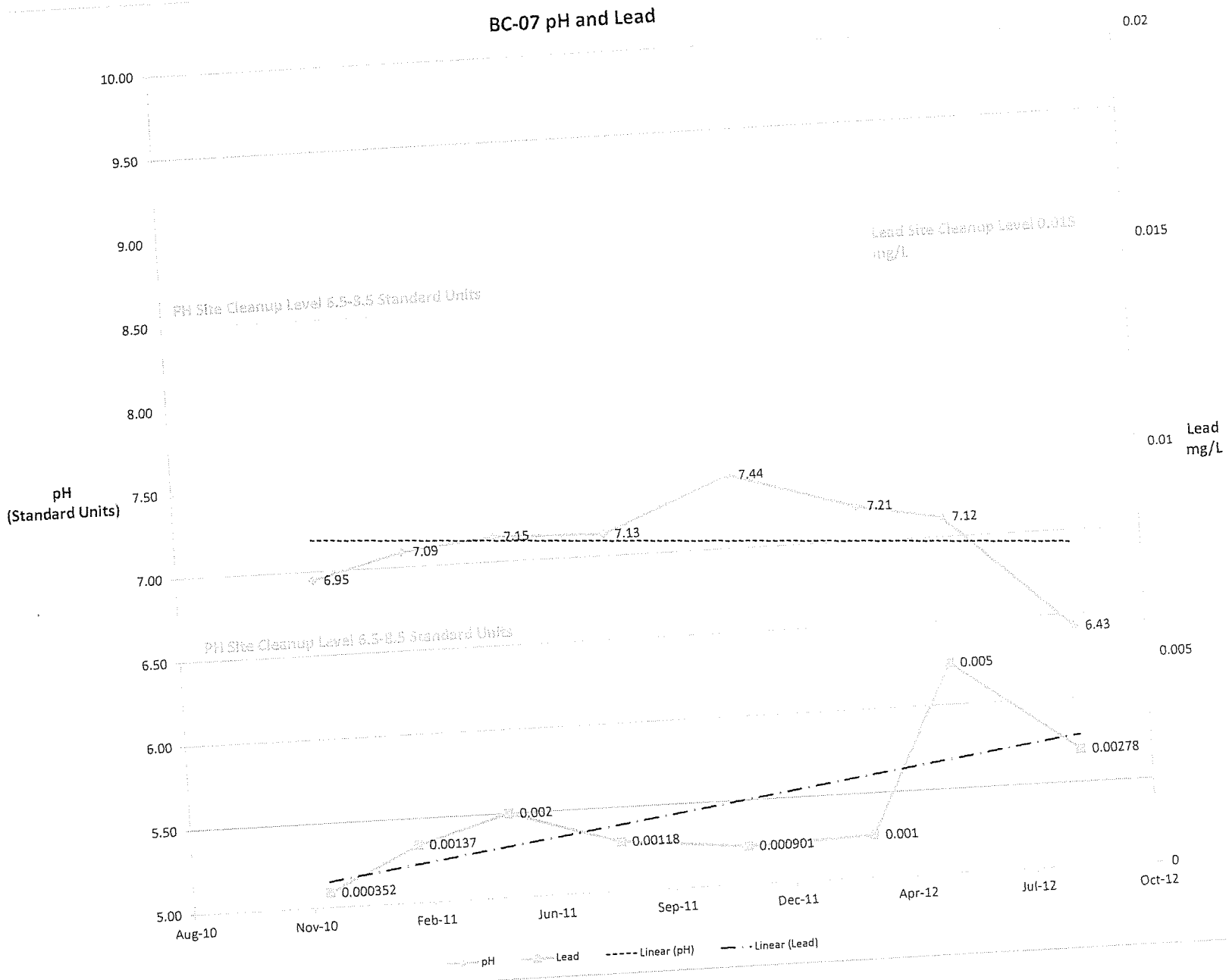
BC-03 Arsenic and Manganese



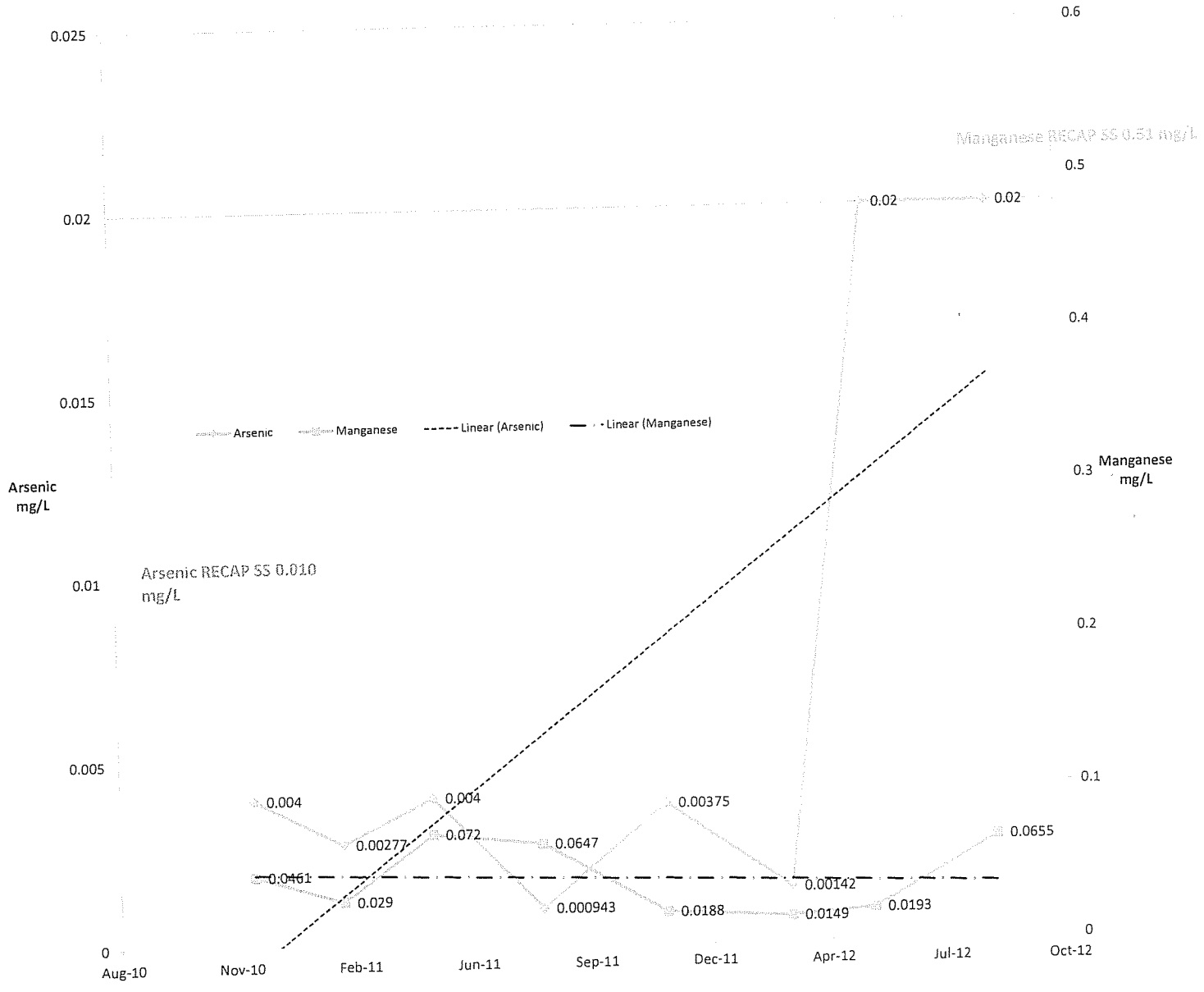

BC-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.002
0.002
0.002
0.002
0.01
0.01
0.01
0.01
0.00129
0.000424
0.00186
0.00119
0.0015
0.000866
0.002

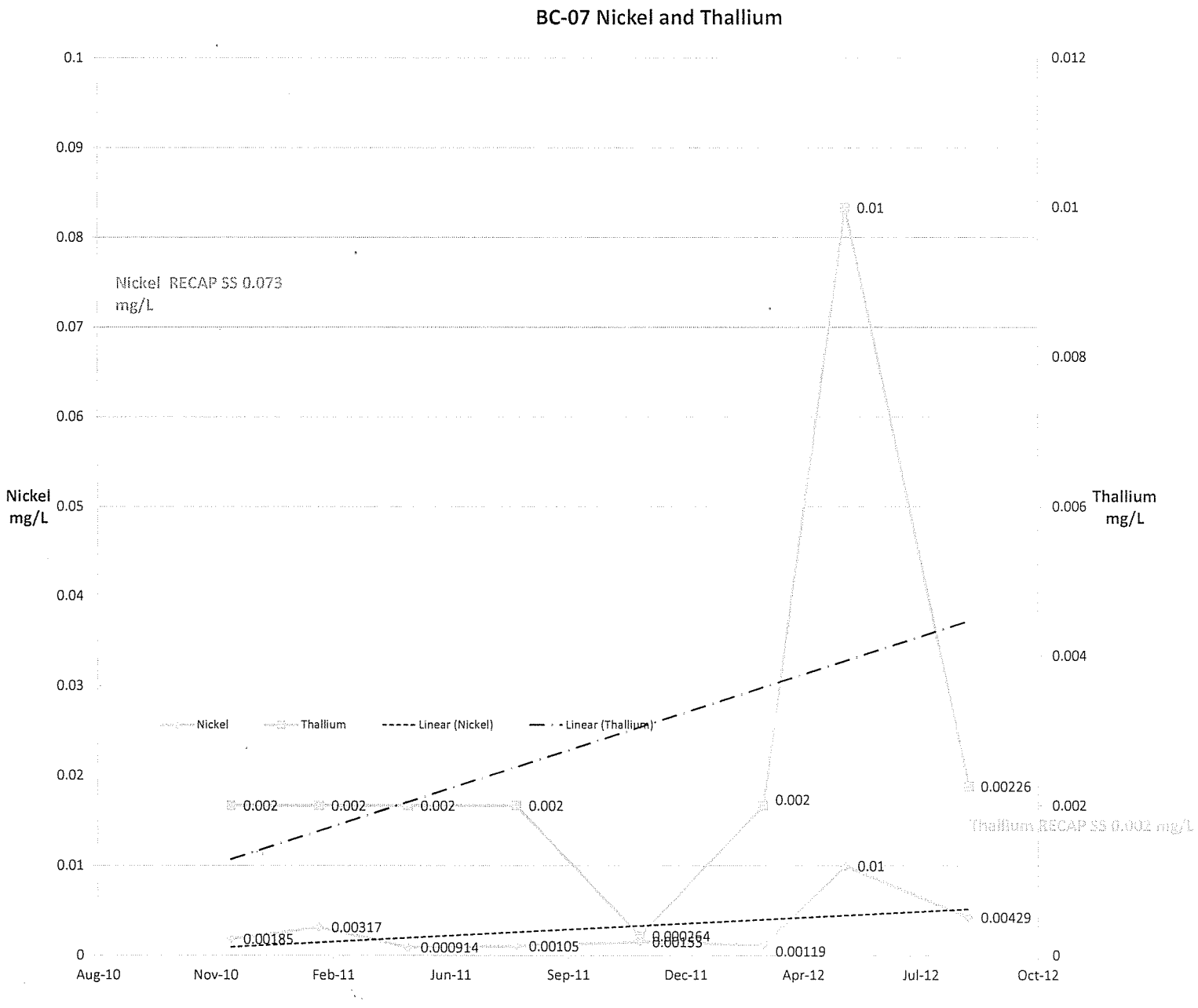
BC-03 Cadmium and Zinc



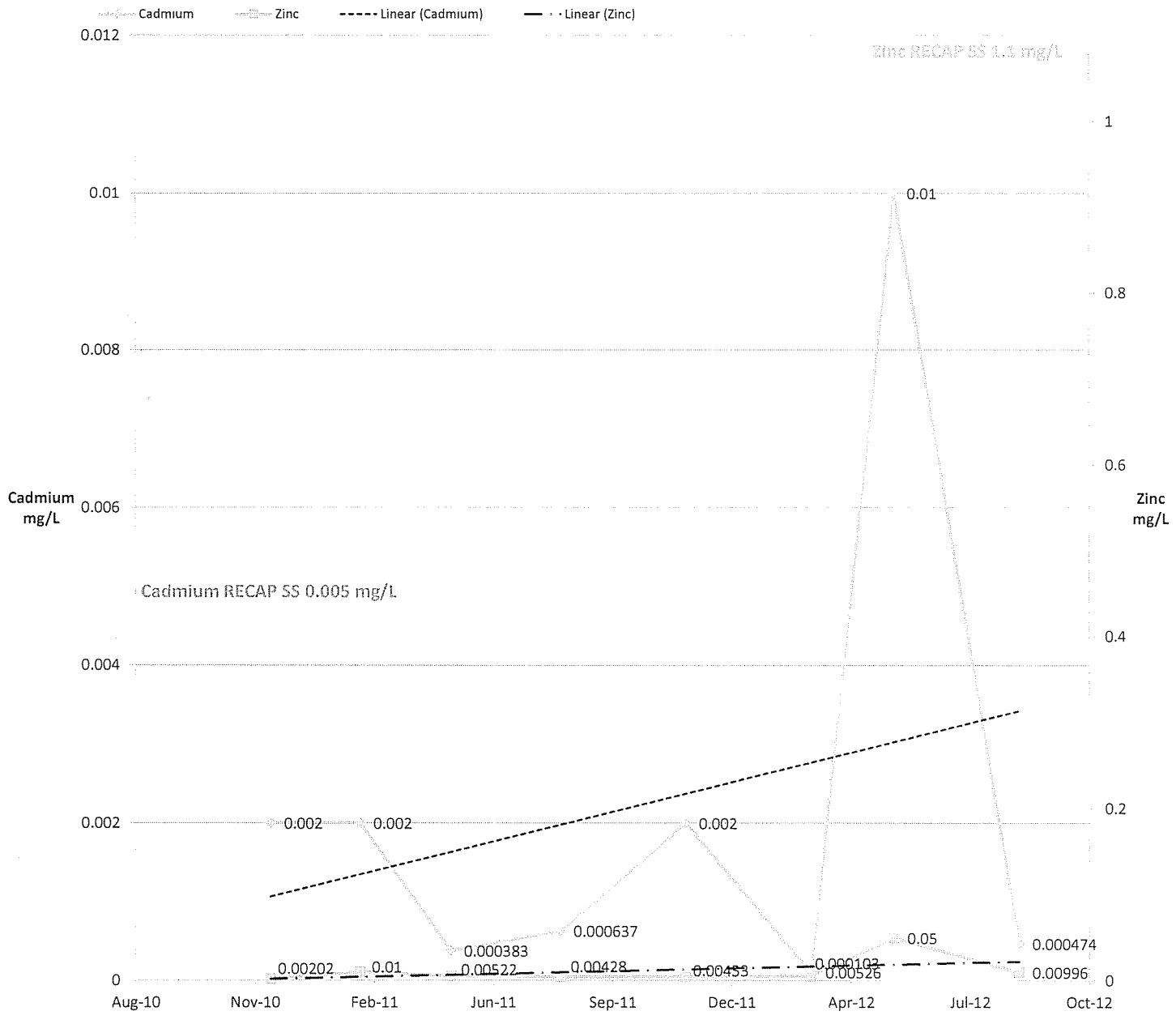

BC-07 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.95
7.09
7.15
7.13
7.44
7.21
7.12
6.43
0.000352
0.00137
0.002
0.00118
0.000901
0.001
0.005
0.00278
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

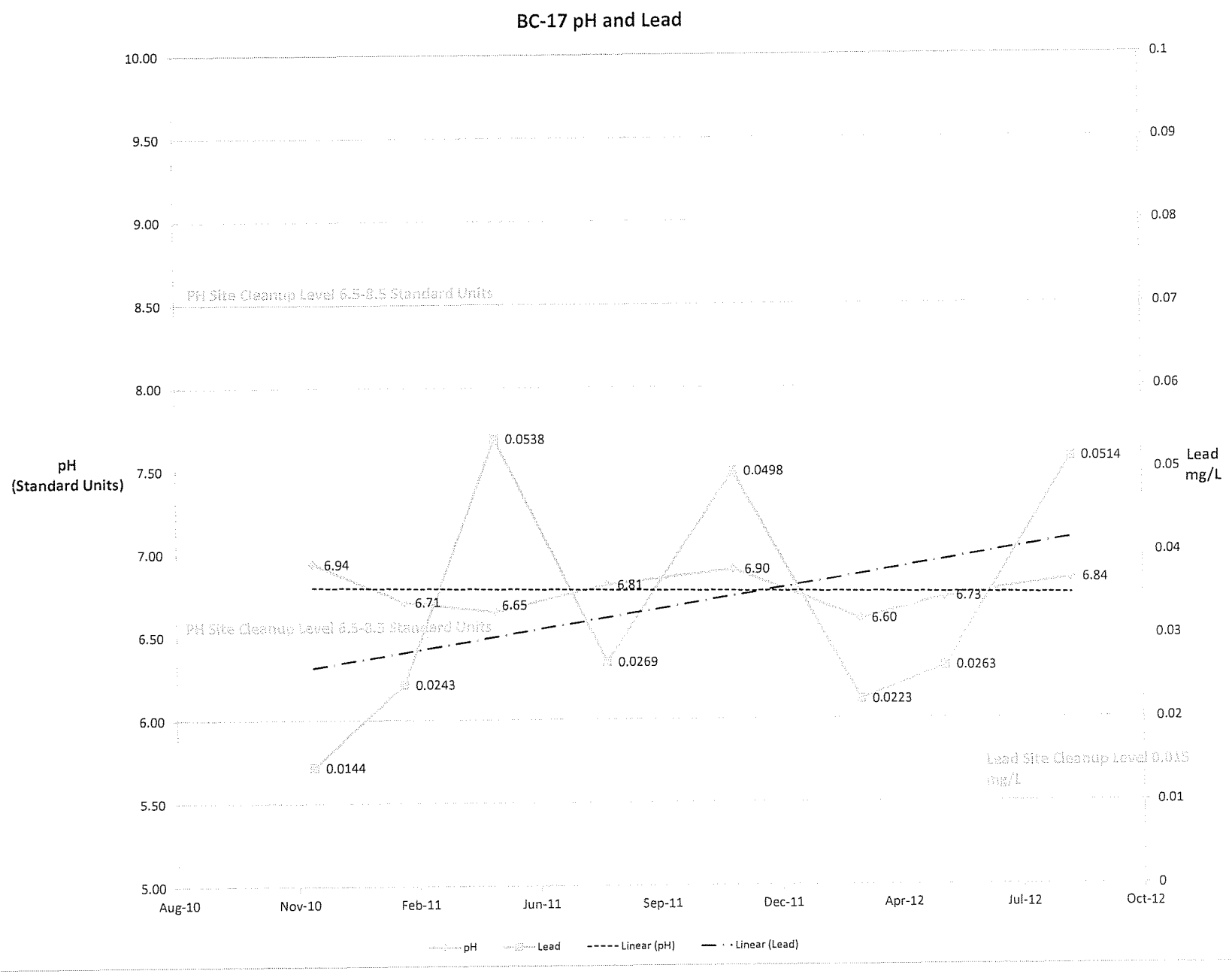
BC-07 Arsenic and Manganese



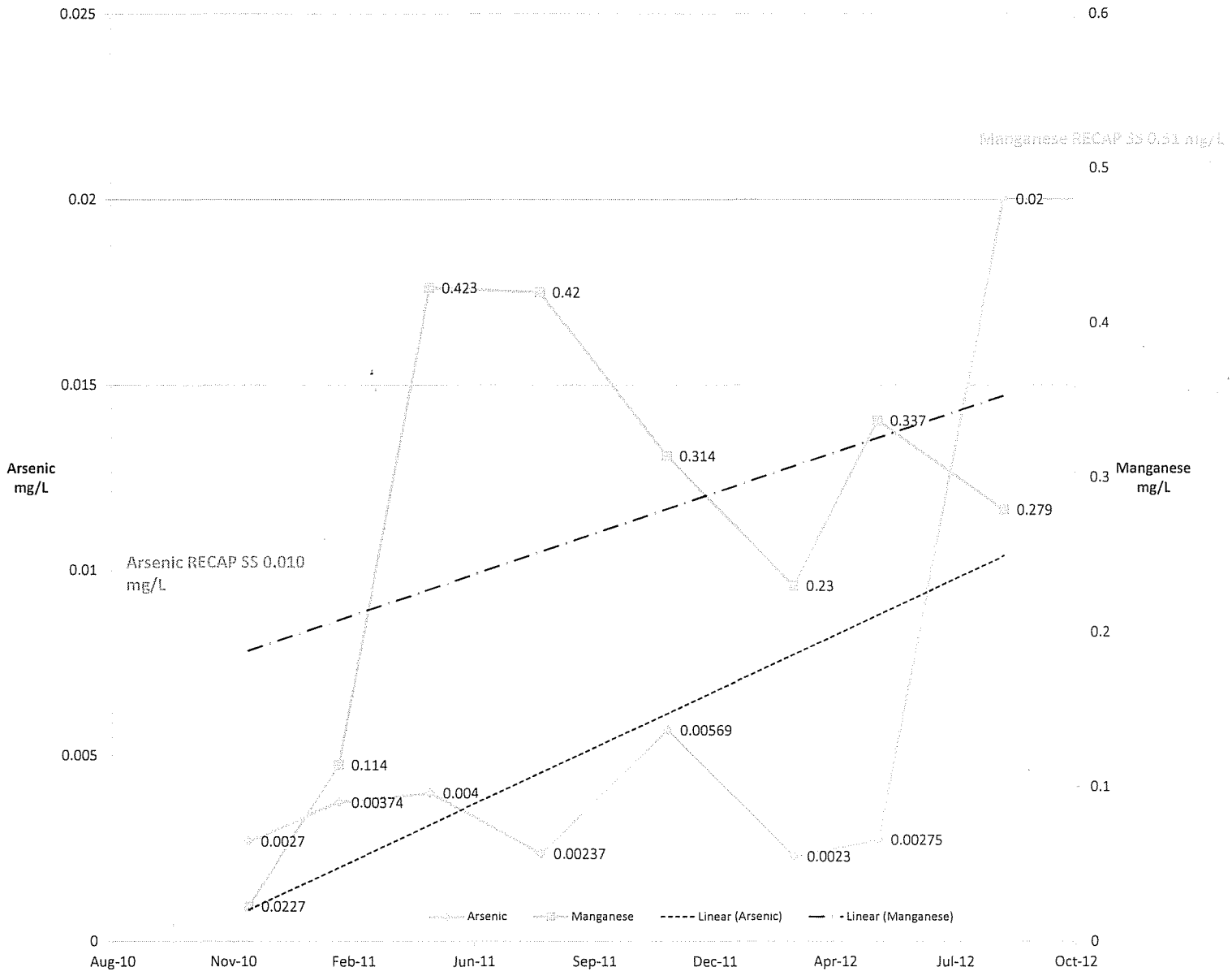

BC-07 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.01
0.00226
0.002
0.002
0.002
0.002
0.002
0.01
0.00429
0.00185
0.00317
0.000914
0.00105
0.000264
0.00153
0.00119

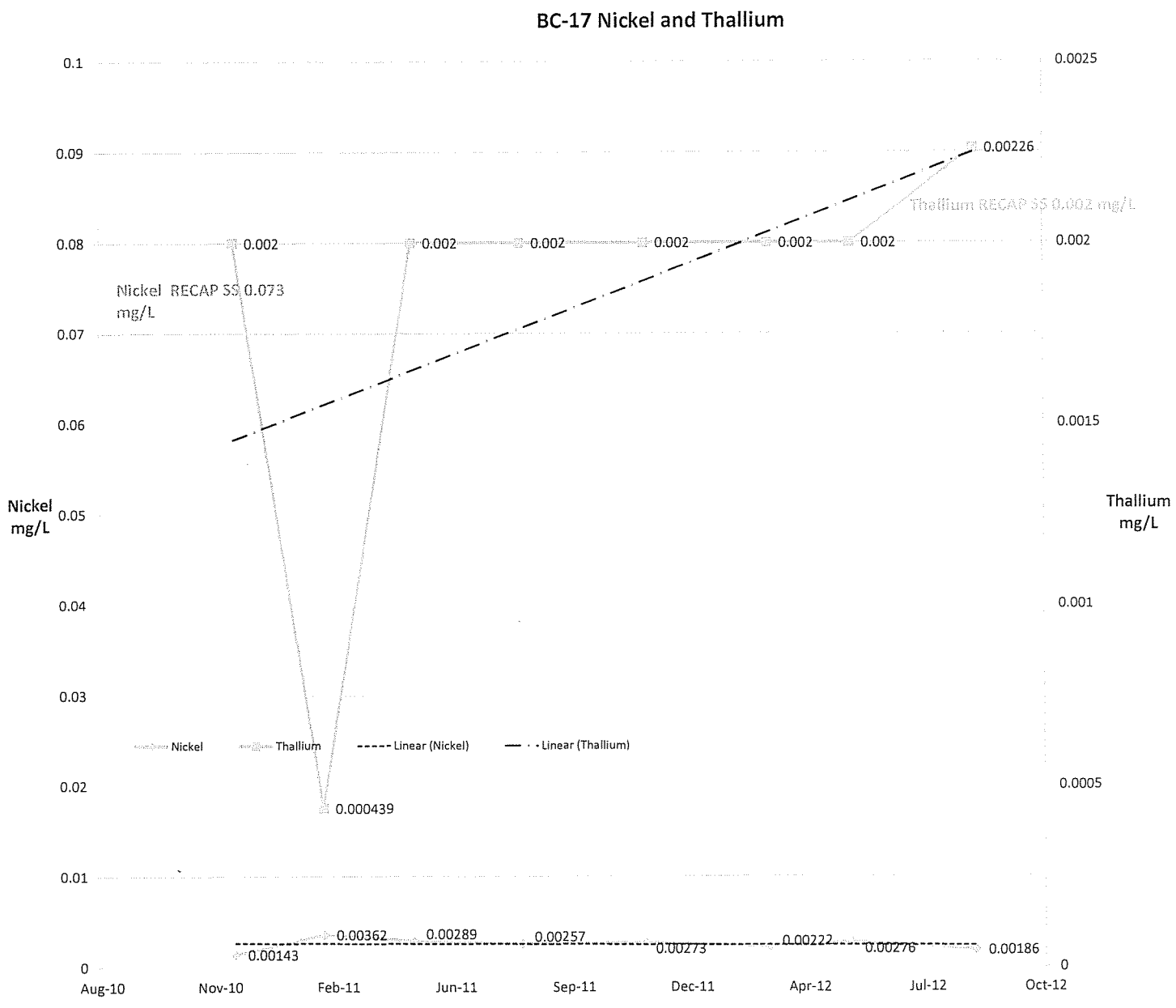
BC-07 Cadmium and Zinc



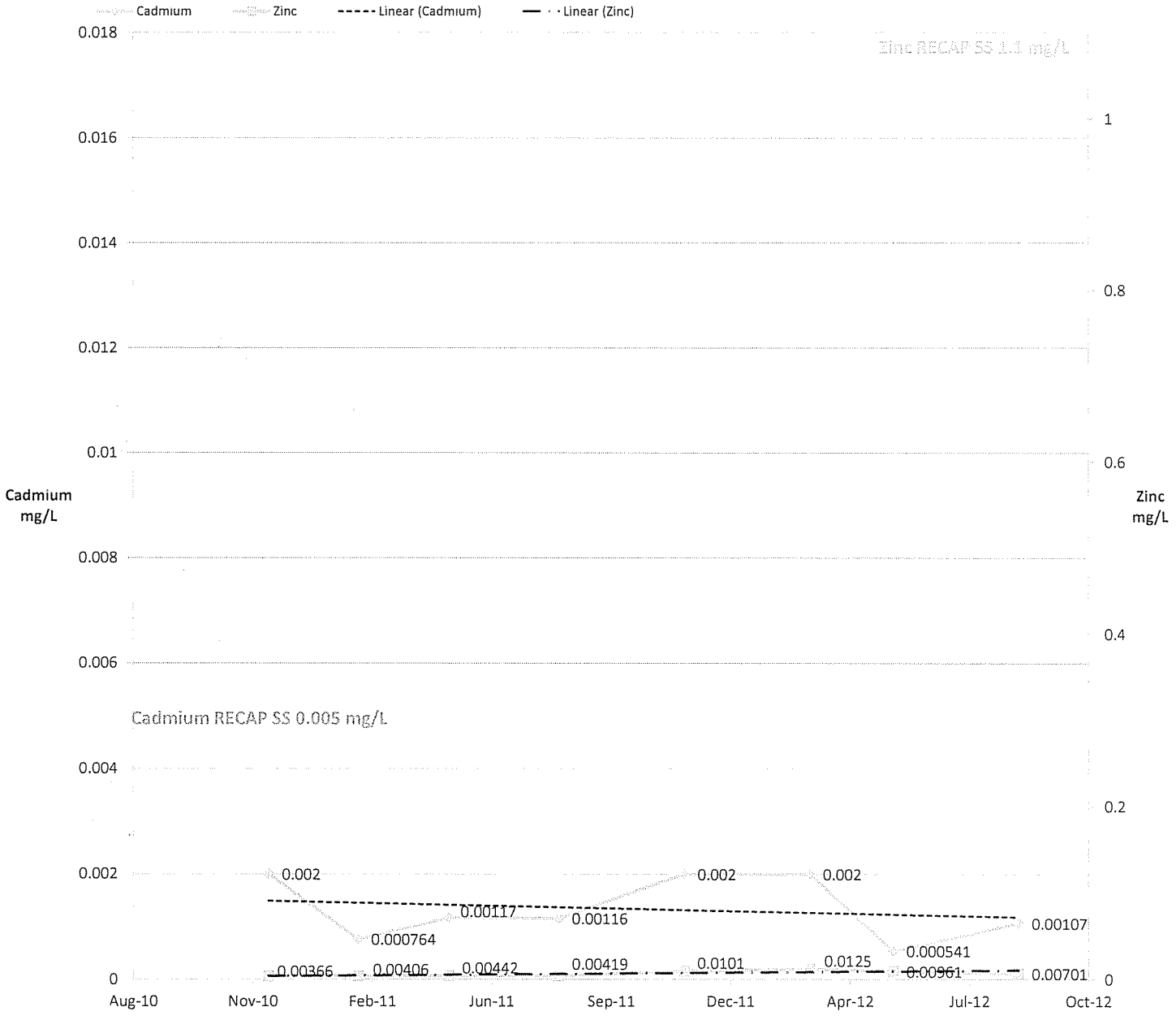

BC-17 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
6.94
6.71
6.65
6.81
6.90
6.60
6.73
6.84
0.0144
0.0243
0.0538
0.0269
0.0498
0.0223
0.0263
0.0514
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

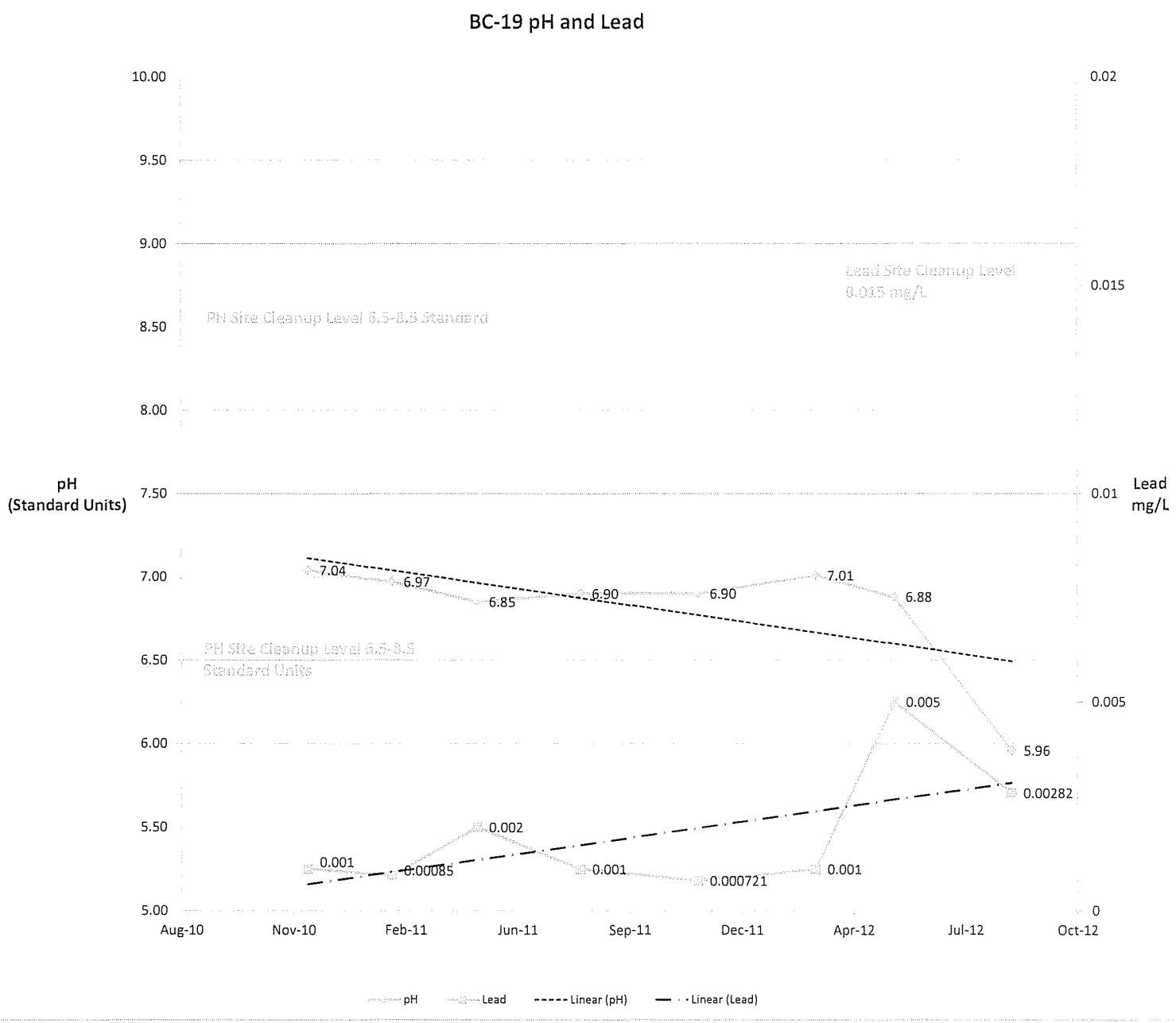
BC-17 Arsenic and Manganese



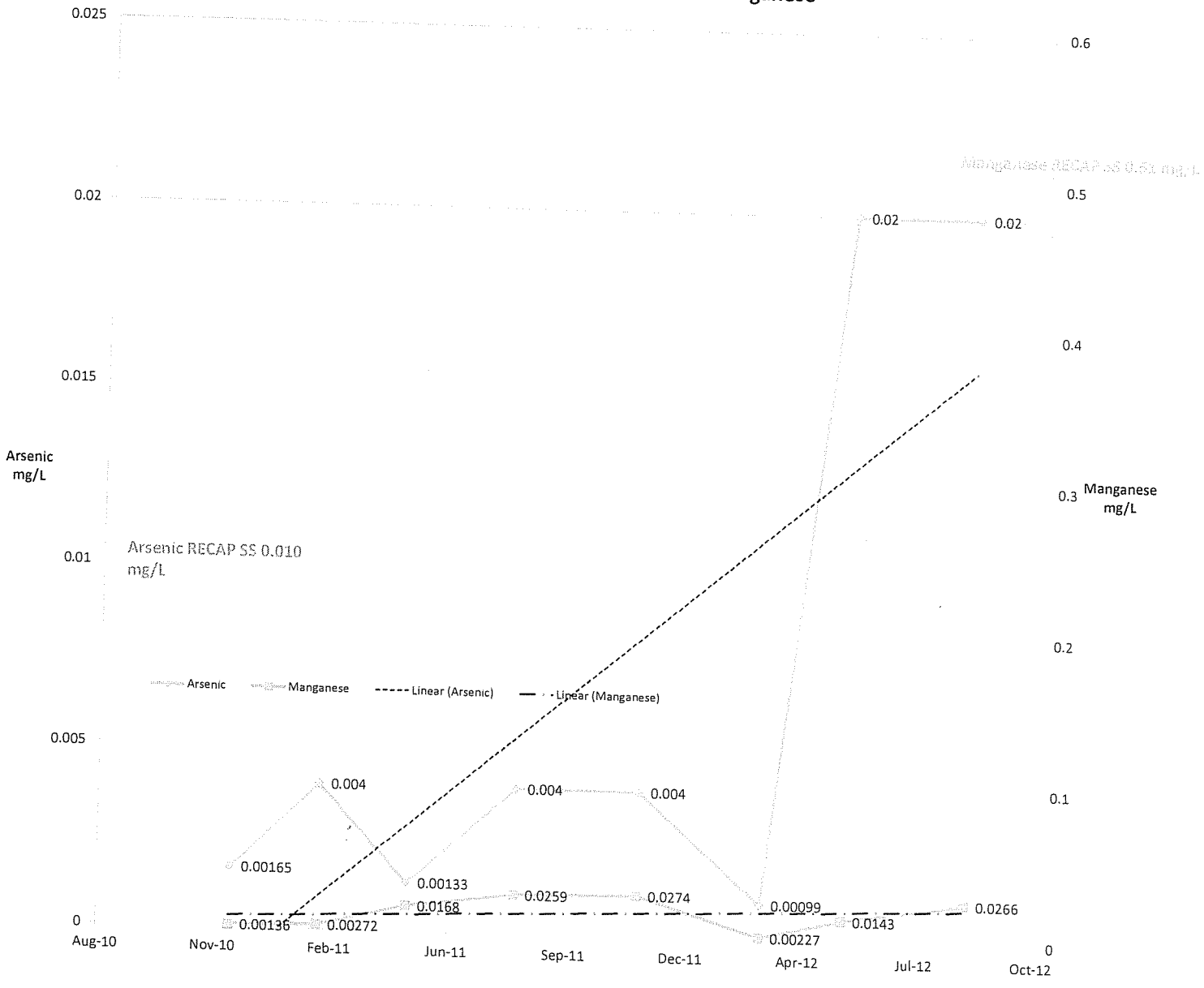

BC-17 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.002
0.002
0.002
0.002
0.002
0.002
0.00226
0.000439
0.00143
0.00362
0.00289
0.00257
0.00273
0.00222
0.00276
0.00186
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

