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REDACTED VERSION

OPERATION AND MAINTENANCE REPORT
THIRD QUARTER 2013

DELATTE METALS SUPERFUND SITE
AGENCY INTEREST NO. 2328

DATE SUBMITTED:
OCTOBER 31, 2013

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PREPARED FOR

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OCTOBER 31, 2013

1.0 INTRODUCTION AND BACKGROUND 1
2.0 CHRONOLOGY OF EVENTS 3
3.0 OPERATION AND MAINTENANCE ACTIVITIES 5
3.1 ACCESS TO WELLS 6
3.2 MONITOR WELL INSPECTION 6
3.3 PERMEABLE REACTIVE BARRIER (PRB) INSPECTION 6
3.4 REVIEW OF INSTITUTIONAL CONTROLS 6
3.5 GROUNDWATER MONITORING, SAMPLING, AND ANALYTICAL PROCEDURES7
4.0 ANALYTICAL DATA REVIEW 8
4.1 CURRENT MONITORING PERIOD GROUNDWATER FLOW DIRECTION 8
4.2 CURRENT PERIOD CONSTITUENT CONCENTRATION 9
4.3 HISTORICAL GROUNDWATER MONITORING TRENDS 13
4.4 QUALITY ASSURANCE/QUALITY CONTROL AND UNUSUAL FINDINGS 16
5.0 CONCLUSIONS AND RECOMMENDATIONS 17

LIST OF TABLES

TABLE NUMBERS	TITLE
1	MONITORING WELL CONSTRUCTION DATA
2	WATER WELL CONSTRUCTION DATA
3	GROUNDWATER SAMPLING SUMMARY
4	CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
5	HISTORICAL GROUNDWATER MONITORING SUMMARY

LIST OF FIGURES

FIGURE NUMBERS	TITLE
1	FACILITY MAP
2	FIRST, SECOND, AND THIRD WATER BEARING ZONE POTENTIOMETRIC MAPS (2A, 2B, & 2C)
3	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL pH CONTOUR MAPS (3A, 3B, 3C, & 3D)
4	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL ARSENIC ISOCONCENTRATION MAPS (4A, 4B, 4C, & 4D)
5	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL CADMIUM ISOCONCENTRATION MAPS (5A, 5B, 5C, & 5D)
6	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL LEAD ISOCONCENTRATION MAPS (6A, 6B, 6C, & 6D)
7	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL MANGANESE ISOCONCENTRATION MAPS (7A, 7B, 7C, & 7D)
8	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL NICKEL ISOCONCENTRATION MAPS (8A, 8B, 8C, & 8D)
9	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL THALLIUM ISOCONCENTRATION MAPS (9A, 9B, 9C, & 9D)
10	FIRST, SECOND, AND THIRD WATER BEARING ZONE AND WATER WELL ZINC ISOCONCENTRATION MAPS (10A, 10B, 10C, & 10D)

LIST OF ATTACHMENTS

ATTACHMENT LETTER	TITLE
A	FIELD DATA SHEETS & WASTE MANIFESTS
B	LABORATORY ANALYTICAL REPORT
C	HISTORICAL CONCENTRATION VS. TIME GRAPHS
D	DATA VALIDATION PACKAGE
E	LEVEL IV DATA PACKAGE (CD ATTACHED)
F	RECOMMENDED ANNUAL O&M/ REMEDY EVALUTION CHECKLIST

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 3756521. 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 residences 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 long-term 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 monitor the metal concentrations and pH in the 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.
- December 12-14, 2012 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- January 31, 2013 – SEMS submitted the Operation and Maintenance Report – Fourth Quarter 2012 to the LDEQ for approval.
- February 18-21, 2013 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- May 3, 2013 – SEMS submitted the Operation and Maintenance Report – First Quarter 2013 to the LDEQ for approval.
- June 10-12, 2013 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- August 14, 2013 – SEMS submitted the Operation and Maintenance Report – Second Quarter 2013 to the LDEQ for approval.
- August 26 – 27, 2013 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- September 13, 2013 – SEMS mobilized to the site for disposal of purgewater and PPE from prior groundwater sampling events.
- October 31, 2013 – SEMS submitted the Operation and Maintenance Report – Third Quarter 2013 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 26th through 27th 2013, 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 of the monitoring wells was performed prior to sampling 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. No deficiencies were noticed during this sampling event.

3.3 PERMEABLE REACTIVE BARRIER (PRB) INSPECTION

The PRB was cleared by the LDEQ Contractor prior to the current sampling event. SEMS inspected the condition of the PRB during the current sampling event and noted the following:

- Areas of standing water are present near the east end of the PRB due to recent heavy rains.
- No fill is required in the PRB at this time.

The PRB will continue to be monitored quarterly.

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 facility 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 were recorded on field forms. The water quality readings were taken from the low flow cell and recorded on the field forms. Groundwater samples were collected following the stabilization of at least three of the following water quality parameters: temperature, pH, conductivity, turbidity, oxidation–reduction potential, and dissolved oxygen. The water quality parameters 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 prior to entry into 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 BA-01

and MW-04 had turbidity readings above 10 NTU during sampling and an additional sample was field filtered and analyzed for dissolved metals at each well. Dissolved metals analytical results were used to supersede the total metals results on the attached figures and 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, if applicable, are included in Attachment A.

It should be noted that additional drums and investigation-derived waste that are generated by the United States Geological Survey (USGS) are located adjacent to the drum storage area. The 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 EPA acceptable pH range:

- **First WBZ**: All monitor wells in the First WBZ were below the EPA acceptable pH range of 6.0-9.0 s.u.; pH readings ranged from 2.53 to 5.15 s.u.
- **Second WBZ**: Monitor wells MW-03, MW-04, BA-01, and BA-05 were below the EPA acceptable pH range of 6.5-8.5 s.u. with a minimum pH reading of 5.56 s.u. in monitor well BA-01.

- **Third WBZ**: Monitor well BB-01 was above the EPA acceptable pH range of 6.5-8.5 s.u. with a pH reading of 9.48 s.u.
- **Water Wells**: The South Well was above the EPA acceptable pH range of 6.5-8.5 s.u. with a pH reading of 8.93 s.u.

The following wells exhibited arsenic concentrations above the RECAP SS of 0.010 mg/L:

- **First WBZ**: Monitor wells DW-01, DW-02, DW-03, MW-01, BA-03, and BA-09 were above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.422 mg/L in monitor well DW-01.
- **Second WBZ**: No monitor wells sampled were reported above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.0072 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells sampled were reported above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.0086 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.0062 mg/L in water well WW-04.

The following wells exhibited cadmium concentrations above the RECAP SS of 0.005 mg/L:

- **First WBZ**: Monitor wells DW-02, MW-02, MW-06, and BA-03, were reported above the cadmium RECAP SS. The highest cadmium concentration was reported to be 0.251 mg/L in monitor well BA-03.
- **Second WBZ**: No monitor wells sampled were reported above the cadmium RECAP SS; all results were reported non-detect for cadmium.
- **Third WBZ**: No monitor wells sampled were reported above the cadmium RECAP SS; all results were reported non-detect for cadmium.
- **Water Wells**: No water wells sampled were reported above the cadmium RECAP SS; all results were reported non-detect for cadmium.

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

- **First WBZ**: Monitor wells DW-02 and BA-03 were reported above the site cleanup level for lead; the highest lead concentration was reported to be 0.268 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 0.0346 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 0.0057 mg/L in monitor well BB-01.
- **Water Wells**: No water wells sampled were reported above the site cleanup level for lead; all results were reported non-detect for lead.

The following wells exhibited manganese concentrations above the RECAP SS of 0.51 mg/L:

- **First WBZ**: All monitor wells were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 14.2 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 11.1 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 0.036 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 0.0259 mg/L in the (b) (6) Well.

The following wells exhibited nickel concentrations above the RECAP SS of 0.073 mg/L:

- **First WBZ**: Monitor wells DW-02, DW-03, MW-01, BA-03, and BA-09 were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.587 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 0.0431 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells sampled were reported above the nickel RECAP SS; all wells were reported non-detect for nickel.
- **Water Wells**: No water wells sampled were reported above the nickel RECAP SS; all wells were reported non-detect for nickel.

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

- **First WBZ**: Monitor wells DW-01, DW-02, DW-03, MW-01, MW-02, PW-04, BA-03, and BA-09 were reported above the thallium RECAP SS with elevated non-detect thallium concentrations at each well.
- **Second WBZ**: Monitor wells DW-04, MW-A, MW-04, BA-01, BA-05, BA-09A, BC-03, BC-07, BC-19, and BC-25 were reported above the thallium RECAP SS with elevated non-detect thallium concentrations at each well.
- **Third WBZ**: Monitor wells BA-03A, BA-05A, and BA-01A were reported above the thallium RECAP SS with elevated non-detect thallium concentrations at each well.
- **Water Wells**: Water wells WW-04, WW-09, and the (b) (6) Well were reported above the thallium RECAP SS with elevated non-detect thallium concentrations at each well.

The following wells exhibited zinc concentrations 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 1.57 mg/L.
- **Second WBZ**: No monitor wells were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.0659 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells were reported above the zinc RECAP SS; all wells were reported non-detect for zinc.

- **Water Wells:** No water wells sampled were reported above the zinc RECAP SS; all wells were reported non-detect for zinc.

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, and zinc
- The Second WBZ – pH, lead, and manganese
- The Third WBZ – pH
- The Water Wells – pH

The EPA has contracted the USGS to continue with 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 groundwater analytical and potentiometric data from the past eight quarters 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 graphing purposes, the reporting limit was used in place of all non-detected concentrations. 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: BA-03
Decreasing: DW-02 and DW-03

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

Decreasing: BA-09

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

Decreasing: MW-06

Stable: MW-02

Nickel: Increasing: DW-02, DW-03, MW-01, and BA-03

Stable: BA-09

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

Cadmium: Increasing: BA-03

Decreasing: DW-02, MW-01, MW-02, MW-06, and BA-03

Zinc: Increasing: DW-02

pH: Below 6.0 s.u. and stable: BA-03

Below 6.0 s.u. and decreasing: DW-01, DW-02, DW-03, MW-01, MW-02, MW-06, PW-04, and BA-09

Second WBZ Trends

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

Lead: Decreasing: BC-17

Manganese: Increasing: BA-05 and MW-03

Decreasing: BA-01

Nickel: Increasing: BA-05

Arsenic, Cadmium, Thallium, 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

Below 6.5 s.u. and stable: MW-04

Third WBZ 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 decreasing: 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: WW-04 and (b) (6) Well

Above 8.5 s.u. and decreasing: South Well and North Well

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 effectively increasing the pH towards neutrality. Two upgradient wells (BA-03 and DW-02) and two 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 two 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 downgradient 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 water wells evaluated offsite have had exceedances for pH, the trends for pH have been evaluated from 2006 to present for water wells WW-09 and WW-04 and from 2008 to present

for the (b) (6) Well. These additional graphs are provided in Attachment C. The trend for WW-09 shows that the pH is decreasing (8.6 s.u. to 7.9 s.u.) and approaching neutrality while the pH of WW-04 and the (b) (6) Well are both increasing (8.4 s.u to 8.9 s.u. and 7.9 s.u. to 8.7 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 (BC-19), Duplicate #2 (BC-17), Duplicate #3 (DW-03), and Duplicate #4 (BA-03). 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 North Well, DW-03, MW-A, and BA-03. The following changes were made to this report as a result of the data validation:

- Accutest reported the monitor well BA-03 cadmium result as 0.251 mg/L and the validated result was 0.251 mg/L with a J flag.

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:

- Metals concentrations at monitor well BA-03 were significantly higher during the current sampling event than they have been in recent years. Additionally, the pH was significantly lower than it has been in recent years. A duplicate sample was

analyzed at BA-03 and the duplicate results were comparable to the original. The sample was also validated by TerraBase and validation indicates that the laboratory results are accurate. All monitor wells are locked and showed no signs of vandalism during the sampling event.

- Monitor well BA-03 is a First WBZ well that is upgradient of the PRB. SEMS believes the elevation in metals concentrations in groundwater may be associated with the drop in pH.
- Twenty four of the thirty one monitor wells had non-detect thallium concentrations with detection limits above the RECAP SS for thallium. Samples were diluted by the lab due to matrix interference which caused the high detection limits.

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/cm)	Dissolved Oxygen (mg/L)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
FIRST WATER-BEARING ZONE									
DW-01									
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
December-12	13.36	11.09	2.27	22.08	0.687	0.22	5.77	-141	0
February-13	13.36	9.48	3.88	19.04	1.73	0.23	4.44	240	18.8
June-13	13.36	11.02	2.34	21.27	0.756	0.27	5.64	-178	2.7
August-13	13.36	11.05	2.31	23.85	1.190	0.33	5.15	-132	9.5
DW-02									
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
December-12	14.12	4.65	9.47	20.30	6.63	0.30	2.83	56	0
February-13	14.12	3.45	10.67	16.70	5.14	0.75	3.11	212	6.7
June-13	14.12	4.90	9.22	26.11	5.39	0.42	2.95	-18	3.6
August-13	14.12	5.59	8.53	28.76	5.70	0.22	2.53	28	0.6
DW-03									
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
December-12	11.59	6.00	5.59	20.16	0.233	0.22	4.62	-148	0
February-13	11.59	5.35	6.24	18.07	2.34	0.26	3.61	248	2.5
June-13	11.59	6.20	5.39	21.38	2.70	0.89	3.37	-78	1.0
August-13	11.59	6.65	4.94	23.94	2.23	0.16	3.27	-30	0.6
MW-01									
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
December-12	15.08	11.75	3.33	21.54	4.69	0.24	3.35	-3	0
February-13	15.08	12.73	2.35	20.09	4.46	0.61	3.44	59	2.2
June-13	15.08	13.66	1.42	21.10	4.75	0.31	3.31	-72	2.3
August-13	15.08	13.00	2.08	21.31	5.33	0.25	3.09	-21	0.0
MW-02									
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
December-12	14.23	7.30	6.93	20.48	0.860	0.76	3.29	378	0
February-13	14.23	6.68	7.55	17.24	0.972	0.58	3.37	414	5.3
June-13	14.23	7.50	6.73	23.75	1.325	0.24	3.06	151	1.8
August-13	14.23	8.09	6.14	27.29	0.891	0.17	2.91	238	0.0
MW-06									
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
December-12	16.77	8.70	8.07	19.44	0.794	0.57	3.52	335	0
February-13	16.77	7.23	9.54	18.70	0.764	0.82	3.42	427	6.8
June-13	16.77	8.48	8.29	19.44	0.446	0.36	3.45	205	6.8
August-13	16.77	9.55	7.22	21.75	0.699	1.52	3.35	259	2.7

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/cm)	Dissolved Oxygen (mg/L)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
FIRST WATER-BEARING ZONE (continued)									
PW-04									
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
December-12	12.22	5.60	6.62	19.56	1.222	0.23	3.69	67	0
February-13	12.22	3.93	8.29	18.12	0.914	0.28	3.97	314	2.2
June-13	12.22	5.65	6.57	21.40	0.836	0.19	3.85	248	5.9
August-13	12.22	6.70	5.52	22.91	0.838	0.12	3.64	218	0.0
BA-03									
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
December-12	14.57	7.00	7.57	20.64	0.199	1.72	4.60	28	2
February-13	14.57	6.12	8.45	16.97	0.676	3.91	4.18	412	6.1
June-13	14.57	6.89	7.68	25.68	0.532	0.35	4.46	166	4.1
August-13	14.57	7.88	6.69	26.78	2.16	0.20	2.92	405	1.1
BA-09									
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
December-12	9.46	8.30	1.16	20.50	3.49	3.70	3.24	48	2
February-13	9.46	6.19	3.27	19.22	2.80	0.47	3.42	322	1.8
June-13	9.46	8.33	1.13	21.05	3.80	0.24	3.18	-97	2.0
August-13	9.46	8.48	0.98	22.50	3.15	0.18	3.31	-69	0.0
SECOND WATER-BEARING ZONE									
DW-04									
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
December-12	14.21	5.53	8.68	20.48	1.228	3.57	7.09	150	0
February-13	14.21	4.04	10.17	19.71	1.230	7.18	7.33	140	0.5
June-13	14.21	4.14	10.07	21.42	1.479	0.44	7.67	76	1.3
August-13	14.21	5.63	8.58	21.86	1.253	0.20	6.86	-4	0.0
MW-A									
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
December-12	15.12	10.88	4.24	22.60	0.730	1.33	7.08	-24	0
February-13	15.12	9.50	5.62	20.66	0.730	1.02	7.22	33	1.4
June-13	15.12	9.70	5.42	22.67	0.770	0.32	7.14	-151	1.7
August-13	15.12	10.46	4.66	23.15	0.798	0.18	6.68	-55	3.4
MW-03									
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
December-12	14.80	8.11	6.69	20.60	1.89	0.48	6.50	-90	0
February-13	14.80	6.19	8.61	19.55	1.85	0.34	6.64	187	2.6
June-13	14.80	5.77	9.03	20.78	1.96	0.12	7.02	16	2.1
August-13	14.80	8.89	5.91	21.77	1.97	0.24	6.34	-226	3.5

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/cm)	Dissolved Oxygen (mg/L)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
SECOND WATER-BEARING ZONE (continued)									
MW-04									
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
December-12	17.38	14.20	3.18	19.37	0.336	1.56	6.50	-96	8
February-13	17.38	12.62	4.76	20.19	0.478	1.79	6.49	-27	4.7
June-13	17.38	13.30	4.08	21.76	0.393	2.16	7.09	-73	8.9
August-13	17.38	14.73	2.65	20.86	0.377	1.47	6.42	-60	13.4
BA-01									
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
December-12	14.57	8.00	6.57	22.09	2.05	1.00	5.92	71	0
February-13	14.57	5.92	8.65	20.94	1.96	0.33	6.15	21	14.2
June-13	14.57	5.96	8.61	23.30	2.16	0.22	5.93	-41	30.7
August-13	14.57	7.77	6.80	24.51	2.34	0.19	5.56	-6.3	19.0
BA-05									
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
December-12	14.20	8.60	5.60	22.21	6.33	4.07	6.21	-16	8
February-13	14.20	7.36	6.84	19.71	5.36	0.37	6.26	-19	4.7
June-13	14.20	7.75	6.45	22.54	5.69	0.32	6.07	-33	2.8
August-13	14.20	8.28	5.92	24.61	5.21	0.29	5.83	-22	1.1
BA-09A									
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
December-12	11.10	1.20	9.90	19.28	0.234	0.68	6.82	60	0
February-13	11.10	0.70	10.40	20.34	0.245	0.96	7.09	-11	4.2
June-13	11.10	0.40	10.70	22.96	0.263	0.23	7.50	25	0.9
August-13	11.10	1.15	9.95	21.60	0.266	0.16	6.59	-169	0.0
BC-03									
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
December-12	16.32	6.75	9.57	22.03	3.20	3.93	7.16	-68	0
February-13	16.32	4.06	12.26	19.93	3.07	1.69	7.14	148	2.2
June-13	16.32	4.91	11.41	23.29	3.36	0.18	7.57	110	0.8
August-13	16.32	7.19	9.13	23.85	3.35	0.26	6.70	17	0.0
BC-07									
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
December-12	11.37	6.50	4.87	18.92	2.26	1.51	6.93	527	4
February-13	11.37	2.50	8.87	17.99	2.47	1.68	6.60	420	6.7
June-13	11.37	3.01	8.36	20.05	2.39	0.28	7.63	115	4.5
August-13	11.37	4.60	6.77	21.59	2.41	0.89	6.88	121	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/cm)	Dissolved Oxygen (mg/L)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
SECOND WATER-BEARING ZONE (continued)									
BC-17									
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
December-12	15.18	5.58	9.60	21.90	2.12	4.17	6.98	520	0
February-13	15.18	4.12	11.06	19.39	2.15	0.89	6.79	532	3.4
June-13	15.18	5.41	9.77	23.88	2.30	1.13	6.65	240	1.0
August-13	15.18	6.38	8.80	24.70	2.38	0.66	6.50	257	0.0
BC-19									
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
December-12	13.85	6.22	7.63	20.98	2.75	3.57	7.05	376	1
February-13	13.85	4.44	9.41	19.09	2.60	2.81	6.98	130	3.3
June-13	13.85	4.70	9.15	21.73	2.80	0.18	7.36	33	1.8
August-13	13.85	6.67	7.18	22.77	2.84	0.23	6.63	-13	0.0
BC-21R									
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
December-12	15.28	7.73	7.55	20.11	1.277	1.45	6.87	250	9
February-13	15.28	4.60	10.68	17.94	1.273	1.99	6.97	560	0.0
June-13	15.28	5.61	9.67	21.80	1.065	0.29	6.84	-261	4.8
August-13	15.28	8.13	7.15	22.78	1.322	0.16	6.50	-187	0.0
BC-25									
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
December-12	15.73	8.25	7.48	20.17	0.726	4.00	6.72	123	0
February-13	15.73	5.74	9.99	19.66	0.922	0.61	6.85	52	4.1
June-13	15.73	6.46	9.27	21.09	0.840	0.16	7.34	60	3.7
August-13	15.73	8.92	6.81	21.56	0.785	0.20	6.67	-68	1.6
THIRD WATER-BEARING ZONE									
BA-03A									
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
December-12	14.76	1.85	12.91	20.95	0.290	2.15	7.07	-154	0
February-13	14.76	1.15	13.61	19.15	0.288	0.51	8.28	-175	2.6
June-13	14.76	1.45	13.31	23.92	0.311	1.02	7.97	42	1.8
August-13	14.76	1.91	12.85	22.47	0.314	0.11	7.82	155	0.0
BA-05A									
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
December-12	14.42	3.50	10.92	21.21	0.243	0.50	7.04	-82	0
February-13	14.42	2.82	11.60	19.99	0.255	1.22	7.52	-10	1.6
June-13	14.42	2.92	11.50	24.04	0.274	2.04	7.46	154	0.8
August-13	14.42	3.38	11.04	23.26	0.276	0.20	7.06	-4	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/cm)	Dissolved Oxygen (mg/L)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
THIRD WATER-BEARING ZONE (continued)									
BB-01									
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
December-12	15.75	2.90	12.85	21.02	0.272	0.38	9.82	-31	3
February-13	15.75	2.30	13.45	19.30	0.295	0.26	9.82	19	5.7
June-13	15.75	2.51	13.24	22.93	0.302	0.16	9.81	-31	4.5
August-13	15.75	3.02	12.73	23.09	0.309	1.21	9.48	-126	2.8
BA-01A									
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
December-12	15.03	4.71	10.32	21.00	0.239	0.19	7.40	7	0
February-13	15.03	4.09	10.94	20.26	0.255	1.14	7.49	32	3.2
June-13	15.03	4.06	10.97	23.54	0.271	0.46	7.24	-66	1.2
August-13	15.03	4.63	10.40	23.92	0.274	0.20	6.89	-151	1.3
WATER WELLS									
(b) (6) **Well**									
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
December-12	NA	NA	NA	19.08	0.258	2.41	8.46	-186	4
February-13	NA	NA	NA	19.45	0.272	1.90	8.62	-52	8.5
June-13	NA	NA	NA	23.70	0.287	2.17	9.30	-235	1.4
August-13	NA	NA	NA	21.11	0.291	2.87	8.20	-173	0.0
WW-04									
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
December-12	NA	NA	NA	19.06	0.265	1.71	8.41	-219	5
February-13	NA	NA	NA	19.30	0.293	1.53	9.11	-111	5.1
June-13	NA	NA	NA	24.50	0.292	1.70	9.84	-281	0.7
August-13	NA	NA	NA	22.28	0.306	3.03	8.50	-193	0.0
WW-09									
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
December-12	NA	NA	NA	14.94	0.260	3.55	7.69	-179	8
February-13	NA	NA	NA	17.95	0.274	7.64	8.32	-31	3.9
June-13	NA	NA	NA	23.99	0.288	4.64	8.87	-236	0.6
August-13	NA	NA	NA	22.08	0.281	6.22	7.62	-162	0.0
North Well									
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
December-12	NA	NA	NA	21.22	0.269	1.64	8.52	377	0
February-13	NA	NA	NA	21.23	0.291	2.18	8.65	97	0.0
June-13	NA	NA	NA	23.05	0.285	1.94	9.00	-246	0.3
August-13	NA	NA	NA	23.05	0.290	2.11	8.20	14	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/cm)	Dissolved Oxygen (mg/L)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
WATER WELLS (continued)									
South Well									
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
December-12	NA	NA	NA	20.06	0.260	2.13	9.23	-111	0
February-13	NA	NA	NA	18.80	0.302	1.75	8.15	-80	2.6
June-13	NA	NA	NA	23.77	0.294	2.63	9.06	-231	0.8
August-13	NA	NA	NA	21.95	0.292	2.14	8.93	-176	0.0

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	6020A	BA-09A	L0033633-01	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
2	Total Cadmium/7440-43-9	6020A	BA-09A	L0033633-01	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
3	Total Lead/7439-92-1	6020A	BA-09A	L0033633-01	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
4	Total Manganese/7439-96-5	6020A	BA-09A	L0033633-01	8/26/2013	RECAP SS	0.51	0.01	0.0414		No
5	Total Nickel/7440-02-0	6020A	BA-09A	L0033633-01	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
6	**Total Thallium/7440-28-0**	**6020A**	**BA-09A**	**L0033633-01**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
7	Total Zinc/7440-66-6	6020A	BA-09A	L0033633-01	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
8	**Total Arsenic/7440-38-2**	**6020A**	**BA-09**	**L0033633-02**	**8/26/2013**	**RECAP SS**	**0.01**	**0.005**	**0.0305**		**Yes**
9	Total Cadmium/7440-43-9	6020A	BA-09	L0033633-02	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
10	Total Lead/7439-92-1	6020A	BA-09	L0033633-02	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
11	**Total Manganese/7439-96-5**	**6020A**	**BA-09**	**L0033633-02**	**8/26/2013**	**RECAP SS**	**0.51**	**0.01**	**4.32**		**Yes**
12	**Total Nickel/7440-02-0**	**6020A**	**BA-09**	**L0033633-02**	**8/26/2013**	**RECAP SS**	**0.073**	**0.01**	**0.182**		**Yes**
13	**Total Thallium/7440-28-0**	**6020A**	**BA-09**	**L0033633-02**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
14	Total Zinc/7440-66-6	6020A	BA-09	L0033633-02	8/26/2013	RECAP SS	1.1	0.02	0.256		No
15	Total Arsenic/7440-38-2	6020A	MW-04	L0033633-03	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
16	Total Cadmium/7440-43-9	6020A	MW-04	L0033633-03	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
17	Total Lead/7439-92-1	6020A	MW-04	L0033633-03	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
18	Total Manganese/7439-96-5	6020A	MW-04	L0033633-03	8/26/2013	RECAP SS	0.51	0.01	0.0405		No
19	Total Nickel/7440-02-0	6020A	MW-04	L0033633-03	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
20	**Total Thallium/7440-28-0**	**6020A**	**MW-04**	**L0033633-03**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
21	Total Zinc/7440-66-6	6020A	MW-04	L0033633-03	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
22	Dissolved Arsenic/7440-38-2	6020A	MW-04	L0033633-03	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
23	Dissolved Cadmium/7440-43-9	6020A	MW-04	L0033633-03	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
24	Dissolved Lead/7439-92-1	6020A	MW-04	L0033633-03	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
25	Dissolved Manganese/7439-96-5	6020A	MW-04	L0033633-03	8/27/2013	RECAP SS	0.51	0.01	< 0.01		No
26	Dissolved Nickel/7440-02-0	6020A	MW-04	L0033633-03	8/27/2013	RECAP SS	0.073	0.01	< 0.01		No
27	**Dissolved Thallium/7440-28-0**	**6020A**	**MW-04**	**L0033633-03**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
28	Dissolved Zinc/7440-66-6	6020A	MW-04	L0033633-03	8/27/2013	RECAP SS	1.1	0.02	< 0.02		No
29	Total Arsenic/7440-38-2	6020A	WW-09	L0033633-04	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
30	Total Cadmium/7440-43-9	6020A	WW-09	L0033633-04	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
31	Total Lead/7439-92-1	6020A	WW-09	L0033633-04	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
32	Total Manganese/7439-96-5	6020A	WW-09	L0033633-04	8/26/2013	RECAP SS	0.51	0.01	0.0182		No
33	Total Nickel/7440-02-0	6020A	WW-09	L0033633-04	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
34	**Total Thallium/7440-28-0**	**6020A**	**WW-09**	**L0033633-04**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
35	Total Zinc/7440-66-6	6020A	WW-09	L0033633-04	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
36	Total Arsenic/7440-38-2	6020A	WW-04	L0033633-05	8/26/2013	RECAP SS	0.01	0.005	0.0062		No
37	Total Cadmium/7440-43-9	6020A	WW-04	L0033633-05	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
38	Total Lead/7439-92-1	6020A	WW-04	L0033633-05	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
39	Total Manganese/7439-96-5	6020A	WW-04	L0033633-05	8/26/2013	RECAP SS	0.51	0.01	< 0.01		No
40	Total Nickel/7440-02-0	6020A	WW-04	L0033633-05	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
41	**Total Thallium/7440-28-0**	**6020A**	**WW-04**	**L0033633-05**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
42	Total Zinc/7440-66-6	6020A	WW-04	L0033633-05	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
43	Total Arsenic/7440-38-2	6020A	(b) (6) WELL	L0033633-06	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
44	Total Cadmium/7440-43-9	6020A	(b) (6) WELL	L0033633-06	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
45	Total Lead/7439-92-1	6020A	(b) (6) WELL	L0033633-06	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
46	Total Manganese/7439-96-5	6020A	(b) (6) WELL	L0033633-06	8/26/2013	RECAP SS	0.51	0.01	0.0259		No
47	Total Nickel/7440-02-0	6020A	(b) (6) WELL	L0033633-06	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
48	**Total Thallium/7440-28-0**	**6020A**	**(b) (6) WELL**	**L0033633-06**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
49	Total Zinc/7440-66-6	6020A	(b) (6) WELL	L0033633-06	8/26/2013	RECAP SS	1.1	0.02	< 0.02		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
50	Total Arsenic/7440-38-2	6020A	BC-03	L0033633-07	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
51	Total Cadmium/7440-43-9	6020A	BC-03	L0033633-07	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
52	Total Lead/7439-92-1	6020A	BC-03	L0033633-07	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
53	Total Manganese/7439-96-5	6020A	BC-03	L0033633-07	8/26/2013	RECAP SS	0.51	0.01	0.0149		No
54	Total Nickel/7440-02-0	6020A	BC-03	L0033633-07	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
55	**Total Thallium/7440-28-0**	**6020A**	**BC-03**	**L0033633-07**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
56	Total Zinc/7440-66-6	6020A	BC-03	L0033633-07	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
57	Total Arsenic/7440-38-2	6020A	BC-07	L0033633-08	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
58	Total Cadmium/7440-43-9	6020A	BC-07	L0033633-08	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
59	Total Lead/7439-92-1	6020A	BC-07	L0033633-08	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
60	Total Manganese/7439-96-5	6020A	BC-07	L0033633-08	8/26/2013	RECAP SS	0.51	0.01	0.0735		No
61	Total Nickel/7440-02-0	6020A	BC-07	L0033633-08	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
62	**Total Thallium/7440-28-0**	**6020A**	**BC-07**	**L0033633-08**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
63	Total Zinc/7440-66-6	6020A	BC-07	L0033633-08	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
64	Total Arsenic/7440-38-2	6020A	DW-04	L0033633-09	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
65	Total Cadmium/7440-43-9	6020A	DW-04	L0033633-09	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
66	Total Lead/7439-92-1	6020A	DW-04	L0033633-09	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
67	Total Manganese/7439-96-5	6020A	DW-04	L0033633-09	8/26/2013	RECAP SS	0.51	0.01	0.0571		No
68	Total Nickel/7440-02-0	6020A	DW-04	L0033633-09	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
69	**Total Thallium/7440-28-0**	**6020A**	**DW-04**	**L0033633-09**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
70	Total Zinc/7440-66-6	6020A	DW-04	L0033633-09	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
71	Total Arsenic/7440-38-2	6020A	BC-19	L0033633-10	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
72	Total Cadmium/7440-43-9	6020A	BC-19	L0033633-10	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
73	Total Lead/7439-92-1	6020A	BC-19	L0033633-10	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
74	Total Manganese/7439-96-5	6020A	BC-19	L0033633-10	8/26/2013	RECAP SS	0.51	0.01	0.0262		No
75	Total Nickel/7440-02-0	6020A	BC-19	L0033633-10	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
76	**Total Thallium/7440-28-0**	**6020A**	**BC-19**	**L0033633-10**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
77	Total Zinc/7440-66-6	6020A	BC-19	L0033633-10	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
78	Total Arsenic/7440-38-2	6020A	DUPLICATE #1	L0033633-11	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
79	Total Cadmium/7440-43-9	6020A	DUPLICATE #1	L0033633-11	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
80	Total Lead/7439-92-1	6020A	DUPLICATE #1	L0033633-11	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
81	Total Manganese/7439-96-5	6020A	DUPLICATE #1	L0033633-11	8/26/2013	RECAP SS	0.51	0.01	0.025		No
82	Total Nickel/7440-02-0	6020A	DUPLICATE #1	L0033633-11	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
83	**Total Thallium/7440-28-0**	**6020A**	**DUPLICATE #1**	**L0033633-11**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
84	Total Zinc/7440-66-6	6020A	DUPLICATE #1	L0033633-11	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
85	Total Arsenic/7440-38-2	6020A	BC-25	L0033633-12	8/26/2013	RECAP SS	0.01	0.005	< 0.005		No
86	Total Cadmium/7440-43-9	6020A	BC-25	L0033633-12	8/26/2013	RECAP SS	0.005	0.005	< 0.005		No
87	Total Lead/7439-92-1	6020A	BC-25	L0033633-12	8/26/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
88	Total Manganese/7439-96-5	6020A	BC-25	L0033633-12	8/26/2013	RECAP SS	0.51	0.01	0.198		No
89	Total Nickel/7440-02-0	6020A	BC-25	L0033633-12	8/26/2013	RECAP SS	0.073	0.01	< 0.01		No
90	**Total Thallium/7440-28-0**	**6020A**	**BC-25**	**L0033633-12**	**8/26/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
91	Total Zinc/7440-66-6	6020A	BC-25	L0033633-12	8/26/2013	RECAP SS	1.1	0.02	< 0.02		No
92	Total Arsenic/7440-38-2	6020A	MW-03	L0033633-13	8/26/2013	RECAP SS	0.01	0.001	< 0.001		No
93	Total Cadmium/7440-43-9	6020A	MW-03	L0033633-13	8/26/2013	RECAP SS	0.005	0.001	< 0.001		No
94	Total Lead/7439-92-1	6020A	MW-03	L0033633-13	8/26/2013	EPA Site Cleanup	0.015	0.001	< 0.001		No
95	**Total Manganese/7439-96-5**	**6020A**	**MW-03**	**L0033633-13**	**8/26/2013**	**RECAP SS**	**0.51**	**0.05**	**0.947**		**Yes**
96	Total Nickel/7440-02-0	6020A	MW-03	L0033633-13	8/26/2013	RECAP SS	0.073	0.002	< 0.002		No
97	Total Thallium/7440-28-0	6020A	MW-03	L0033633-13	8/26/2013	RECAP SS	0.002	0.001	< 0.001		No
98	Total Zinc/7440-66-6	6020A	MW-03	L0033633-13	8/26/2013	RECAP SS	1.1	0.004	< 0.004		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
99	Total Arsenic/7440-38-2	6020A	MW-06	L0033633-14	8/26/2013	RECAP SS	0.01	0.001	0.0038		No
100	**Total Cadmium/7440-43-9**	**6020A**	**MW-06**	**L0033633-14**	**8/26/2013**	**RECAP SS**	**0.005**	**0.001**	**0.044**		**Yes**
101	Total Lead/7439-92-1	6020A	MW-06	L0033633-14	8/26/2013	EPA Site Cleanup	0.015	0.001	< 0.001		No
102	**Total Manganese/7439-96-5**	**6020A**	**MW-06**	**L0033633-14**	**8/26/2013**	**RECAP SS**	**0.51**	**0.05**	**3.19**		**Yes**
103	Total Nickel/7440-02-0	6020A	MW-06	L0033633-14	8/26/2013	RECAP SS	0.073	0.002	0.0293		No
104	Total Thallium/7440-28-0	6020A	MW-06	L0033633-14	8/26/2013	RECAP SS	0.002	0.001	< 0.001		No
105	Total Zinc/7440-66-6	6020A	MW-06	L0033633-14	8/26/2013	RECAP SS	1.1	0.004	0.0902		No
106	Total Arsenic/7440-38-2	6020A	BB-01	L0033633-15	8/27/2013	RECAP SS	0.01	0.001	0.0045		No
107	Total Cadmium/7440-43-9	6020A	BB-01	L0033633-15	8/27/2013	RECAP SS	0.005	0.001	< 0.001		No
108	Total Lead/7439-92-1	6020A	BB-01	L0033633-15	8/27/2013	EPA Site Cleanup	0.015	0.001	0.0057		No
109	Total Manganese/7439-96-5	6020A	BB-01	L0033633-15	8/27/2013	RECAP SS	0.51	0.002	0.0047		No
110	Total Nickel/7440-02-0	6020A	BB-01	L0033633-15	8/27/2013	RECAP SS	0.073	0.002	< 0.002		No
111	Total Thallium/7440-28-0	6020A	BB-01	L0033633-15	8/27/2013	RECAP SS	0.002	0.001	< 0.001		No
112	Total Zinc/7440-66-6	6020A	BB-01	L0033633-15	8/27/2013	RECAP SS	1.1	0.004	< 0.004		No
113	Total Arsenic/7440-38-2	6020A	SOUTH WELL	L0033633-16	8/27/2013	RECAP SS	0.01	0.001	< 0.001		No
114	Total Cadmium/7440-43-9	6020A	SOUTH WELL	L0033633-16	8/27/2013	RECAP SS	0.005	0.001	< 0.001		No
115	Total Lead/7439-92-1	6020A	SOUTH WELL	L0033633-16	8/27/2013	EPA Site Cleanup	0.015	0.001	< 0.001		No
116	Total Manganese/7439-96-5	6020A	SOUTH WELL	L0033633-16	8/27/2013	RECAP SS	0.51	0.002	0.0041		No
117	Total Nickel/7440-02-0	6020A	SOUTH WELL	L0033633-16	8/27/2013	RECAP SS	0.073	0.002	< 0.002		No
118	Total Thallium/7440-28-0	6020A	SOUTH WELL	L0033633-16	8/27/2013	RECAP SS	0.002	0.001	< 0.001		No
119	Total Zinc/7440-66-6	6020A	SOUTH WELL	L0033633-16	8/27/2013	RECAP SS	1.1	0.004	0.0084		No
120	Total Arsenic/7440-38-2	6020A	BC-17	L0033633-17	8/27/2013	RECAP SS	0.01	0.001	0.0021		No
121	Total Cadmium/7440-43-9	6020A	BC-17	L0033633-17	8/27/2013	RECAP SS	0.005	0.001	< 0.001		No
122	**Total Lead/7439-92-1**	**6020A**	**BC-17**	**L0033633-17**	**8/27/2013**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0346**		**Yes**
123	Total Manganese/7439-96-5	6020A	BC-17	L0033633-17	8/27/2013	RECAP SS	0.51	0.002	0.237		No
124	Total Nickel/7440-02-0	6020A	BC-17	L0033633-17	8/27/2013	RECAP SS	0.073	0.002	< 0.002		No
125	Total Thallium/7440-28-0	6020A	BC-17	L0033633-17	8/27/2013	RECAP SS	0.002	0.001	< 0.001		No
126	Total Zinc/7440-66-6	6020A	BC-17	L0033633-17	8/27/2013	RECAP SS	1.1	0.004	< 0.004		No
127	Total Arsenic/7440-38-2	6020A	DUPLICATE #2	L0033633-18	8/27/2013	RECAP SS	0.01	0.001	0.0021		No
128	Total Cadmium/7440-43-9	6020A	DUPLICATE #2	L0033633-18	8/27/2013	RECAP SS	0.005	0.001	< 0.001		No
129	**Total Lead/7439-92-1**	**6020A**	**DUPLICATE #2**	**L0033633-18**	**8/27/2013**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0352**		**Yes**
130	Total Manganese/7439-96-5	6020A	DUPLICATE #2	L0033633-18	8/27/2013	RECAP SS	0.51	0.002	0.24		No
131	Total Nickel/7440-02-0	6020A	DUPLICATE #2	L0033633-18	8/27/2013	RECAP SS	0.073	0.002	< 0.002		No
132	Total Thallium/7440-28-0	6020A	DUPLICATE #2	L0033633-18	8/27/2013	RECAP SS	0.002	0.001	< 0.001		No
133	Total Zinc/7440-66-6	6020A	DUPLICATE #2	L0033633-18	8/27/2013	RECAP SS	1.1	0.004	0.0059		No
134	Total Arsenic/7440-38-2	6020A	NORTH WELL	L0033633-19	8/27/2013	RECAP SS	0.01	0.001	< 0.001		No
135	Total Cadmium/7440-43-9	6020A	NORTH WELL	L0033633-19	8/27/2013	RECAP SS	0.005	0.001	< 0.001		No
136	Total Lead/7439-92-1	6020A	NORTH WELL	L0033633-19	8/27/2013	EPA Site Cleanup	0.015	0.001	< 0.001		No
137	Total Manganese/7439-96-5	6020A	NORTH WELL	L0033633-19	8/27/2013	RECAP SS	0.51	0.002	0.0039		No
138	Total Nickel/7440-02-0	6020A	NORTH WELL	L0033633-19	8/27/2013	RECAP SS	0.073	0.002	< 0.002		No
139	Total Thallium/7440-28-0	6020A	NORTH WELL	L0033633-19	8/27/2013	RECAP SS	0.002	0.001	< 0.001		No
140	Total Zinc/7440-66-6	6020A	NORTH WELL	L0033633-19	8/27/2013	RECAP SS	1.1	0.004	0.0058		No
141	Total Arsenic/7440-38-2	6020A	BC-21R	L0033633-20	8/27/2013	RECAP SS	0.01	0.001	0.0015		No
142	Total Cadmium/7440-43-9	6020A	BC-21R	L0033633-20	8/27/2013	RECAP SS	0.005	0.001	< 0.001		No
143	Total Lead/7439-92-1	6020A	BC-21R	L0033633-20	8/27/2013	EPA Site Cleanup	0.015	0.001	< 0.001		No
144	Total Manganese/7439-96-5	6020A	BC-21R	L0033633-20	8/27/2013	RECAP SS	0.51	0.002	0.184		No
145	Total Nickel/7440-02-0	6020A	BC-21R	L0033633-20	8/27/2013	RECAP SS	0.073	0.002	< 0.002		No
146	Total Thallium/7440-28-0	6020A	BC-21R	L0033633-20	8/27/2013	RECAP SS	0.002	0.001	< 0.001		No
147	Total Zinc/7440-66-6	6020A	BC-21R	L0033633-20	8/27/2013	RECAP SS	1.1	0.004	< 0.004		No

TABLE 4
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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
148	Total Arsenic/7440-38-2	6020A	BA-01A	L0033633-21	8/27/2013	RECAP SS	0.01	0.005	0.0086		No
149	Total Cadmium/7440-43-9	6020A	BA-01A	L0033633-21	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
150	Total Lead/7439-92-1	6020A	BA-01A	L0033633-21	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
151	Total Manganese/7439-96-5	6020A	BA-01A	L0033633-21	8/27/2013	RECAP SS	0.51	0.01	0.036		No
152	Total Nickel/7440-02-0	6020A	BA-01A	L0033633-21	8/27/2013	RECAP SS	0.073	0.01	< 0.01		No
153	**Total Thallium/7440-28-0**	**6020A**	**BA-01A**	**L0033633-21**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
154	Total Zinc/7440-66-6	6020A	BA-01A	L0033633-21	8/27/2013	RECAP SS	1.1	0.02	< 0.02		No
155	Total Arsenic/7440-38-2	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	0.01	0.005	0.0072		No
156	Total Cadmium/7440-43-9	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
157	Total Lead/7439-92-1	6020A	BA-01	L0033633-22	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
158	**Total Manganese/7439-96-5**	**6020A**	**BA-01**	**L0033633-22**	**8/27/2013**	**RECAP SS**	**0.51**	**0.01**	**1.31**		**Yes**
159	Total Nickel/7440-02-0	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	0.073	0.01	0.0411		No
160	**Total Thallium/7440-28-0**	**6020A**	**BA-01**	**L0033633-22**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
161	Total Zinc/7440-66-6	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	1.1	0.02	0.066		No
162	Dissolved Arsenic/7440-38-2	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
163	Dissolved Cadmium/7440-43-9	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
164	Dissolved Lead/7439-92-1	6020A	BA-01	L0033633-22	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
165	**Dissolved Manganese/7439-96-5**	**6020A**	**BA-01**	**L0033633-22**	**8/27/2013**	**RECAP SS**	**0.51**	**0.01**	**1.28**		**Yes**
166	Dissolved Nickel/7440-02-0	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	0.073	0.01	0.0431		No
167	**Dissolved Thallium/7440-28-0**	**6020A**	**BA-01**	**L0033633-22**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
168	Dissolved Zinc/7440-66-6	6020A	BA-01	L0033633-22	8/27/2013	RECAP SS	1.1	0.02	0.0659		No
169	**Total Arsenic/7440-38-2**	**6020A**	**DW-03**	**L0033633-23**	**8/27/2013**	**RECAP SS**	**0.01**	**0.005**	**0.0401**		**Yes**
170	Total Cadmium/7440-43-9	6020A	DW-03	L0033633-23	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
171	Total Lead/7439-92-1	6020A	DW-03	L0033633-23	8/27/2013	EPA Site Cleanup	0.015	0.005	0.0071		No
172	**Total Manganese/7439-96-5**	**6020A**	**DW-03**	**L0033633-23**	**8/27/2013**	**RECAP SS**	**0.51**	**0.01**	**3.08**		**Yes**
173	**Total Nickel/7440-02-0**	**6020A**	**DW-03**	**L0033633-23**	**8/27/2013**	**RECAP SS**	**0.073**	**0.01**	**0.128**		**Yes**
174	**Total Thallium/7440-28-0**	**6020A**	**DW-03**	**L0033633-23**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
175	Total Zinc/7440-66-6	6020A	DW-03	L0033633-23	8/27/2013	RECAP SS	1.1	0.02	0.182		No
176	**Total Arsenic/7440-38-2**	**6020A**	**DUPLICATE #3**	**L0033633-24**	**8/27/2013**	**RECAP SS**	**0.01**	**0.005**	**0.0397**		**Yes**
177	Total Cadmium/7440-43-9	6020A	DUPLICATE #3	L0033633-24	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
178	Total Lead/7439-92-1	6020A	DUPLICATE #3	L0033633-24	8/27/2013	EPA Site Cleanup	0.015	0.005	0.0067		No
179	**Total Manganese/7439-96-5**	**6020A**	**DUPLICATE #3**	**L0033633-24**	**8/27/2013**	**RECAP SS**	**0.51**	**0.01**	**3.12**		**Yes**
180	**Total Nickel/7440-02-0**	**6020A**	**DUPLICATE #3**	**L0033633-24**	**8/27/2013**	**RECAP SS**	**0.073**	**0.01**	**0.13**		**Yes**
181	**Total Thallium/7440-28-0**	**6020A**	**DUPLICATE #3**	**L0033633-24**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
182	Total Zinc/7440-66-6	6020A	DUPLICATE #3	L0033633-24	8/27/2013	RECAP SS	1.1	0.02	0.177		No
183	Total Arsenic/7440-38-2	6020A	PW-04	L0033633-25	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
184	Total Cadmium/7440-43-9	6020A	PW-04	L0033633-25	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
185	Total Lead/7439-92-1	6020A	PW-04	L0033633-25	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
186	**Total Manganese/7439-96-5**	**6020A**	**PW-04**	**L0033633-25**	**8/27/2013**	**RECAP SS**	**0.51**	**0.01**	**0.887**		**Yes**
187	Total Nickel/7440-02-0	6020A	PW-04	L0033633-25	8/27/2013	RECAP SS	0.073	0.01	0.0216		No
188	**Total Thallium/7440-28-0**	**6020A**	**PW-04**	**L0033633-25**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
189	Total Zinc/7440-66-6	6020A	PW-04	L0033633-25	8/27/2013	RECAP SS	1.1	0.02	0.0723		No
190	**Total Arsenic/7440-38-2**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**RECAP SS**	**0.01**	**0.005**	**0.0645**		**Yes**
191	**Total Cadmium/7440-43-9**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**RECAP SS**	**0.005**	**0.005**	**0.0314**		**Yes**
192	**Total Lead/7439-92-1**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**EPA Site Cleanup**	**0.015**	**0.005**	**0.0201**		**Yes**
193	**Total Manganese/7439-96-5**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**RECAP SS**	**0.51**	**0.05**	**14.2**		**Yes**
194	**Total Nickel/7440-02-0**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**RECAP SS**	**0.073**	**0.01**	**0.587**		**Yes**
195	**Total Thallium/7440-28-0**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
196	**Total Zinc/7440-66-6**	**6020A**	**DW-02**	**L0033633-26**	**8/27/2013**	**RECAP SS**	**1.1**	**0.02**	**1.57**		**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
197	Total Arsenic/7440-38-2	6020A	BA-05A	L0033633-27	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
198	Total Cadmium/7440-43-9	6020A	BA-05A	L0033633-27	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
199	Total Lead/7439-92-1	6020A	BA-05A	L0033633-27	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
200	Total Manganese/7439-96-5	6020A	BA-05A	L0033633-27	8/27/2013	RECAP SS	0.51	0.01	0.0113		No
201	Total Nickel/7440-02-0	6020A	BA-05A	L0033633-27	8/27/2013	RECAP SS	0.073	0.01	< 0.01		No
202	**Total Thallium/7440-28-0**	**6020A**	**BA-05A**	**L0033633-27**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
203	Total Zinc/7440-66-6	6020A	BA-05A	L0033633-27	8/27/2013	RECAP SS	1.1	0.02	< 0.02		No
204	Total Arsenic/7440-38-2	6020A	BA-05	L0033633-28	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
205	Total Cadmium/7440-43-9	6020A	BA-05	L0033633-28	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
206	Total Lead/7439-92-1	6020A	BA-05	L0033633-28	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
207	**Total Manganese/7439-96-5**	**6020A**	**BA-05**	**L0033633-28**	**8/27/2013**	**RECAP SS**	**0.51**	**0.05**	**11.1**		**Yes**
208	Total Nickel/7440-02-0	6020A	BA-05	L0033633-28	8/27/2013	RECAP SS	0.073	0.01	0.0354		No
209	**Total Thallium/7440-28-0**	**6020A**	**BA-05**	**L0033633-28**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
210	Total Zinc/7440-66-6	6020A	BA-05	L0033633-28	8/27/2013	RECAP SS	1.1	0.02	< 0.02		No
211	Total Arsenic/7440-38-2	6020A	MW-A	L0033633-29	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
212	Total Cadmium/7440-43-9	6020A	MW-A	L0033633-29	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
213	Total Lead/7439-92-1	6020A	MW-A	L0033633-29	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
214	Total Manganese/7439-96-5	6020A	MW-A	L0033633-29	8/27/2013	RECAP SS	0.51	0.01	< 0.01		No
215	Total Nickel/7440-02-0	6020A	MW-A	L0033633-29	8/27/2013	RECAP SS	0.073	0.01	< 0.01		No
216	**Total Thallium/7440-28-0**	**6020A**	**MW-A**	**L0033633-29**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
217	Total Zinc/7440-66-6	6020A	MW-A	L0033633-29	8/27/2013	RECAP SS	1.1	0.02	< 0.02		No
218	**Total Arsenic/7440-38-2**	**6020A**	**DW-1**	**L0033633-30**	**8/27/2013**	**RECAP SS**	**0.01**	**0.005**	**0.422**		**Yes**
219	Total Cadmium/7440-43-9	6020A	DW-1	L0033633-30	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
220	Total Lead/7439-92-1	6020A	DW-1	L0033633-30	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
221	**Total Manganese/7439-96-5**	**6020A**	**DW-1**	**L0033633-30**	**8/27/2013**	**RECAP SS**	**0.51**	**0.01**	**1.37**		**Yes**
222	Total Nickel/7440-02-0	6020A	DW-1	L0033633-30	8/27/2013	RECAP SS	0.073	0.01	0.0116		No
223	**Total Thallium/7440-28-0**	**6020A**	**DW-1**	**L0033633-30**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
224	Total Zinc/7440-66-6	6020A	DW-1	L0033633-30	8/27/2013	RECAP SS	1.1	0.02	0.0422		No
225	**Total Arsenic/7440-38-2**	**6020A**	**MW-01**	**L0033633-31**	**8/27/2013**	**RECAP SS**	**0.01**	**0.005**	**0.0552**		**Yes**
226	Total Cadmium/7440-43-9	6020A	MW-01	L0033633-31	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
227	Total Lead/7439-92-1	6020A	MW-01	L0033633-31	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
228	**Total Manganese/7439-96-5**	**6020A**	**MW-01**	**L0033633-31**	**8/27/2013**	**RECAP SS**	**0.51**	**0.05**	**7.83**		**Yes**
229	**Total Nickel/7440-02-0**	**6020A**	**MW-01**	**L0033633-31**	**8/27/2013**	**RECAP SS**	**0.073**	**0.01**	**0.284**		**Yes**
230	**Total Thallium/7440-28-0**	**6020A**	**MW-01**	**L0033633-31**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
231	Total Zinc/7440-66-6	6020A	MW-01	L0033633-31	8/27/2013	RECAP SS	1.1	0.02	0.309		No
232	Total Arsenic/7440-38-2	6020A	BA-03A	L0033633-32	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
233	Total Cadmium/7440-43-9	6020A	BA-03A	L0033633-32	8/27/2013	RECAP SS	0.005	0.005	< 0.005		No
234	Total Lead/7439-92-1	6020A	BA-03A	L0033633-32	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
235	Total Manganese/7439-96-5	6020A	BA-03A	L0033633-32	8/27/2013	RECAP SS	0.51	0.01	0.0196		No
236	Total Nickel/7440-02-0	6020A	BA-03A	L0033633-32	8/27/2013	RECAP SS	0.073	0.01	< 0.01		No
237	**Total Thallium/7440-28-0**	**6020A**	**BA-03A**	**L0033633-32**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
238	Total Zinc/7440-66-6	6020A	BA-03A	L0033633-32	8/27/2013	RECAP SS	1.1	0.02	< 0.02		No
239	**Total Arsenic/7440-38-2**	**6020A**	**BA-03**	**L0033633-33**	**8/27/2013**	**RECAP SS**	**0.01**	**0.005**	**0.0709**		**Yes**
240	**Total Cadmium/7440-43-9**	**6020A**	**BA-03**	**L0033633-33**	**8/27/2013**	**RECAP SS**	**0.005**	**0.005**	**0.251**	**J**	**Yes**
241	**Total Lead/7439-92-1**	**6020A**	**BA-03**	**L0033633-33**	**8/27/2013**	**EPA Site Cleanup**	**0.015**	**0.005**	**0.268**		**Yes**
242	**Total Manganese/7439-96-5**	**6020A**	**BA-03**	**L0033633-33**	**8/27/2013**	**RECAP SS**	**0.51**	**0.05**	**6.74**		**Yes**
243	**Total Nickel/7440-02-0**	**6020A**	**BA-03**	**L0033633-33**	**8/27/2013**	**RECAP SS**	**0.073**	**0.01**	**0.179**		**Yes**
244	**Total Thallium/7440-28-0**	**6020A**	**BA-03**	**L0033633-33**	**8/27/2013**	**RECAP SS**	**0.002**	**0.005**	**< 0.005**		**Yes**
245	Total Zinc/7440-66-6	6020A	BA-03	L0033633-33	8/27/2013	RECAP SS	1.1	0.02	0.783		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
246	Total Arsenic/7440-38-2	6020A	DUPLICATE #4	L0033633-34	8/27/2013	RECAP SS	0.01	0.005	0.0096		No
247	Total Cadmium/7440-43-9	6020A	DUPLICATE #4	L0033633-34	8/27/2013	RECAP SS	0.005	0.005	0.25		Yes
248	Total Lead/7439-92-1	6020A	DUPLICATE #4	L0033633-34	8/27/2013	EPA Site Cleanup	0.015	0.005	0.282		Yes
249	Total Manganese/7439-96-5	6020A	DUPLICATE #4	L0033633-34	8/27/2013	RECAP SS	0.51	0.05	6.16		Yes
250	Total Nickel/7440-02-0	6020A	DUPLICATE #4	L0033633-34	8/27/2013	RECAP SS	0.073	0.01	0.172		Yes
251	Total Thallium/7440-28-0	6020A	DUPLICATE #4	L0033633-34	8/27/2013	RECAP SS	0.002	0.005	< 0.005		Yes
252	Total Zinc/7440-66-6	6020A	DUPLICATE #4	L0033633-34	8/27/2013	RECAP SS	1.1	0.02	0.777		No
253	Total Arsenic/7440-38-2	6020A	MW-02	L0033633-35	8/27/2013	RECAP SS	0.01	0.005	< 0.005		No
254	Total Cadmium/7440-43-9	6020A	MW-02	L0033633-35	8/27/2013	RECAP SS	0.005	0.005	0.0621		Yes
255	Total Lead/7439-92-1	6020A	MW-02	L0033633-35	8/27/2013	EPA Site Cleanup	0.015	0.005	< 0.005		No
256	Total Manganese/7439-96-5	6020A	MW-02	L0033633-35	8/27/2013	RECAP SS	0.51	0.01	0.999		Yes
257	Total Nickel/7440-02-0	6020A	MW-02	L0033633-35	8/27/2013	RECAP SS	0.073	0.01	0.0461		No
258	Total Thallium/7440-28-0	6020A	MW-02	L0033633-35	8/27/2013	RECAP SS	0.002	0.005	< 0.005		Yes
259	Total Zinc/7440-66-6	6020A	MW-02	L0033633-35	8/27/2013	RECAP SS	1.1	0.02	0.197		No

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 Metals				
OC ation GVD)	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)	Nick (mg/
FIRST WATER-BEARING ZONE															
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
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
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
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	0.007
36	11.09	2.27	5.77	0.121	0.000922 J	0.000859 J	0.444	0.00412	< 0.002	0.0106	NA	NA	NA	NA	NA
36	9.48	3.88	4.44	0.236	0.0458*	0.015	13.8*	0.0597	< 0.001	0.356*	0.207	0.0494*	0.0164	15.9*	0.06
36	11.02	2.34	5.64	0.183	0.00138 J	0.00195	0.714	0.00581	< 0.002	0.0216	NA	NA	NA	NA	NA
36	11.05	2.31	5.15	0.422	< 0.005	< 0.005	1.37	0.0116	< 0.005	0.0422	NA	NA	NA	NA	NA
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
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
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
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
12	4.65	9.47	2.83	0.0603	0.0337	0.0455	16.9	0.641	<0.0010	2.11	NA	NA	NA	NA	NA
12	3.45	10.67	3.11	0.0758	0.0433	0.053	16.2	0.668	< 0.001	2.13	NA	NA	NA	NA	NA
12	4.90	9.22	2.95	0.0453	0.0297	0.0231	14.1	0.528	< 0.001	1.87	NA	NA	NA	NA	NA
12	5.59	8.53	2.53	0.0645	0.0314	0.0201	14.2	0.587	< 0.005	1.57	NA	NA	NA	NA	NA
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
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
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
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
59	6.00	5.59	4.62	0.00828	0.000434 J	0.00426	0.145	0.00787	< 0.002	0.0179	NA	NA	NA	NA	NA
59	5.35	6.24	3.61	0.0356	0.0029	0.0321	4.66	0.171	< 0.001	0.257	NA	NA	NA	NA	NA
59	6.20	5.39	3.37	0.0406 J	0.00211	0.00585	4.47	0.149	< 0.01	0.18	NA	NA	NA	NA	NA
59	6.65	4.94	3.27	0.0401	< 0.005	0.0071	3.08	0.128	< 0.005	0.182	NA	NA	NA	NA	NA
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
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
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
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
08	11.75	3.33	3.35	0.0623	0.0117	0.0128	7.32	0.241	<0.0010	0.303	NA	NA	NA	NA	NA
08	12.73	2.35	3.44	0.0708	0.0069	0.0095	7.27	0.263	< 0.001	0.309	NA	NA	NA	NA	NA
08	13.66	1.42	3.31	0.0336 J	0.0186	0.0125	6.38	0.253	< 0.02	0.287	NA	NA	NA	NA	NA
08	13.00	2.08	3.09	0.0552	< 0.005	< 0.005	7.83	0.284	< 0.005	0.309	NA	NA	NA	NA	NA
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	0.07

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													
OC	Depth to	Corrected	pH	Total Metals							Dissolved Metals				
vation	Water	GW Elev.	Standard	Arsenic	Cadmium	Lead	Manganese	Nickel	Thallium	Zinc	Arsenic	Cadmium	Lead	Manganese	Nic
GVD)	(feet)	(ft-NGVD)	Unit	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg
FIRST WATER-BEARING ZONE															
.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	N
.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	N
.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	N
.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	N
.23	7.30	6.93	**3.29**	0.0012	**0.0376**	0.0027	**0.575**	0.049	<0.0010	0.156	NA	NA	NA	NA	N
.23	6.68	7.55	**3.37**	< 0.005	**0.0457**	0.0025	**0.621**	0.0525	< 0.001	0.197	NA	NA	NA	NA	N
.23	7.50	6.73	**3.06**	0.0025 J	**0.113**	0.0037	**1.92 J**	**0.0749 J**	< 0.001	0.278 J	NA	NA	NA	NA	N
.23	8.09	6.14	**2.91**	< 0.005	**0.0621**	< 0.005	**0.999**	0.0461	**< 0.005**	0.197	NA	NA	NA	NA	N
.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	N
.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	N
.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	N
.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	N
.77	8.70	8.07	**3.52**	0.0036	**0.065**	<0.0010	**4.62**	0.0381	<0.0010	0.132	NA	NA	NA	NA	N
.77	7.23	9.54	**3.42**	< 0.005	**0.0307**	< 0.001	**2.46**	0.0227	< 0.001	0.0777	NA	NA	NA	NA	N
.77	8.48	8.29	**3.45**	0.0019	**0.0241**	0.0011	**1.71**	0.0189	< 0.001	0.0521	NA	NA	NA	NA	N
.77	9.55	7.22	**3.35**	0.0038	**0.044**	< 0.001	**3.19**	0.0293	< 0.001	0.0902	NA	NA	NA	NA	N
.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	N
.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	N
.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	N
.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	N
.22	5.60	6.62	**3.69**	**< 0.02**	0.00282	0.0012	**2.38**	0.0493	< 0.002	0.125	NA	NA	NA	NA	N
.22	3.93	8.29	**3.97**	< 0.005	0.0021	0.0013	**1.64**	0.0321	< 0.001	0.0825	NA	NA	NA	NA	N
.22	5.65	6.57	**3.85**	0.0015	0.0023	0.0014	**1.15**	0.0221	< 0.001	0.0461	NA	NA	NA	NA	N
.22	6.70	5.52	**3.64**	< 0.005	< 0.005	< 0.005	**0.887**	0.0216	**< 0.005**	0.0723	NA	NA	NA	NA	N
.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	N
.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	N
.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**	**0.09**
.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	N
.57	7.00	7.57	**4.60**	0.0023	**0.0409**	**0.0294**	**0.898**	0.0273	<0.0010	0.106	NA	NA	NA	NA	N
.57	6.12	8.45	**4.18**	< 0.005	**0.0699**	**0.076**	**1.8**	0.0535	< 0.001	0.242	NA	NA	NA	NA	N
.57	6.89	7.68	**4.46**	**0.0194**	**0.0579**	**0.0645**	**1.5**	0.0416	< 0.001	0.164	NA	NA	NA	NA	N
.57	7.88	6.69	**2.92**	**0.0709**	**0.251 J**	**0.268**	**6.74**	**0.179**	**< 0.005**	0.783	NA	NA	NA	NA	N
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**	**0.07**

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 Metals				
C ation (VD)	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)	Nick (mg/
FIRST WATER-BEARING ZONE															
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
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
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
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
46	8.30	1.16	**3.24**	**< 0.05**	**< 0.01**	< 0.005	**6.12**	**0.245**	**< 0.01**	0.347 J	NA	NA	NA	NA	NA
46	6.19	3.27	**3.42**	**0.0342**	< 0.001	0.0013	**3.58**	**0.157**	< 0.001	0.231	NA	NA	NA	NA	NA
46	8.33	1.13	**3.18**	**0.025**	< 0.001	< 0.001	**6.09**	**0.203**	< 0.001	0.231	NA	NA	NA	NA	NA
46	8.48	0.98	**3.31**	**0.0305**	< 0.005	< 0.005	**4.32**	**0.182**	**< 0.005**	0.256	NA	NA	NA	NA	NA
SECOND WATER-BEARING ZONE															
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
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
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
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
21	5.53	8.68	7.09	0.0022	<0.001	0.0029	0.057	<0.0020	<0.0010	<0.0040	NA	NA	NA	NA	NA
21	4.04	10.17	7.33	< 0.005	< 0.001	< 0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
21	4.14	10.07	7.67	0.00808 J	< 0.004	< 0.005	0.0168	< 0.01	< 0.002	< 0.05	NA	NA	NA	NA	NA
21	5.63	8.58	6.86	< 0.005	< 0.005	< 0.005	0.0571	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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
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
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
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
12	10.88	4.24	7.08	< 0.004	0.000351 J	0.000252 J	0.00252	0.00118 J	< 0.002	0.0066 J	NA	NA	NA	NA	NA
12	9.50	5.62	7.22	< 0.005	< 0.001	< 0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
12	9.70	5.42	7.14	0.00149 J	< 0.002	0.000281 J	0.00965	0.000539 J	< 0.002	0.003 J	NA	NA	NA	NA	NA
12	10.46	4.66	6.68	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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
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
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
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
80	8.11	6.69	6.50	**< 0.02**	0.00159 J	0.000494 J	**0.824**	< 0.01	**< 0.01**	0.0115 J	NA	NA	NA	NA	NA
80	6.19	8.61	6.64	< 0.005	< 0.001	0.0011	0.419	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
80	5.77	9.03	7.02	0.00149 J	< 0.002	0.000465 J	**1.19**	0.00188 J	< 0.002	0.000767 J	NA	NA	NA	NA	NA
80	8.89	5.91	**6.34**	< 0.001	< 0.001	< 0.001	**0.947**	< 0.002	< 0.001	< 0.004	NA	NA	NA	NA	NA
DEQ 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	0.07