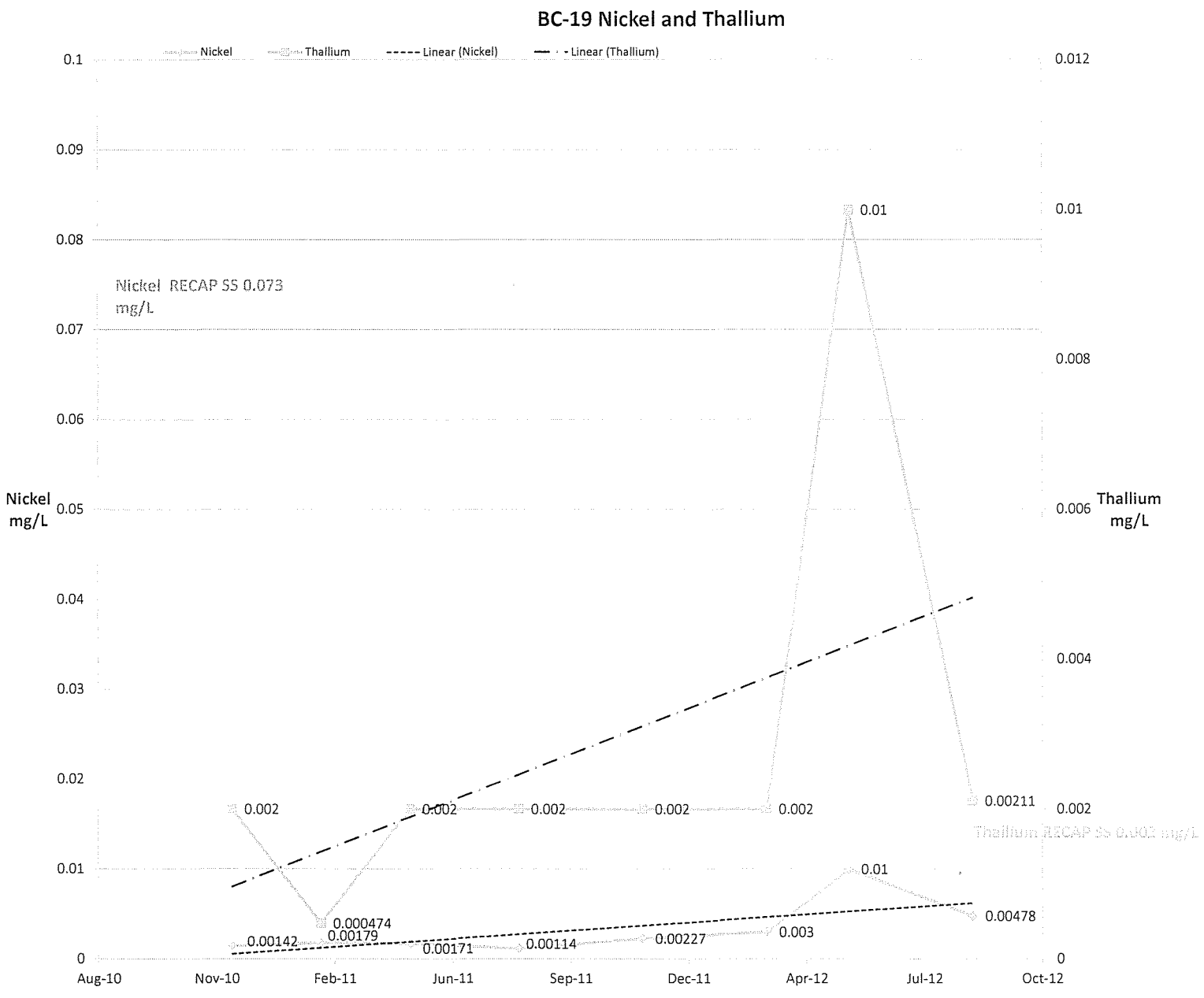
BC-17 Cadmium and Zinc



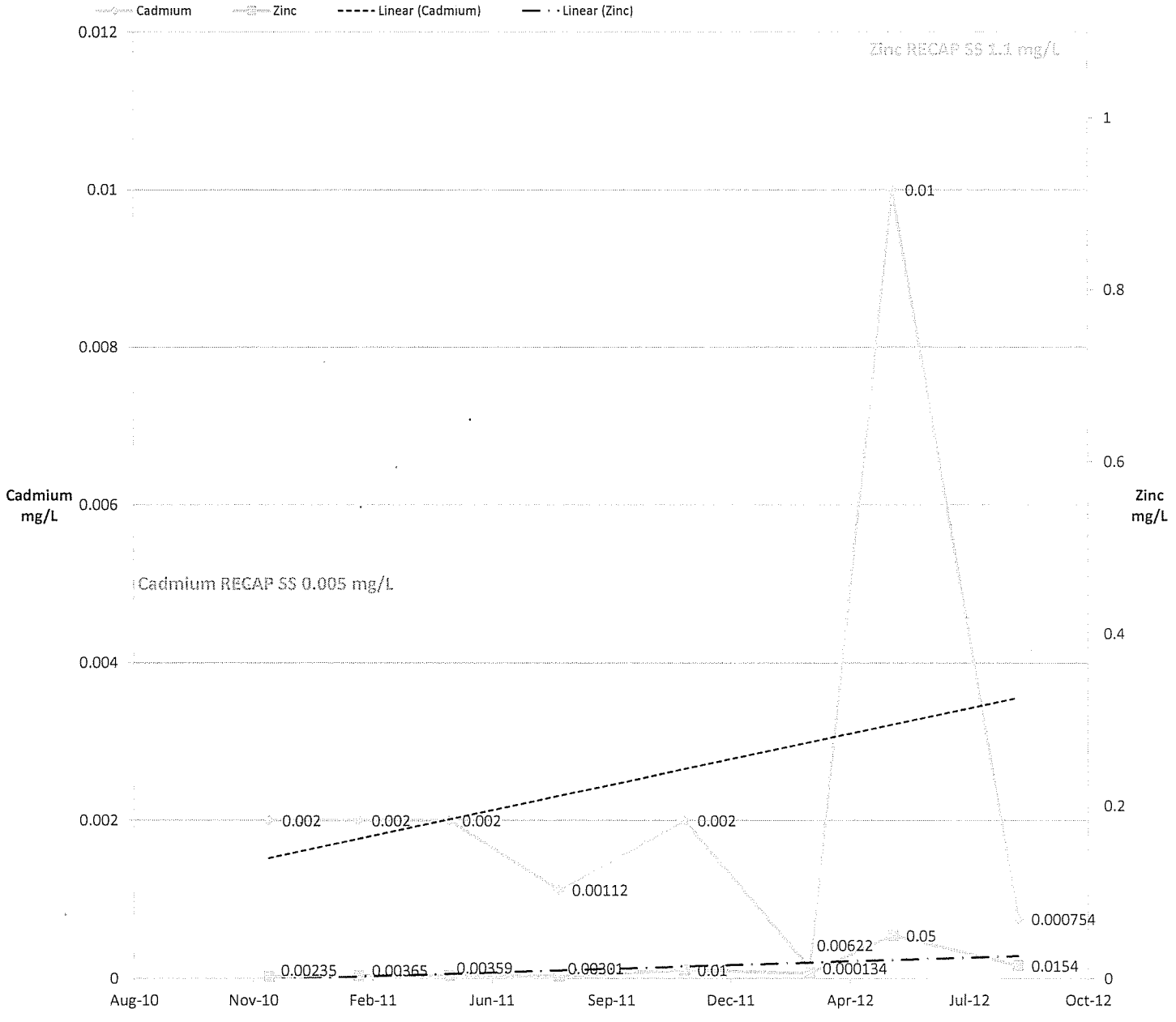

BC-19 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
PH Site Cleanup Level 6.5-8.5 Standard
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5
Standard Units
7.04
6.97
6.85
6.90
6.90
7.01
6.88
5.96
0.001
0.00085
0.002
0.001
0.000721
0.001
0.005
0.00282
pH
Lead
Linear (pH)
Linear (Lead)

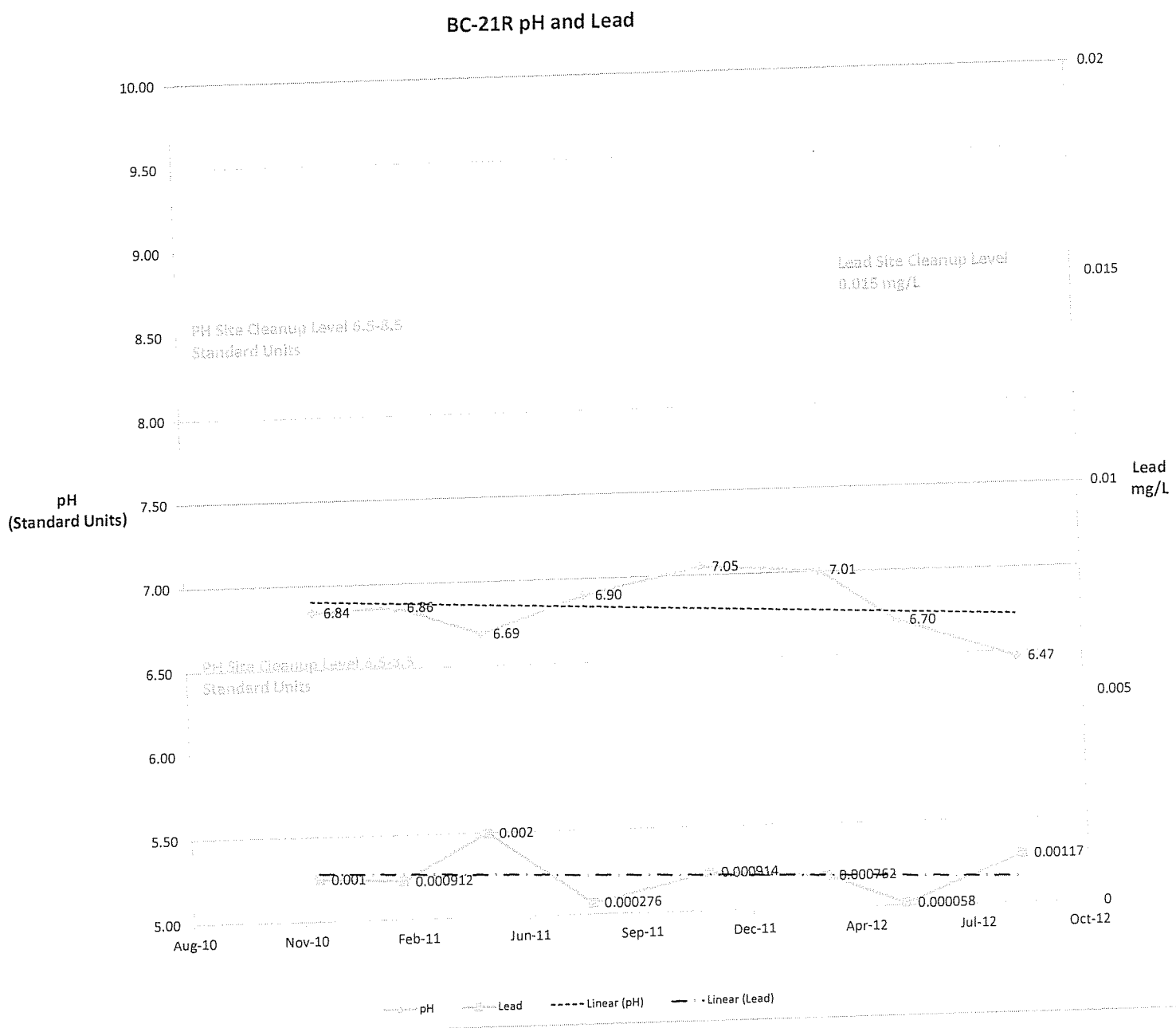
BC-19 Arsenic and Manganese



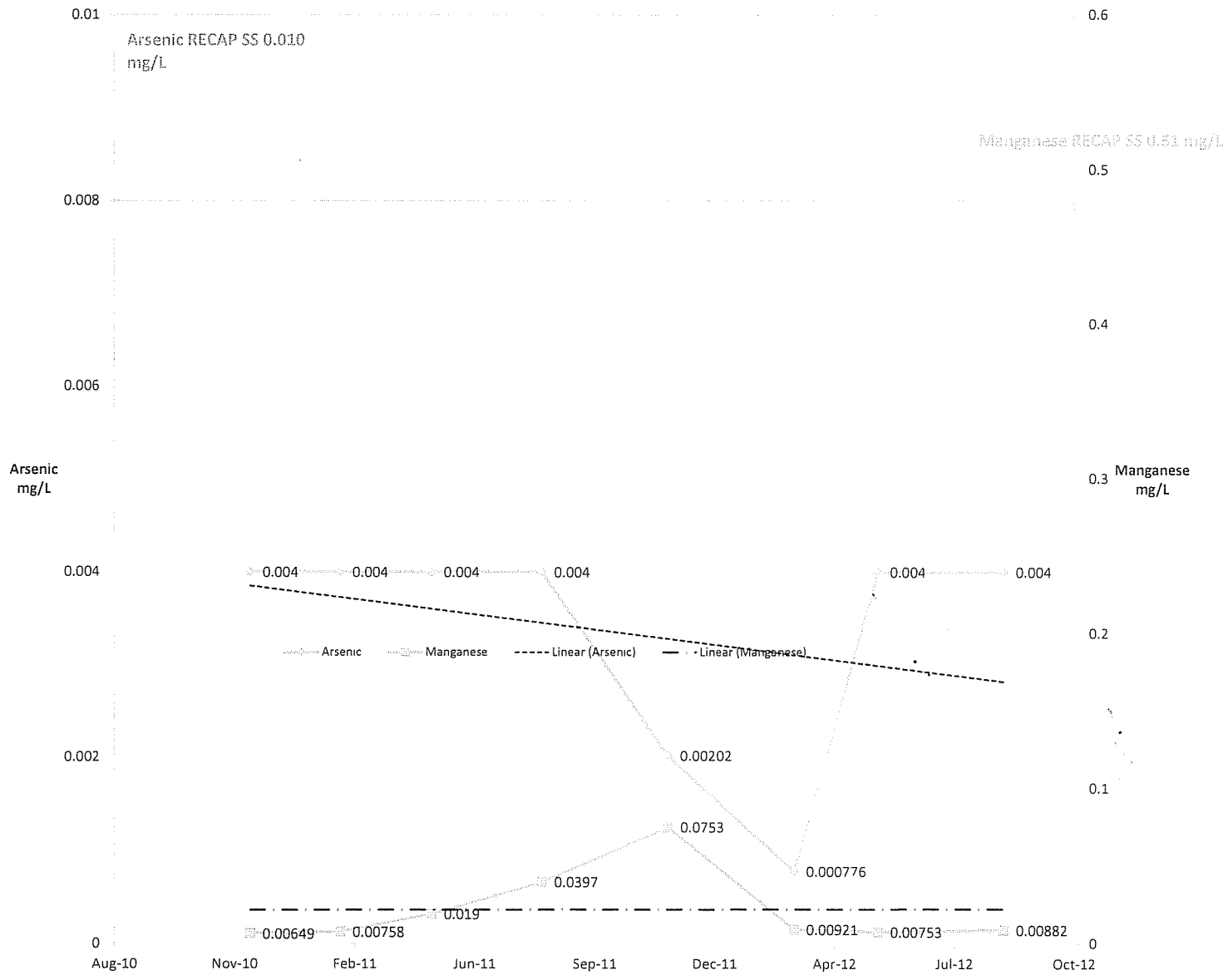

BC-19 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.0021 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
0.002
0.002
0.002
0.002
0.002
0.01
0.00211
0.000474
0.00179
0.00142
0.00171
0.00114
0.00227
0.003
0.01
0.00478

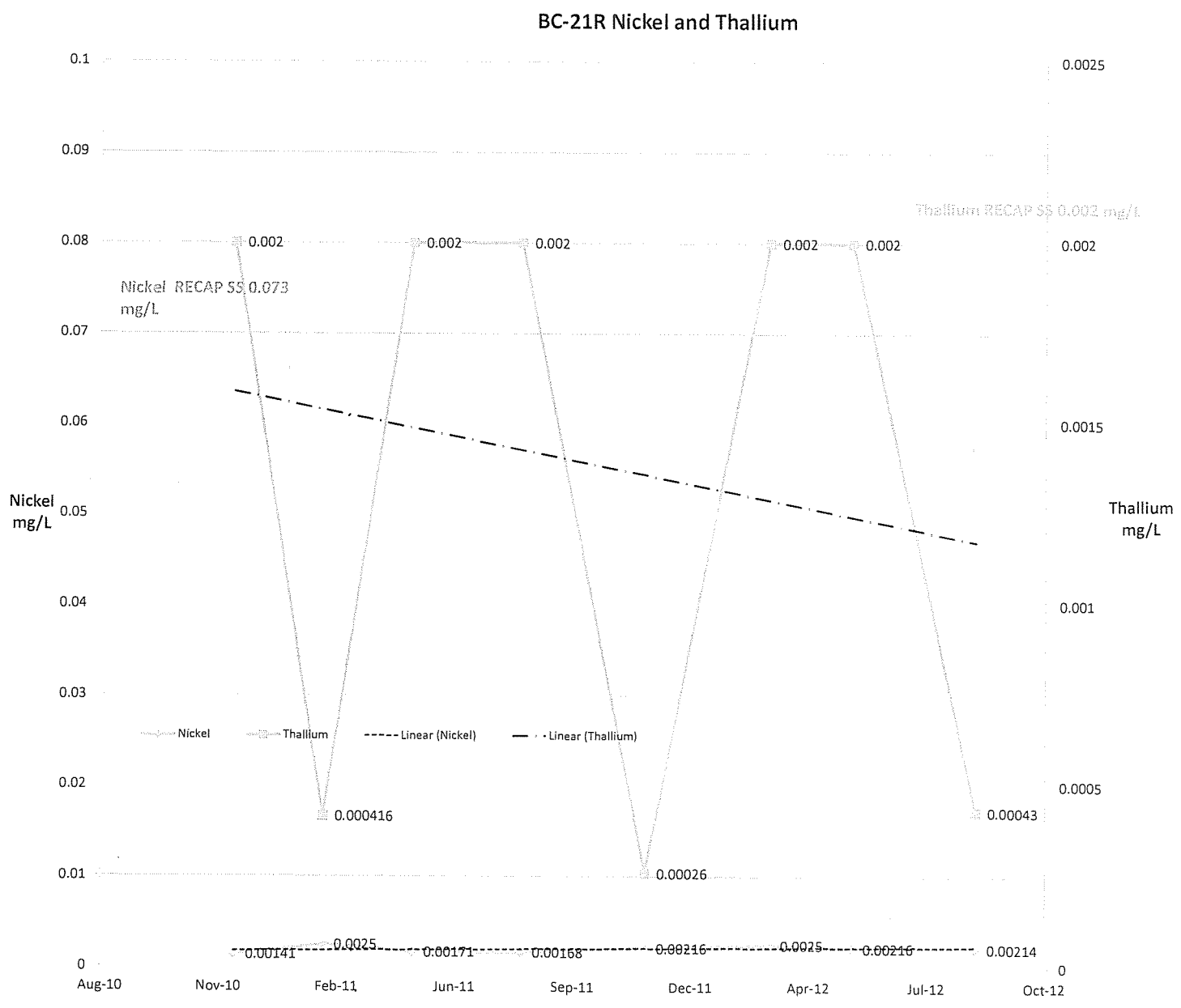
BC-19 Cadmium and Zinc



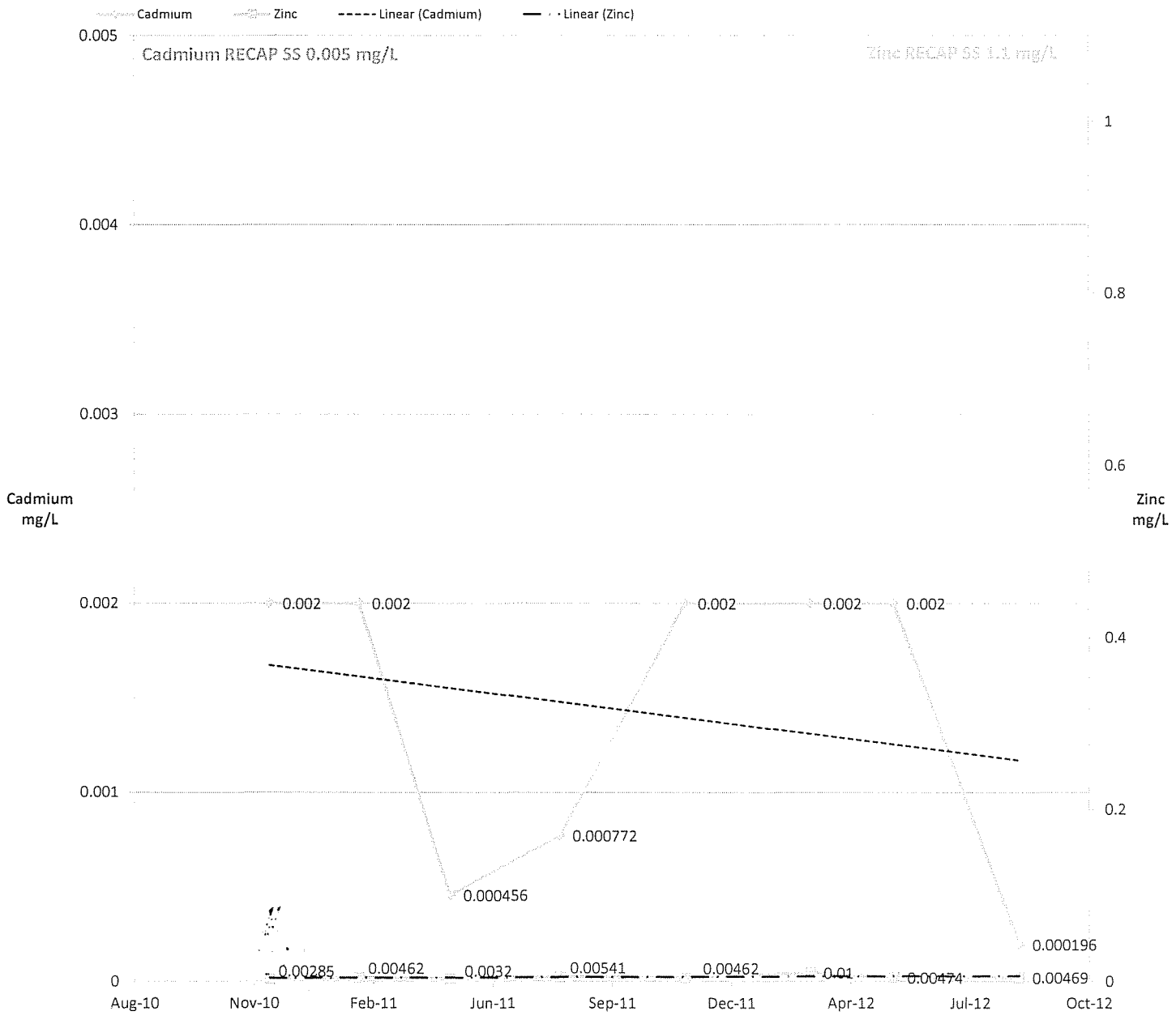

BC-21R pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level
0.015 mg/L
pH Site Cleanup Level 6.5-8.5
Standard Units
pH Site Cleanup Level 6.5-8.5
Standard Units
6.84
6.86
6.69
6.90
7.05
7.01
6.70
6.47
0.001
0.000912
0.002
0.000276
0.000914
0.000762
0.000058
0.00117
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

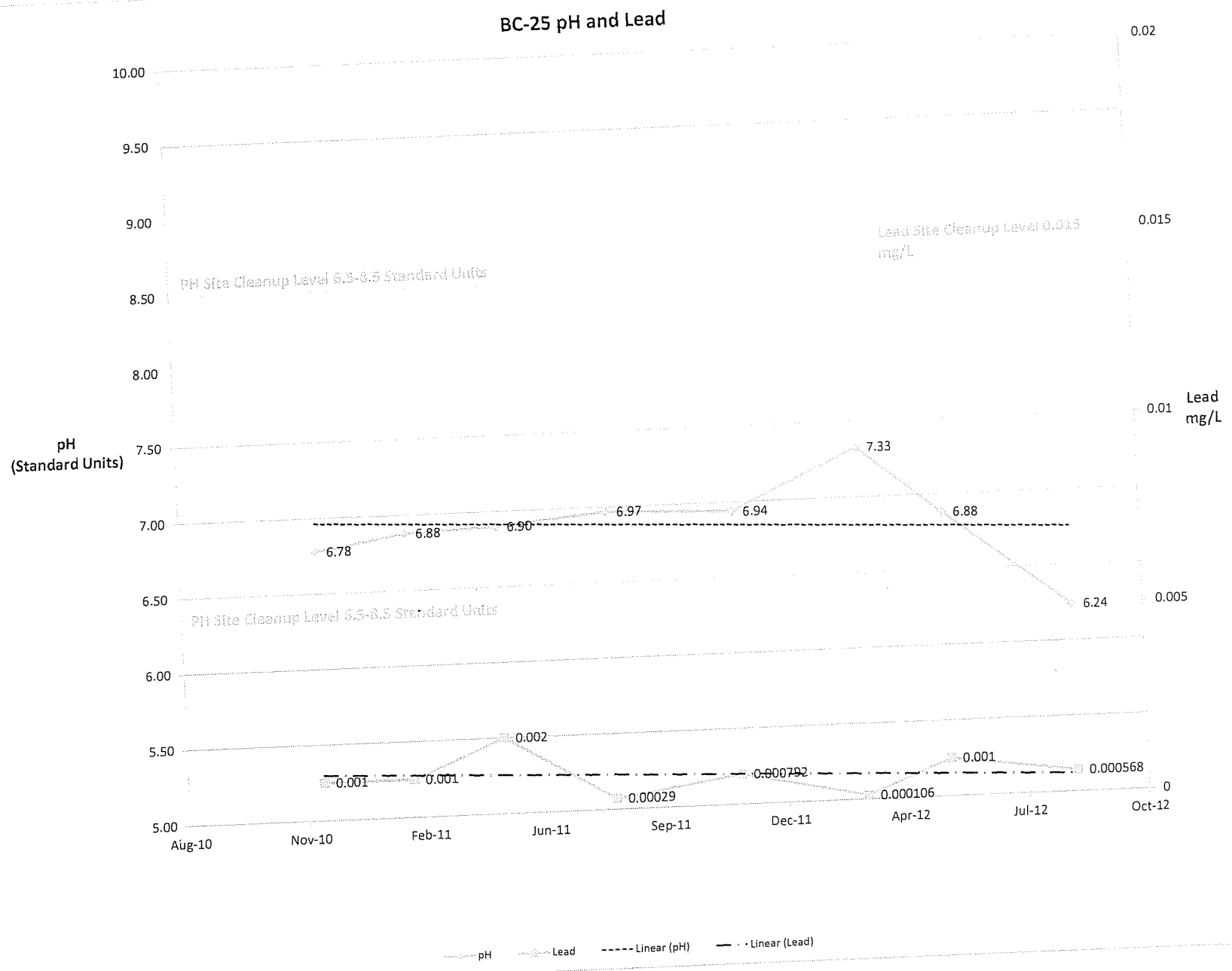
BC-21R Arsenic and Manganese

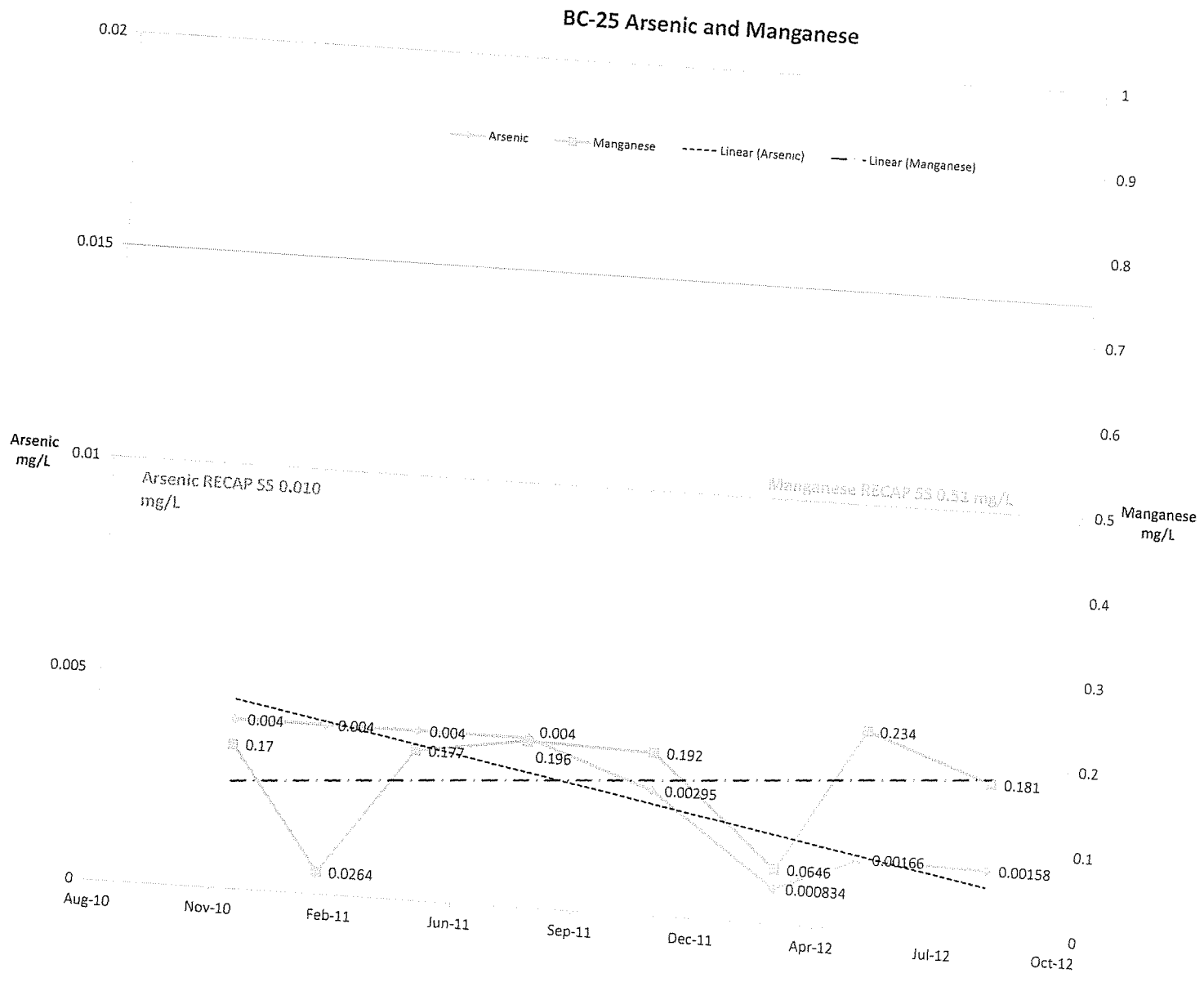


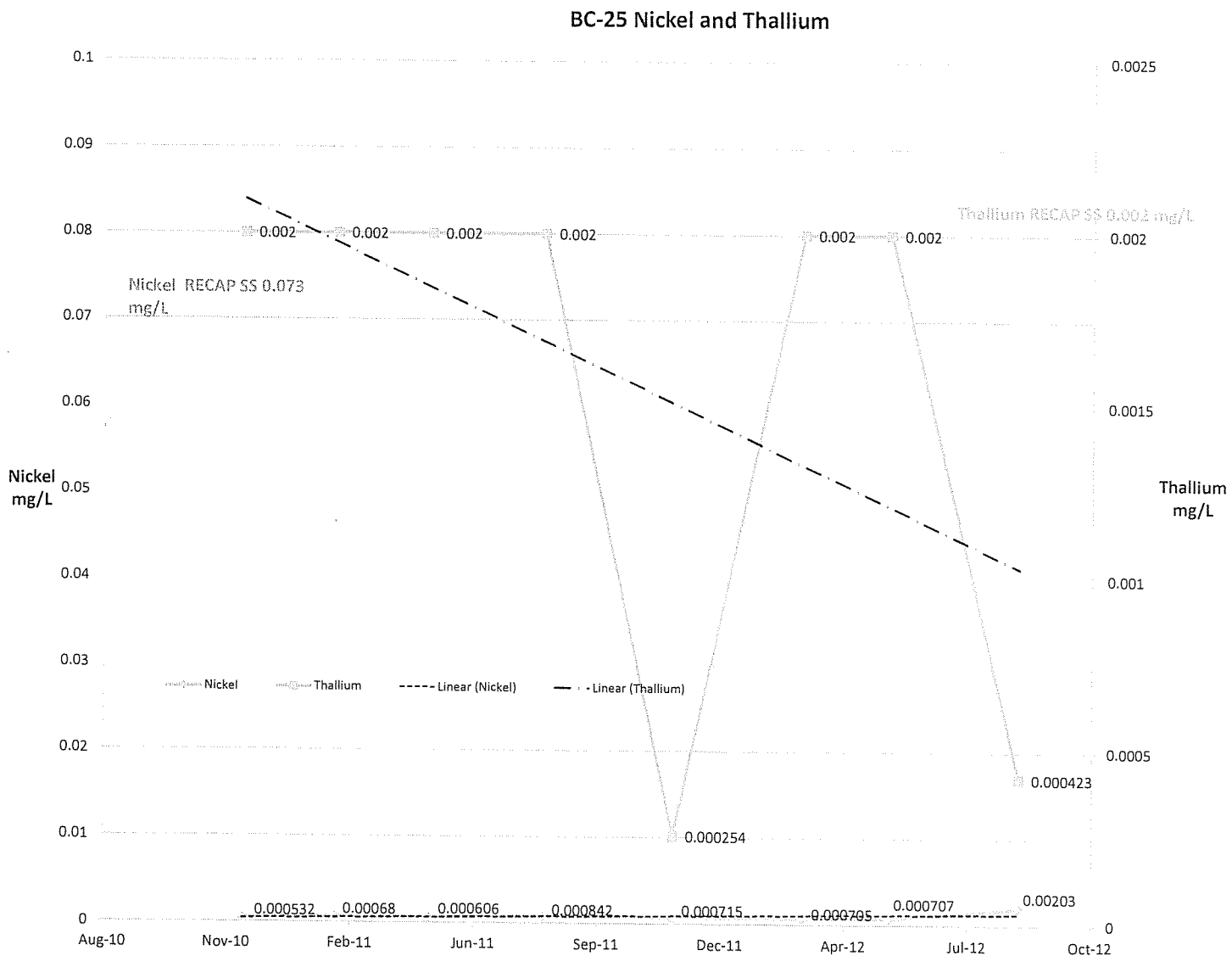

BC-21R Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.000416
0.00026
0.00043
0.00141
0.0025
0.00171
0.00168
0.00216
0.0025
0.00216
0.00214
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

BC-21R Cadmium and Zinc

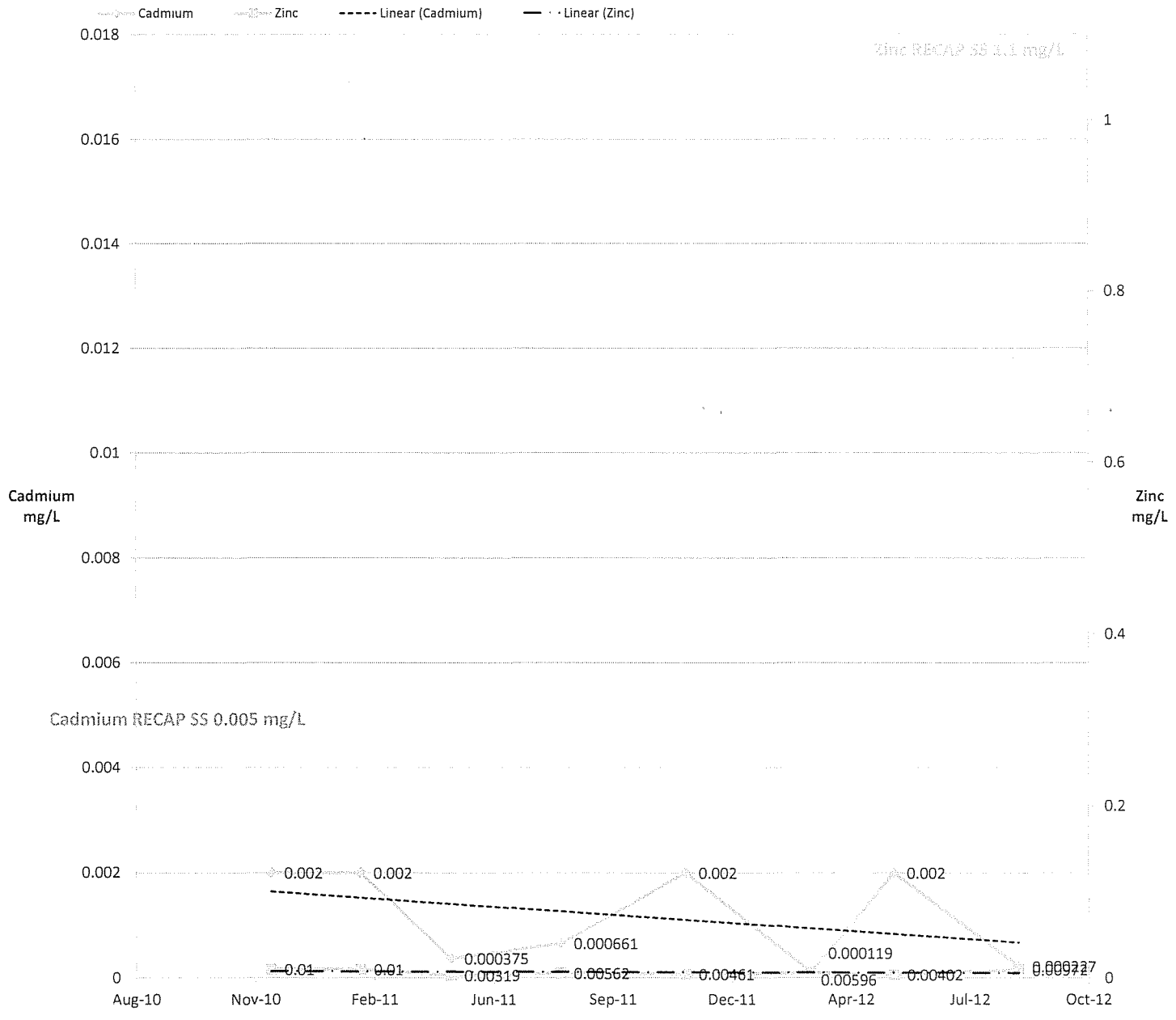



BC-25 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.78
6.88
6.90
6.97
6.94
7.33
6.88
6.24
0.001
0.001
0.002
0.00029
0.000792
0.000106
0.001
0.000568
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


BC-25 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.004
0.004
0.004
0.004
0.192
0.234
0.181
0.17
0.177
0.196
0.00295
0.0264
0.0646
0.000834
0.00166
0.00158
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