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 Metals					
C ation (VD)	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)	Nick (mg/
SECOND WATER-BEARING ZONE																
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	0.0006
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
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
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	0.0005
38	14.20	3.18	6.50	< 0.004	0.000666 J	0.00101	0.0195	0.000858 J	< 0.002	0.0194	NA	NA	NA	NA	NA
38	12.62	4.76	**6.49**	< 0.005	< 0.001	0.0036	0.0628	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
38	13.30	4.08	**7.09**	< 0.004	< 0.00115	0.00107	0.0184	0.000271 J	< 0.000166	0.00209 J	NA	NA	NA	NA	NA
38	14.73	2.65	**6.42**	< 0.005	< 0.005	< 0.005	0.0405	< 0.01	**< 0.005**	< 0.02	< 0.005	< 0.005	< 0.005	< 0.01	< 0.0
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**	0.031
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**	**0.16**
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**	0.033
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
57	8.00	6.57	**5.92**	0.0043	<0.0010	<0.0010	**1.2**	0.0323	<0.0010	0.0319	NA	NA	NA	NA	NA
57	5.92	8.65	**6.15**	< 0.005	< 0.001	< 0.001	**1.32**	0.0397	< 0.001	0.0923	0.0069	< 0.001	0.0011	**1.40**	0.039
57	5.96	8.61	**5.93**	0.0047	< 0.001	< 0.001	**1.29**	0.0416	< 0.001	0.049	0.0036	< 0.001	< 0.001	**1.14**	0.042
57	7.77	6.80	**5.56**	0.0072	< 0.005	< 0.005	**1.31**	0.0411	**< 0.005**	0.066	< 0.005	< 0.005	< 0.005	**1.28**	0.043
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
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
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
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
20	8.60	5.60	**6.21**	0.0029	<0.0010	0.0012	**26**	**0.0963**	<0.0010	0.007	NA	NA	NA	NA	NA
20	7.36	6.84	**6.26**	0.0025	< 0.001	< 0.001	**17.7**	**0.0785**	0.0013	< 0.02	NA	NA	NA	NA	NA
20	7.75	6.45	**6.07**	0.0022 J	< 0.001	< 0.001	**14.9 J**	0.0525 J	< 0.001	< 0.0058 J	NA	NA	NA	NA	NA
20	8.28	5.92	**5.83**	< 0.005	< 0.005	< 0.005	**11.1**	0.0354	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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
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
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
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
10	1.20	9.90	6.82	< 0.004	0.000654 J	0.000406 J	0.0316	0.000449 J	< 0.002	0.00437 J	NA	NA	NA	NA	NA
10	0.70	10.40	7.09	< 0.005	< 0.001	< 0.001	0.0309	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
10	0.40	10.70	7.50	0.00313 J	< 0.002	0.000489 J	0.035	< 0.002	< 0.002	0.0114	NA	NA	NA	NA	NA
10	1.15	9.95	6.59	< 0.005	< 0.005	< 0.005	0.0414	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
DEQ 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**	**0.07**

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 Metals					
C ation (VD)	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)	Nick (mg/
SECOND WATER-BEARING ZONE																
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
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
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
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
32	6.75	9.57	7.16	<0.0010	<0.0010	<0.0010	0.0229	<0.0020	<0.0010	<0.0040	NA	NA	NA	NA	NA
32	4.06	12.26	7.14	< 0.005	< 0.001	< 0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
32	4.91	11.41	7.57	< 0.001	< 0.001	< 0.001	0.0021	< 0.002	< 0.001	0.0044	NA	NA	NA	NA	NA
32	7.19	9.13	6.70	< 0.005	< 0.005	< 0.005	0.0149	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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
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
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
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
37	6.50	4.87	6.93	< 0.002	<0.0010	<0.0010	0.0357	0.0023 J	<0.0010	< 0.004	NA	NA	NA	NA	NA
37	2.50	8.87	6.60	< 0.005	< 0.001	< 0.001	0.0118	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
37	3.01	8.36	7.63	0.0012	< 0.001	< 0.001	0.0408	< 0.002	< 0.001	0.0049	NA	NA	NA	NA	NA
37	4.60	6.77	6.88	< 0.005	< 0.005	< 0.005	0.0735	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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
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
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
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
18	5.58	9.60	6.98	**< 0.02**	0.00186 J	0.0145	0.0224	< 0.01	**< 0.01**	0.0093 J	NA	NA	NA	NA	NA
18	4.12	11.06	6.79	< 0.005	< 0.001	0.015	0.0605	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
18	5.41	9.77	6.65	0.0014	< 0.001	**0.0222**	0.214	< 0.002	< 0.001	0.0048	NA	NA	NA	NA	NA
18	6.38	8.80	6.50	0.0021	< 0.001	**0.0346**	0.237	< 0.002	< 0.001	< 0.004	NA	NA	NA	NA	NA
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
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
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
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
85	6.22	7.63	7.05	**< 0.02**	0.00163 J	< 0.005	0.00702 J	0.00632 J	**< 0.01**	0.0169 J	NA	NA	NA	NA	NA
85	4.44	9.41	6.98	< 0.005	< 0.001	< 0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
85	4.70	9.15	7.36	< 0.001	< 0.001	< 0.001	0.0332	< 0.002	< 0.001	< 0.004	NA	NA	NA	NA	NA
85	6.67	7.18	6.63	< 0.005	< 0.005	< 0.005	0.0262	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
DEQ 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**	**0.07**

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 Metals				
DC ation (GVD)	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)	Nick (mg/
SECOND WATER-BEARING ZONE															
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
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
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
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
28	7.73	7.55	6.87	< 0.004	< 0.002	< 0.001	0.0577	0.0029	< 0.002	< 0.01	NA	NA	NA	NA	NA
28	4.60	10.68	6.97	< 0.001	< 0.001	< 0.001	0.0575	< 0.002	< 0.001	0.004	NA	NA	NA	NA	NA
28	5.61	9.67	6.84	0.00233 J	< 0.002	0.000217 J	0.374	0.00311	< 0.002	0.00231 J	NA	NA	NA	NA	NA
28	8.13	7.15	6.50	0.0015	< 0.001	< 0.001	0.184	< 0.002	< 0.001	< 0.004	NA	NA	NA	NA	NA
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
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
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
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
73	8.25	7.48	6.72	< 0.004	0.000648 J	< 0.001	0.18	0.000801 J	< 0.002	0.00376 J	NA	NA	NA	NA	NA
73	5.74	9.99	6.85	< 0.005	< 0.001	< 0.001	0.217	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
73	6.46	9.27	7.34	0.00195 J	< 0.002	0.0000493 J	0.172	0.0019 J	< 0.002	0.00296 J	NA	NA	NA	NA	NA
73	8.92	6.81	6.67	< 0.005	< 0.005	< 0.005	0.198	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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**	**0.07**
THIRD WATER-BEARING ZONE															
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
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
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
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
76	1.85	12.91	7.07	0.00189 J	0.000357 J	0.0011	0.0388	0.00377	< 0.002	0.00369 J	NA	NA	NA	NA	NA
76	1.15	13.61	8.28	< 0.005	< 0.001	0.002	0.0394	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
76	1.45	13.31	7.97	0.00273 J	< 0.002	0.00342	0.0216	0.00254	< 0.002	0.0128	NA	NA	NA	NA	NA
76	1.91	12.85	7.82	< 0.005	< 0.005	< 0.005	0.0196	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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
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
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
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
42	3.50	10.92	7.04	0.00132 J	0.000337 J	0.000106 J	0.0121	0.000497 J	< 0.002	0.00362 J	NA	NA	NA	NA	NA
42	2.82	11.60	7.52	< 0.005	< 0.001	< 0.001	0.0144	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
42	2.92	11.50	7.46	0.00257 J	< 0.002	0.000786 J	0.00437	< 0.002	< 0.002	0.00383 J	NA	NA	NA	NA	NA
42	3.38	11.04	7.06	< 0.005	< 0.005	< 0.005	0.0113	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA

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 Metals				
DC ation (VD)	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)	Nick (mg/
THIRD WATER-BEARING ZONE															
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
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
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
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
75	2.90	12.85	**9.82**	< 0.004	< 0.002	0.00575	0.00664	< 0.002	< 0.002	< 0.01	NA	NA	NA	NA	NA
75	2.30	13.45	**9.82**	< 0.005	< 0.001	0.0053	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
75	2.51	13.24	**9.81**	< 0.0053	< 0.00115	0.00614	0.00388	0.000695 J	< 0.000166	0.0076 J	NA	NA	NA	NA	NA
75	3.02	12.73	**9.48**	0.0045	< 0.001	0.0057	0.0047	< 0.002	< 0.001	< 0.004	NA	NA	NA	NA	NA
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
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
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
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
03	4.71	10.32	7.40	0.00538	0.000635 J	0.000236 J	0.0237	0.000565 J	< 0.002	0.00392 J	NA	NA	NA	NA	NA
03	4.09	10.94	7.49	0.0085	< 0.001	< 0.001	0.0123	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
03	4.06	10.97	7.24	0.00726	< 0.002	0.000654 J	0.012	0.000609 J	< 0.002	0.00453 J	NA	NA	NA	NA	NA
03	4.63	10.40	6.89	0.0086	< 0.005	< 0.005	0.036	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
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**	**0.07**
WATER WELLS															
A	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
A	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
A	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
A	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
A	NA	NA	8.46	< 0.004	0.00064 J	0.00133	0.0243	0.00217	< 0.002	0.00498 J	NA	NA	NA	NA	NA
A	NA	NA	**8.62**	< 0.005	< 0.001	0.0012	0.0243	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
A	NA	NA	**9.30**	0.00261 J	< 0.002	0.00137	0.0227	0.000366 J	< 0.002	0.00302 J	NA	NA	NA	NA	NA
A	NA	NA	8.20	< 0.005	< 0.005	< 0.005	0.0259	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
A	NA	NA	**8.77**	<0.004	<0.002	0.000733 J	<0.00284	<0.002	<0.002	<0.01	NA	NA	NA	NA	NA
A	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
A	NA	NA	**8.65**	< 0.004	< 0.002	< 0.001	0.00299	< 0.002	< 0.002	0.00626 J	NA	NA	NA	NA	NA
A	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
A	NA	NA	8.41	< 0.004	0.000638 J	0.00604	0.004	0.000482 J	< 0.002	0.0174	NA	NA	NA	NA	NA
A	NA	NA	**9.11**	< 0.005	< 0.001	< 0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
A	NA	NA	**9.84**	0.00133 J	< 0.002	0.000825 J	0.00282	< 0.002	< 0.002	0.00749 J	NA	NA	NA	NA	NA
A	NA	NA	8.50	0.0062	< 0.005	< 0.005	< 0.01	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA

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 Metals				
C ation VD)	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)	Nick (mg/
WATER WELLS															
A	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
A	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
A	NA	NA	7.98	< 0.004	< 0.002	< 0.001	0.0173	< 0.002	< 0.002	0.00341 J	NA	NA	NA	NA	NA
A	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
A	NA	NA	7.69	< 0.004	0.000639 J	0.00044 J	0.0193	0.000976 J	< 0.002	0.00452 J	NA	NA	NA	NA	NA
A	NA	NA	8.32	< 0.005	< 0.001	< 0.001	0.0179	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
A	NA	NA	**8.87**	0.00129 J	< 0.002	0.00158	0.0177	< 0.002	< 0.002	0.00172 J	NA	NA	NA	NA	NA
A	NA	NA	7.62	< 0.005	< 0.005	< 0.005	0.0182	< 0.01	**< 0.005**	< 0.02	NA	NA	NA	NA	NA
A	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
A	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
A	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
A	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
A	NA	NA	**8.52**	< 0.004	0.000653 J	0.0009 J	0.00452	< 0.002	< 0.002	0.00306 J	NA	NA	NA	NA	NA
A	NA	NA	**8.65**	< 0.005	< 0.001	0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
A	NA	NA	**9.00**	0.00136 J	< 0.002	0.00121	0.00299	< 0.002	< 0.002	0.00411 J	NA	NA	NA	NA	NA
A	NA	NA	8.20	< 0.001	< 0.001	< 0.001	0.0039	< 0.002	< 0.001	0.0058	NA	NA	NA	NA	NA
A	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
A	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
A	NA	NA	**9.24**	< 0.004	< 0.002	< 0.001	0.00366	< 0.002	< 0.002	0.0119	NA	NA	NA	NA	NA
A	NA	NA	**9.33**	< 0.000724	< 0.001	< 0.001	0.0039 J	< 0.002	< 0.002	< 0.013	NA	NA	NA	NA	NA
A	NA	NA	**9.23**	< 0.004	0.000652 J	0.000244 J	0.00559	0.000412 J	< 0.002	0.021	NA	NA	NA	NA	NA
A	NA	NA	8.15	< 0.005	< 0.005	< 0.001	< 0.01	< 0.01	< 0.001	< 0.02	NA	NA	NA	NA	NA
A	NA	NA	**9.06**	0.00155 J	< 0.002	0.00282	0.00448	0.000334 J	< 0.002	< 0.01	NA	NA	NA	NA	NA
A	NA	NA	**8.93**	< 0.001	< 0.001	< 0.001	0.0041	< 0.002	< 0.001	0.0084	NA	NA	NA	NA	NA
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**	**0.07**

) elevation - (depth to fluid) = Corrected GROUNDWATER (GW) elevation

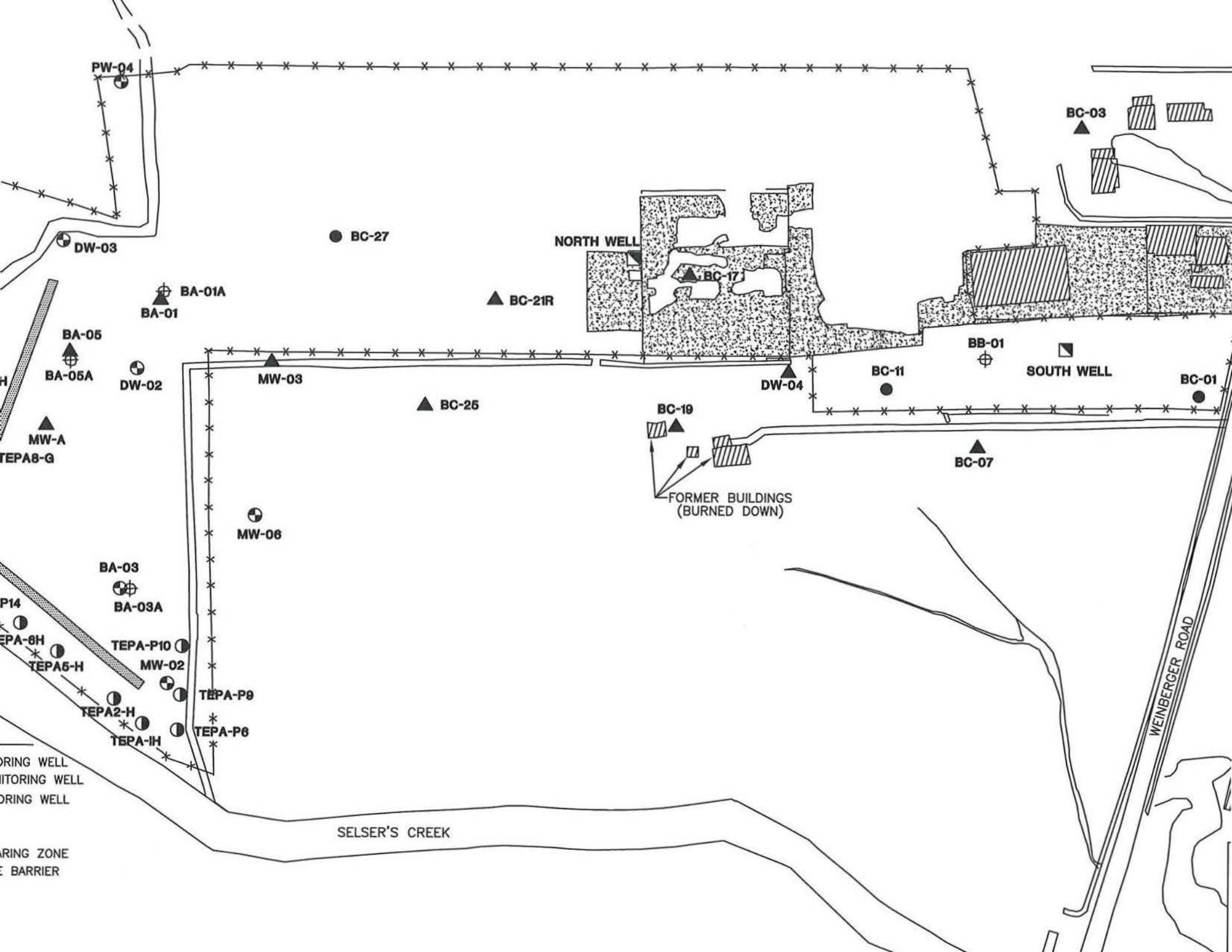
standards were found in previous reports for Lead and pH only. The additional screening standards are from the LDEQ RECAP Screening Standards (SS), l by the LDEQ.

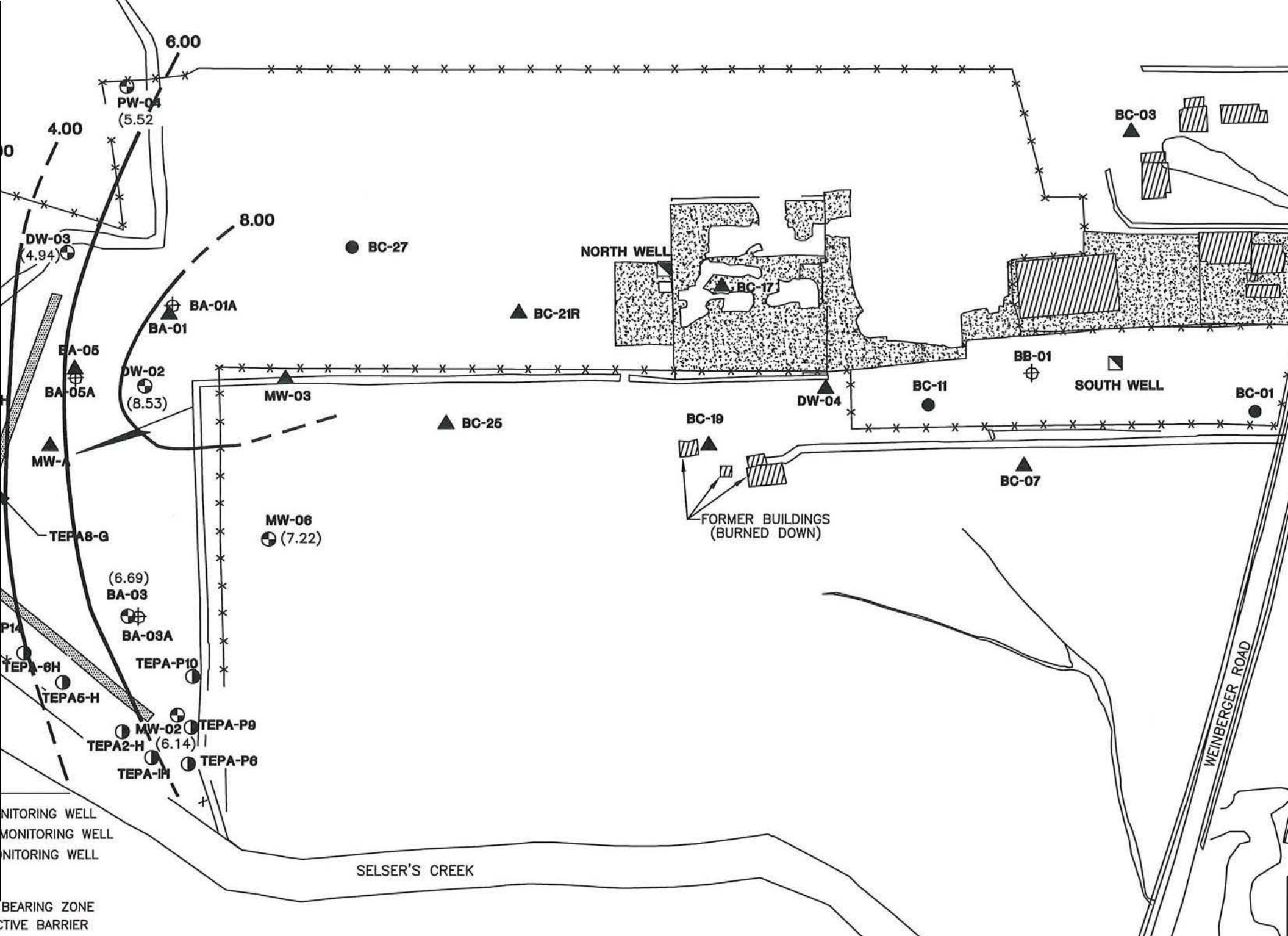
andard for pH = 7.0 s.u.; however EPA Drinking Water Standards for pH = 6.5-8.5 s.u. and the EPA Storm Water Discharge Standards for eing used for comparison purposes.

Site Cleanup or RECAP SS

n the analytical reports are used for non-detect results

FIGURES

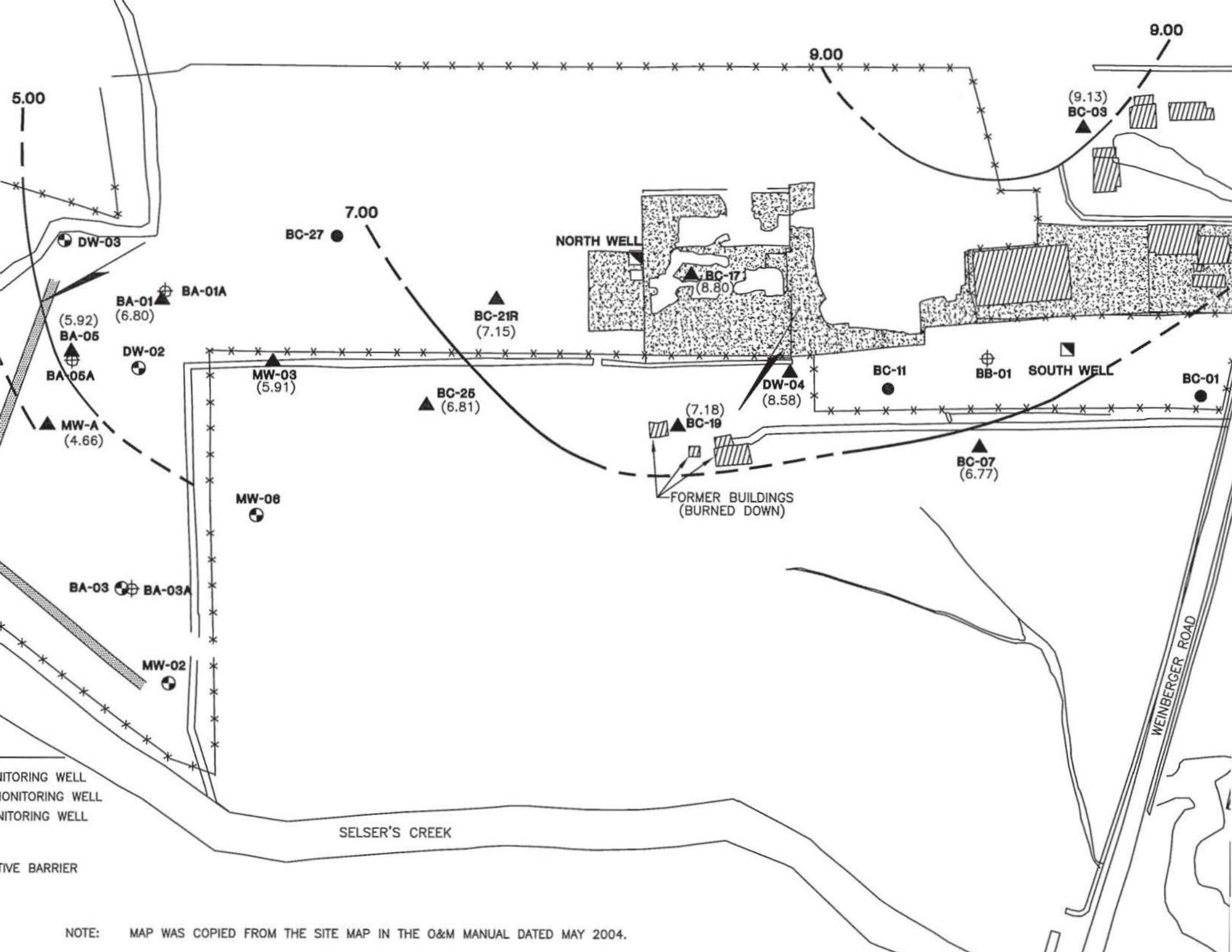

PW-04
DW-03
BC-27
NORTH WELL
BC-17
BC-03
BA-01A
BA-01
BC-21R
BA-05
BA-05A
DW-02
MW-03
DW-04
BC-11
BB-01
SOUTH WELL
BC-01
BC-25
BC-19
MW-A
TEPA8-G
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
P14
EPA-8H
TEPA5-H
TEPA-P10
MW-02
TEPA-P9
TEPA2-H
TEPA-1H
TEPA-P6
ORING WELL
ITORING WELL
ORING WELL
ARING ZONE
E BARRIER
SELSER'S CREEK
WEINBERGER ROAD



NITORING WELL
MONITORING WELL
NITORING WELL

BEARING ZONE
CTIVE BARRIER

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



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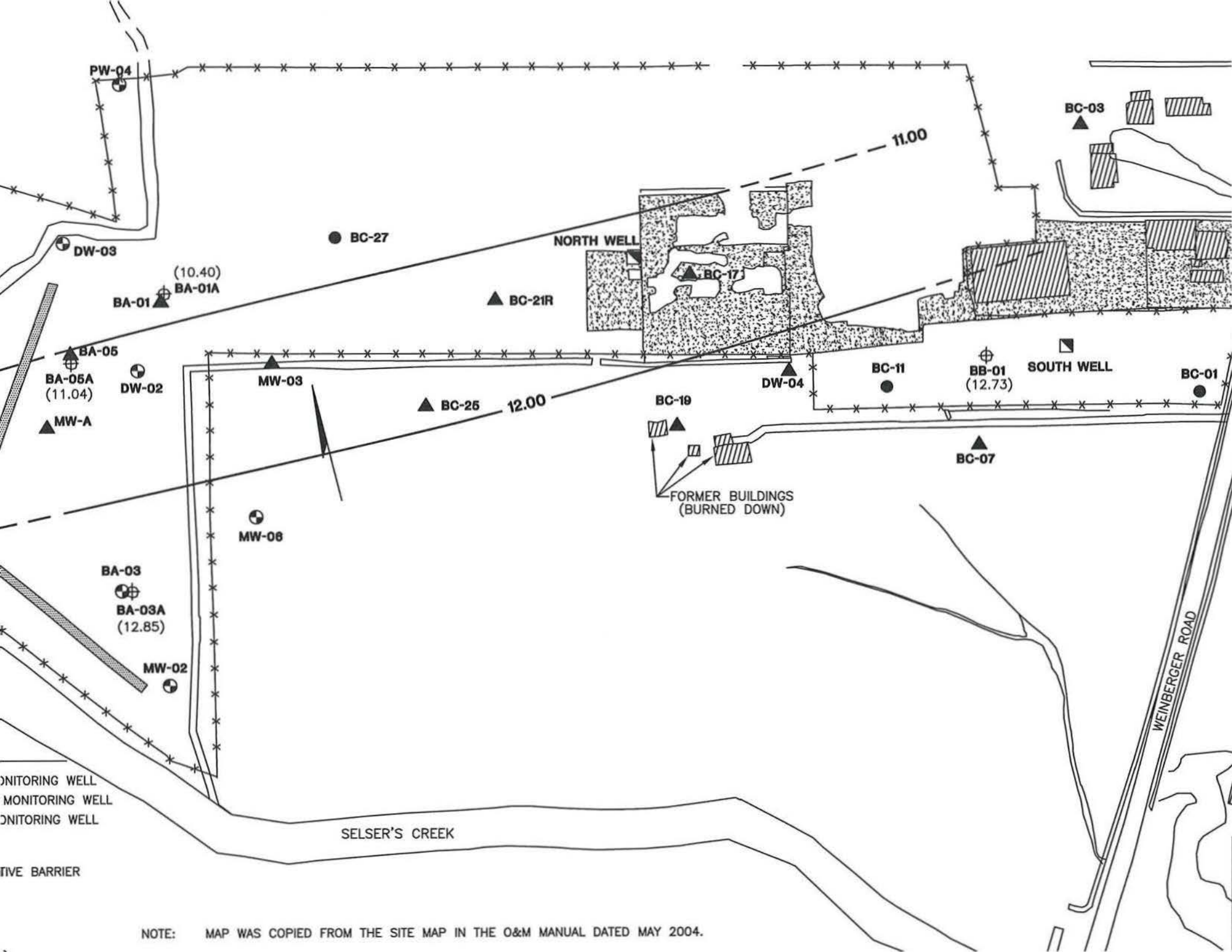

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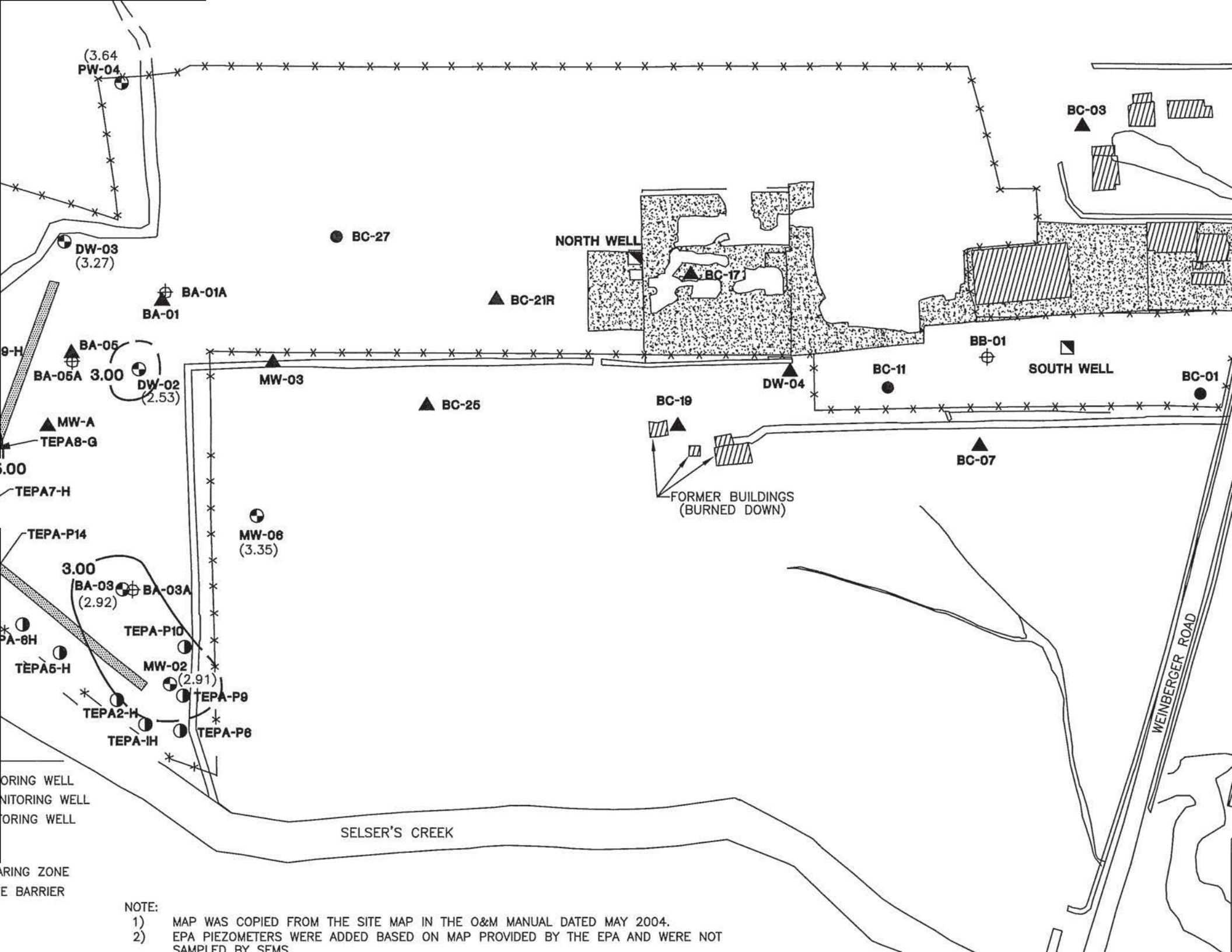

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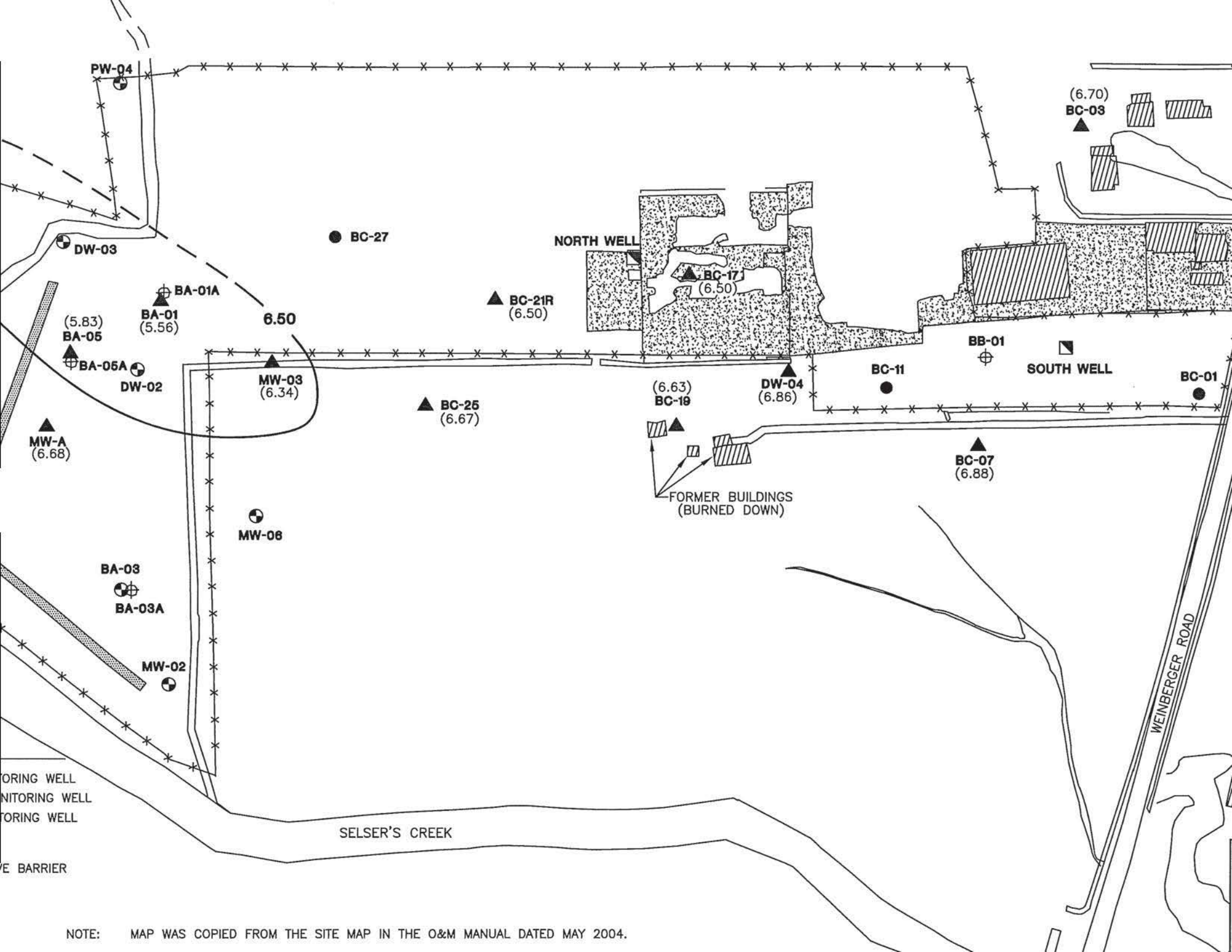

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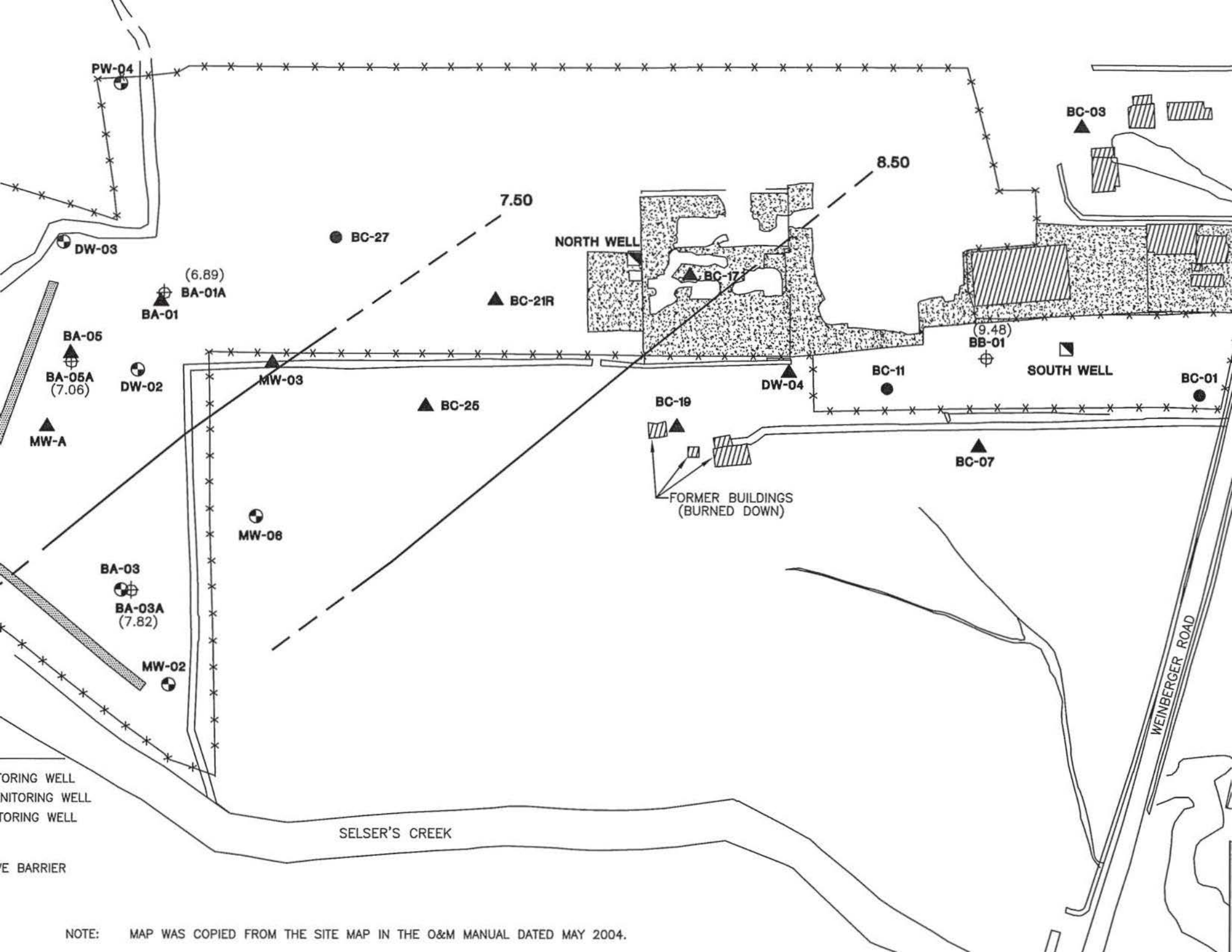

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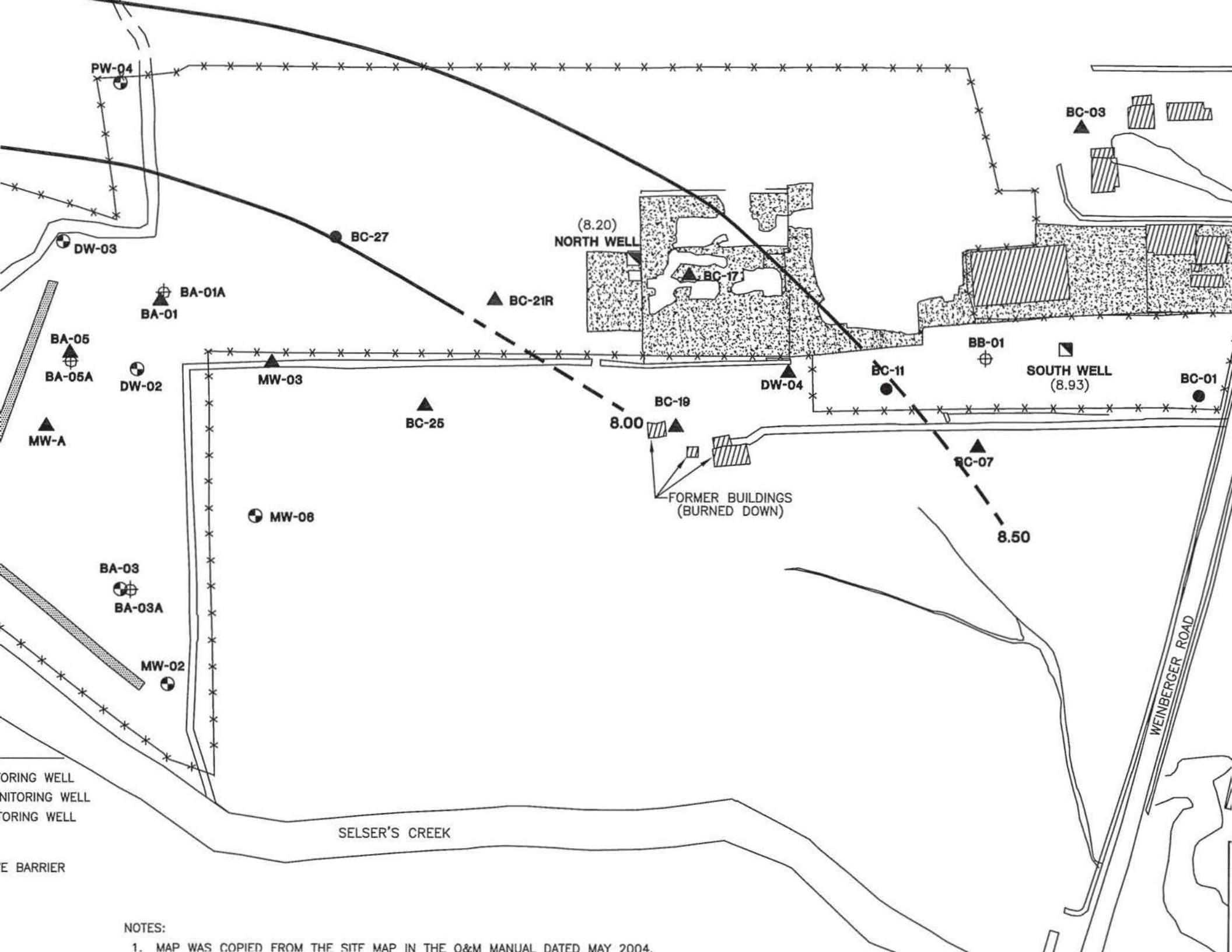

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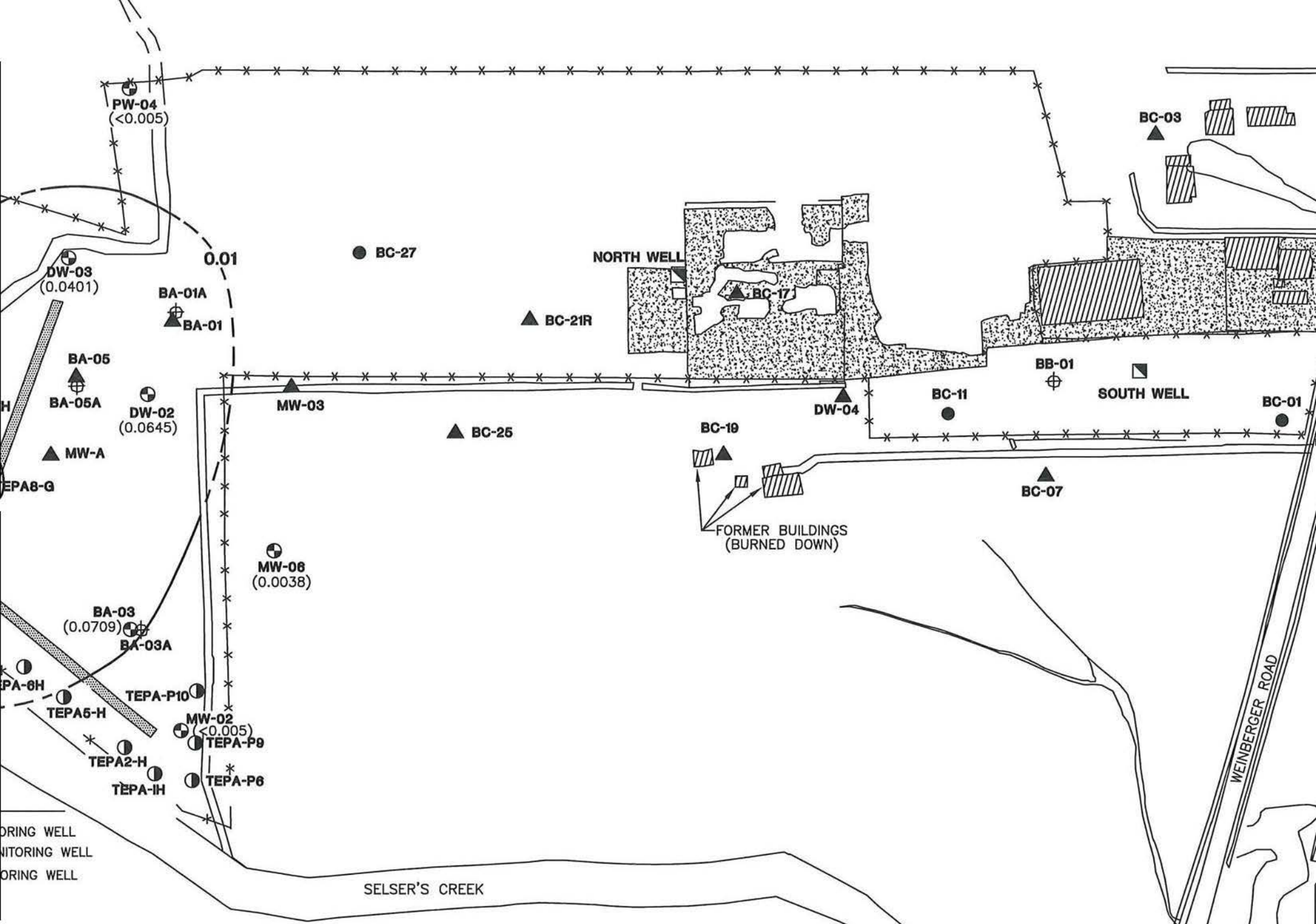

ORING WELL
NITORING WELL
ORING WELL

ARING ZONE
E BARRIER

NOTES:
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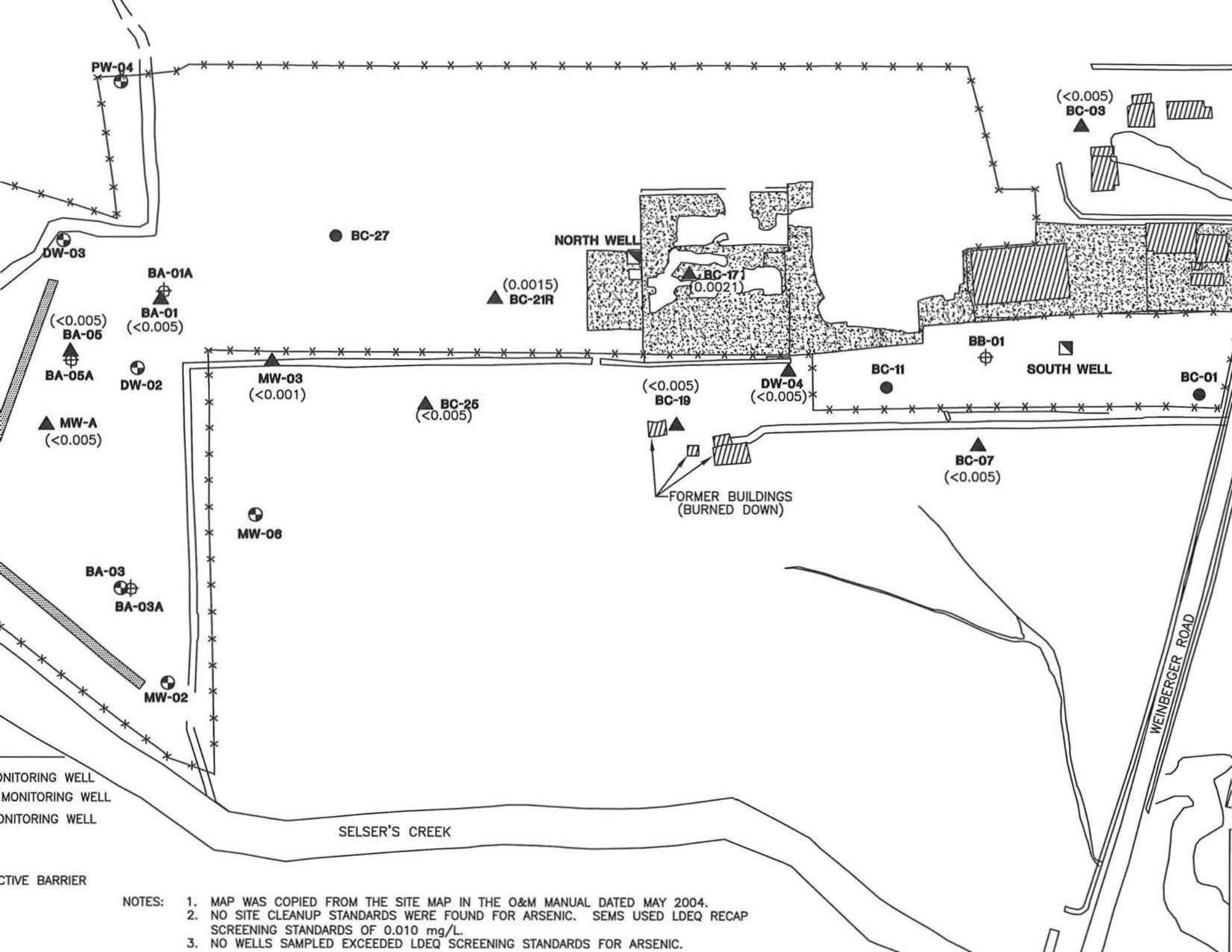
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT



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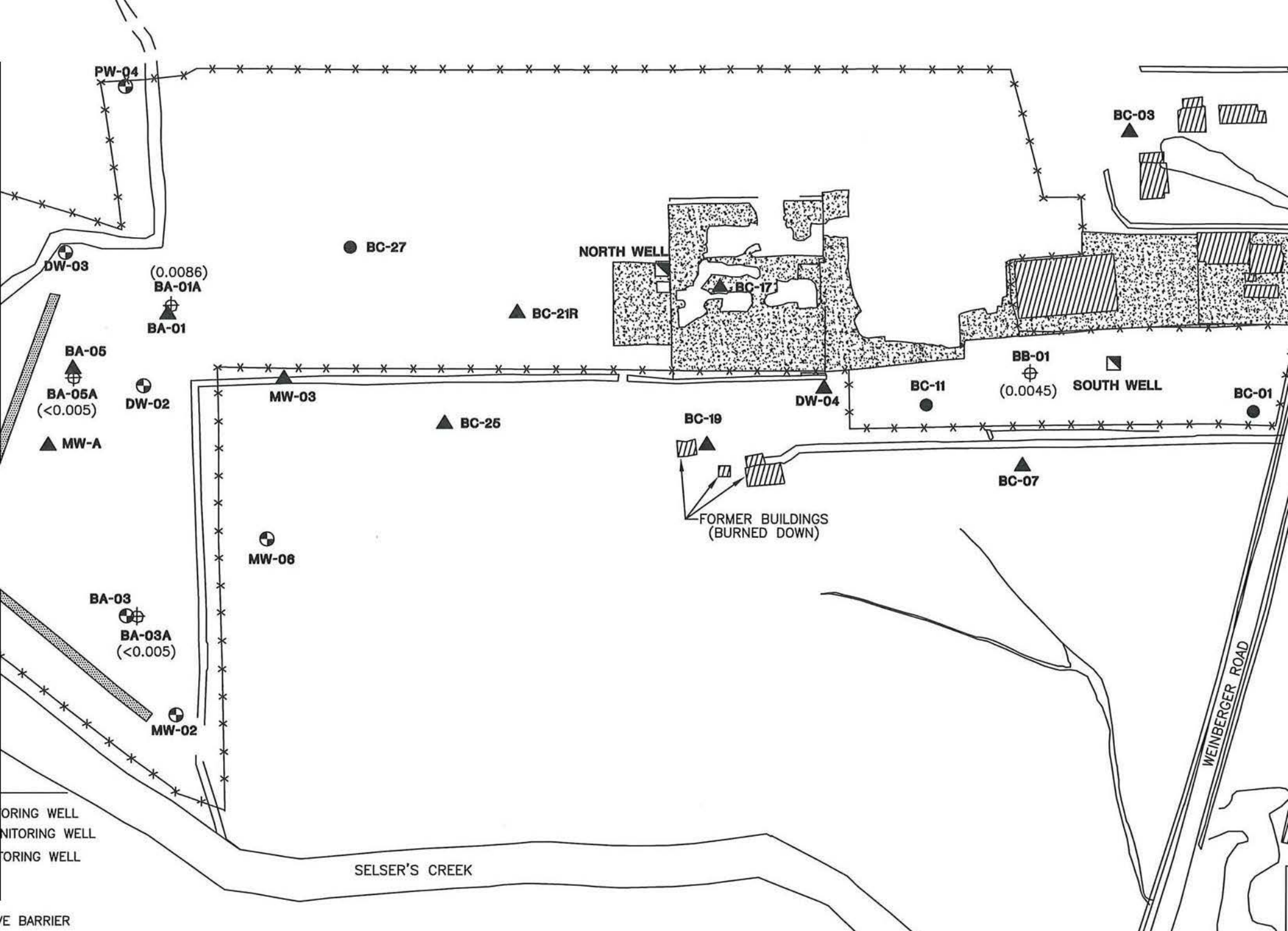

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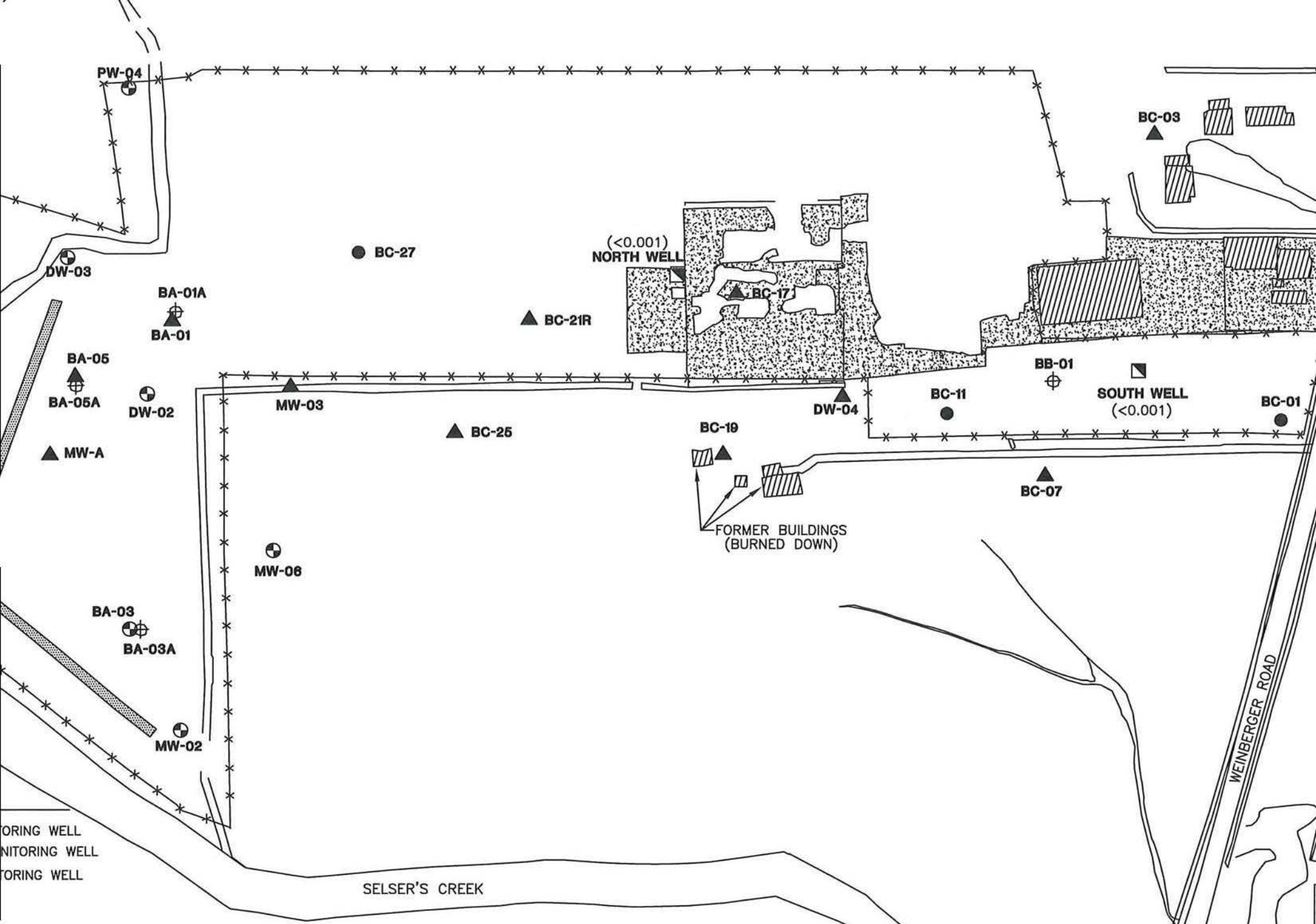

ORING WELL
NITORING WELL
TORING WELL

VE BARRIER

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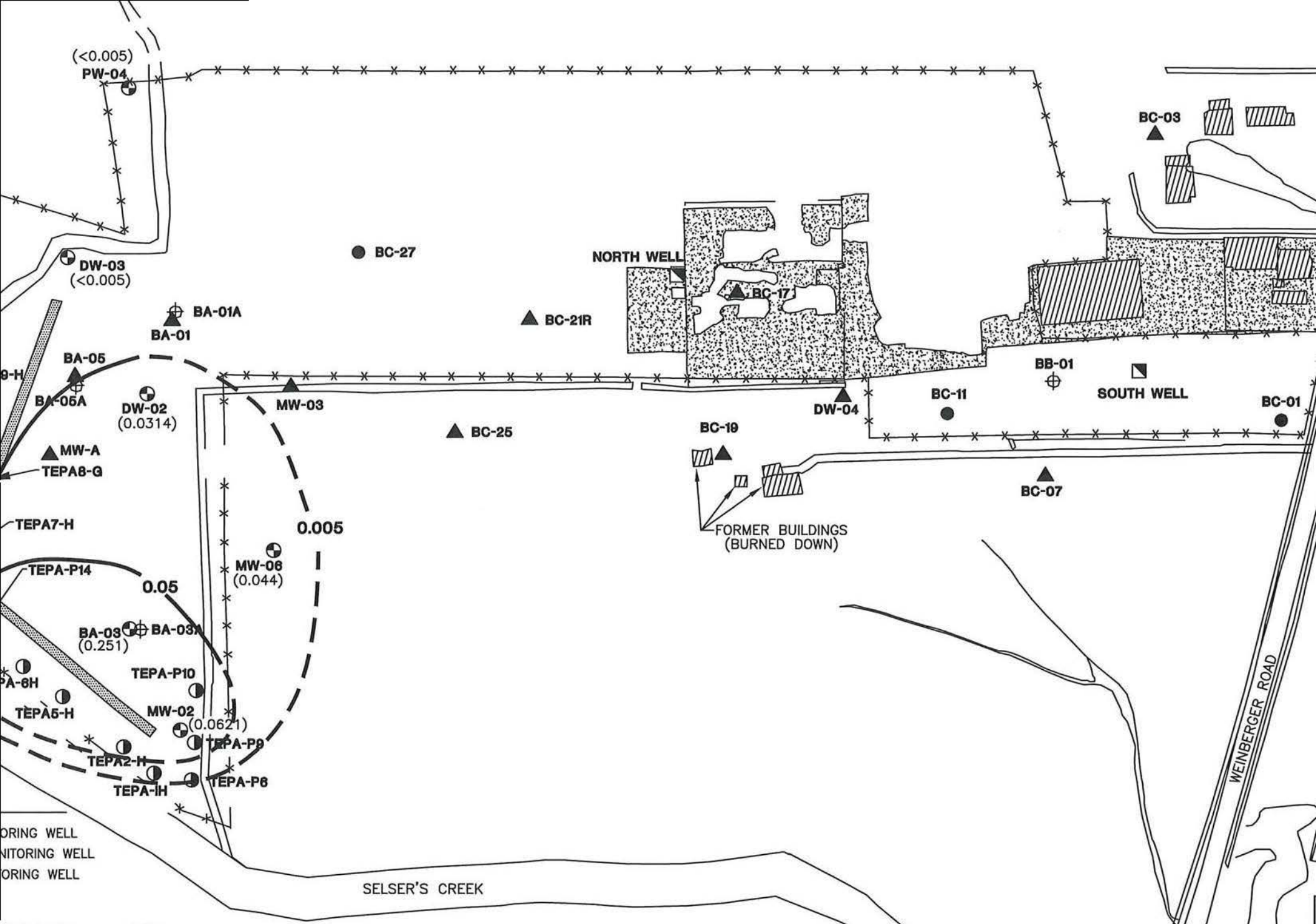
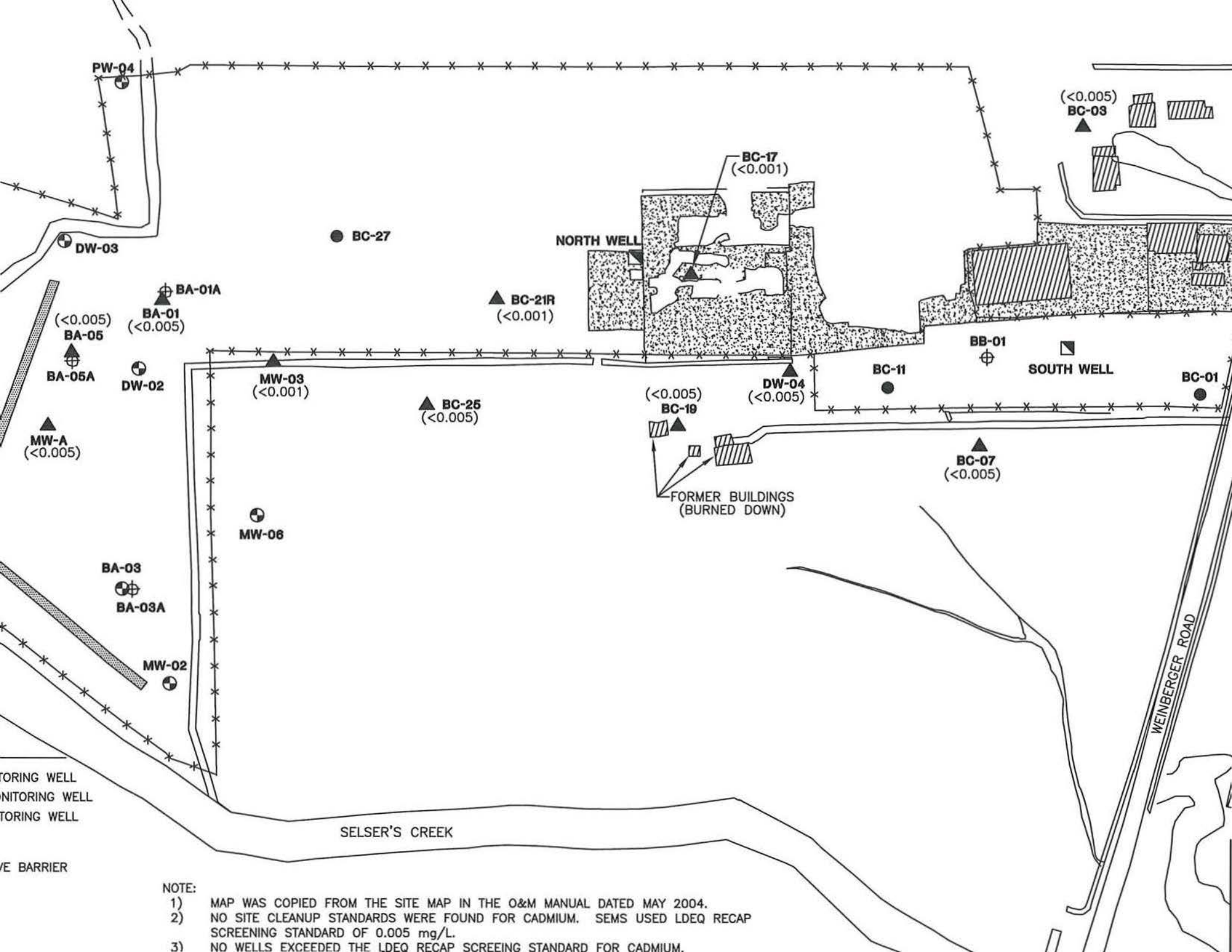


ORING WELL
NITORING WELL
ORING WELL

ARING ZONE
E BARRIER

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.



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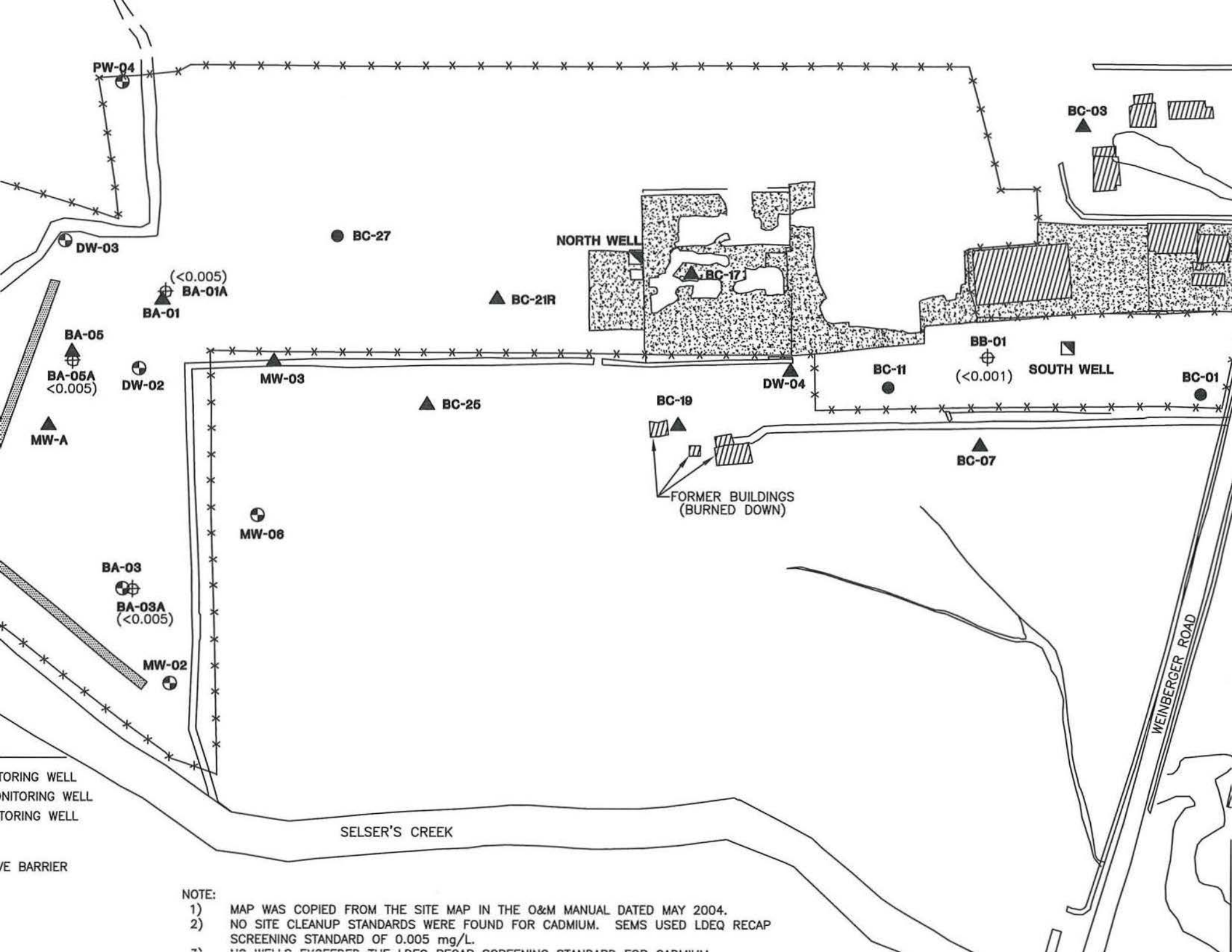
3) NO WELLS EXCEEDED THE LDEQ RECAP SCREENING STANDARD FOR CADMIUM.



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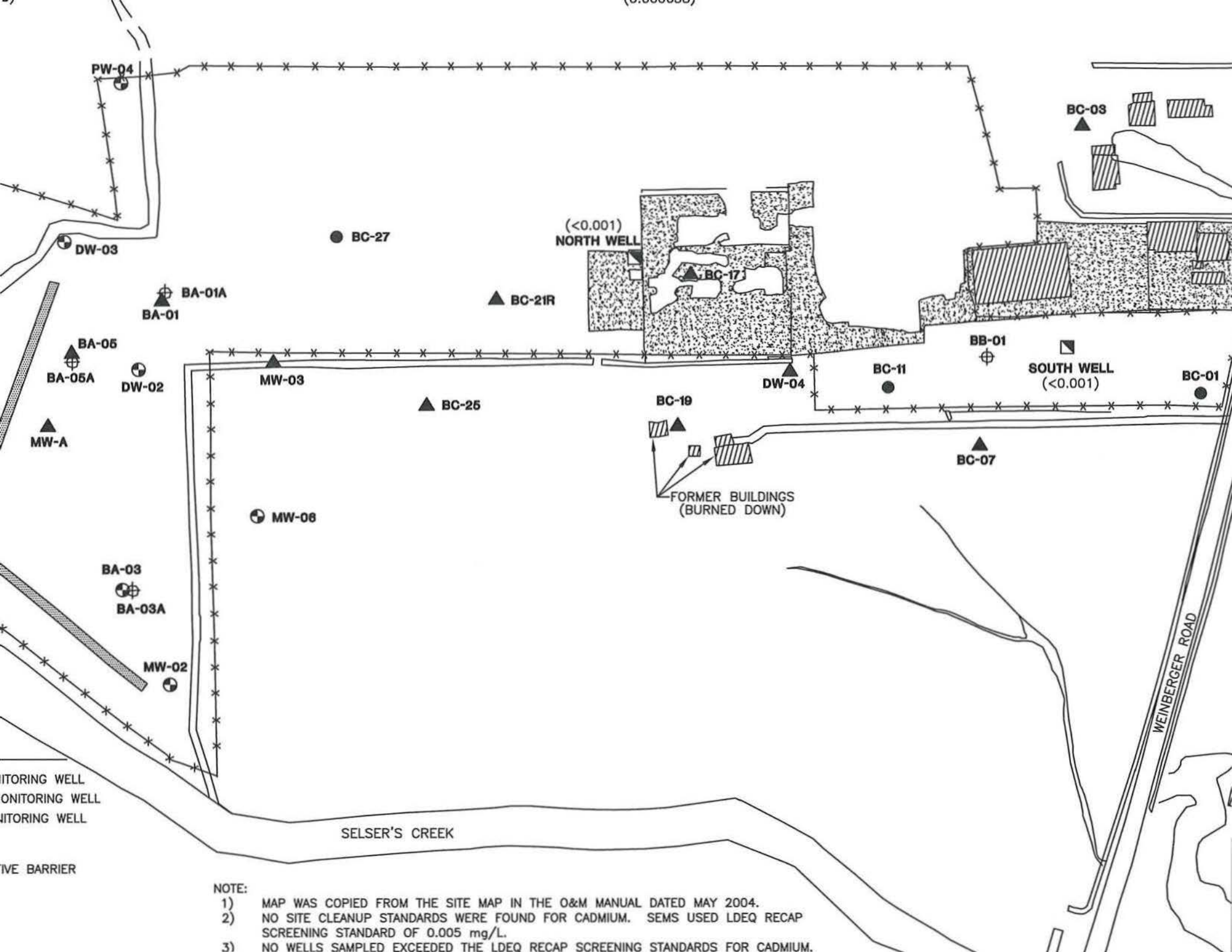

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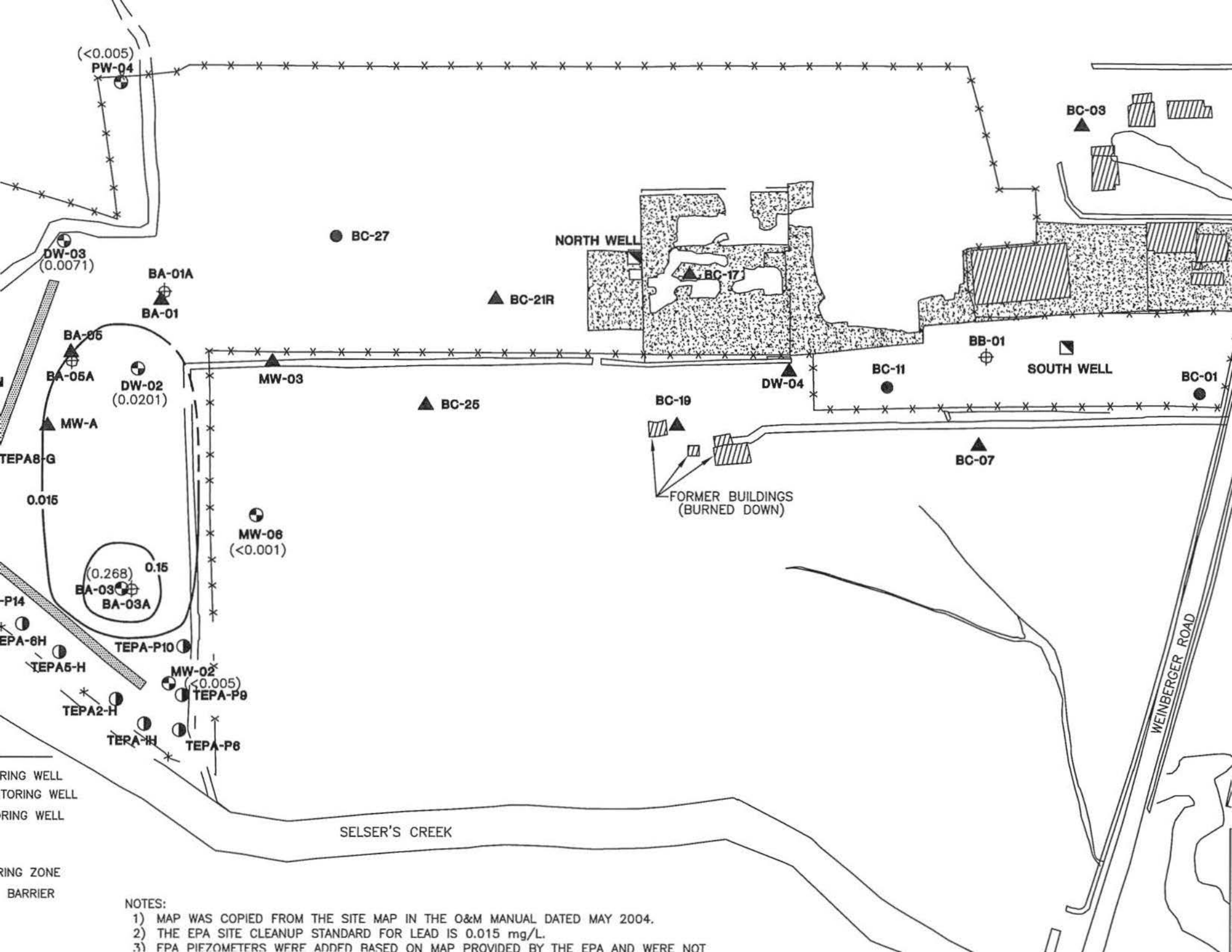
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR CADMIUM.



NOTES:
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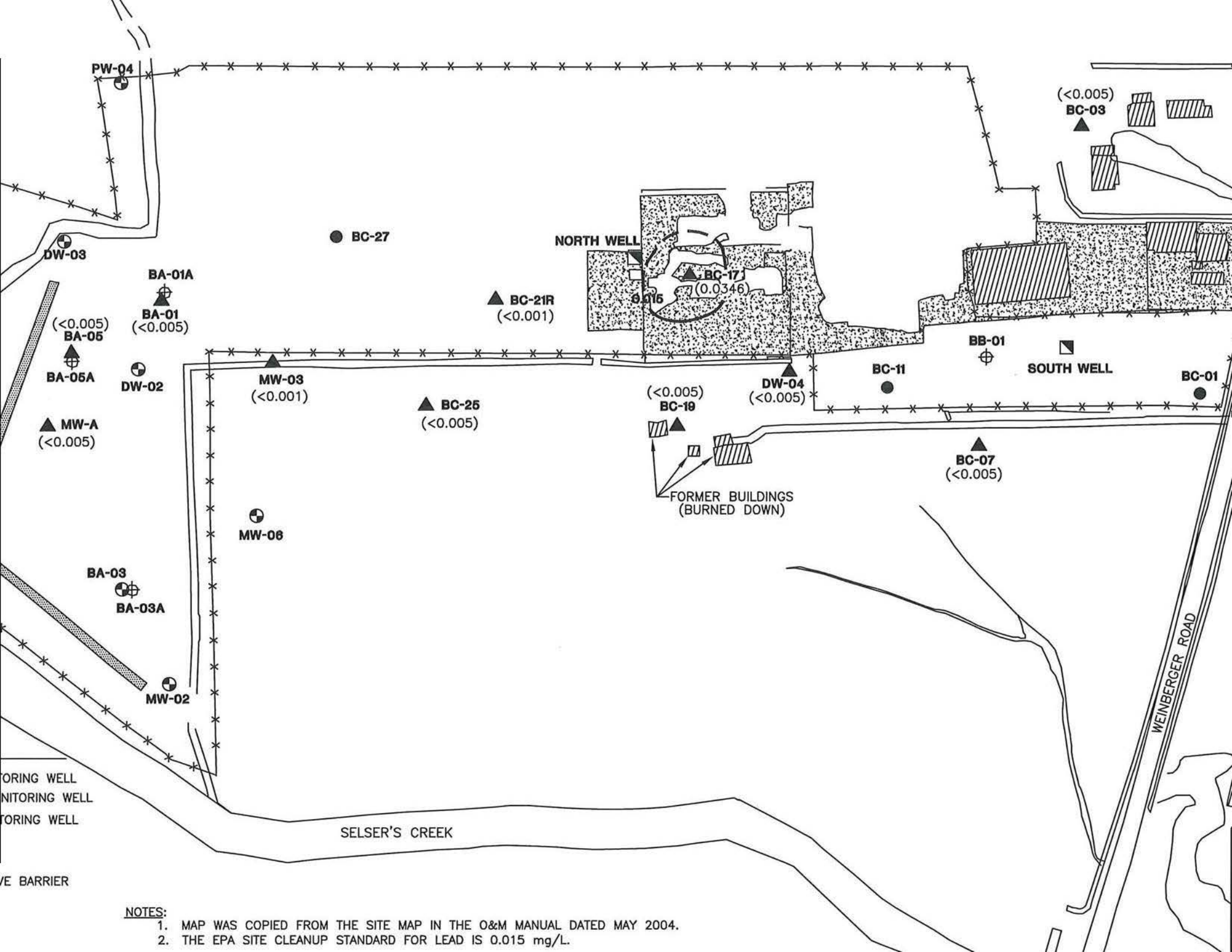
2) THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT



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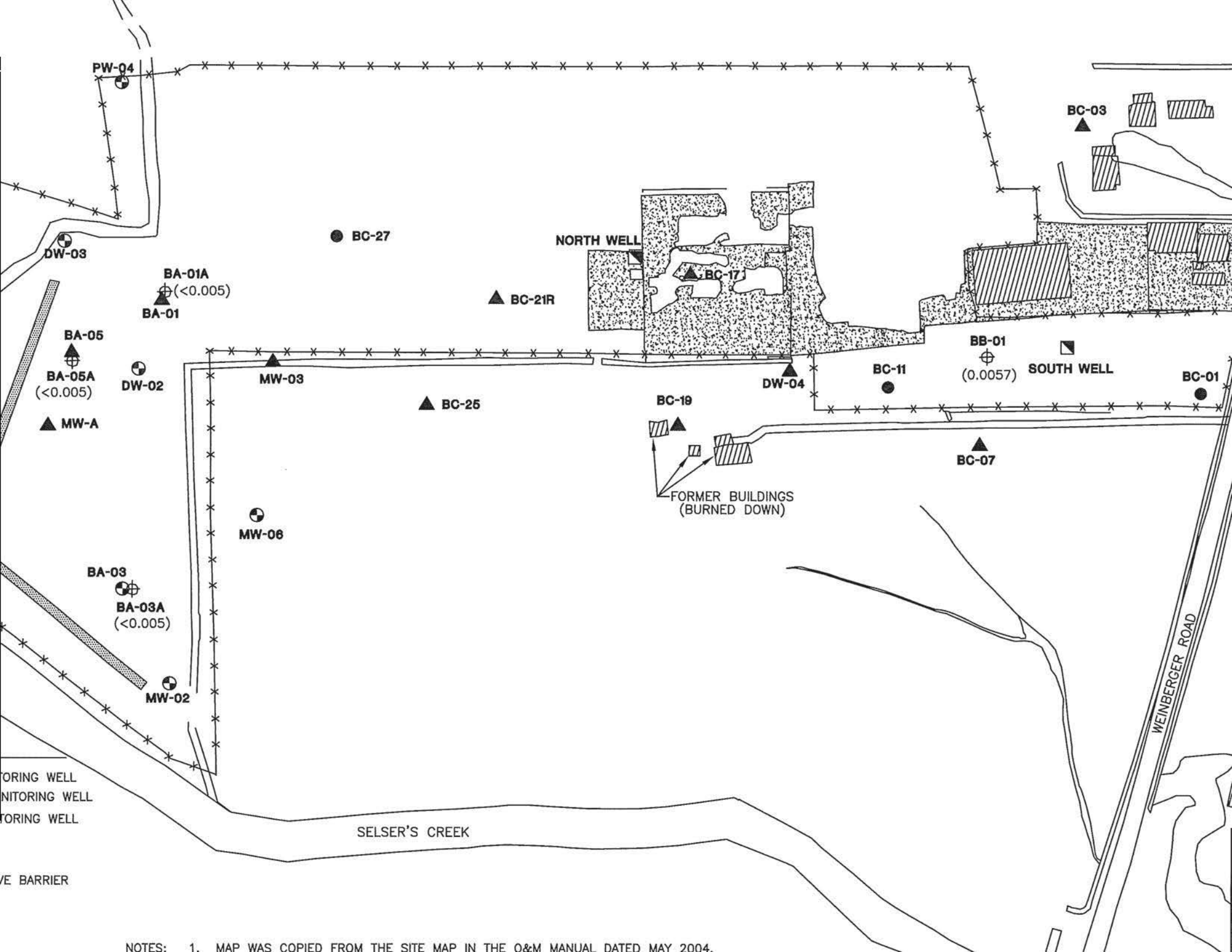

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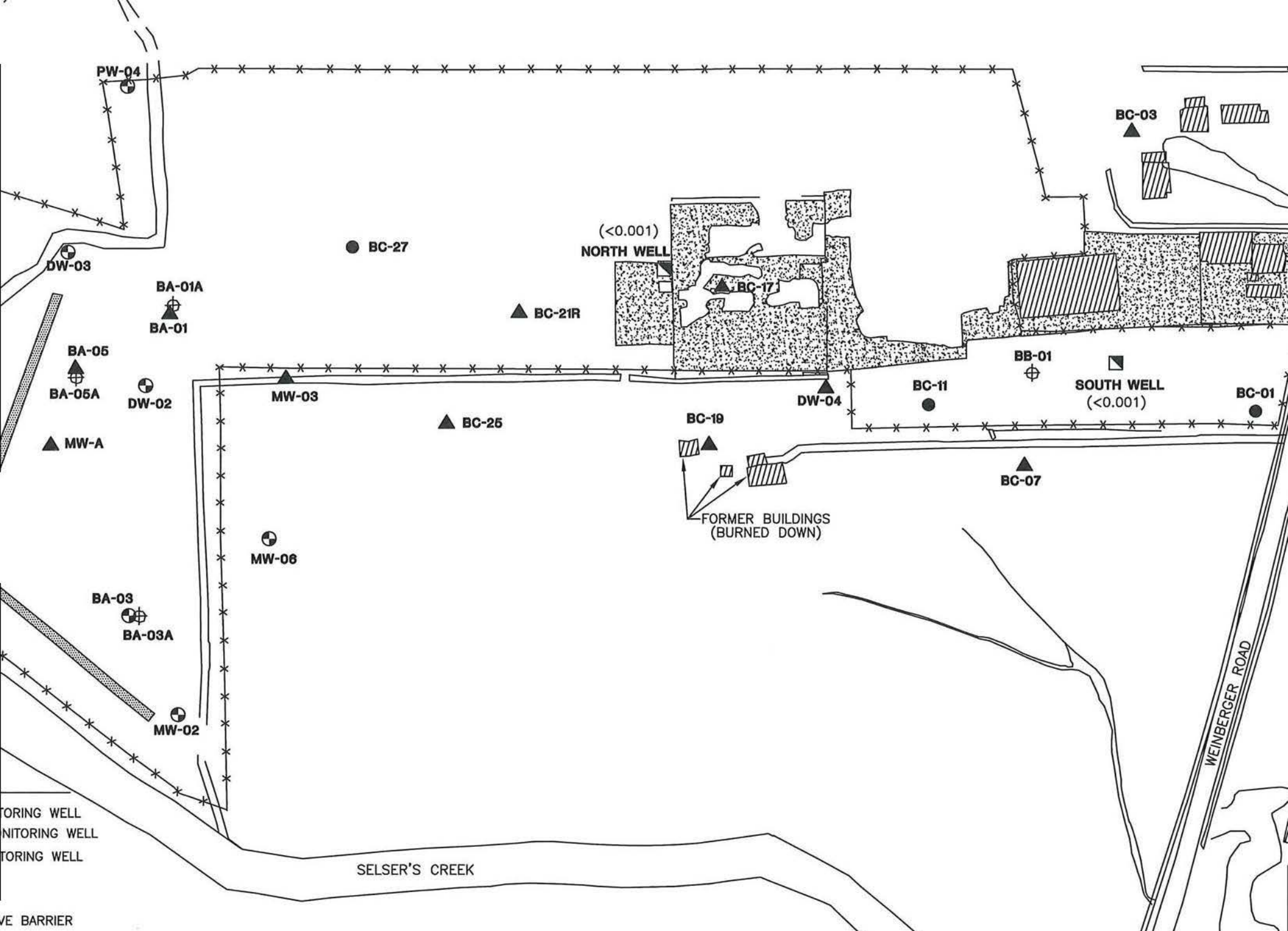

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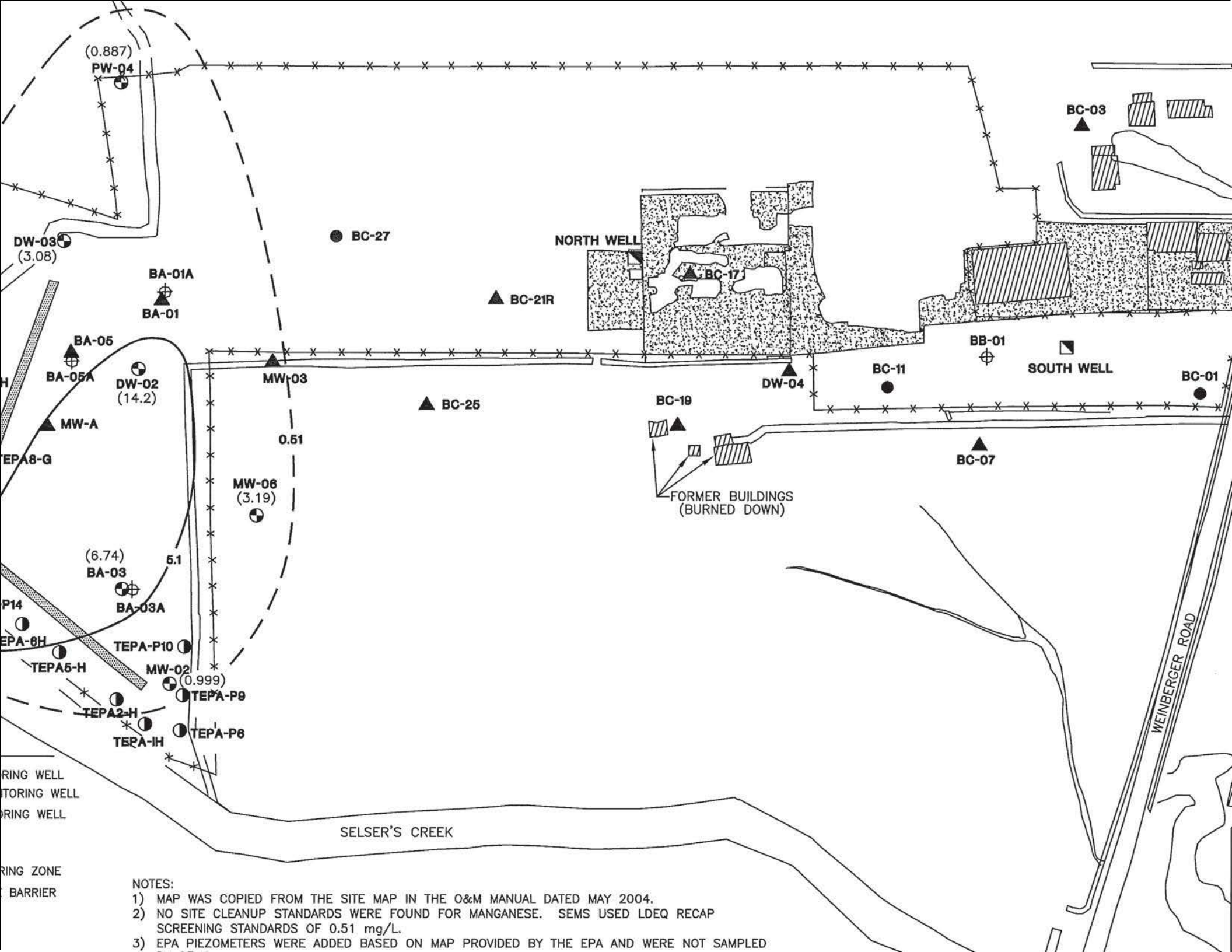
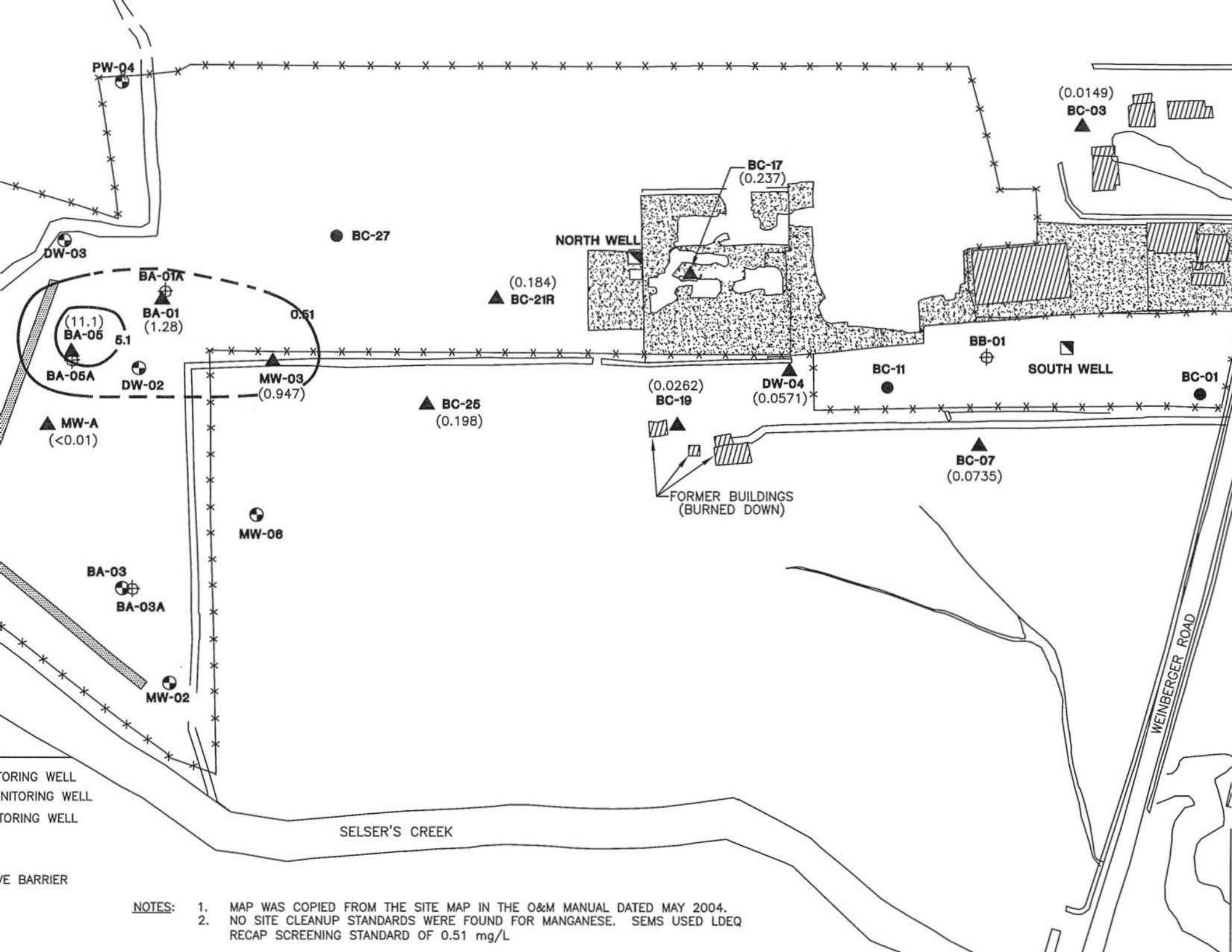
3. NO WELLS SAMPLED EXCEEDED THE SITE CLEANUP STANDARDS FOR LEAD



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



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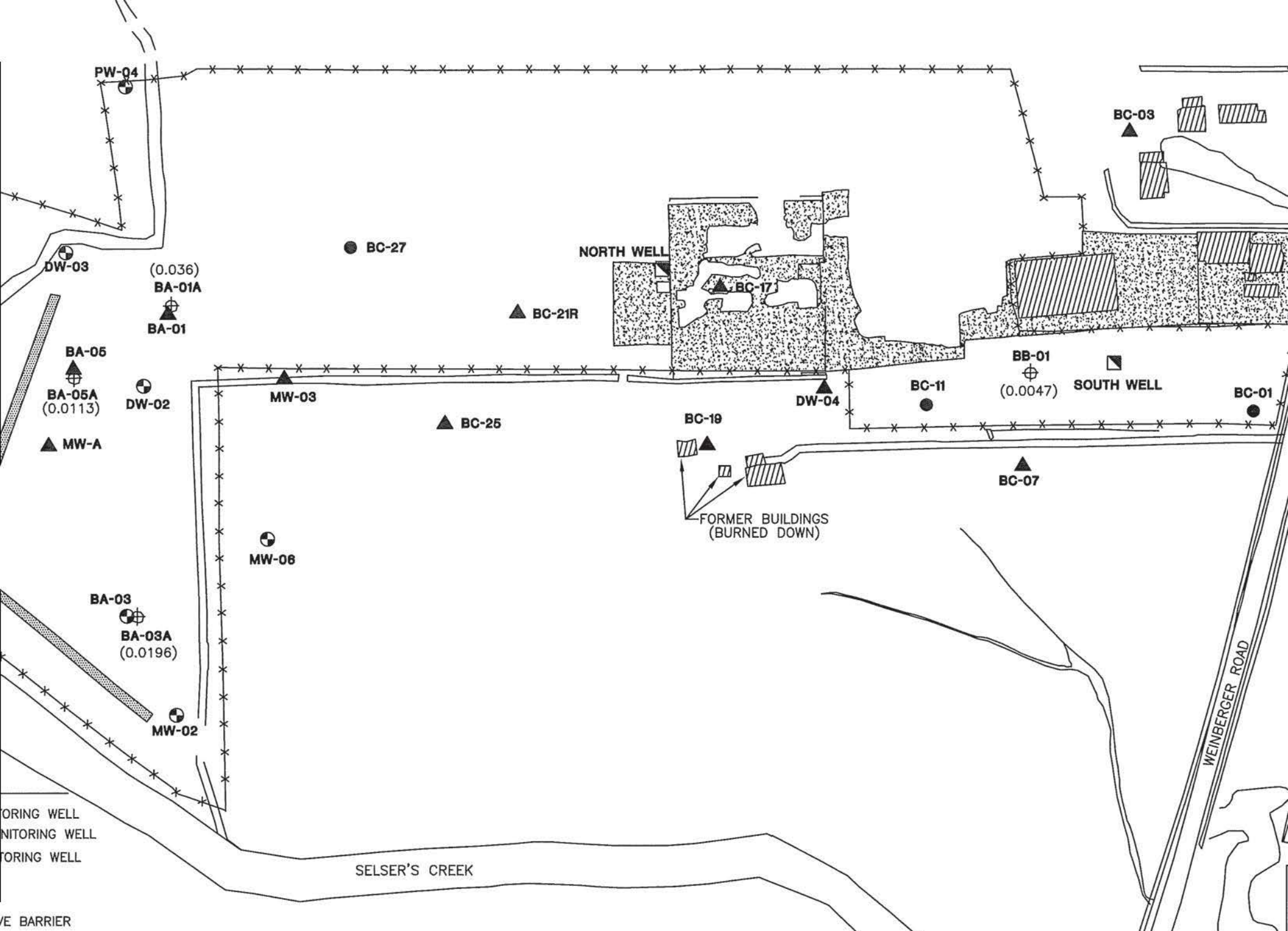

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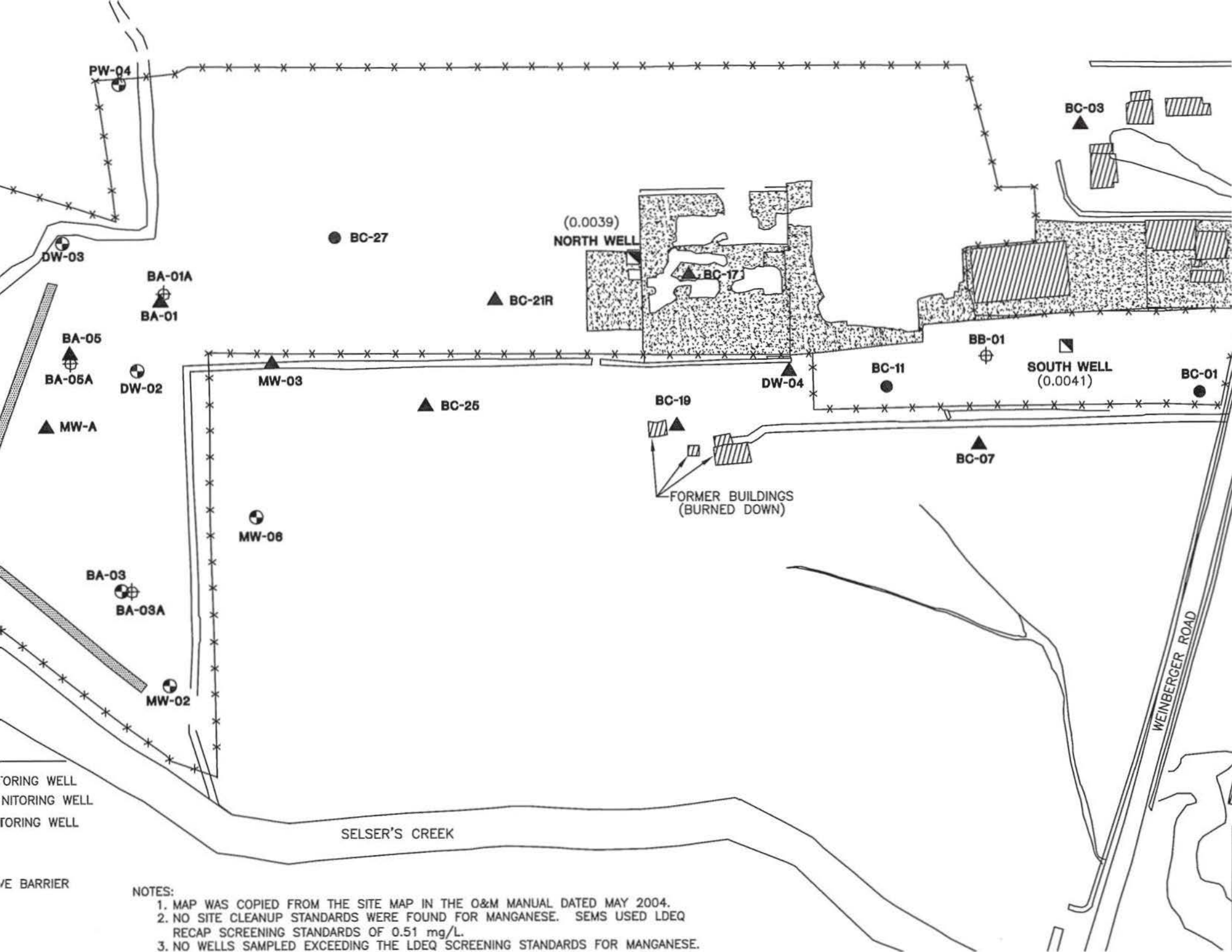
3. NO WELLS SAMPLED EXCEEDING THE LDEQ SCREENING STANDARDS FOR MANGANESE



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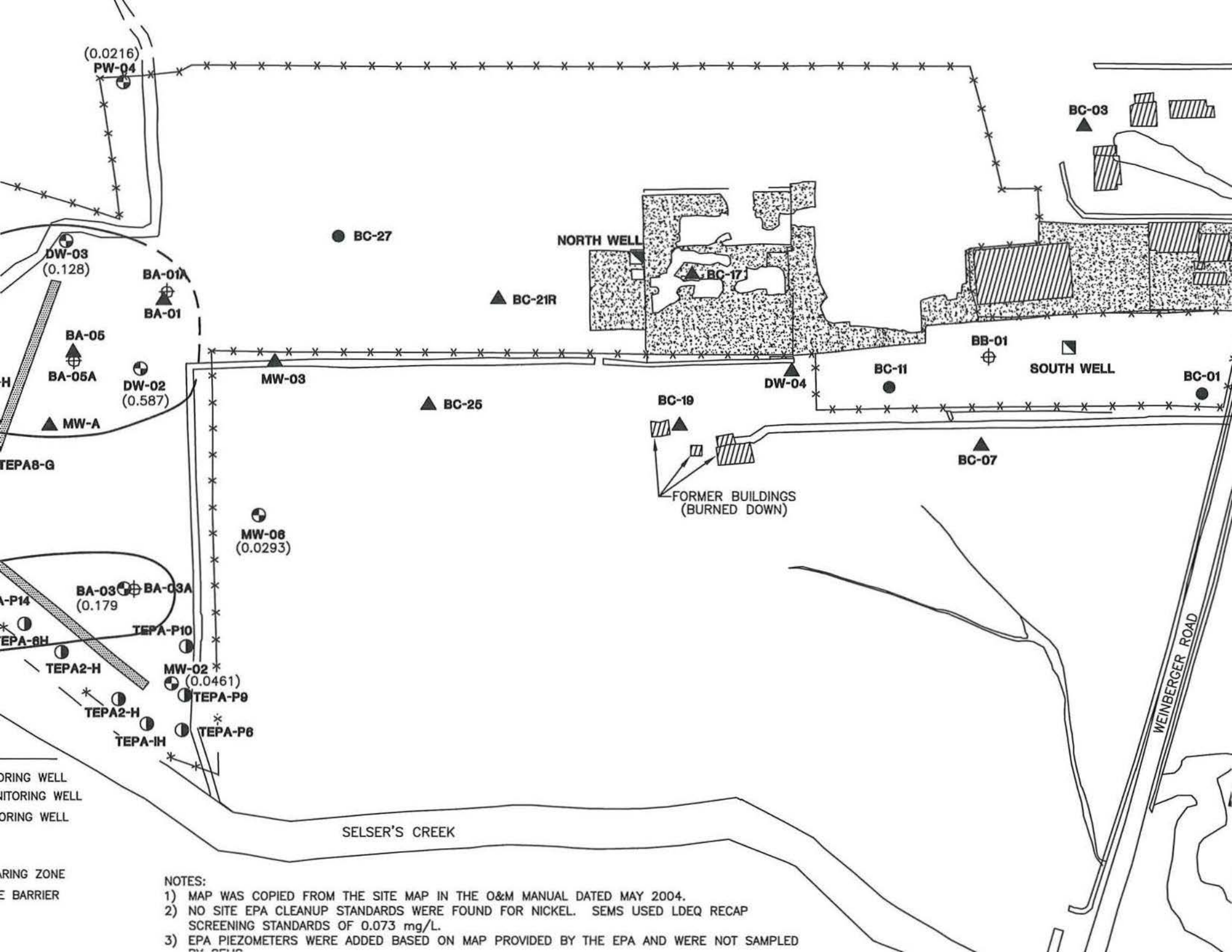

ORING WELL
NITORING WELL
ORING WELL

ARING ZONE
E BARRIER

NOTES:
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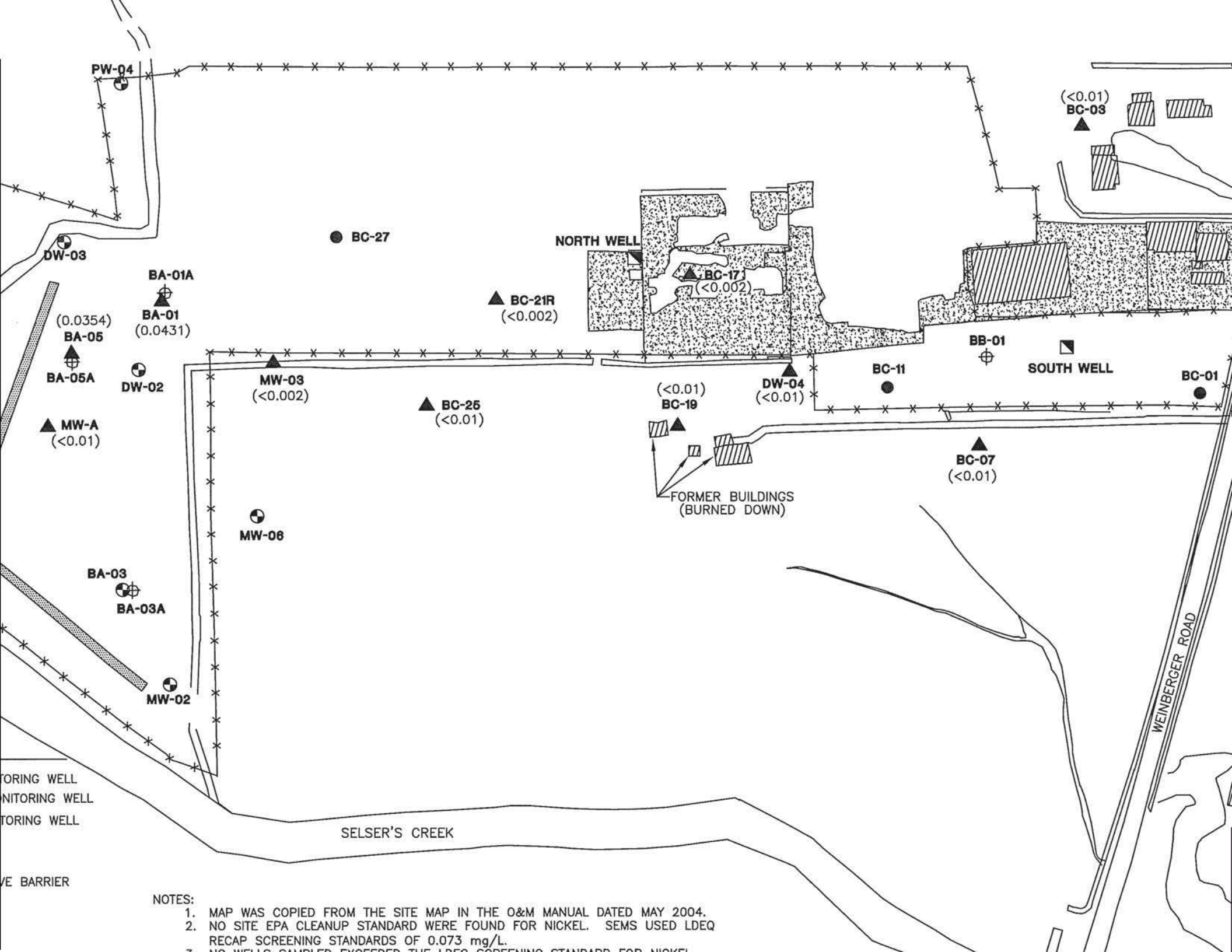
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED



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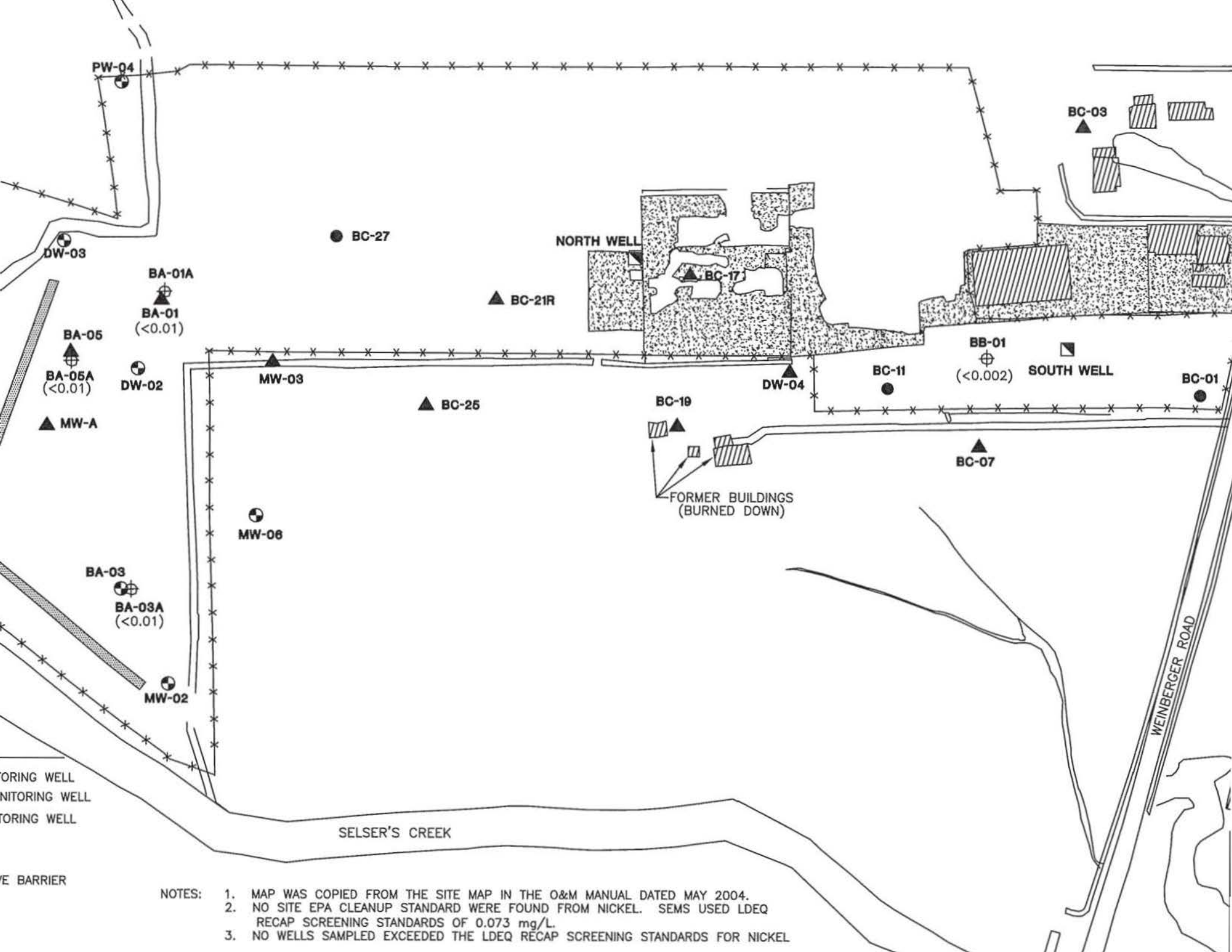

TORING WELL
NITORING WELL
TORING WELL

VE BARRIER

NOTES:
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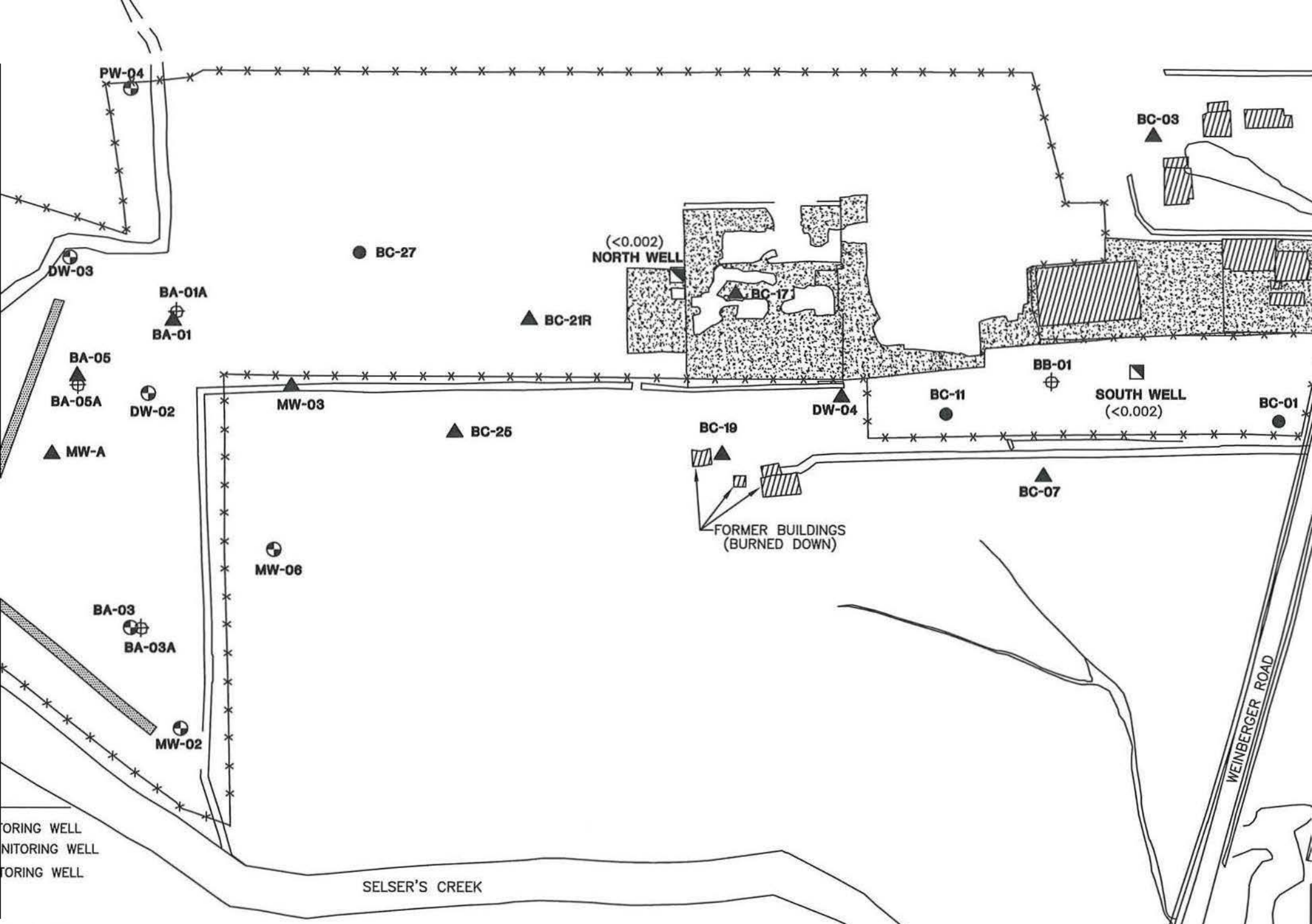

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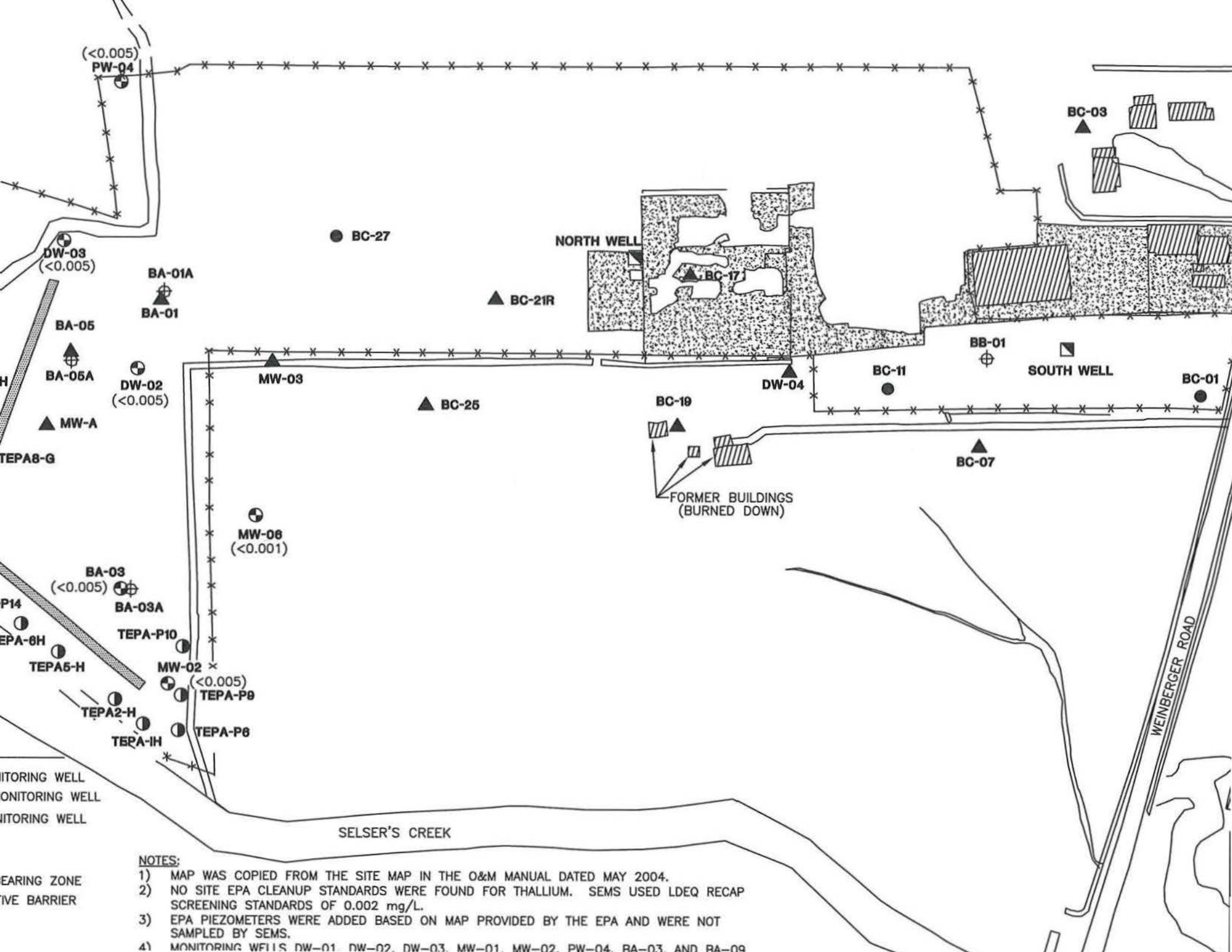
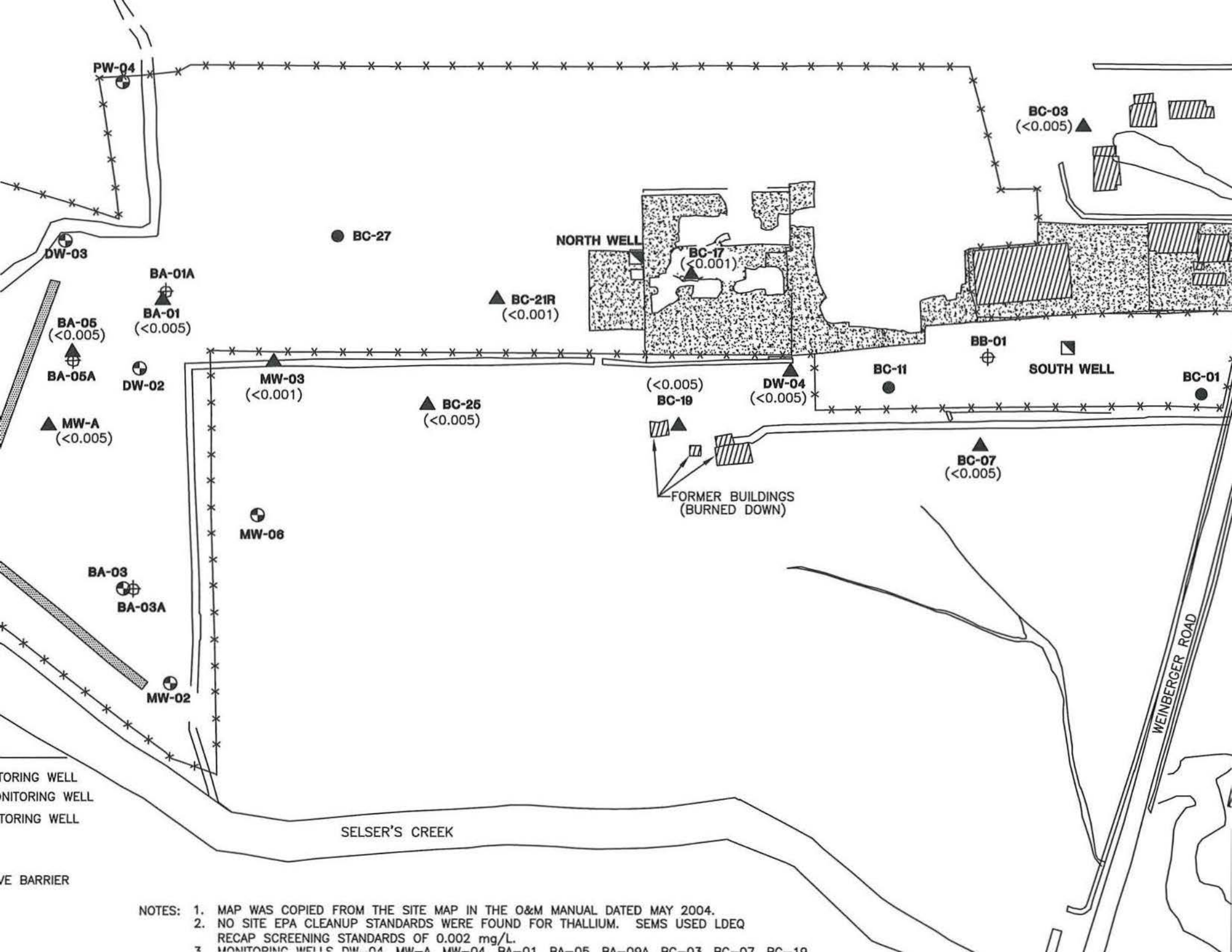


ITORING WELL
ONITORING WELL
NITORING WELL

EARING ZONE
IVE BARRIER

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.
4) MONITORING WELLS DW-01, DW-02, DW-03, MW-01, MW-02, PW-04, BA-03, AND BA-09



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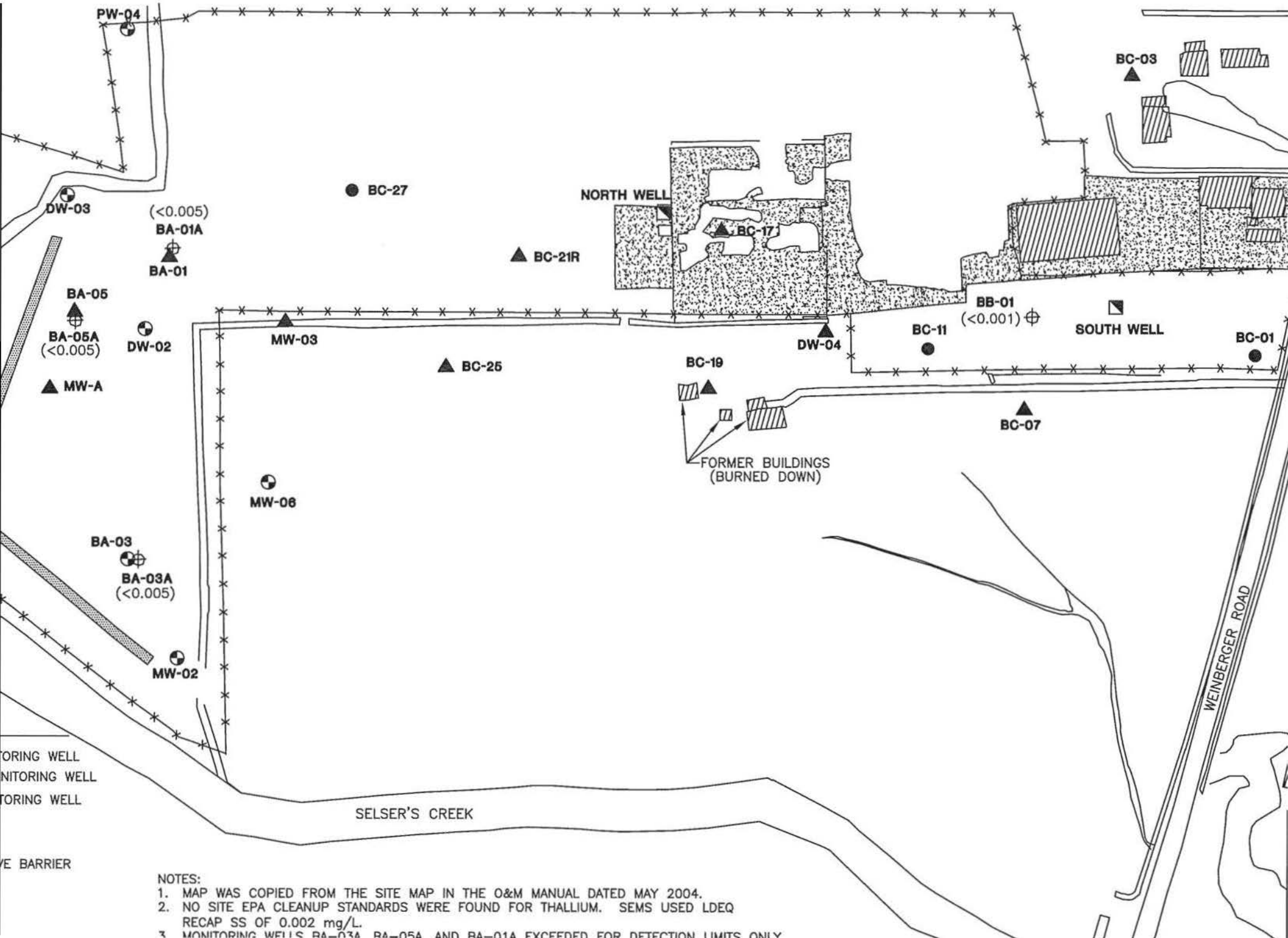
3. MONITORING WELLS DW-04, MW-A, MW-04, BA-01, BA-05, BA-09A, BC-03, BC-07, BC-19



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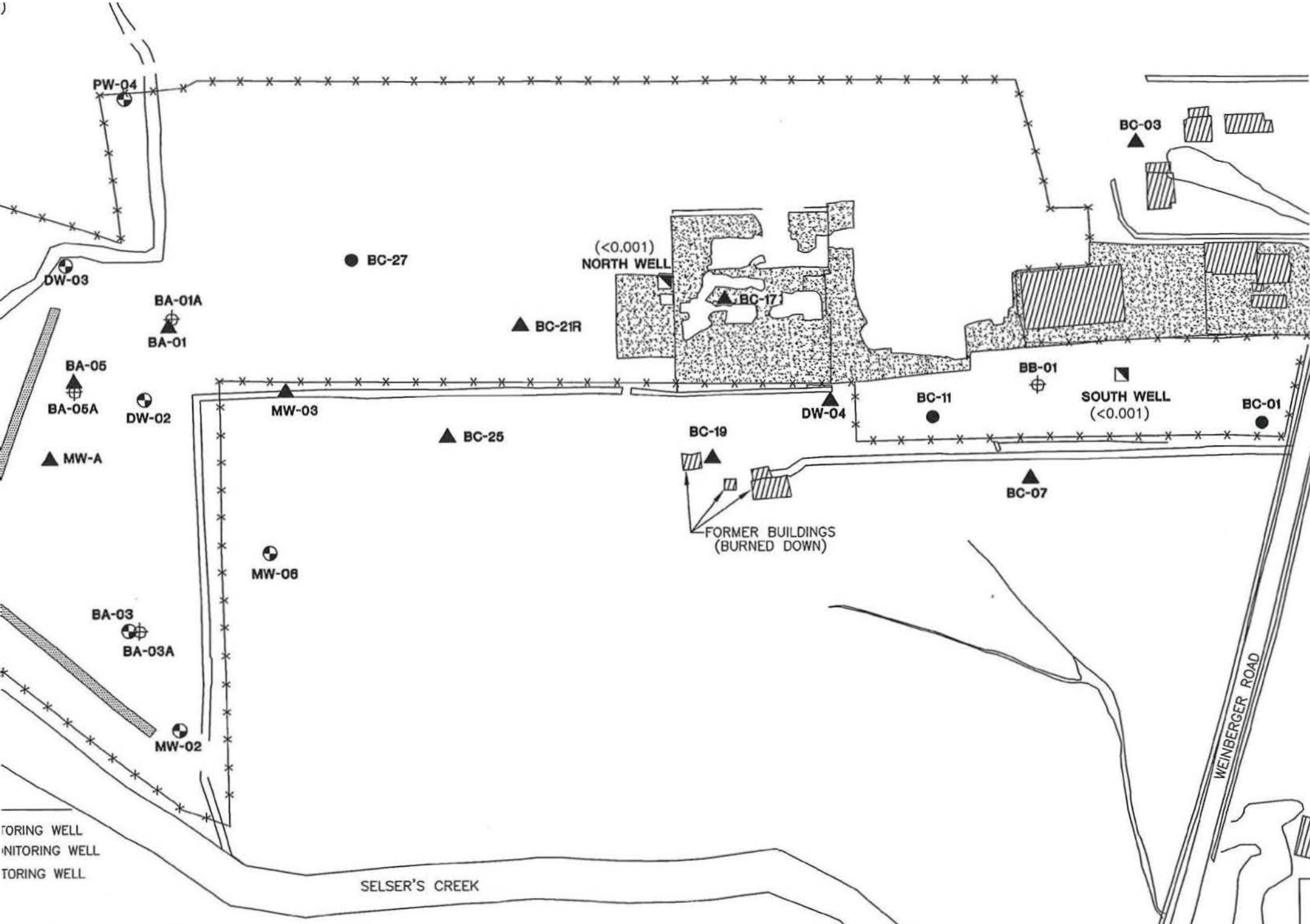
3. MONITORING WELLS BA-03A, BA-05A, AND BA-01A EXCEEDED FOR DETECTION LIMITS ONLY.