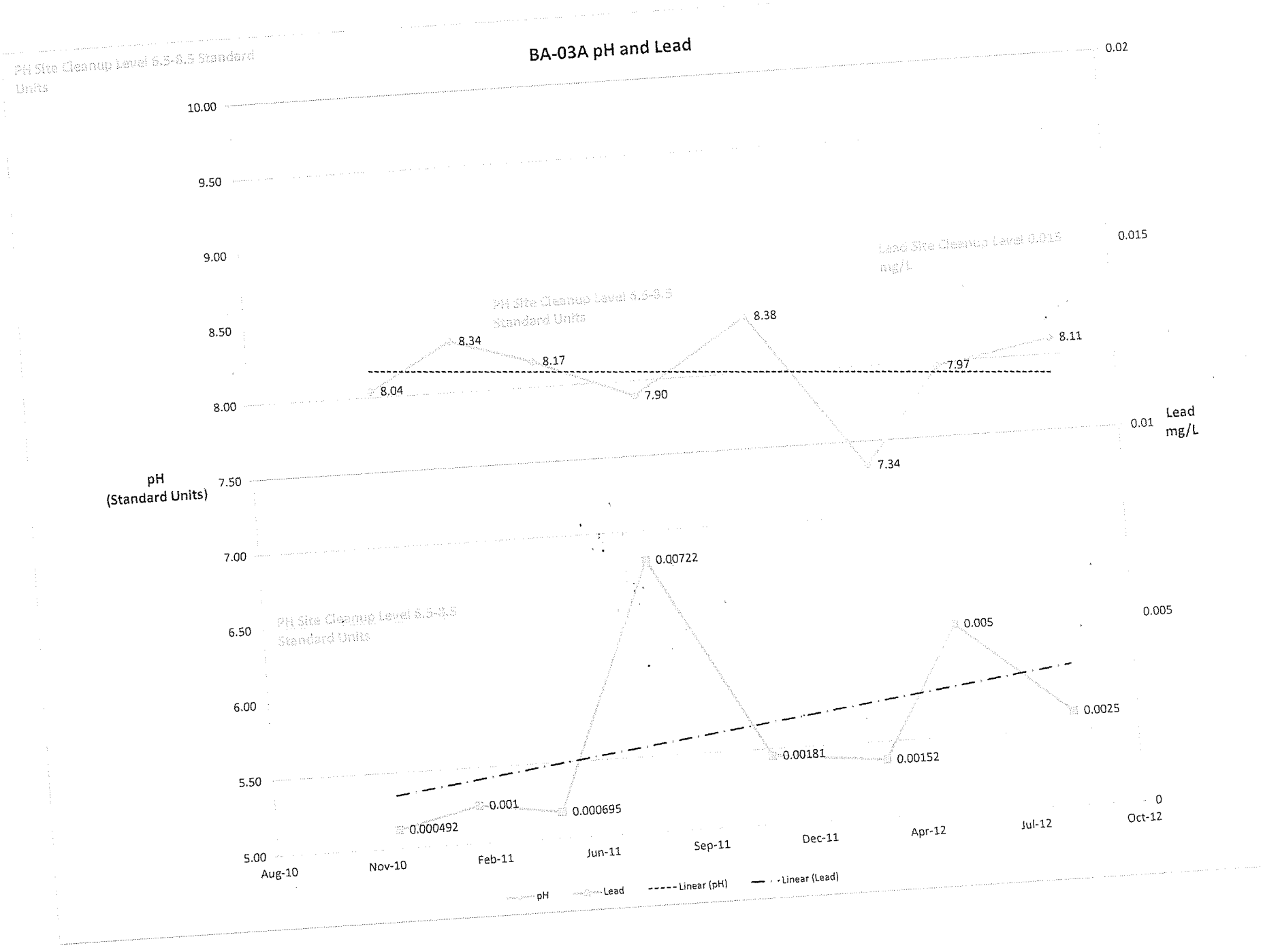

BC-25 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.002
0.002
0.002
0.002
0.002
0.002
0.000254
0.000423
0.000532
0.00068
0.000606
0.000842
0.000715
0.000705
0.000707
0.00203
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

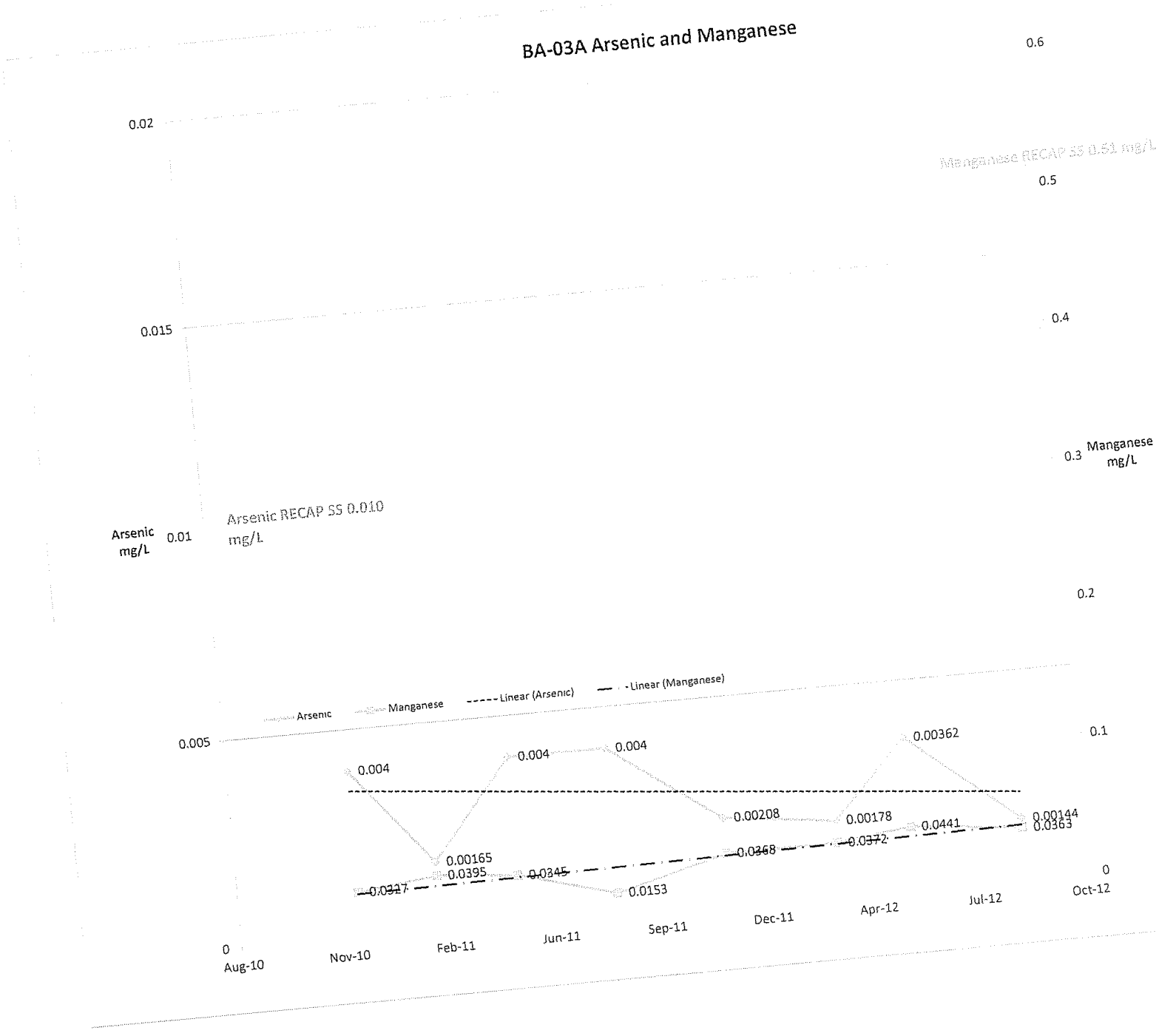
BC-25 Cadmium and Zinc



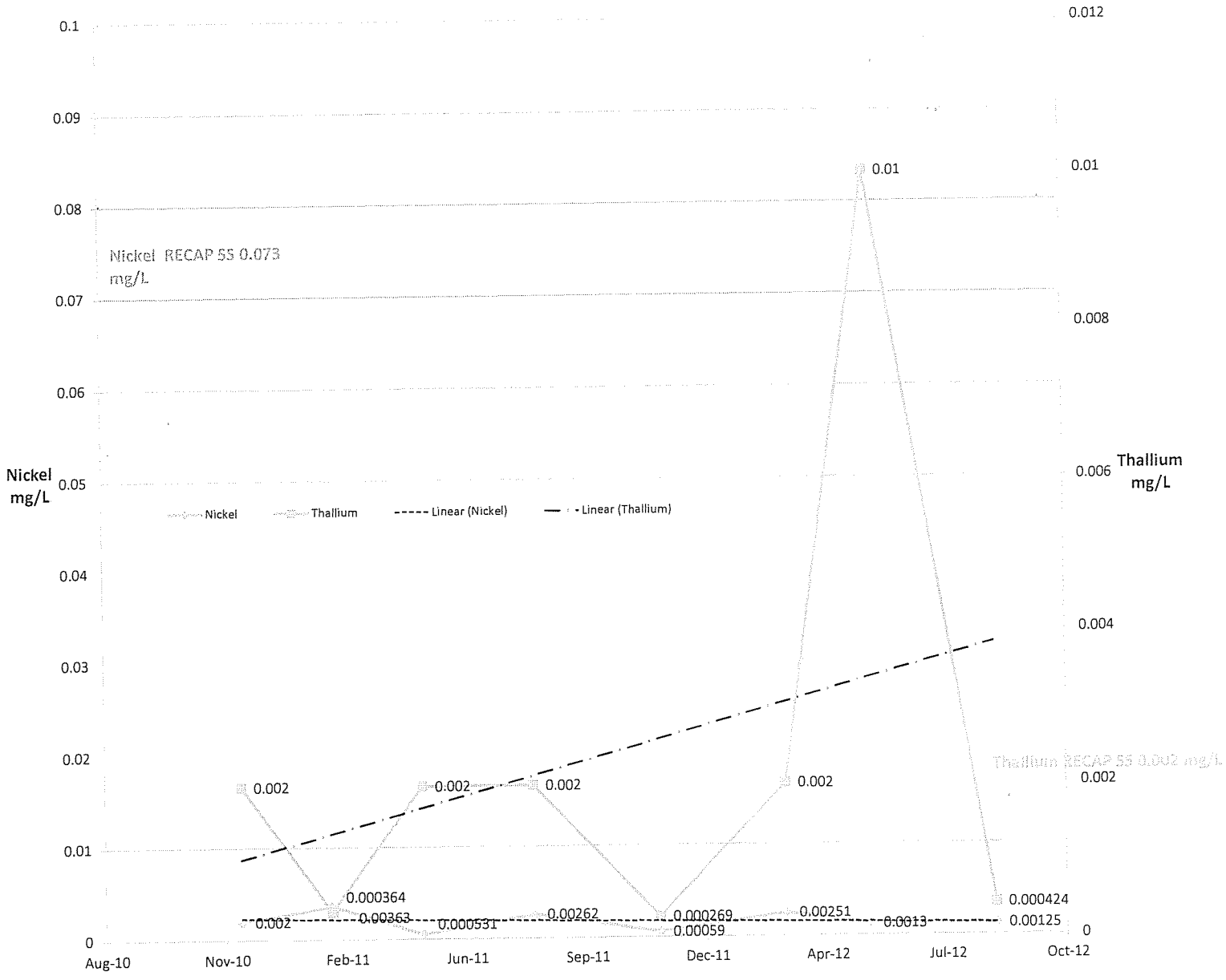
THIRD WATER BEARING ZONE

(PAST EIGHT QUARTERS)

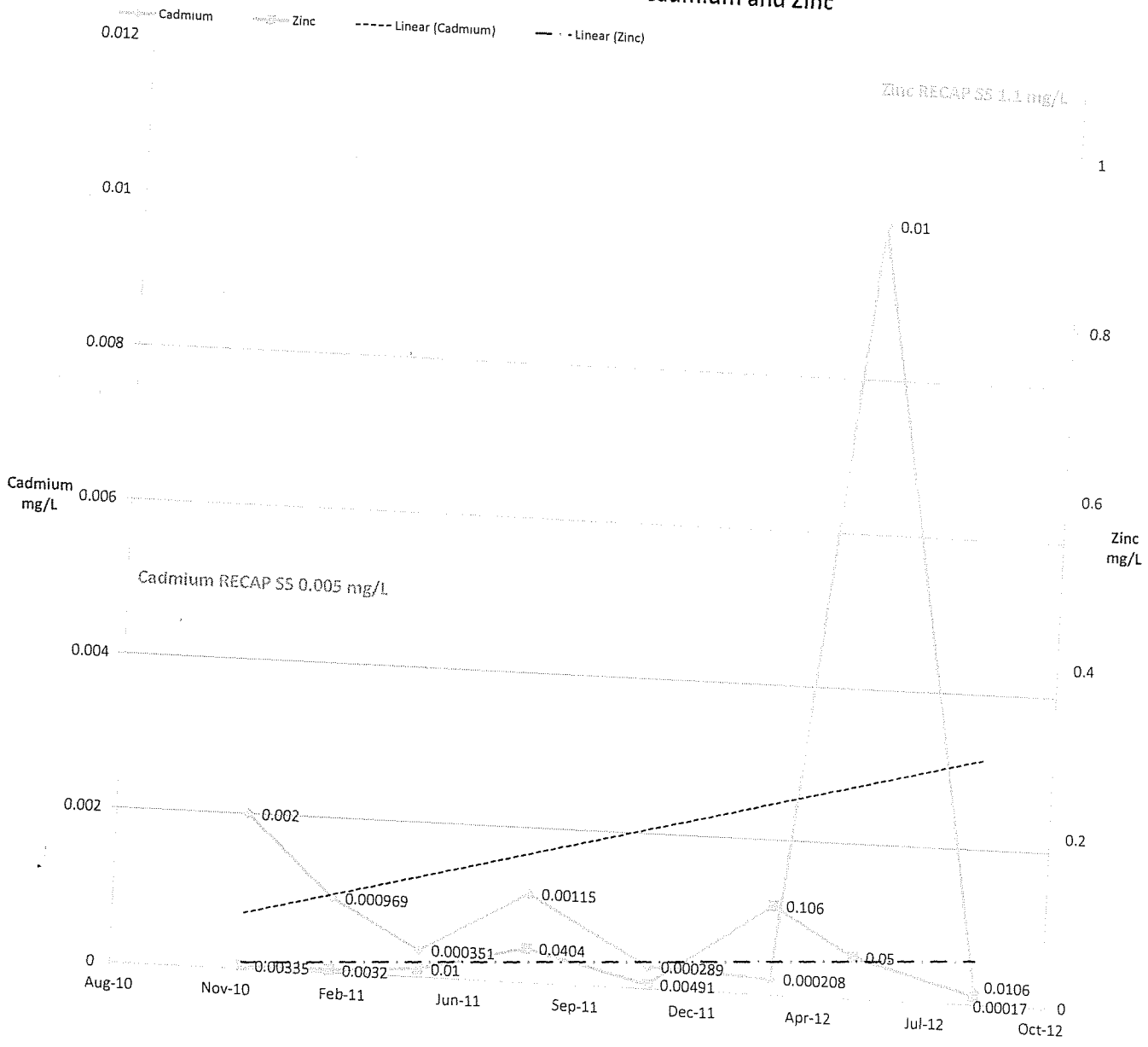

BA-03A pH and Lead
pH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH Site Cleanup Level 6.5-8.5 Standard Units
pH Site Cleanup Level 6.5-8.5 Standard Units
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
8.04
8.34
8.17
7.90
8.38
7.34
7.97
8.11
0.000492
0.001
0.000695
0.00722
0.00181
0.00152
0.005
0.0025
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

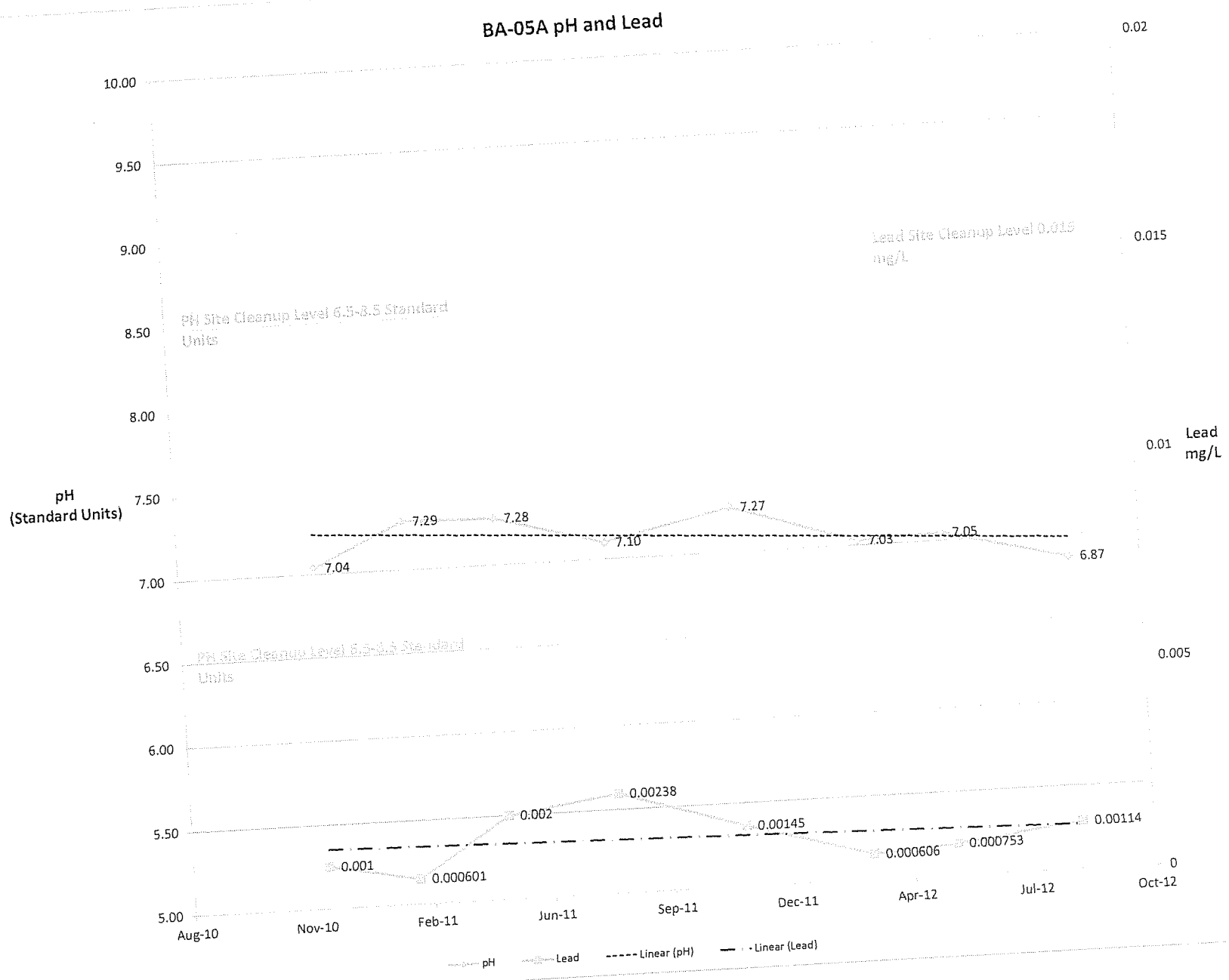

BA-03A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.004
0.004
0.00362
0.00165
0.0395
0.0345
0.0153
0.00208
0.00178
0.0441
0.00144
0.0317
0.0368
0.0372
0.0363
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

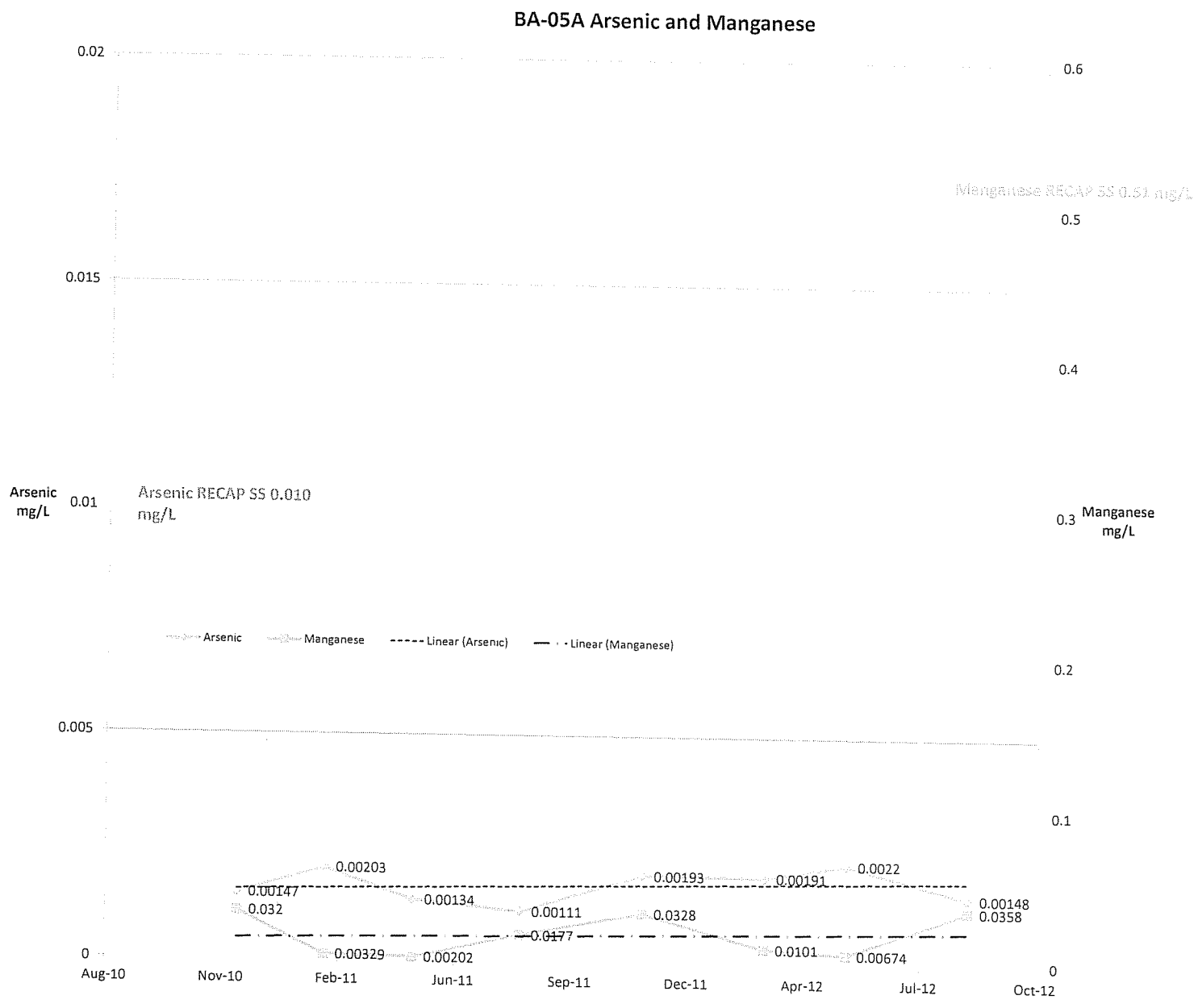
BA-03A Nickel and Thallium

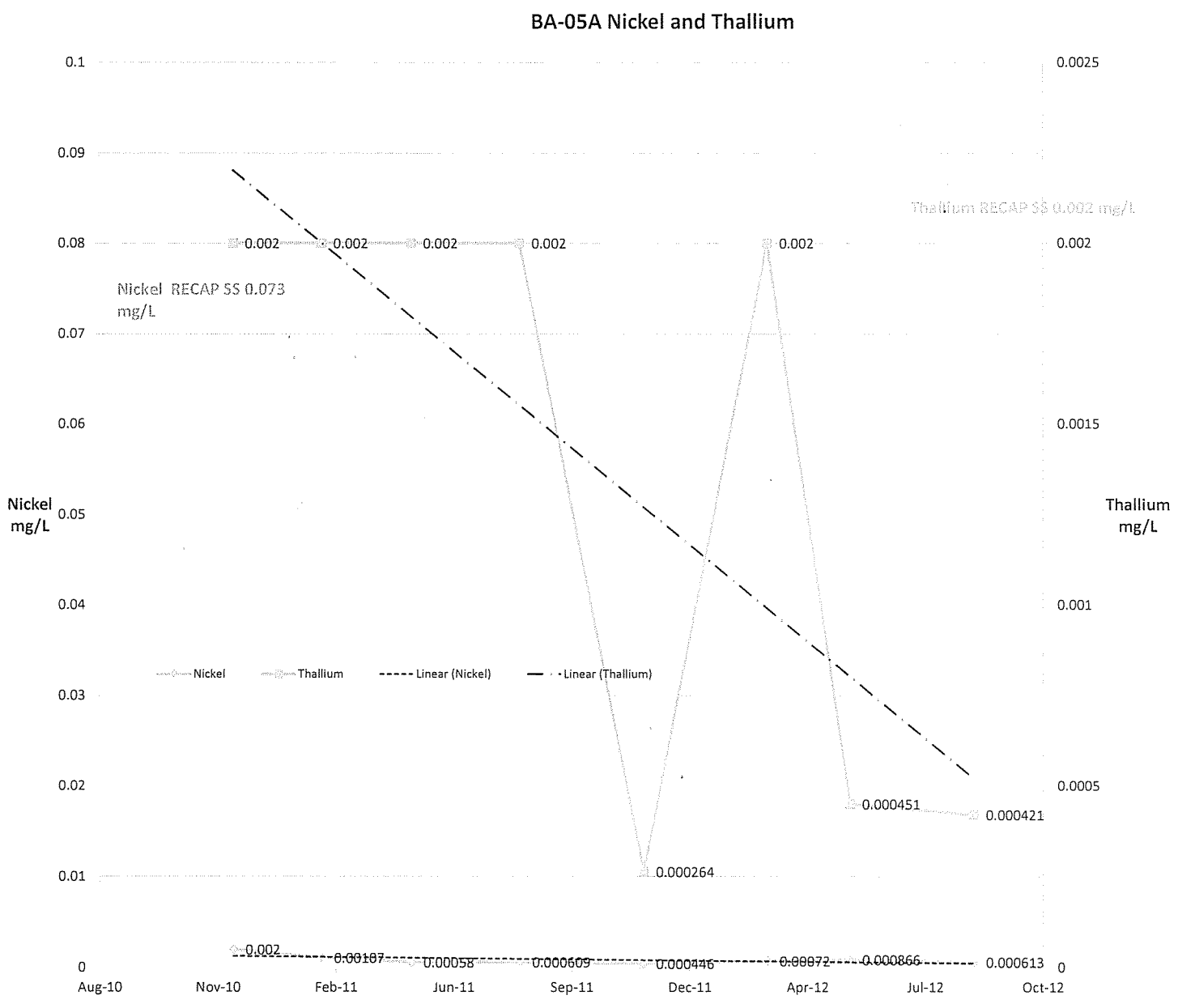


BA-03A Cadmium and Zinc

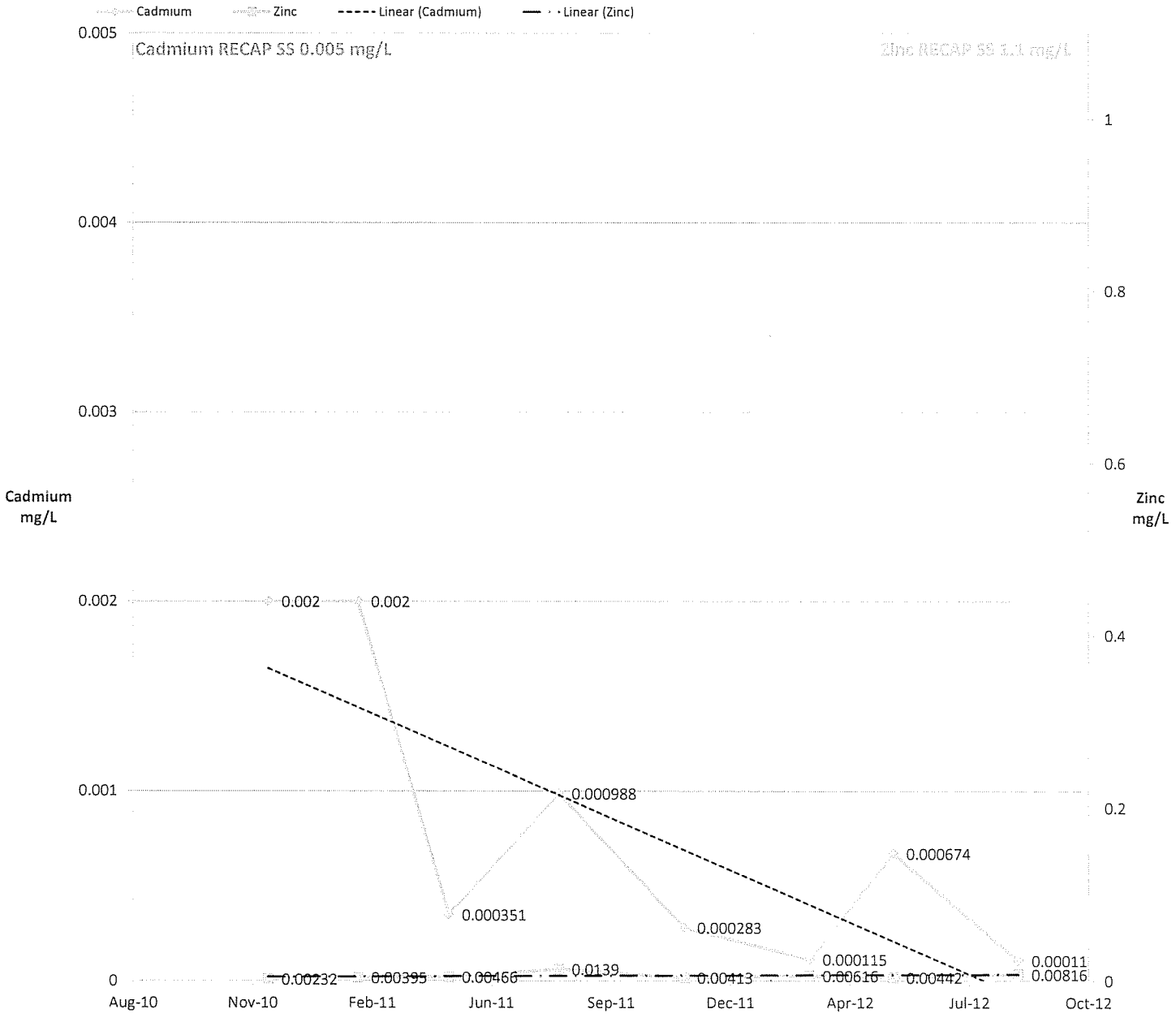


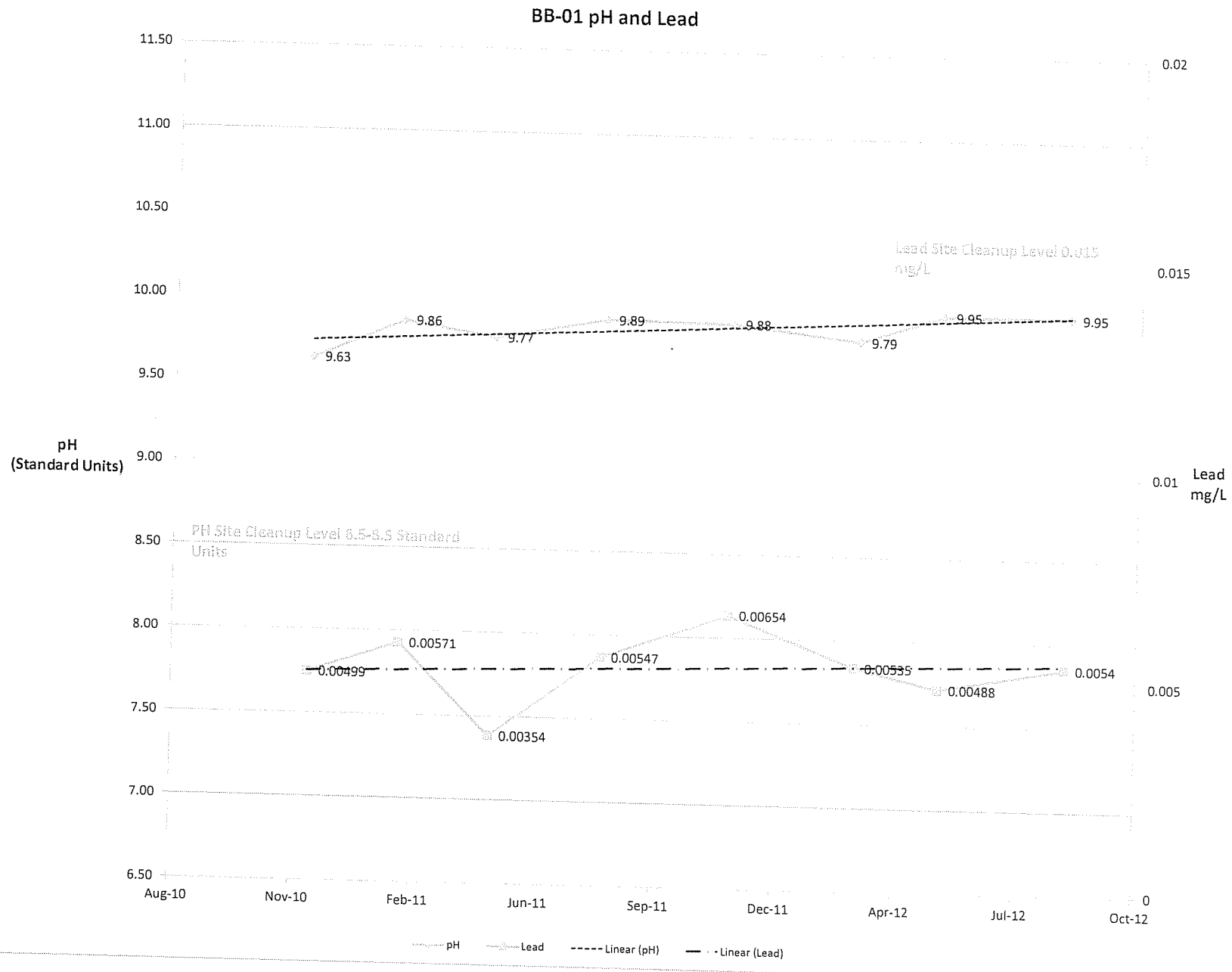

BA-05A pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
7.04
7.29
7.28
7.10
7.27
7.03
7.05
6.87
0.001
0.000601
0.002
0.00238
0.00145
0.000606
0.000753
0.00114
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


BA-05A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00147
0.032
0.00203
0.00329
0.00134
0.00202
0.00111
0.0177
0.00193
0.0328
0.00191
0.0101
0.0022
0.00674
0.00148
0.0358
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

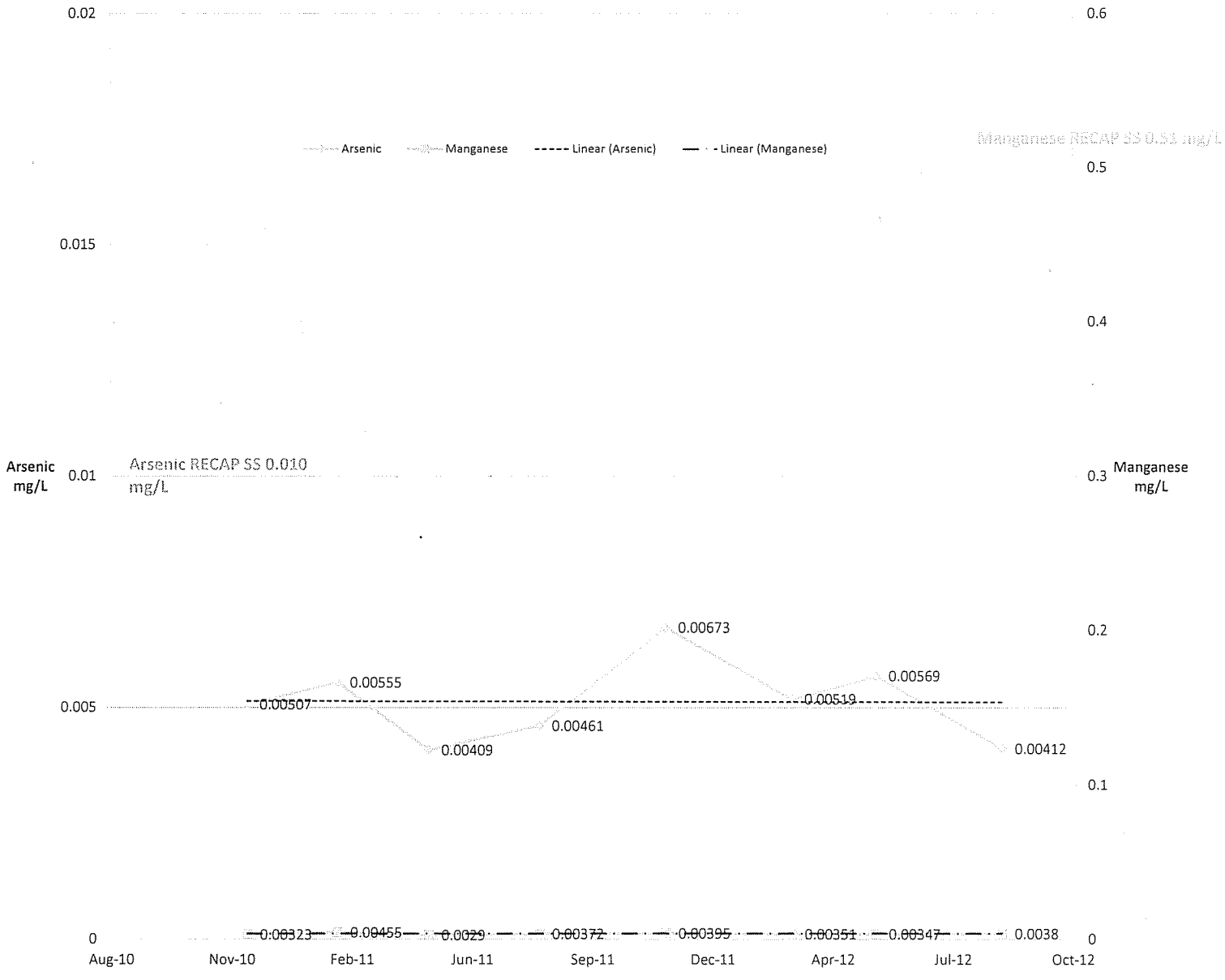

BA-05A Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.002
0.002
0.002
0.002
0.002
0.000264
0.000451
0.000421
0.002
0.00187
0.00058
0.000609
0.000446
0.00072
0.000866
0.000613
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