TORING WELL
NITORING WELL
TORING WELL

VE BARRIER

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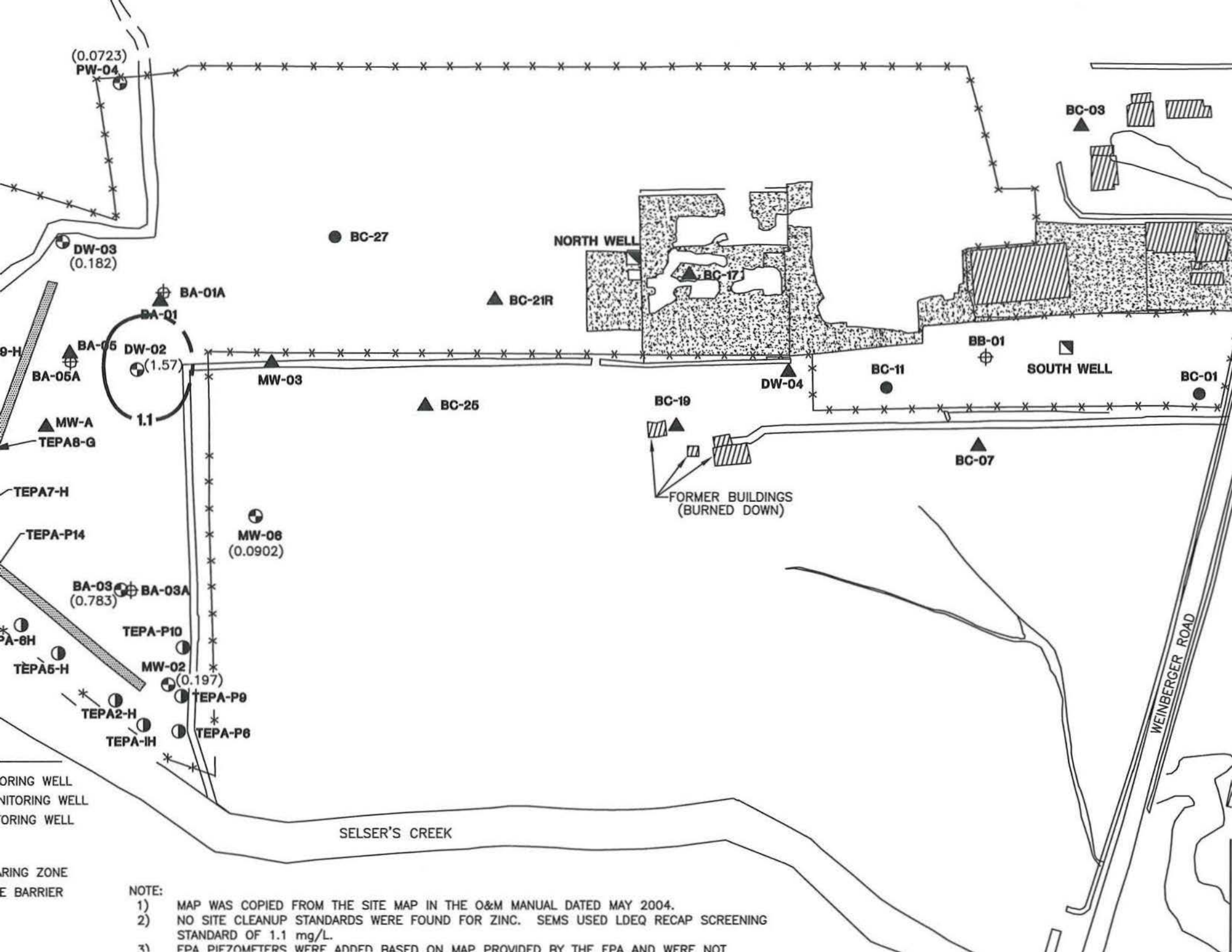
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.002 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ SCREENING STANDARDS FOR THALLIUM.
4. THE THALLIUM CONCENTRATIONS FOR THE REAGAN WELL WAS <0.005 mg/L



ORING WELL
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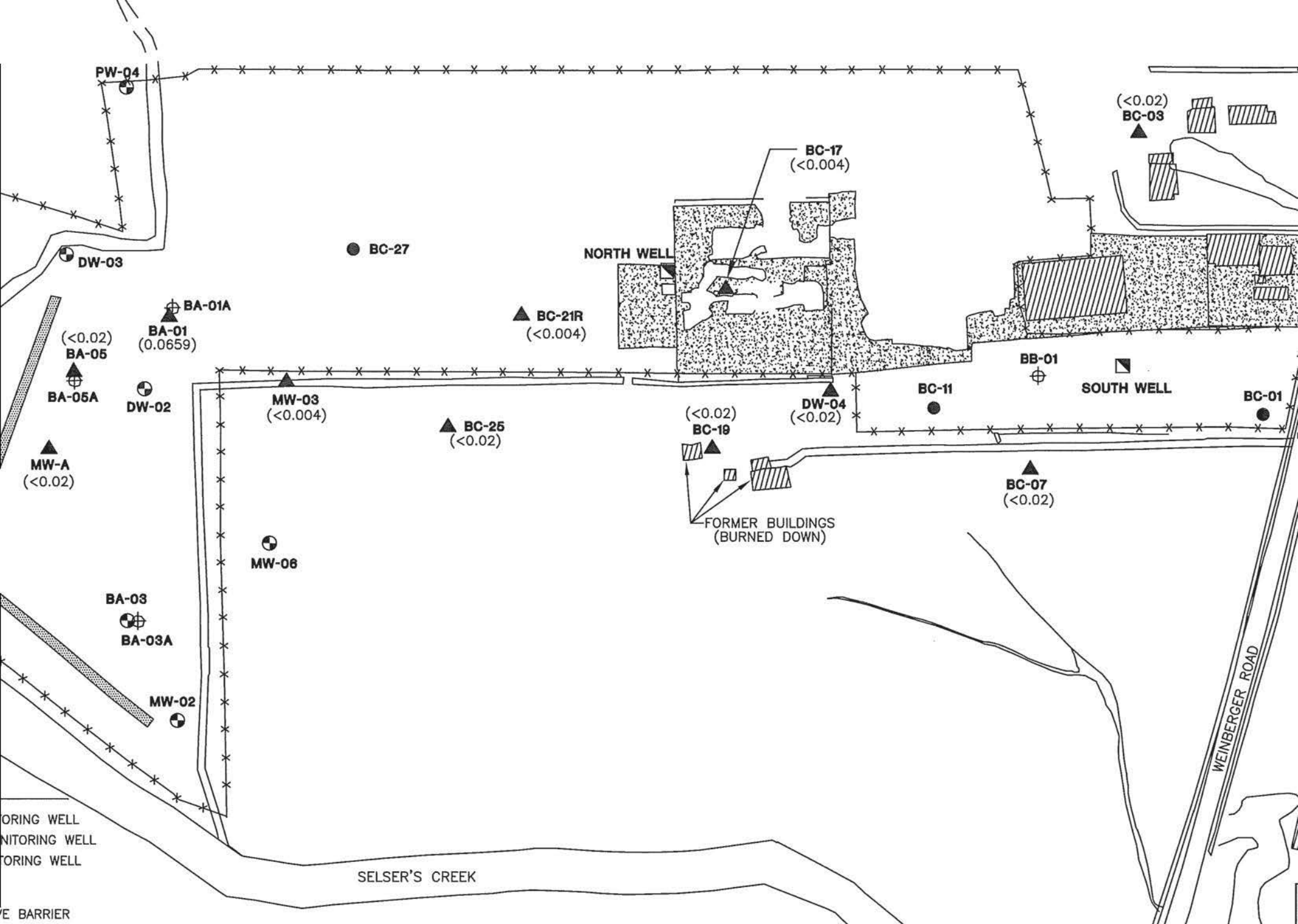
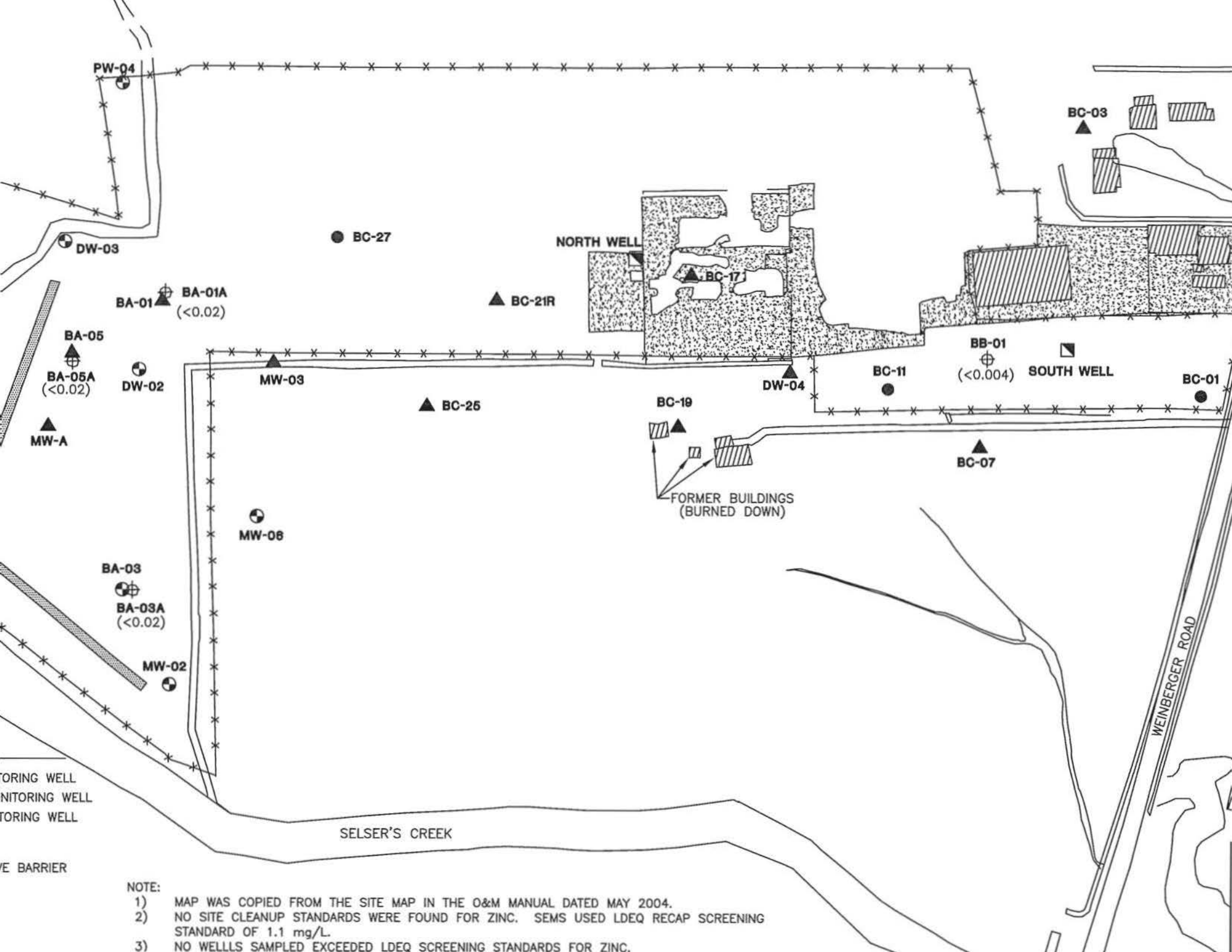
E BARRIER

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

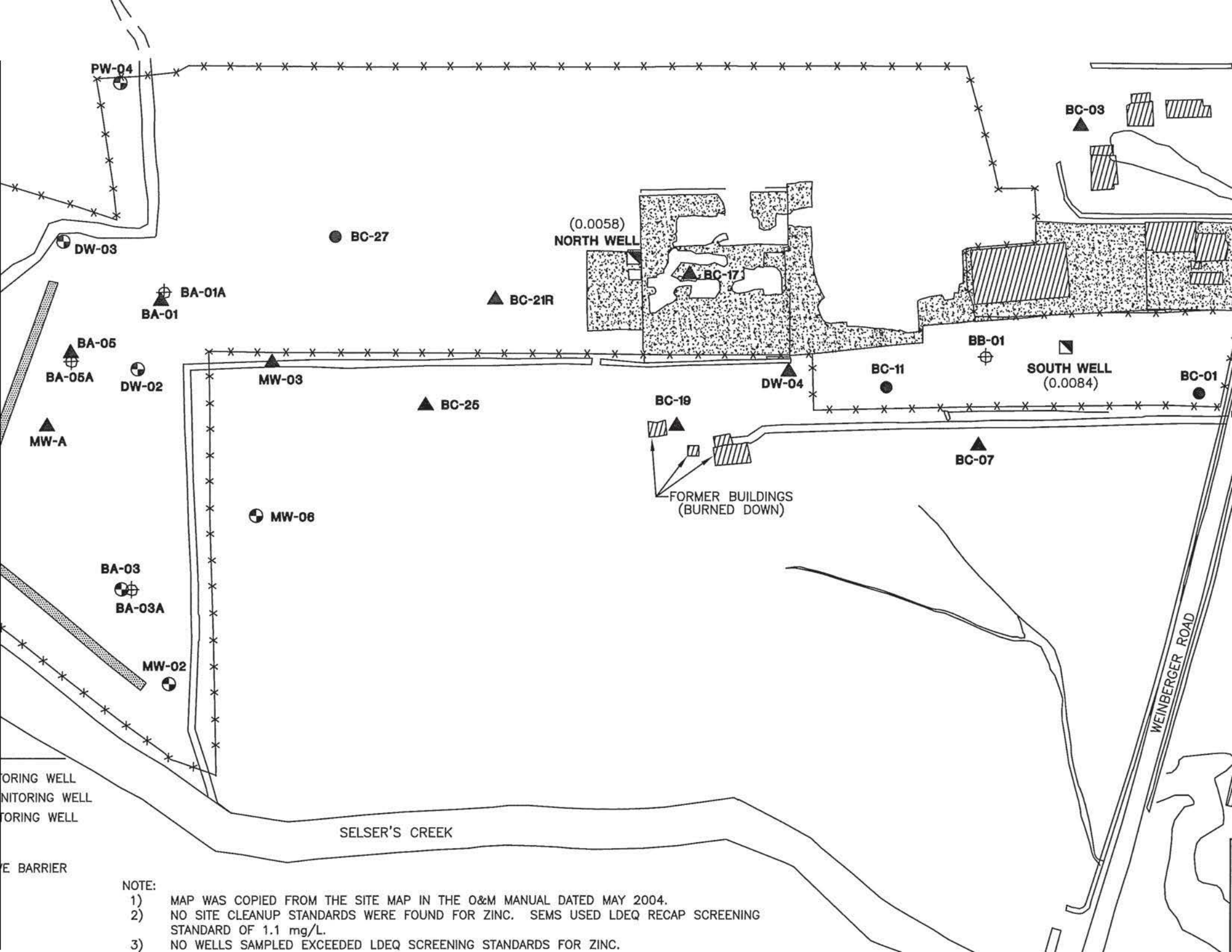


NOTE:

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.



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.



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 LDEQ SCREENING STANDARDS FOR ZINC.

ATTACHMENT A

FIELD DATA SHEETS & WASTE MANIFESTS

DELATTE METALS SUPERFUND SITE OPERATION AND MAINTENANCE ACTIVITY LOG

PROJECT GENERAL INFORMATION

Client: LDEQ

Date: 8/26/13 and 8/27/13

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 : (Various)	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 : (Various)	

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	—
00009	Concrete Pad		each	—
00010	Well cover		each	—

SEMS PERSONNEL INFORMATION

Employee Name: Nick Rodeharst

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: [signature]

SEMS, Inc.

Delatte Metals O&M PRB Inspection Checklist

SEMS Project #: 207-0016

Field Crew: Nick Bodehorst, Austin Leopold, Larry Brand

Date Inspected 8/27/13

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	Grass was tall at the PRB during this sampling event. It seems that the LDEQ contractor had not yet performed 3rd Quarter clearing.
PRB Accessible	Yes.
PRB Cracks Identified	No cracks Identified.
PRB Erosion Identified	No Erosion of the PRB occurred.
Photos Taken	None Required.
NOTES: Areas of standing water are present near the East End of the PRB due to recent heavy rains.	

PRB=Permeable reactive barrier

Delatte Metals O&M QA/QC Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rockhorst
Austin Leopold
Larry Brand

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	BC-19	8/26/13	931	
X		BB-01 MS	BB-01	8/27/13	845	
X		BB-01 MSD	BB-01	8/27/13	845	
	X	Duplicate #2	BC-17	8/27/13	934	
	X	Duplicate #3	DW-03	8/27/13	1414	
X		MW-A MS	MW-A	8/27/13	1530	
X		MW-A MSD	MW-A	8/27/13	1530	
	X	Duplicate #4	BA-03	8/27/13	1556	

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company SEMS, INC

Date 8/26/13 Time 8:10 Job Number 207-0016

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
Austin Leopold	Austin Leopold
Nick Rodehorst	[signature]
SITE SUPERVISOR	SIGNATURE

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company SEMS, INC

Date 8/27/2013 Time 8:10 Job Number 207-0016

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)

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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
Larry Brand	L Brand
Nick Rochester	[illegible]
SITE SUPERVISOR	SIGNATURE

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rockhurst
Austin Leopold
Larry Brown

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	8/26/13	✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BA-09		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
MW-04		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
WW-09		NA	NA	NA	NA	NA	✓	X	X	X	X	X	X	
WW-04		NA	NA	NA	NA	NA	✓	X	X	X	X	X	X	
(b) (6) [redacted] Well		NA	NA	NA	NA	NA	✓	X	X	X	X	X	X	
BC-03		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BC-07		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
DW-04		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BC-19		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BC-25		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
MW-03		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	

✓ = yes/Good
X = No

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rodehorst
Austin Leopold
Larry Brand

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-06	8/26/13	✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BB-01	8/27/13	✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
South Well		NA	NA	NA	NA	NA	✓	X	X	X	X	X	X	
BC-17		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
North Well		NA	NA	NA	NA	NA	✓	X	X	X	X	X	X	
BC-21R		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BA-01A		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BA-01		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
DW-03		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
PW-04		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
DW-02		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BA-05A		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Nick Rodeheaver
Austin Leopold
Larry Braud

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	8/27/13	✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
MW-A		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
DW-01		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
MW-01		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BA-03A		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
BA-03		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	
MW-02		✓	✓	✓	X	✓	✓	X	X	X	X	X	X	

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-09A
Date Purged/Sampled: 8/26/13 **Sampled By:** NR / AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 42.0 ft.
Static Depth to Groundwater (**DTW**): 1.15 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @ 1442 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1428	"	—	—	—	—	—	—	1.15
1433	300	21.61	0.266	0.26	6.23	-175	0.0	3.23
1436	"	21.66	0.268	0.17	6.49	-170	0.0	4.25
1439	"	21.66	0.268	0.16	6.54	-169	0.0	4.71
1442	"	21.60	0.266	0.16	6.59	-169	0.0	5.03

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.: BA-09
Date Purged/Sampled: 8/26/13 **Sampled By:** NG/AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 18 ft.
Static Depth to Groundwater (**DTW**): 8.48 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13@1426 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
14:09	—	—	—	—	—	—	—	8.48
14:14	260	22.32	3.59	0.57	3.35	-46	0.0	9.00
14:17	"	22.42	3.52	0.35	3.33	-59	0.0	8.85
14:20	"	22.47	3.43	0.20	3.32	-64	0.0	8.82
14:23	"	22.47	3.31	0.18	3.32	-68	0.0	8.81
14:26	220	22.50	3.15	0.18	3.31	-69	0.0	8.81

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

Dissolved

LOW-FLOW GROUNDWATER SAMPLING LOG Lab Filtered

Project:	**Delatte Metals Superfund Site**
Project No.:	**207-0016**
Site Location:	**Ponchatoula, Louisiana**
Monitor Well No.:	**MW-04**
Date Purged/Sampled:	8/26/13 **Sampled By:** NR/AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 24 ft.
Static Depth to Groundwater (**DTW**): 14.73 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13@1500 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1450	240	—	—	—	—	—	—	14.73
1455	"	20.84	0.378	1.33	6.42	-78	9.7	16.78
1458	"	20.75	0.374	1.63	6.42	-67	14.8	17.14
1501	"	20.91	0.377	3.13	6.42	-60	13.9	17.19
1504	"	20.86	0.377	1.47	6.42	-60	13.4	17.20

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	X	Dissolved Metals Collected	X

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: 8/26/13 **Sampled By:** NB/AL

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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @1515 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 minutes

LOW-FLOW MONITORING PARAMETERS

Time	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
NB ~~1425~~	—	—	—	—	—	—	—	—
1515	—	22.08	0.281	6.22	7.62	-162	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	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.: WW-04
Date Purged/Sampled: 8/26/13 **Sampled By:** NB/AL

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: — mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @1314 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 minutes

LOW-FLOW MONITORING PARAMETERS

Time	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1314	—	22.28	0.306	3.03	8.50	-193	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	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.: (b) (6) [redacted] Well
Date Purged/Sampled: 8/26/13 **Sampled By:** NR/AL

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: — mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @1319 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 minutes

LOW-FLOW MONITORING PARAMETERS

Time	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
	—	21.11	0.291	2.87	8.20	-173	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	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.: BG-03
Date Purged/Sampled: 8/26/13 **Sampled By:** NB/AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 28.0 ft.
Static Depth to Groundwater (**DTW**): 7.19 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @1224 ime

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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
12:13	280	—	—	—	—	—	—	7.19
12:18	"	23.76	3.34	0.32	6.62	18	0.0	11.20
12:21	"	23.68	3.35	0.28	6.69	18	0.0	11.72
12:24	"	23.85	3.35	0.26	6.70	17	0.0	12.12

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.: BC-07
Date Purged/Sampled: 8/26/13 **Sampled By:** NB/AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 18.5 ft.
Static Depth to Groundwater (**DTW**): 4.60 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13@841 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:25	—	—	—	—	—	—	—	4.60
8:30	240	22.83	2.40	0.89	6.76	176	1.4	9.35
8:35	"	22.20	2.42	3.99	6.88	135	0.1	9.49
8:38	"	22.12	2.41	3.49	6.91	127	0.2	9:48
8:41	"	21.59	2.41	0.89	6.88	121	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	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.: DW-04
Date Purged/Sampled: 8/26/13 **Sampled By:** AL & NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 38 ft.
Static Depth to Groundwater (**DTW**): 5.63 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13@9:11 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:55	480	—	—	—	—	—	—	5.63
9:00	300	21.92	1.271	0.33	6.91	-19	0.0	6.92
9:05	"	21.89	1.271	0.25	6.88	-3	0.0	7.11
9:08	"	21.87	1.252	0.22	6.87	-1	0.0	7.16
9:11	"	21.86	1.253	0.20	6.86	-4	0.0	7.21

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

Duplicate #1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BG-19
Date Purged/Sampled: 8/26/13 **Sampled By:** AL & NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 22.5 ft.
Static Depth to Groundwater (**DTW**): 6.67 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @ 931 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
9:20	—	—	—	—	—	—	—	6.67
9:25	300	23.27	2.83	0.30	6.63	-11	0.0	8.30
9:28	"	22.97	2.83	0.26	6.63	-18	0.0	8.77
9:31	"	22.77	2.84	0.23	6.63	-13	0.0	9.11

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.: BC-25
Date Purged/Sampled: 8/26/13 **Sampled By:** NR & AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 32.0 ft.
Static Depth to Groundwater (**DTW**): 8.92 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13@10:04 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
9:47	300	—	—	—	—	—	—	8.92
9:52	"	21.65	0.788	0.31	6.76	-99	2.6	9.25
9:55	"	21.44	0.778	0.23	6.70	-90	2.0	9.26
9:58	"	21.31	0.780	0.19	6.67	-82	1.9	9.29
10:01	260	21.42	0.778	0.18	6.66	-75	1.6	9.21
10:04	"	21.56	0.785	0.20	6.67	-68	1.6	9.19

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-03
Date Purged/Sampled: 8/26/13 **Sampled By:** AL & NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 27.5 ft.
Static Depth to Groundwater (**DTW**): 8.89 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: ____ mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/26/13 @ 1023 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:12	500	—	—	—	—	—	—	8.89
10:17	300	21.08	1.97	0.15	6.34	-241	2.3	10.12
10:20	"	21.69	1.97	0.24	6.34	-233	3.5	9.65
10:23	"	21.77	1.97	0.24	6.34	-226	3.5	9.54

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 ____

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-06
Date Purged/Sampled: 8/26/13 **Sampled By:** NR/AL

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 16.5 ft.
Static Depth to Groundwater (**DTW**): 9.55 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/26/13 @ 1059 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:40	500	~~21.21~~	~~0.520~~	~~1.04~~	~~3.43~~	—	—	9.55
10:45	500	21.21	0.520	1.04	3.43	217	70.6	11.01
10:50	"	21.44	0.727	0.53	3.37	241	8.3	10.36
10:53	"	21.42	0.680	0.91	3.36	250	13.0	10.30
10:56	"	21.74	0.702	4.58	3.36	253	7.5	10.16
10:59	"	21.75	0.699	1.52	3.35	259	2.7	10.15

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

MS/MSD

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: 8/27/13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 96.0 ft.
Static Depth to Groundwater (**DTW**): 3.02 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 8:45 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:28	300	–	–	–	–	–	–	3.02
8:33	300	23.15	0.305	2.10	9.43	-171	1.6	3.33
8:36	300	23.11	0.302	1.82	9.45	-151	2.0	3.32
8:39	300	23.16	0.307	1.57	9.47	-139	2.4	3.32
8:42	300	23.12	0.307	1.38	9.47	-131	2.6	3.32
8:45	300	23.09	0.309	1.21	9.48	-126	2.8	3.32

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.: South Well
Date Purged/Sampled: 8/27/13 **Sampled By:** NR/LB

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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 8:55 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) Let water flow for 20 minutes

LOW-FLOW MONITORING PARAMETERS

Time	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:55	—	21.95	0.292	2.14	8.93	-176	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	X	Dissolved Metals Collected	

SHEET 1 OF 1

Duplicate #2

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: 8/27/13 **Sampled By:** NR / LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 28.0 ft.
Static Depth to Groundwater (**DTW**): 6.38 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 934 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
9:10	300	—	—	—	—	—	—	6.38
9:15	300	25.10	2.33	0.21	6.54	-16	0.0	11.26
9:18	300	25.23	2.33	0.44	6.50	+8	0.0	12.35
9:21	300	25.22	2.32	0.34	6.50	+115	0.0	13.09
9:24	300	25.25	2.31	0.35	6.50	221	0.0	14.10
9:28	300	24.94	2.34	0.50	6.51	259	0.0	14.97
9:31	300	24.78	2.35	0.62	6.51	265	0.0	15.90
9:34	200	24.70	2.38	0.66	6.50	257	0.0	16.26

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.: North Well
Date Purged/Sampled: 8/27/13 **Sampled By:** NR/LB

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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@945 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 minutes

LOW-FLOW MONITORING PARAMETERS

Time	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
945	—	23.05	0.290	2.11	8.20	14	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	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.: BC-21R
Date Purged/Sampled: 8-27-13 **Sampled By:** NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 17.5 ft.
Static Depth to Groundwater (**DTW**): 8.13 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: 300 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 10:12 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
955	–	–	–	–	–	–	–	8.13
10:00 ~~958~~	300	23.90	1.102	0.99	6.67	-192	0.0	10.62
10:03	200	23.26	1.226	0.47	6.59	-198	0.0	10.65
10:06	"	22.91	1.288	0.23	6.53	-189	0.0	10.73
10:09	"	22.87	1.320	0.19	6.51	-188	0.0	10.75
10:12	"	22.78	1.322	0.16	6.50	-187	0.0	10.75

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.: BA-01A
Date Purged/Sampled: 8/27/13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 46.0 ft.
Static Depth to Groundwater (**DTW**): 4.63 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @1137 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
11:26	—	—	—	—	—	—	—	4.63
11:31	250	24.11	0.276	0.84	6.86	-157	0.8	7.32
1134	300	23.98	0.274	0.24	6.86	-159	0.5	7.80
1137	300	23.92	0.274	0.20	6.89	-151	1.3	8.19

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

Dissolved

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: 8/27/13 **Sampled By:** _____

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 26.0 ft.
Static Depth to Groundwater (**DTW**): 7.77 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ _____ 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:54	300	–	–	–	–	–	–	7.77
10:59	300	23.88	2.33	0.36	5.51	-6.9	61.4	9.84
11:02	300	23.03	2.55	0.20	5.41	-6.8	10.2	10.00
11:05	200	24.26	2.48	0.20	5.48	-6.8	17.6	9.69
11:08	200	24.46	2.44	0.22	5.49	-6.9	16.1	9.45
11:11	200	24.41	2.41	0.21	5.51	-6.8	18.2	9.40
11:14	200	24.64	2.37	0.20	5.54	-6.6	18.0	9.31
11:17	200	24.51	2.34	0.19	5.56	-6.3	19.0	9.31

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	X

SHEET _____ OF _____

LOW-FLOW GROUNDWATER SAMPLING LOG

Dup #3

Project:	Delatte Metals Superfund Site
Project No.:	207-0016
Site Location:	Ponchatoula, Louisiana
Monitor Well No.:	DW-03
Date Purged/Sampled:	8-27-13 **Sampled By:** NR / LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 16 ft.
Static Depth to Groundwater (**DTW**): 6.65 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 1417 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1354	–	–	–	–	–	–	–	6.65
1359	300	23.67	3.15	0.16	3.20	-11	1.0	7.09
1402	300	23.55	2.75	0.13	3.22	-4	1.2	7.06
1405	250	23.93	2.57	0.18	3.24	-18	0.9	6.90
1408	250	23.89	2.37	0.16	3.26	-23	0.8	6.90
1411	250	23.88	2.27	0.16	3.27	-27	0.9	6.90
1414	250	23.94	2.23	0.16	3.27	-30	0.6	6.90

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

X

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: 8-27-13 **Sampled By:** NR / LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 19.5 ft.
Static Depth to Groundwater (**DTW**): 6.70 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @1441 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1426	—	—	—	—	—	—	—	6.70
1431	300	22.46	0.733	0.19	3.67	181	0.7	7.01
1434	250	22.91	0.762	0.15	3.65	215	0.2	7.01
1437	250	22.87	0.808	0.13	3.64	235	0.1	7.01
1441	250	22.91	0.838	0.12	3.64	218	0.0	7.01

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 _____ OF _____

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: 8/27/13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 11 ft.
Static Depth to Groundwater (**DTW**): 5.59 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 1043 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1029	300	–	–	–	–	–	–	5.59
1034	200	28.23	5.49	0.19	2.54	3.1	3.0	5.85
1037	200	28.55	5.81	0.21	2.53	28	1.2	5.70
1040	200	28.63	5.66	0.22	2.53	25	0.8	5.71
1043	200	28.70	5.70	0.22	2.53	28	0.6	5.66

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	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.: BA-05A
Date Purged/Sampled: 8/27/13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 54.0 ft.
Static Depth to Groundwater (**DTW**): 3.38 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1343 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1329	–	–	–	–	–	–	–	3.38
1334	300	22.91	0.277	0.20	7.10	-28	0.2	9.10
1337	200	23.92	0.279	0.23	7.05	-17	0.2	9.43
1340	200	23.56	0.278	0.21	7.00	-8	0.0	9.78
1343	200	23.26	.276	0.20	7.00	-4	0.0	10.15

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.: BA-05
Date Purged/Sampled: 8/27/13 **Sampled By:** NB/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 18.5 ft.
Static Depth to Groundwater (**DTW**): 8.28 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13 @ 1322 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1253	—	—	—	—	—	—	—	8.28
1258	300	28.62	4.91	6.79	6.11	-11	61.8	9.74
1301	300	25.32	5.30	~~5.06~~ 0.28	5.75	7	27.6	11.65
1304	200	25.24	5.40	2.13	5.80	8	13.0	12.18
1307	200	24.18	5.66	0.61	5.79	15	1.0	11.73
1310	200	24.93	5.67	0.43	5.79	16	0.4	11.59
1313	200	24.58	5.60	0.38	5.81	8	0.4	11.54
1316	200	24.58	5.50	0.32	5.81	6	0.4	11.50
1319	200	24.65	5.30	0.29	5.82	-15	1.5	11.50

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 2

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: 8/27/13 **Sampled By:** NK/LB

MONITOR WELL INFORMATION

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

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1322 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1322	200	24.61	5.21	0.21	5.83	-22	1.1	11.51

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 2 OF 2

MS/MSD

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: 8-27-13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 27 ft.
Static Depth to Groundwater (**DTW**): 10.46 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1530 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
15:14	300	—	—	—	—	—	—	10.46
15:19	200	23.60	0.773	0.25	6.53	-80	0.6	13.22
15:24	200	23.34	0.796	0.20	6.62	-67	1.8	13.95
1527	200	23.28	0.798	0.20	6.66	-62	4.9	13.15
15:30	200	23.15	0.798	0.18	6.68	-55	3.4	13.20

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	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.: DW-01
Date Purged/Sampled: 8-27.13 **Sampled By:** WR / LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 19 ft.
Static Depth to Groundwater (**DTW**): 11.05 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1741 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1703	300	–	^	–	–	^	–	11.05
1708	200	23.70	0.618	0.37	5.77	-31	21.2	12.42
1711	200	23.34	0.701	0.30	5.59	-69	23.8	12.47
1714	200	23.30	0.780	0.30	5.50	-105	24.0	12.49
1717	200	23.34	0.849	0.29	5.42	-117	88.1	12.52
1720	200	23.32	1.042	0.27	5.28	-86	190	12.54
1723	300	23.36	1.080	0.24	5.25	-128	90.2	12.29
1726	200	24.09	0.858	0.49	5.29	-109	36.0	–
1729	0	Paused due to clog in tubing					–	11.50

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 2

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: 8-22-13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 19 ft.
Static Depth to Groundwater (**DTW**): 11.05 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/13@1741 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1729	200	–	–	–	–	–	–	11.50
1732	150	24.05	1.234	0.34	5.14	-119	25.7	11.70
1735	150	23.95	1.210	0.37	5.15	-129	20.1	11.6
1738	150	23.90	1.199	0.33	5.16	-130	11.7	
1741	150	23.85	1.190	0.33	5.15	-132	9.5	11.65

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 2 OF 2

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: 8-27-13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 28.5 ft.
Static Depth to Groundwater (**DTW**): 13.00 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1811 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1754	300	–	–	–	–	–	–	13.00
1759	300	21.17	5.28	0.33	3.12	-6	0.0	13.11
1802	200	21.12	5.31	0.25	3.10	-13	0.0	13.12
1805	200	21.04	5.32	0.24	3.09	-17	0.0	13.12
1808	~~200~~ 150	21.23	5.33	0.26	3.09	-21	0.0	13.08
1811	150	21.31	5.33	0.25	3.09	-21	0.0	13.08

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.: BA-03A
Date Purged/Sampled: 8-27-13 **Sampled By:** NR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 100 ft.
Static Depth to Groundwater (**DTW**): 1.91 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1626 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1603	300 LB	—	—	—	—	—	—	1.91
1608	~~23.26~~	23.26	0.316	0.40	7.07	202	0.0	1.95
1611	300	23.03	0.313	0.44	7.39	192	0.0	1.95
1614	300	22.99	0.314	0.28	7.52	186	0.0	1.96
1617	300	22.87	0.317	0.17	7.64	179	0.0	1.96
1620	300	22.81	0.317	0.12	7.74	175	0.0	1.96
1623	300	22.74	0.316	0.11	7.78	169	0.0	1.96
1626	200	22.47	0.314	0.11	7.82	155	0.0	1.96

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

Dup-4

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: 8-27-13 **Sampled By:** UR/LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 13.5 ft.
Static Depth to Groundwater (**DTW**): 7.88 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1556 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/-3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1542	–	–	–	–	–	–	–	7.88
1547	300	26.94	2.16	0.22	2.90	367	3.2	8.10
1550	300	26.93	2.14	0.18	2.91	384	1.4	8.10
1553	300	26.84	2.13	0.18	2.91	397	1.2	8.11
1556	300	26.78	2.16	0.20	2.92	405	1.1	8.12

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-02
Date Purged/Sampled: 8-27-13 **Sampled By:** NR / LB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 10.5 ft.
Static Depth to Groundwater (**DTW**): 8.09 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: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/27/13@1655 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	Flow Rate	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	mL/min	°C	mS/cm	mg/L	Standard Units	mV	NTU or FTU	feet
Targets	100 - 500 mL/min	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1635	300	–	–	–	–	–	–	8.09
1640	300	27.27	0.859	0.32	2.95	188	2.3	9.50
1643	300	27.28	0.856	0.26	2.96	135	0.0	9.50
1646	200	27.21	0.883	0.20	2.96	118	0.0	9.60
1649	200	27.21	0.881	0.18	2.95	109	0.0	9.63
1652	200	27.16	0.886	0.17	2.94	130	0.0	9.67
1655	200	27.29	0.891	0.17	2.91	238	0.0	9.45

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/www.spl-inc.com

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone # / Fax #: 504-451-8083
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504) 451-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan
Attention:

Billing Information (if different from Report to)

Company Name:
Street Address:
City / State / Zip:

Requested Analyses

Total Metals*; Dissolved Metals**

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-09A	8/26/13	1442	NR	W	1				1									X		
	BA-09		1426			1				1									X		
	MW-04		1504			2				1		1							X	X	
	WW-04		1515			1				1									X		
	WW-04		1314			1				1									X		
	(b) (6) Well		1319			1				1									X		
	BC-03		1224			1				1									X		
	BC-07		841			1				1									X		
	DW-04		911			1				1									X		
	BC-19		931			1				1									X		
	Duplicate #1		931			1				1									X		
	BC-25		1004			1				1									X		

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals ~~(Field Filtered)~~: As, Cd, Pb, Mn, Ni, Th, Zn
Lab Filtered

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	8/28/13 10:00	1	2		2
3		3	4		4
Relinquished by:	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/www.spl-inc.com

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone # / Fax #: 504-451-8083
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504)451-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan
Attention:

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:

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
	MW-03	8/26/13	1023	NR	W	1				1									X		
	MW-06	↓	1059			1				1									X		
	BB-01	8/27/13	845			1				1									X		
	BB-01 MS		845			1				1									X		
	BB-01 MSD		845			1				1									X		
	South Well		855			1				1									X		
	BC-17		934			1				1									X		
	Duplicate #2		934			1				1									X		
	North Well		945			1				1									X		
	BC-21 B		1012			1				1									X		
	BA-01A		1137			1				1									X		
	BA-01	↓	1117	↓	↓	2				1		1							X	X	

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn
**Dissolved Metals ~~(Field Filtered)~~: As, Cd, Pb, Mn, Ni, Th, Zn
Lab Filtered

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	8/28/13 10:00	1	2		2
3			3	4		4
5	Relinquished by:	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
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FED-EX Tracking #	Bottle Order Control #
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Company Name: SEMS-Metairie
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Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone # / Fax #: 504-451-8083
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504)454-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan

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
	DW-03	8/27/13	1414	NR	W	1				1									X										
	Duplicate #3		1414			1				1									X										
	DW-04		1441			1				1									X										
	DW-02		1043			1				1									X										
	BA-05A		1343			1				1									X										
	BA-05		1322			1				1									X										
	MW-A		1530			1				1									X										
	MW-A MS		1530			1				1									X										
	MW-A MSD		1530			1				1									X										
	DW-01		1741			1				1									X										
	MW-01		1811			1				1									X										
	BA-03A		1626			1				1									X										

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals (~~Field Filtered~~): As, Cd, Pb, Mn, Ni, Th, Zn

Lab Filtered

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	8/28/13 10:00	1	2		2
3		3	4		4
Relinquished by:	Date Time:	Received By:	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/www.spl-inc.com

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone # / Fax #: 504-451-8083
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504)451-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan

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-03	8/27/13	1556	NR	W	1				1									X		
	Duplicate #4	↓	1556	↓	↓	1				1									X		
	MW-02	↓	1655	↓	↓	1				1									X		

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn
**Dissolved Metals ~~(Field Filtered)~~: As, Cd, Pb, Mn, Ni, Th, Zn
Lab Filtered

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	8/28/13 15:00	1	2		2
3		3	4		4
Relinquished by:	Date Time:	Received By:	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/www.spl-inc.com

PAGE ___ OF ___

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone #: 504-451-8083 Fax #:
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504-451-8083)

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
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	Total Metals*	Dissolved Metals**	LAB USE ONLY
	BA-09A	3/26/13	1442	NA	W	1				1									X		
	BA-09		1426			1				1									X		
	MW-04		1324			2				1		1							X	X	
	WW-09		1315			1				1									X		
	WW-09		1314			1				1									X		
(b) (6)	[redacted]		1319			1													X		
	BC-03		1224			1				1									X		
	BC-07		1211			1				1									X		
	DW-02		911			1				1									X		
	BC-19		931			1													X		
	DUPLICATE 1		931			1													X		
	BC-25		1004			1				1									X		

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals (Field Filtered): As, Cd, Pb, Mn, Ni, Th, Zn

Lab Filtered

Send samples to NT [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]	3/28/13	1 [illegible]	2		2
3		3	4		4
Relinquished by:	Date Time:	Received By:	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/www.spl-inc.com

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

Client / Reporting Information	Project Information	Requested Analyses
Company Name: SEMS-Metairie	Project Name: Delatte Metals Superfund Site	
Street Address: 3801 N. Causeway Blvd. Suite 209	Street:	Billing Information (if different from Report to)
City: Metairie State: LA Zip: 70002	City: Ponchatoula State: LA	Company Name:
Project Contact: Nick Rodehorst E-mail: nrodehorst@semsinc.net	Project #:	Street Address:
Phone #: 504-451-8083 Fax #:	Client Purchase Order #: 207-0016	City: State: Zip:
Sampler(s) Name(s): Nick Rodehorst Phone #: [illegible]	Project Manager: [illegible]	Attention:

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
	MW-03	8/26/13	1023	NB	[illegible]	1				1									X		
	MW-06	↓	1059			1				1									X		
	BB-01	8/27/13	845			1				1									X		
	BB-01 MS		845			1				1									X		
	BB-01 MSD		845			1				1									X		
	South Well		855			1				1									X		
	BC-17		934			1				1									X		
	Duplicate #2		934			1				1									X		
	North Well		945			1				1									X		
	BC-21 R		1012			1				1									X		
	BA-01A		1137			1				1									X		
	BA-01	↓	1117	↓	↓	2				1		1							X	X	

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals (Field Filtered): As, Cd, Pb, Mn, Ni, Th, Zn

Lab Filtered

* Send samples to NJ Lab for analysis

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]	8/26/13 [illegible]	1 [illegible]	2		2
3		3	4		4
5		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/www.spl-inc.com

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone # / Fax #: 504-451-8083
Sampler(s) Name(s) / Phone #:

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
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	Collection Date	Collection 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
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		
	[illegible]		[illegible]			1				1									X		

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 TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals (Field Filtered): As, Cd, Pb, Mn, Ni, Th, Zn

Lab Filtered

* Send samples to NO lab [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
Relinquished by:	Date Time:	Received By:	Custody Seal #		

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/www.spl-inc.com

PAGE 4 OF 4

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City: Metairie State: LA Zip: 70002
Project Contact: Nick Rodehorst E-mail: nrodehorst@semsinc.net
Phone #: 504-451-8083 Fax #:
Sampler(s) Name(s): [illegible] Phone #:

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City: Ponchatoula State: LA
Project #:
Client Purchase Order #: 207-0016
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	Total Metals*	Dissolved Metals**	LAB USE ONLY
	BA-03	[illegible]	1556	[illegible]	[illegible]	1				1									X		
	[illegible]	[illegible]	1550	[illegible]	[illegible]	1				1									X		
	[illegible]	[illegible]	1555	[illegible]	[illegible]	1				1									X		

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn
**Dissolved Metals (Field Filtered): As, Cd, Pb, Mn, Ni, Th, Zn
[illegible]
*Send samples to NJ lab for analysis.

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:	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [ ]

On Ice [ ] Cooler Temp.

Please print or type.

NON HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. WM - 130805

5. Generator's Name and Mailing Address
Delatte Metals Superfund Site
LDEQ, 602 North Fifth Street
Baton Rouge, LA 70802
Generator's Phone: 225-219-3689

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

6. Transporter 1 Company Name: STRANCO — U.S. EPA ID Number:

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

8. Designated Facility Name and Site Address
Woodside Landfill
29340 Woodside Drive
Walker, LA 70785
Facility's Phone: 225-667-6160
U.S. EPA ID Number:

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. Purgewater (profile # 951190 LA)	3	Drums	—	—	902
	2. Sampling Debris (profile # 951195LA)	1	Drums	—	—	902
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Bill to SEMS Inc. (Attn. Nick Rodehorst.)

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: Nick Rodehorst — Signature: [signature] — Month 9 Day 13 Year 13

Transporter Acknowledgement of Receipt of Materials

16. Transporter 1 Printed/Typed Name: Lee Harris — Signature: [signature] — Month 9 Day 13 Year 13

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: [illegible] — Signature: [signature] — Month 9 Day 13 Year 13

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

WASTE MANAGEMENT

Woodside Landfill
29340 Woodside Drive
Walker, LA, 70785
Ph: (225) 665-8225

Original
Ticket# 1363693

Customer Name SEMSINC SEMS, INC.
Ticket Date 09/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 902
Manifest 130805
Destination
PO
Profile 951190LA (PURGE WATER)
Generator 149-DELATTEMETALS DELATTE METALS SUPERFUND SITE

Carrier STRANCO STRANCO
Vehicle# 543
Volume
Container
Driver
Check#
Billing # 0066093
Gen EPA ID NA
Grid 3048360 9082299 L1

	Time	Scale	Operator	Inbound		
In	09/13/2013 09:48:47	Inbound	JARRED		Gross	16990 lb*
Out	09/13/2013 11:02:10	Outbound	JUSTIN		Tare	15950 lb*
					Net	1040 lb
			* Manual Weight		Tons	0.52

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	DRUM-PURGE WATER-S	100	3	Each				LA
2	FUEL-Fuel Surcharg	100		%				LA
3	EVF-P-Standard Env	100		%				LA
4	RCR-P-Regulatory C	100		%				LA
5	SLD-SOLIDIFICATION	100	3	Each				

Total Tax
Total Ticket

Driver's Signature

404WM

WASTE MANAGEMENT

Woodside Landfill
29340 Woodside Drive
Walker, LA, 70785
Ph: (225) 665-8225

Original
Ticket# 1363697

Customer Name SEMSINC SEMS, INC.
Ticket Date 09/13/2013
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 902
Manifest 130805
Destination
PO
Profile 951195LA (SAMPLING DEBRIS)
Generator 149-DELATTEMETALS DELATTE METALS SUPERFUND SITE

Carrier STRANCO STRANCO
Vehicle# 543A
Volume
Container
Driver
Check#
Billing # 0066093
Gen EPA ID NA
Grid 3048368 9082299 L1

	Time	Scale	Operator	Inbound		
In	09/13/2013 09:50:14	Inbound	JARRED		Gross	5776 lb*
Out	09/13/2013 11:02:37	Outbound	JUSTIN		Tare	5423 lb*
					Net	353 lb
			* Manual Weight		Tons	0.18

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	DRUMS-SAMPLING DEB	100	1	Each				LA
2	FUEL-Fuel Surcharg	100		%				LA
3	EVF-P-Standard Env	100		%				LA
4	RCR-P-Regulatory C	100		%				LA

Total Tax
Total Ticket

Driver's Signature

404WM

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:

L0033633

Report To:		Project Name:	207-0016	
SEMS, INC.		Site:	DELATTE METALS	
NICK RODEHORST		Site Address:		
3801 NORTH CAUSEWAY BLVD			PONCHATOULA	LA
SUITE 209		PO Number:		
METAIRIE		State:	Louisiana	
LA		State Cert. No.:	02048	
70002-		Date Reported:	9/16/2013	
ph: (504) 342-2340	fax:			

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:

NOTE: THIS REPORT HAS BEEN AMENDED FROM THE ORIGINAL. THIS REPORT REPLACES IN ITS ENTIRETY ANY PREVIOUSLY SUBMITTED COPY.

NOTE: The Method 6020 metals analyses were sub-contracted to the Accutest-Mid Atlantic laboratory in Dayton, New Jersey. The data as submitted by Accutest-Mid Atlantic is included in its entirety as an attachment to this reports.

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.

Elizabeth P. Martin

10/17/2013

Liz Martin
Senior Project Manager

Date

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

Version 2.1 - Modified February 11, 2011

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

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

L0033633

CERTIFICATION:

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.

Elizabeth P. Martin

10/17/2013

Liz Martin
Senior Project Manager

Date

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

Version 2.1 - Modified February 11, 2011

ACCUTEST LABORATORIES

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

SEMS, INC.

Certificate of Analysis Number:

L0033633

Report To: SEMS, INC.
NICK RODEHORST
3801 NORTH CAUSEWAY BLVD
SUITE 209
METAIRIE
LA
70002-
ph: (504) 342-2340 fax:

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/16/2013

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-09A	L0033633-01	Water	8/26/2013 2:42:00 PM	8/28/2013 3:25:00 PM		☐
BA-09	L0033633-02	Water	8/26/2013 2:26:00 PM	8/28/2013 3:25:00 PM		☐
MW-04	L0033633-03	Water	8/26/2013 3:04:00 PM	8/28/2013 3:25:00 PM		☐
WW-09	L0033633-04	Water	8/26/2013 3:15:00 PM	8/28/2013 3:25:00 PM		☐
WW-04	L0033633-05	Water	8/26/2013 1:14:00 PM	8/28/2013 3:25:00 PM		☐
(b) (6) [redacted] WELL	L0033633-06	Water	8/26/2013 1:19:00 PM	8/28/2013 3:25:00 PM		☐
BC-03	L0033633-07	Water	8/26/2013 12:24:00 PM	8/28/2013 3:25:00 PM		☐
BC-07	L0033633-08	Water	8/26/2013 8:41:00 AM	8/28/2013 3:25:00 PM		☐
DW-04	L0033633-09	Water	8/26/2013 9:11:00 AM	8/28/2013 3:25:00 PM		☐
BC-19	L0033633-10	Water	8/26/2013 9:31:00 AM	8/28/2013 3:25:00 PM		☐
DUPLICATE #1	L0033633-11	Water	8/26/2013 9:31:00 AM	8/28/2013 3:25:00 PM		☐
BC-25	L0033633-12	Water	8/26/2013 10:04:00 AM	8/28/2013 3:25:00 PM		☐
MW-03	L0033633-13	Water	8/26/2013 10:23:00 AM	8/28/2013 3:25:00 PM		☐
MW-06	L0033633-14	Water	8/26/2013 10:59:00 AM	8/28/2013 3:25:00 PM		☐
BB-01	L0033633-15	Water	8/27/2013 8:45:00 AM	8/28/2013 3:25:00 PM		☐
BB-01MS	L0033633-15MS	Water	8/27/2013 8:45:00 AM	8/28/2013 3:25:00 PM		☐
BB-01MSD	L0033633-15MSD	Water	8/27/2013 8:45:00 AM	8/28/2013 3:25:00 PM		☐
SOUTH WELL	L0033633-16	Water	8/27/2013 8:55:00 AM	8/28/2013 3:25:00 PM		☐
BC-17	L0033633-17	Water	8/27/2013 9:34:00 AM	8/28/2013 3:25:00 PM		☐
DUPLICATE #2	L0033633-18	Water	8/27/2013 9:34:00 AM	8/28/2013 3:25:00 PM		☐
NORTH WELL	L0033633-19	Water	8/27/2013 9:45:00 AM	8/28/2013 3:25:00 PM		☐
BC-21R	L0033633-20	Water	8/27/2013 10:12:00 AM	8/28/2013 3:25:00 PM		☐

Elizabeth P. Martin

Liz Martin
Senior Project Manager

10/17/2013
Date

Ron Benjamin
Laboratory Director

Phil Worby
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

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

SEMS, INC.

Certificate of Analysis Number:

L0033633

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NICK RODEHORST
3801 NORTH CAUSEWAY BLVD
SUITE 209
METAIRIE
LA
70002-
ph: (504) 342-2340 fax:

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/16/2013

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-01A	L0033633-21	Water	8/27/2013 11:37:00 AM	8/28/2013 3:25:00 PM		☐
BA-01	L0033633-22	Water	8/27/2013 11:17:00 AM	8/28/2013 3:25:00 PM		☐
DW-03	L0033633-23	Water	8/27/2013 2:14:00 PM	8/28/2013 3:25:00 PM		☐
DUPLICATE #3	L0033633-24	Water	8/27/2013 2:14:00 PM	8/28/2013 3:25:00 PM		☐
PW-04	L0033633-25	Water	8/27/2013 2:41:00 PM	8/28/2013 3:25:00 PM		☐
DW-02	L0033633-26	Water	8/27/2013 10:43:00 AM	8/28/2013 3:25:00 PM		☐
BA-05A	L0033633-27	Water	8/27/2013 1:43:00 PM	8/28/2013 3:25:00 PM		☐
BA-05	L0033633-28	Water	8/27/2013 1:22:00 PM	8/28/2013 3:25:00 PM		☐
MW-A	L0033633-29	Water	8/27/2013 3:30:00 PM	8/28/2013 3:25:00 PM		☐
MW-AMS	L0033633-29MS	Water	8/27/2013 3:30:00 PM	8/28/2013 3:25:00 PM		☐
MW-AMSD	L0033633-29MSD	Water	8/27/2013 3:30:00 PM	8/28/2013 3:25:00 PM		☐
DW-1	L0033633-30	Water	8/27/2013 5:41:00 PM	8/28/2013 3:25:00 PM		☐
MW-01	L0033633-31	Water	8/27/2013 6:11:00 PM	8/28/2013 3:25:00 PM		☐
BA-03A	L0033633-32	Water	8/27/2013 4:26:00 PM	8/28/2013 3:25:00 PM		☐
BA-03	L0033633-33	Water	8/27/2013 3:56:00 PM	8/28/2013 3:25:00 PM		☐
DUPLICATE #4	L0033633-34	Water	8/27/2013 3:56:00 PM	8/28/2013 3:25:00 PM		☐
MW-02	L0033633-35	Water	8/27/2013 4:55:00 PM	8/28/2013 3:25:00 PM		☐

Elizabeth P. Martin

10/17/2013
Date

Liz Martin
Senior Project Manager

Ron Benjamin
Laboratory Director

Phil Worby
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

ACCUTEST LABORATORIES

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

Sample Receipt Checklist

Workorder:	**L0033633**	Received By:	**SRS**
Date and Time Received:	**8/28/2013 3:25:00 PM**	Carrier name:	**Accutest-Delivery**
Temperature:	**3.5°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/www.spl-inc.com

PAGE 1 OF 4

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # L0033633

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City: Metairie State: LA Zip: 70002
Project Contact: Nick Rodehorst E-mail: nrodehorst@semsinc.net
Phone #: 504-451-8083 Fax #:
Sampler(s) Name(s): Nick Rodehorst Phone #: (504)451-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City: Ponchatoula State: LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan

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**	LAB USE ONLY
	BA-09A	8/26/13	1442	NR	W	1				1									X		1
	BA-09		1426			1				1									X		1
	MW-04		1504			2				1		1							X	X	2
	WW-09		1515			1				1									X		1
	WW-04		1314			1				1									X		1
	(b) (6) [redacted] Well		1319			1				1									X		1
	BC-03		1224			1				1									X		1
	BC-07		841			1				1									X		1
	DW-04		911			1				1									X		1
	BC-19		931			1				1									X		1
	Duplicate #1		931			1				1									X		1
	BC-25		1004			1				1									X		1

Turnaround Time (Business days)

- [X] Standard (5 day TAT)
- [ ] 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

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals ~~(Field Filtered)~~: As, Cd, Pb, Mn, Ni, Th, Zn
Lab Filtered PH<2 (3W)

* Send samples to NJ Lab for analysis.

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	8/28/13 10:00	1 [signature]	2 [signature]	8/28/13 1332	2 Renee Sam
3 Renee Sam	8/28/13 1525	3 Renee Sam	4		4
5		5	Custody Seal # CS/Cooler ☑ Intact ☐ Not intact	Preserved where applicable ☑	On Ice ☑ Cooler Temp. T15/3.5

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/www.spl-inc.com

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

Client / Reporting Information

Company Name: SEMS-Metairie
Street Address: 3801 N. Causeway Blvd. Suite 209
City: Metairie State: LA Zip: 70002
Project Contact: Nick Rodehorst E-mail: nrodehorst@semsinc.net
Phone #: 504-451-8083 Fax #:
Sampler(s) Name(s): Nick Rodehorst Phone #: (504)451-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City: Ponchatoula State: LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan
Attention:

Billing Information (If different from Report to)

Company Name:
Street Address:
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Requested Analyses

Matrix Codes

DW - Drinking Water
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WW - Water
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Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Total Metals*	Dissolved Metals**	LAB USE ONLY
	MW-03	8/26/13	1023	NR	W	1				1									X		1
	MW-06	↓	1059			1				1									X		1
	BB-01	8/27/13	845			1				1									X		1
	BB-01 MS		845			1				1									X		1
	BB-01 MSD		845			1				1									X		1
	South Well		855			1				1									X		1
	BC-17		934			1				1									X		1
	Duplicate #2		934			1				1									X		1
	North Well		945			1				1									X		1
	BC-21 R		1012			1				1									X		1
	BA-01A		1137			1				1									X		1
	BA-01	↓	1117	↓	↓	2				1		1							X	X	2

Turnaround Time (Business days)

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- [ ] 5 Day *RUSH*
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- [ ] 3 Day *RUSH*
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- Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

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Comments / Special Instructions

Received at Baton Rouge Service Center

*Total Metals: As, Cd, Pb, Mn, Ni, Th, Zn

**Dissolved Metals ~~(Field Filtered)~~: As, Cd, Pb, Mn, Ni, Th, Zn
Lab Filtered

*Send samples to NJ Lab for analysis

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Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nick Rodehorst	8/28/13 10:00	1	2	8/28 1330	2 Renee Sam
3 Renee Sam	8/28/13 1525	3 Renee Sam	4		4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not Intact	Preserved where applicable [ ] On Ice [ ] Cooler Temp.

ACCUTEST LABORATORIES

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

Client / Reporting Information

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Street Address: 3801 N. Causeway Blvd. Suite 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Nick Rodehorst nrodehorst@semsinc.net
Phone # / Fax #: 504-451-8083
Sampler(s) Name(s) / Phone #: Nick Rodehorst (504) 451-8083

Project Information

Project Name: Delatte Metals Superfund Site
Street:
City / State: Ponchatoula LA
Project #:
Client Purchase Order #: 207-0016
Project Manager: Brian Sullivan
Attention:

Billing Information (if different from Report to)

Company Name:
Street Address:
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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
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	DW-03	8/27/13	1414	NR	W	1				1									X		1
	Duplicate #3		1414			1				1									X		1
	DW-04		1441			1				1									X		1
	DW-02		1043			1				1									X		1
	BA-05A		1343			1				1									X		1
	BA-05		1322			1				1									X		1
	MW-A		1530			1				1									X		1
	MW-A MS		1530			1				1									X		1
	MW-A MSD		1530			1				1									X		1
	DW-01		1741			1				1									X		1
	MW-01		1811			1				1									X		1
	BA-03A		1626			1				1									X		1

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	BA-03	8/27/13	1556	NR	W	1				1									X		1
	Duplicate #4	↓	1556	↓	↓	1				1									X		1
	MW-02	↓	1655	↓	↓	1				1									X		1

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Emergency & Rush T/A data available VIA Lablink

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

New Jersey
ACCUTEST
LABORATORIES

10/17/13

Technical Report for

Accutest SPL Lafayette

SEMS Incorporated, Delatte Metals Superfund, LA

L0033633

Accutest Job Number: JB46106

Sampling Dates: 08/26/13 - 08/27/13

Report to:

Accutest SPL Lafayette

ATTN: Cristina Thibeaux

Total number of pages in report: **75**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Nancy T. Cole
Nancy Cole
Laboratory Director

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary **4**
Section 2: Case Narrative/Conformance Summary **8**
Section 3: Summary of Hits 14
Section 4: Sample Results **19**
4.1: JB46106-1: BA-09A 20
4.2: JB46106-2: BA-09 21
4.3: JB46106-3: MW-04 22
4.4: JB46106-3F: MW-04 23
4.5: JB46106-4: WW-09 24
4.6: JB46106-5: WW-04 25
4.7: JB46106-6: (b) (6) [redacted] WELL 26
4.8: JB46106-7: BC-03 27
4.9: JB46106-8: BC-07 28
4.10: JB46106-9: DW-04 29
4.11: JB46106-10: BC-19 30
4.12: JB46106-11: DUPLICATE #1 31
4.13: JB46106-12: BC-25 32
4.14: JB46106-13: MW-03 33
4.15: JB46106-14: MW-06 34
4.16: JB46106-15: BB-01 35
4.17: JB46106-16: SOUTH WELL 36
4.18: JB46106-17: BC-17 37
4.19: JB46106-18: DUPLICATE #2 38
4.20: JB46106-19: NORTH WELL 39
4.21: JB46106-20: BC-21R 40
4.22: JB46106-21: BA-01A 41
4.23: JB46106-22: BA-01 42
4.24: JB46106-22F: BA-01 43
4.25: JB46106-23: DW-03 44
4.26: JB46106-24: DUPLICATE #3 45
4.27: JB46106-25: PW-04 46
4.28: JB46106-26: DW-02 47
4.29: JB46106-27: BA-05A 48
4.30: JB46106-28: BA-05 49
4.31: JB46106-29: MW-A 50
4.32: JB46106-30: DW-1 51
4.33: JB46106-31: MW-01 52
4.34: JB46106-32: BA-03A 53
4.35: JB46106-33: BA-03 54
4.36: JB46106-34: DUPLICATE #4 55
4.37: JB46106-35: MW-02 56
Section 5: Misc. Forms 57

Table of Contents

5.1: Chain of Custody 58
Section 6: Metals Analysis - QC Data Summaries 65
6.1: Prep QC MP74272: As,Cd,Pb,Mn,Ni,Tl,Zn 66
6.2: Prep QC MP74292: As,Cd,Pb,Mn,Ni,Tl,Zn 71

Sample Summary

Accutest SPL Lafayette

Job No: JB46106

SEMS Incorporated, Delatte Metals Superfund, LA
Project No: L0033633

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB46106-1	08/26/13	14:42	08/30/13	AQ	Ground Water	BA-09A
JB46106-2	08/26/13	14:26	08/30/13	AQ	Ground Water	BA-09
JB46106-3	08/26/13	15:04	08/30/13	AQ	Ground Water	MW-04
JB46106-3F	08/26/13	15:04	08/30/13	AQ	Groundwater Filtered	MW-04
JB46106-4	08/26/13	15:15	08/30/13	AQ	Ground Water	WW-09
JB46106-5	08/26/13	13:14	08/30/13	AQ	Ground Water	WW-04
JB46106-6	08/26/13	13:19	08/30/13	AQ	Ground Water	(b) (6) [redacted] WELL
JB46106-7	08/26/13	12:24	08/30/13	AQ	Ground Water	BC-03
JB46106-8	08/26/13	08:41	08/30/13	AQ	Ground Water	BC-07
JB46106-9	08/26/13	09:11	08/30/13	AQ	Ground Water	DW-04
JB46106-10	08/26/13	09:31	08/30/13	AQ	Ground Water	BC-19
JB46106-11	08/26/13	09:31	08/30/13	AQ	Ground Water	DUPLICATE #1
JB46106-12	08/26/13	10:04	08/30/13	AQ	Ground Water	BC-25

Sample Summary
(continued)

Accutest SPL Lafayette

Job No: JB46106

SEMS Incorporated, Delatte Metals Superfund, LA
Project No: L0033633

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB46106-13	08/26/13	10:23	08/30/13	AQ	Ground Water	MW-03
JB46106-14	08/26/13	10:59	08/30/13	AQ	Ground Water	MW-06
JB46106-15	08/27/13	08:45	08/30/13	AQ	Ground Water	BB-01
JB46106-15D	08/27/13	08:45	08/30/13	AQ	Water Dup/MSD	BB-01
JB46106-15S	08/27/13	08:45	08/30/13	AQ	Water Matrix Spike	BB-01
JB46106-16	08/27/13	08:55	08/30/13	AQ	Ground Water	SOUTH WELL
JB46106-17	08/27/13	09:34	08/30/13	AQ	Ground Water	BC-17
JB46106-18	08/27/13	09:34	08/30/13	AQ	Ground Water	DUPLICATE #2
JB46106-19	08/27/13	09:45	08/30/13	AQ	Ground Water	NORTH WELL
JB46106-20	08/27/13	10:12	08/30/13	AQ	Ground Water	BC-21R
JB46106-21	08/27/13	11:37	08/30/13	AQ	Ground Water	BA-01A
JB46106-22	08/27/13	11:17	08/30/13	AQ	Ground Water	BA-01
JB46106-22F	08/27/13	11:17	08/30/13	AQ	Groundwater Filtered	BA-01

Sample Summary
(continued)

Accutest SPL Lafayette

Job No: JB46106

SEMS Incorporated, Delatte Metals Superfund, LA
Project No: L0033633

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB46106-23	08/27/13	14:14	08/30/13	AQ	Ground Water	DW-03
JB46106-24	08/27/13	14:14	08/30/13	AQ	Ground Water	DUPLICATE #3
JB46106-25	08/27/13	14:41	08/30/13	AQ	Ground Water	PW-04
JB46106-26	08/27/13	10:43	08/30/13	AQ	Ground Water	DW-02
JB46106-27	08/27/13	13:43	08/30/13	AQ	Ground Water	BA-05A
JB46106-28	08/27/13	13:22	08/30/13	AQ	Ground Water	BA-05
JB46106-29	08/27/13	15:30	08/30/13	AQ	Ground Water	MW-A
JB46106-29D	08/27/13	15:30	08/30/13	AQ	Water Dup/MSD	MW-A
JB46106-29S	08/27/13	15:30	08/30/13	AQ	Water Matrix Spike	MW-A
JB46106-30	08/27/13	17:41	08/30/13	AQ	Ground Water	DW-1
JB46106-31	08/27/13	18:11	08/30/13	AQ	Ground Water	MW-01
JB46106-32	08/27/13	16:26	08/30/13	AQ	Ground Water	BA-03A
JB46106-33	08/27/13	15:56	08/30/13	AQ	Ground Water	BA-03

Sample Summary
(continued)

Accutest SPL Lafayette

Job No: JB46106

SEMS Incorporated, Delatte Metals Superfund, LA
Project No: L0033633

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
JB46106-34	08/27/13	15:56	08/30/13	AQ	Ground Water	DUPLICATE #4
JB46106-35	08/27/13	16:55	08/30/13	AQ	Ground Water	MW-02

ACCUTEST LABORATORIES

2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest SPL Lafayette	**Job No**	JB46106
Site:	SEMS Incorporated, Delatte Metals Superfund, LA	**Report Date**	9/30/2013 5:16:44 PM

On 08/30/2013, 35 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 2 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB46106 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** MP74272

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB46106-1MS, JB46106-1MSD, JB46106-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Nickel, Thallium, Zinc, Manganese are outside control limits for sample MP74272-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JB46106-12 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-12 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-12 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-12 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-1 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-1 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-1 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-1 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-1 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-12 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-1 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-6 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Arsenic: Elevated detection limit due to dilution required for matrix interference.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** MP74272

- JB46106-6 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-7 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-6 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-8 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-6 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-6 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-5 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-6 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-6 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-4 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Nickel: Elevated detection limit due to dilution required for matrix interference.