BA-05A Cadmium and Zinc

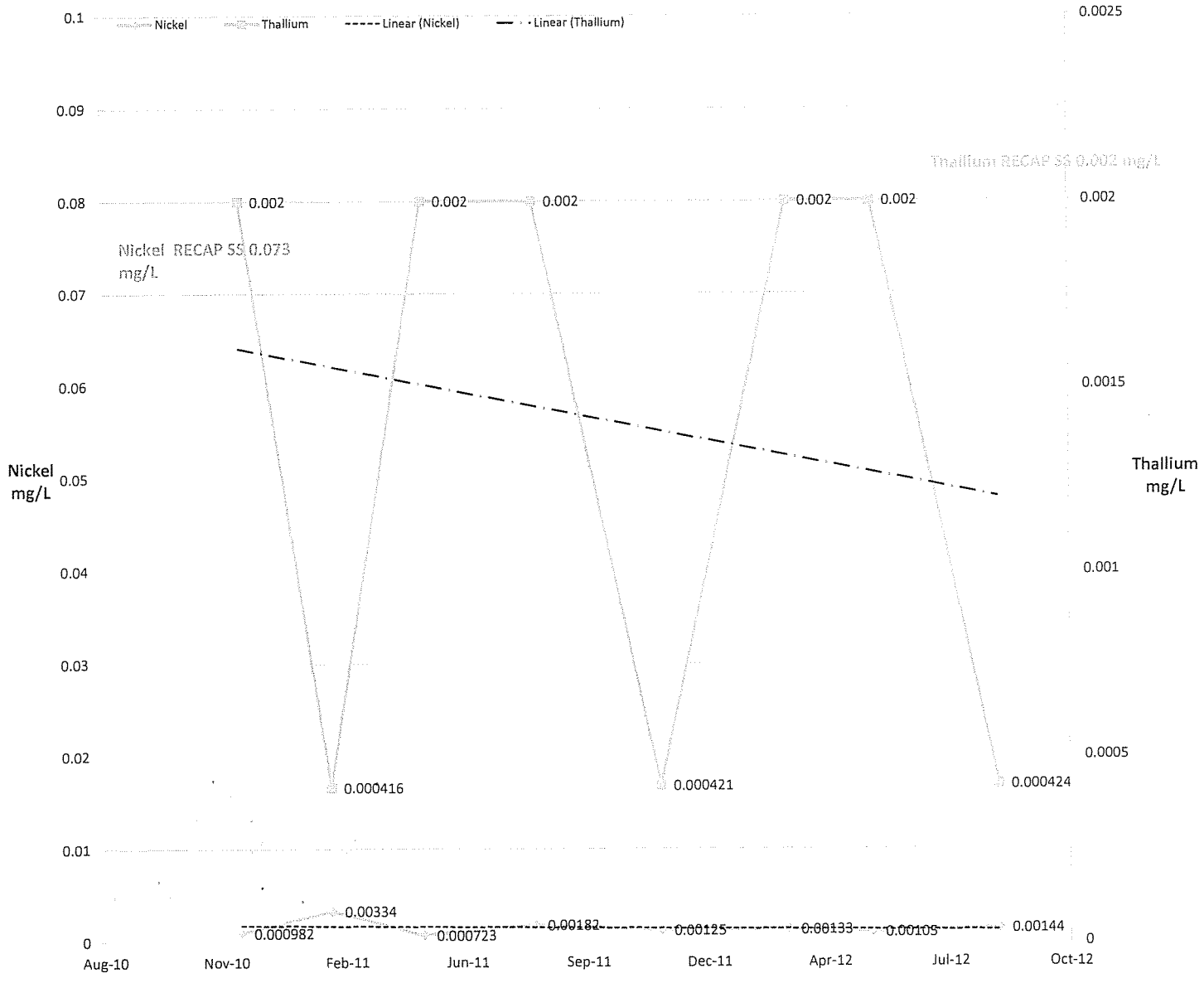



BB-01 pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
9.63
9.86
9.77
9.89
9.88
9.79
9.95
9.95
0.00499
0.00571
0.00354
0.00547
0.00654
0.00535
0.00488
0.0054
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

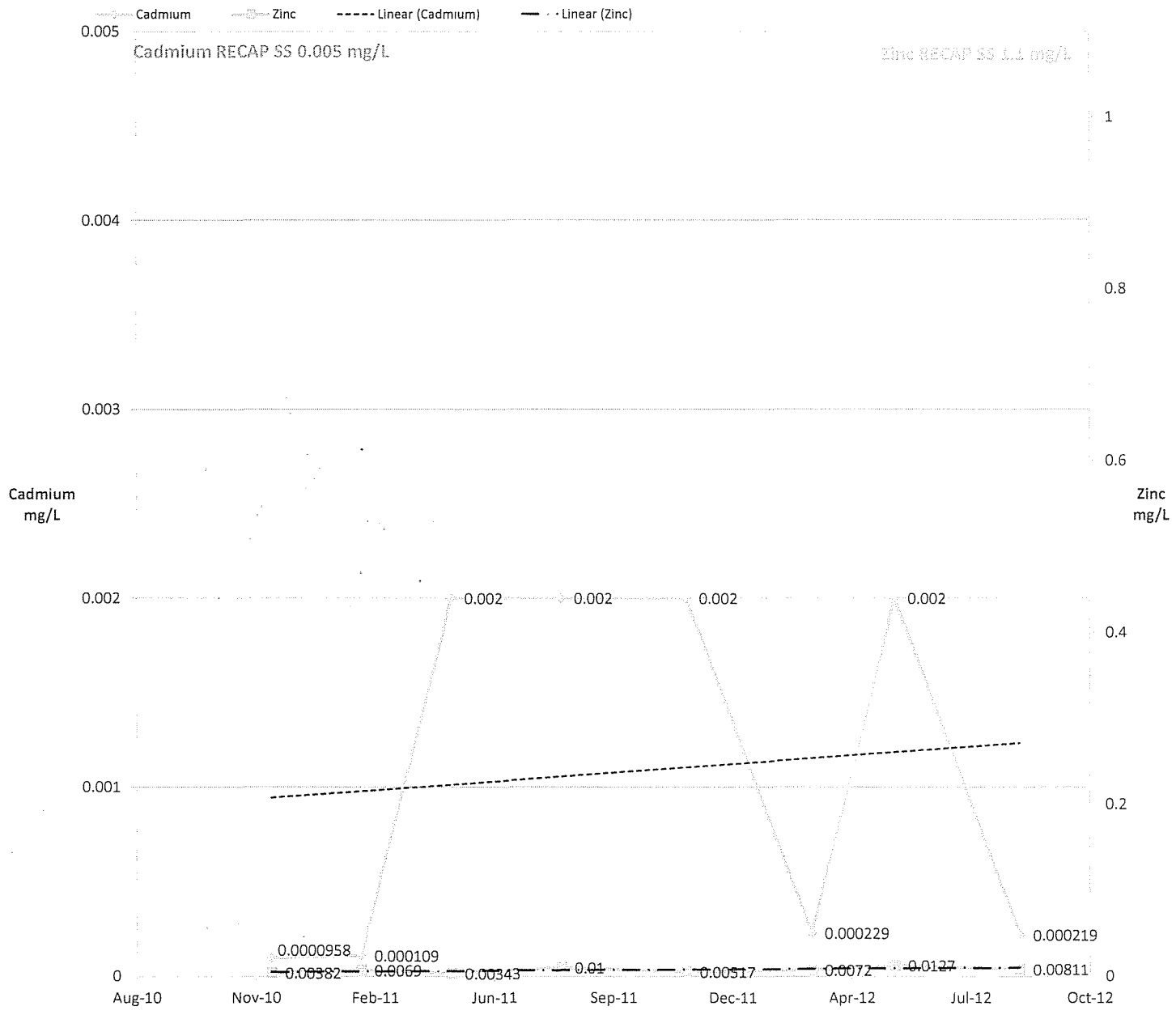
BB-01 Arsenic and Manganese

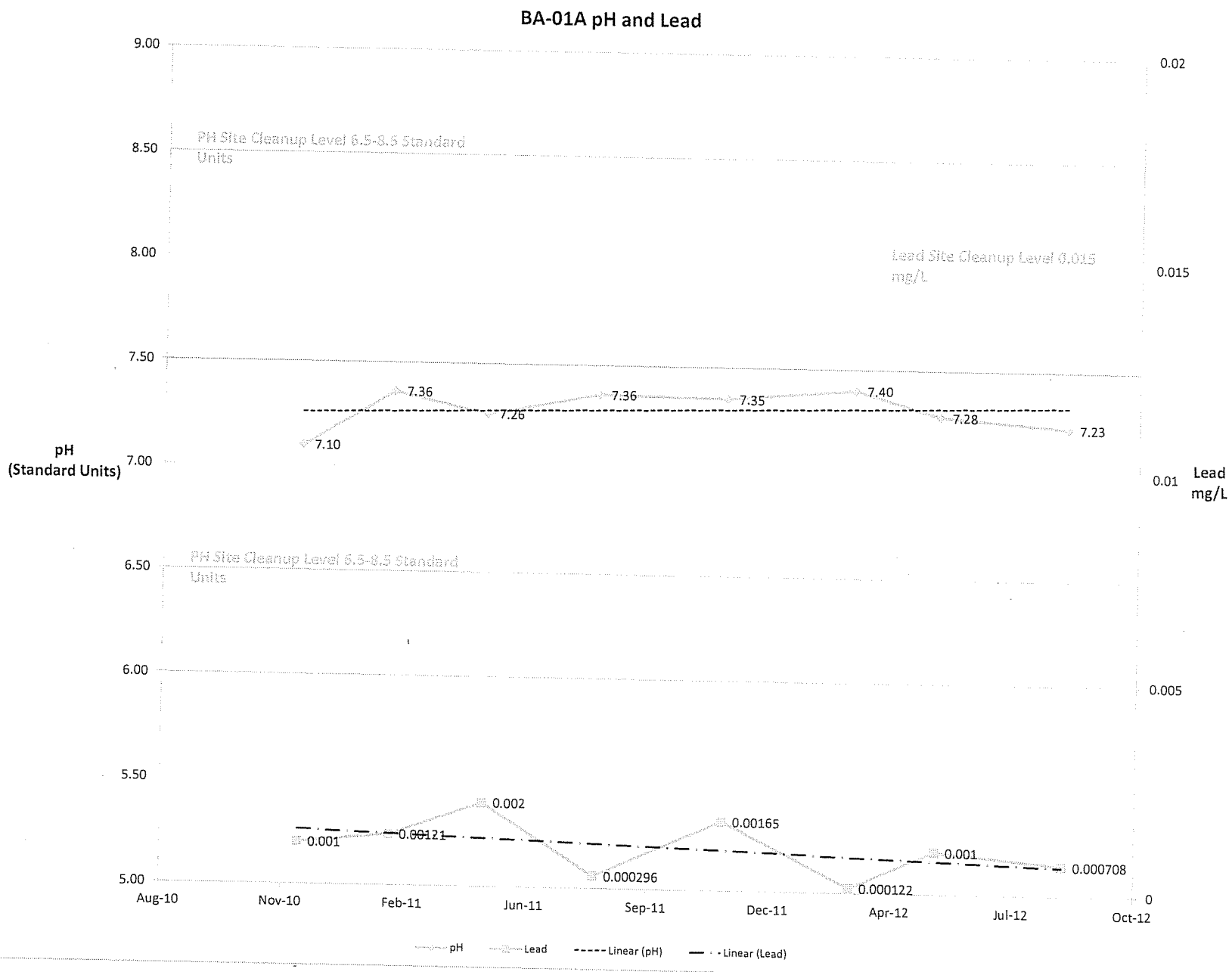


BB-01 Nickel and Thallium

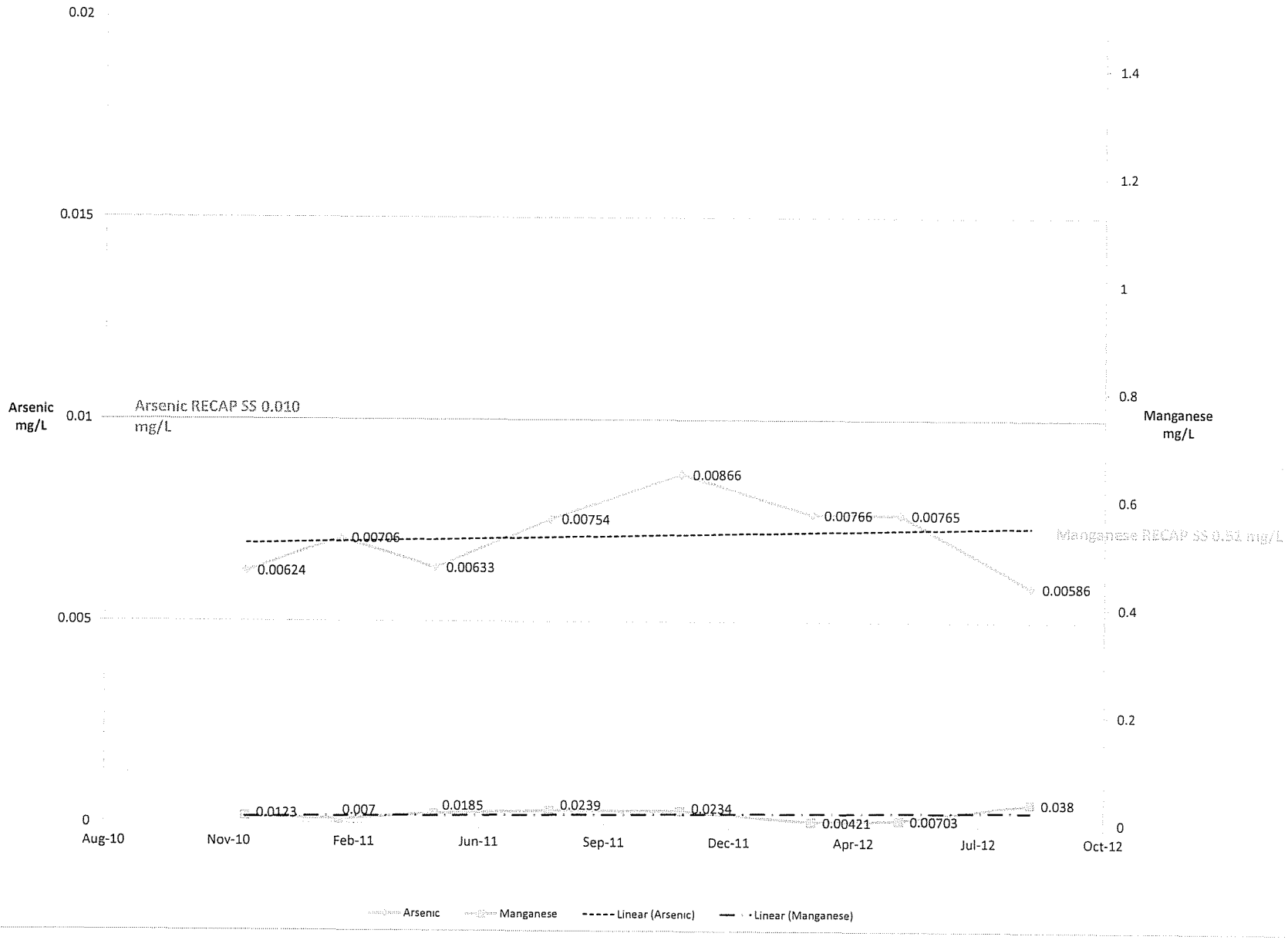


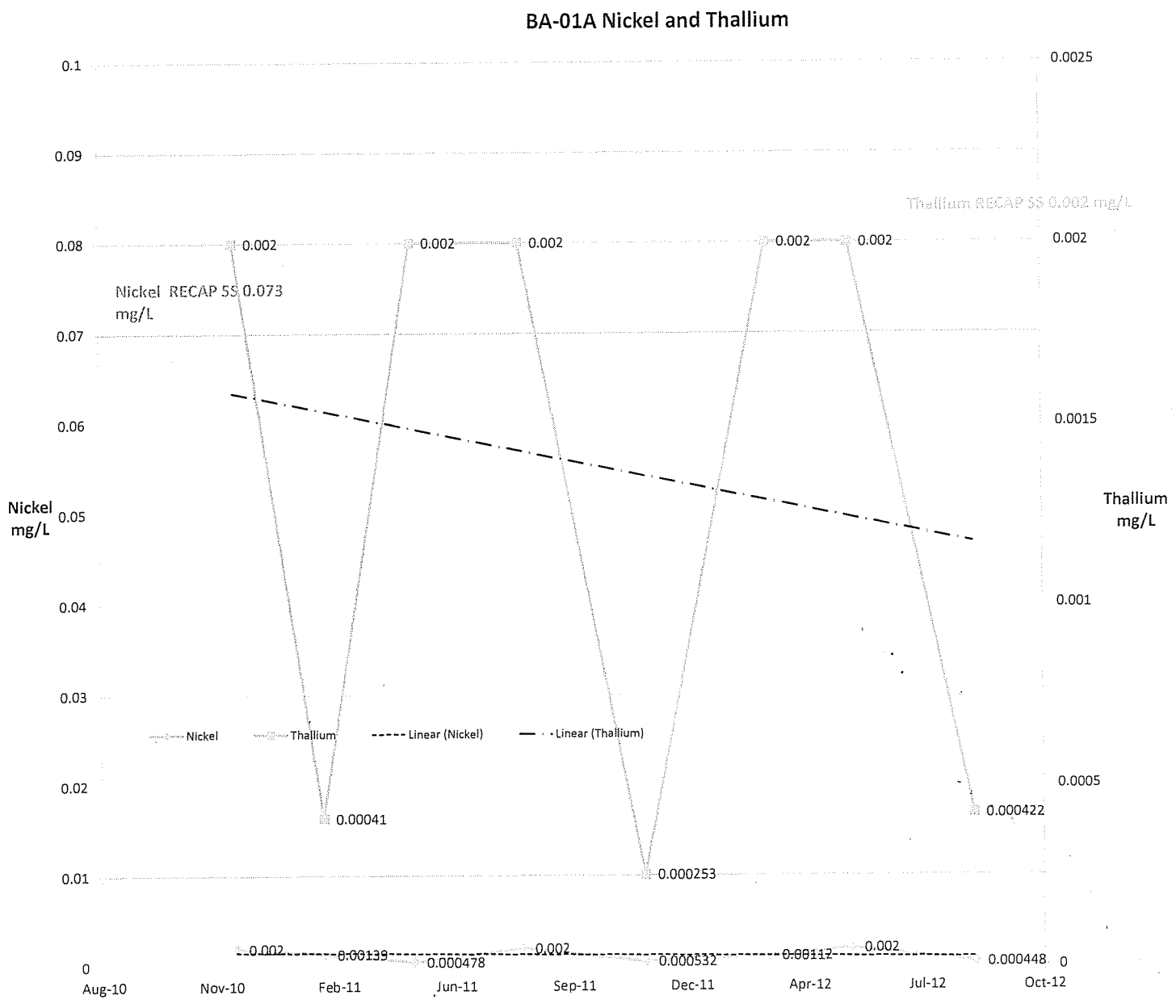
BB-01 Cadmium and Zinc



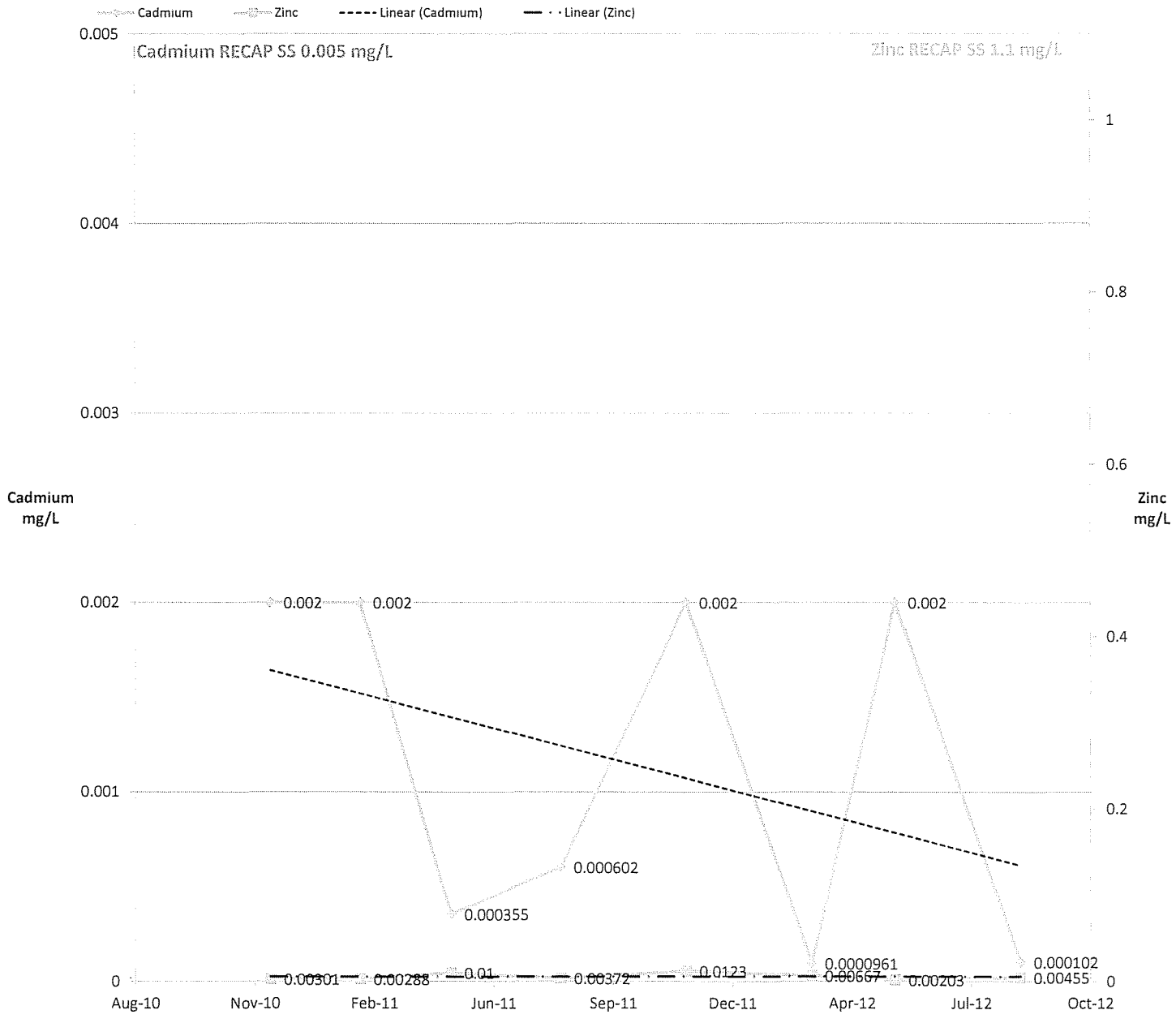

BA-01A pH and Lead
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
0.02
0.015
0.01
0.005
0
Lead
mg/L
7.10
7.36
7.26
7.36
7.35
7.40
7.28
7.23
0.001
0.00121
0.002
0.000296
0.00165
0.000122
0.001
0.000708
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

BA-01A Arsenic and Manganese



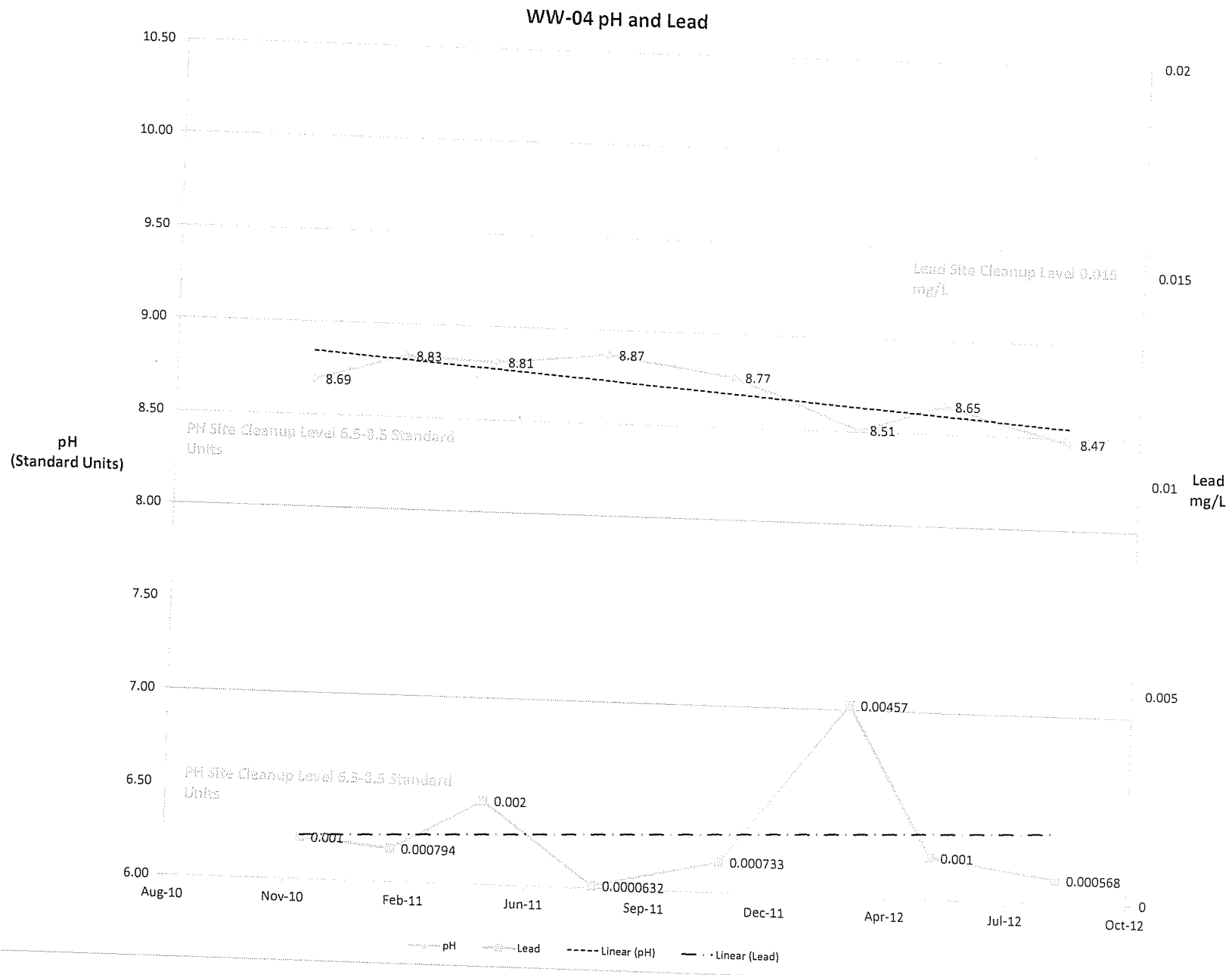

BA-01A Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.00041
0.000253
0.000422
0.002
0.00139
0.000478
0.002
0.000532
0.00112
0.002
0.000448
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

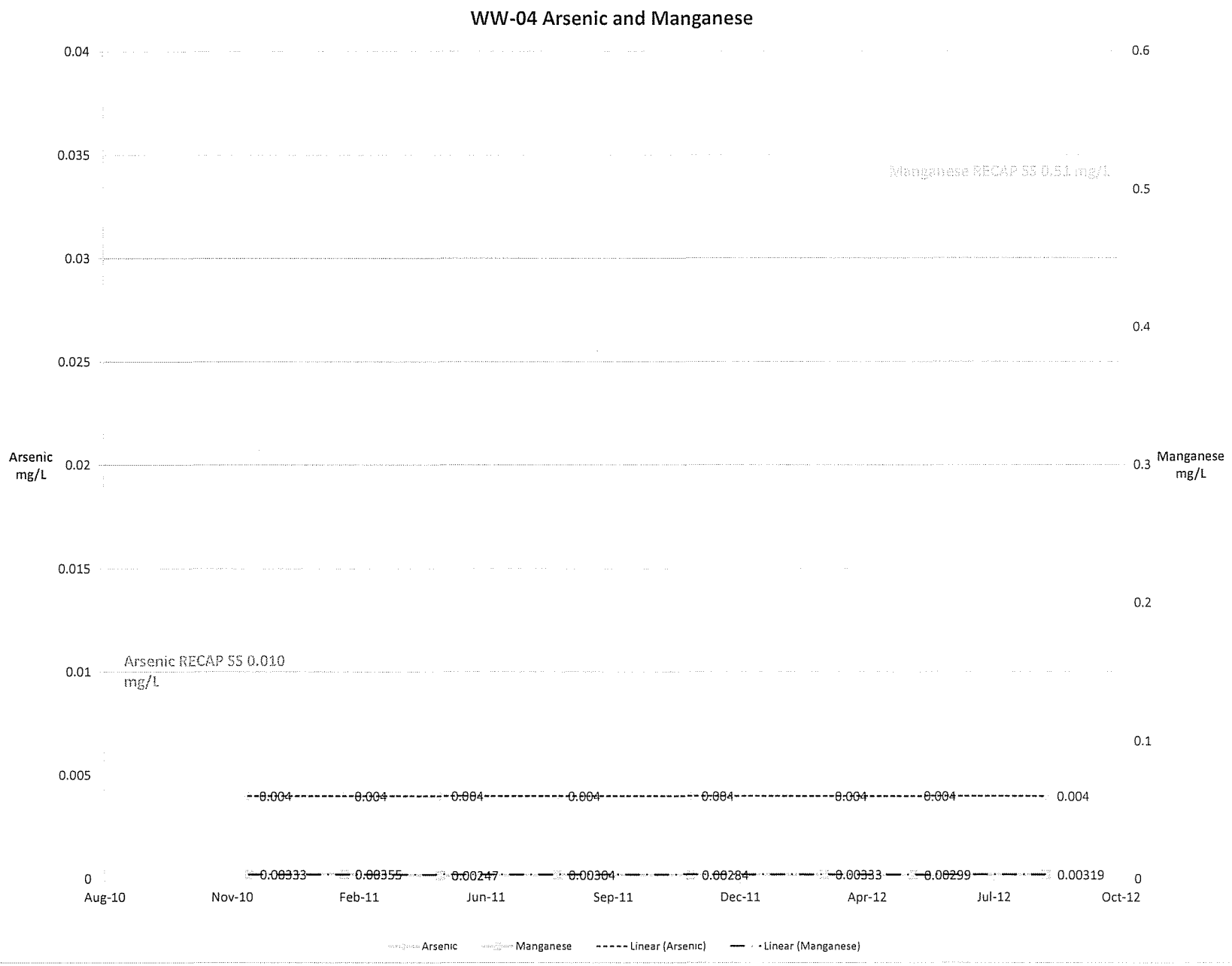
BA-01A Cadmium and Zinc

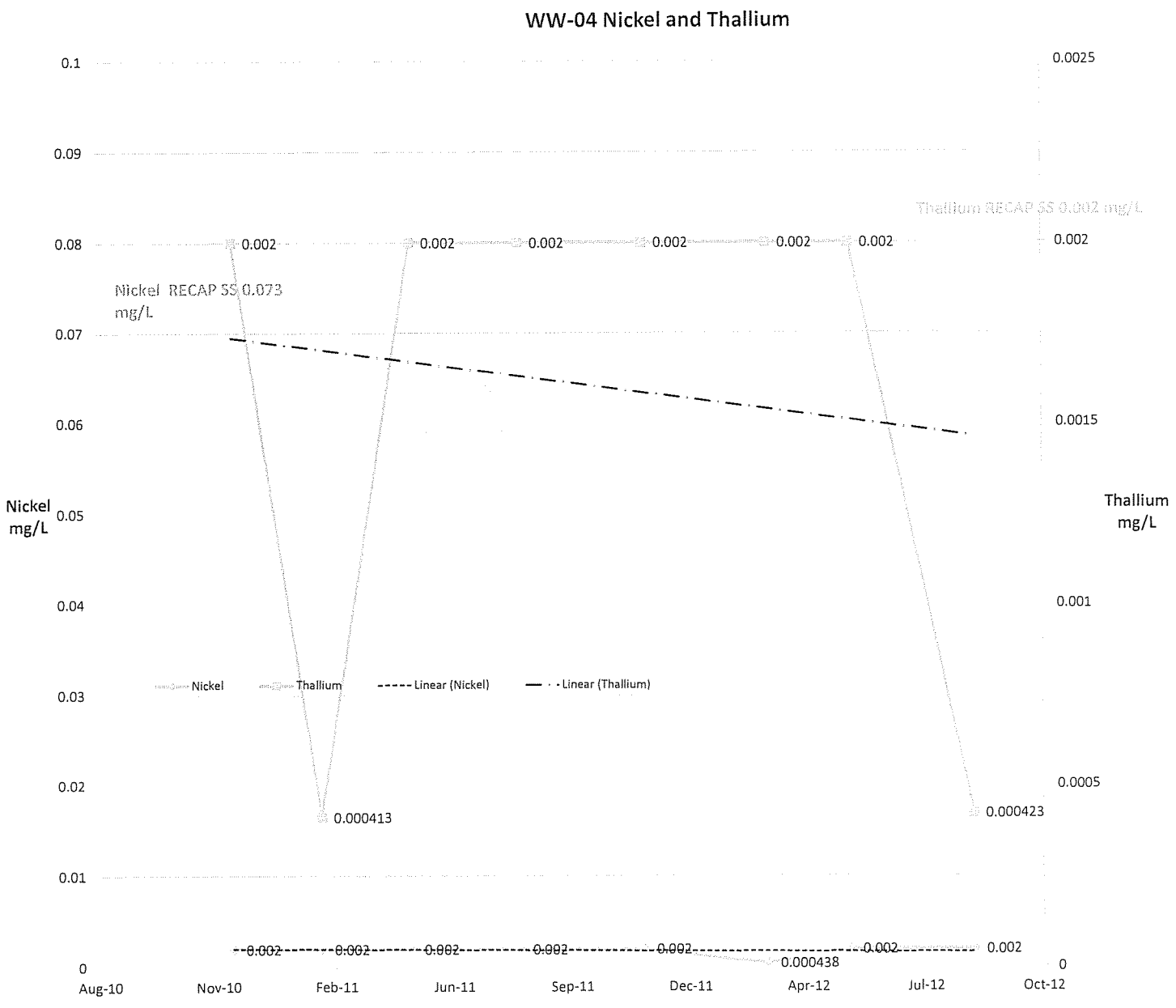


WATER WELLS

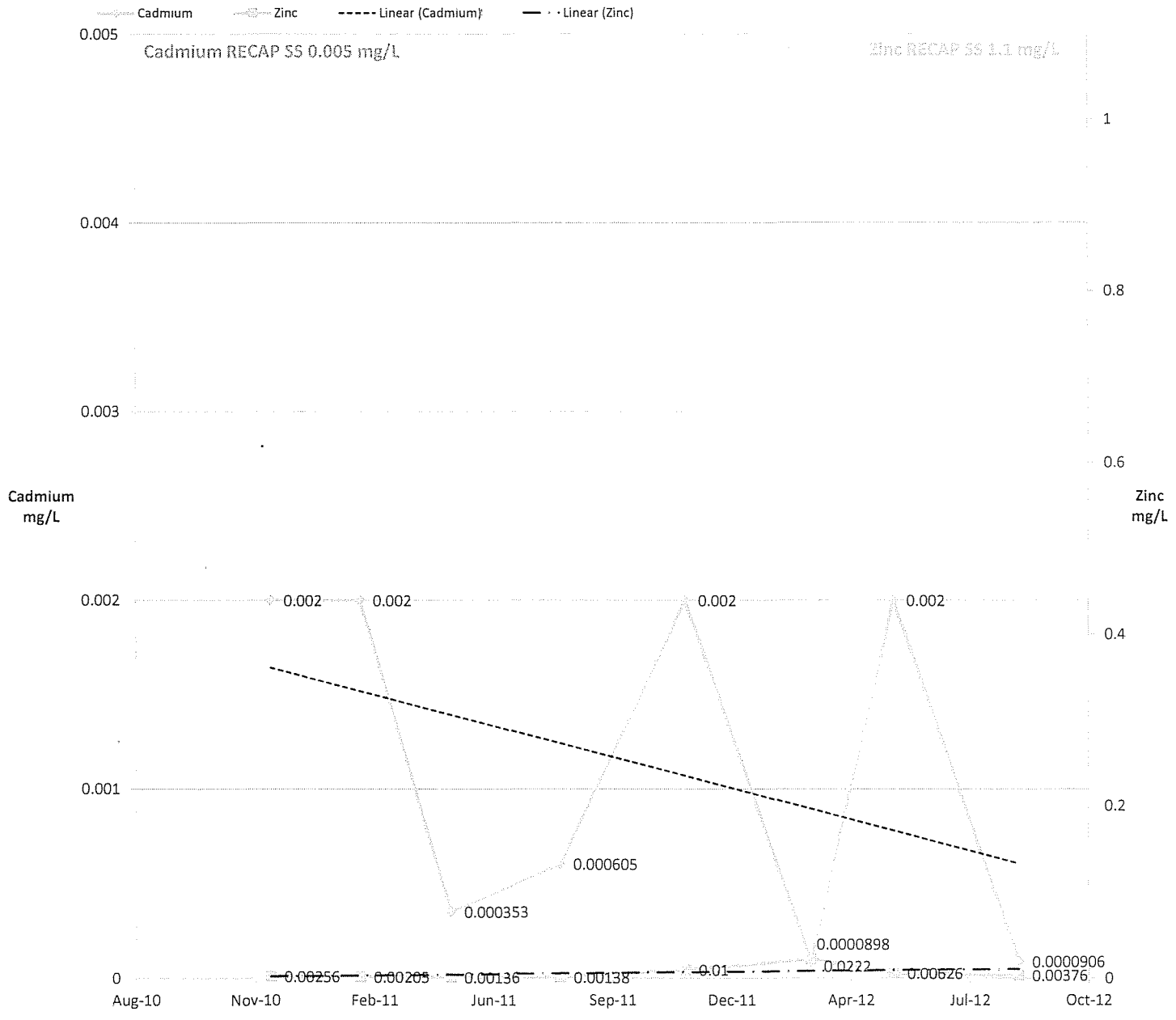
(PAST EIGHT QUARTERS)

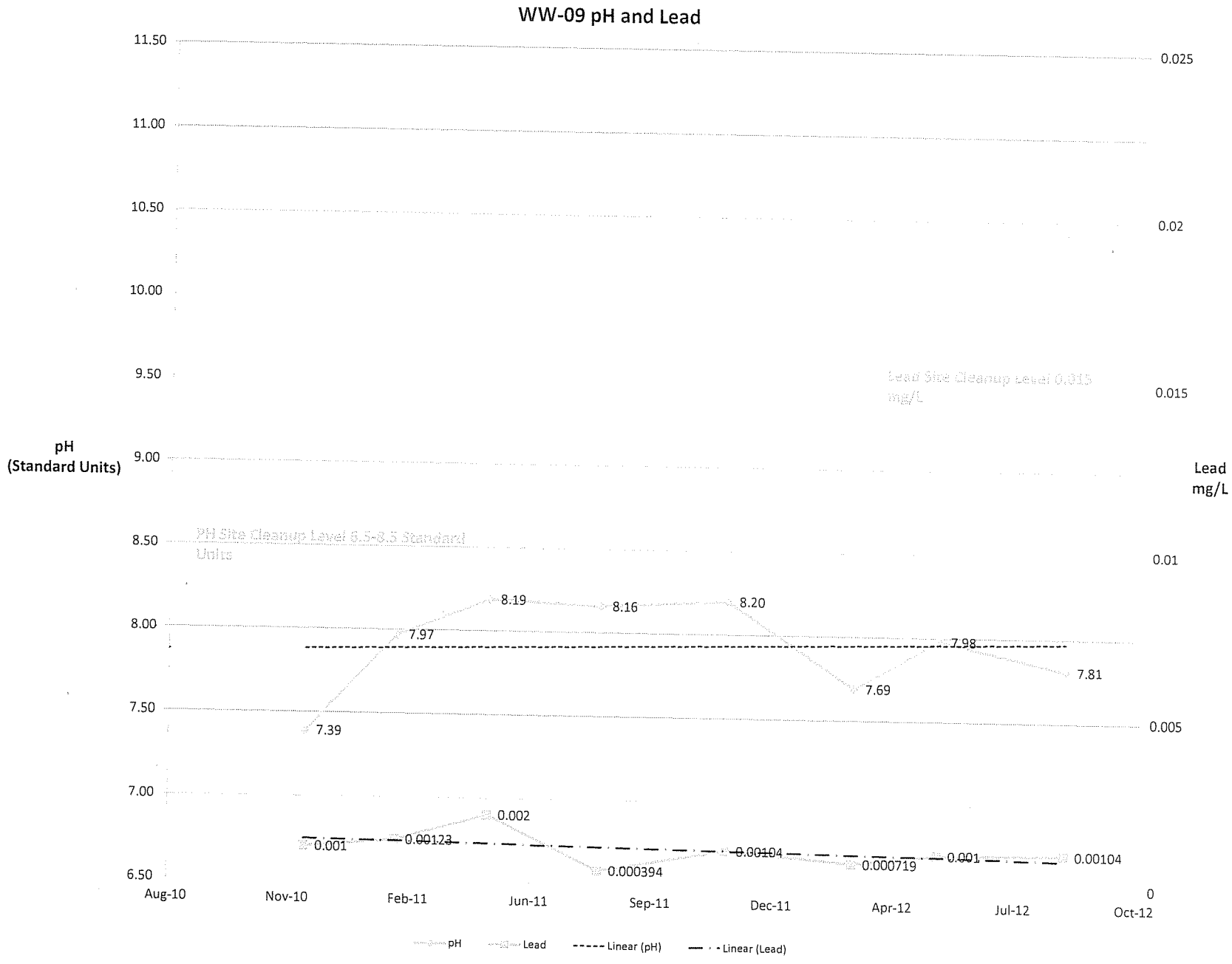

WW-04 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
8.69
8.83
8.81
8.87
8.77
8.51
8.65
8.47
0.001
0.000794
0.002
0.0000632
0.000733
0.00457
0.001
0.000568
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

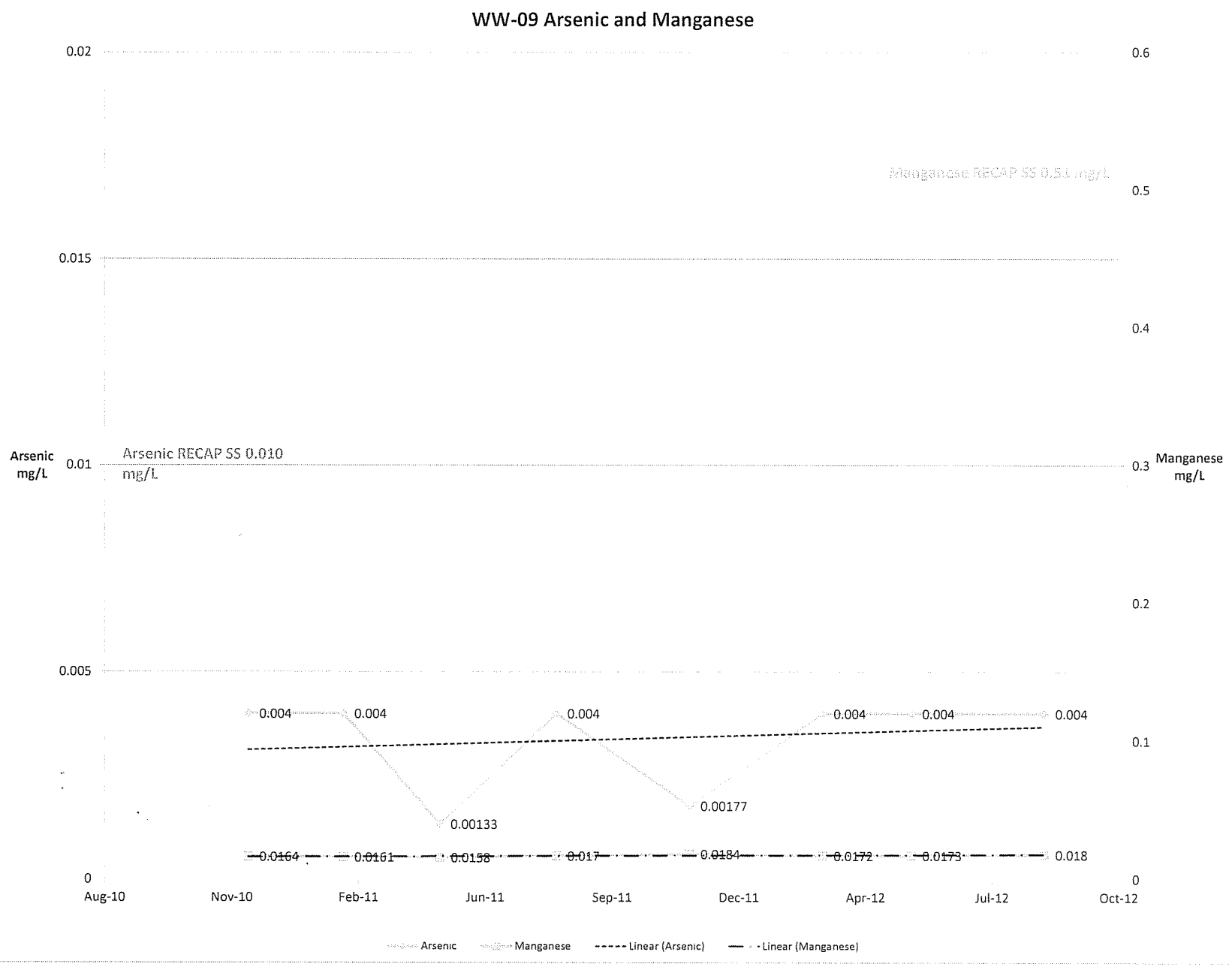

WW-04 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP 55 0.51 mg/L
Arsenic RECAP 55 0.010 mg/L
0.004
0.00319
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

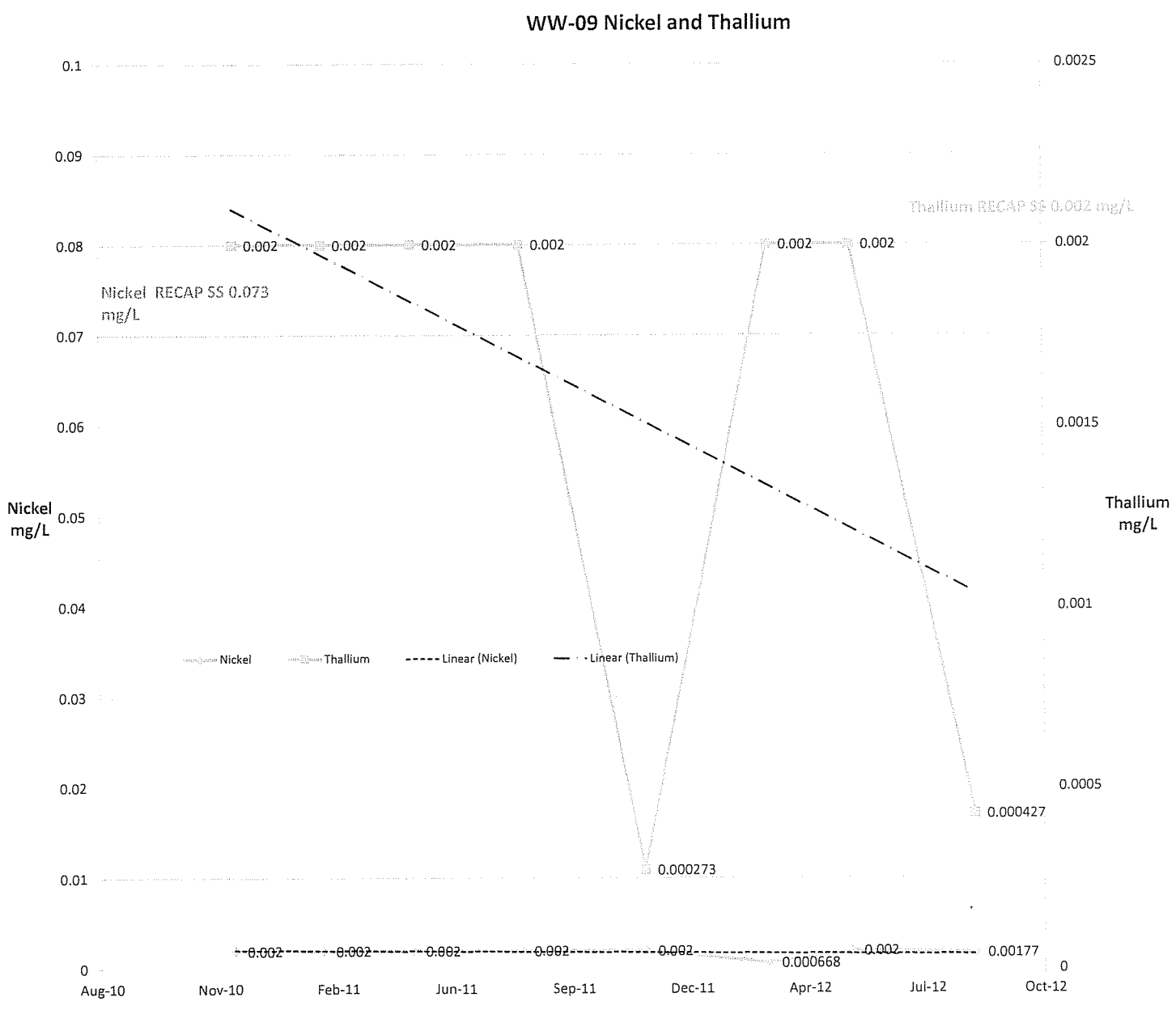

WW-04 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.002
0.002
0.002
0.002
0.002
0.002
0.000413
0.000423
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000438
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

WW-04 Cadmium and Zinc

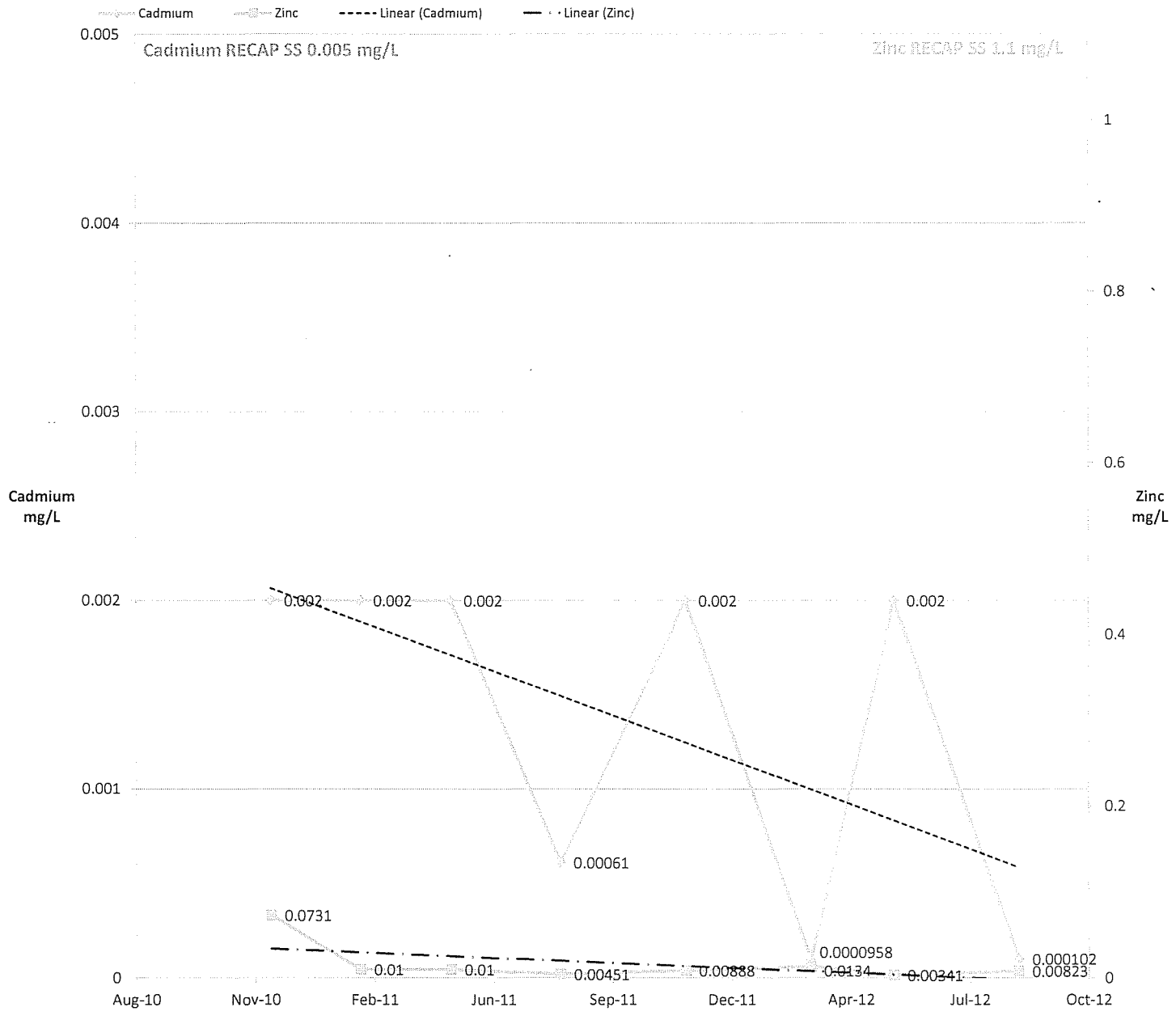


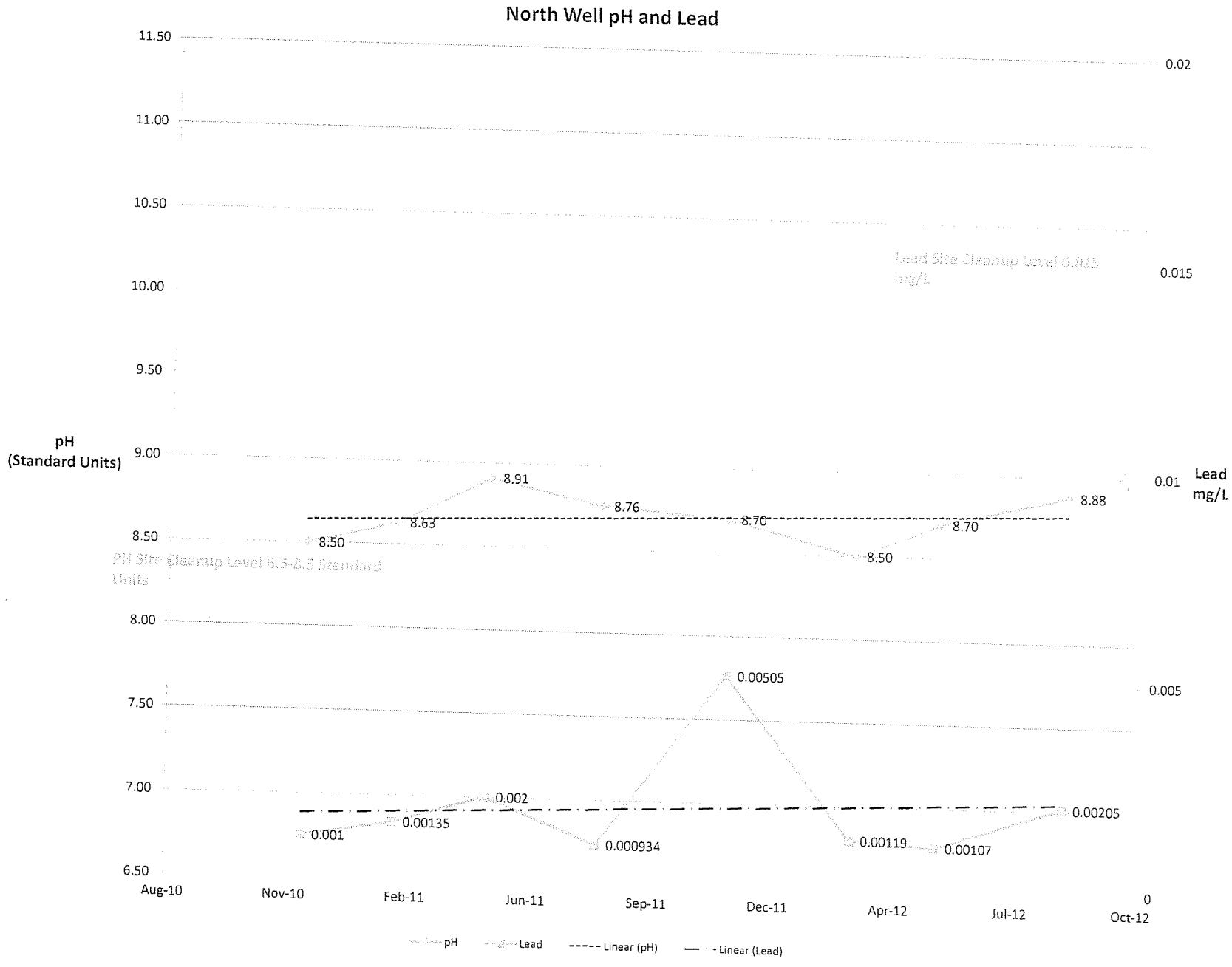

WW-09 pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.025
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.19
8.16
8.20
7.97
7.98
7.81
7.69
7.39
0.002
0.001
0.00123
0.00104
0.001
0.00104
0.000394
0.000719
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)


WW-09 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.004
0.004
0.004
0.004
0.004
0.004
0.00133
0.00177
0.0164
0.0161
0.0158
0.017
0.0184
0.0172
0.0173
0.018
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

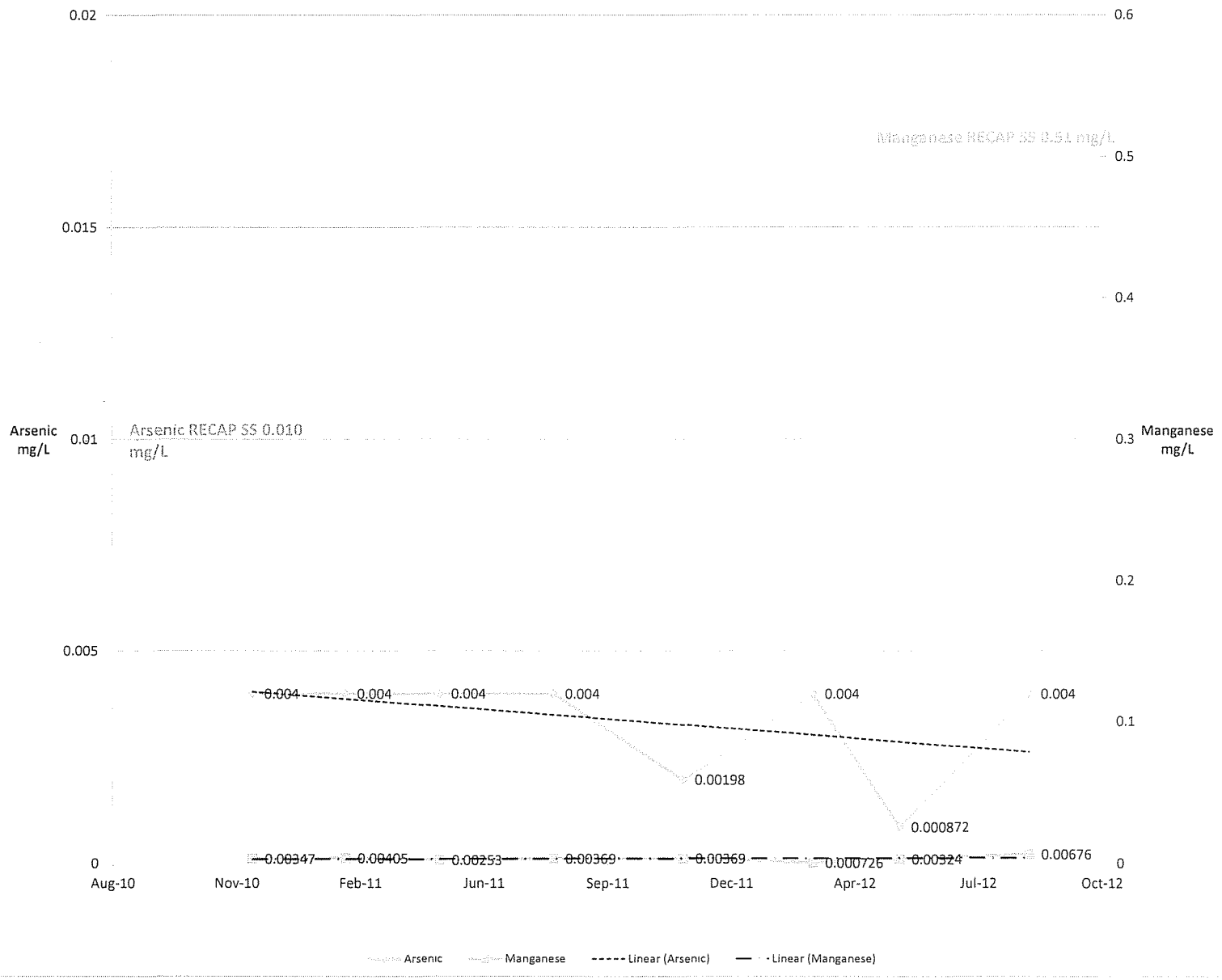

WW-09 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.002
0.000273
0.000427
0.000668
0.00177
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

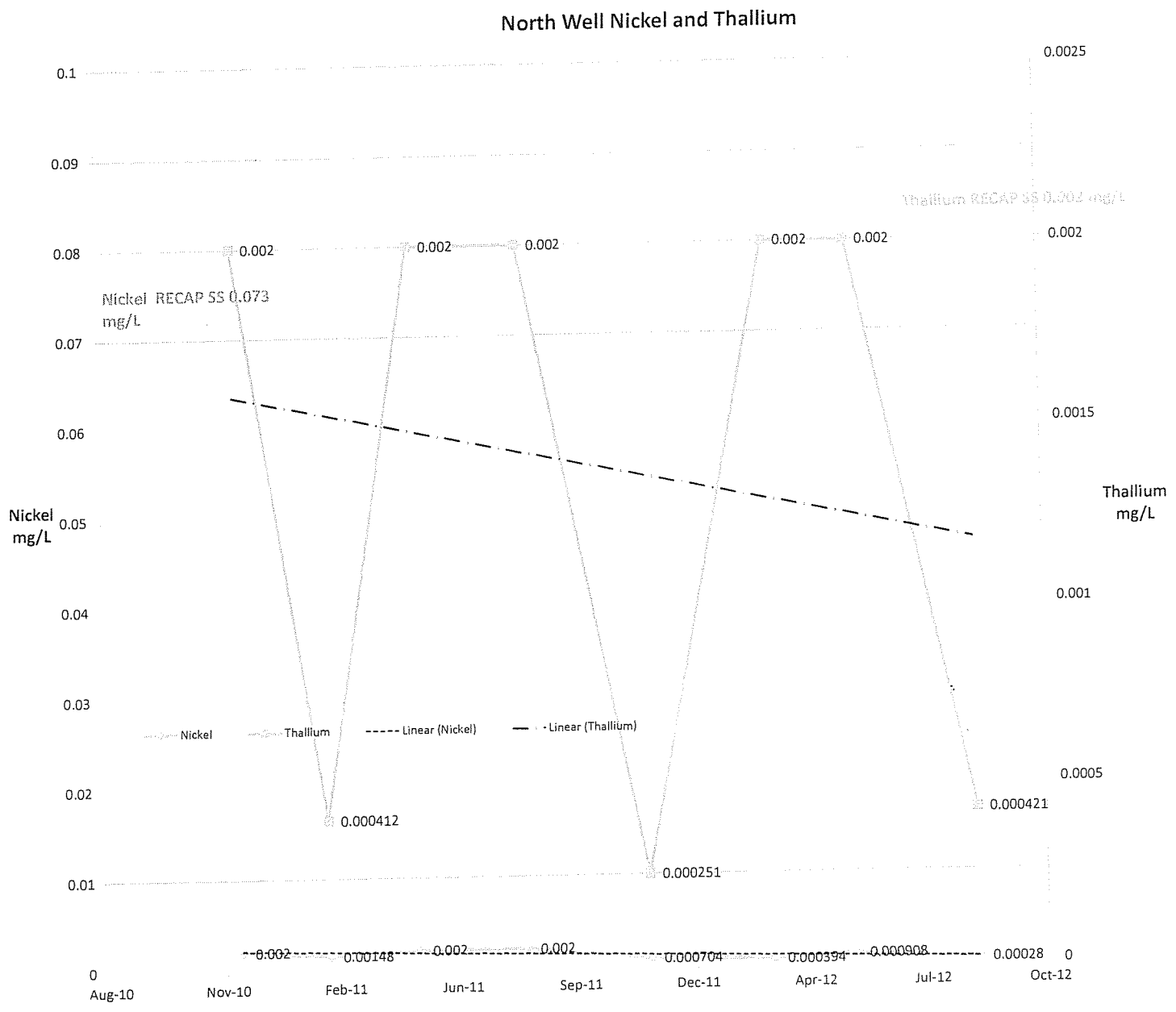
WW-09 Cadmium and Zinc



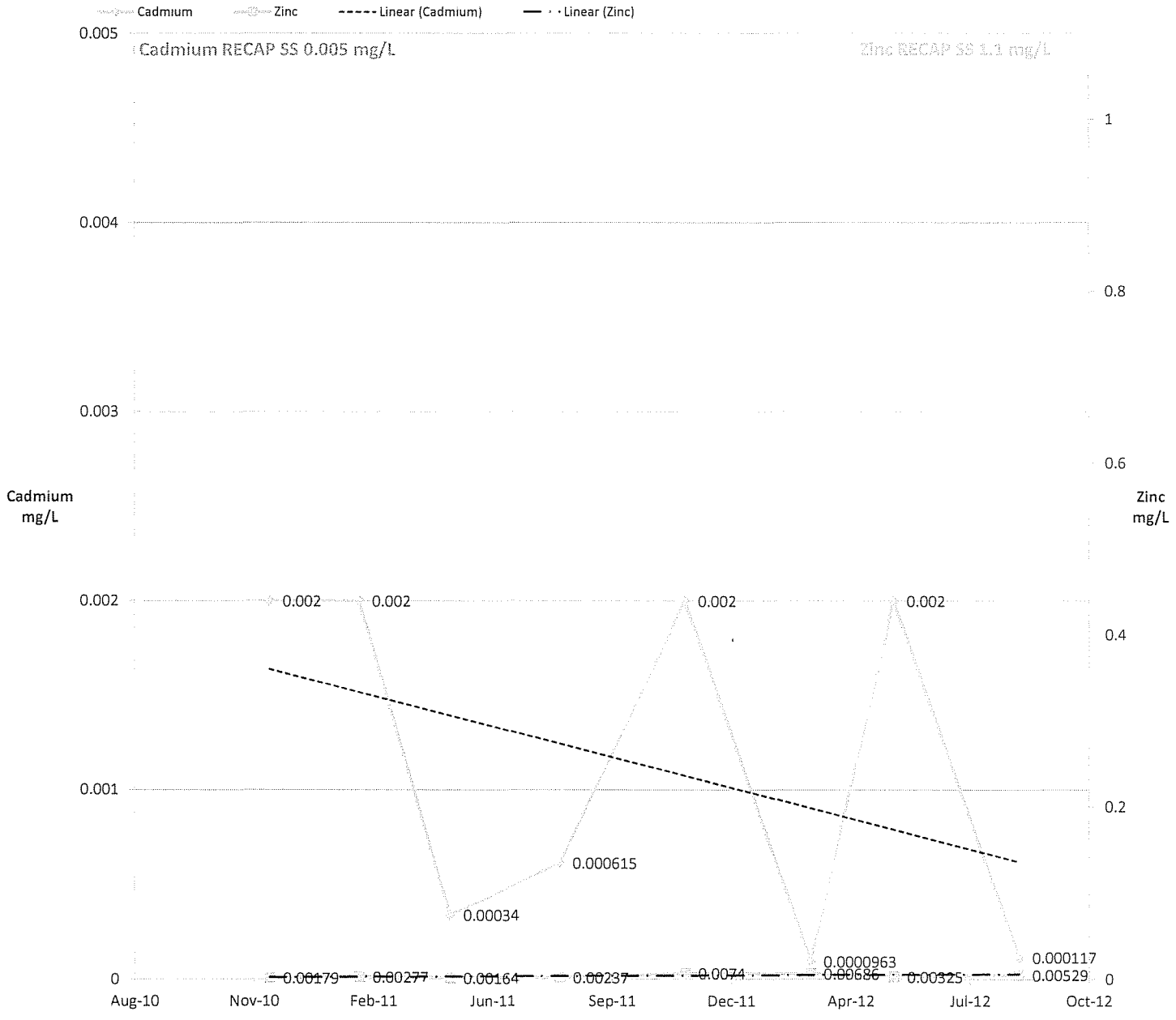

North Well pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.50
8.63
8.91
8.76
8.70
8.50
8.70
8.88
0.001
0.00135
0.002
0.000934
0.00505
0.00119
0.00107
0.00205
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

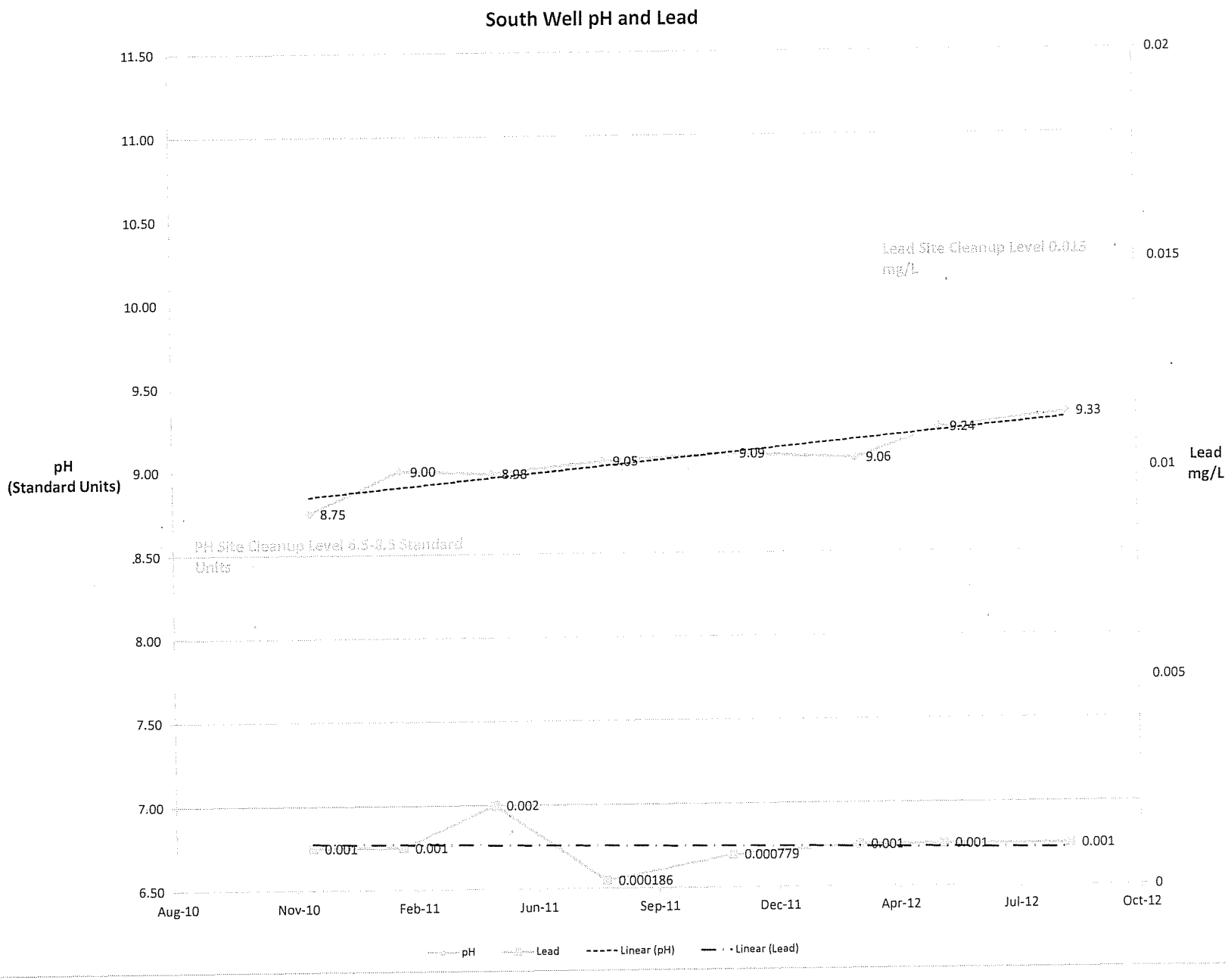
North Well Arsenic and Manganese

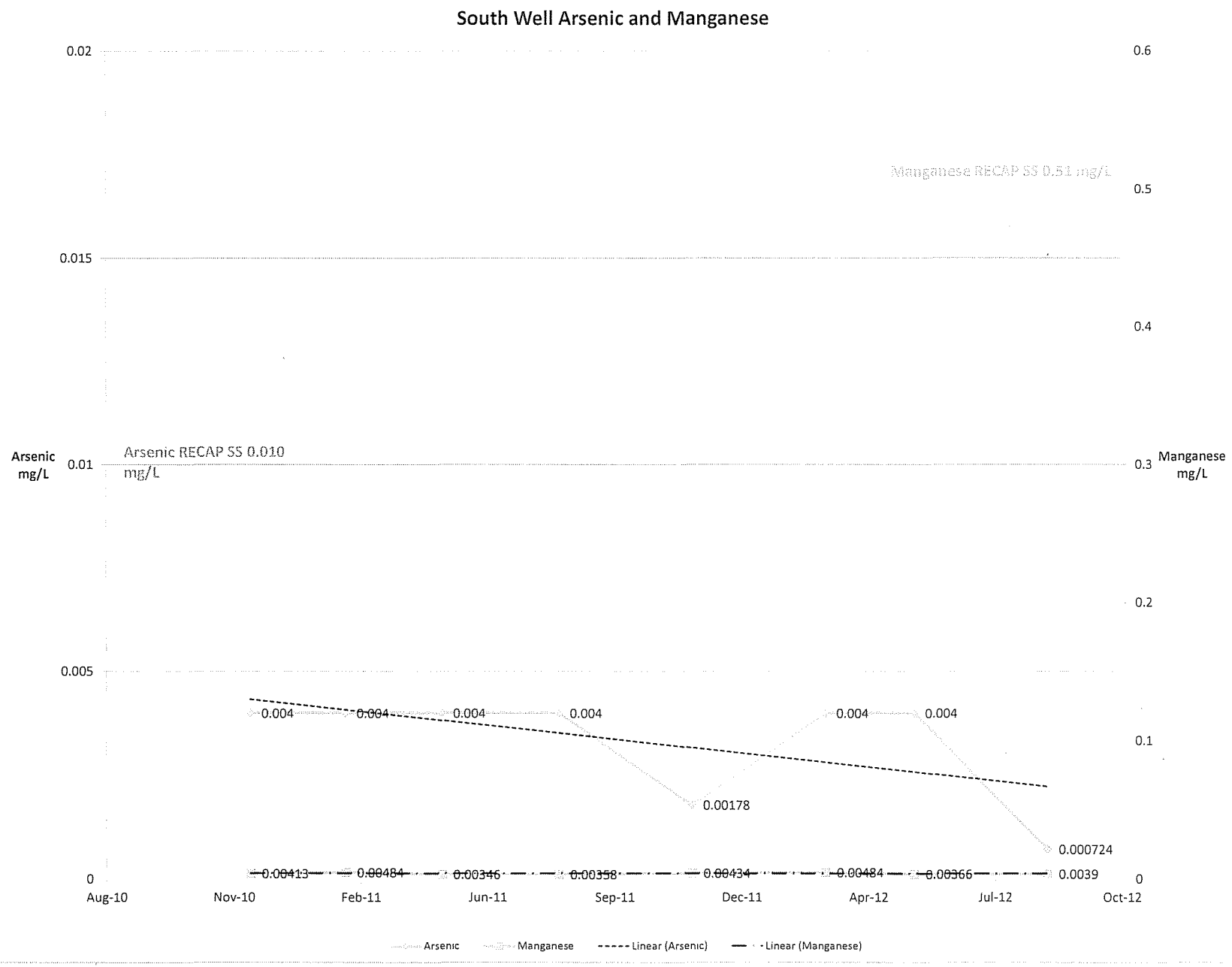


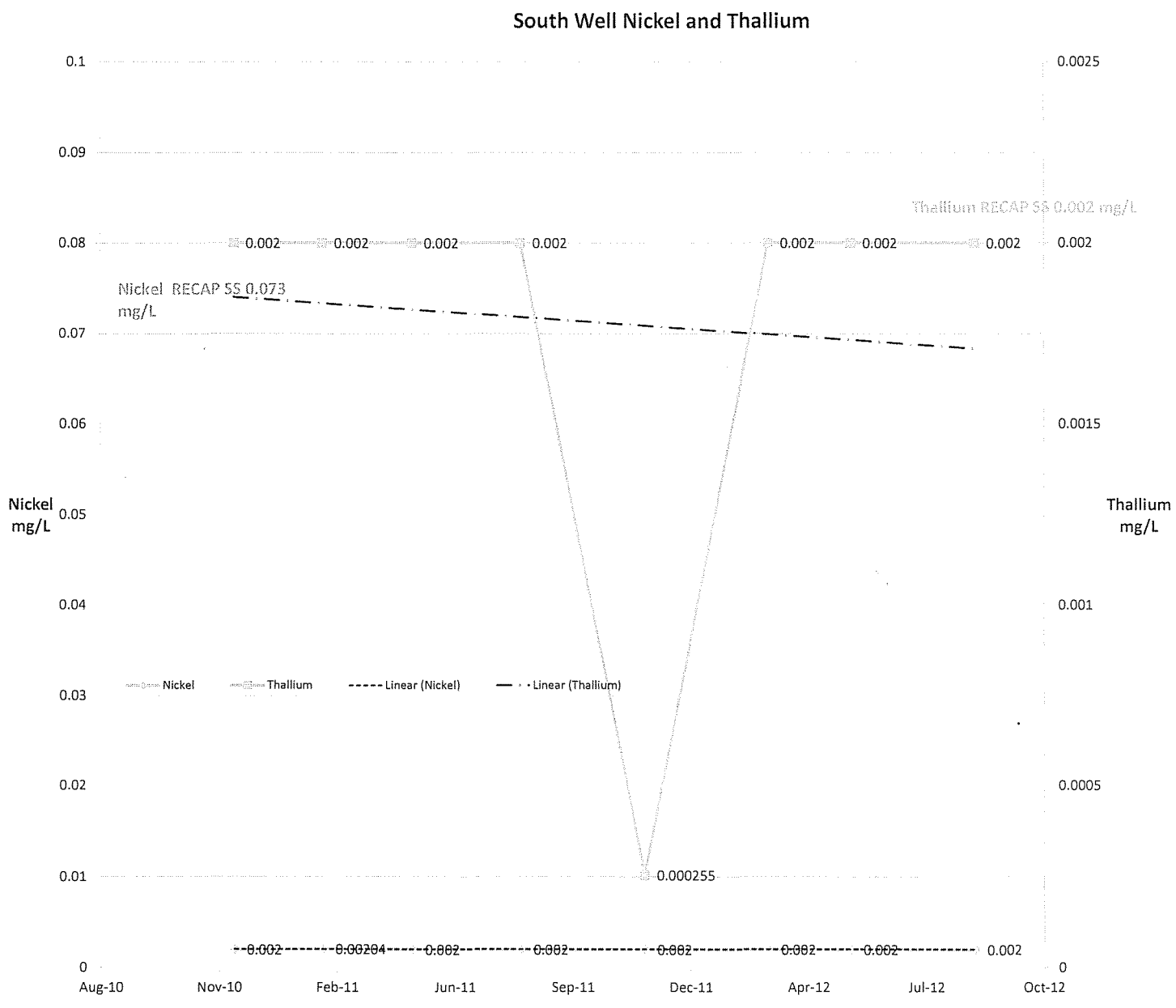

North Well Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000412
0.000251
0.000421
0.00148
0.000704
0.000394
0.000908
0.00028
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