Matrix: AQ	Batch ID: MP74272

- JB46106-12 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-12 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-2 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-14 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-13 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- MP74272-SD1 for Manganese: Serial dilution indicates possible matrix interference.
- JB46106-1 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-9 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-11 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-10 for Lead: Elevated detection limit due to dilution required for matrix interference.

Matrix: AQ	Batch ID: MP74292

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB46106-29MS, JB46106-29MSD, JB46106-29SDL were used as the QC samples for metals.
- Matrix Spike Duplicate Recovery(s) for Zinc are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for Cadmium are outside control limits for sample MP74292-S2. High rpd due to possible sample matrix interference.
- RPD(s) for Serial Dilution for Zinc, Lead, Nickel, Thallium are outside control limits for sample MP74292-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JB46106-27 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-25 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-25 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-25 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-25 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-26 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-26 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-26 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-26 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-26 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-27 for Cadmium: Elevated detection limit due to dilution required for matrix interference.

- JB46106-25 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-27 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-27 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-27 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-28 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-28 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-28 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-28 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-27 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-28 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-25 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-34 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-34 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-34 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-34 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-34 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-33 for Zinc: Elevated detection limit due to dilution required for matrix interference.

- JB46106-33 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-33 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-33 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-33 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-33 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-31 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-34 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-31 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-31 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-31 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-31 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-25 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-24 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-23 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-26 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-21 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-27 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-28 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-31 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-32 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-30 for Zinc: Elevated detection limit due to dilution required for matrix interference.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** MP74292

- JB46106-3F for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-22F for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3F for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3F for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3F for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Thallium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3F for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3F for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-35 for Zinc: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Arsenic: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Cadmium: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Lead: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Manganese: Elevated detection limit due to dilution required for matrix interference.
- JB46106-29 for Nickel: Elevated detection limit due to dilution required for matrix interference.
- JB46106-3F for Nickel: Elevated detection limit due to dilution required for matrix interference.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB46106
Account: Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA
Collected: 08/26/13 thru 08/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB46106-1	**BA-09A**					
Manganese [a]		41.4	10		ug/l	SW846 6020A
JB46106-2	**BA-09**					
Arsenic [a]		30.5	5.0		ug/l	SW846 6020A
Manganese [a]		4320	10		ug/l	SW846 6020A
Nickel [a]		182	10		ug/l	SW846 6020A
Zinc [a]		256	20		ug/l	SW846 6020A
JB46106-3	**MW-04**					
Manganese [a]		40.5	10		ug/l	SW846 6020A
JB46106-3F	**MW-04**					
No hits reported in this sample.						
JB46106-4	**WW-09**					
Manganese [a]		18.2	10		ug/l	SW846 6020A
JB46106-5	**WW-04**					
Arsenic [a]		6.2	5.0		ug/l	SW846 6020A
JB46106-6	(b) (6) [redacted] **WELL**					
Manganese [a]		25.9	10		ug/l	SW846 6020A
JB46106-7	**BC-03**					
Manganese [a]		14.9	10		ug/l	SW846 6020A
JB46106-8	**BC-07**					
Manganese [a]		73.5	10		ug/l	SW846 6020A
JB46106-9	**DW-04**					
Manganese [a]		57.1	10		ug/l	SW846 6020A

Summary of Hits

Job Number: JB46106
Account: Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA
Collected: 08/26/13 thru 08/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB46106-10	**BC-19**					
Manganese [a]		26.2	10		ug/l	SW846 6020A
JB46106-11	**DUPLICATE #1**					
Manganese [a]		25.0	10		ug/l	SW846 6020A
JB46106-12	**BC-25**					
Manganese [a]		198	10		ug/l	SW846 6020A
JB46106-13	**MW-03**					
Manganese [a]		947	50		ug/l	SW846 6020A
JB46106-14	**MW-06**					
Arsenic		3.8	1.0		ug/l	SW846 6020A
Cadmium		44.0	1.0		ug/l	SW846 6020A
Manganese [a]		3190	50		ug/l	SW846 6020A
Nickel		29.3	2.0		ug/l	SW846 6020A
Zinc		90.2	4.0		ug/l	SW846 6020A
JB46106-15	**BB-01**					
Arsenic		4.5	1.0		ug/l	SW846 6020A
Lead		5.7	1.0		ug/l	SW846 6020A
Manganese		4.7	2.0		ug/l	SW846 6020A
JB46106-16	**SOUTH WELL**					
Manganese		4.1	2.0		ug/l	SW846 6020A
Zinc		8.4	4.0		ug/l	SW846 6020A
JB46106-17	**BC-17**					
Arsenic		2.1	1.0		ug/l	SW846 6020A
Lead		34.6	1.0		ug/l	SW846 6020A
Manganese		237	2.0		ug/l	SW846 6020A
JB46106-18	**DUPLICATE #2**					
Arsenic		2.1	1.0		ug/l	SW846 6020A
Lead		35.2	1.0		ug/l	SW846 6020A

Summary of Hits

Job Number: JB46106
Account: Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA
Collected: 08/26/13 thru 08/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Manganese		240	2.0		ug/l	SW846 6020A
Zinc		5.9	4.0		ug/l	SW846 6020A
JB46106-19	**NORTH WELL**					
Manganese		3.9	2.0		ug/l	SW846 6020A
Zinc		5.8	4.0		ug/l	SW846 6020A
JB46106-20	**BC-21R**					
Arsenic		1.5	1.0		ug/l	SW846 6020A
Manganese		184	2.0		ug/l	SW846 6020A
JB46106-21	**BA-01A**					
Arsenic [a]		8.6	5.0		ug/l	SW846 6020A
Manganese [a]		36.0	10		ug/l	SW846 6020A
JB46106-22	**BA-01**					
Arsenic [a]		7.2	5.0		ug/l	SW846 6020A
Manganese [a]		1310	10		ug/l	SW846 6020A
Nickel [a]		41.1	10		ug/l	SW846 6020A
Zinc [a]		66.0	20		ug/l	SW846 6020A
JB46106-22F	**BA-01**					
Manganese [a]		1280	10		ug/l	SW846 6020A
Nickel [a]		43.1	10		ug/l	SW846 6020A
Zinc [a]		65.9	20		ug/l	SW846 6020A
JB46106-23	**DW-03**					
Arsenic [a]		40.1	5.0		ug/l	SW846 6020A
Lead [a]		7.1	5.0		ug/l	SW846 6020A
Manganese [a]		3080	10		ug/l	SW846 6020A
Nickel [a]		128	10		ug/l	SW846 6020A
Zinc [a]		182	20		ug/l	SW846 6020A
JB46106-24	**DUPLICATE #3**					
Arsenic [a]		39.7	5.0		ug/l	SW846 6020A
Lead [a]		6.7	5.0		ug/l	SW846 6020A
Manganese [a]		3120	10		ug/l	SW846 6020A
Nickel [a]		130	10		ug/l	SW846 6020A

Summary of Hits

Job Number: JB46106
Account: Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA
Collected: 08/26/13 thru 08/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Zinc [a]		177	20		ug/l	SW846 6020A
JB46106-25	**PW-04**					
Manganese [a]		887	10		ug/l	SW846 6020A
Nickel [a]		21.6	10		ug/l	SW846 6020A
Zinc [a]		72.3	20		ug/l	SW846 6020A
JB46106-26	**DW-02**					
Arsenic [a]		64.5	5.0		ug/l	SW846 6020A
Cadmium [a]		31.4	5.0		ug/l	SW846 6020A
Lead [a]		20.1	5.0		ug/l	SW846 6020A
Manganese		14200	50		ug/l	SW846 6020A
Nickel [a]		587	10		ug/l	SW846 6020A
Zinc [a]		1570	20		ug/l	SW846 6020A
JB46106-27	**BA-05A**					
Manganese [a]		11.3	10		ug/l	SW846 6020A
JB46106-28	**BA-05**					
Manganese		11100	50		ug/l	SW846 6020A
Nickel [a]		35.4	10		ug/l	SW846 6020A
JB46106-29	**MW-A**					
No hits reported in this sample.						
JB46106-30	**DW-1**					
Arsenic [a]		422	5.0		ug/l	SW846 6020A
Manganese [a]		1370	10		ug/l	SW846 6020A
Nickel [a]		11.6	10		ug/l	SW846 6020A
Zinc [a]		42.2	20		ug/l	SW846 6020A
JB46106-31	**MW-01**					
Arsenic [a]		55.2	5.0		ug/l	SW846 6020A
Manganese		7830	50		ug/l	SW846 6020A
Nickel [a]		284	10		ug/l	SW846 6020A
Zinc [a]		309	20		ug/l	SW846 6020A

Summary of Hits

Job Number: JB46106
Account: Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA
Collected: 08/26/13 thru 08/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB46106-32	**BA-03A**					
Manganese [a]		19.6	10		ug/l	SW846 6020A
JB46106-33	**BA-03**					
Arsenic [a]		70.9	5.0		ug/l	SW846 6020A
Cadmium [a]		251	5.0		ug/l	SW846 6020A
Lead [a]		268	5.0		ug/l	SW846 6020A
Manganese		6740	50		ug/l	SW846 6020A
Nickel [a]		179	10		ug/l	SW846 6020A
Zinc [a]		783	20		ug/l	SW846 6020A
JB46106-34	**DUPLICATE #4**					
Arsenic [a]		9.6	5.0		ug/l	SW846 6020A
Cadmium [a]		250	5.0		ug/l	SW846 6020A
Lead [a]		282	5.0		ug/l	SW846 6020A
Manganese		6160	50		ug/l	SW846 6020A
Nickel [a]		172	10		ug/l	SW846 6020A
Zinc [a]		777	20		ug/l	SW846 6020A
JB46106-35	**MW-02**					
Cadmium [a]		62.1	5.0		ug/l	SW846 6020A
Manganese [a]		999	10		ug/l	SW846 6020A
Nickel [a]		46.1	10		ug/l	SW846 6020A
Zinc [a]		197	20		ug/l	SW846 6020A

(a) Elevated detection limit due to dilution required for matrix interference.

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BA-09A		
Lab Sample ID:	JB46106-1	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	41.4	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32049
(2) Instrument QC Batch: MA32066
(3) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-09		
Lab Sample ID:	JB46106-2	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	30.5	5.0	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [4]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [4]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [4]
Manganese [a]	4320	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [4]
Nickel [a]	182	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [4]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [4]
Zinc [a]	256	20	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [3]	SW846 3010A [4]

(1) Instrument QC Batch: MA32049
(2) Instrument QC Batch: MA32066
(3) Instrument QC Batch: MA32073
(4) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-04		
Lab Sample ID:	JB46106-3	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	40.5	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-04		
Lab Sample ID:	JB46106-3F	**Date Sampled:**	08/26/13
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32066
(2) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WW-09		
Lab Sample ID:	JB46106-4	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	18.2	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WW-04		
Lab Sample ID:	JB46106-5	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	6.2	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

4.7 4

Client Sample ID:	(b) (6) [redacted] WELL		
Lab Sample ID:	JB46106-6	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	25.9	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BC-03		
Lab Sample ID:	JB46106-7	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	14.9	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BC-07		
Lab Sample ID:	JB46106-8	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	73.5	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DW-04		
Lab Sample ID:	JB46106-9	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	57.1	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BC-19		
Lab Sample ID:	JB46106-10	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	26.2	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUPLICATE #1		
Lab Sample ID:	JB46106-11	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	25.0	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BC-25		
Lab Sample ID:	JB46106-12	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	198	10	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	< 10	10	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	10	09/03/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-03		
Lab Sample ID:	JB46106-13	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	947	50	ug/l	50	09/03/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc	< 4.0	4.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA32049
(2) Instrument QC Batch: MA32066
(3) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-06		
Lab Sample ID:	JB46106-14	**Date Sampled:**	08/26/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.8	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium	44.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	3190	50	ug/l	50	09/03/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel	29.3	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc	90.2	4.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA32049
(2) Instrument QC Batch: MA32066
(3) Prep QC Batch: MP74272

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BB-01		
Lab Sample ID:	JB46106-15	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.5	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead	5.7	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese	4.7	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc	< 4.0	4.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SOUTH WELL		
Lab Sample ID:	JB46106-16	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese	4.1	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc	8.4	4.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BC-17		
Lab Sample ID:	JB46106-17	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.1	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead	34.6	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese	237	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc	< 4.0	4.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUPLICATE #2		
Lab Sample ID:	JB46106-18	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.1	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead	35.2	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese	240	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc	5.9	4.0	ug/l	2	09/03/13	09/04/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

RL = Reporting Limit

Report of Analysis

Client Sample ID:	NORTH WELL		
Lab Sample ID:	JB46106-19	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese	3.9	2.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc	5.8	4.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BC-21R		
Lab Sample ID:	JB46106-20	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1.5	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese	184	2.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel	< 2.0	2.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium	< 1.0	1.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc	< 4.0	4.0	ug/l	2	09/03/13	09/05/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32049
(2) Prep QC Batch: MP74272

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-01A		
Lab Sample ID:	JB46106-21	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	8.6	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	36.0	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-01		
Lab Sample ID:	JB46106-22	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	7.2	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	1310	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	41.1	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	66.0	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-01		
Lab Sample ID:	JB46106-22F	**Date Sampled:**	08/27/13
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	1280	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	43.1	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	65.9	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32066
(2) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DW-03		
Lab Sample ID:	JB46106-23	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	40.1	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	7.1	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	3080	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	128	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	182	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUPLICATE #3		
Lab Sample ID:	JB46106-24	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	39.7	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	6.7	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	3120	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	130	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	177	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	PW-04		
Lab Sample ID:	JB46106-25	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	887	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	21.6	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	72.3	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DW-02		
Lab Sample ID:	JB46106-26	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	64.5	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	31.4	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	20.1	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese	14200	50	ug/l	50	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	587	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	1570	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-05A		
Lab Sample ID:	JB46106-27	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	11.3	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-05		
Lab Sample ID:	JB46106-28	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese	11100	50	ug/l	50	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	35.4	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-A		
Lab Sample ID:	JB46106-29	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	< 20	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32073
(2) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	JB46106-30	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	422	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	1370	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	11.6	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	42.2	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-01		
Lab Sample ID:	JB46106-31	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	55.2	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese	7830	50	ug/l	50	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	284	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	309	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-03A		
Lab Sample ID:	JB46106-32	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese [a]	19.6	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Nickel [a]	< 10	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BA-03		
Lab Sample ID:	JB46106-33	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	70.9	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	251	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	268	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese	6740	50	ug/l	50	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	179	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	783	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUPLICATE #4		
Lab Sample ID:	JB46106-34	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	9.6	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Cadmium [a]	250	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	282	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Manganese	6160	50	ug/l	50	09/04/13	09/06/13	VC	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	172	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	777	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA32066
(2) Instrument QC Batch: MA32073
(3) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-02		
Lab Sample ID:	JB46106-35	**Date Sampled:**	08/27/13
Matrix:	AQ - Ground Water	**Date Received:**	08/30/13
		Percent Solids:	n/a
Project:	SEMS Incorporated, Delatte Metals Superfund, LA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Cadmium [a]	62.1	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Manganese [a]	999	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Nickel [a]	46.1	10	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Thallium [a]	< 5.0	5.0	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]
Zinc [a]	197	20	ug/l	10	09/04/13	09/06/13	VC	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA32066
(2) Prep QC Batch: MP74292

(a) Elevated detection limit due to dilution required for matrix interference.

RL = Reporting Limit

New Jersey
ACCUTEST
LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

JB46106

Accutest, Inc. WW
500 Ambassador Caffery Parkway

Scott, LA 70583-8544
(337) 237-4775

CHAIN-OF-CUSTODY RECORD

Company	SEMS, INC.
Project Manager	Jackson, Amy K.
Project Name	207-0016
QCLevel	LVL4
Requested State	Louisiana

Subcontractor: VICKY PUSHKOVA
ACCUTEST LABORATORIES
2235 US HIGHWAY 130
DAYTON, NJ 08810

TEL: (732) 329-0200
FAX: (732) 329-3499
Acct #:

29-Aug-13

	Sample ID	Client Sample	Matrix	Collection Date	Due Date	SW3005	SW3010A	SW6020				
-1	L0033633-01A	BA-09A	Water	08/26/13 14:42	09/10/13			1	1	8/30/13		
	L0033633-01A	BA-09A	Water	08/26/13 14:42	09/03/13		1					
.2	L0033633-02A	BA-09	Water	08/26/13 14:26	09/10/13			1	2			
	L0033633-02A	BA-09	Water	08/26/13 14:26	09/03/13		1					
.3	L0033633-03A	MW-04	Water	08/26/13 15:04	09/10/13			1	3			
	L0033633-03A	MW-04	Water	08/26/13 15:04	09/03/13		1					
Diss. 3F	L0033633-03B	MW-04	Water	08/26/13 15:04	09/10/13			1	4F			
	L0033633-03B	MW-04	Water	08/26/13 15:04	09/03/13	1						
4	L0033633-04A	WW-09	Water	08/26/13 15:15	09/10/13			1	5			
	L0033633-04A	WW-09	Water	08/26/13 15:15	09/03/13		1					
5	L0033633-05A	WW-04	Water	08/26/13 13:14	09/10/13			1	6			
	L0033633-05A	WW-04	Water	08/26/13 13:14	09/03/13		1					
6	L0033633-06A	[redacted] WELL	Water	08/26/13 13:19	09/10/13			1	7			
	L0033633-06A	[redacted] WELL	Water	08/26/13 13:19	09/03/13		1					
7	L0033633-07A	BC-03	Water	08/26/13 12:24	09/10/13			1	8			
	L0033633-07A	BC-03	Water	08/26/13 12:24	09/03/13		1					
8	L0033633-08A	BC-07	Water	08/26/13 8:41	09/10/13			1	9			
	L0033633-08A	BC-07	Water	08/26/13 8:41	09/03/13		1					

Requested Tests

Comments: 6020 TOTAL & DISSOLVED (AS,CD,PB,MN,NI,TL,ZN)-Please contact Cristina Thibeaux for questions (800-304-5227). Please issue a full PDF report by e-mail (including COC documentation) to cristt@accutest.com. (500ML NITRIC)

A17

CHECKED AUG 29 2013

		Date/Time			Date/Time
Relinquished by:	[signature]	08/29/13	Received by:	[signature]	
Relinquished by:	FEDX	8/30/13 930	Received by:	[signature]	8/30/13 930

FEDX #9173 7251 6364

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JB46106: Chain of Custody
Page 1 of 7

JB46106

Accutest, Inc.
500 Ambassador Caffery Parkway

Scott, LA 70583-8544
(337) 237-4775

CHAIN-OF-CUSTODY RECORD

Company	SEMS, INC.
Project Manager	Jackson, Amy K.
Project Name	207-0016
QCLevel	LVL4
Requested State	Louisiana

Subcontractor: VICKY PUSHKOVA
ACCUTEST LABORATORIES
2235 US HIGHWAY 130
DAYTON, NJ 08810

TEL: (732) 329-0200
FAX: (732) 329-3499

Acct #:

29-Aug-13

	Sample ID	Client Sample	Matrix	Collection Date	Due Date	Requested Tests SW3005	SW3010A	SW6020				
									① 8/30/13			
9	L0033633-09A	DW-04	Water	08/26/13 9:11	09/10/13			1	10			
	L0033633-09A	DW-04	Water	08/26/13 9:11	09/03/13		1					
10	L0033633-10A	BC-19	Water	08/26/13 9:31	09/10/13			1	11			
	L0033633-10A	BC-19	Water	08/26/13 9:31	09/03/13		1					
11	L0033633-11A	DUPLICATE #1	Water	08/26/13 9:31	09/10/13			1	12			
	L0033633-11A	DUPLICATE #1	Water	08/26/13 9:31	09/03/13		1					
12	L0033633-12A	BC-25	Water	08/26/13 10:04	09/10/13			1	13			
	L0033633-12A	BC-25	Water	08/26/13 10:04	09/03/13		1					
13	L0033633-13A	MW-03	Water	08/26/13 10:23	09/10/13			1	14			
	L0033633-13A	MW-03	Water	08/26/13 10:23	09/03/13		1					
14	L0033633-14A	MW-06	Water	08/26/13 10:59	09/10/13			1	15			
	L0033633-14A	MW-06	Water	08/26/13 10:59	09/03/13		1					
15 *	L0033633-15A	BB-01	Water	08/27/13 8:45	09/10/13			1				
	L0033633-15A	BB-01	Water	08/27/13 8:45	09/03/13		1					
16	L0033633-16A	SOUTH WELL	Water	08/27/13 8:55	09/10/13			1				
	L0033633-16A	SOUTH WELL	Water	08/27/13 8:55	09/03/13		1					
17	L0033633-17A	BC-17	Water	08/27/13 9:34	09/10/13			1				
	L0033633-17A	BC-17	Water	08/27/13 9:34	09/03/13		1					

Comments: 6020 TOTAL & DISSOLVED (AS,CD,PB,MN,NI,TL,ZN)-Please contact Cristina Thibeaux for questions (800-304-5227). Please issue a full PDF report by e-mail (including COC documentation) to cristt@accutest.com. (500ML NITRIC)

* BB-01 ms|msd

		Date/Time			Date/Time
Relinquished by:	[illegible]	8/29/13	Received by:	FEDX	
Relinquished by:	FEDX	8/30/13 930	Received by:	[illegible]	8/30/13 930

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JB46106: Chain of Custody
Page 2 of 7

JB46106

Accutest, Inc.
500 Ambassador Caffery Parkway

Scott, LA 70583-8544
(337) 237-4775

CHAIN-OF-CUSTODY RECORD

Company	SEMS, INC.
Project Manager	Jackson, Amy K.
Project Name	207-0016
QCLevel	LVL4
Requested State	Louisiana

Subcontractor: VICKY PUSHKOVA
ACCUTEST LABORATORIES
2235 US HIGHWAY 130
DAYTON, NJ 08810

TEL: (732) 329-0200
FAX: (732) 329-3499

Acct #:

29-Aug-13

	Sample ID	Client Sample	Matrix	Collection Date	Due Date	Requested Tests						
						SW3005	SW3010A	SW6020				
18	L0033633-18A	DUPLICATE #2	Water	08/27/13 9:34	09/10/13			1				
	L0033633-18A	DUPLICATE #2	Water	08/27/13 9:34	09/03/13		1					
19	L0033633-19A	NORTH WELL	Water	08/27/13 9:45	09/10/13			1				
	L0033633-19A	NORTH WELL	Water	08/27/13 9:45	09/03/13		1					
20	L0033633-20A	BC-21R	Water	08/27/13 10:12	09/10/13			1				
	L0033633-20A	BC-21R	Water	08/27/13 10:12	09/03/13		1					
21	L0033633-21A	BS-01A	Water	08/27/13 11:37	09/10/13			1				
	L0033633-21A	BS-01A	Water	08/27/13 11:37	09/03/13		1					
22	L0033633-22A	BA-01	Water	08/27/13 11:17	09/10/13			1				
	L0033633-22A	BA-01	Water	08/27/13 11:17	09/03/13		1					
22B	L0033633-22B	BA-01	Water	08/27/13 11:17	09/10/13			1				
	L0033633-22B	BA-01	Water	08/27/13 11:17	09/03/13	1						
23	L0033633-23A	DW-03	Water	08/27/13 14:14	09/10/13			1				
	L0033633-23A	DW-03	Water	08/27/13 14:14	09/03/13		1					
24	L0033633-24A	DUPLICATE #3	Water	08/27/13 14:14	09/10/13			1				
	L0033633-24A	DUPLICATE #3	Water	08/27/13 14:14	09/03/13		1					
25	L0033633-25A	PW-04	Water	08/27/13 14:41	09/10/13			1				
	L0033633-25A	PW-04	Water	08/27/13 14:41	09/03/13		1					

Comments: 6020 TOTAL & DISSOLVED (AS,CD,PB,MN,NI,TL,ZN)-Please contact Cristina Thibeaux for questions (800-304-5227). Please issue a full PDF report by e-mail (including COC documentation) to cristt@accutest.com. (500ML NITRIC)

		Date/Time			Date/Time
Relinquished by:	[illegible]	08/29/13	Received by:	FEDX	
Relinquished by:	FEDX	8/30/13 930	Received by:	[illegible]	8/30/13 930

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JB46106: Chain of Custody
Page 3 of 7

JB46106

Accutest, Inc.
500 Ambassador Caffery Parkway

Scott, LA 70583-8544
(337) 237-4775

CHAIN-OF-CUSTODY RECORD

Company	SEMS, INC.
Project Manager	Jackson, Amy K.
Project Name	207-0016
QCLevel	LVL4
Requested State	Louisiana

Subcontractor: VICKY PUSHKOVA
ACCUTEST LABORATORIES
2235 US HIGHWAY 130
DAYTON, NJ 08810

TEL: (732) 329-0200
FAX: (732) 329-3499

Acct #:

29-Aug-13

	Sample ID	Client Sample	Matrix	Collection Date	Due Date	Requested Tests SW3005	SW3010A	SW6020				
26	L0033633-26A	DW-02	Water	08/27/13 10:43	09/10/13			1				
	L0033633-26A	DW-02	Water	08/27/13 10:43	09/03/13		1					
27	L0033633-27A	BA-05A	Water	08/27/13 13:43	09/10/13			1				
	L0033633-27A	BA-05A	Water	08/27/13 13:43	09/03/13		1					
28	L0033633-28A	BA-05	Water	08/27/13 13:22	09/10/13			1				
	L0033633-28A	BA-05	Water	08/27/13 13:22	09/03/13		1					
29	L0033633-29A	MW-A	Water	08/27/13 15:30	09/10/13			1				
	L0033633-29A	MW-A	Water	08/27/13 15:30	09/03/13		1					
30	L0033633-30A	DW-1	Water	08/27/13 17:41	09/10/13			1				
	L0033633-30A	DW-1	Water	08/27/13 17:41	09/03/13		1					
31	L0033633-31A	MW-01	Water	08/27/13 18:11	09/10/13			1				
	L0033633-31A	MW-01	Water	08/27/13 18:11	09/03/13		1					
32	L0033633-32A	BA-03A	Water	08/27/13 16:26	09/10/13			1				
	L0033633-32A	BA-03A	Water	08/27/13 16:26	09/03/13		1					
33	L0033633-33A	BA-03	Water	08/27/13 15:56	09/10/13			1				
	L0033633-33A	BA-03	Water	08/27/13 15:56	09/03/13		1					
34	L0033633-34A	DUPLICATE #4	Water	08/27/13 15:56	09/10/13			1				
	L0033633-34A	DUPLICATE #4	Water	08/27/13 15:56	09/03/13		1					

Comments: 6020 TOTAL & DISSOLVED (AS,CD,PB,MN,NI,TL,ZN)-Please contact Cristina Thibeaux for questions (800-304-5227). Please issue a full PDF report by e-mail (including COC documentation) to cristt@accutest.com. (500ML NITRIC)

MWA-MS|MSD

		Date/Time			Date/Time
Relinquished by:	[illegible]	08/29/13	Received by:	FEDEX	
Relinquished by:	FEDEX	8/30/13 930	Received by:	[illegible]	8/30/13 930

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JB46106: Chain of Custody
Page 4 of 7

JB46106

Accutest, Inc.
500 Ambassador Caffery Parkway

Scott, LA 70583-8544
(337) 237-4775

CHAIN-OF-CUSTODY RECORD

Company	SEMS, INC.
Project Manager	Jackson, Amy K.
Project Name	207-0016
QCLevel	LVL4
Requested State	Louisiana

Subcontractor: VICKY PUSHKOVA
ACCUTEST LABORATORIES
2235 US HIGHWAY 130
DAYTON, NJ 08810

TEL: (732) 329-0200
FAX: (732) 329-3499

Acct #:

29-Aug-13

	Sample ID	Client Sample	Matrix	Collection Date	Due Date	Requested Tests						
						SW3005	SW3010A	SW6020				
35	L0033633-35A	MW-02	Water	08/27/13 16:55	09/10/13			1				
	L0033633-35A	MW-02	Water	08/27/13 16:55	09/03/13		1					

Comments: 6020 TOTAL & DISSOLVED (AS,CD,PB,MN,NI,TL,ZN)-Please contact Cristina Thibeaux for questions (800-304-5227). Please issue a full PDF report by e-mail (including COC documentation) to cristt@accutest.com. (500ML NITRIC)

		Date/Time			Date/Time
Relinquished by:	[illegible]	08/29/13	Received by:	FEDX	
Relinquished by:	FEDX	8/30/13 930	Received by:	[illegible]	8/30/13 930

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JB46106: Chain of Custody
Page 5 of 7

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB46106 **Client:** **Project:**

Date / Time Received: 8/30/2013 **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2/2); #2: (3/3); 0

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Bar Therm
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservatio	Y	or 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	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or 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

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

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JB46106: Chain of Custody
Page 6 of 7

ACCUTEST LABORATORIES

Job Change Order: JB46106

Requested Date:	10/17/2013	**Received Date:**	8/30/2013
Account Name:	Accutest SPL Lafayette	**Due Date:**	9/9/2013
Project Description:	SEMS Incorporated, Delatte Metals Superfund, LA	**Deliverable:**	FULT1
CSR:	vickyp	**TAT (Days):**	14

Sample #: JB46106-5

Dept:

MW-04

Change:
Please revise sample ID to WW-04 and re-issue the report.

Sample #: JB46106-21

Dept:

BS-01A

Change:
Please revise sample ID to BA-01A and re-issue the report.

Above Changes Per: Liz Martin **Date:** 10/17/2013

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

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JB46106: Chain of Custody
Page 7 of 7

New Jersey
ACCUTEST
LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74272
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/03/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.25	2.3		
Antimony	1.0	.14	.29		
Arsenic	1.0	.074	.083	0.16	<1.0
Barium	2.0	.088	.15		
Beryllium	1.0	.006	.059		
Boron	10	1.5	1.8		
Cadmium	1.0	.014	.11	-0.0024	<1.0
Calcium	500	3.1	3.5		
Chromium	2.0	.028	.06		
Cobalt	1.0	.023	.066		
Copper	2.0	.12	.33		
Iron	50	1.3	2.4		
Lead	1.0	.0076	.033	-0.087	<1.0
Magnesium	500	.33	3.6		
Manganese	2.0	.037	.19	0.015	<2.0
Molybdenum	2.0	.38	.68		
Nickel	2.0	.042	.2	0.050	<2.0
Potassium	500	13	5.3		
Selenium	1.0	.071	.35		
Silver	1.0	.01	.057		
Sodium	500	7.3	36		
Strontium	10	.015	.057		
Thallium	1.0	.067	.11	0.34	<1.0
Tin	10	.12	.73		
Titanium	2.0	.12	.4		
Vanadium	2.0	.08	.13		
Zinc	4.0	.32	.8	0.74	<4.0

Associated samples MP74272: JB46106-1, JB46106-2, JB46106-3, JB46106-4, JB46106-5, JB46106-6, JB46106-7, JB46106-8, JB46106-9, JB46106-10, JB46106-11, JB46106-12, JB46106-13, JB46106-14, JB46106-15, JB46106-16, JB46106-17, JB46106-18, JB46106-19, JB46106-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74272
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/03/13

Metal	JB46106-1 Original	MS	Spikelot MPIRW1	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	3.7	2330	2000	116.3	75-125
Barium					
Beryllium					
Boron					
Cadmium	0.14	56.4	50	112.5	75-125
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead	0.0	525	500	105.0	75-125
Magnesium					
Manganese	41.4	588	500	109.3	75-125
Molybdenum					
Nickel	0.54	530	500	105.9	75-125
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium	2.5	1980	2000	98.9	75-125
Tin					
Titanium					
Vanadium					
Zinc	14.4	569	500	110.9	75-125

Associated samples MP74272: JB46106-1, JB46106-2, JB46106-3, JB46106-4, JB46106-5, JB46106-6, JB46106-7, JB46106-8, JB46106-9, JB46106-10, JB46106-11, JB46106-12, JB46106-13, JB46106-14, JB46106-15, JB46106-16, JB46106-17, JB46106-18, JB46106-19, JB46106-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74272
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/03/13

Metal	JB46106-1 Original	MSD	Spikelot MPIRW1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	3.7	2290	2000	114.3	1.7	20
Barium						
Beryllium						
Boron						
Cadmium	0.14	53.4	50	106.5	5.5	20
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	0.0	521	500	104.2	0.8	20
Magnesium						
Manganese	41.4	577	500	107.1	1.9	20
Molybdenum						
Nickel	0.54	513	500	102.5	3.3	20
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	2.5	1980	2000	98.9	0.0	20
Tin						
Titanium						
Vanadium						
Zinc	14.4	609	500	118.9	0.2	20

Associated samples MP74272: JB46106-1, JB46106-2, JB46106-3, JB46106-4, JB46106-5, JB46106-6, JB46106-7, JB46106-8, JB46106-9, JB46106-10, JB46106-11, JB46106-12, JB46106-13, JB46106-14, JB46106-15, JB46106-16, JB46106-17, JB46106-18, JB46106-19, JB46106-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74272
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/03/13

Metal	LCS Result	Spikelot MPLCW3	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	444	500	88.8	80-120
Barium				
Beryllium				
Boron				
Cadmium	468	500	93.6	80-120
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	540	500	108.0	80-120
Magnesium				
Manganese	534	500	106.8	80-120
Molybdenum				
Nickel	515	500	103.0	80-120
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	540	500	108.0	80-120
Tin				
Titanium				
Vanadium				
Zinc	539	500	107.8	80-120

Associated samples MP74272: JB46106-1, JB46106-2, JB46106-3, JB46106-4, JB46106-5, JB46106-6, JB46106-7, JB46106-8, JB46106-9, JB46106-10, JB46106-11, JB46106-12, JB46106-13, JB46106-14, JB46106-15, JB46106-16, JB46106-17, JB46106-18, JB46106-19, JB46106-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74272
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/03/13

Metal	JB46106-1 Original	SDL 10:50	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	3.65	3.26	10.9 (a)	0-10
Barium				
Beryllium				
Boron				
Cadmium	0.136	0.757	454.8(a)	0-10
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	0.00	0.438	NC	0-10
Magnesium				
Manganese	41.4	36.8	11.1*(b)	0-10
Molybdenum				
Nickel	0.536	0.00	100.0(a)	0-10
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	2.52	3.79	50.0 (a)	0-10
Tin				
Titanium				
Vanadium				
Zinc	14.4	11.0	23.3 (a)	0-10

Associated samples MP74272: JB46106-1, JB46106-2, JB46106-3, JB46106-4, JB46106-5, JB46106-6, JB46106-7, JB46106-8, JB46106-9, JB46106-10, JB46106-11, JB46106-12, JB46106-13, JB46106-14, JB46106-15, JB46106-16, JB46106-17, JB46106-18, JB46106-19, JB46106-20

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74292
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/04/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.25	2.3		
Antimony	1.0	.14	.29		
Arsenic	1.0	.074	.083	0.056	<1.0
Barium	2.0	.088	.15		
Beryllium	1.0	.006	.059		
Boron	10	1.5	1.8		
Cadmium	1.0	.014	.11	0.030	<1.0
Calcium	500	3.1	3.5		
Chromium	2.0	.028	.06		
Cobalt	1.0	.023	.066		
Copper	2.0	.12	.33		
Iron	50	1.3	2.4		
Lead	1.0	.0076	.033	0.068	<1.0
Magnesium	500	.33	3.6		
Manganese	2.0	.037	.19	0.26	<2.0
Molybdenum	2.0	.38	.68		
Nickel	2.0	.042	.2	0.14	<2.0
Potassium	500	13	5.3		
Selenium	1.0	.071	.35		
Silver	1.0	.01	.057		
Sodium	500	7.3	36		
Strontium	10	.015	.057		
Thallium	1.0	.067	.11	0.088	<1.0
Tin	10	.12	.73		
Titanium	2.0	.12	.4		
Vanadium	2.0	.08	.13		
Zinc	4.0	.32	.8	2.1	<4.0

Associated samples MP74292: JB46106-21, JB46106-22, JB46106-23, JB46106-24, JB46106-25, JB46106-26, JB46106-27, JB46106-28, JB46106-29, JB46106-30, JB46106-31, JB46106-32, JB46106-33, JB46106-34, JB46106-35, JB46106-3F, JB46106-22F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74292
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/04/13

Metal	JB46106-29 Original	MS	Spikelot MPIRW1	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	0.0	2110	2000	105.5	75-125
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	0.0	49.1	50	98.2	75-125
Calcium	anr				
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	0.79	517	500	103.2	75-125
Magnesium	anr				
Manganese	8.9	486	500	95.4	75-125
Molybdenum					
Nickel	0.43	476	500	95.1	75-125
Potassium	anr				
Selenium	anr				
Silver	anr				
Sodium	anr				
Strontium					
Thallium	0.84	1850	2000	92.5	75-125
Tin					
Titanium					
Vanadium	anr				
Zinc	7.9	575	500	113.4	75-125

Associated samples MP74292: JB46106-21, JB46106-22, JB46106-23, JB46106-24, JB46106-25, JB46106-26, JB46106-27, JB46106-28, JB46106-29, JB46106-30, JB46106-31, JB46106-32, JB46106-33, JB46106-34, JB46106-35, JB46106-3F, JB46106-22F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74292
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/04/13

Metal	JB46106-29 Original	MSD	Spikelot MPIRW1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.0	2470	2000	123.5	15.7	20
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	0.0	61.9	50	123.8	23.1 (a)	20
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	0.79	582	500	116.2	11.8	20
Magnesium	anr					
Manganese	8.9	588	500	115.8	19.0	20
Molybdenum						
Nickel	0.43	558	500	111.5	15.9	20
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	0.84	2040	2000	102.0	9.8	20
Tin						
Titanium						
Vanadium	anr					
Zinc	7.9	647	500	127.8N(b	11.8	20

Associated samples MP74292: JB46106-21, JB46106-22, JB46106-23, JB46106-24, JB46106-25, JB46106-26, JB46106-27, JB46106-28, JB46106-29, JB46106-30, JB46106-31, JB46106-32, JB46106-33, JB46106-34, JB46106-35, JB46106-3F, JB46106-22F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) High rpd due to possible sample matrix interference.
(b) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74292
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/04/13

Metal	LCS Result	Spikelot MPLCW3	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	538	500	107.6	80-120
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	507	500	101.4	80-120
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	496	500	99.2	80-120
Magnesium	anr			
Manganese	485	500	97.0	80-120
Molybdenum				
Nickel	523	500	104.6	80-120
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	435	500	87.0	80-120
Tin				
Titanium				
Vanadium	anr			
Zinc	521	500	104.2	80-120

Associated samples MP74292: JB46106-21, JB46106-22, JB46106-23, JB46106-24, JB46106-25, JB46106-26, JB46106-27, JB46106-28, JB46106-29, JB46106-30, JB46106-31, JB46106-32, JB46106-33, JB46106-34, JB46106-35, JB46106-3F, JB46106-22F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JB46106
Account: ALLA - Accutest SPL Lafayette
Project: SEMS Incorporated, Delatte Metals Superfund, LA

QC Batch ID: MP74292
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 09/04/13

Metal	JB46106-29 Original	SDL 10:50	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	0.00	0.527	NC	0-10
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	0.792	0.992	25.2 (a)	0-10
Magnesium	anr			
Manganese	8.93	8.97	0.4	0-10
Molybdenum				
Nickel	0.431	22.6	5137.5(a	0-10
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	0.844	2.49	194.9(a)	0-10
Tin				
Titanium				
Vanadium	anr			
Zinc	7.86	34.3	337.1(a)	0-10

Associated samples MP74292: JB46106-21, JB46106-22, JB46106-23, JB46106-24, JB46106-25, JB46106-26, JB46106-27, JB46106-28, JB46106-29, JB46106-30, JB46106-31, JB46106-32, JB46106-33, JB46106-34, JB46106-35, JB46106-3F, JB46106-22F

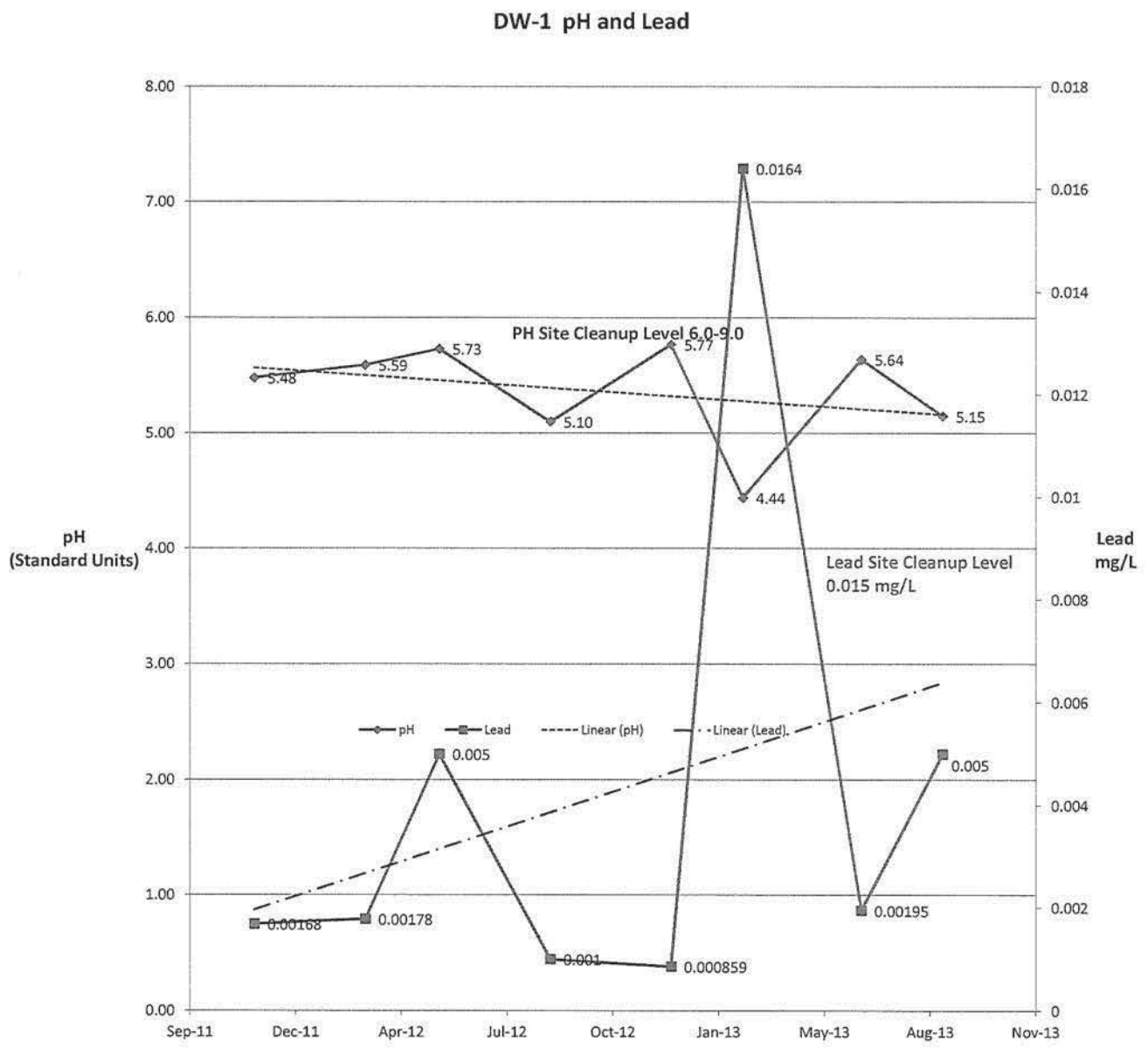
Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

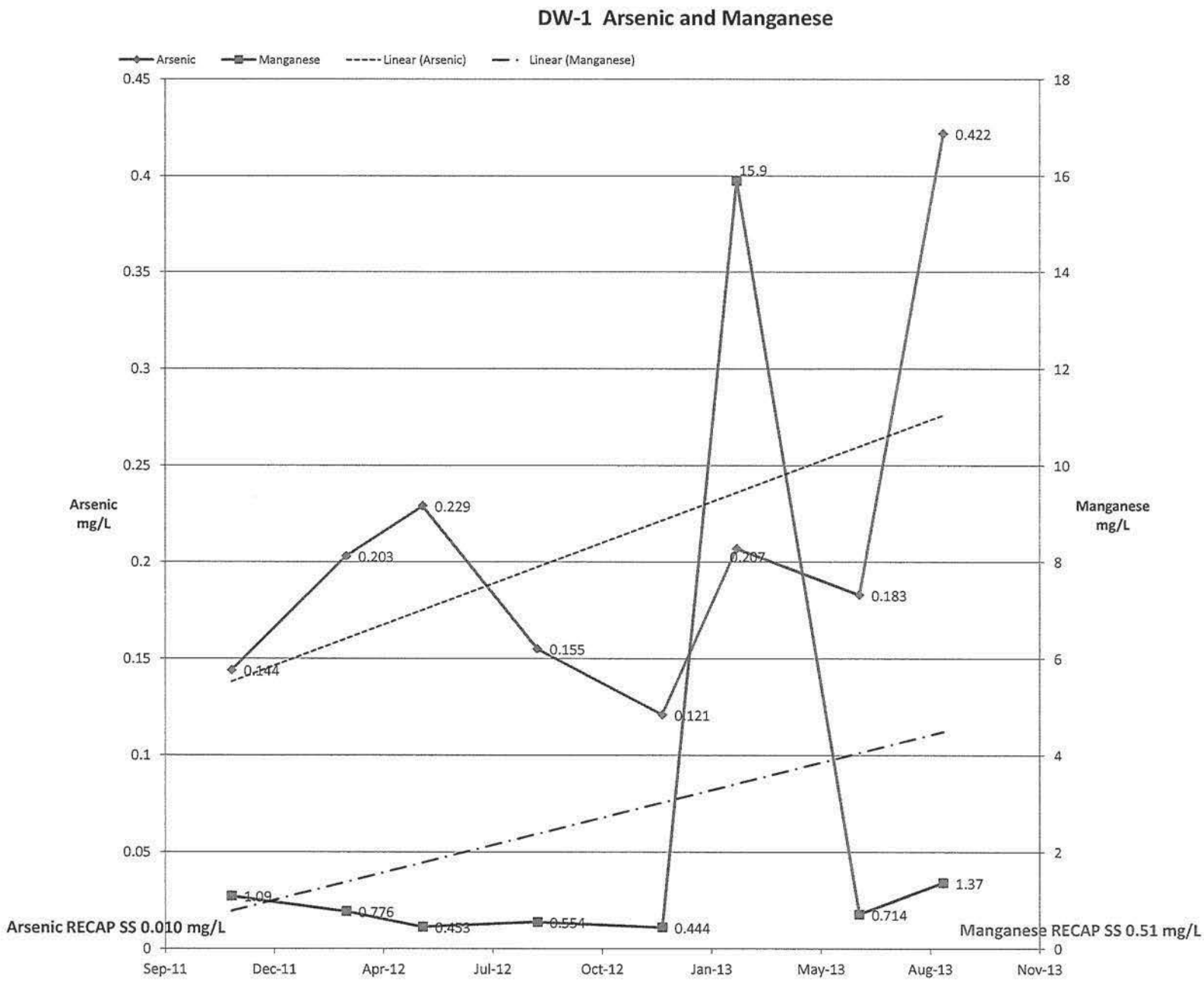
ATTACHMENT C

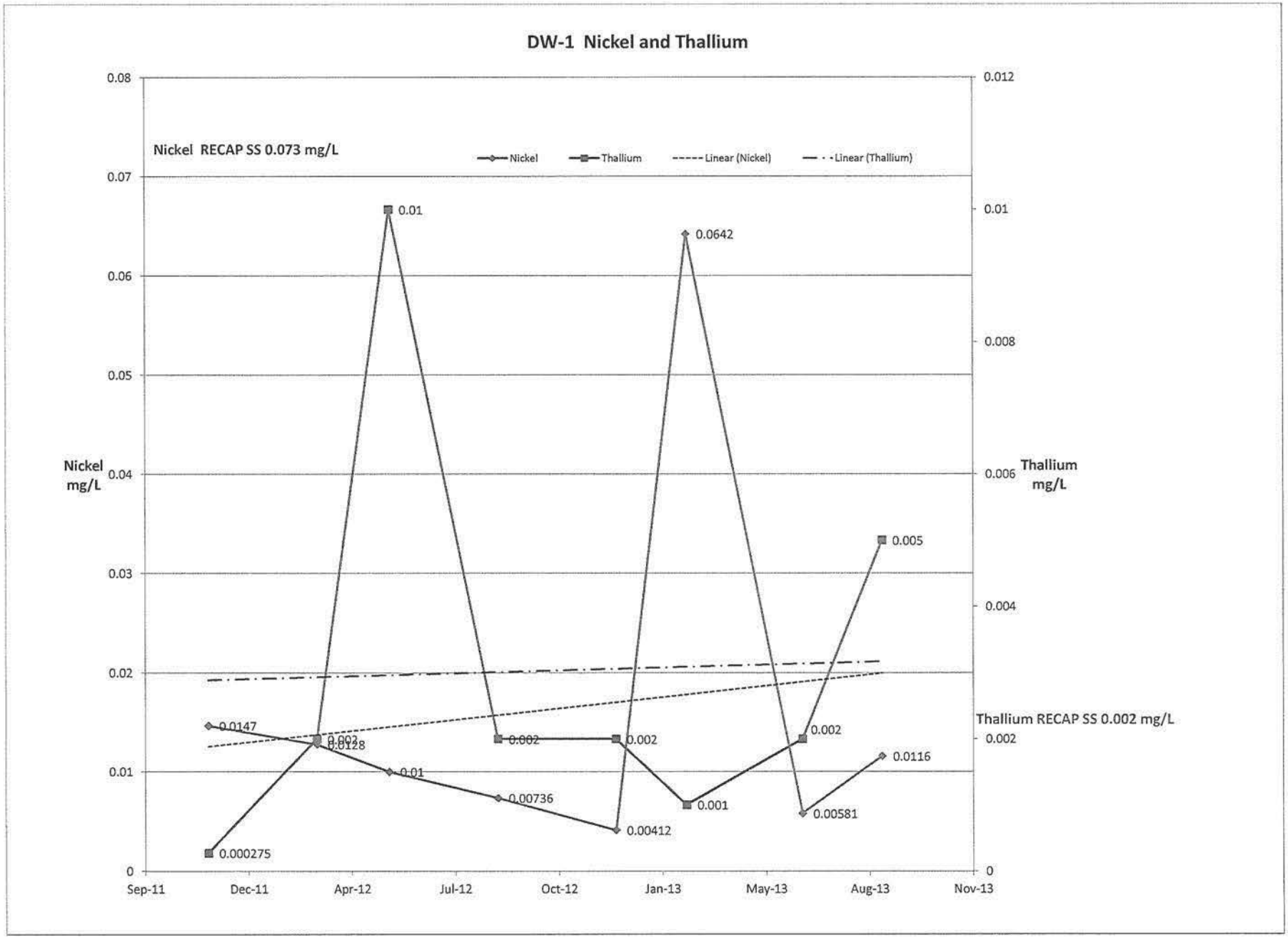
HISTORICAL CONCENTRATION
VS.
TIME GRAPHS

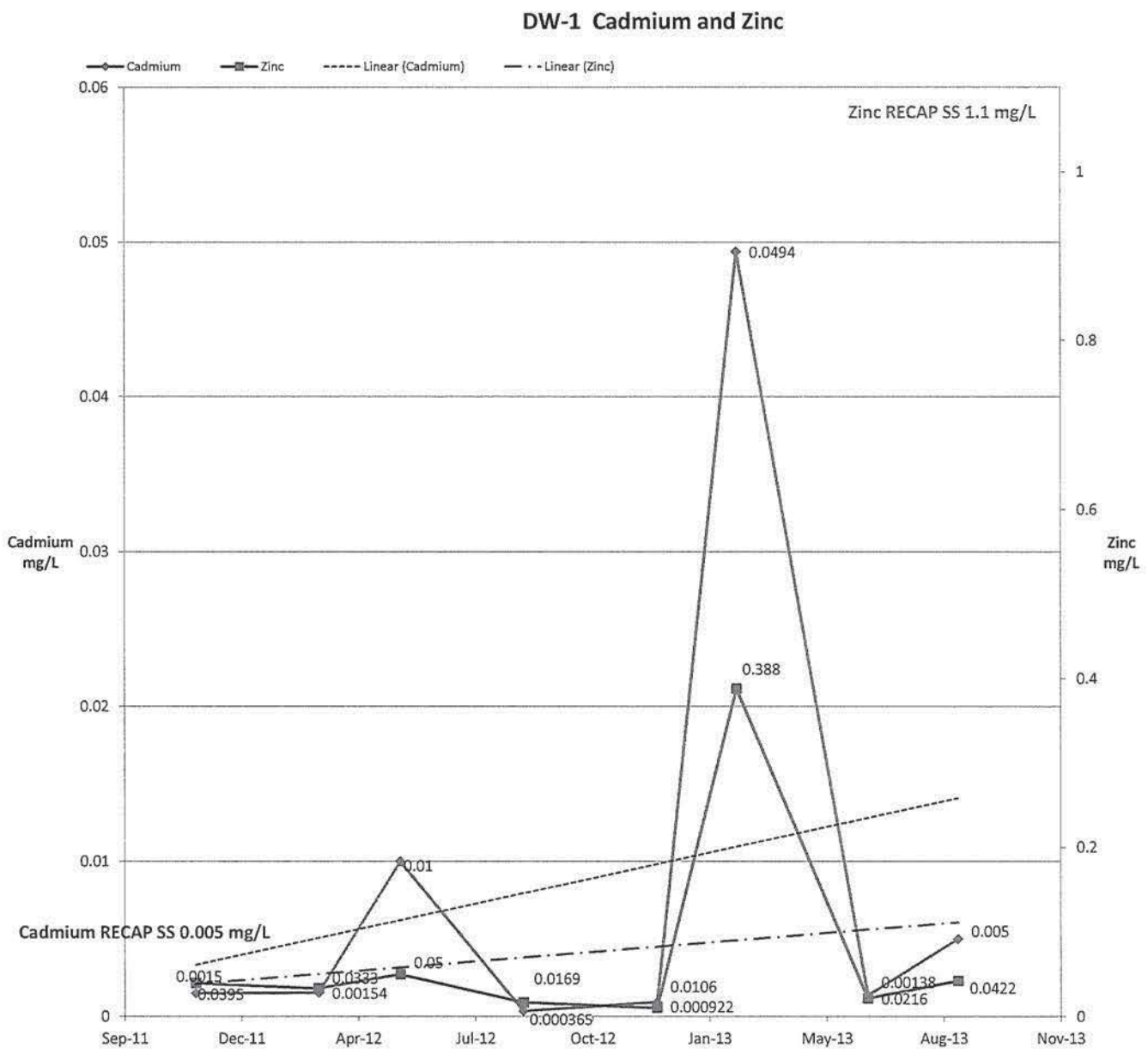
FIRST WATER BEARING ZONE

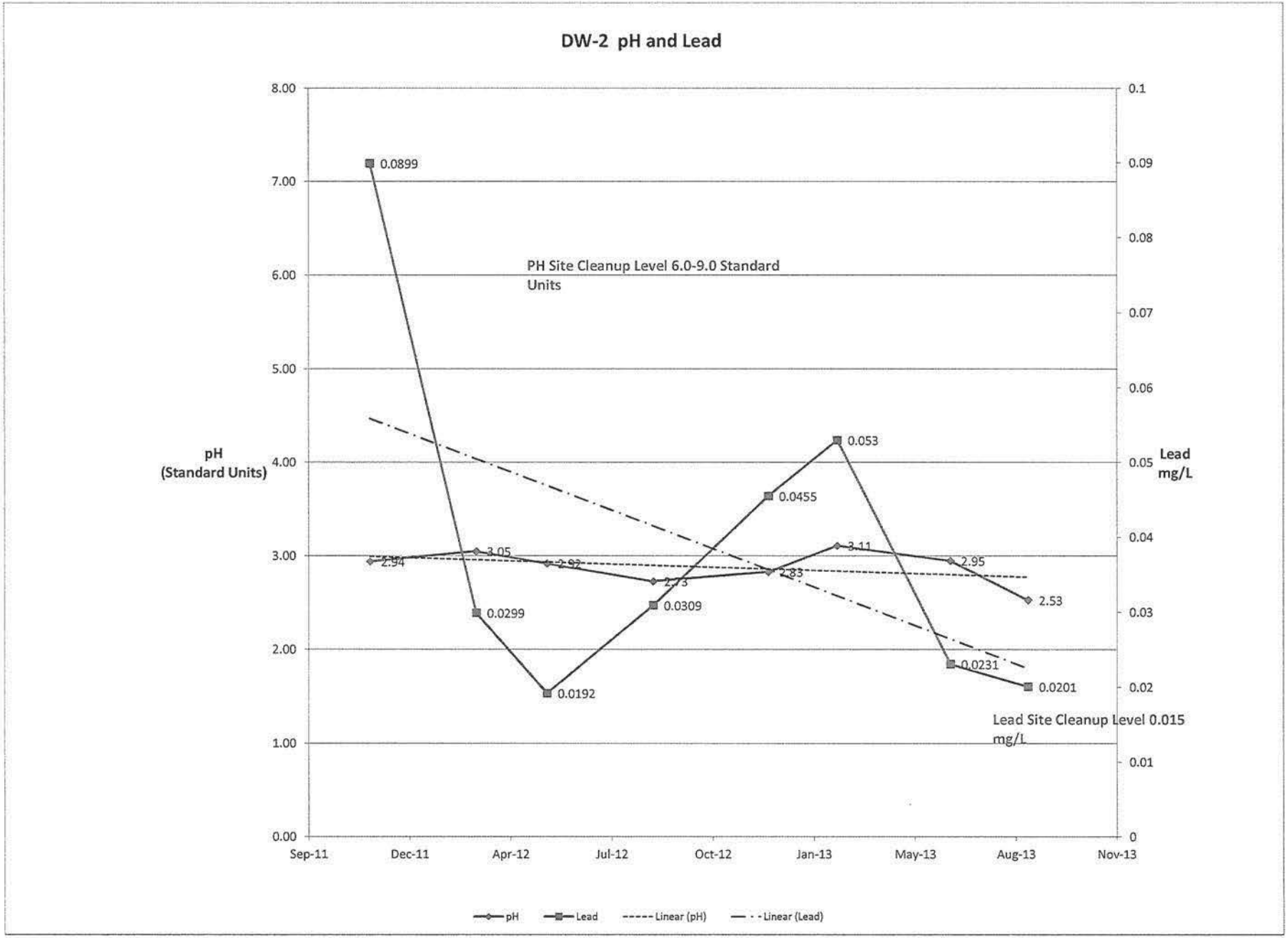
(PAST EIGHT QUARTERS)

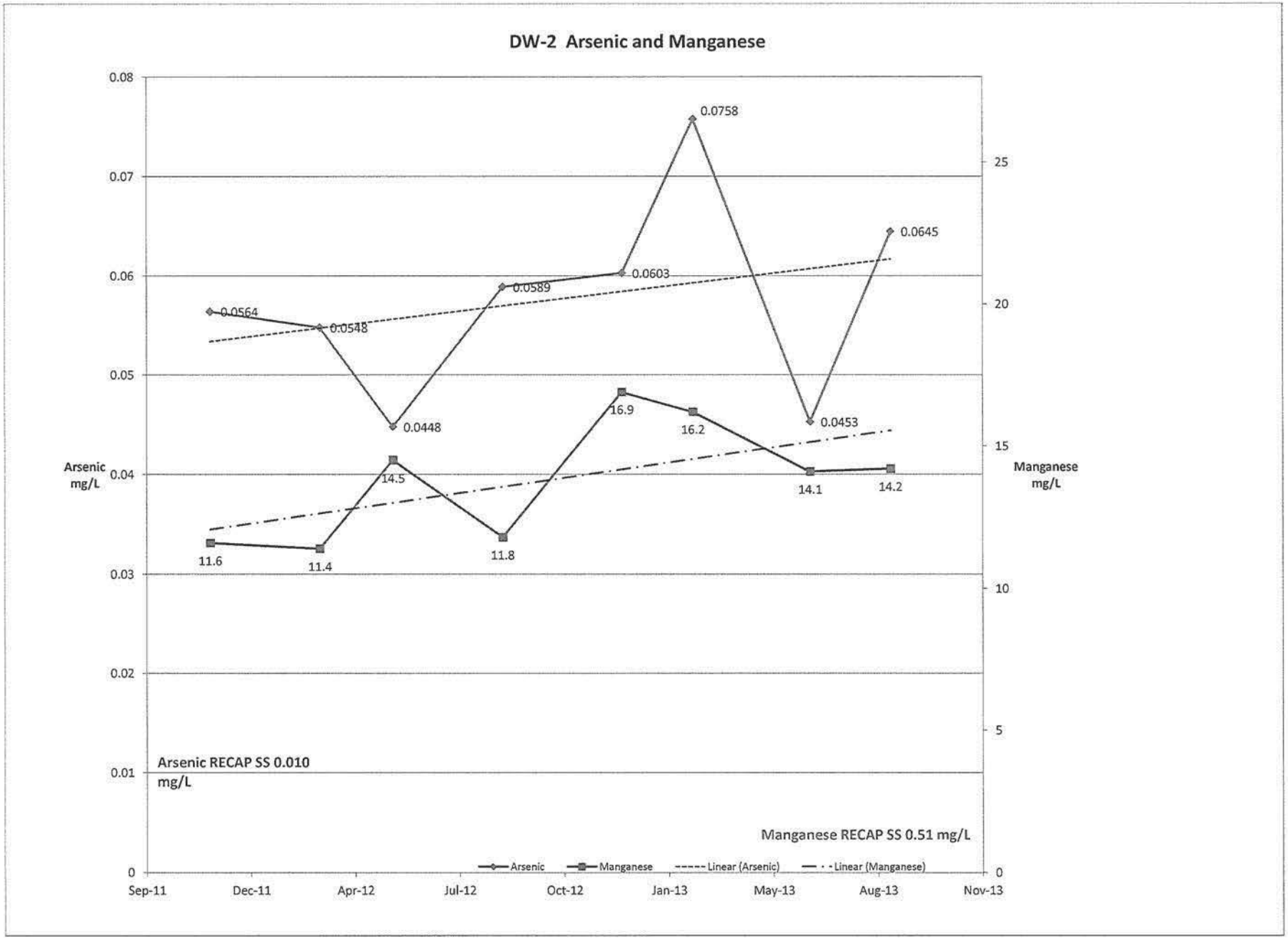

DW-1 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
PH Site Cleanup Level 6.0-9.0
Lead Site Cleanup Level
0.015 mg/L
5.48
5.59
5.73
5.10
5.77
4.44
5.64
5.15
0.0164
0.00168
0.00178
0.005
0.001
0.000859
0.00195
0.005
pH
Lead
Linear (pH)
Linear (Lead)

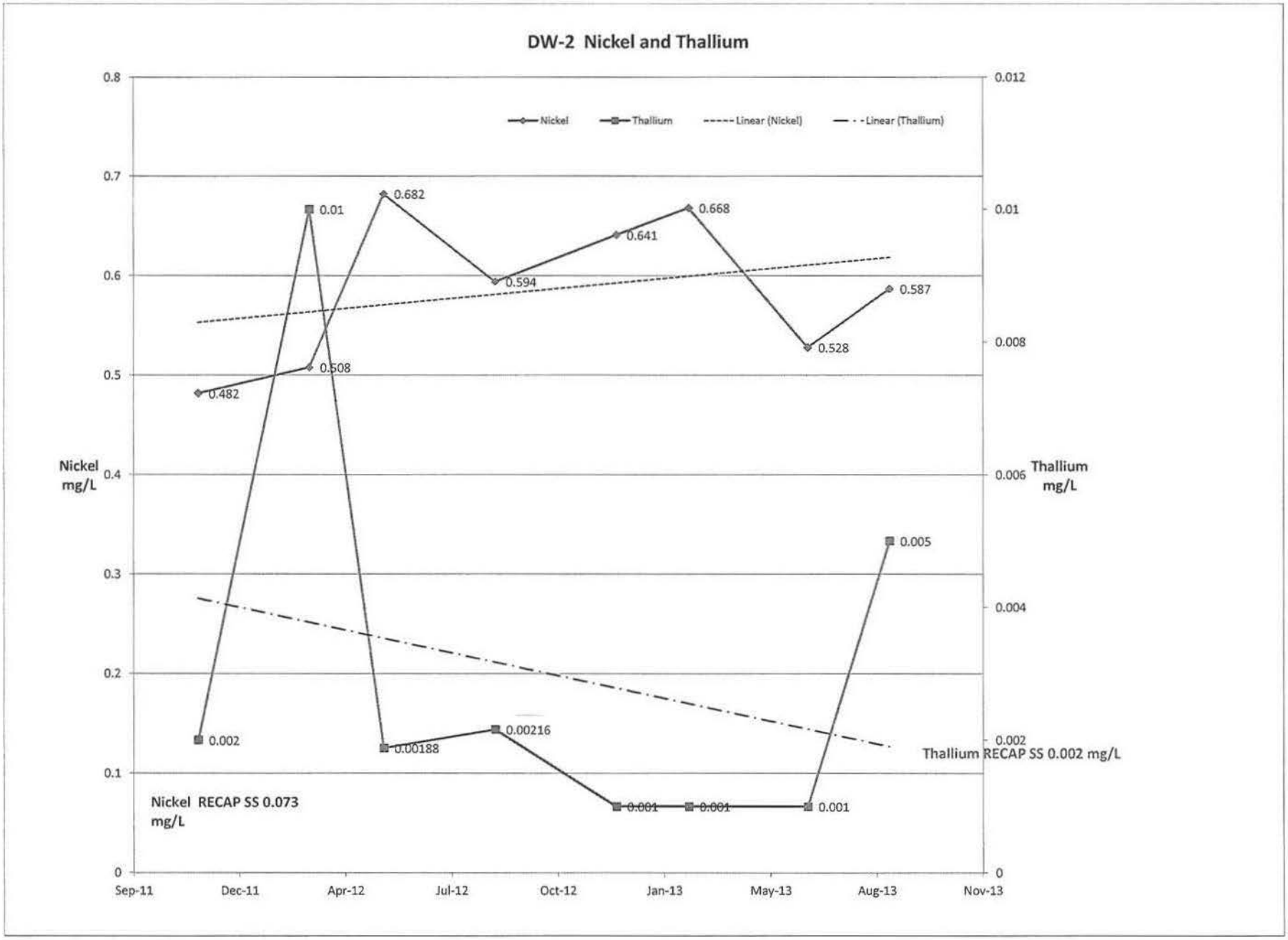

DW-1 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
18
16
14
12
10
8
6
4
2
0
0.144
0.203
0.229
0.155
0.121
0.207
0.183
0.422
1.09
0.776
0.453
0.554
0.444
15.9
0.714
1.37
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

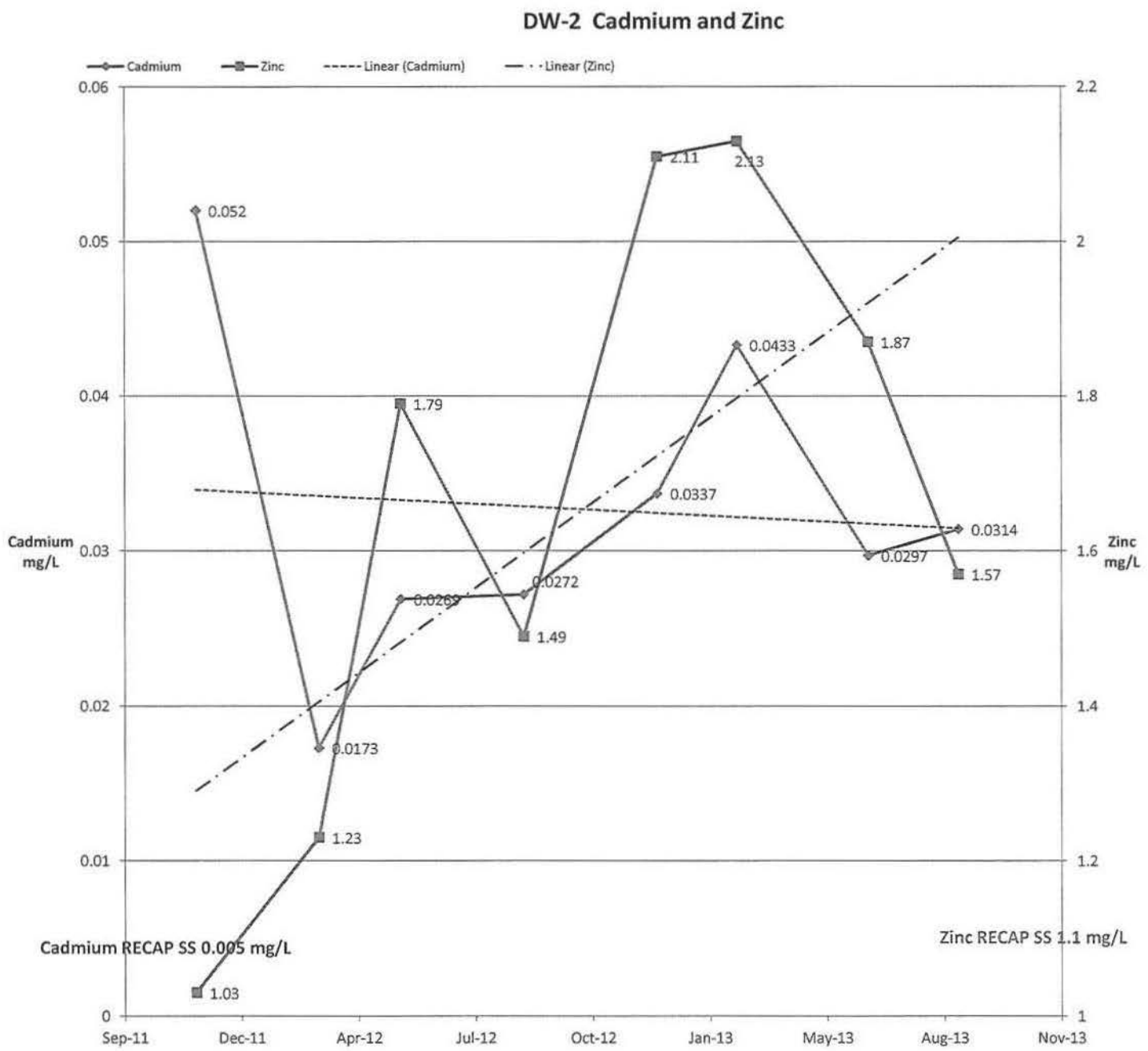

DW-1 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.0642
0.005
0.0147
0.002
0.0128
0.01
0.002
0.002
0.002
0.0116
0.00736
0.001
0.00581
0.00412
0.000275

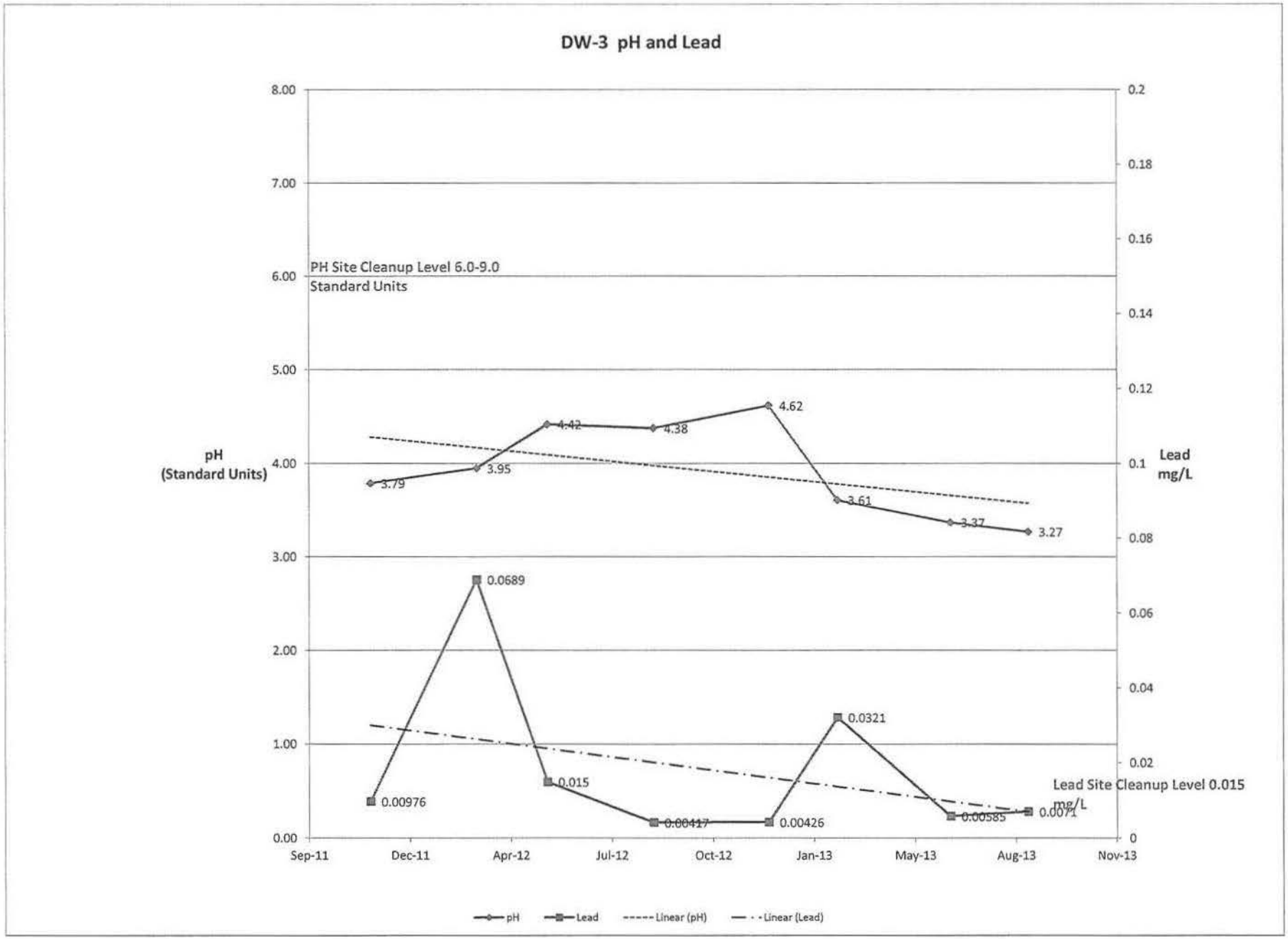

DW-1 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
1
0.8
0.6
0.4
0.2
0
0.0494
0.388
0.01
0.005
0.0015
0.0395
0.0333
0.00154
0.05
0.0169
0.000365
0.0106
0.000922
0.00138
0.0216
0.0422
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

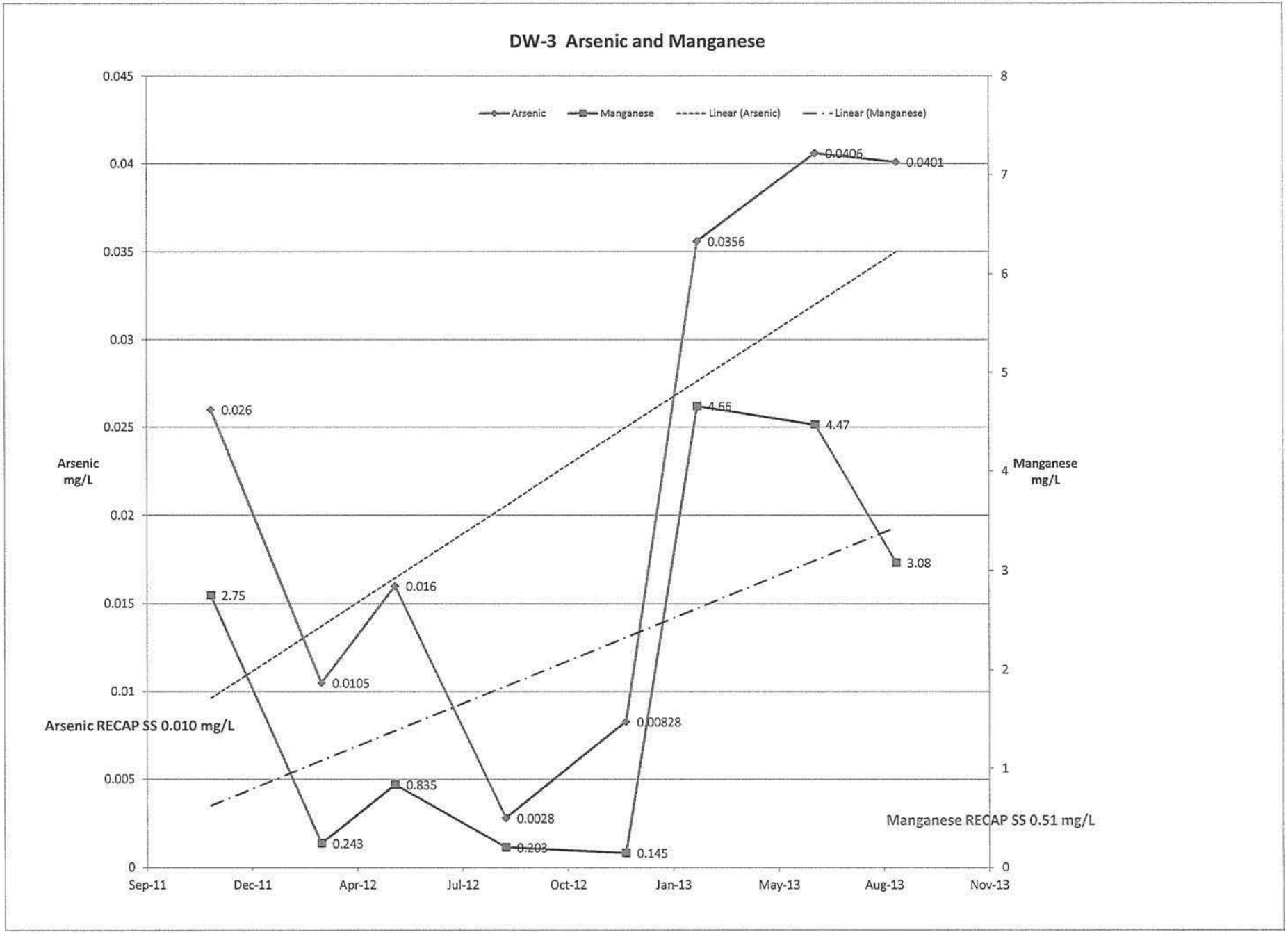

DW-2 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.0899
0.0299
0.0192
0.0309
0.0455
0.053
0.0231
0.0201
2.94
3.05
2.97
2.73
2.83
3.11
2.95
2.53
pH
Lead
Linear (pH)
Linear (Lead)

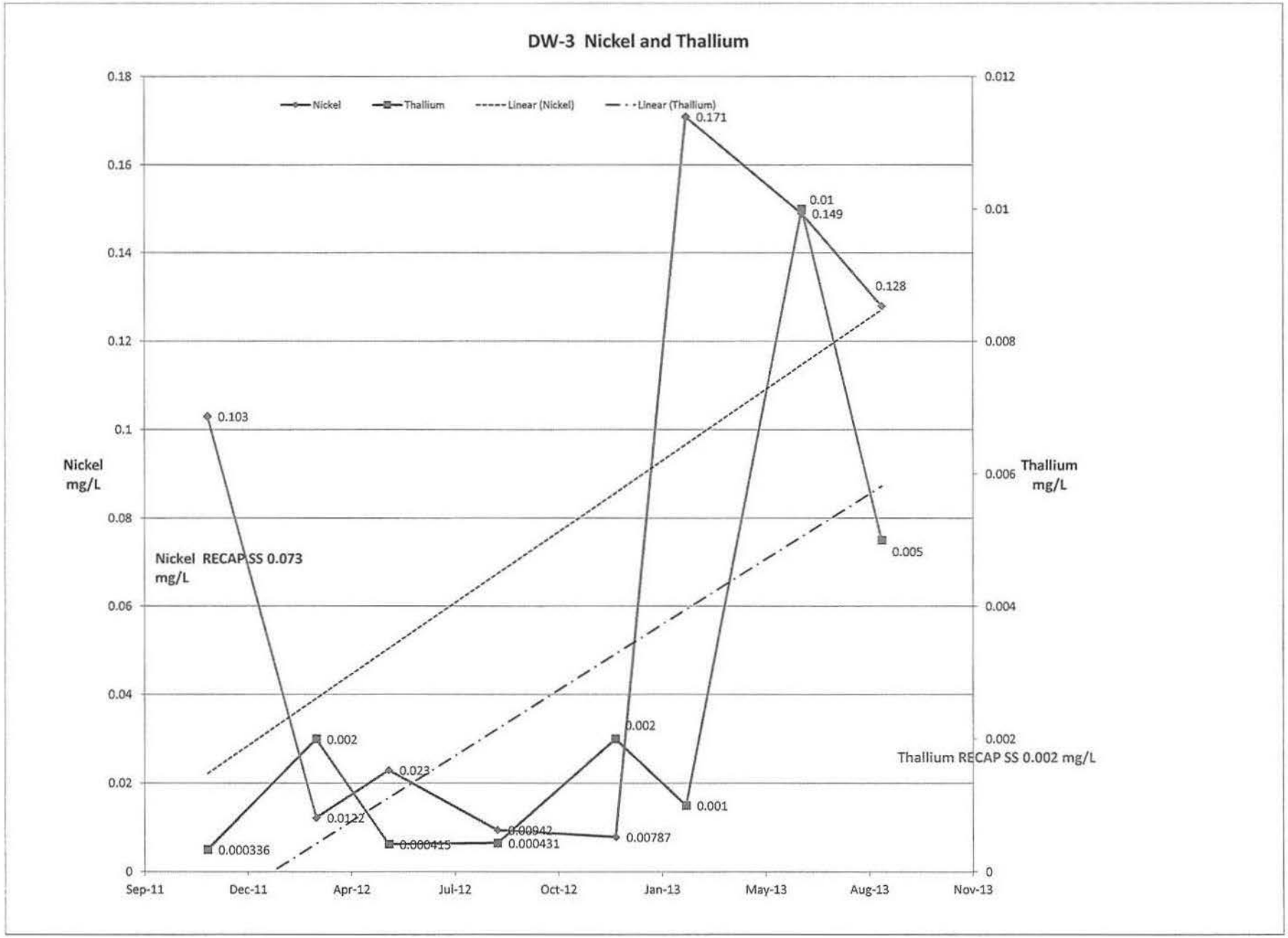

DW-2 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
25
20
15
10
5
0
0.0564
0.0548
0.0448
0.0589
0.0603
0.0758
0.0453
0.0645
11.6
11.4
14.5
11.8
16.9
16.2
14.1
14.2
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

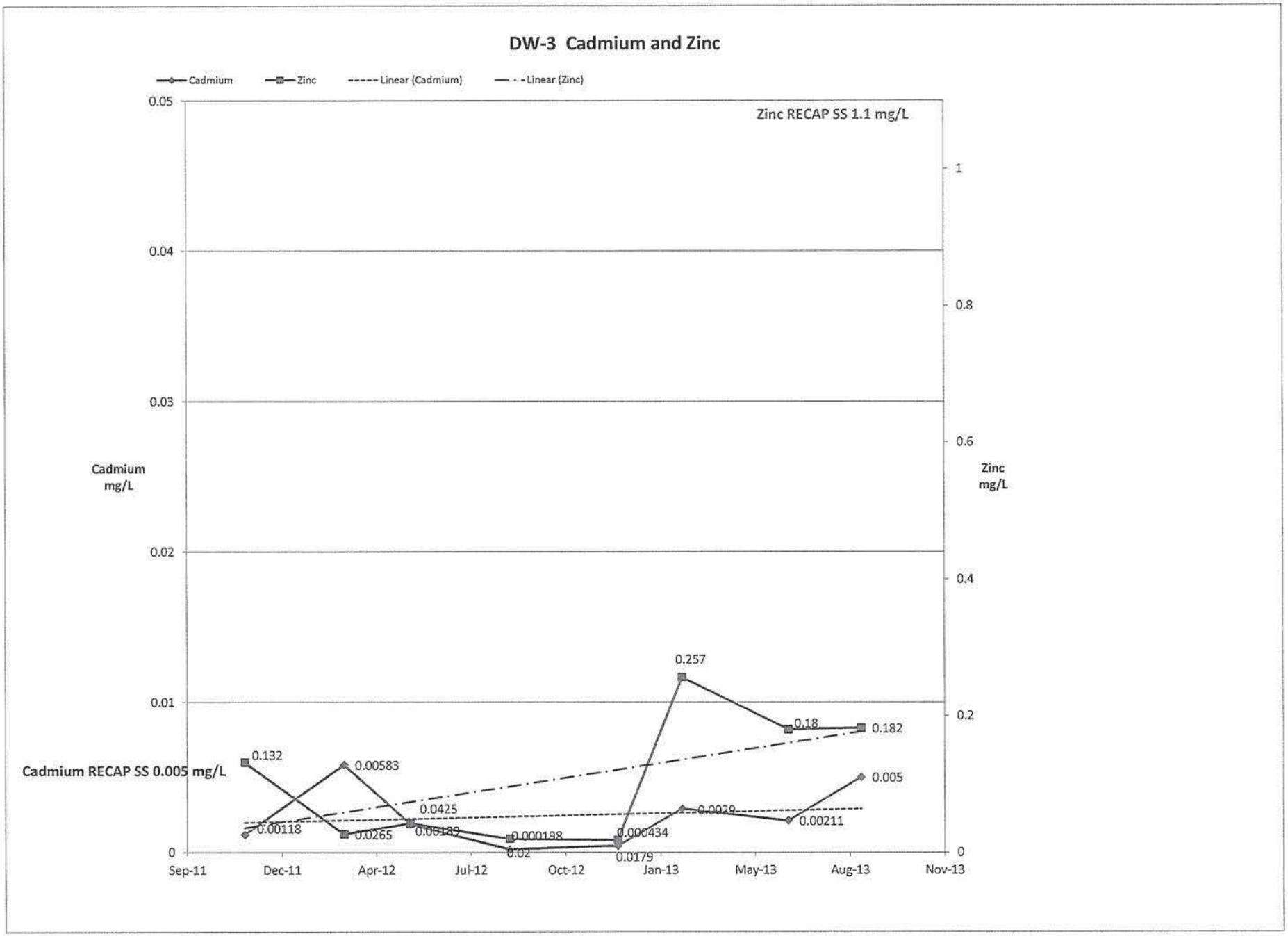

DW-2 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.482
0.508
0.682
0.594
0.641
0.668
0.528
0.587
0.002
0.01
0.00188
0.00216
0.001
0.001
0.001
0.005
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L

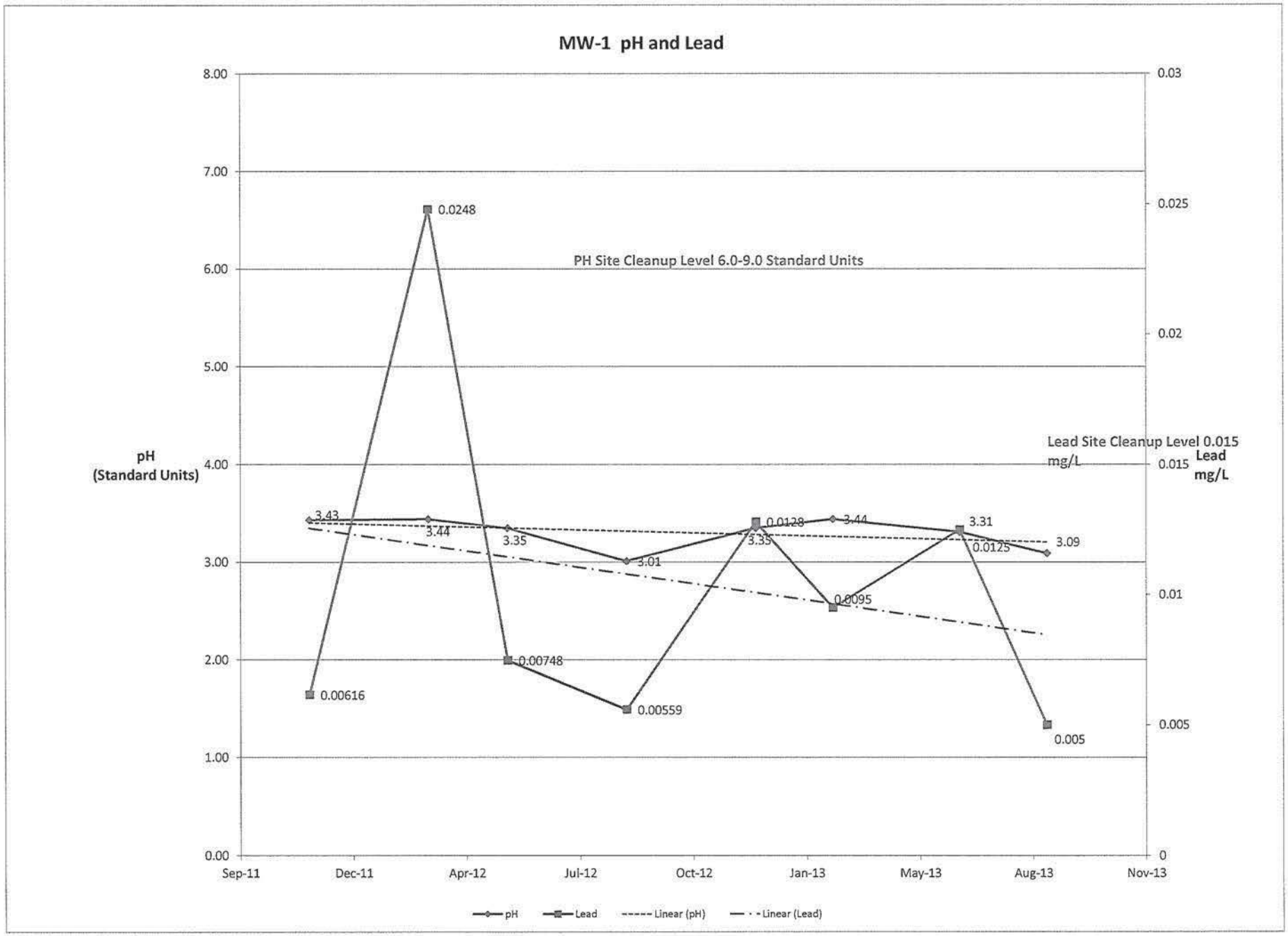

DW-2 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium mg/L
Zinc mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
2.2
2
1.8
1.6
1.4
1.2
1
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.052
0.0173
0.0262
0.0272
0.0337
0.0433
0.0297
0.0314
1.03
1.23
1.79
1.49
2.11
2.13
1.87
1.57
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L

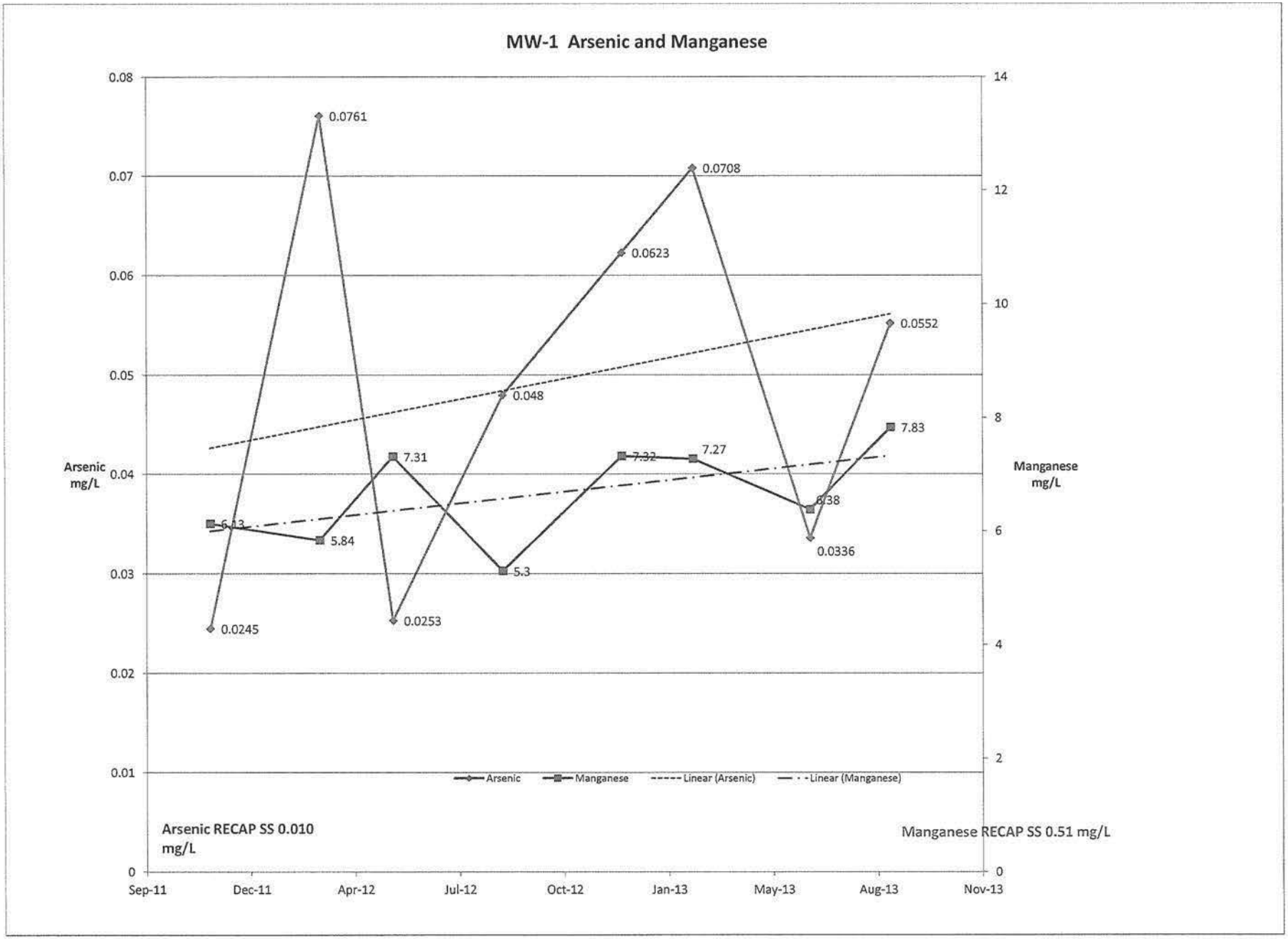

DW-3 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0
Standard Units
Lead Site Cleanup Level 0.015
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
3.79
3.95
4.42
4.38
4.62
3.61
3.37
3.27
0.00976
0.0689
0.015
0.00417
0.00426
0.0321
0.00585
0.0071
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

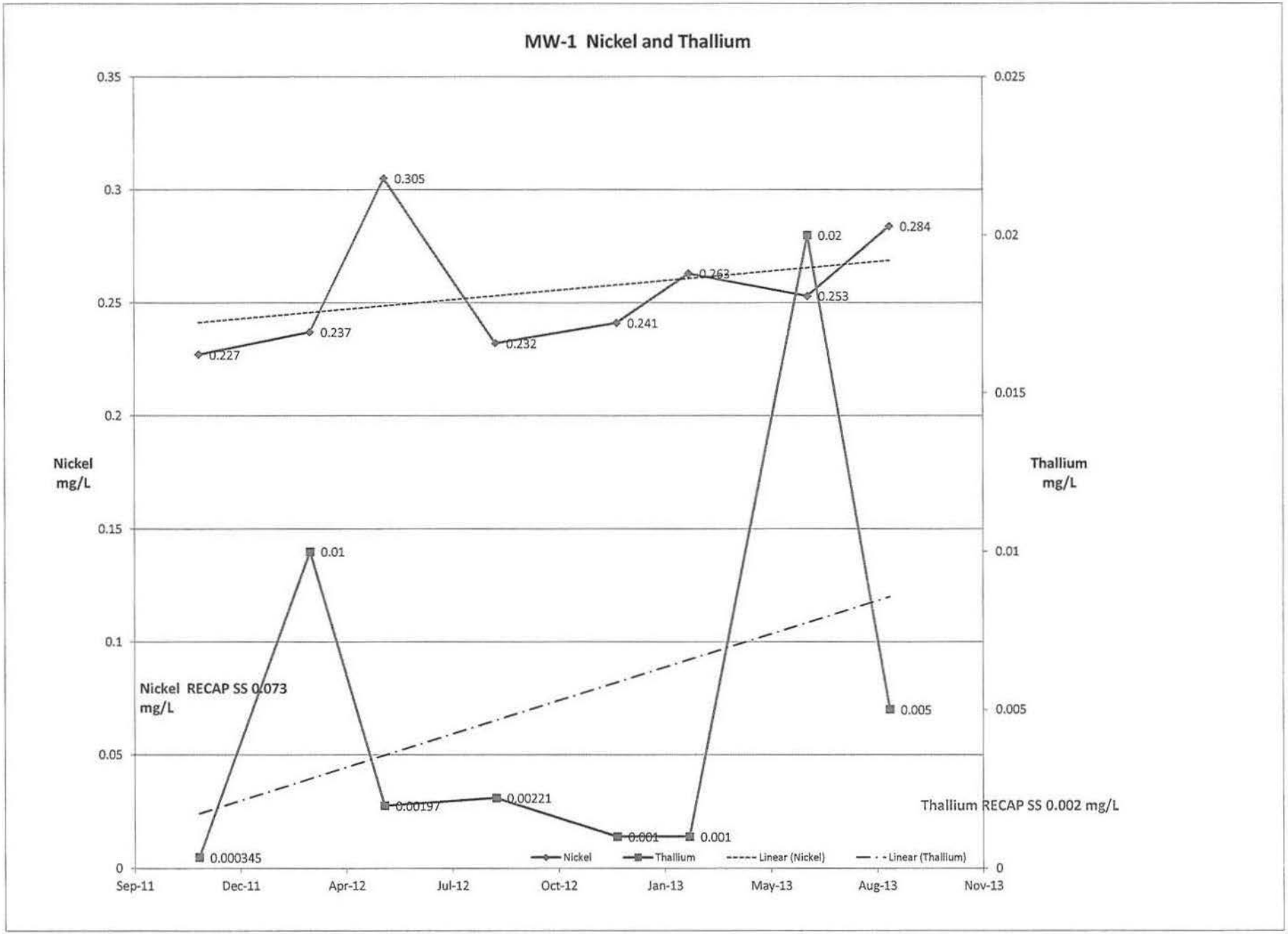

DW-3 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
8
7
6
5
4
3
2
1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.026
0.0105
0.016
0.0028
0.00828
0.0356
0.0406
0.0401
2.75
0.243
0.835
0.203
0.145
4.66
4.47
3.08

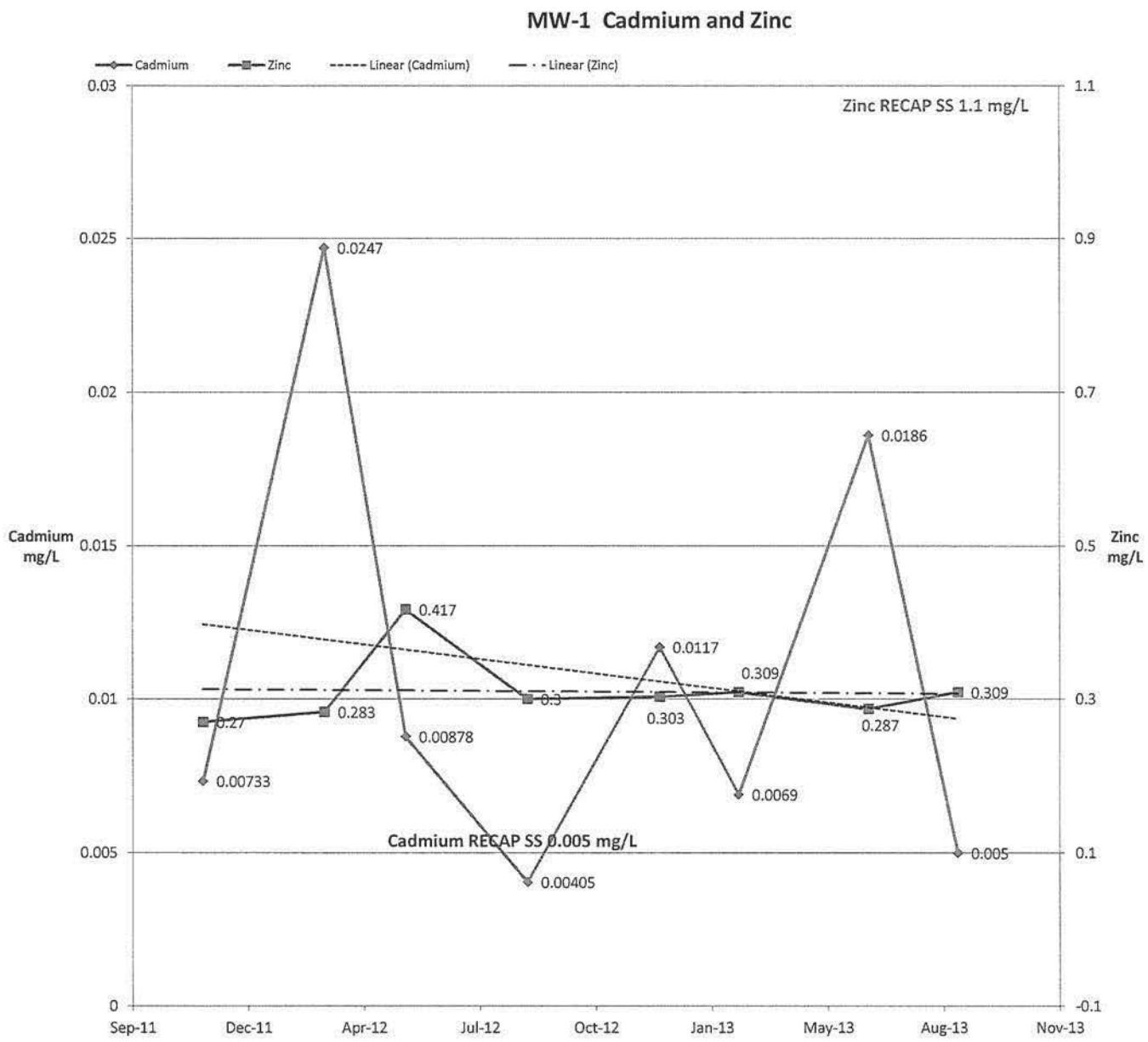

DW-3 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.103
0.0122
0.023
0.00942
0.171
0.149
0.128
0.005
0.002
0.000336
0.000415
0.000431
0.00787
0.001

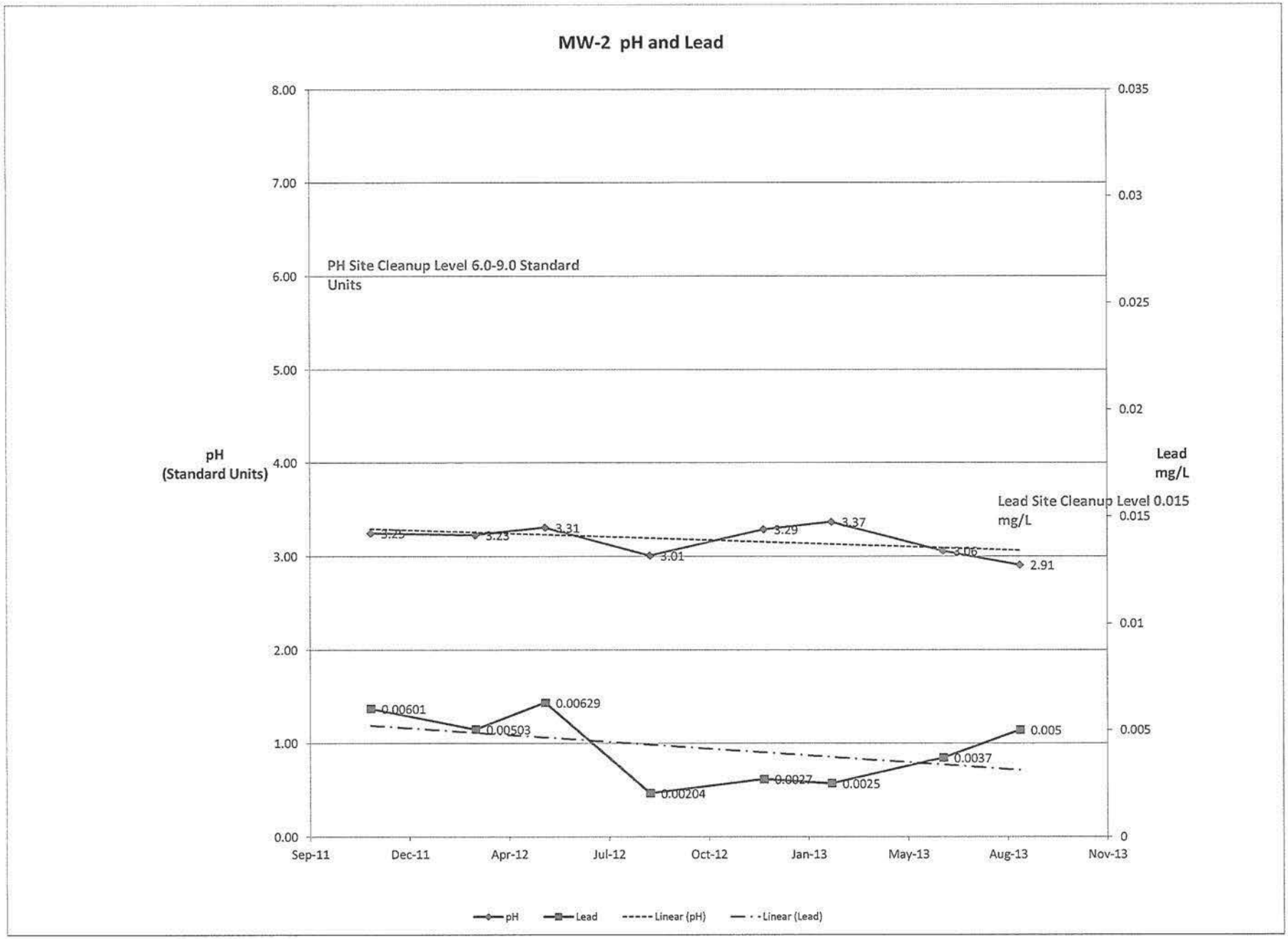

DW-3 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.05
0.04
0.03
0.02
0.01
0
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.132
0.00583
0.257
0.18
0.182
0.005
0.00118
0.0265
0.0425
0.00189
0.000198
0.02
0.000434
0.0179
0.0029
0.00211

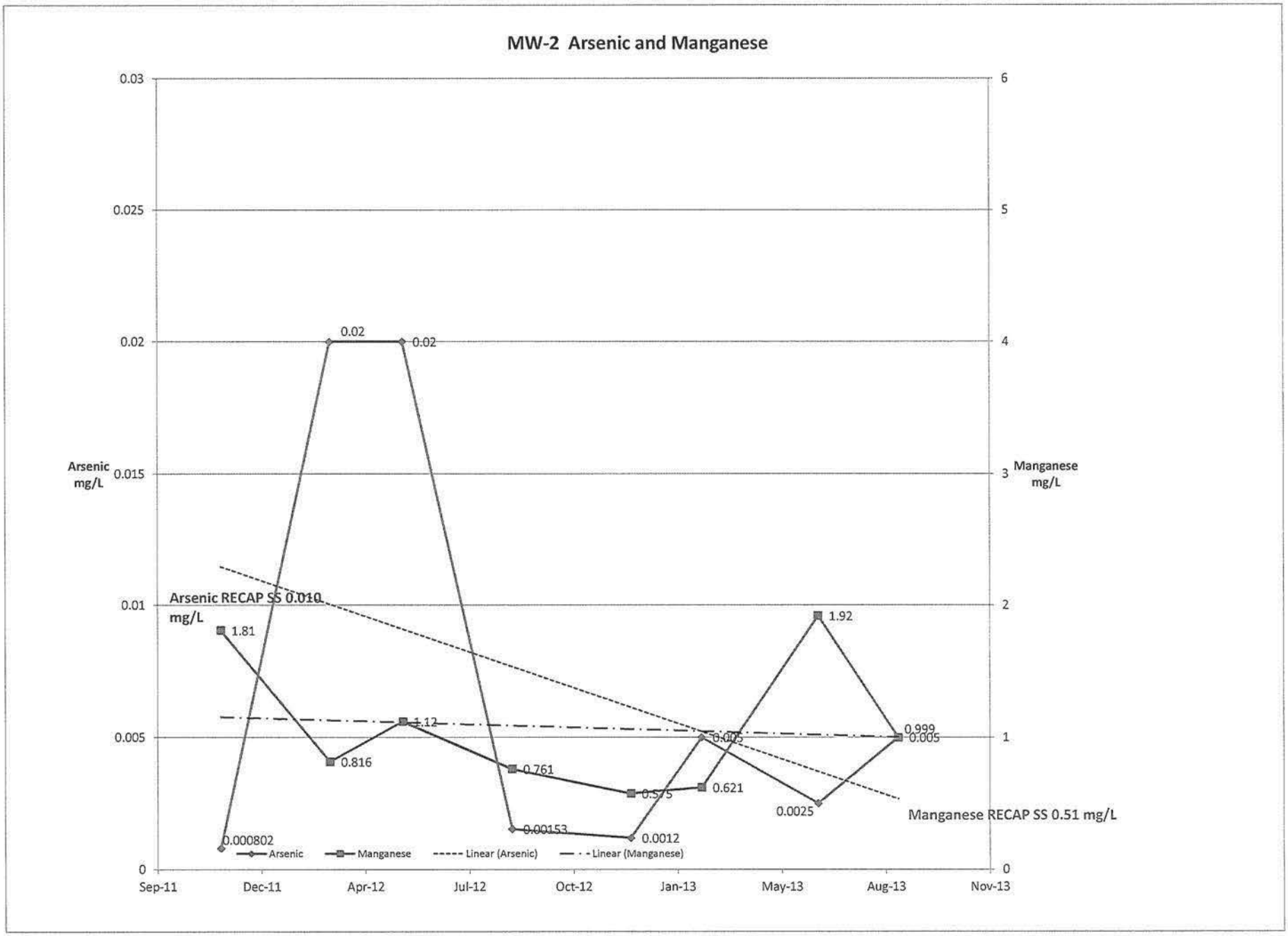

MW-1 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.03
0.025
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.0248
0.00616
0.00748
0.00559
0.0128
0.0095
0.0125
0.005
3.43
3.44
3.35
3.01
3.35
3.44
3.31
3.09
pH
Lead
Linear (pH)
Linear (Lead)

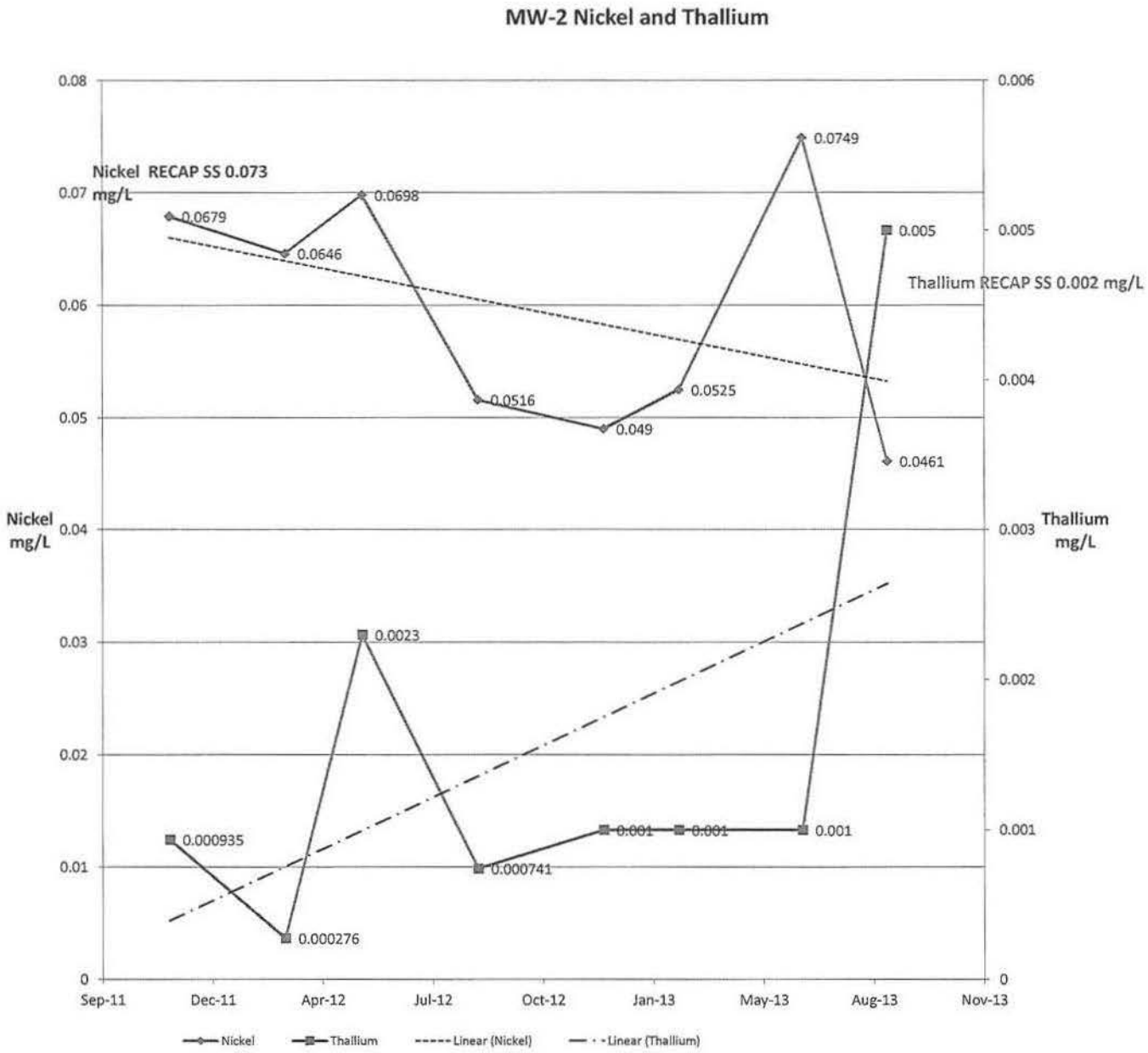

MW-1 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
14
12
10
8
6
4
2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.0761
0.0708
0.0623
0.0552
0.048
0.0245
0.0253
0.0336
7.83
7.31
7.32
7.27
6.38
6.13
5.84
5.3
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L

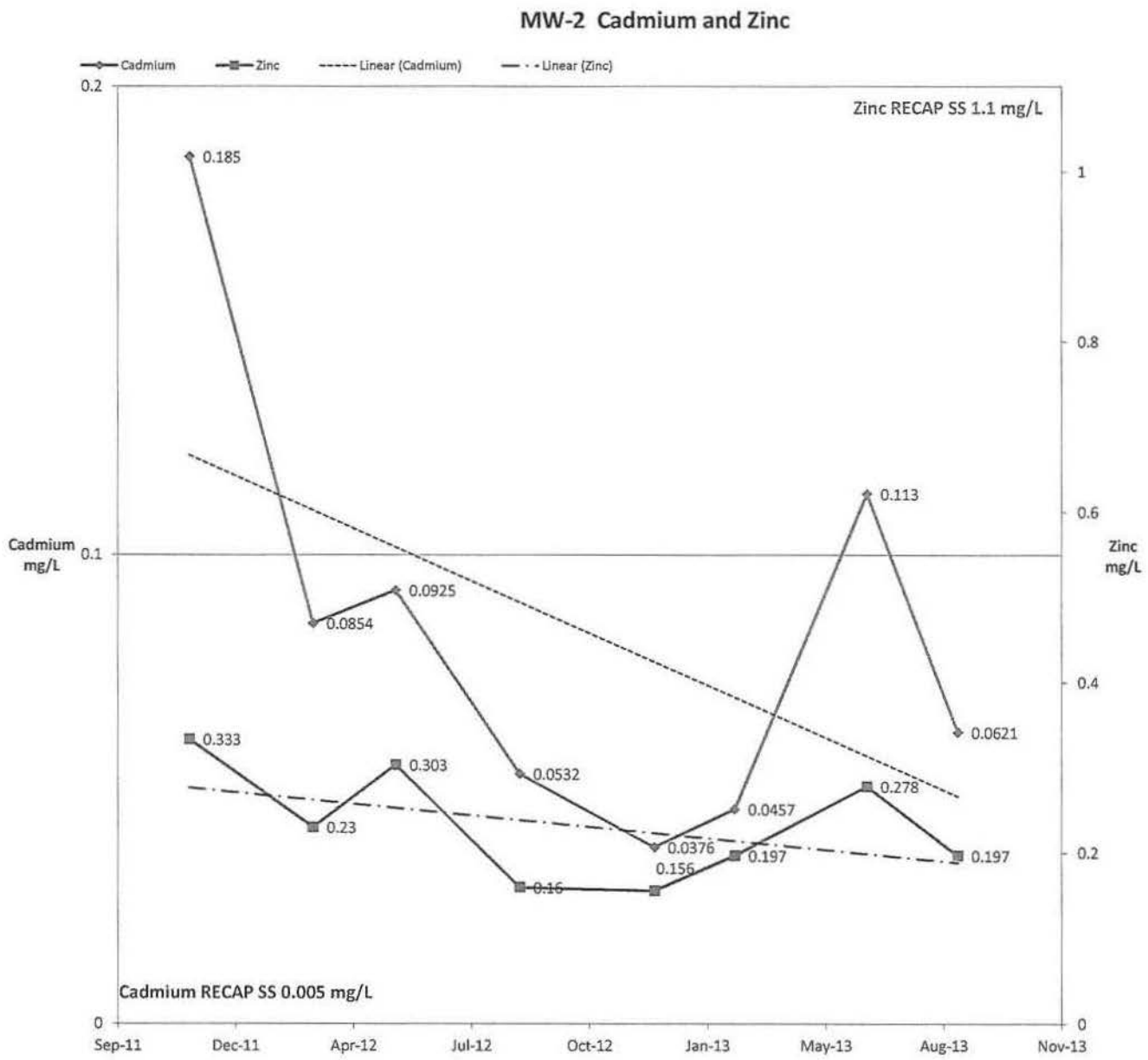

MW-1 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.025
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.227
0.237
0.305
0.232
0.241
0.263
0.253
0.284
0.000345
0.01
0.00197
0.00221
0.001
0.001
0.02
0.005
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

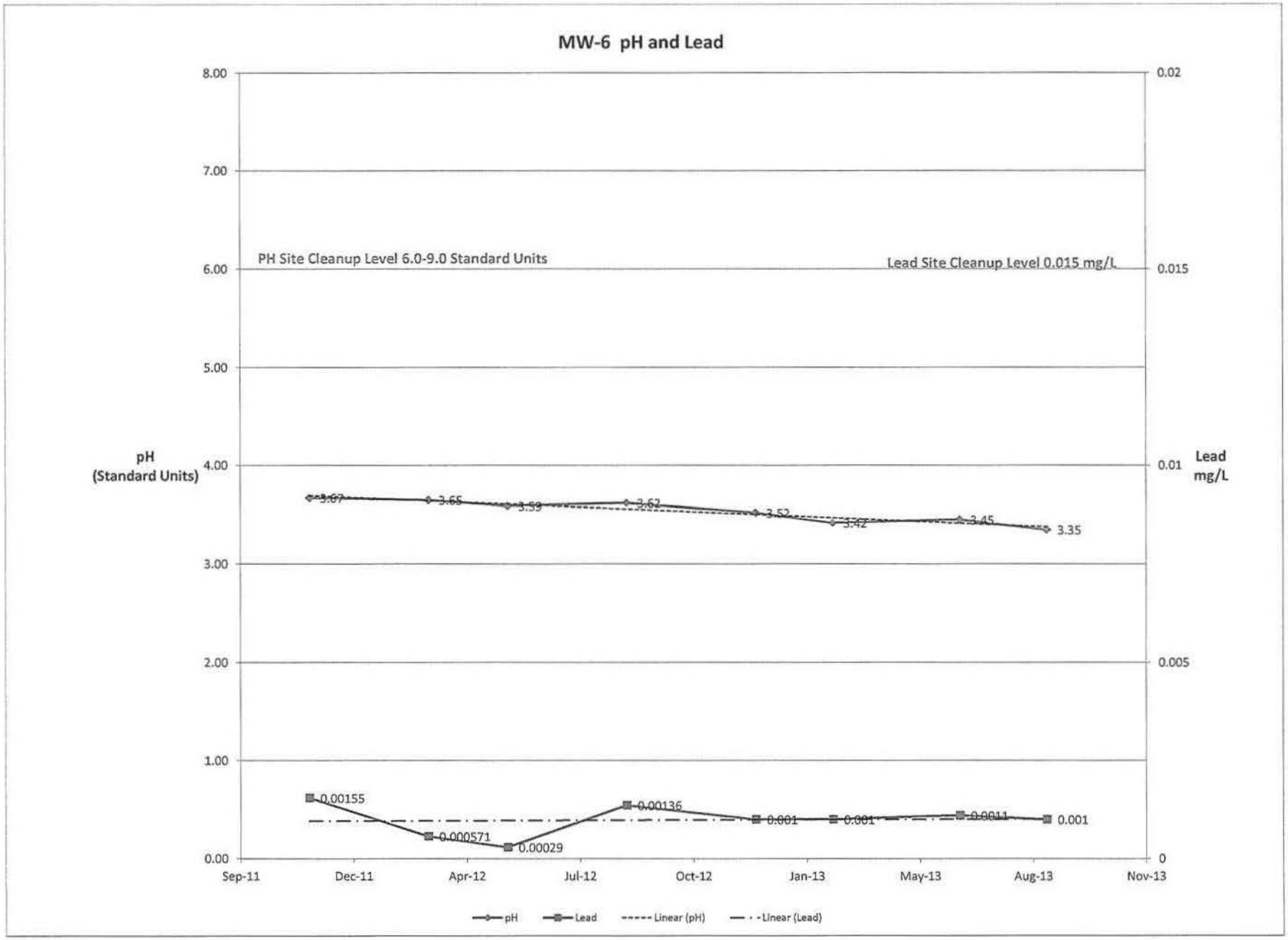

MW-1 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
1.1
0.9
0.7
0.5
0.3
0.1
-0.1
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.0247
0.0186
0.417
0.0117
0.309
0.3
0.309
0.27
0.283
0.303
0.287
0.00878
0.00733
0.0069
0.005
0.00405

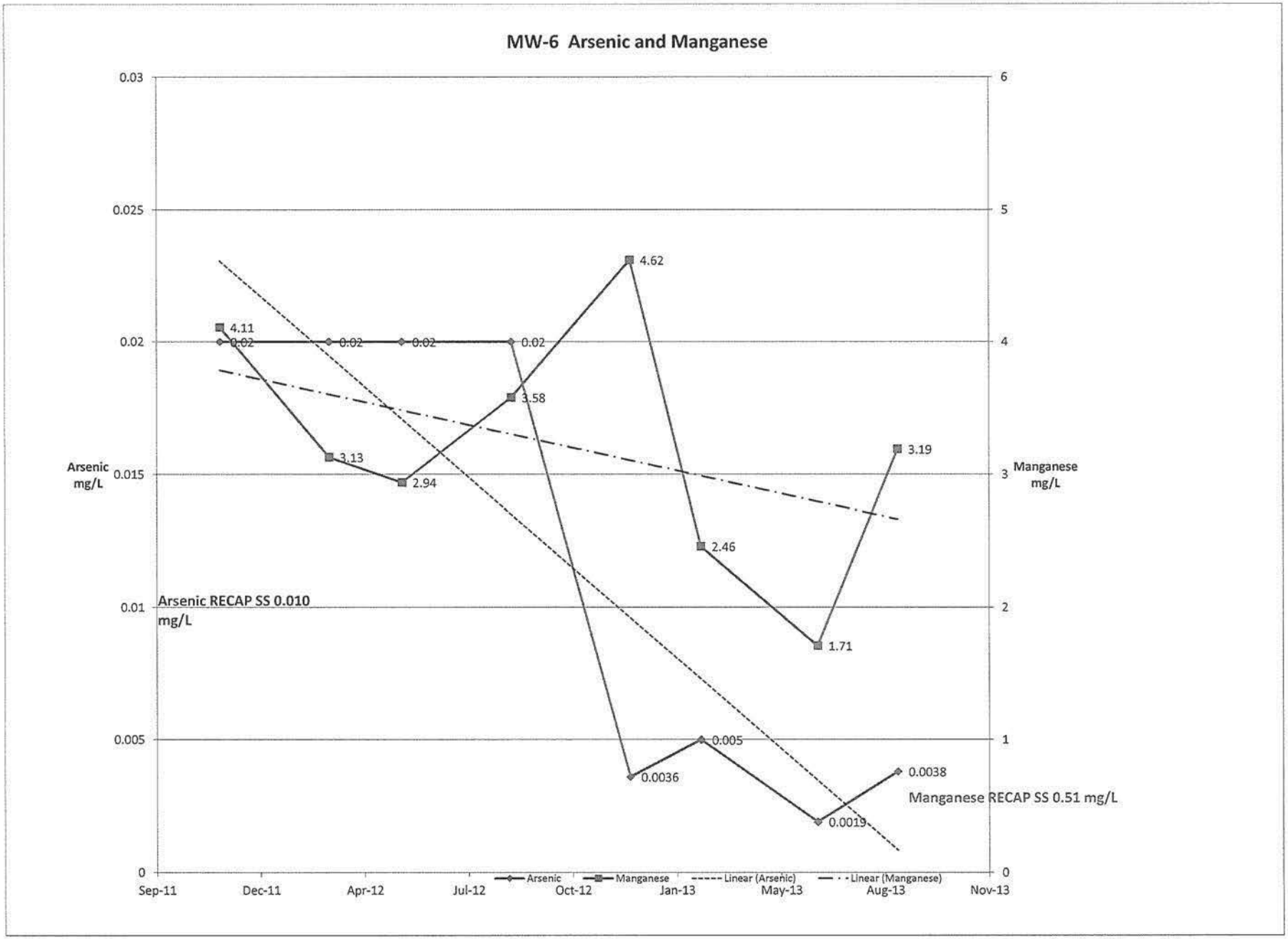

MW-2 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
3.25
3.23
3.31
3.01
3.29
3.37
3.06
2.91
0.00601
0.00503
0.00629
0.00204
0.0027
0.0025
0.0037
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