North Well Cadmium and Zinc

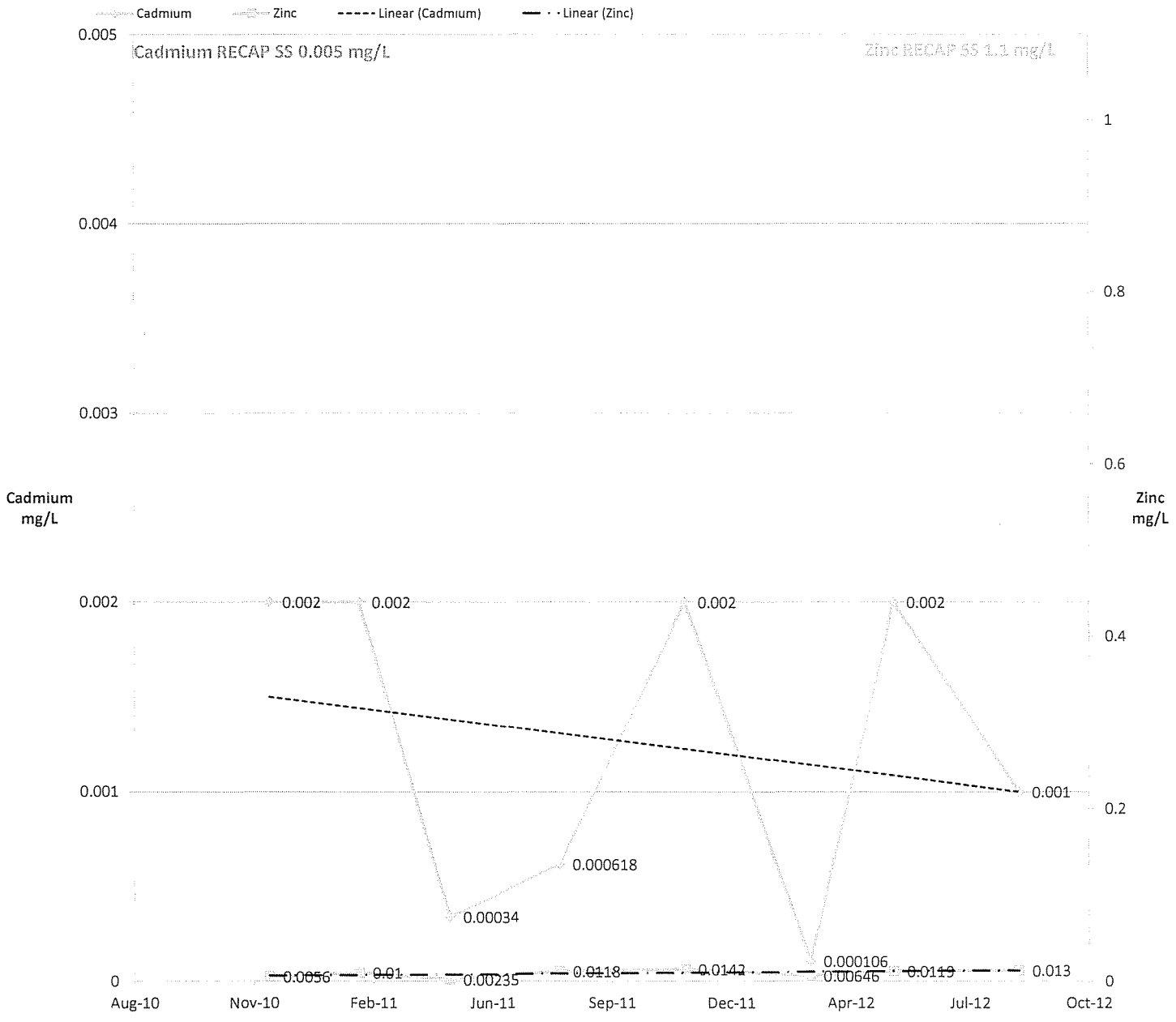



South Well pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.75
9.00
8.98
9.05
9.09
9.06
9.24
9.33
0.001
0.001
0.002
0.000186
0.000779
0.001
0.001
0.001
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
pH
Lead
Linear (pH)
Linear (Lead)

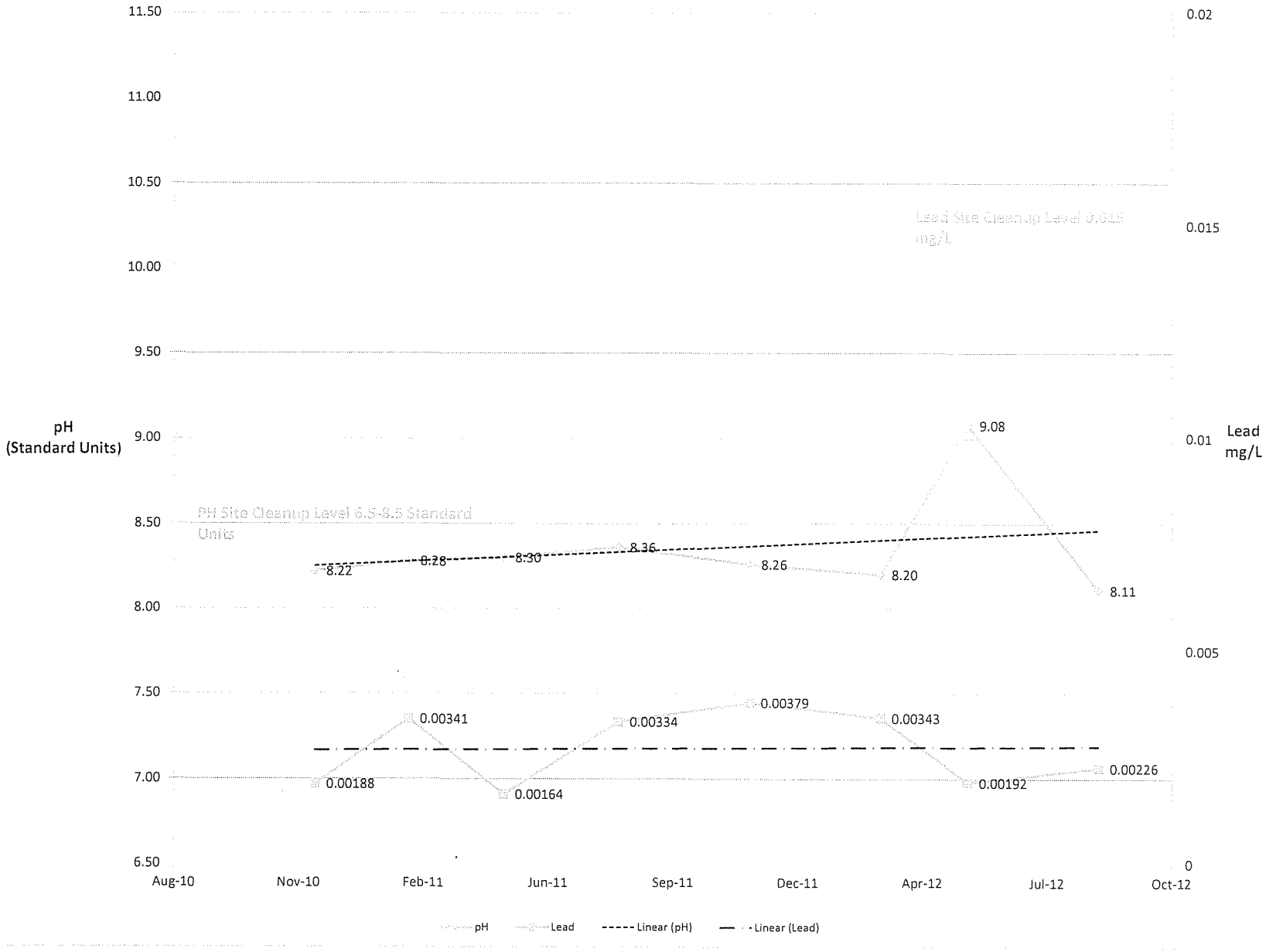

South Well Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.004
0.004
0.004
0.004
0.004
0.004
0.00178
0.000724
0.00413
0.00484
0.00346
0.00358
0.00434
0.00484
0.00366
0.0039
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)


South Well Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000255
0.002
0.00204
0.002
0.002
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12

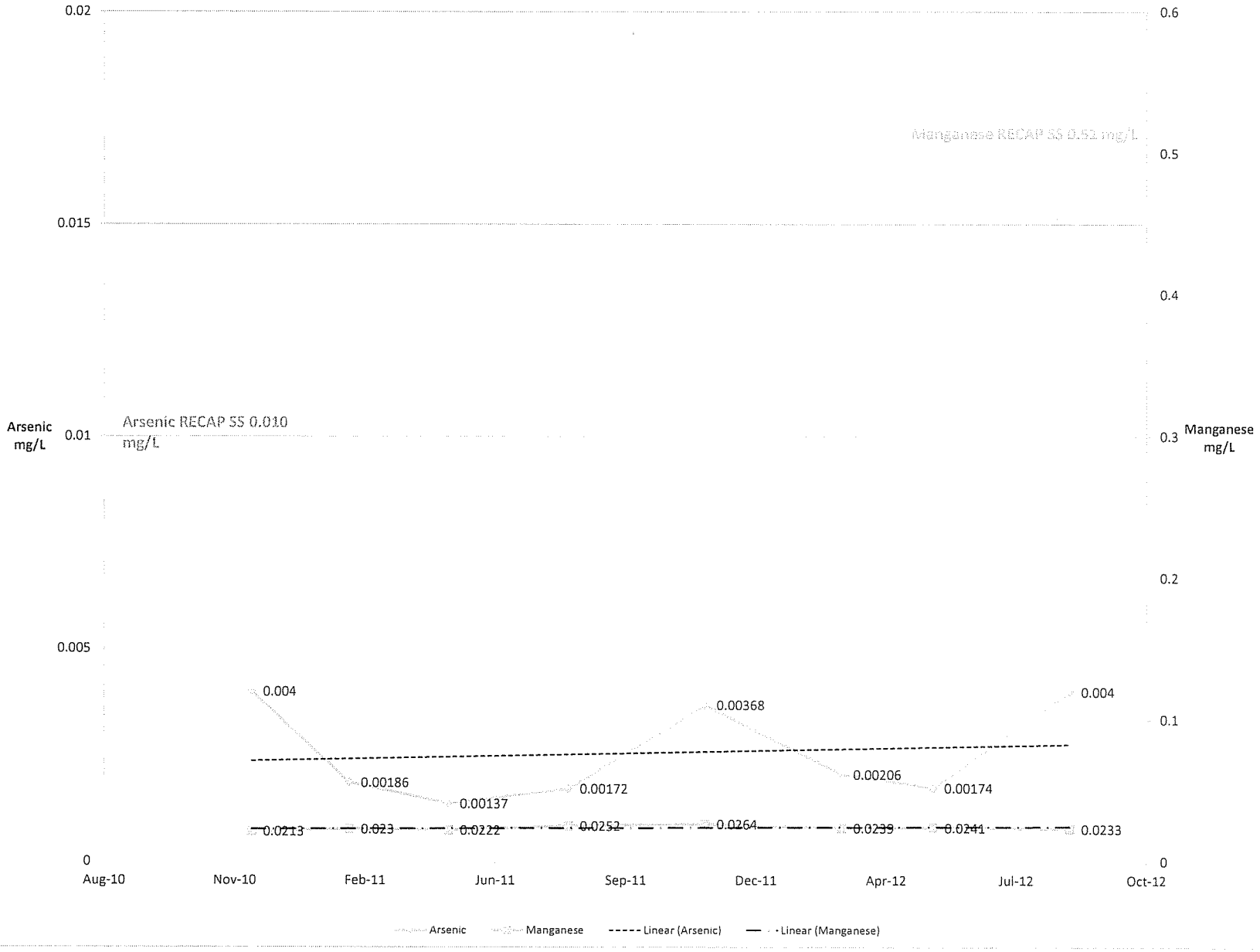
South Well Cadmium and Zinc



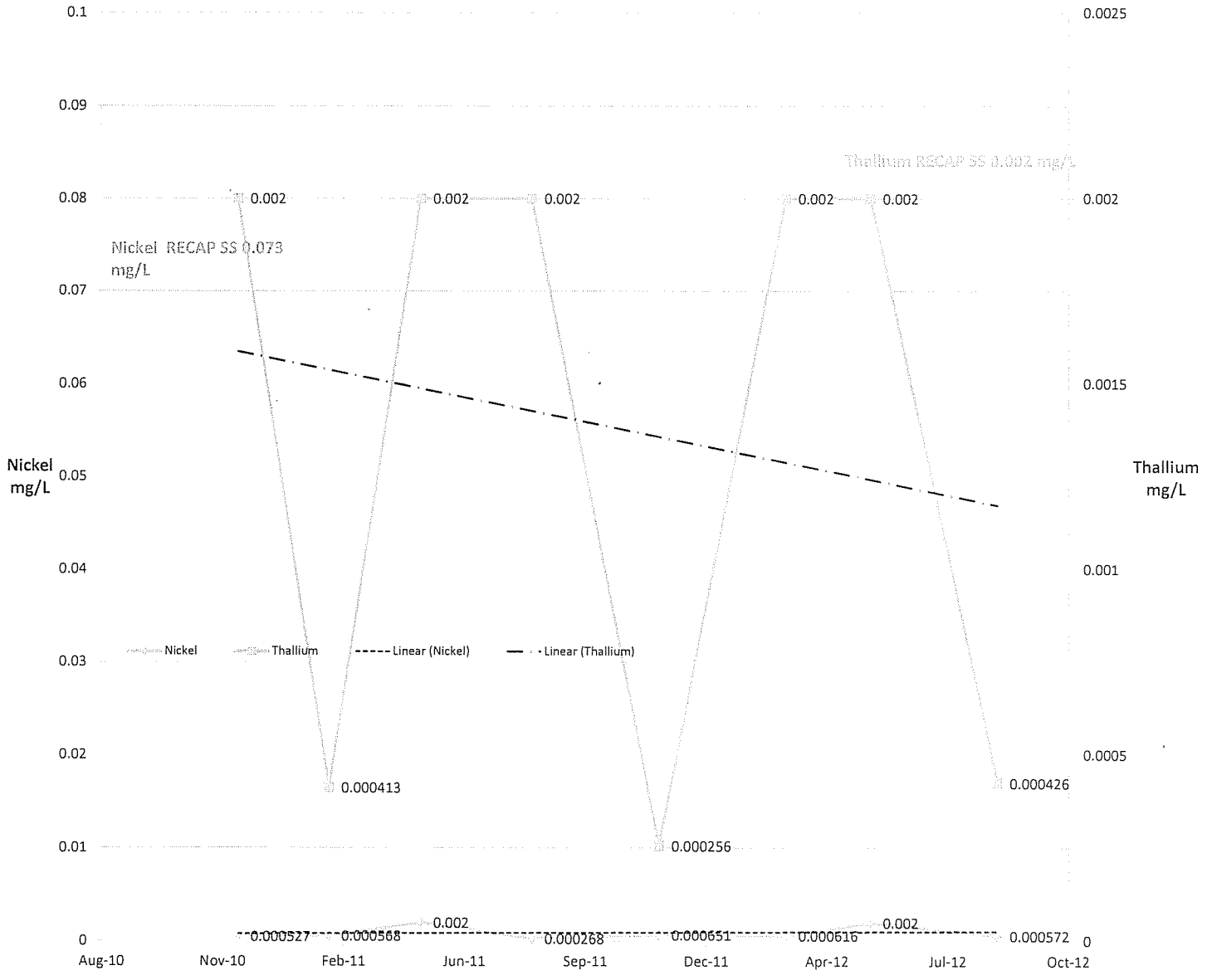
(b) (6) Well pH and Lead



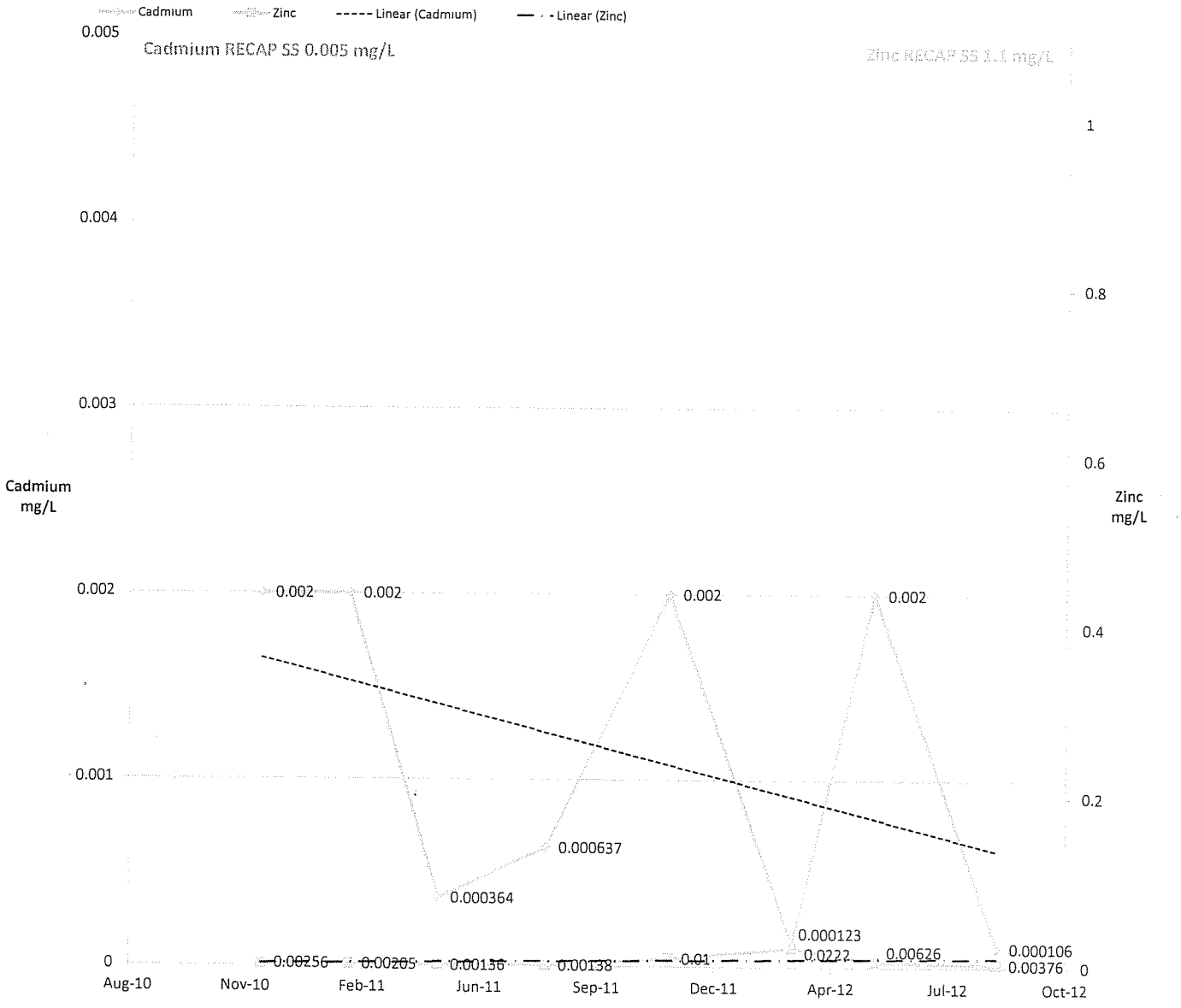
(b) (6) Well Arsenic and Manganese



(b) (6) Well Nickel and Thallium



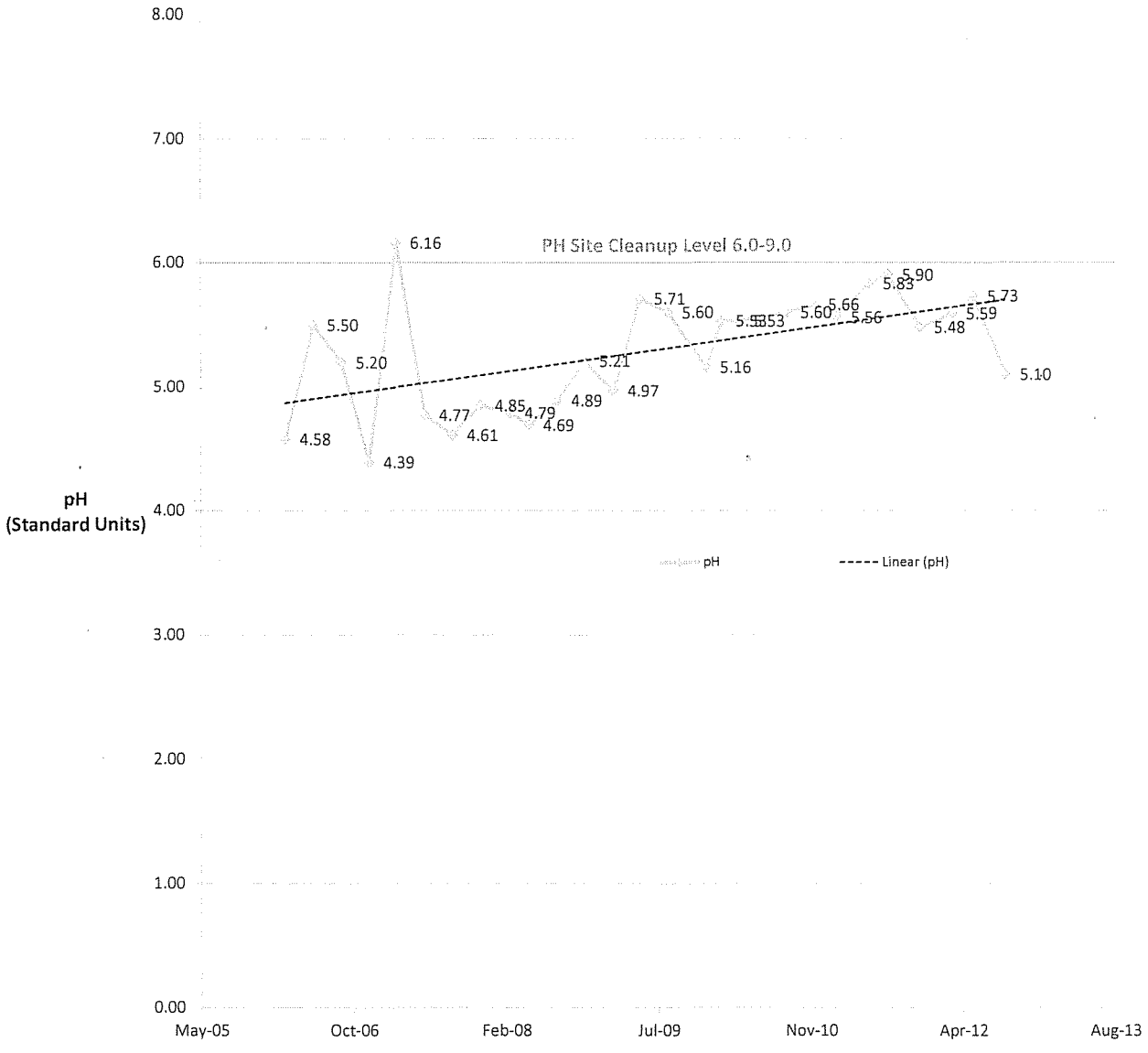
(b) (6) Well Cadmium and Zinc



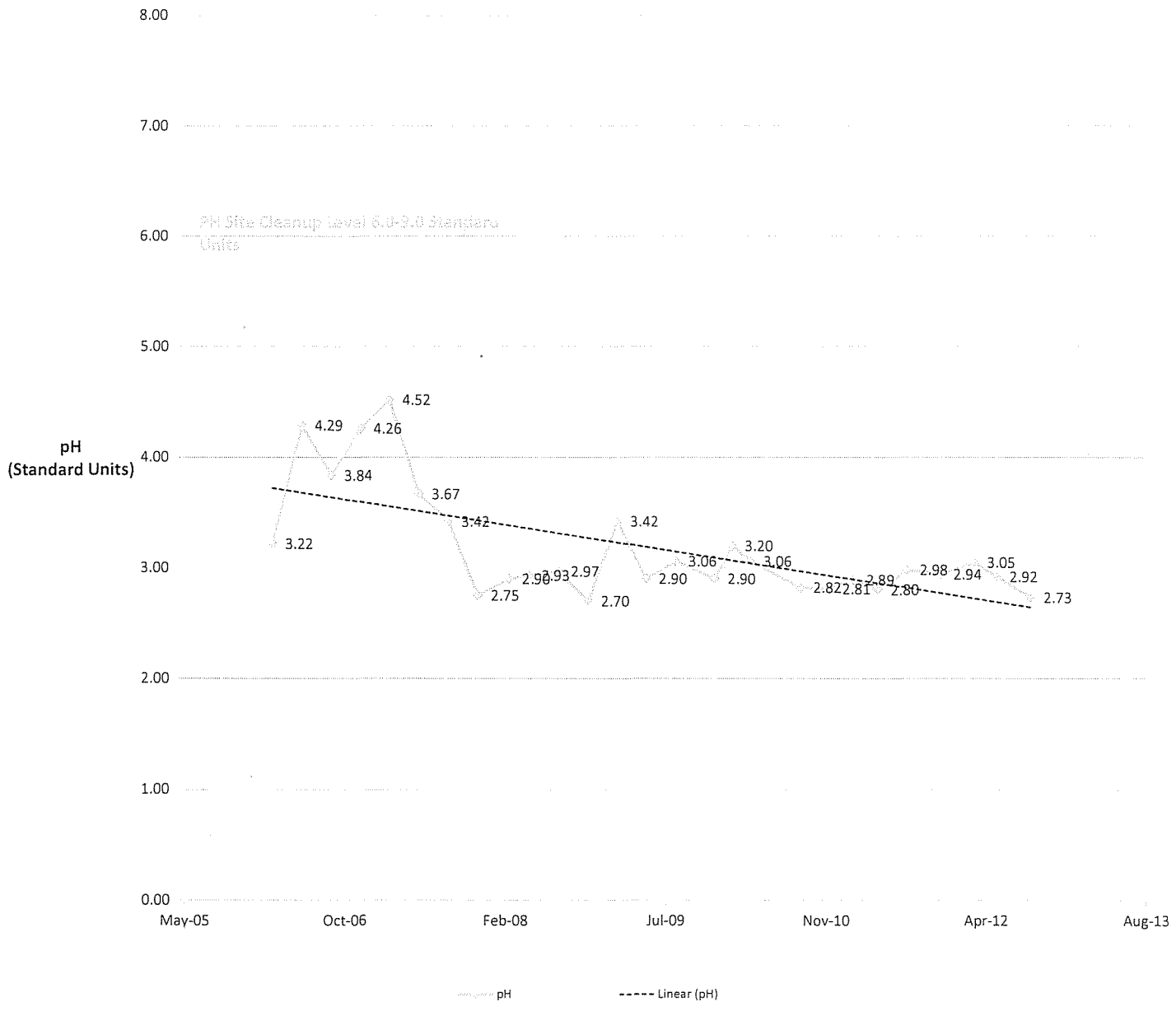
FIRST WATER BEARING ZONE

(SINCE 2006)

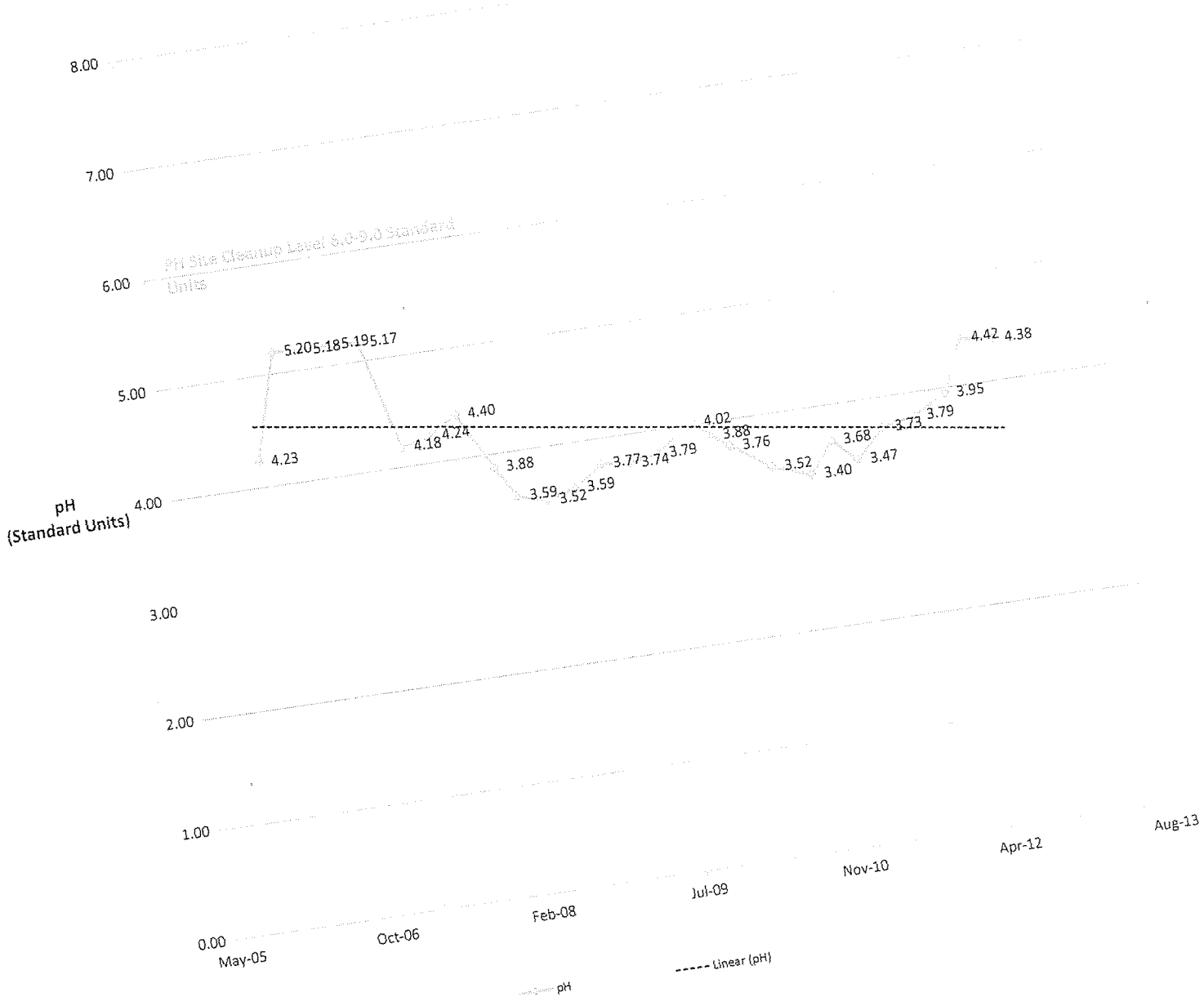
DW-1 pH (Downgradient of PRB Since 2006)

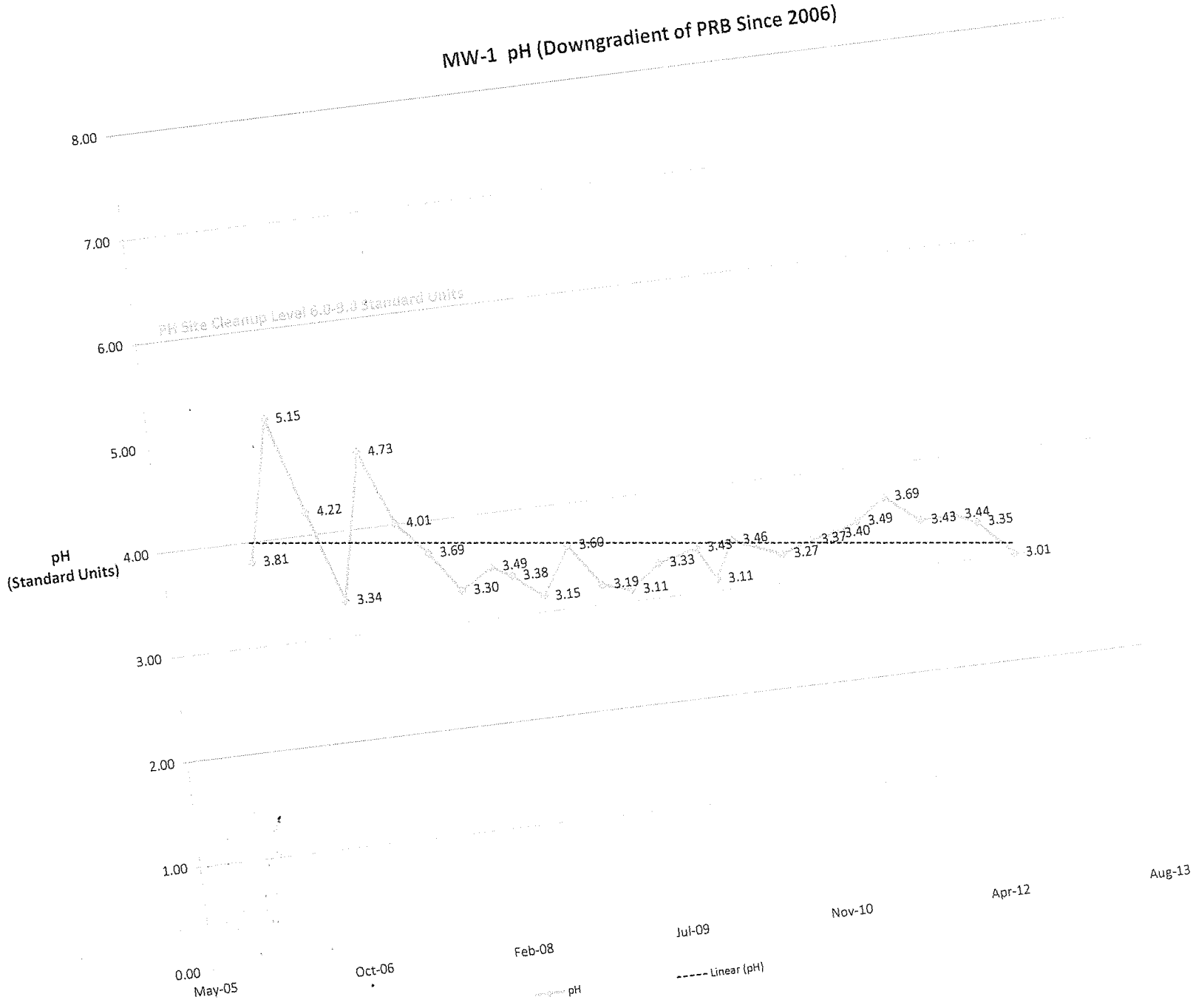


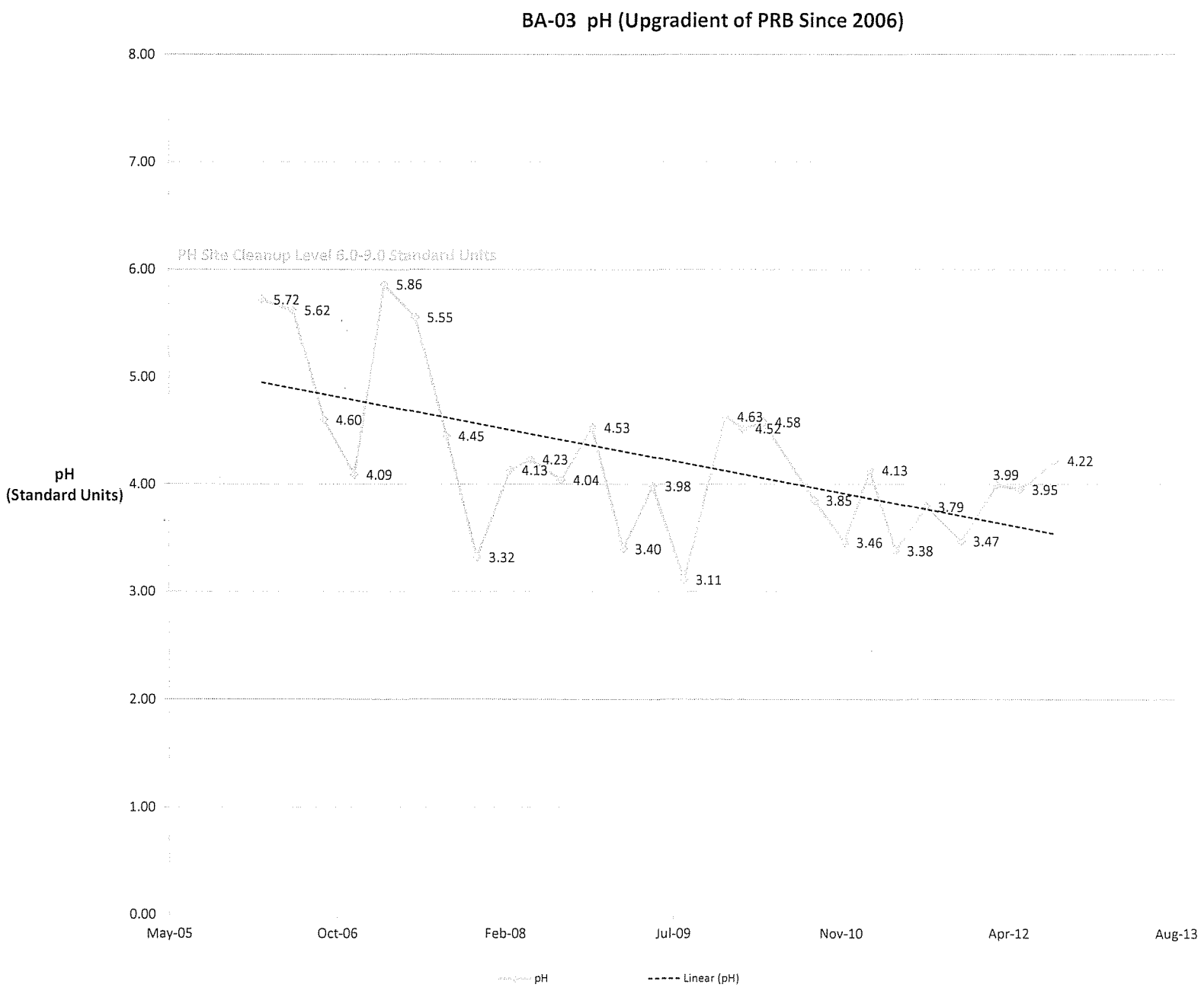
DW-2 pH (Upgradient of PRB Since 2006)



DW-3 pH (Outside of PRB Since 2006)

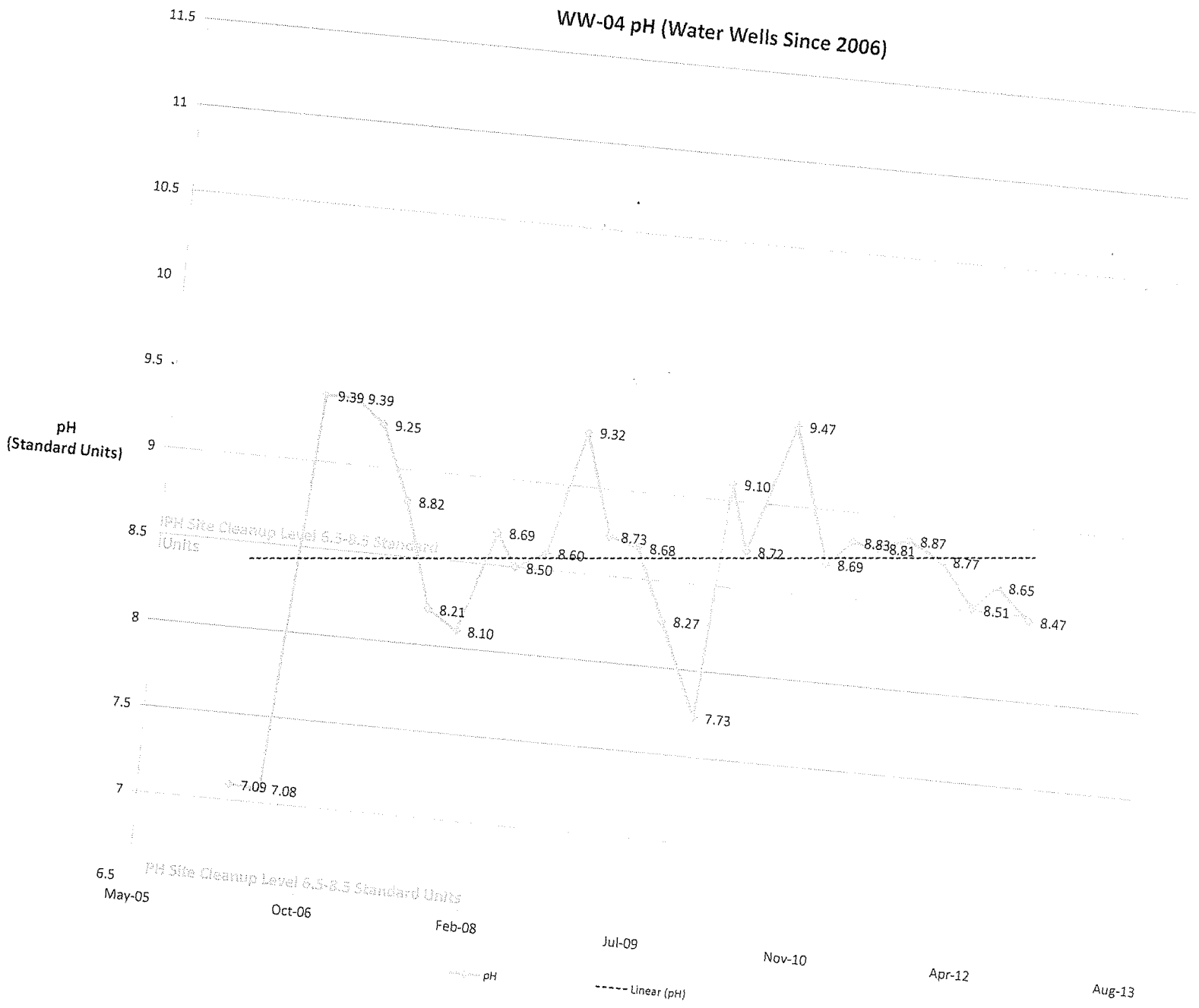


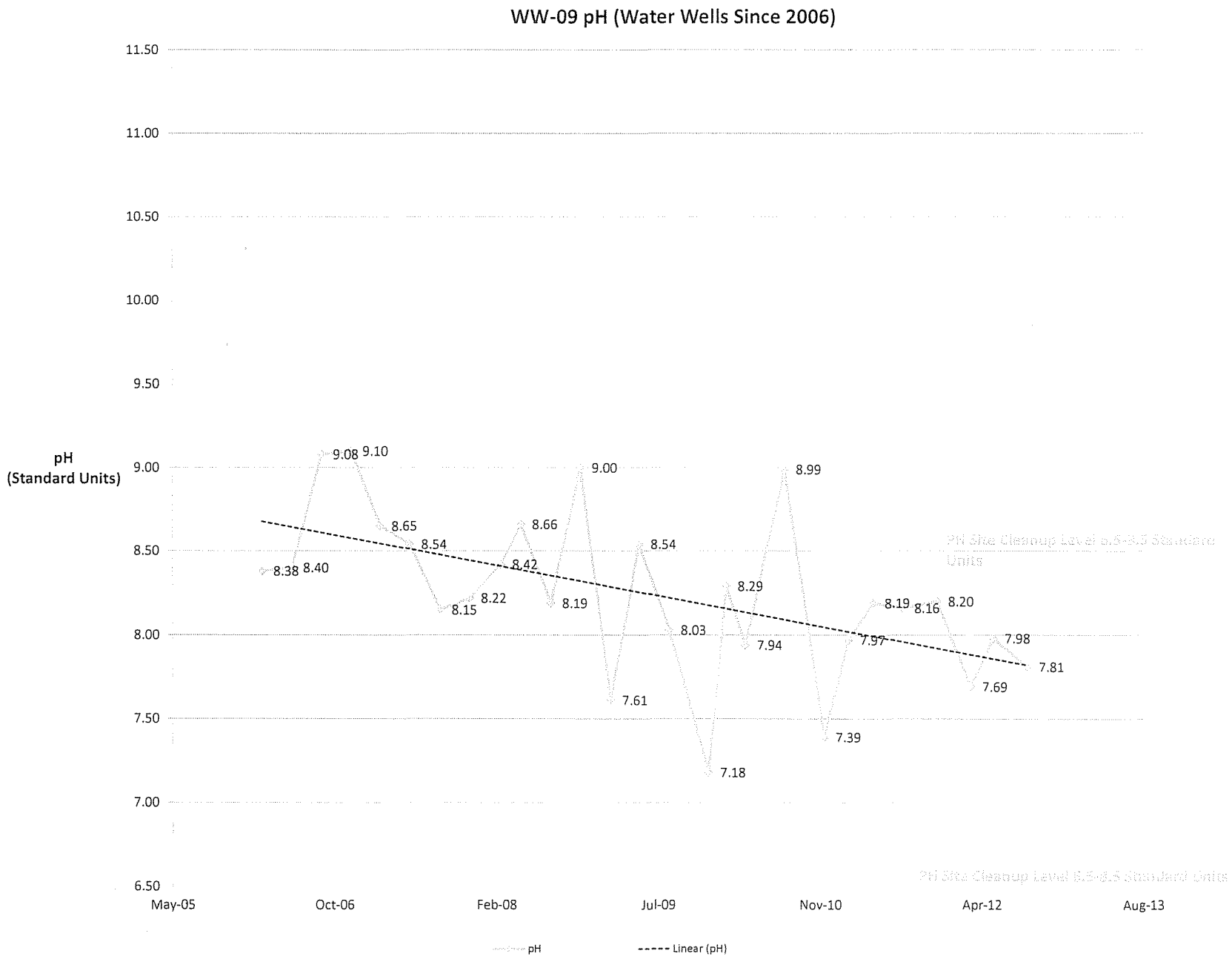

MW-1 pH (Downgradient of PRB Since 2006)
pH
(Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PH Site Cleanup Level 6.0-8.0 Standard Units
5.15
4.22
3.81
4.73
3.34
4.01
3.69
3.30
3.49
3.38
3.15
3.60
3.19
3.11
3.33
3.43
3.46
3.11
3.27
3.37
3.40
3.49
3.69
3.43
3.44
3.35
3.01
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
pH
Linear (pH)


BA-03 pH (Upgradient of PRB Since 2006)
pH
(Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
PH Site Cleanup Level 6.0-9.0 Standard Units
5.72
5.62
4.60
4.09
5.86
5.55
4.45
3.32
4.13
4.23
4.04
4.53
3.40
3.98
3.11
4.63
4.52
4.58
3.85
3.46
4.13
3.38
3.79
3.47
3.99
3.95
4.22
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
pH
Linear (pH)

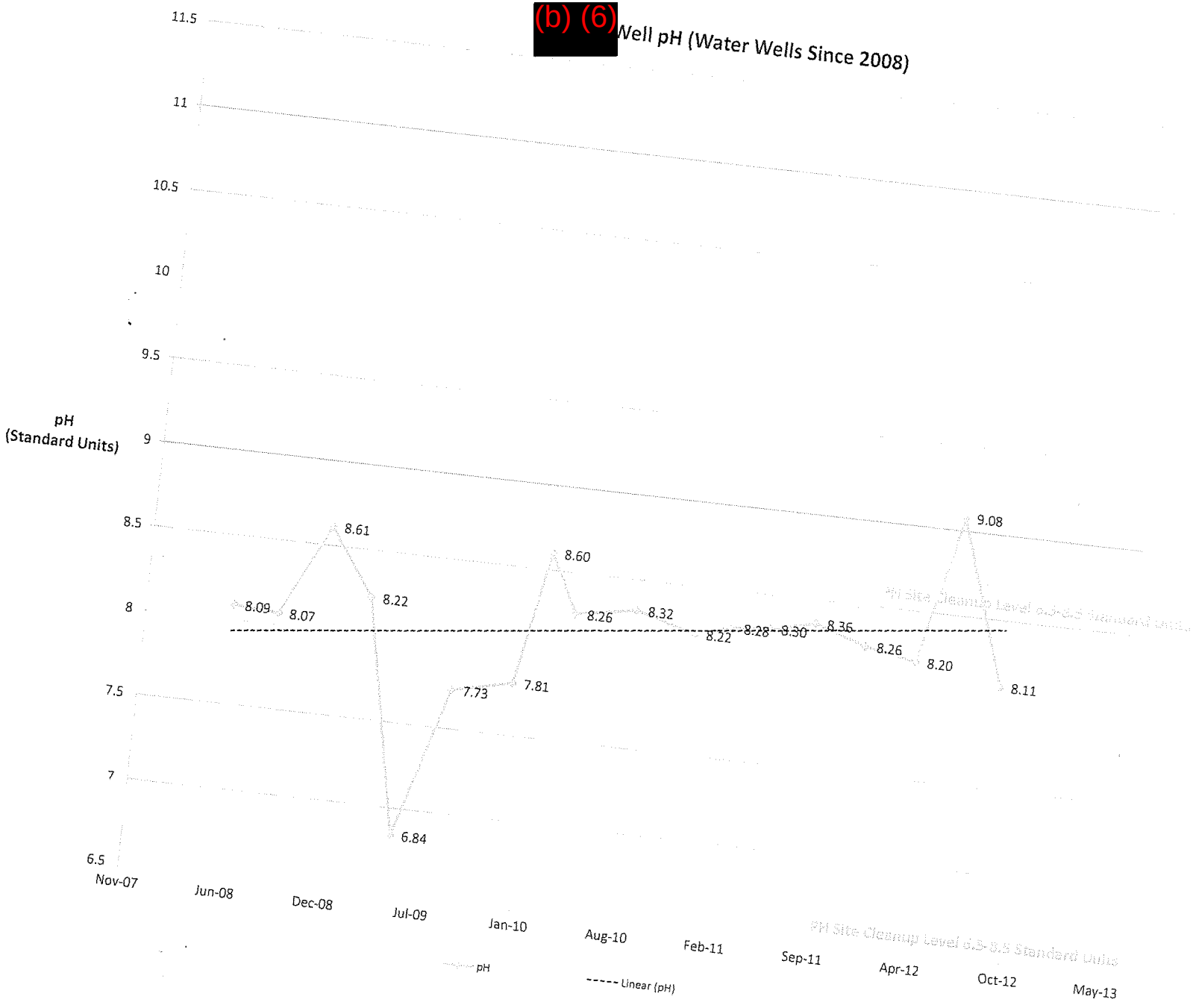
WATER WELLS

(SINCE 2006)


WW-04 pH (Water Wells Since 2006)
pH
(Standard Units)
11.5
11
10.5
10
9.5
9
8.5
8
7.5
7
6.5
PH Site Cleanup Level 6.5-8.5 Standard Units
9.39
9.39
9.25
8.82
8.69
8.50
8.21
8.10
7.09
7.08
9.32
8.73
8.68
8.60
8.27
7.73
9.10
9.47
8.72
8.69
8.83
8.81
8.87
8.77
8.65
8.51
8.47
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
pH
Linear (pH)


WW-09 pH (Water Wells Since 2006)
pH
(Standard Units)
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
8.38
8.40
9.08
9.10
8.65
8.54
8.15
8.22
8.42
8.66
8.19
9.00
7.61
8.54
8.03
7.18
8.29
7.94
8.99
7.39
7.97
8.19
8.16
8.20
7.69
7.98
7.81
pH
Linear (pH)

(b) (6) [redacted] Well pH (Water Wells Since 2008)



ATTACHMENT D

DATA VALIDATION PACKAGE

Data Validation Report

DELATTE METALS PROJECT

SDG: L0019373 **October 2012**

INTRODUCTION

Disclaimer

The opinions expressed and the qualifiers and values assigned by TerraBase Incorporated™ (TerraBase) are based on information provided to us in a hardcopy raw data package and/or an electronic deliverable.

TerraBase assumes this information accurately and completely represents the samples and information received by the laboratory, the analyses performed by the laboratory, and the raw data and results provided by the laboratory.

If TerraBase discovers that for any reason the information is inaccurate or incomplete, or non-representative of the site, TerraBase reserves the right to modify or withdraw any information contained in this report.

DELATTE METALS PROJECT

DATA VALIDATION REPORT

SDG: L0019373

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2012

INTRODUCTION

Purpose of the Validation Report

Analytical data validation is a confirmatory procedure that evaluates client-generated laboratory data in accordance with definitive regulatory performance standards set forth by the USEPA.[1,2] TerraBase Incorporated™ (TerraBase) provides client assistance with data validation to ensure that analytical data are complete, in compliance with laboratory protocols, in agreement with the project data quality objectives, and are technically valid and legally defensible.

Format of the Introduction Section

The introduction contains summary tables that permit the reader easy access to the validated detected results. The tables are identified as: 1) ***Table E 1*** *Sample Identification Cross-Reference Table*, 2) ***Table E 2*** *Summary of Validated Sample Detects Sorted by Client Sample and Fraction* and 3) ***Table E 3*** *Summary of Validated Analyte Detects Sorted by Fraction, Analyte and Client Sample.* A brief description of the contents of each table is presented below.

Executive Summaries:

1) ***Table E 1*** *Sample Identification Cross-Reference Table:* This table is a cross-reference of client sample names and laboratory names. It also references any consultants sample names, if they are available.

2) ***Table E 2*** *Summary of Validated Sample Detects Sorted by Client Sample and Fraction:* Identification of all post-validation detected analytes by client or site sample location, fraction and analyte. The order of the analytical fractions appearing in this report follows the typical order found in a laboratory data package. That is, volatiles appear first, followed by semivolatiles, pesticides, herbicides, metals and conventionals. The detected analytes of each fraction are also displayed according to their order of appearance in the data package. This table also shows the sample type, sample matrix, extraction level, dilution factor and the method quantitation limits (MQL).

3) ***Table E 3*** *Summary of Validated Analyte Detects Sorted by Fraction, Analyte and Client Sample:* Identification of all post-validation detected analytes by fraction, analyte and client site/sample location.

---

[1]National Functional Guidelines For Organic Data Review, USEPA, October 1999
[2]National Functional Guidelines For Inorganic Data Review, USEPA, February 1994.

INTRODUCTION

Qualifier Definitions

- U - The analyte was analyzed for , but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
- N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value represents its approximate concentration.
- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

NOTES:

1. The results for 31 total water samples were received by TerraBase, Inc. on October 2, 2012. Four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria.
2. Client samples BC-03, BA-01, BA-09A, and SOUTH WELL were the four samples that full data validation was requested on. This request was made on October 9, 2012.
3. Arsenic, cadmium, lead, nickel, thallium, zinc and manganese were analyzed by the laboratory as per the chain of custody.
4. Dissolved metals were also requested on the COC for client samples MW-04 and DW-01.
5. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
6. Duplicate #1 was of client sample BB-01.
7. Duplicate #2 was of client sample BA-01A.
8. Duplicate #3 was of client sample MW-A.
9. Duplicate #4 was of client sample BC-07.
10. Samples BC-17 and BC-07 were requested on the COC for total metals MS/MSD analysis.
11. The laboratory performed MS/MSD analysis for dissolved metals also on MW-04..
12. All quality control results were used for validation purposes.
13. Samples BC-17 total and MW-4 dissolved were all used for a post digestion spike and post digestion spike duplicate analysis.

14. Samples BC-17 total, BC-17 total, and MW-4 dissolved were all used for linear dilution analysis

E1 - Sample Identification Cross-Reference Table

Site Samples Sorted by Fraction

Delatte Metals

L0019373

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **L0019373**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	BA-09A	L0019373-01A	Site Sample	Water	Low	08/20/2012 9:29
	BC-03	L0019373-07A	Site Sample	Water	Low	08/20/2012 12:03
	SOUTH WELL	L0019373-09A	Site Sample	Water	Low	08/20/2012 14:20
	BA-01	L0019373-14A	Site Sample	Water	Low	08/21/2012 9:15

E2 - Summary of Validated Sample Detects

Sorted by Client Sample, Fraction, and Elution Order

Delatte Metals
L0019373

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0019373**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BA-01									
	Metals								
		Manganese	Site Sample	Water	Low	5	0.01	1.52 J	mg/L
		Nickel	Site Sample	Water	Low	5	0.01	0.0602	mg/L
BA-09A									
	Metals								
		Arsenic	Site Sample	Water	Low	1	0.004	0.00191 J	mg/L
		Zinc	Site Sample	Water	Low	1	0.01	0.145	mg/L
BC-03									
	Metals								
		Manganese	Site Sample	Water	Low	5	0.01	0.021 J	mg/L
SOUTH WELL									
	Metals								
		Manganese	Site Sample	Water	Low	1	0.002	0.0039 J	mg/L

Qualifiers:

J - Estimated

B - (Organics) Found in the associated method blank

D - Reported from a dilution

E - Exceeds calibration range

P - (Pesticides) Difference in column concentrations > 25%

B - (Inorganics) Lab qualifier - analyte detected between the instrument detection limit (IDL) and the RL

TerraBase®
TerraBase Inc

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0019373**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
	Arsenic								
		BA-09A	Site Sample	Water	Low	1	0.004	0.00191 J	mg/L
	Manganese								
		BA-01	Site Sample	Water	Low	5	0.01	1.52 J	mg/L
		BC-03	Site Sample	Water	Low	5	0.01	0.021 J	mg/L
		SOUTH WELL	Site Sample	Water	Low	1	0.002	0.0039 J	mg/L
	Nickel								
		BA-01	Site Sample	Water	Low	5	0.01	0.0602	mg/L
	Zinc								
		BA-09A	Site Sample	Water	Low	1	0.01	0.145	mg/L

Qualifiers:

J - Estimated

B - (Organics) Found in the associated method blank

D - Reported from a dilution

E - Exceeds calibration range

P - (Pesticides) Difference in column concentrations > 25%

B - (Inorganics) Lab qualifier - analyte detected between the instrument detection limit (IDL) and the RL

METAL

DELATTE METALS PROJECT

DATA VALIDATION REPORT

SDG: L0019373

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2012

TerraBase Data Validation Reporting Method

The purpose of this section is to give the data user an understanding of the ideas and concepts associated with data validation in general and with the TerraBase, Inc.™ (TerraBase) method of reporting validated data.

Analyte Level Validation Issues

TerraBase has developed a method for reporting validated data which utilizes a presentation of laboratory data issues and validation issues. This technique is based on the concept that issues encountered in the validation of laboratory data affect individual analytes of a sample. For instance, determining that a detected analyte in a sample was the result of laboratory contamination will cause only that analyte to be qualified.

TerraBase Codes: Standardizing the Description of Analytical Defects

TerraBase has standardized the data validation process by developing a database of codes employed by our analysts to describe the various analytical defects that may occur with an analysis. Each code is associated with written text describing the problem and the qualification that may be applied. For instance, the code that would be applied to an analyte that was determined to be a result of laboratory contamination would be BC (Blank Contamination). A complete listing of the analyte qualification parameters and their respective codes are presented below in *Analyte Qualification Codes*.

Analyte Qualification Codes

- CO Comment
- HT Holding Time
- IC Initial Calibration
- CC Continuing Calibration
- BC Blank Contamination
- MS Matrix Spike Effects
- TC Target Compound Identification
- CQ Compound Quantitation
- TI Tentatively Identified Compound
- SD System Monitoring Compound
- IS Internal Standard
- TU GC/MS Tune Criteria

- AS Analytical Sequence

Metal Section Reporting Format

The Metal Section of this data validation report is divided into 1) a text-formatted report which describes the contents of the laboratory data package and 2) a number of tabular reports which allow the data user to readily obtain information about the results of the data validation. Below is a description of the type of information contained in these tabular reports.

1) *Narrative of the Sample Delivery Group (SDG):* This section provides general information that pertains to the data package, such as the date of receipt, the number and type of samples, the laboratory performing the analysis, the instrumentation utilized to perform the analysis, the method of analysis, and the number and type of quality control parameters reported by the laboratory. Additionally, any other pertinent issues dealing with the laboratory or the data package may be noted in this section.

2) ***Table M1*** *Summary of Metal Data Validation Issues*: This table represents a bulleted summary of all metal samples that were validated for analyte level defects and provides a quick view of any issues that were associated with this sample delivery group. A bullet represents the assignment of a comment and/or qualifier by the data validator for a specific sample. The nature of a qualification can be found in ***Table M2*** *Metal Analyte Qualification Summary.*

3) ***Table M2*** *Metal Analyte Qualification Summary*: This tabular report displays all of the analyte-level data validation issues checked (*Analyte Qualification Codes*). The table indicates the client sample name, the analyte that has been qualified, the qualification code, the lab result and its qualifier and units, the validated result and the validation qualifier and units. Explanations of the actions taken by the validator are explained in ***Table M3*** *Metal Analyte Qualification Comments.*

4) ***Table M3*** *Metal Analyte Qualification Comments:* This report contains an explanation of each problem and any qualification which was documented in ***Table M2*** *Metal Analyte Qualification Summary.*

5) ***Table M4*** *Validated Metal Results*: This report displays all the analytical and validated information in a one-sample per-page view. It includes the metal analyte list, analytical extraction level, dilution factor, method quantitation limits per analyte, the results for each analyte and the units of measure for each analyte.

Narrative of Sample Delivery Group (SDG): L0019373

The results for thirty-one site water samples were analyzed by Accutest Gulf Coast for metals were received by TerraBase, Inc. for full data validation. The laboratory utilized an ICP-MS according to SW-846 Method 6020A. These samples were analyzed for total metals. Two of the samples were also analyzed for dissolved metals. The following quality control parameters were reported in the data package:

QC : ICP: 6020A TOTAL METALS As, Cd, Pb, Mn, Ni, Tl, Zn	QC : ICP: 6020A DISSOLVED METALS As, Cd, Pb, Mn, Ni, Tl, Zn
• 2 method blank(s)	• 1 method blank(s)
• 2 matrix spike(s)	• 1 matrix spike(s)
• 2 matrix spike duplicate(s)	• 1 matrix spike duplicate(s)
• 0 lab duplicate(s)	• 0 lab duplicate(s)
• 2 linear dilution sample(s)	• 1 linear dilution sample(s)
• 1 post digestion spike(s)	• 1 post digestion spike(s)
• 1 post digestion spike duplicate(s)	• 1 post digestion spike duplicate(s)
• 2 laboratory control sample(s)	• 1 laboratory control sample(s)
• 0 laboratory control sample dup(s)	• 0 laboratory control sample dup(s)

NOTES:

1. The results for 31 total water samples were received by TerraBase, Inc. on October 2, 2012. Four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria.
2. Client samples BC-03, BA-01, BA-09A, and SOUTH WELL were the four samples that full data validation was requested on. This request was made on October 9, 2012.
3. Arsenic, cadmium, lead, nickel, thallium, zinc and manganese were analyzed by the laboratory as per the chain of custody.
4. Dissolved metals were also requested on the COC for client samples MW-04 and DW-01.
5. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
6. Duplicate #1 was of client sample BB-01.
7. Duplicate #2 was of client sample BA-01A.
8. Duplicate #3 was of client sample MW-A.
9. Duplicate #4 was of client sample BC-07.
10. Samples BC-17 and BC-07 were requested on the COC for total metals MS/MSD analysis.
11. The laboratory performed MS/MSD analysis for dissolved metals also on MW-04..
12. All quality control results were used for validation purposes.
13. Samples BC-17 total and MW-4 dissolved were all used for a post digestion spike and post digestion spike duplicate analysis.

14. Samples BC-17 total, BC-17 total, and MW-4 dissolved were all used for linear dilution analysis

M1 - Summary of Metal Data Validation Issues

Sorted by SDG Print Sequence Number

Delatte Metals
L0019373

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0019373**

	Analyte Qualification							
Client Sample	AS	CO	HT	IC	CC	BC	MS	CQ
BA-01						•	•	
BA-09A						•	•	
BC-03						•	•	
SOUTH WELL						•	•	

All samples were validated. A bullet (•) denotes sample qualification.

Analyte Qualification Codes:

AS - Analytical sequence
CO - Comment
HT - Holding time
IC - Initial calibration
CC - Continuing calibration
BC - Blank contamination
MS - Matrix spike effects
CQ - Compound/parameter quantitation

M2 - Metal Analyte Qualification Summary

Prepared by TerraBase, Inc

Delatte Metals
L0019373

Lab: SPLLAF / SPL Labs - Lafayette

SDG ID: L0019373

Client Sample	Analyte Name	AS	CO	HT	IC	CC	BC	MS	CQ	Lab Result		Units	Validated Result		Units
BA-01															
	Lead	-	-	-	-	-	6	-	-	0.00414	J	mg/L	0.005	U	mg/L
	Thallium	-	-	-	-	-	6	-	-	0.00212	J	mg/L	0.01	U	mg/L
	Cadmium	-	-	-	-	-	6	-	-	0.000566	J	mg/L	0.01	U	mg/L
	Manganese	-	-	-	-	-	-	20	-	1.52		mg/L	1.52	J	mg/L
	Zinc	-	-	-	-	-	6	-	-	0.0839		mg/L	0.0839	U	mg/L
BA-09A															
	Lead	-	-	-	-	-	6	-	-	0.00167		mg/L	0.001	U	mg/L
	Thallium	-	-	-	-	-	6	-	-	0.000953	J	mg/L	0.002	U	mg/L
	Cadmium	-	-	-	-	-	6	-	-	0.000589	J	mg/L	0.002	U	mg/L
	Manganese	-	-	-	-	-	6	20	-	0.0575		mg/L	0.002	U	mg/L
	Nickel	-	-	-	-	-	6	-	-	0.00603		mg/L	0.002	U	mg/L
BC-03															
	Lead	-	-	-	-	-	6	-	-	0.00303	J	mg/L	0.005	U	mg/L
	Thallium	-	-	-	-	-	6	-	-	0.0021	J	mg/L	0.01	U	mg/L
	Cadmium	-	-	-	-	-	6	-	-	0.000517	J	mg/L	0.01	U	mg/L
	Manganese	-	-	-	-	-	-	20	-	0.021		mg/L	0.021	J	mg/L
	Nickel	-	-	-	-	-	6	-	-	0.00154	J	mg/L	0.01	U	mg/L
	Zinc	-	-	-	-	-	6	-	-	0.0151	J	mg/L	0.05	U	mg/L
SOUTH WELL															
	Lead	-	-	-	-	-	6	-	-	0.000623	J	mg/L	0.001	U	mg/L
	Thallium	-	-	-	-	-	6	-	-	0.00042	J	mg/L	0.002	U	mg/L
	Cadmium	-	-	-	-	-	6	-	-	0.0000926	J	mg/L	0.001	U	mg/L
	Manganese	-	-	-	-	-	6	20	-	0.0039		mg/L	0.0039	J	mg/L
	Zinc	-	-	-	-	-	6	-	-	0.013		mg/L	0.013	U	mg/L

Analyte Qualification Codes:

AS - Analytical sequence
CO - Comment
HT - Holding time
IC - Initial calibration
CC - Continuing calibration
BC - Blank contamination
MS - Matrix spike effects
CQ - Compound/parameter quantitation

Analyte Qualifiers:

U - Non-detected
J - Estimated
R - Unusable
B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0019373**

Qualification Category: **BC**

Qualification Code: **6**

Qualification Description: Inorganic contamination was detected in a preparation blank and the detection limit for this analyte in the sample was raised using the "ten times rule."

Qualification Action: EPA methods do not allow blank results to be subtracted from the sample results. Instead, the level in the blank is used to establish a new or higher detection limit for those analytes found in the blank. When there is contamination in the preparation blank above the reporting limit, the "ten times rule" is applied to calculate a new detection limit. This is done by multiplying the blank's contamination value by ten; the value thus obtained becomes the "new" blank level. If the sample value is between the instrument detection limit and the new blank level, then the sample's value is used with a U qualifier. If the sample value is greater than the new blank level, then the detection limit should not be raised and no action is taken.

Qualification Category: **MS**

Qualification Code: **20**

Qualification Description: The recovery of the pre-digestion matrix spike for an analyte was high.

Qualification Action: The pre-digestion spike is prepared by adding a known amount of an analyte to the sample before the acid digestion. If the spike recovery is greater than acceptable limits, results in all samples with detected values for the affected analyte could be biased on the high side. All detected analyte results are qualified as estimated (J) and non-detects are not qualified.

Qualification Categories:

CO	- Comment	**MS**	- Matrix spike effects
HT	- Holding time	**TC**	- TCL compound ID
IC	- Initial calibration	**CQ**	- Compound/parameter quantitation
CC	- Continuing calibration	**TI**	- Tentatively identified compound
BC	- Blank contamination	**SD**	- Surrogate deficiencies
		IS	- Internal standard

M4 - Validated Metal Results

Delatte Metals
L0019373

Client Sample ID:	**BA-09A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0019373**
Lab Sample ID:	**L0019373-01A**	Sampling Date/Time:	**08/20/2012 9:29**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.001 U	mg/L	*
7440-28-0	Thallium	6020	1	0.002	0.002 U	mg/L	*
7440-38-2	Arsenic	6020	1	0.004	0.00191 J	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.002 U	mg/L	*
7439-96-5	Manganese	6020	1	0.002	0.002 U	mg/L	*
7440-02-0	Nickel	6020	1	0.002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.145	mg/L	

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

***** - Modification by data validation

M4 - Validated Metal Results

Delatte Metals
L0019373

Client Sample ID:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0019373**
Lab Sample ID:	**L0019373-07A**	Sampling Date/Time:	**08/20/2012 12:03**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	5	0.005	0.005 U	mg/L	*
7440-28-0	Thallium	6020	5	0.01	0.01 U	mg/L	*
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L	
7440-43-9	Cadmium	6020	5	0.01	0.01 U	mg/L	*
7439-96-5	Manganese	6020	5	0.01	0.021 J	mg/L	*
7440-02-0	Nickel	6020	5	0.01	0.01 U	mg/L	*
7440-66-6	Zinc	6020	5	0.05	0.05 U	mg/L	*

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

***** - Modification by data validation

M4 - Validated Metal Results

Delatte Metals
L0019373

Client Sample ID:	**SOUTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0019373**
Lab Sample ID:	**L0019373-09A**	Sampling Date/Time:	**08/20/2012 14:20**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.001 U	mg/L	*
7440-28-0	Thallium	6020	1	0.002	0.002 U	mg/L	*
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.001 U	mg/L	*
7439-96-5	Manganese	6020	1	0.002	0 0039 J	mg/L	*
7440-02-0	Nickel	6020	1	0 002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.013 U	mg/L	*

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

***** - Modification by data validation

M4 - Validated Metal Results

Delatte Metals
L0019373

Client Sample ID:	**BA-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0019373**
Lab Sample ID:	**L0019373-14A**	Sampling Date/Time:	**08/21/2012 9:15**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	5	0.005	0.005 U	mg/L	*
7440-28-0	Thallium	6020	5	0.01	0.01 U	mg/L	*
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L	
7440-43-9	Cadmium	6020	5	0.01	0.01 U	mg/L	*
7439-96-5	Manganese	6020	5	0.01	1.52 J	mg/L	*
7440-02-0	Nickel	6020	5	0.01	0.0602	mg/L	
7440-66-6	Zinc	6020	5	0.05	0.0839 U	mg/L	*

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

***** - Modification by data validation

DELATTE METALS PROJECT

ALL LAB LEVEL RESULTS

SDG: L0019373

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2012

E1 - Sample Identification Cross-Reference Table

Site Samples Sorted by Fraction

Delatte Metals

L0019373 ALL

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **0019373A**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	BA-09A	L0019373-01A	Site Sample	Water	Low	08/20/2012 9:29
	BA-09	L0019373-02A	Site Sample	Water	Low	08/20/2012 9:52
	MW-4	L0019373-03A	Site Sample	Water	Low	08/20/2012 10:14
	MW-4	L0019373-03B	Dissolved TRG	Water	Low	08/20/2012 10:14
	WW-09	L0019373-04A	Site Sample	Water	Low	08/20/2012 10:35
	WW-04	L0019373-05A	Site Sample	Water	Low	08/20/2012 11:10
	(b) (6) WELL	L0019373-06A	Site Sample	Water	Low	08/20/2012 11:26
	BC-03	L0019373-07A	Site Sample	Water	Low	08/20/2012 12:03
	BB-01	L0019373-08A	Site Sample	Water	Low	08/20/2012 14:09
	SOUTH WELL	L0019373-09A	Site Sample	Water	Low	08/20/2012 14:20
	BC-17	L0019373-10A	Site Sample	Water	Low	08/20/2012 14:55
	NORTH WELL	L0019373-11A	Site Sample	Water	Low	08/20/2012 14:58
	BC-21R	L0019373-12A	Site Sample	Water	Low	08/21/2012 8:23
	BA-01A	L0019373-13A	Site Sample	Water	Low	08/21/2012 8:49
	BA-01	L0019373-14A	Site Sample	Water	Low	08/21/2012 9:15
	DW-03	L0019373-15A	Site Sample	Water	Low	08/21/2012 9:55
	PW-04	L0019373-16A	Site Sample	Water	Low	08/21/2012 10:22
	DW-02	L0019373-17A	Site Sample	Water	Low	08/21/2012 10:49
	BA-05A	L0019373-18A	Site Sample	Water	Low	08/21/2012 11:48
	BA-05	L0019373-19A	Site Sample	Water	Low	08/21/2012 12:40
	MW-A	L0019373-20A	Site Sample	Water	Low	08/21/2012 14:11
	DW-01	L0019373-21A	Site Sample	Water	Low	08/21/2012 14:50
	DW-01	L0019373-21B	Dissolved TRG	Water	Low	08/21/2012 14:50
	MW-01	L0019373-22A	Site Sample	Water	Low	08/21/2012 15:11
	BA-03A	L0019373-23A	Site Sample	Water	Low	08/22/2012 8:28
	BA-03	L0019373-24A	Site Sample	Water	Low	08/22/2012 9:08
	MW-2	L0019373-25A	Site Sample	Water	Low	08/22/2012 9:46
	BC-07	L0019373-26A	Site Sample	Water	Low	08/22/2012 10:23
	BC-25	L0019373-27A	Site Sample	Water	Low	08/22/2012 10:55
	DW-04	L0019373-28A	Site Sample	Water	Low	08/24/2012 11:02
	BC-19	L0019373-29A	Site Sample	Water	Low	08/24/2012 11:35
	MW-3	L0019373-30A	Site Sample	Water	Low	08/24/2012 12:50
	MW-6	L0019373-31A	Site Sample	Water	Low	08/24/2012 13:37
	DUPLICATE #1	L0019373-32A	Field Duplicate	Water	Low	08/20/2012 14:09
	DUPLICATE #2	L0019373-33A	Field Duplicate	Water	Low	08/21/2012 8:49
	DUPLICATE #3	L0019373-34A	Field Duplicate	Water	Low	08/21/2012 14:11
	DUPLICATE #4	L0019373-35A	Field Duplicate	Water	Low	08/22/2012 10:23

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BA-09A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-01A**	Sampling Date/Time.	**08/20/2012 9:29**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0 00167	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000953 J	mg/L
7440-38-2	Arsenic	6020	1	0 004	0 00191 J	mg/L
7440-43-9	Cadmium	6020	1	0 002	0.000589 J	mg/L
7439-96-5	Manganese	6020	1	0 002	0 0575	mg/L
7440-02-0	Nickel	6020	1	0 002	0 00603	mg/L
7440-66-6	Zinc	6020	1	0.01	0.145	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

TerraBase®
TerraBase Inc

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BA-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-02A**	Sampling Date/Time:	**08/20/2012 9:52**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0 00302 J	mg/L
7440-28-0	Thallium	6020	5	0 01	0 00214 J	mg/L
7440-43-9	Cadmium	6020	5	0 01	0.000731 J	mg/L
7439-96-5	Manganese	6020	5	0 01	4.97	mg/L
7440-02-0	Nickel	6020	5	0 01	0.223	mg/L
7440-66-6	Zinc	6020	5	0 05	0.3	mg/L
7440-38-2	Arsenic	6020	25	0 1	0 0212 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-03A**	Sampling Date/Time:	**08/20/2012 10:14**	SDG Page.	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00249	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000437 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000149 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0246	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00188 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0336	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**MW-4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Dissolved TRG**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-03B**	Sampling Date/Time:	**08/20/2012 10:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000047 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00021 U	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000506 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000778 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000153 J	mg/L
7440-66-6	Zinc	6020	1	0.006	0.00547 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

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Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**WW-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-04A**	Sampling Date/Time:	**08/20/2012 10:35**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00104	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000427 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000102 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.018	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00177 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00823 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**WW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-05A**	Sampling Date/Time:	**08/20/2012 11:10**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000568 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000423 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0000906 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00319	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00376 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	(b) (6) **WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-06A**	Sampling Date/Time:	**08/20/2012 11:26**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00226	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000426 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000106 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0233	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000572 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0425	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-07A**	Sampling Date/Time:	**08/20/2012 12:03**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00303 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.0021 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000517 J	mg/L
7439-96-5	Manganese	6020	5	0.01	0.021	mg/L
7440-02-0	Nickel	6020	5	0.01	0.00154 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.0151 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