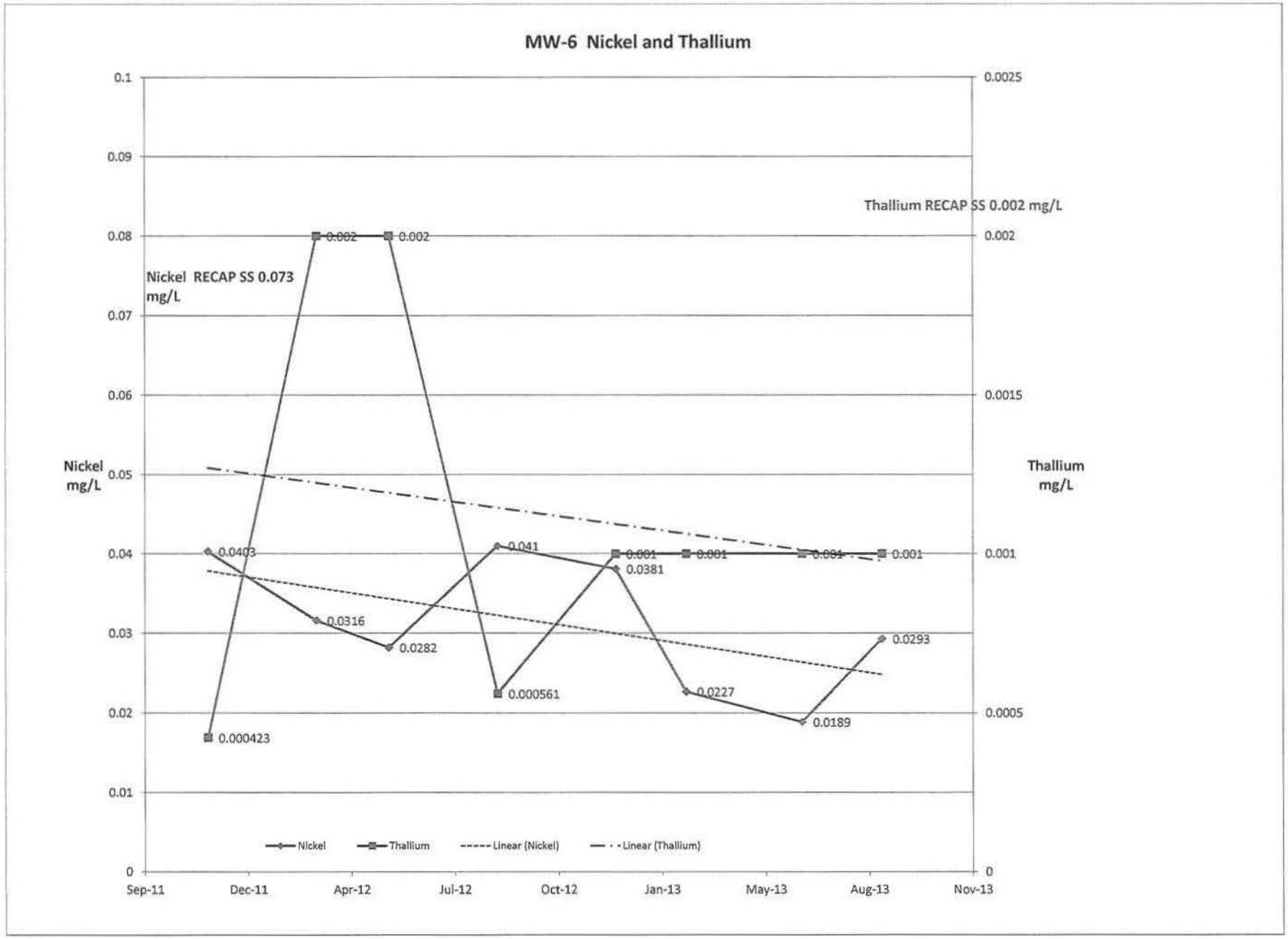

MW-2 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.02
1.81
0.816
1.12
0.761
0.575
0.621
1.92
0.999
0.005
0.005
0.00153
0.0012
0.0025
0.000802
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

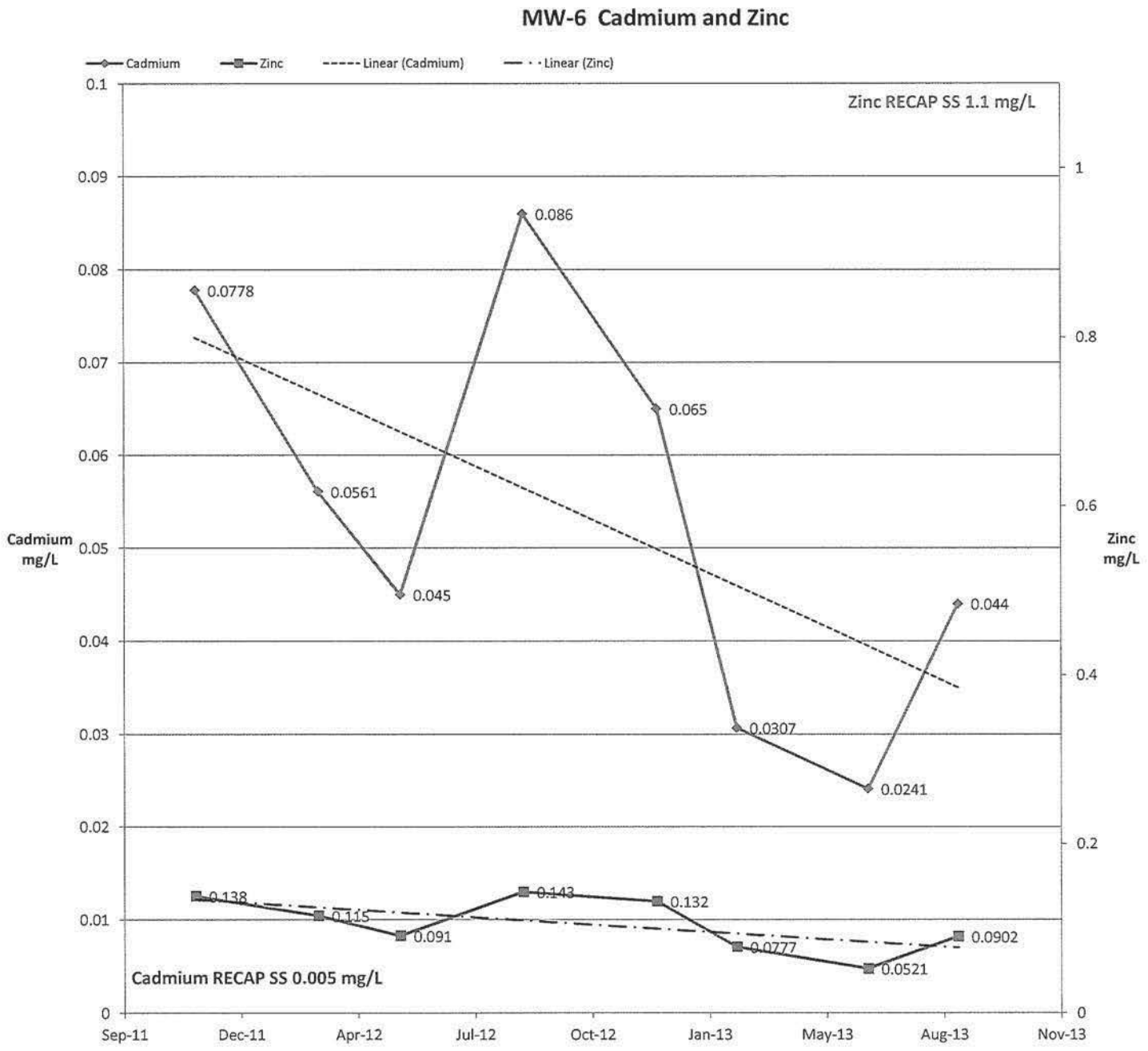

MW-2 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
0.0679
0.0646
0.0698
0.0516
0.049
0.0525
0.0749
0.0461
0.000935
0.000276
0.0023
0.000741
0.001
0.001
0.001
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

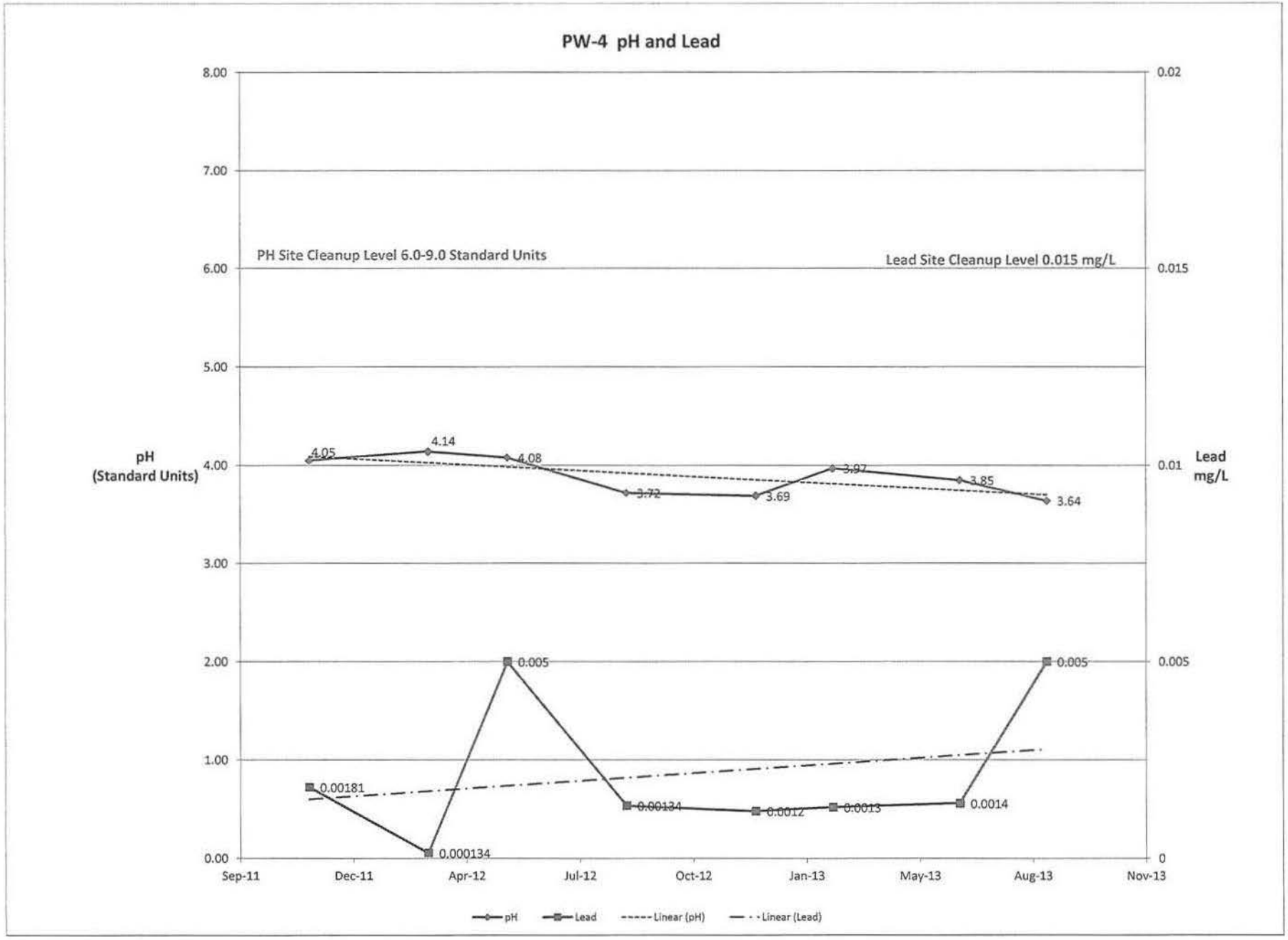

MW-2 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.2
0.1
0
1
0.8
0.6
0.4
0.2
0
0.185
0.0854
0.0925
0.0532
0.0376
0.0457
0.113
0.0621
0.333
0.23
0.303
0.16
0.156
0.197
0.278
0.197
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

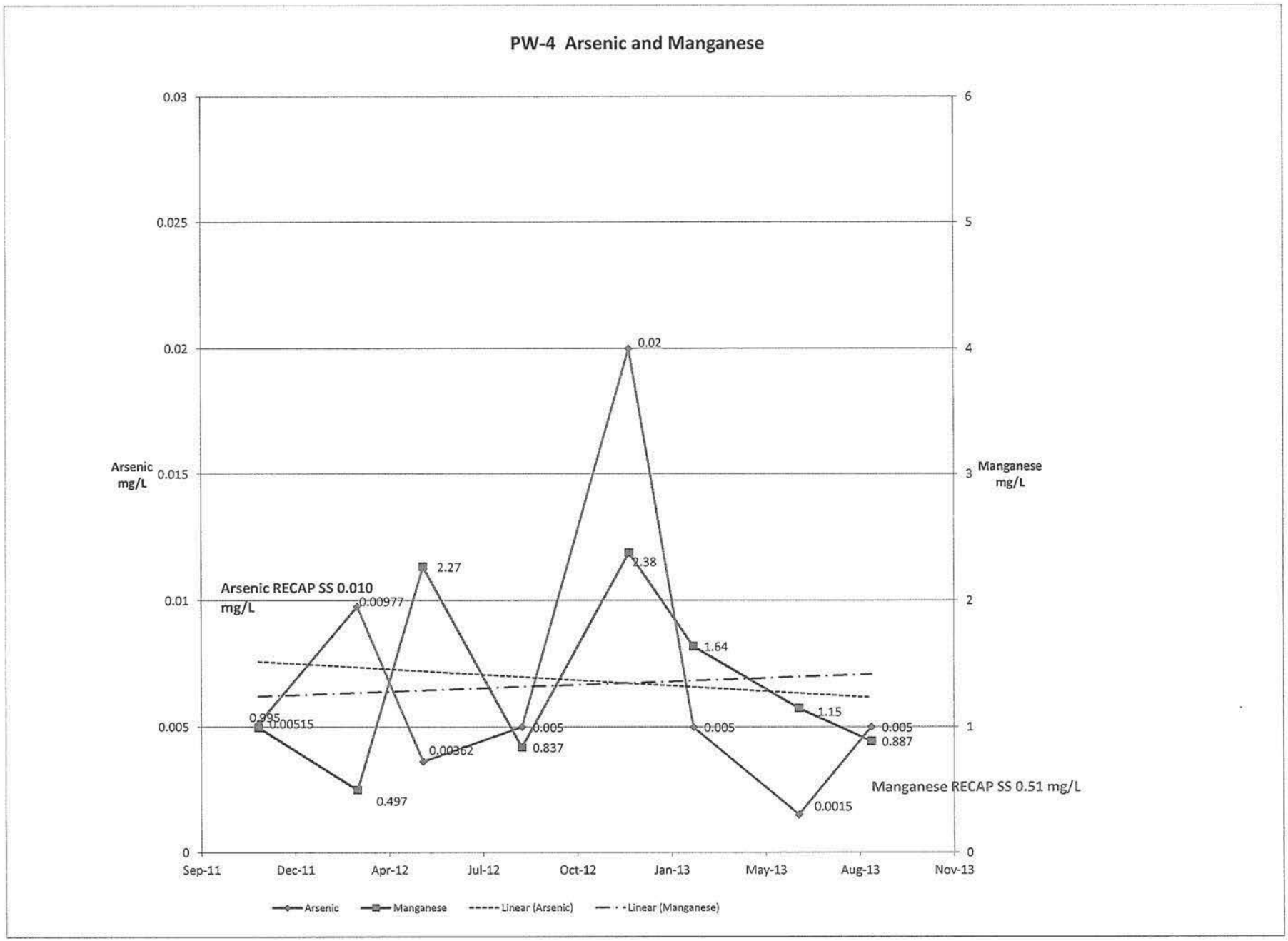

MW-6 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
3.67
3.65
3.59
3.62
3.52
3.42
3.45
3.35
0.00155
0.000571
0.00029
0.00136
0.001
0.001
0.0011
0.001
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

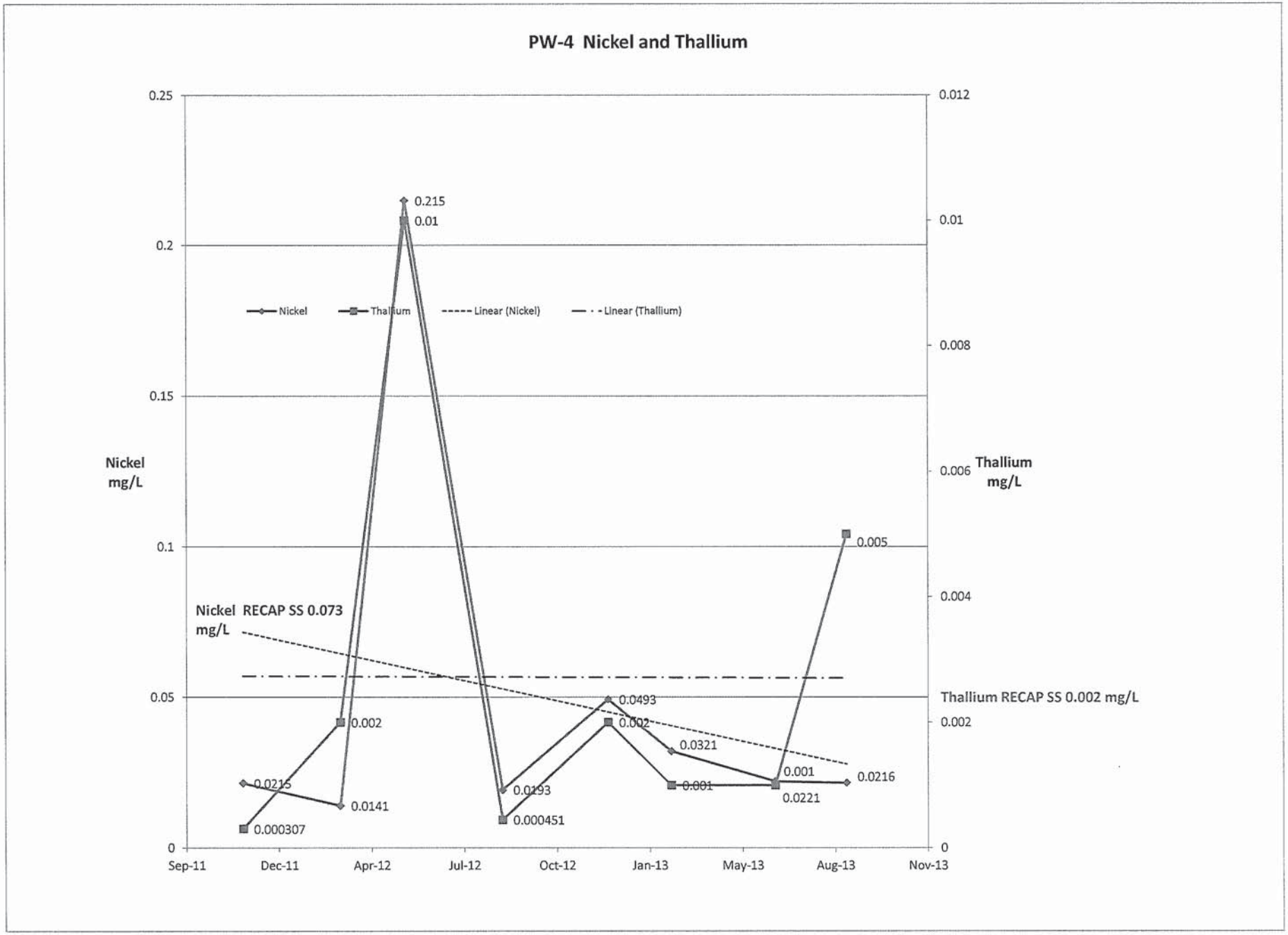

MW-6 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
4.11
0.02
0.02
0.02
0.02
3.13
2.94
3.58
4.62
2.46
1.71
3.19
0.0036
0.005
0.0019
0.0038
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

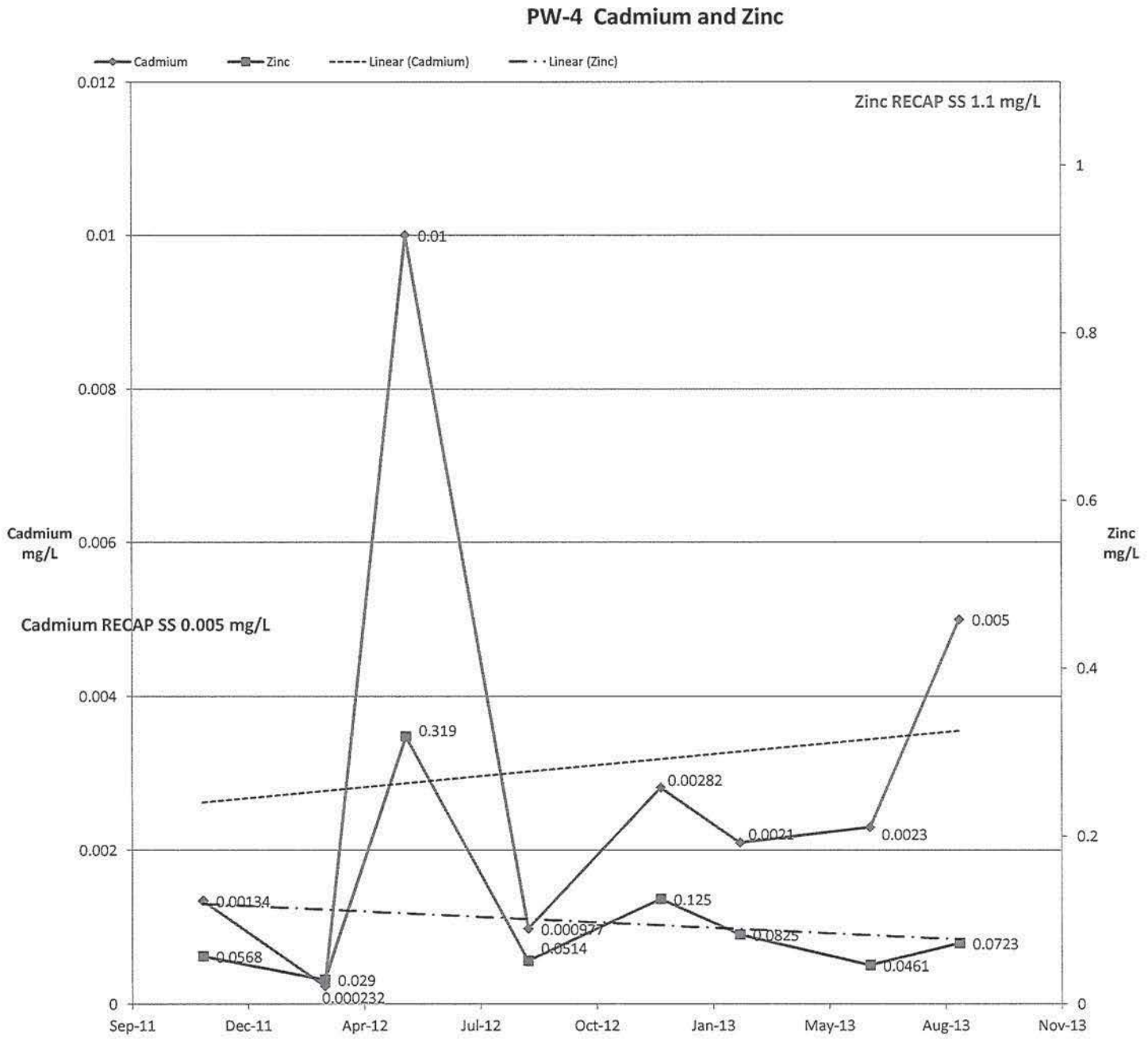

MW-6 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.0403
0.0316
0.0282
0.041
0.0381
0.0227
0.0189
0.0293
0.002
0.002
0.001
0.001
0.001
0.001
0.000423
0.000561
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

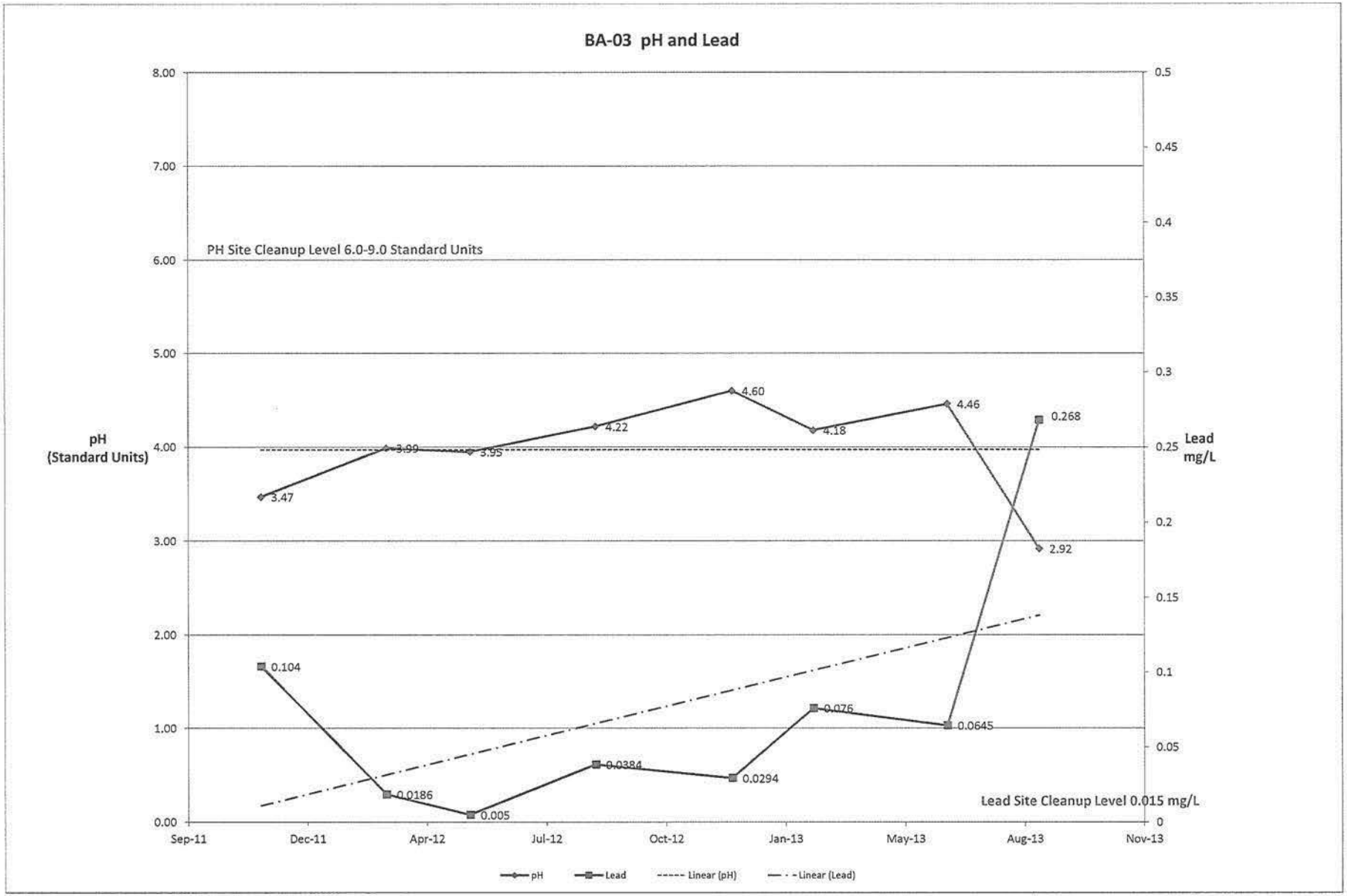

MW-6 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
1
0.8
0.6
0.4
0.2
0
0.0778
0.0561
0.045
0.086
0.065
0.0307
0.0241
0.044
0.138
0.115
0.091
0.143
0.132
0.0777
0.0521
0.0902
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

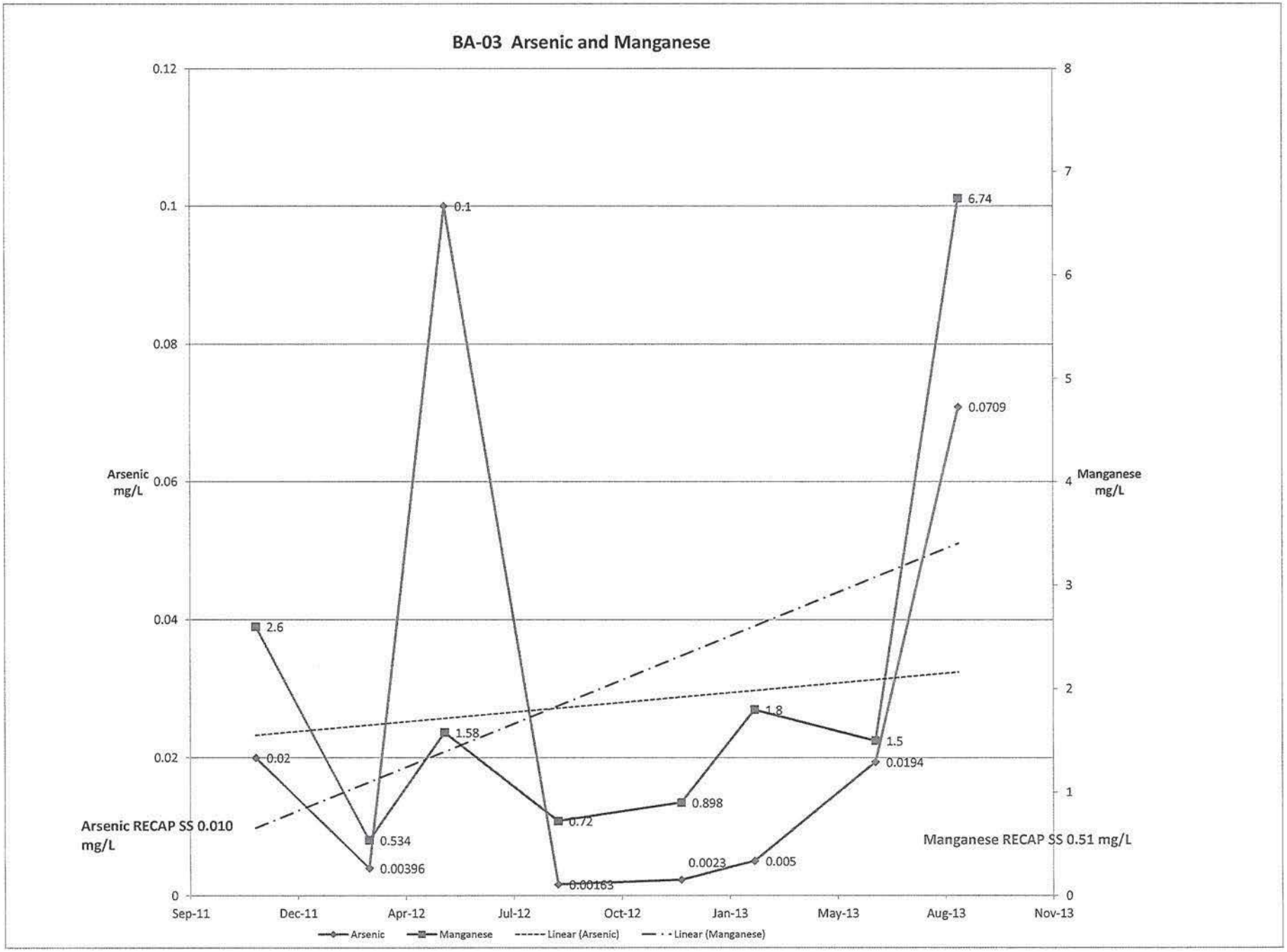

PW-4 pH and Lead
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH
(Standard Units)
Lead
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
4.05
4.14
4.08
3.72
3.69
3.97
3.85
3.64
0.00181
0.000134
0.005
0.00134
0.0012
0.0013
0.0014
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

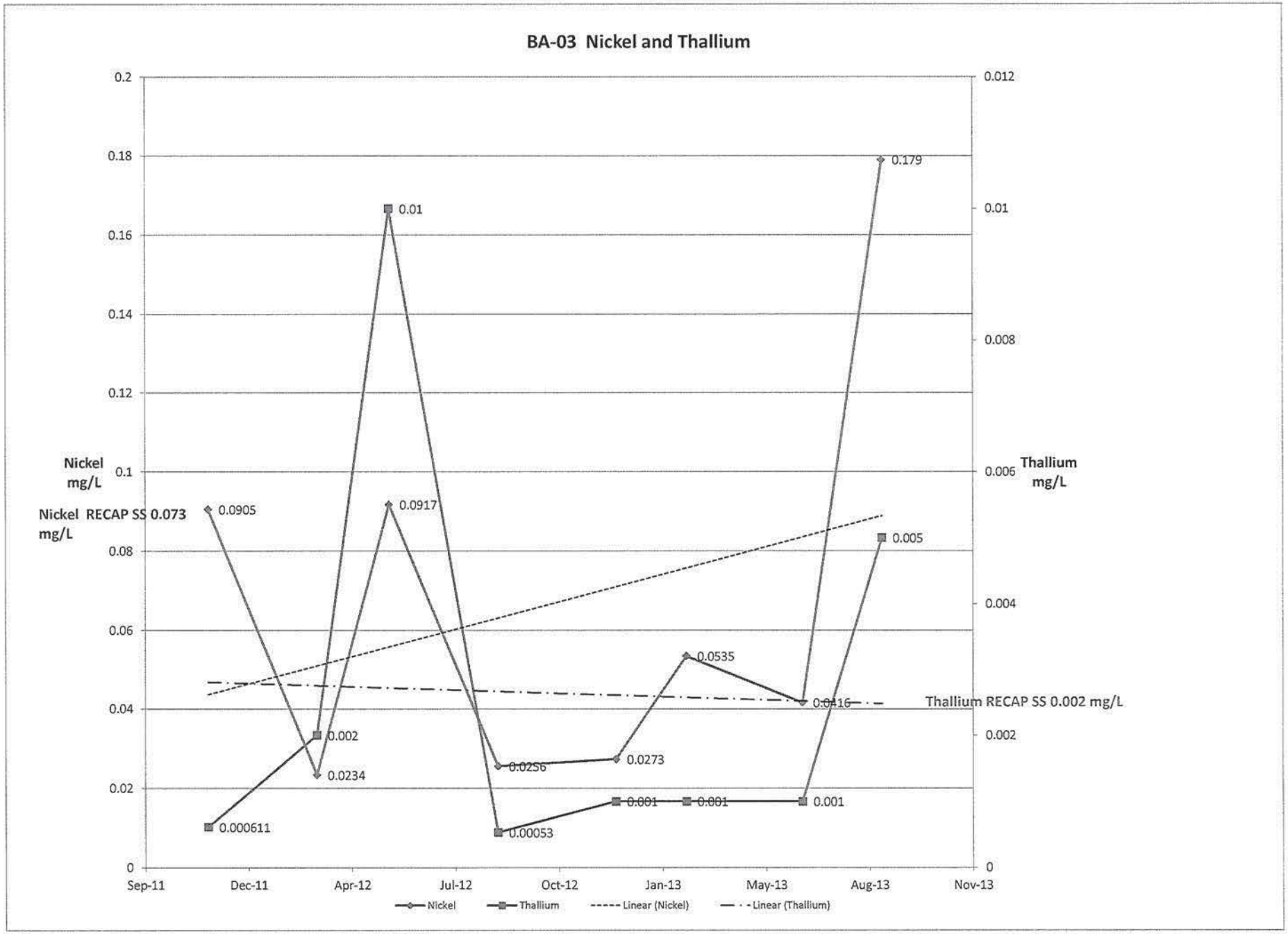

PW-4 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
2.38
2.27
0.00977
1.64
1.15
0.995
0.00515
0.005
0.005
0.005
0.887
0.837
0.00362
0.497
0.0015
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

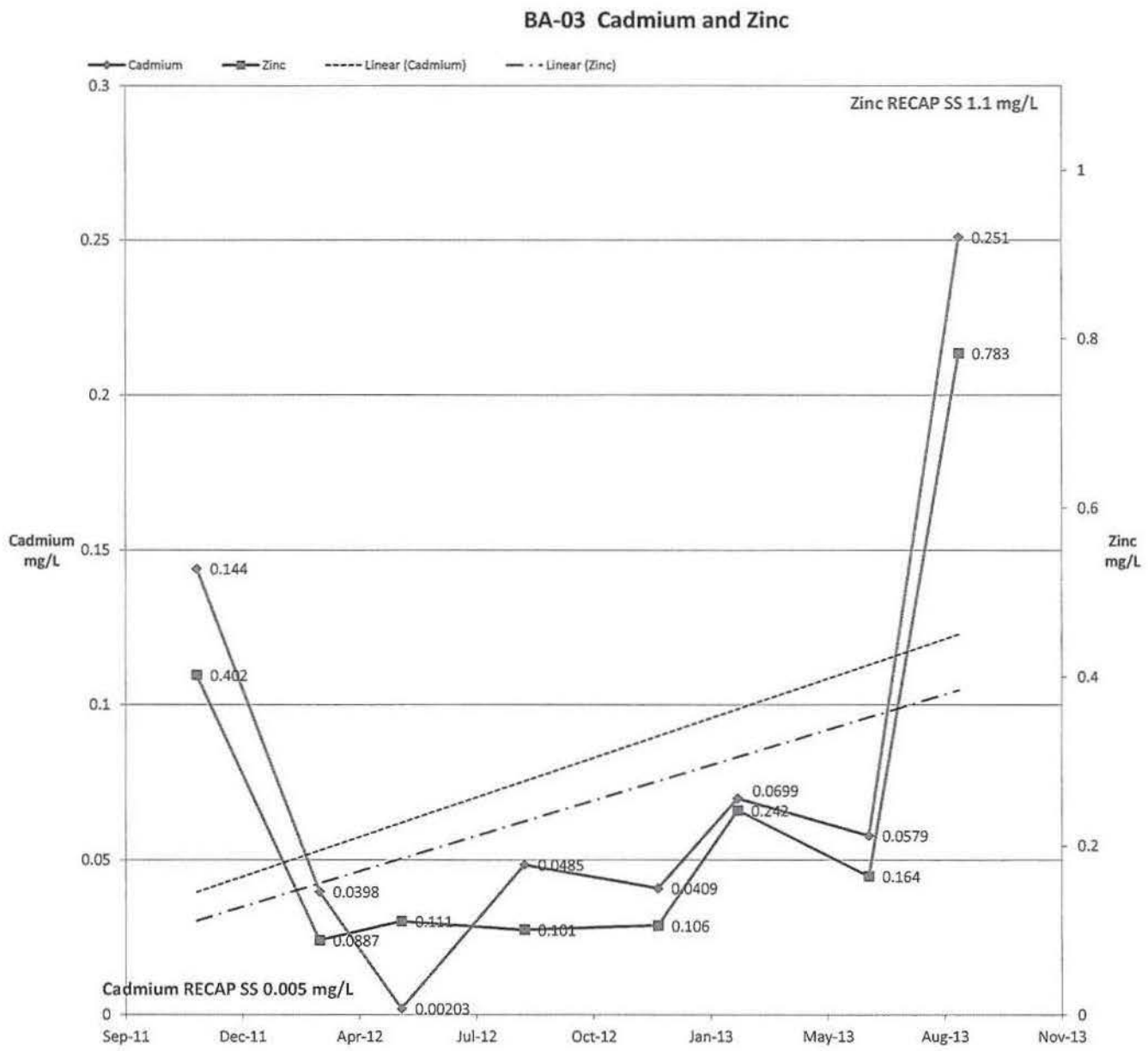

PW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.215
0.01
0.0215
0.000307
0.002
0.0141
0.0193
0.000451
0.0493
0.002
0.0321
0.001
0.001
0.0221
0.005
0.0216

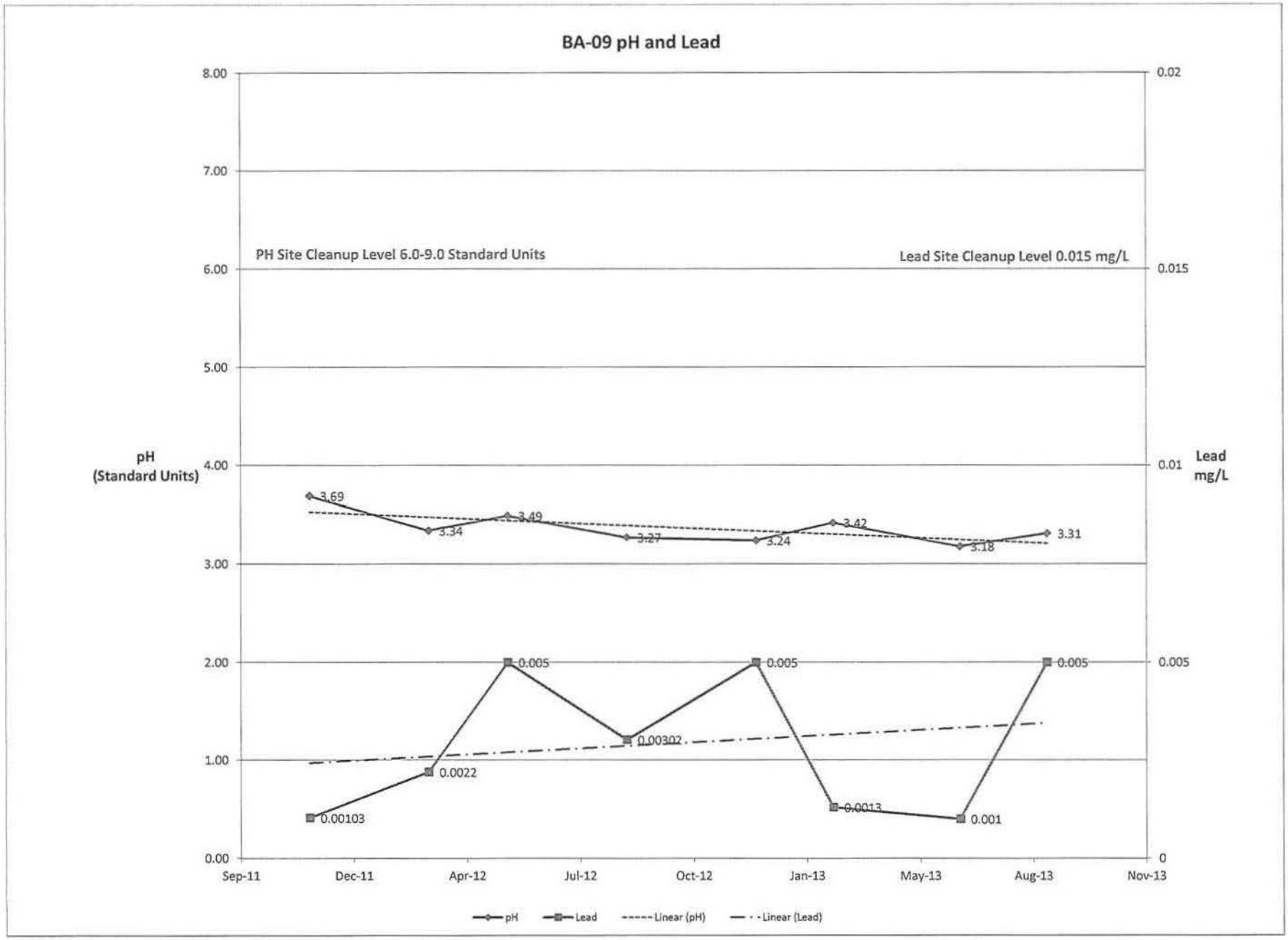

PW-4 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.319
0.005
0.00282
0.0021
0.0023
0.00134
0.125
0.000977
0.0514
0.0825
0.0723
0.0568
0.029
0.000232
0.0461

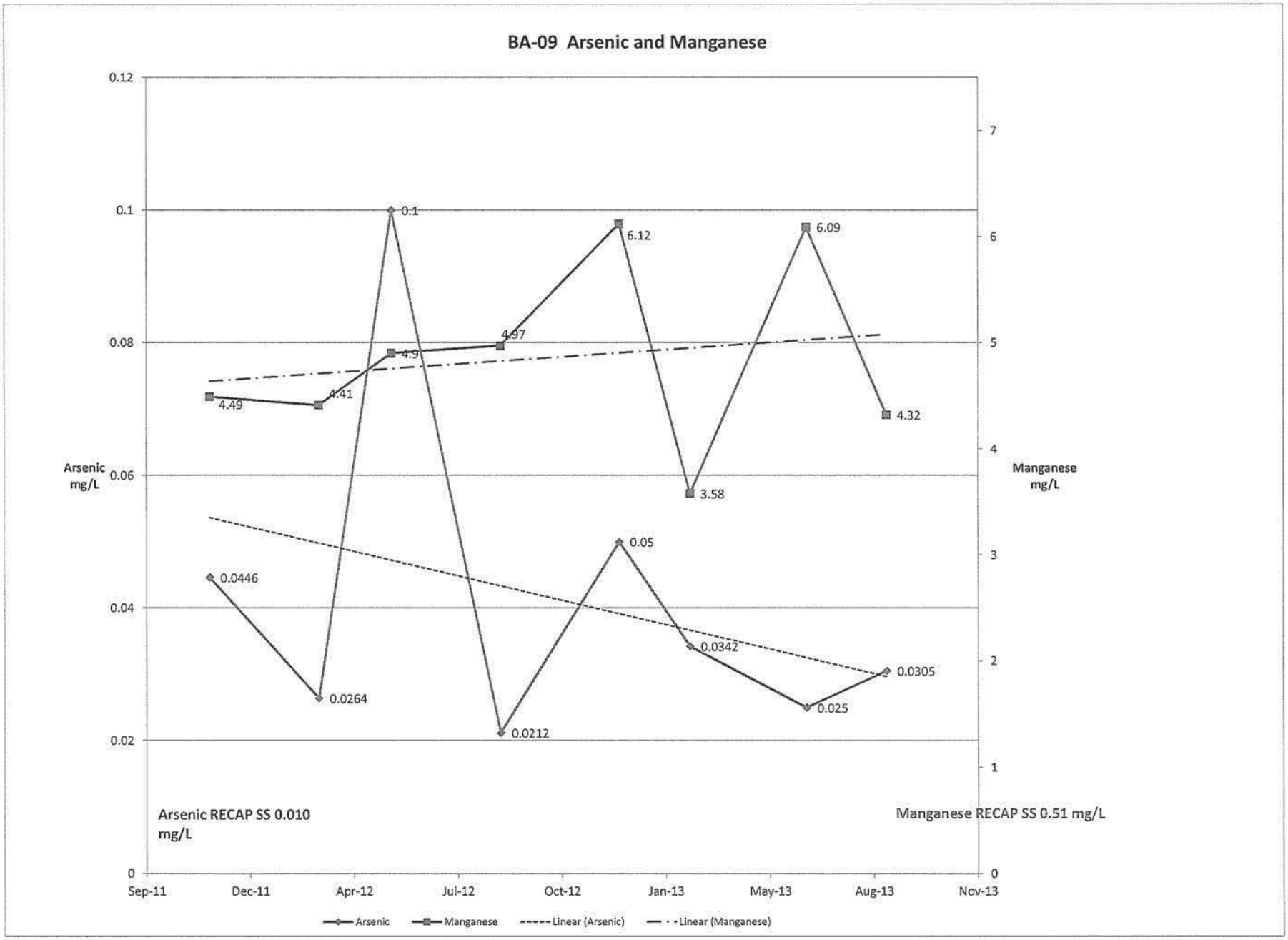

BA-03 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
3.47
3.99
3.95
4.22
4.60
4.18
4.46
2.92
0.104
0.0186
0.005
0.0384
0.0294
0.076
0.0645
0.268
pH
Lead
Linear (pH)
Linear (Lead)

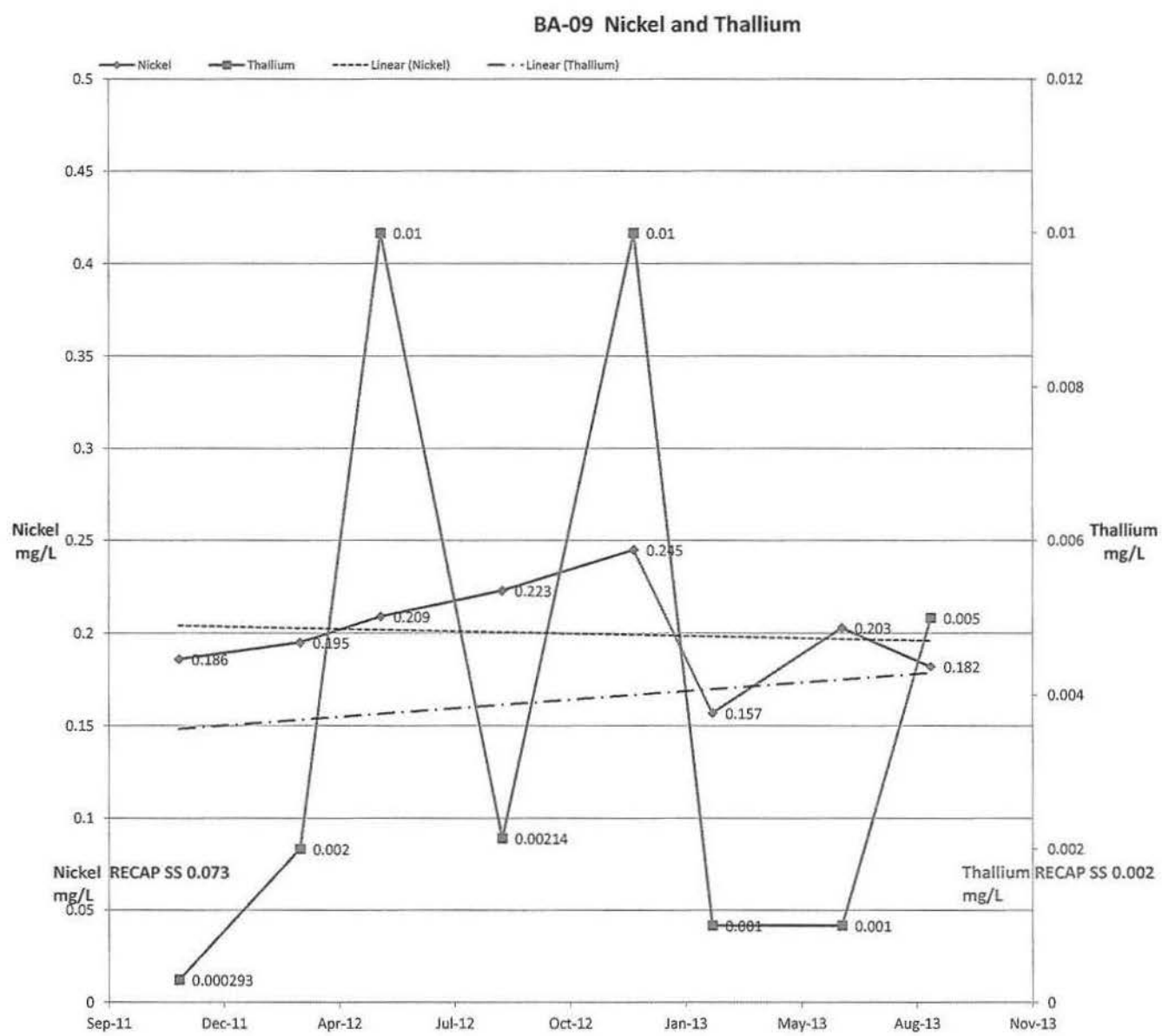

BA-03 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.12
0.1
0.08
0.06
0.04
0.02
0
8
7
6
5
4
3
2
1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
2.6
0.534
1.58
0.72
0.898
1.8
1.5
6.74
0.02
0.00396
0.1
0.00163
0.0023
0.005
0.0194
0.0709
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

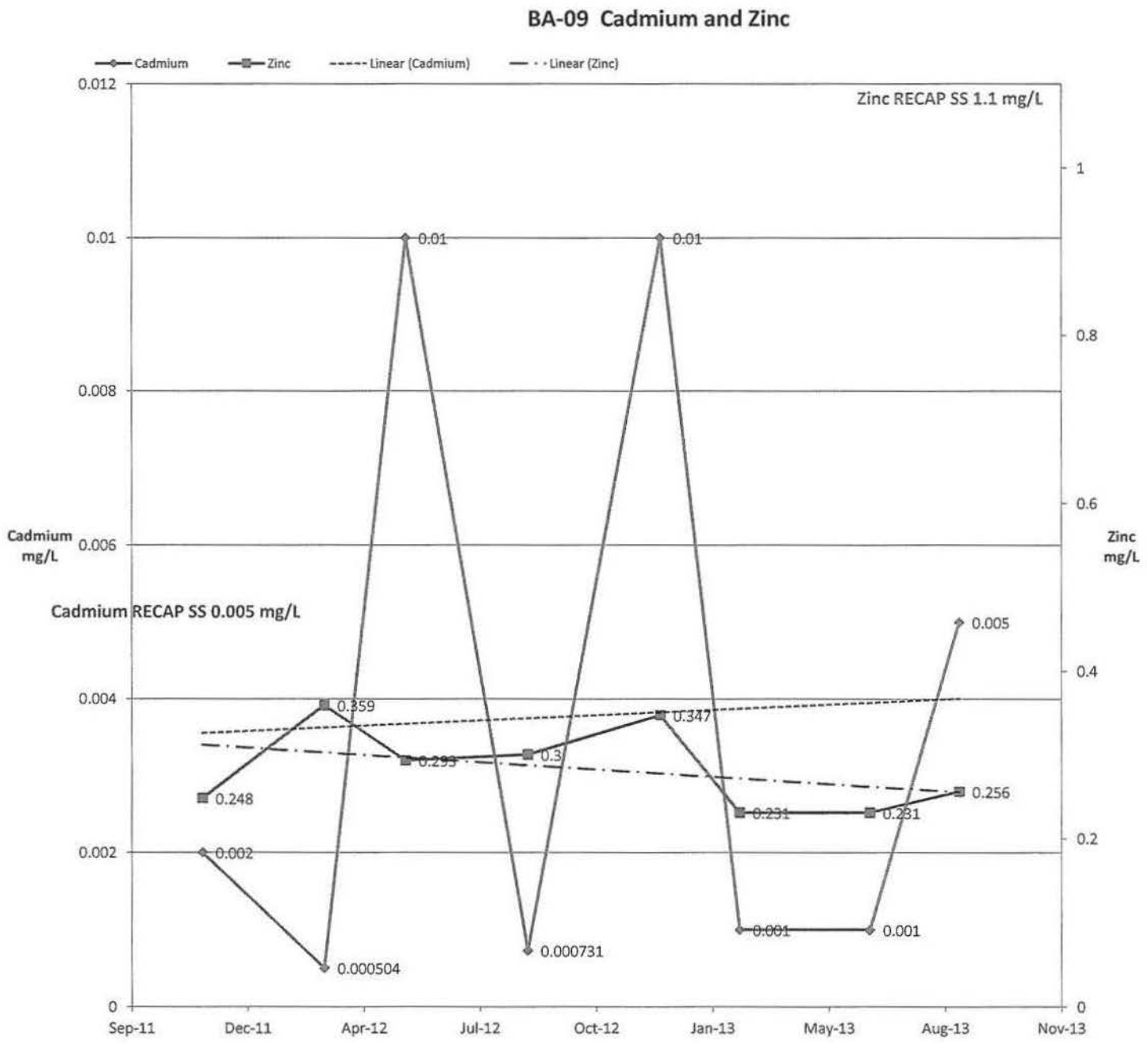

BA-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.0905
0.0234
0.0917
0.0256
0.0273
0.0535
0.0416
0.179
0.000611
0.002
0.01
0.00053
0.001
0.001
0.001
0.005
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)


BA-03 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
0.3
0.25
0.2
0.15
0.1
0.05
0
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.144
0.402
0.0398
0.0887
0.111
0.00203
0.0485
0.101
0.0409
0.106
0.0699
0.242
0.0579
0.164
0.251
0.783


BA-09 pH and Lead
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
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
3.69
3.34
3.49
3.27
3.24
3.42
3.18
3.31
0.00103
0.0022
0.005
0.00302
0.005
0.0013
0.001
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

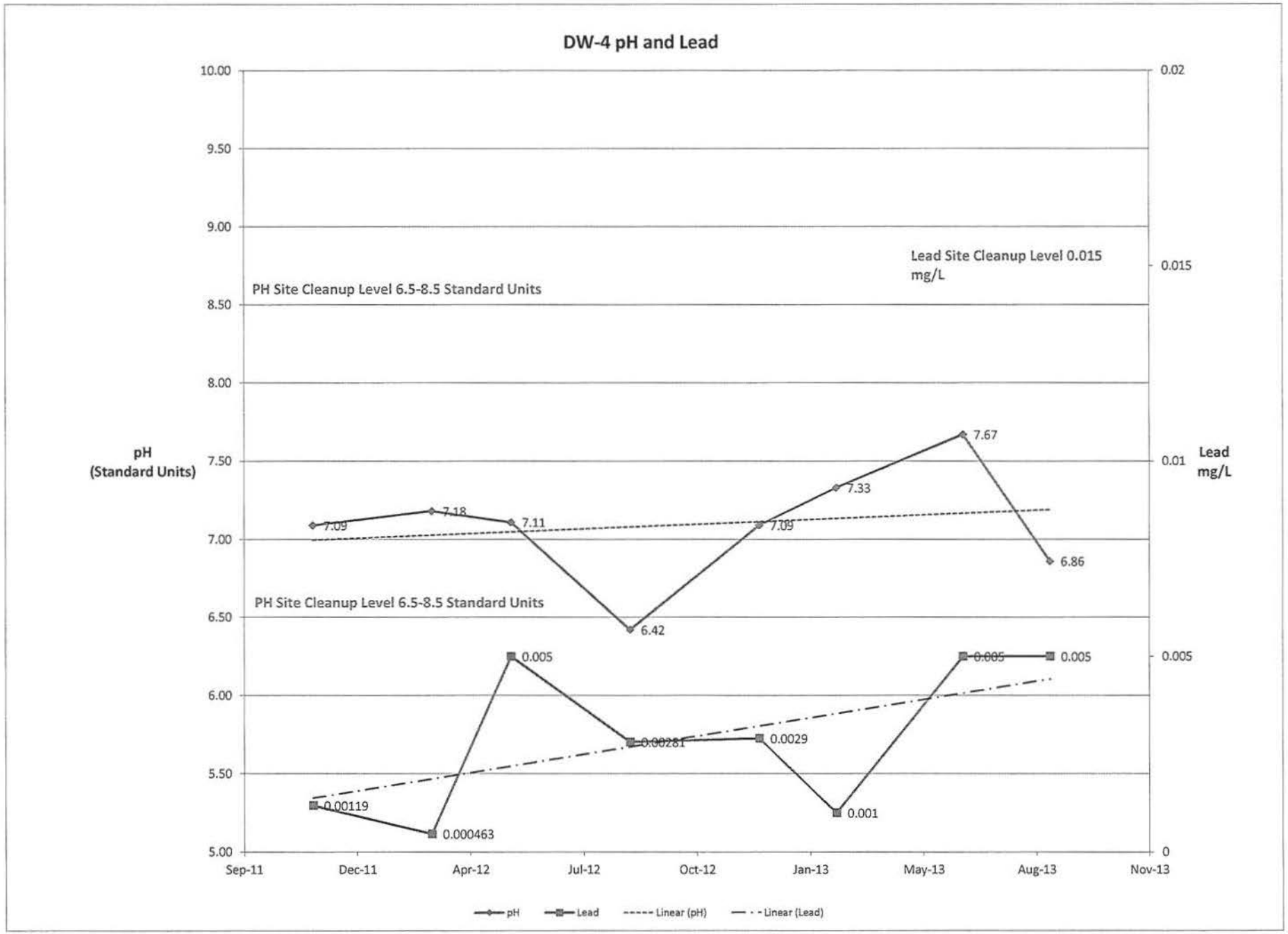

BA-09 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.12
0.1
0.08
0.06
0.04
0.02
0
7
6
5
4
3
2
1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.1
6.12
6.09
4.97
4.9
4.49
4.41
4.32
3.58
0.05
0.0446
0.0342
0.0305
0.0264
0.025
0.0212
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

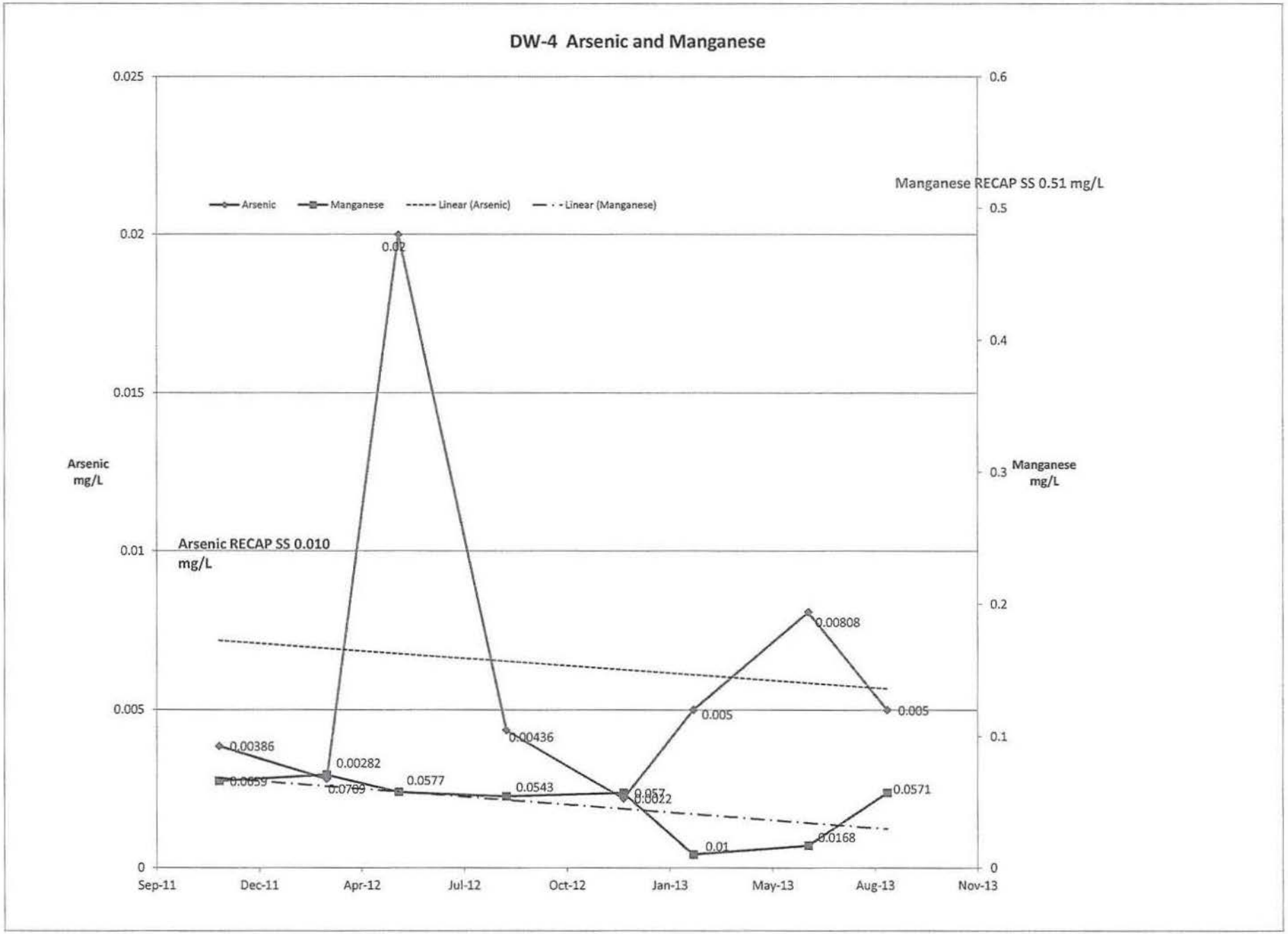

BA-09 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.186
0.195
0.209
0.223
0.245
0.157
0.203
0.182
0.000293
0.002
0.01
0.00214
0.01
0.001
0.001
0.005