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Client Sample ID:	**BB-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-08A**	Sampling Date/Time:	**08/20/2012 14:09**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0054	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000424 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00412	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000219 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0038	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00144 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00811 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**SOUTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-09A**	Sampling Date/Time:	**08/20/2012 14:20**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000623 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.00042 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0000926 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0039	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.013	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BC-17**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-10A**	Sampling Date/Time:	**08/20/2012 14:55**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.0514	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00226 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.00107 J	mg/L
7439-96-5	Manganese	6020	5	0.01	0.279	mg/L
7440-02-0	Nickel	6020	5	0.01	0.00186 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.00701 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**NORTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-11A**	Sampling Date/Time:	**08/20/2012 14:58**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0 00205	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000421 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000117 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0 00676	mg/L
7440-02-0	Nickel	6020	1	0.002	0 00028 J	mg/L
7440-66-6	Zinc	6020	1	0 01	0 00529 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BC-21R**	Matrix:	**Water**	Lab ID.	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-12A**	Sampling Date/Time:	**08/21/2012 8:23**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0 00117	mg/L
7440-28-0	Thallium	6020	1	0.002	0 00043 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0 000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000196 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0 00882	mg/L
7440-02-0	Nickel	6020	1	0 002	0 00214	mg/L
7440-66-6	Zinc	6020	1	0.01	0 00469 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

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Client Sample ID:	**BA-01A**	Matrix:	**Water**	Lab ID.	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID.	**L019373A**
Lab Sample ID:	**L0019373-13A**	Sampling Date/Time:	**08/21/2012 8:49**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000708 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000422 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00586	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000102 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.038	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000448 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00455 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-14A**	Sampling Date/Time:	**08/21/2012 9:15**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00414 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00212 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000566 J	mg/L
7439-96-5	Manganese	6020	5	0.01	1.52	mg/L
7440-02-0	Nickel	6020	5	0.01	0.0602	mg/L
7440-66-6	Zinc	6020	5	0.05	0.0839	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DW-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-15A**	Sampling Date/Time:	**08/21/2012 9:55**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00417	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000431 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.0028 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000198 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.203	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00942	mg/L
7440-66-6	Zinc	6020	1	0.01	0.02	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**PW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-16A**	Sampling Date/Time:	**08/21/2012 10:22**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00134	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000451 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.005	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000977 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.837	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0193	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0514	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

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Client Sample ID:	**DW-02**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-17A**	Sampling Date/Time:	**08/21/2012 10:49**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.0309	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00216 J	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.0272	mg/L
7439-96-5	Manganese	6020	5	0.01	11.8	mg/L
7440-02-0	Nickel	6020	5	0.01	0.594	mg/L
7440-66-6	Zinc	6020	5	0.05	1.49	mg/L
7440-38-2	Arsenic	6020	25	0.1	0.0589 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-05A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-18A**	Sampling Date/Time:	**08/21/2012 11:48**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00114	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000421 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00148 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00011 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0358	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000613 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00816 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BA-05**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-19A**	Sampling Date/Time:	**08/21/2012 12:40**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00259 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00211 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000454 J	mg/L
7439-96-5	Manganese	6020	5	0.01	10.1	mg/L
7440-02-0	Nickel	6020	5	0.01	0.0404	mg/L
7440-66-6	Zinc	6020	5	0.05	0.0132 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**MW-A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-20A**	Sampling Date/Time:	**08/21/2012 14:11**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00157	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000424 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000131 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00715	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00118 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00595 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**DW-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-21A**	Sampling Date/Time:	**08/21/2012 14:50**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00191	mg/L
7439-96-5	Manganese	6020	1	0.002	0.458	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00675	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000444 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0177	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.239	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000718 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

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Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**DW-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Dissolved TRG**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-21B**	Sampling Date/Time:	**08/21/2012 14:50**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000047 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.554	mg/L
7440-02-0	Nickel	6020	1	0.002	0 00736	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0 004	0.155	mg/L
7440-43-9	Cadmium	6020	1	0 002	0.000365 J	mg/L
7440-66-6	Zinc	6020	1	0 006	0 0169	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-22A**	Sampling Date/Time.	**08/21/2012 15:11**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00559	mg/L
7439-96-5	Manganese	6020	5	0.01	5.3	mg/L
7440-02-0	Nickel	6020	5	0.01	0.232	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00221 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.3	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.00405 J	mg/L
7440-38-2	Arsenic	6020	25	0.1	0.048 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BA-03A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-23A**	Sampling Date/Time:	**08/22/2012 8:28**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0025	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0363	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00125 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000424 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0106	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00144 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00017 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

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Client Sample ID:	**BA-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-24A**	Sampling Date/Time:	**08/22/2012 9:08**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0 0384	mg/L
7439-96-5	Manganese	6020	1	0.002	0.72	mg/L
7440-02-0	Nickel	6020	1	0.002	0 0256	mg/L
7440-28-0	Thallium	6020	1	0.002	0.00053 J	mg/L
7440-66-6	Zinc	6020	1	0 01	0 101	mg/L
7440-38-2	Arsenic	6020	1	0 004	0 00163 J	mg/L
7440-43-9	Cadmium	6020	1	0 002	0.0485	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-25A**	Sampling Date/Time:	**08/22/2012 9:46**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00204	mg/L
7439-96-5	Manganese	6020	1	0.002	0.761	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0516	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000741 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.16	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00153 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0532	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BC-07**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-26A**	Sampling Date/Time:	**08/22/2012 10:23**	SDG Page.	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00278 J	mg/L
7439-96-5	Manganese	6020	5	0.01	0.0655	mg/L
7440-02-0	Nickel	6020	5	0.01	0.00429 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00226 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000474 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.00996 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

TerraBase®
TerraBase Inc

Client Sample ID:	**BC-25**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-27A**	Sampling Date/Time:	**08/22/2012 10:55**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000568 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.181	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00203	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000423 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00972 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00158 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000227 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**DW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-28A**	Sampling Date/Time:	**08/24/2012 11:02**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00281 J	mg/L
7439-96-5	Manganese	6020	5	0.01	0.0543	mg/L
7440-02-0	Nickel	6020	5	0.01	0.00428 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.0021 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.0185 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00436 J	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000684 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

TerraBase®
TerraBase Inc

Metal Results

Delatte Metals
L0019373 ALL

Client Sample ID:	**BC-19**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-29A**	Sampling Date/Time:	**08/24/2012 11:35**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00282 J	mg/L
7439-96-5	Manganese	6020	5	0.01	0.0266	mg/L
7440-02-0	Nickel	6020	5	0.01	0.00478 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00211 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.0154 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00362 U	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000754 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

TerraBase®
TerraBase Inc

Client Sample ID:	**MW-3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-30A**	Sampling Date/Time:	**08/24/2012 12:50**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.00304 J	mg/L
7439-96-5	Manganese	6020	5	0.01	0.722	mg/L
7440-02-0	Nickel	6020	5	0.01	0.00529 J	mg/L
7440-28-0	Thallium	6020	5	0.01	0.00211 J	mg/L
7440-66-6	Zinc	6020	5	0.05	0.0256 J	mg/L
7440-38-2	Arsenic	6020	5	0.02	0.00516 J	mg/L
7440-43-9	Cadmium	6020	5	0.01	0.000687 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-6**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-31A**	Sampling Date/Time:	**08/24/2012 13:37**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0 00136	mg/L
7439-96-5	Manganese	6020	1	0.002	3.58	mg/L
7440-02-0	Nickel	6020	1	0.002	0.041	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000561 J	mg/L
7440-66-6	Zinc	6020	1	0 01	0.143	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.086	mg/L
7440-38-2	Arsenic	6020	5	0 02	0.00362 U	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-32A**	Sampling Date/Time:	**08/20/2012 14:09**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00503	mg/L
7439-96-5	Manganese	6020	1	0.002	0 00413	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00177 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000423 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0 0095 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0 0052	mg/L
7440-43-9	Cadmium	6020	1	0.002	0 000259 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-33A**	Sampling Date/Time.	**08/21/2012 8:49**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000846 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0 0394	mg/L
7440-02-0	Nickel	6020	1	0.002	0 00113 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000422 J	mg/L
7440-66-6	Zinc	6020	1	0 01	0 0076 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0 00756	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000152 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-34A**	Sampling Date/Time:	**08/21/2012 14:11**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00107	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00341	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00188 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000423 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00757 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00136 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000172 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**L019373A**
Lab Sample ID:	**L0019373-35A**	Sampling Date/Time:	**08/22/2012 10:23**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0 00231	mg/L
7439-96-5	Manganese	6020	1	0.002	0.694	mg/L
7440-02-0	Nickel	6020	1	0.002	0 0502	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000728 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0 154	mg/L
7440-38-2	Arsenic	6020	1	0.004	0 00173 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0 0502	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

ACCUTEST® LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # L0019373

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway Blvd. STE 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Jesse Hoppes jhoppes@semsinc.net
Phone # / Fax #: (504) 342-2340
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504) 451-8083

Project Information

Project Name: Delatte Metals Superfund
Street: Weinberger Rd.
City / State: Ponchatoula, LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals	Dissolved Metals	MS/MSD								LAB USE ONLY
	BA-09 A	8/20/12	9:29	NR	GW	1				1									X									1	
	BA-09	8/20/12	9:52	NR	GW	1				1									X									1	
	MW-4	8/20/12	10:14	NR	GW	2				2									X	X								2	
	WW-09	8/20/12	10:35			1				1									X									1	
	WW-04	8/20/12	11:10			1				1									X									1	
	Reagan Well	8/20/12	11:26			1				1									X									1	
	BC-03	8/20/12	12:03			1				1									X									1	
	BB-01	8/20/12	14:09			1				1									X									1	
	South Well	8/20/12	14:20			1				1									X									1	
	BC-17	8/20/12	14:55			3				3									X		X							3	
	North Well	8/20/12	14:58			1				1									X									1	
	BC-21 R					1				1									X									1	

Tumaround Time (Business days)

- [X] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Dissolved Samples were field filtered

Received at Baton Rouge Service Center
BW PHL2
accutest PM

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nick Rodehorst [signature]	8/27/12 4:40	1 [signature]	2 [signature]	8.27.12	2 1460 R E Guillas
3 R E Guillas	8/27 1610	3 [signature]	4		4
5		5	Custody Seal # CSOC ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 2.0 (AC)

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name: SEMS, Inc
Street Address: 3801 N. Causeway Blvd. STE 209
City State Zip: Metairie LA 70002
Project Contact / E-mail: Jesse Hoppes jhoppes@semsinc.com
Phone # / Fax #: (504) 372-2340
Sampler(s) Name(s) / Phone #: Nick Rodeheaver (504) 454-8083

Project Information

Project Name: Delatte Metals Superfund
Street: Weinberger Rd.
City State: Porchatoula, LA
Project #: 207-0016
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)
Company Name:
Street Address:
City State Zip:
Attention:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals	Dissolved Metals									LAB USE ONLY
	BA-01A	8/21/12	8:49	NR	GW	1				1									X									1	
	BA-01	8/21/12	9:15			1				1									X									1	
	DW-03	8/21/12	9:55			1				1									X									1	
	PW-04	8/21/12	10:22			1				1									X									1	
	DW-02	8/21/12	10:49			1				1									X									1	
	BA-05A	8/21/12	11:48			1				1									X									1	
	BA-05	8/21/12	12:40			1				1									X									1	
	MW-A	8/21/12	14:11			1				1									X									1	
	DW-01	8/21/12	14:50			2				2									X	X								2	
	MW-01	8/21/12	15:11			1				1									X									1	
	BA-03A	8/22/12	8:28			1				1									X									1	
	BA-03	8/22/12	9:08			1				1									X									1	

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Dissolved samples were field filtered

Received at Baton Rouge Service Center

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nick Rodeheaver	8/22/12 940	1	2	8.22.12 1420	2 RE Guillot
Relinquished by Sampler: 3 RE Guillot	Date Time: 8/22 1610	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # CSOC	☐ Intact ☐ Not intact	Preserved where applicable ☐ On Ice ☐ Cooler Temp: 2.0 (4.0)

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name: SEMS, Inc.
Street Address: 3801 N. Causeway STE 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Jesse Hoppes jhoppes@semsinc.net
Phone # / Fax #: (504) 342-2340
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504) 451-8083

Project Information

Project Name: Delatte Metals Superfund
Street: Weinberger Pkwy
City / State: Ponchatoula, LA
Project #: 207-0016
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals	Dissolved Metals	MS/MSD								LAB USE ONLY
	MW-2	8/22/12	9:46	NR	GW	1				1									X									1	
	BC-07	8/22/12	10:23	NR	GW	3				3									X		X							3	
	BC-25	8/22/12	10:55	↓	↓	1				1									X									1	
	DW-04	8/24/12	1102	↓	↓	1				1									X									1	
	BC-19	8/24/12	1135	↓	↓	1				1									X									1	
	MW-3	8/24/12	1250	↓	↓	1				1									X									1	
	MW-6	8/24/12	1337	↓	↓	1				1									X									1	
	Duplicate #1	8/20/12	1409	↓	↓	1				1									X									1	
	Duplicate #2	8/21/12	8:49	↓	↓	1				1									X									1	
	Duplicate #3	8/21/12	14:11	↓	↓	1				1									X									1	
	Duplicate #4	8/22/12	10:23	↓	↓	1				1									X									1	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Turnaround Time (Business days)

- [X] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Received at Baton Rouge Service Center

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nick Rodehorst [signature]	8/27/12 9:40	1 [signature]	2 [signature]	8.27.12	2 1420 R E Guillot
3 R E Guillot	8/27 1610	3 [signature]	4		4
5		5	Custody Seal # CSOC ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☑ Cooler Temp 2.0 (A10)

ATTACHMENT E

LEVEL IV DATA PACKAGE
(VOLUME II OF II)

CD ATTACHED

ATTACHMENT F

DAYTON LABORATORY ANALYTICAL REPORT

Sample Summary

Accutest SPL Lafayette

Job No: JB16537

SESMS Incorporated, Delatte Metals, LA
Project No: L0019826

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB16537-1	08/20/12	09:52	AJ	09/14/12	AQ	Water	BA-09
JB16537-2	08/21/12	10:49	AJ	09/14/12	AQ	Water	DW-02
JB16537-3	08/21/12	15:11	AJ	09/14/12	AQ	Ground Water	MW-01

Report of Analysis

Client Sample ID:	BA-09		
Lab Sample ID:	JB16537-1	Date Sampled:	08/20/12
Matrix:	AQ - Water	Date Received:	09/14/12
		Percent Solids:	n/a
Project:	SESMS Incorporated, Delatte Metals, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	12.4	2.0	ug/l	2	09/19/12	09/27/12	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA29508
(2) Prep QC Batch: MP66789

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DW-02		
Lab Sample ID:	JB16537-2	Date Sampled:	08/21/12
Matrix:	AQ - Water	Date Received:	09/14/12
		Percent Solids:	n/a
Project:	SESMS Incorporated, Delatte Metals, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	50.1	10	ug/l	10	09/19/12	10/01/12	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA29528
(2) Prep QC Batch: MP66789

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-01		
Lab Sample ID:	JB16537-3	Date Sampled:	08/21/12
Matrix:	AQ - Ground Water	Date Received:	09/14/12
		Percent Solids:	n/a
Project:	SESMS Incorporated, Delatte Metals, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	26.1	2.0	ug/l	2	09/19/12	09/27/12	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA29508
(2) Prep QC Batch: MP66789

RL = Reporting Limit

Accutest, Inc.
500 Ambassador Caffery Parkway

Scott, LA 70583-8544
(337) 237-4775

CHAIN-OF-CUSTODY RECORD

JB 16537

Company	SEMS, INC
Project Manager	Jackson, Amy K
Project Name	207-0016
QC Level	LVL4
Requested State	Louisiana

Subcontractor:

ACCUTEST LABORATORIES
2235 US HIGHWAY 130
DAYTON, NJ 08810

TEL: (732) 329-0200
FAX: (732) 329-3499
Acct #:

12-Sep-12

	Sample ID	Client Sample	Matrix	Collection Date	Due Date	Requested Tests: SW3010A	SW6020	Arsenic				
-1	L0019826-02A	BA-09	Water	08/20/12 9:52	09/25/12		1					
	L0019826-02A	BA-09	Water	08/20/12 9:52	09/18/12	1						
-2	L0019826-17A	DW-02	Water	08/21/12 10:49	09/25/12		1					
	L0019826-17A	DW-02	Water	08/21/12 10:49	09/18/12	1						
-3	L0019826-22A	MW-01	Water	08/21/12 15:11	09/25/12		1					
	L0019826-22A	MW-01	Water	08/21/12 15:11	09/18/12	1						

AMET 12

CHECKED SEP 13 2012
NO ice 09/13/12

Comments: Please analyze for total Arsenic only by method 6020. Please provide a Full Tier 1 data package. Please contact Amy Jackson for questions (800-304-5227). Please issue a full PDF report by e-mail (including COC documentation) to amyj@accutest.com.

needs 0.005 mg/L RL

	Date/Time		Date/Time
Relinquished by: [signature]	09/13/12	Received by: FedEx	5:15 pm
Relinquished by: FedEx	9/14/12	Received by: [signature]	9/14/12 @ 9:30

1B

Fedex # 9173 7250 1887

JB16537: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES

Issued Date: 12/27/10 Rev 0.0

Intercompany Request Form

TB 16537

Date:

Receiving Accutest Facility (Check):

Dayton, NJ___XX___ Marlborough, MA_____ Orlando, FL_____ Houston, TX _____ Denver, CO_____

San Jose, CA_____ Lafayette,LA_____ Traverse,MI_____

Receiving Accutest PM: Vicky Pushkova

Results Needed by: 9/25/12

Result to: Amy Jackson

Original labs client name: SEMS, Incorporated
Original labs project name: Delatte Metals

Originating lab Work Order#: L0019826

Special Detection limits Y* or N:

EDD Requirements (List type):

Analytical Request:

Compound List * or Parameter	Analytical Method	Matrix	Number of Smpls	Client Specific MS/MSD Samples Y or N	Data Pkg Level Code**	Cost
Arsenic	6020	Water	3	N	FULT1	$18 /each

*Attached

** Guide attached

Receiving Lab Approval :

Date:

Comment/Notes: Full Tier 1 data package required. Cost includes data package.

TB16537: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB16537 **Client:** **Project:**

Date / Time Received: 9/14/2012 **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (5.5/5.5); 0

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

ATTACHMENT G

RECOMMENDED ANNUAL O&M/ REMEDY EVALUATION CHECKLIST

RECOMMENDED ANNUAL O&M /REMEDY EVALUATION CHECKLIST

Introduction and Purpose

Effective operation and maintenance (O&M) at Superfund sites generally is critical to ensure that remedies remain protective of human health and the environment.

The recommended Annual O&M Remedy Evaluation Checklist has been designed to help the Remedial Project Manager (RPM) capture data routinely collected during O&M in a way that can better evaluate the efficiency and effectiveness of the remedial action. This recommended checklist may also be used to evaluate an operating remedy prior to transferring the site to the State for O&M. In addition, remedy performance summarized using this recommended checklist can be used to communicate remedy progress to the local community, highlight potential issues before they become problems and help the RPM complete five-year reviews more efficiently.

The information that you collect using this recommended form should help you answer the following questions:

- Is the remedy achieving the remedial action objectives (RAOs), maintaining cleanup goals and/or achieving technology-specific performance goals?
- If the remedy is not achieving the established objectives and goals, what must I do to correct this and how can I document this?
- If the remedy is achieving the performance goals, objectives and performance standards, are there any opportunities to optimize the remedy to make it work more efficiently?

This recommended checklist is intended to be completed annually. It is recommended that any data that you use to complete this evaluation be attached to the checklist, as this will make completing the next year's evaluation easier.

This recommended checklist does not recommend the level of review carried out in the U.S. Environmental Protection Agency (EPA) five-year review process. However the recommended checklist contains review elements that are consistent with a five-year review process.

Instructions:

The recommended checklist is in Microsoft Word and was designed to be completed electronically. Most questions involve a short answer, yes/no response or simply checking the box. Questions that involve a short answer will have an expandable text box. For responses that ask to you to "select one," please double click on "select one" and choose the correct answer. If the information is not available for a particular question, please indicate this with a N/A. A site visit is strongly encouraged, but not required prior to completing the recommended checklist.

1. This evaluation is intended to be completed yearly once O&M activities have begun at a site and can be stored and maintained in an electronic format.
2. For large complex sites, consider completing a separate checklist for each Operable Unit (OU).
3. This evaluation should be based on information and documentation (e.g., O&M reports and monitoring data) that is readily available to the RPM.
4. Section VIII, "Technical Data and Remedy Performance," provides specific instructions regarding what data and information are important for this section. Data entered in Section VIII are used to evaluate the specific technology used in that remedial action (RA). Please note: *Section VIII, Appendix E, Other Remedy Types/Components* was designed to be used by the RPM for the annual review of O&M remedies and remedy components that are not addressed in Appendices A through D or by the separate *Recommended Annual O&M Remedy Evaluation Checklist for Contaminated Sediment Remedies*, OSWER #9355.0-118.
5. When you have completed the recommended checklist, please sign and date page 1 and place the completed document in the site file. Additionally, we recommend that you save the completed checklist electronically for use in completing the next year's evaluation.

Generally, including the Recommended Annual O&M/Remedy Evaluation Checklist in the site repository can provide the community with information about O&M status and remedy performance and can demonstrate that the Region is tracking performance to ensure that the remedy remains protective.

Acronym List

AS	Air Sparging	PCOR	Preliminary Close Out Report
CSM	Conceptual Site Model	PRGs	Preliminary Remediation Goals
GAC	Granular Activated Carbon	PRP	Potentially Responsible Party
ICs	Institutional Controls	RAO	Remedial Action Objective
LEL	Lower Explosive Limit	ROD	Record of Decision
LTRA	Long-Term Response Action	RPM	Remedial Project Manager
MNA	Monitored Natural Attenuation	RSE	Remediation System Evaluation
NPL	National Priorities List	SVE	Soil Vapor Extraction
O&F	Operational and Functional	TI Waivers	Technical Impracticability Waivers
O&M	Operation and Maintenance	USACE	U.S. Army Corps of Engineers
OSHA	Occupational Safety and Health Administration	VEB	Vertical Engineered Barrier
OU	Operable Unit	VOCs	Volatile Organic Compounds

RECOMMENDED ANNUAL O&M /REMEDY EVALUATION CHECKLIST

Please save electronically and send this completed checklist and any attachments to the site file and site repository.

I. SIGNATURES AND APPROVALS

RPM		RPM (If appropriate)		
Name:	Brian Sullivan, P.E. (SEMS)	Name:	Jesse Hoppes (SEMS)	
Telephone:	504-342-2340	Telephone:	504-342-2340	
Signature:	on behalf/B. Sul... Date:10/30/12	Signature:		Date:10/30/12

State Contact (if appropriate)		
Name:	Fernando Iturralde (LDEQ)	
Telephone:	225-219-3391	
Signature:		Date:

II. GENERAL SITE INFORMATION

Site Name:	Delatte Metals Superfunds Site		
State:	Louisiana		
Period Covered:	01/10/2011 to 09/30/2012		EPA Site ID:LAD052510344
Site Lead:	State Enforcement	Other, specify:	
Organization responsible for O&M operations:	State contractor		

Other, specify: ADA collects groundwater samples from within the Permeable Reactive Barrier (PRB) and performs hydraulic testing on an annual basis. SEMS, Inc. (SEMS) is the LDEQ state contractor and completes the O&M report, quarterly groundwater sampling and PRB inspection. In addition to the groundwater collected by LDEQ, surface water/groundwater interface water samples are being collected by the EPA. The USGS will conduct future samples of the piezometers downgradient of the PRB. A LDEQ subcontractor clears the PRB and performs fence repair.

Site Remedy Components (ref. Section VIII):		
Preliminary Close Out Report (PCOR) date:	22/09/2003	
Operational & Functional (O&F) date:	22/09/2004	
Last five-year review date:	14/07/2009	
NPL deletion date:	08/08/2005	
Did you make a site visit during this review?	☒ Yes ☐ No	Date: 20/08/2012
If no, why:		
Date of next planned checklist evaluation:	30/10/2013	
Location of Administrative Record/Site Files:	LDEQ	
During the site visit, was monitoring equipment operational?		☐ Yes ☐ No ☒ N/A
Please elaborate: The PRB is a sub-surface permeable reactive barrier that does not require onsite monitoring equipment.		
Has an Optimization Study been conducted at the site?	☐ N/A ☒ Yes ☐ No	Date:
If not, is one planned?	The site groundwater network was evaluated using the statistical tools found in the the Monitoring and Remediation Optimization System (MAROS) software and a final report was completed September 2009.	

List all site events since the last evaluation that impact or may impact remedy performance.
Chronology of events since last report (e.g., site visits, receipt of reports, equipment failures, shutdowns, vandalism, storm events): **Quarterly sampling and reporting for the monitor wells on site and PRB inspection.**
Elaborate on significant site events or visits to site: EPA has conducted additional sampling.

III. DOCUMENTS AND RECORDS

Because these documents may be required for the five-year review, verify what documents are currently available on-site, or note off-site location:

Document	Required	Not required	On-site	Off-site (indicate where)
O&M Manual	☒	☐	☐	☒ LDEQ Files
O&M Maintenance Logs	☒	☐	☐	☒ LDEQ Files
O&M Annual Reports	☒	☐	☐	☒ LDEQ Files
RA as-built drawings modified during O&M	☐	☒	☐	☐
Site-Specific Health and Safety Plan	☒	☐	☐	☒ SEMS, Inc.
Contingency/Emergency Response Plan	☐	☒	☐	☐
O&M/Occupational Safety and Health Administration (OSHA) Training Records	☒	☐	☐	☒ SEMS, Inc.
Settlement Monument Records	☐	☒	☐	☐
Gas Generation Records	☐	☒	☐	☐
Ground Water Monitoring Records	☒	☐	☐	☒ LDEQ Files
Surface Water/Sediment/Fish Monitoring Records**	☐	☒	☐	☐
Cap/Cover System Inspection Records	☐	☒	☐	☐
Leachate Extraction Records	☐	☒	☐	☐
Discharge Compliance Records	☐	☒	☐	☐
Institutional Controls (ICs) Review	☒	☐	☐	☒ Tangipahoa Clerk of Court
Other(s) (Please name each)	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

** Note: A separate O&M checklist has been developed for surface water/sediment remedies. For completeness, answer this question regarding documentation requirements and availability, and enter more detailed information in the surface water/sediment checklist.

IV. ADMINISTRATIVE ISSUES

Check all that apply:	Date Initiated:
☐ Explanation of Significant Differences in progress	
☐ Record of Decision (ROD) Amendment in progress	
☐ Site in O&F period	
☐ Long-Term Response Action (LTRA) in progress	
☐ LTRA Transition to O&M in progress	
☐ Notice of Intent to Delete site in progress	
☐ Partial Site Deletion in progress	
☐ Technical Impracticability (TI) Waivers in progress	
☐ Reuse Assessment or Reuse Plan in progress	
☐ Revised Risk Assessment in progress	

☐ Ecological OR ☐ Human Health	
☐ Other administrative issues:Additional data are being collected as a result of the recommendations listed in the Five-Year Review.	

VI. O&M COSTS

The purpose of this section is to document what is known about O&M costs for this site. It is realized that not all cost information will be readily available, but to the extent possible, please provide the following information, as this will help identify cost increases and flag potential budget issues before they arise.

What was the total annual O&M cost for the previous year?	$79,883
What is the expected total annual O&M cost for the upcoming year?	$79,883
Please provide an approximate breakout of the previous year's O&M costs below.	**Use either $ or %**
Analytical (e.g., lab costs):	20%
Materials (e.g., treatment chemicals, cap materials):	1%
Oversight (e.g., project management):	20%
Monitoring (e.g., ground water sampling):	57%
Utilities (e.g., electric, gas, phone, water):	0%
ICs (implementation and enforcement):	1%
Other (e.g., capital improvements, equipment repairs):	1%

Describe any unanticipated/unusually high or low O&M costs and potential future O&M funding issues.

These costs do not include clearing the PRB area, fence repair, EPA, USGS, ADA or other work performed at the site. These costs only pertain to the contract between the LDEQ and SEMS, Inc.

VII. INSTITUTIONAL CONTROLS (ICs)**

The purpose of the IC evaluation at the O&M phase is to determine if the ICs are implemented, effective and durable. The following references may be useful for completing this evaluation:

- *Institutional Controls Bibliography: Institutional Control, Remedy Selection, and Post Construction Completion Guidance and Policy* (OSWER 9355.0110, December 2005);
- *Supplement to the Comprehensive Five-Year Review Guidance; Evaluation of Institutional Controls* (OSWER 9355.7-12, working draft 3/17/05);
- *National IC Strategy to Ensure Institutional Controls Implementation at Superfund Sites* (OSWER 9355.0-106, September 2004); and
- *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanup* (OSWER 9355.0-74FS-P, September 2000).

** Note: A separate O&M checklist has been developed for surface water/sediment remedies. For completeness, answer this question regarding ICs, and enter more detailed information in the surface water/sediment checklist.

Identify each IC (media, objective, and instrument) implemented/to be implemented at the site. Attach an extra sheet if necessary. Land use is restricted to industrial and groundwater use of the first and second water-bearing zones are restricted.	
Are the ICs adequate to minimize the potential for human exposure and protect the integrity of the remedy? If no, please explain. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. The ICs will be reviewed for accuracy and applicability based on the results.The selected remedy for the Site currently protects human health and the environment because the remedy is performing as intended and institutional controls are in place restricting land and groundwater use. The remedy will remain protective of human health and the environment in the long-term provided O&M activities and surface water monitoring continue, and the institutional controls remain in place	☒ Yes ☒ No
Please identify the party responsible for compliance and enforcement of the IC. LDEQ	
Please describe what the ICs are intended to accomplish, who they are designed to inform, the source document for the IC, and where the IC information is located. Restrict landuse to industrial and restrict the use of groundwater in the first and second water-bearing zones (onsite only). These restrictions are filed with the Clerk of Court in the Tangiapahoa Courthouse and are associated with the land deed.	
Please identify the date when the ICs were implemented. If the ICs have yet to be implemented, please identify the party responsible for implementing the ICs and the scheduled implementation date. 9-22-04	
If the ICs have been implemented, are they still in place? If the ICs remain in place, please identify whether there is a planned termination date and, if so, what it is. The ICs are in place and will remain until determined otherwise by LDEQ. In accordance with LAC 33:I.l Chapter 13, if land use changes from industrial to non-industrial, the responsible party shall notify the LDEQ within 30 days and the AOI shall be reevaluated to determine if conditions are appropriate for the proposed land use.	
Are there reasons to clarify or modify the appropriate decision document(s) to improve the effectiveness and/or durability of the ICs? If yes, please explain and describe any plans to clarify/modify the document(s). Consideration should be given to those drinking water wells that have pH values above 8.5 s.u. that do not appear to be associated with the site.	☒ Yes ☐ No

VIII. TECHNICAL DATA AND REMEDY PERFORMANCE

The purpose of this section is to help prompt questions about remedy performance over the past year, the adequacy of monitoring activities to assess remedy performance, and changes in field conditions or understanding that could affect the remedy. Specific sections also prompt questions about remedy optimization. Addressing these questions on an annual basis can help to flag opportunities and potential issues to watch in the coming year and help inform future improvements in remedy O&M. The collection of annual checklists can also serve as documentation of when a potential issue was first identified, what was done to address it, and when it was addressed. Thus, an annual checklist can be a useful, succinct source of information to help RPMs recount O&M history.

Questions for specific remedy types (e.g., ground water pump-and-treat) are contained in Appendices A through D at the end of the form. Appendix E contains general questions that can be used to document technical data and remedy performance for remedies and remedy components that do not fit within the specific categories identified in the remainder of this checklist. Identify the remedy types in Section VIII.A, below, and complete a copy of each appendix that is applicable to the site. If the site includes multiple remedies or remedy components of the same type, please complete a copy of the applicable appendix for each remedy/component (e.g., if the remedy includes two separately managed containment areas, complete two copies of Appendix C, one for each area). A separate O&M checklist has been developed for surface water/sediment remedies and remedy components. If the site includes a surface water/sediment remedy, note this below and complete the surface water/sediment checklist.

A. Please identify the type(s) of remedy(ies) this Annual O&M Remedy Evaluation Checklist addresses:

- ☐ Ground Water Pump-and-Treat (please complete Appendix A)
- ☐ Ground Water Monitored Natural Attenuation (MNA) (please complete Appendix B)
- ☐ Ground Water or Soil Containment (please complete Appendix C)
- ☐ Soil Vapor Extraction/Air Sparging (please complete Appendix D)
- ☒ Other Remedy Types (please complete Appendix E)

IX. RECOMMENDATIONS

New Recommendations, from this annual review:

Recommendation	Party Responsible	Milestone Date

RECOMMENDED APPENDIX E. OTHER REMEDY TYPES/COMPONENTS

The following checklist is a set of questions that may be used by EPA RPMs for an annual review of the O&M of remedies and remedy components that are not addressed in Appendices A through D or the separate surface water/sediment remedy O&M checklist. This could include remedies/components that involve a technology that is not covered in these other materials or remedies/components where the O&M can be more efficiently reviewed using the more streamlined questions below. If the site includes multiple remedy components that are not covered elsewhere, multiple copies of this appendix, each applying to a different component or related set of components, could be completed.

A. Remedy Description and Goals

1. Review of current remedy goals, and measurements

The following questions can be used to document basic information about the remedy and remedy goals to provide context for the remainder of the information in this appendix.

Identify the remedy component(s) and associated systems and technologies being covered on this form: Permeable Reactive Barrier (PRB) and groundwater monitoring

What are the intermediate and final system goals? To adjust the pH and reduce the transport of metals prior to reaching the downgradient surface water body and the third water bearing zone.

What metrics (performance criteria) are being implemented to measure project progress towards meeting each goal? Monitor wells are being sampled quarterly to monitor pH and concentrations of Lead, Arsenic, Nickel, Thallium, Manganese, Zinc, and Cadmium. In total three water bearing zones and drinking water wells are being monitored. The water is being compared to the LDEQ RECAP Table 1 Groundwater Screening Standards.

What schedule has been established for measuring and reporting each metric? Quarterly Reporting

Based on new information or events since the last O&M review of this system/technology, is there a need to re-evaluate the remedy goals? If yes, identify the remedy goals that should be re-evaluated, the rationale, and any plans for re-evaluating the goals. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals.	☒ Yes ☐ No

2. Review of changes to the CSM

The following questions ask about changes in contamination and other field conditions that could affect the monitoring program, system operations, and other aspects of O&M. They provide context for questions in subsequent sections that ask whether action should be taken to modify the O&M program.

Do monitoring data indicate trends/patterns that are inconsistent with the CSM (or similar conceptual understanding of site conditions) that was used as the basis for design of the remedy/remedial component(s)? If yes, use this space to comment. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals and an updated CSM.	☒ Yes ☐ No
Have there been changes in field conditions (e.g., change in land/water use) that differ significantly from the conditions incorporated in the CSM (or similar conceptual understanding of site conditions) that was used as the basis for design of the remedy/remedial component(s)? If yes, use this space to comment.	☐ Yes ☒ No
Have new contaminant sources been identified? If yes, please describe the new sources and how they are they being addressed:	☐ Yes ☒ No

B. Remedy Performance Assessment

This section contains a series of questions that can be used to help assess whether the monitoring program and remediation systems O&M should be adjusted.

1. Monitoring Program	
Describe changes to the monitoring program that have been made since the last time you completed the O&M checklist for this remedy component.	
Are the baseline data and post-remedy data adequate to perform statistical comparisons and evaluate remedy performance? If no, what actions have been or are being taken in response? Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009.	☐ Yes ☒ No
Is high variability in the data interfering with or preventing a meaningful interpretation of the data?	☒ Yes ☐ No
If yes, could this situation be mitigated by increasing the density or frequency of data collection? Use this space to comment. The detection limits need to consistently remain below the screening criteria.	☐ Yes ☒ No
Based on changes in contamination or field conditions (see A.2 of this appendix), is there reason to modify the monitoring program? If yes, describe changes to the monitoring program that are most necessary. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was completed in July 2012.	☒ Yes ☐ No
Has the adequacy/redundancy and cost-effectiveness of the monitoring program been evaluated, including evaluation of sampling locations, frequency, sampling and analytical methods, monitoring parameters, and test methods? Use this space to comment. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was completed in July 2012.	☒ Yes ☐ No
Is there reason to modify the monitoring program to address inadequacies, remove redundancies, and/or improve its cost-effectiveness? If yes, describe changes to the monitoring program that would likely have the greatest impact. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. the groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was completed in July 2012.	☒ Yes ☐ No
Do you have adequate documentation (e.g., good quality O&M reports) and tools (e.g., software) to effectively manage and interpret monitoring data? If no, please explain how documentation and/or tools could be improved. **Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was**	☒ Yes ☐ No

completed in July 2012. These actions will lead to an updated O&M Plan and schedule.	
2. System Operations	
Describe changes to system operations that have been made since the last time you completed the O&M checklist for this remedy component.	
Is (are) the remedial system(s) covered under this appendix performing as expected relative to the remediation milestones and goal(s)? If no, what actions have been or are being taken in response? The selected remedy for the Site currently protects human health and the environment because the remedy is performing as intended and institutional controls are in place restricting land and groundwater use. The remedy will remain protective of human health and the environment in the long-term provided O&M activities and surface water monitoring continue, and the institutional controls remain in place.	☒ Yes ☒ No
Do monitoring data indicate trends/patterns that are consistent with remedial design expectations? If no, what actions have been or are being taken in response? Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was completed in July 2012.	☐ Yes ☒ No
Based on observations regarding contamination or field conditions (see A.2 of this appendix and previous questions in this section), is there reason to modify systems operations to improve remedy performance? If yes, describe changes to system operations that are most necessary. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was completed in July 2012.	☒ Yes ☐ No
Has an optimization study been conducted for the remedy/remedy component(s)? Use this space to comment. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☐ Yes ☒ No
Has the downtime associated with non-routine operations and maintenance exceeded expectations? If yes, what actions have been or are being taken to minimize downtime?	☐ Yes ☒ No
Based on optimization and downtime considerations, is there reason to modify systems operations to improve remedy performance? If yes, describe changes to system operations that are most necessary. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☐ No
3. Maintenance	
Are routine maintenance activities adequate to ensure the reliable operation of the remedial system(s)?	☒ Yes

If no, what changes to the maintenance program are most necessary?	☐ No
Have any major repairs to the remedial system(s) been required since the last time you completed the O&M checklist for this remedy/remedy component? If yes, describe the repairs, their impact on progress toward remediation milestones, and actions taken to minimize similar repairs in the future.	☐ Yes ☒ No
C. Cost Effectiveness	
Does information collected since the last O&M review suggest opportunities to reduce costs associated with equipment operations and maintenance? If yes, use this space to comment.	☐ Yes ☒ No
Does information collected since the last O&M review suggest opportunities to reduce costs associated with the monitoring program? If yes, use this space to comment.	☐ Yes ☒ No
D. Remedial Decisions: Indicate which of the following remedial decisions is appropriate at the present time and provide the basis for the decision.	
☐ No Change ☒ Modify/Optimize System ☒ Modify/Optimize Monitoring Program ☒ Modify ICs ☐ Implement Contingency/Alternative Remedy	
Basis for decision: The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and the report was completed in July 2012.	