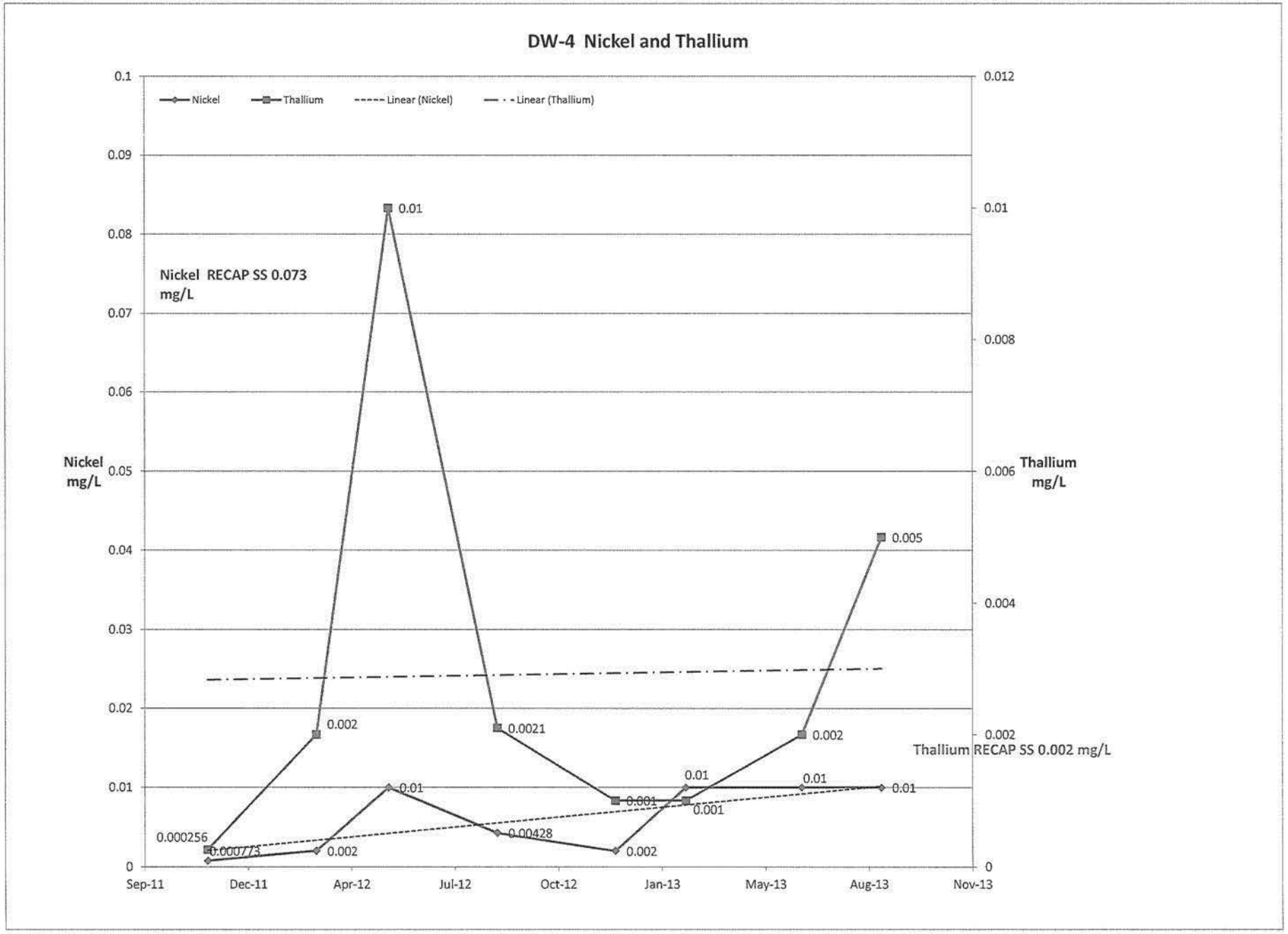

BA-09 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.01
0.01
0.005
0.359
0.347
0.293
0.3
0.248
0.256
0.231
0.231
0.002
0.001
0.001
0.000504
0.000731
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

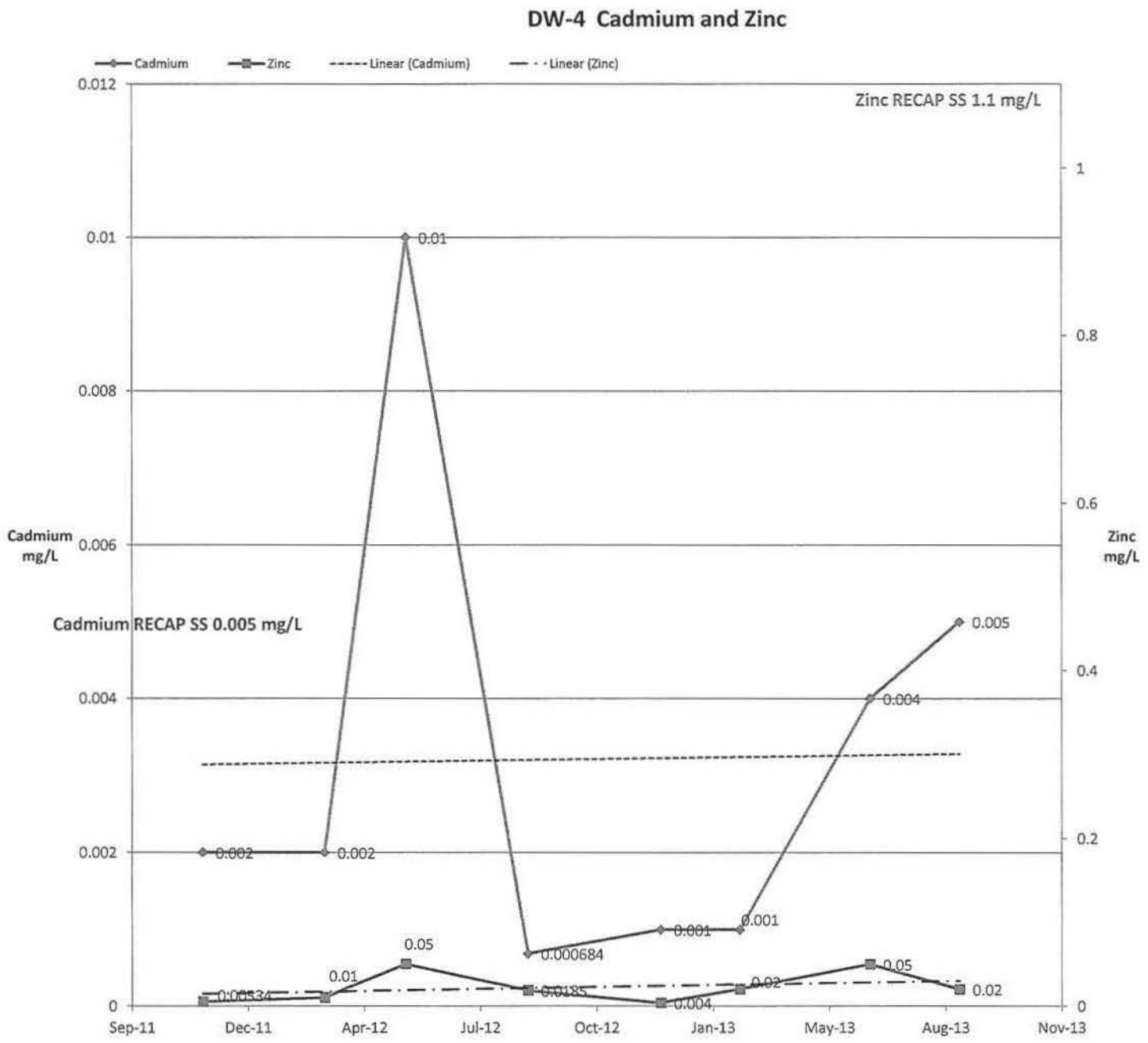
SECOND WATER BEARING ZONE

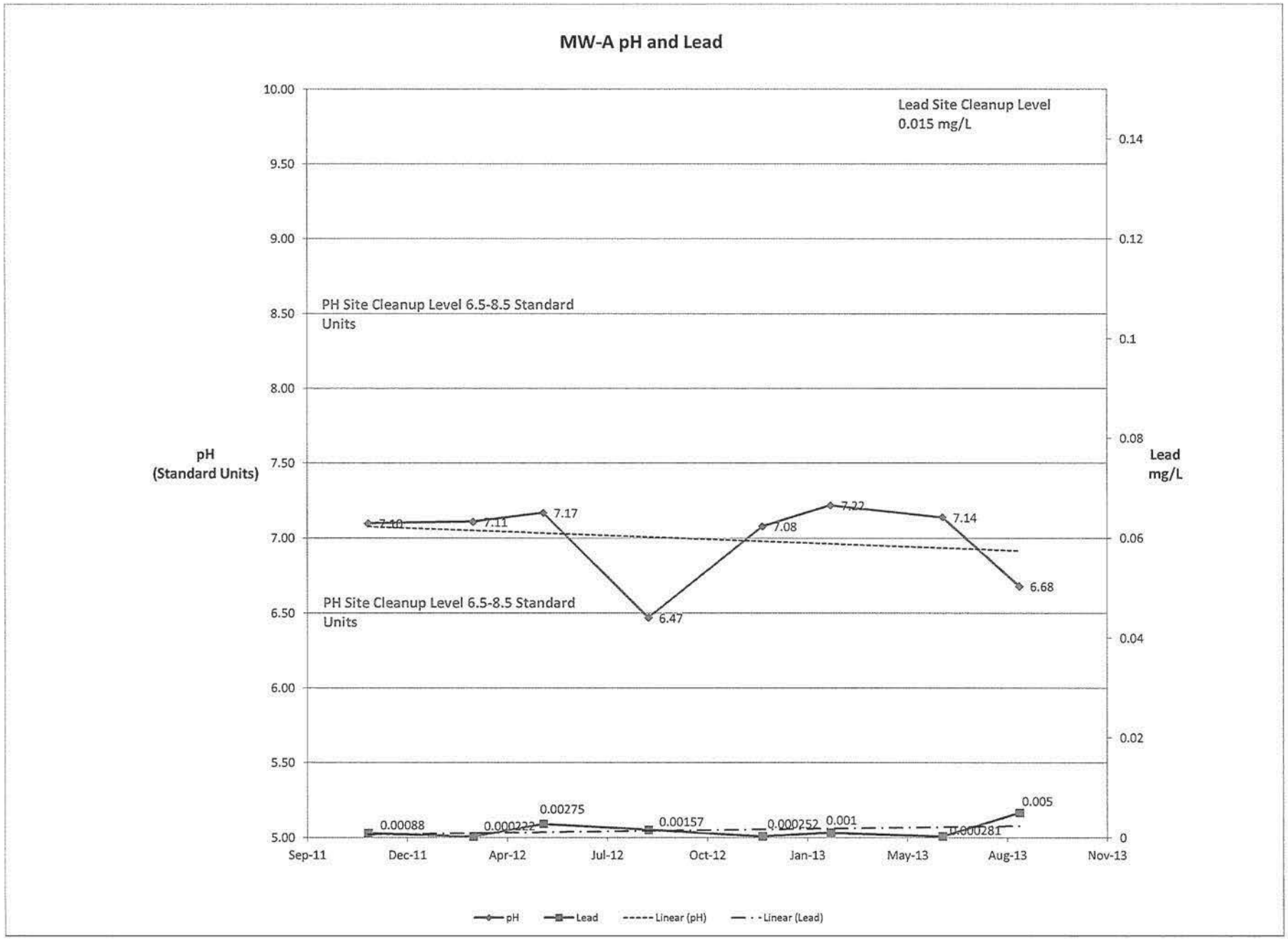
(PAST EIGHT QUARTERS)

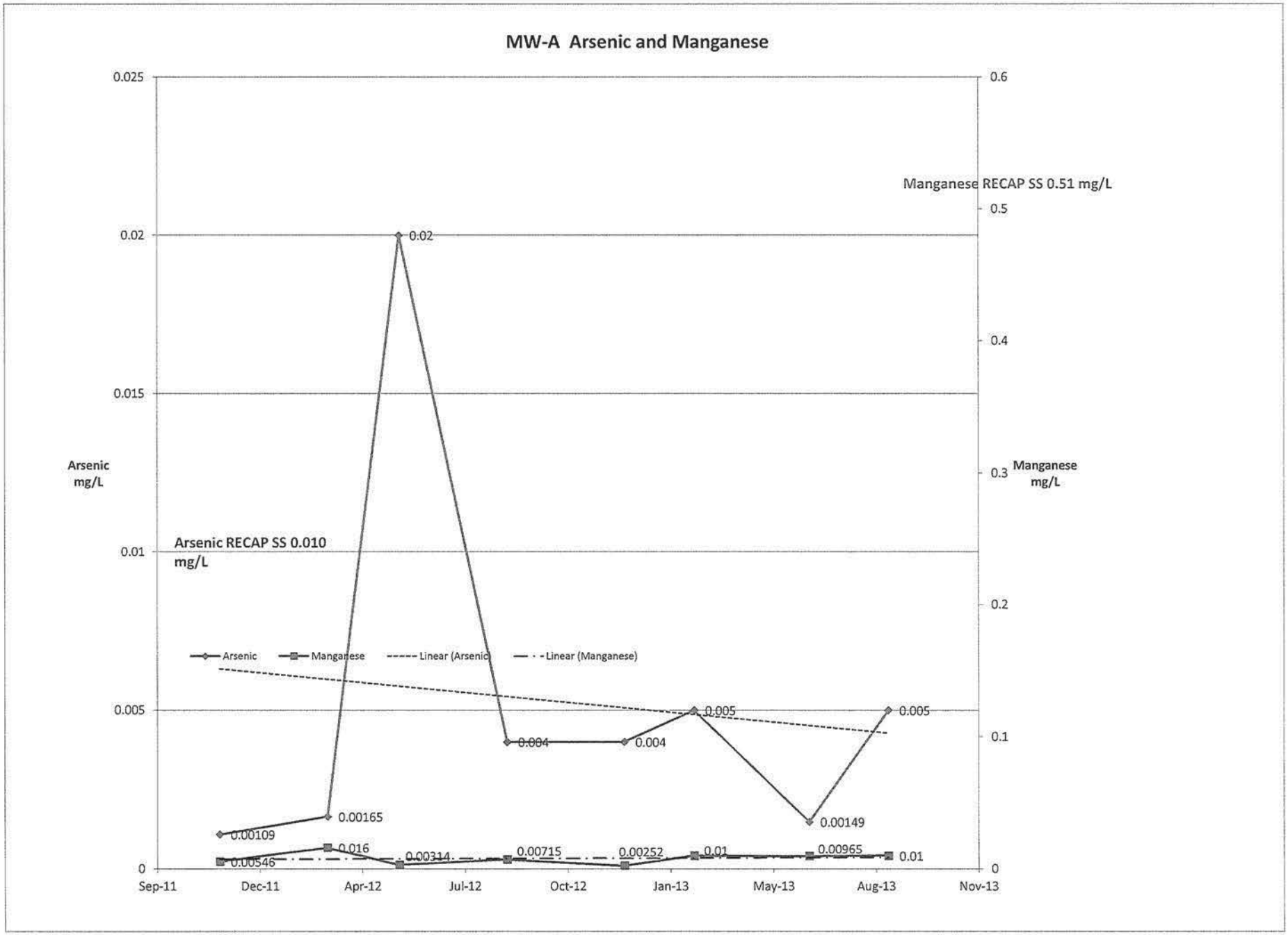

DW-4 pH and Lead
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.09
7.18
7.11
6.42
7.09
7.33
7.67
6.86
0.00119
0.000463
0.005
0.00281
0.0029
0.001
0.005
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

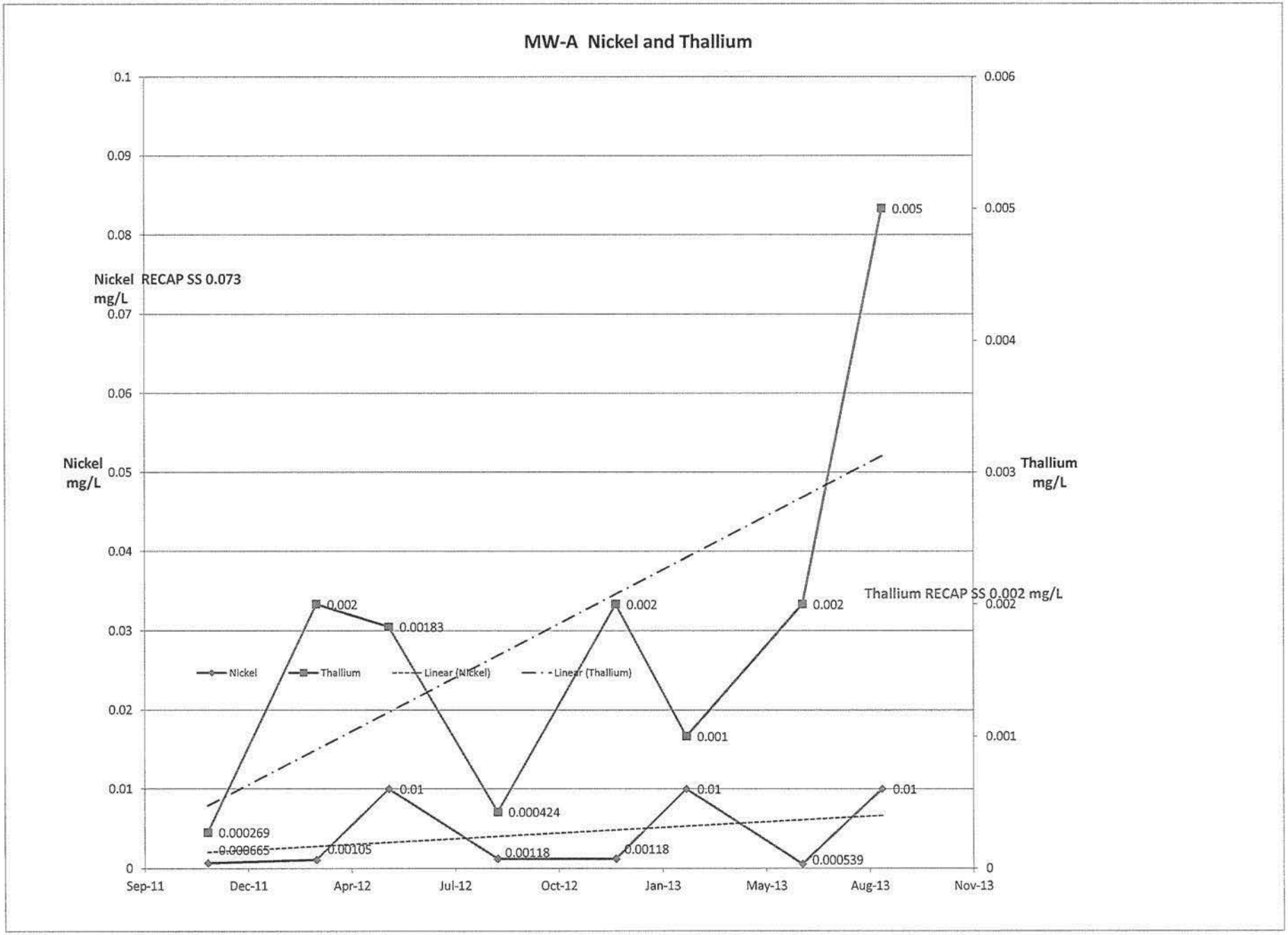

DW-4 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.02
0.00436
0.005
0.00808
0.005
0.00386
0.00282
0.0659
0.0709
0.0577
0.0543
0.057
0.0022
0.01
0.0168
0.0571

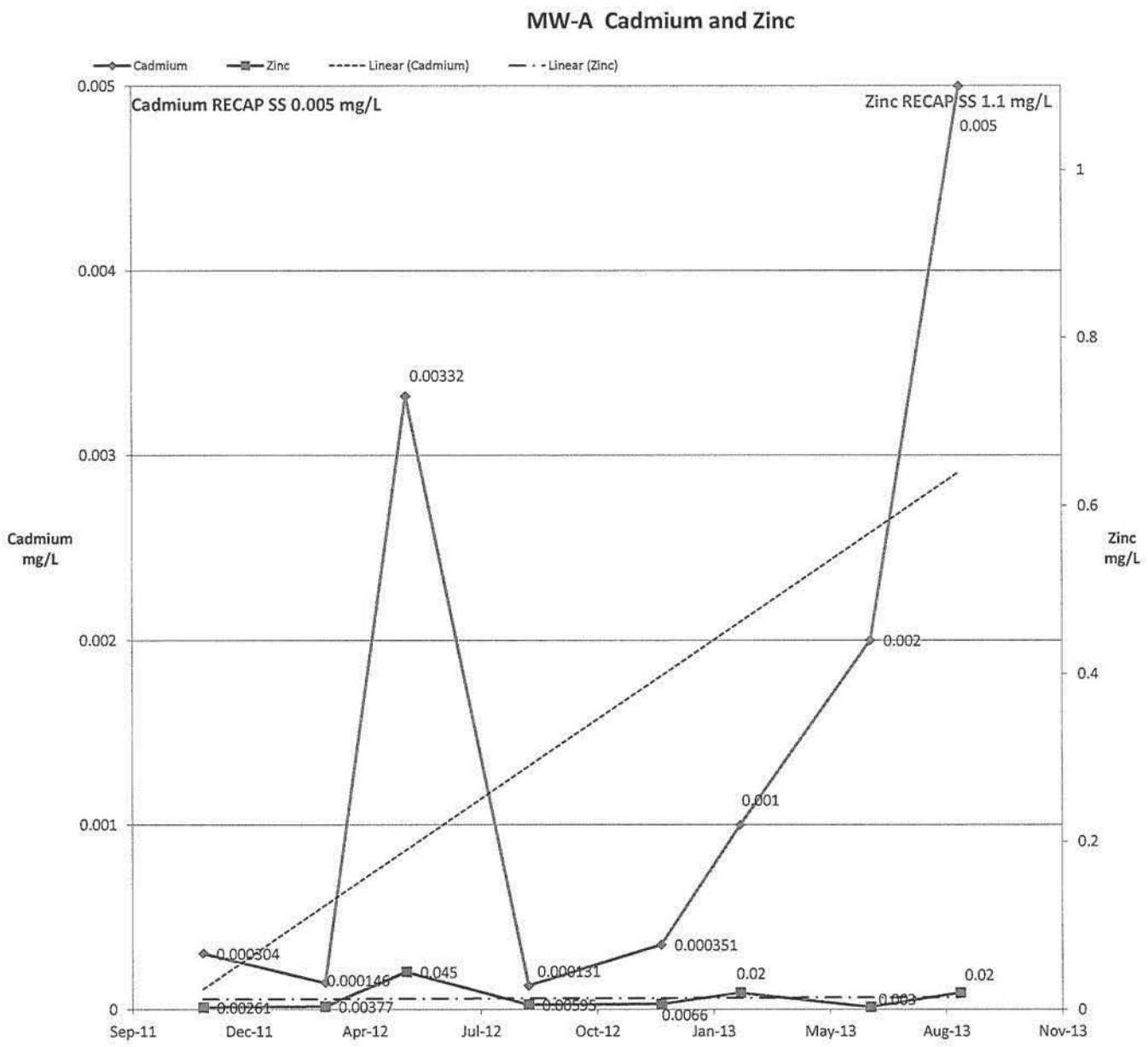

DW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.002
0.0021
0.005
0.002
0.01
0.01
0.01
0.01
0.001
0.001
0.00428
0.002
0.002
0.000256
0.000775

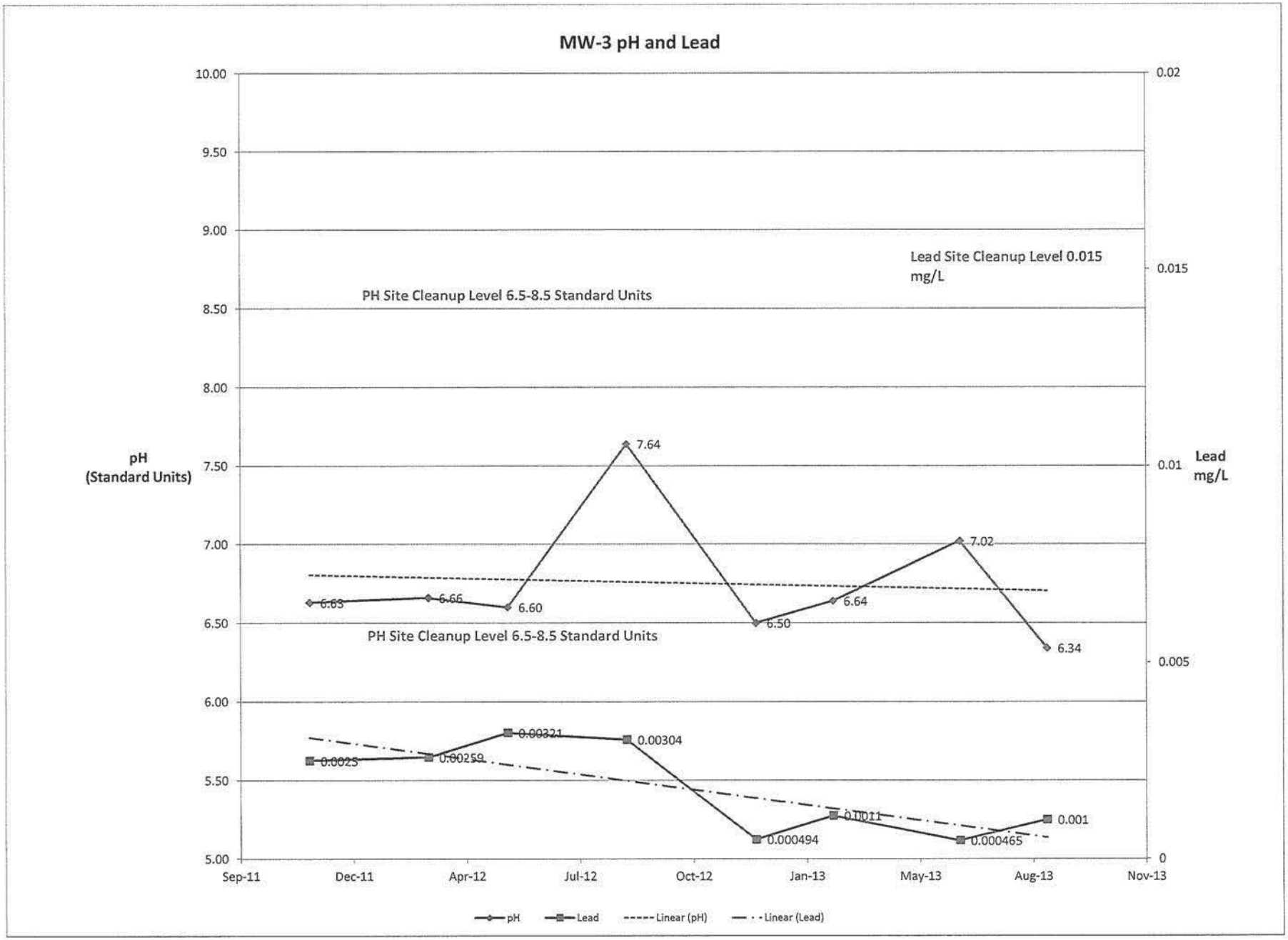

DW-4 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.005
0.004
0.002
0.002
0.001
0.001
0.000684
0.05
0.01
0.05
0.02
0.02
0.00534
0.0185
0.004

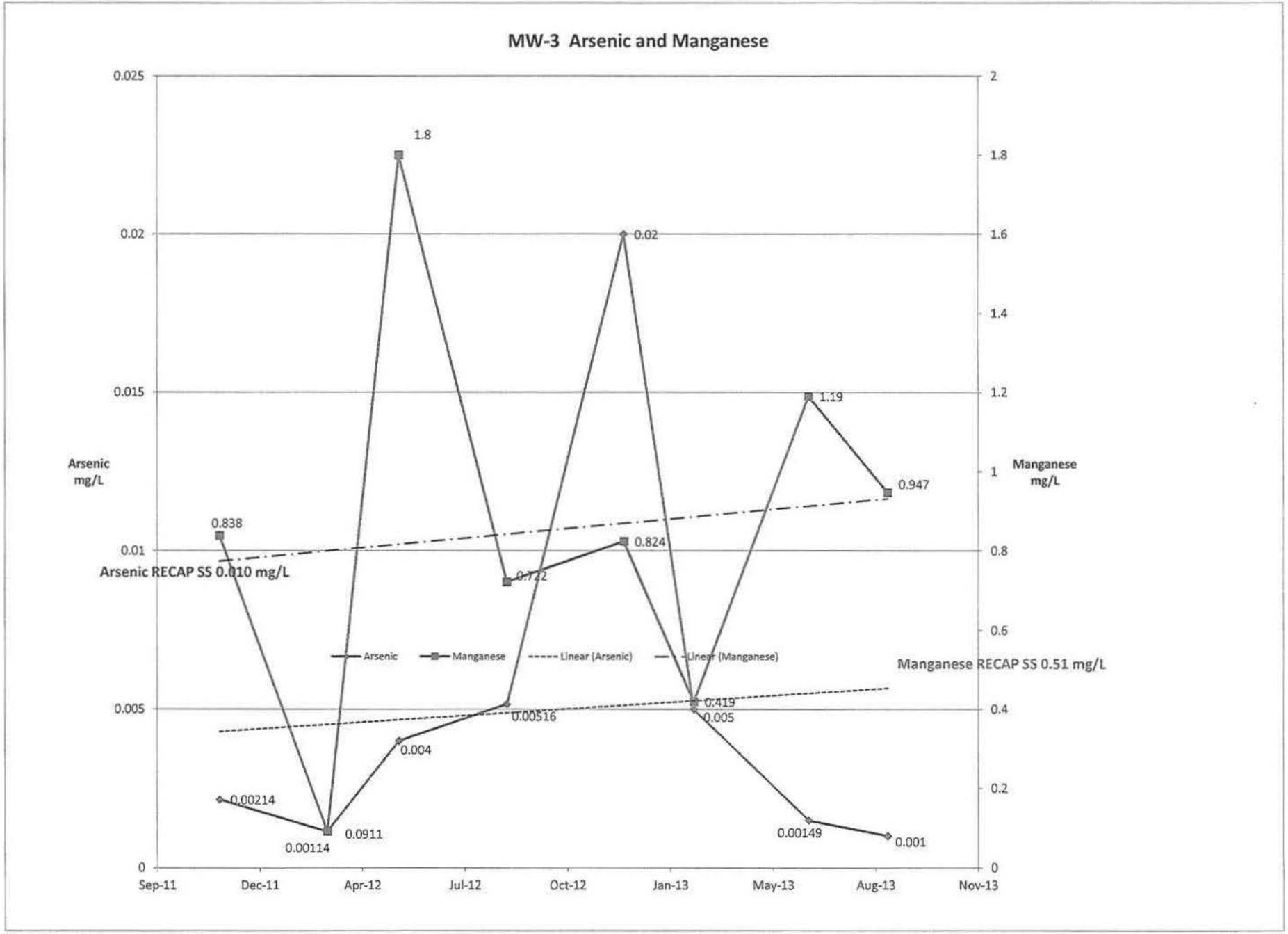

MW-A pH and Lead
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
7.10
7.11
7.17
6.47
7.08
7.22
7.14
6.68
0.00088
0.000222
0.00275
0.00157
0.000252
0.001
0.000281
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

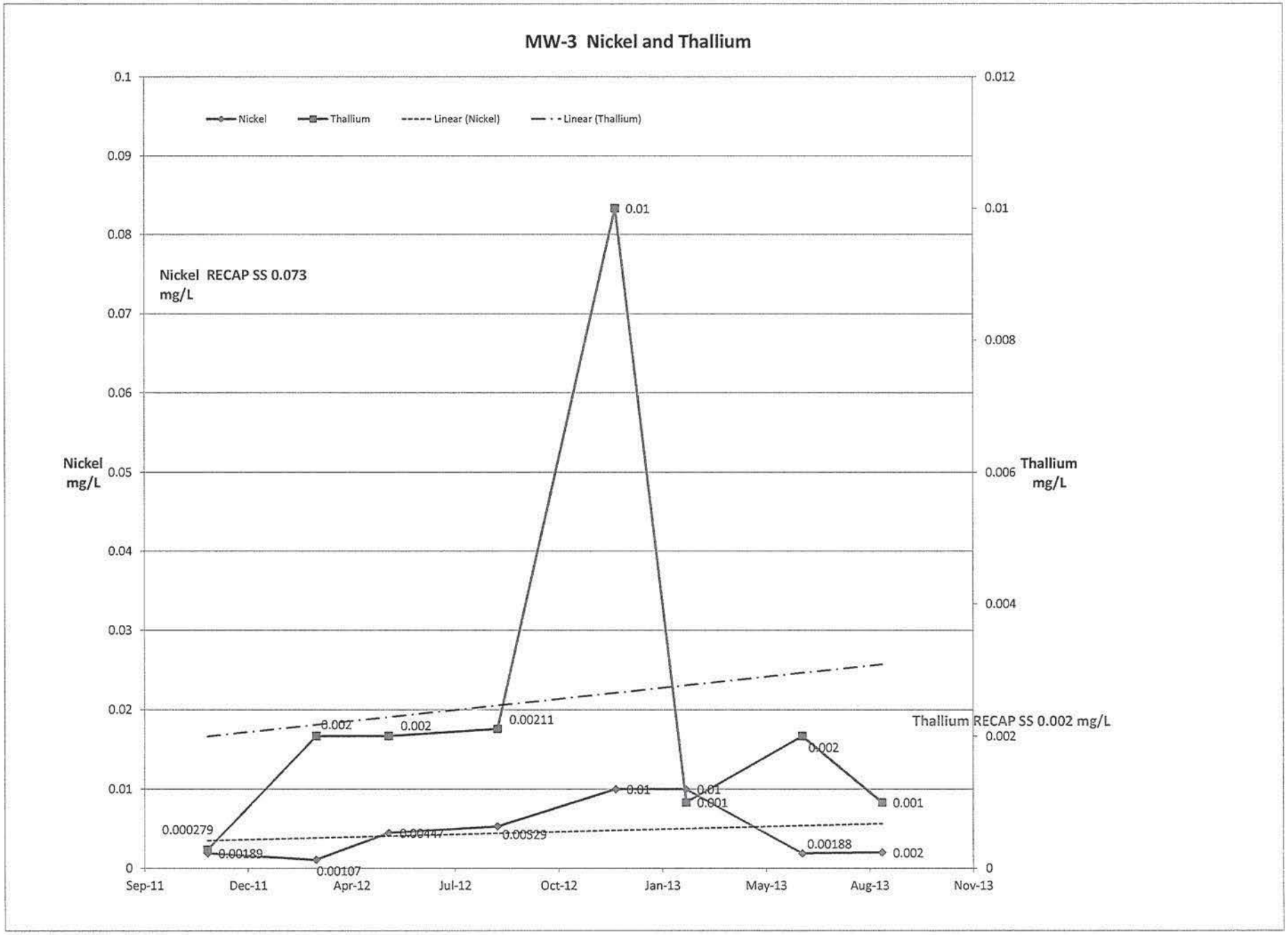

MW-A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.02
0.004
0.004
0.005
0.005
0.00149
0.00165
0.00109
0.016
0.00546
0.00314
0.00715
0.00252
0.01
0.00965
0.01
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

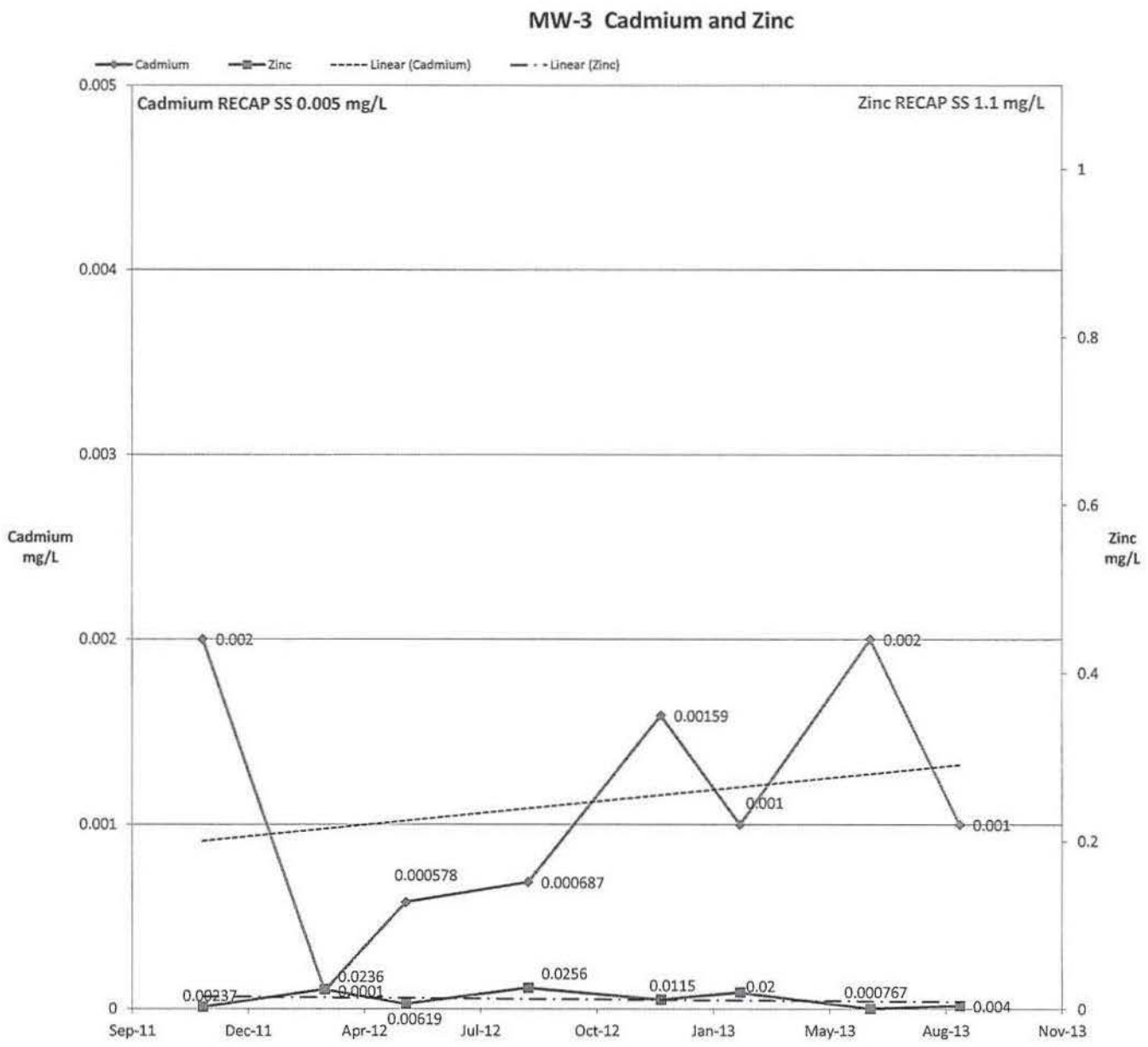

MW-A Nickel and Thallium
Nickel RECAP SS 0.073
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.000269
0.002
0.00183
0.000424
0.002
0.001
0.002
0.005
0.000665
0.00105
0.01
0.00118
0.00118
0.01
0.000539
0.01

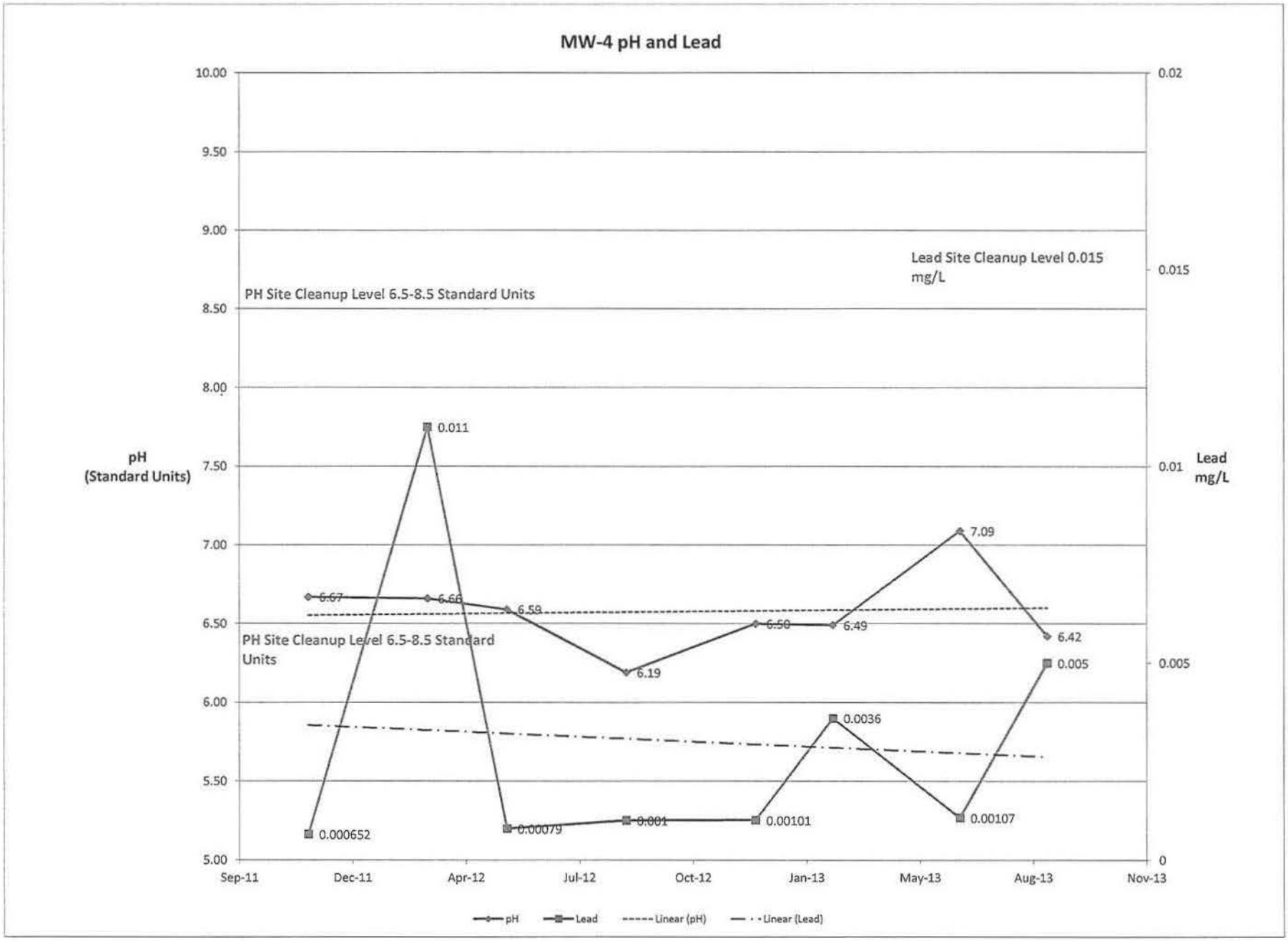

MW-A Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.00332
0.005
0.002
0.001
0.000304
0.000146
0.045
0.000131
0.000351
0.02
0.02
0.00261
0.00377
0.00595
0.0066
0.003
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

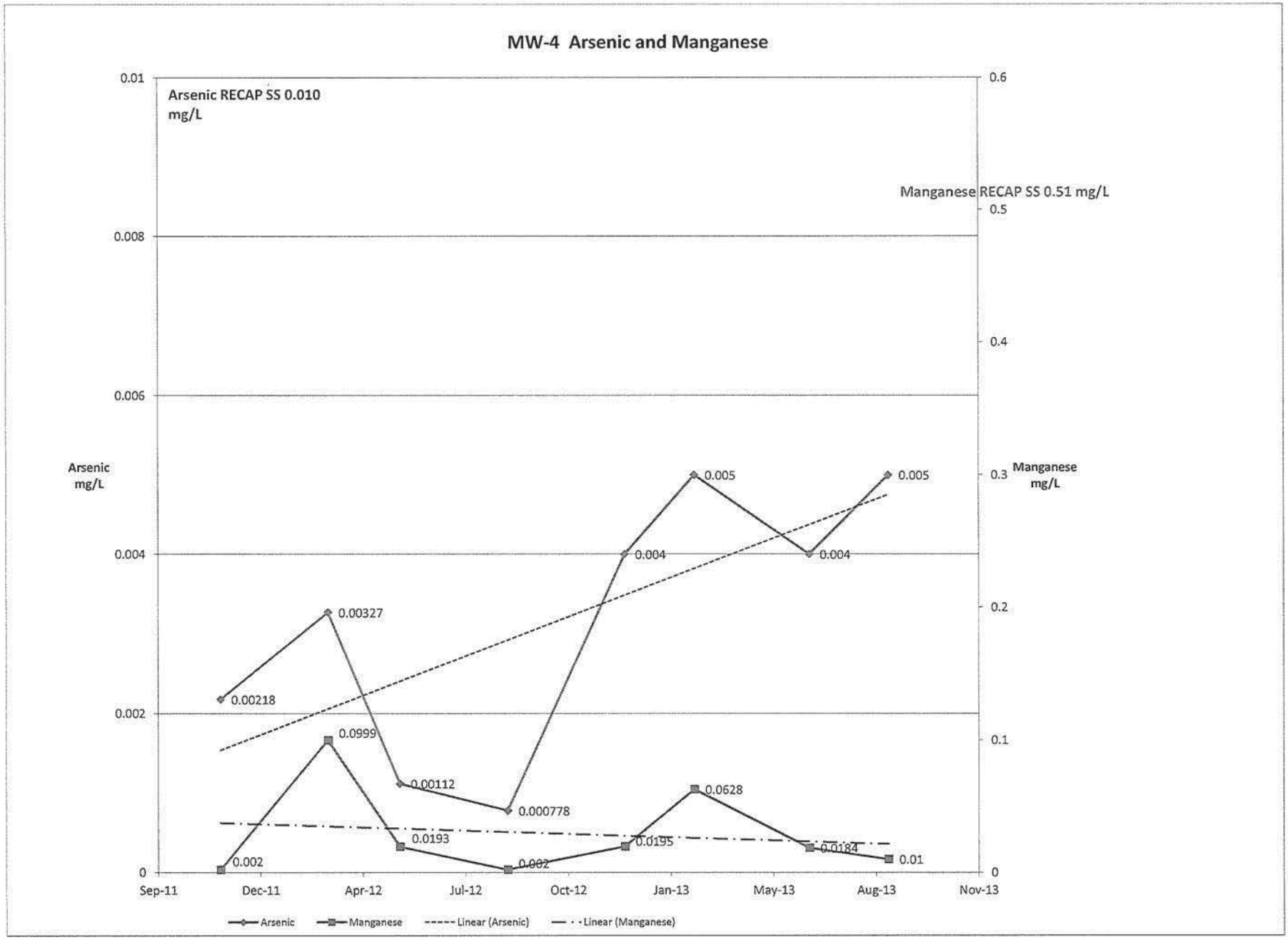

MW-3 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
6.63
6.66
6.60
7.64
6.50
6.64
7.02
6.34
0.0025
0.00259
0.00321
0.00304
0.000494
0.0011
0.000465
0.001
pH
Lead
Linear (pH)
Linear (Lead)

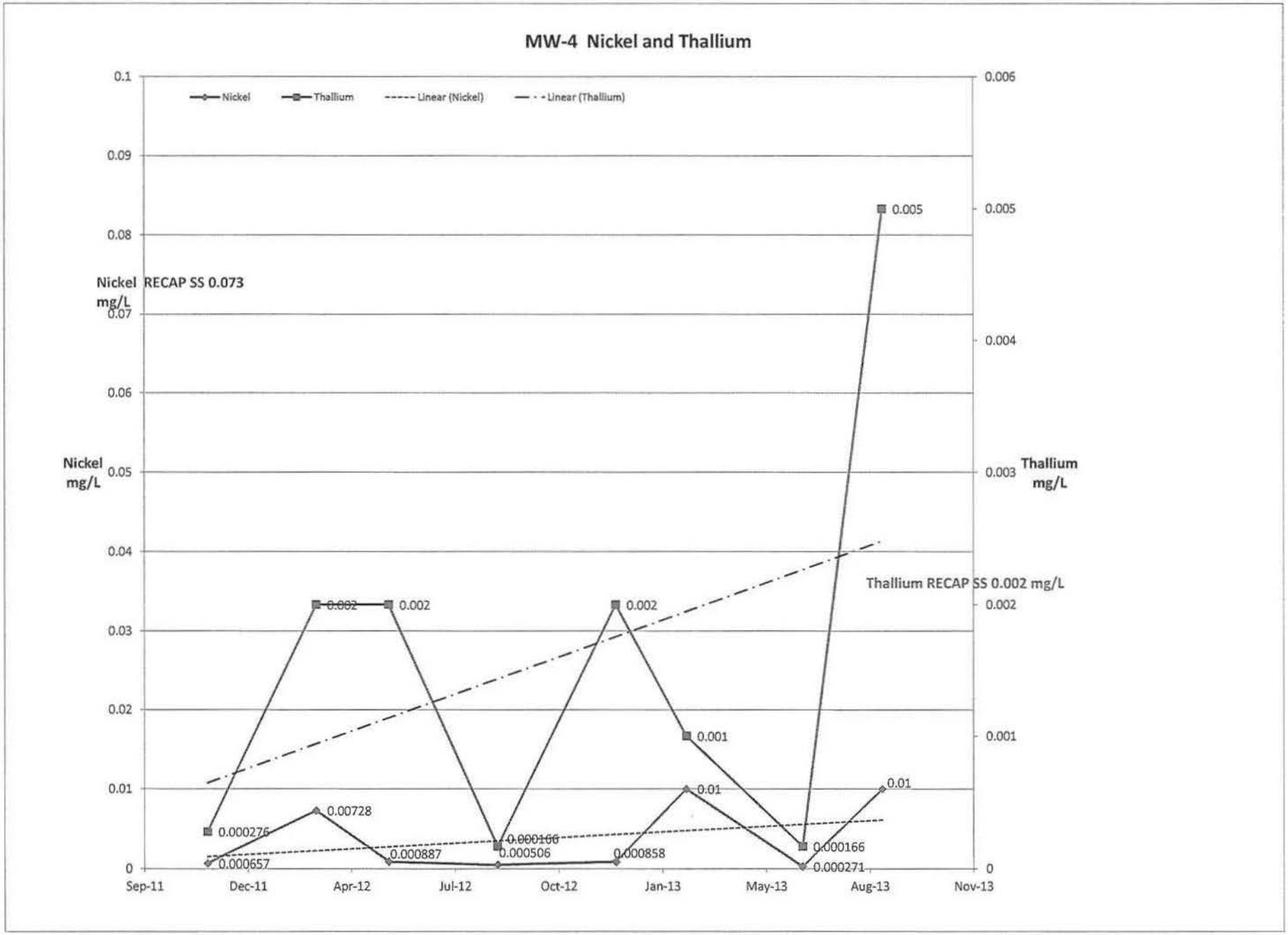

MW-3 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.025
0.02
0.015
0.01
0.005
0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.838
0.00114
0.0911
1.8
0.004
0.722
0.00516
0.02
0.824
0.419
0.005
0.00149
1.19
0.947
0.001
0.00214

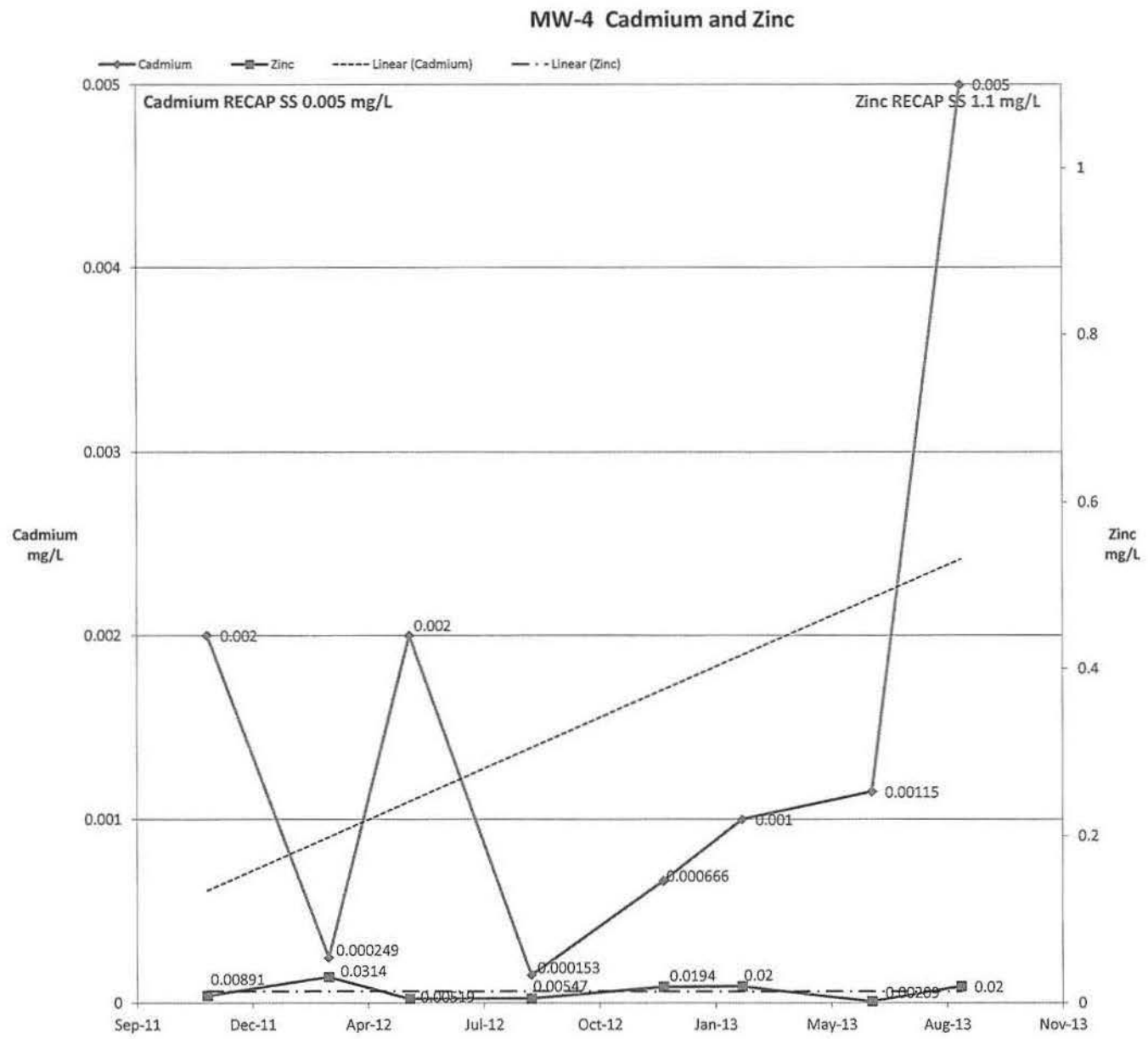

MW-3 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.002
0.002
0.00211
0.002
0.01
0.01
0.001
0.001
0.000279
0.00189
0.00107
0.00447
0.00529
0.00188
0.002

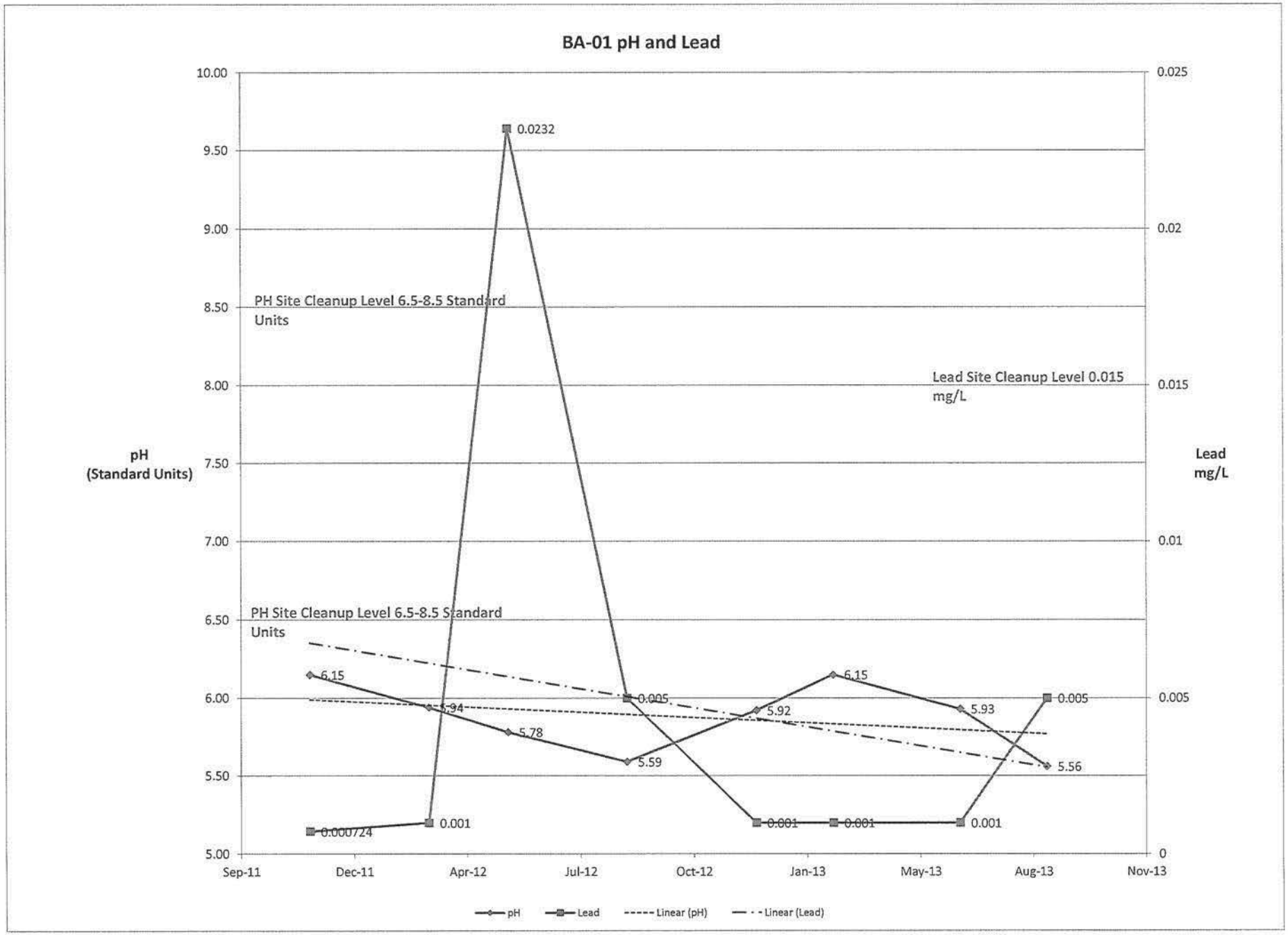

MW-3 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.002
0.00159
0.001
0.002
0.001
0.000578
0.000687
0.00237
0.0236
0.0001
0.00619
0.0256
0.0115
0.02
0.000767
0.004
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

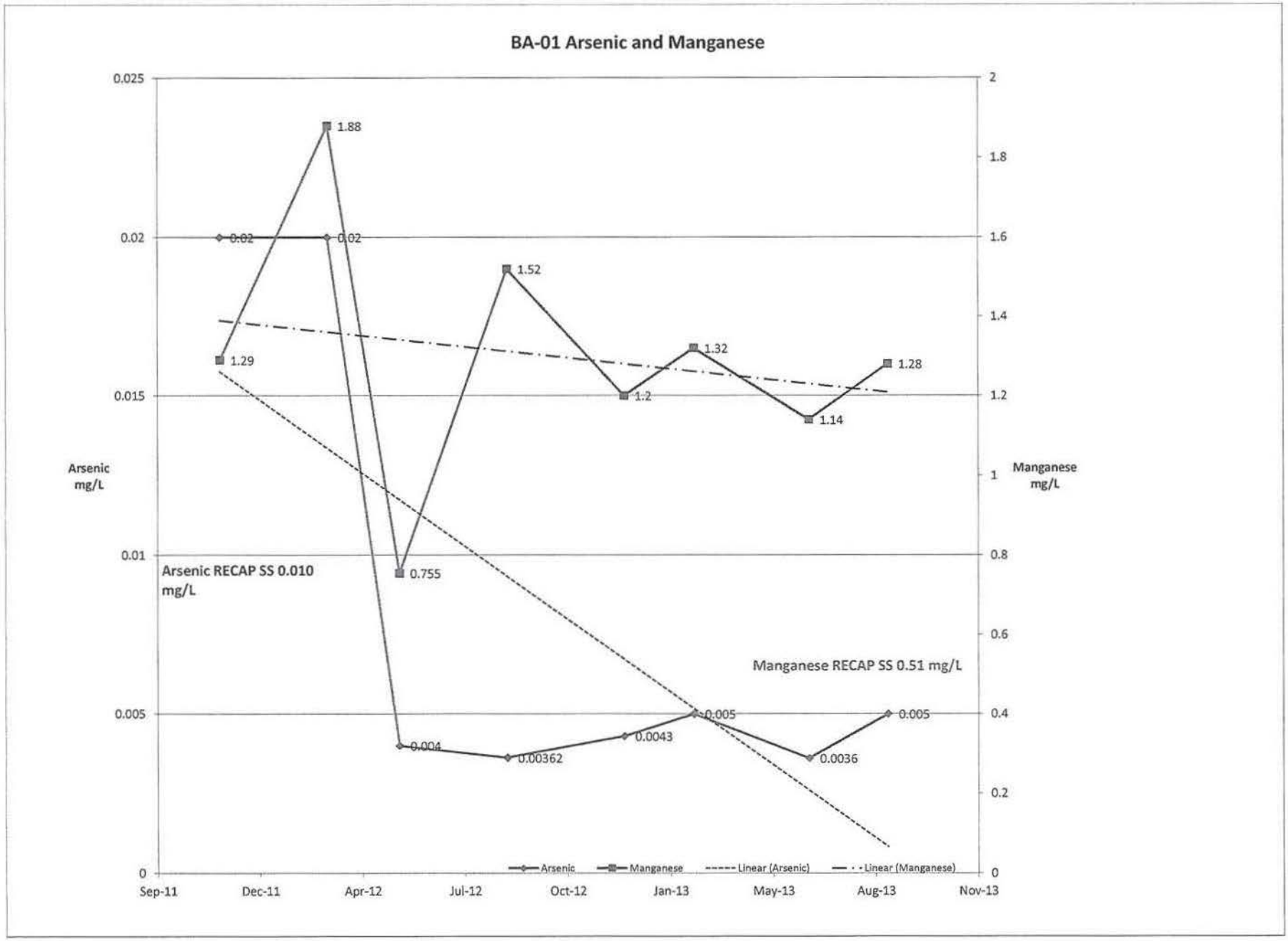

MW-4 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
0.011
0.000652
0.00079
0.001
0.00101
0.0036
0.00107
0.005
6.67
6.66
6.59
6.19
6.50
6.49
7.09
6.42
pH
Lead
Linear (pH)
Linear (Lead)

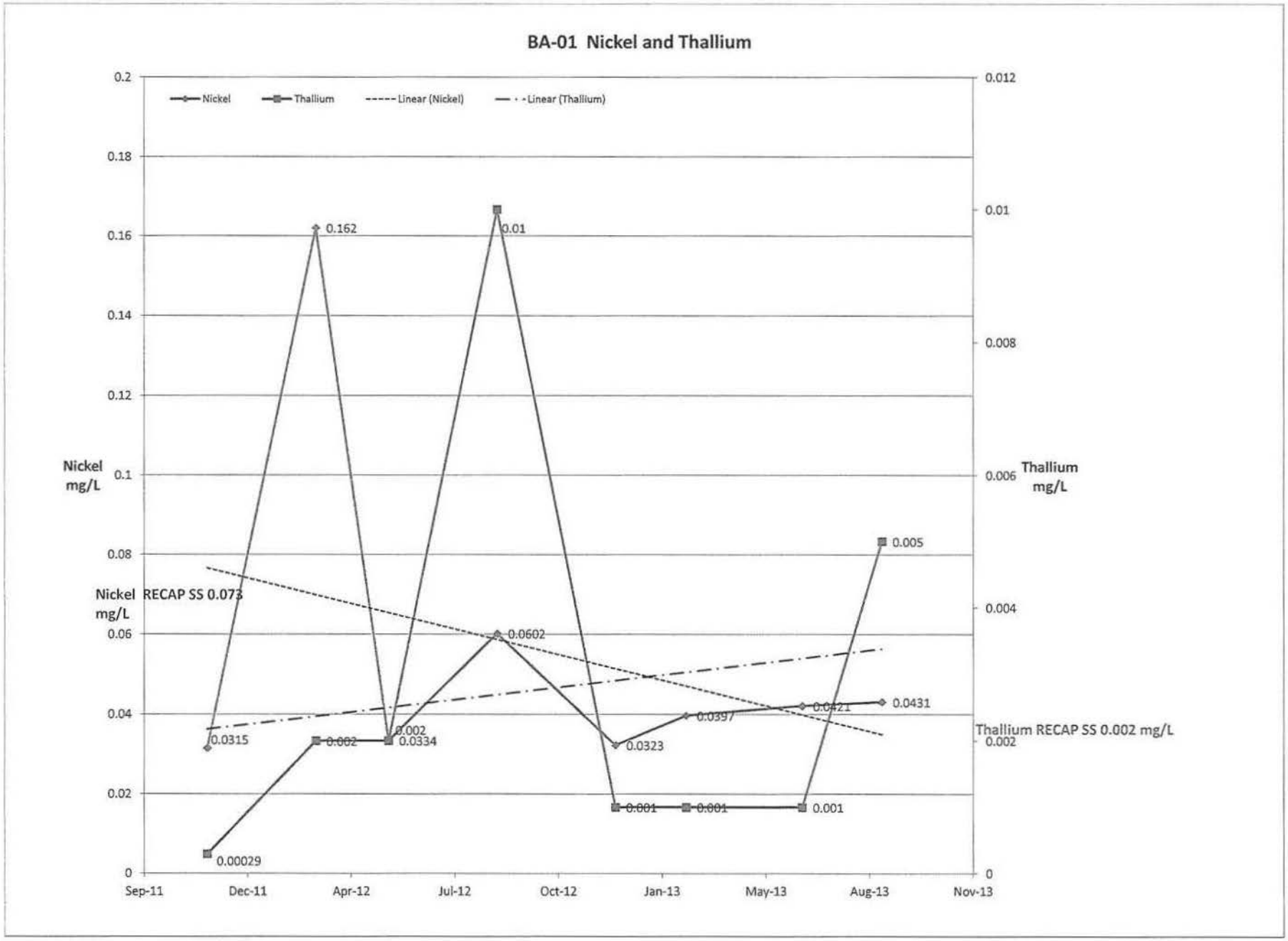

MW-4 Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic mg/L
Manganese mg/L
0.01
0.008
0.006
0.004
0.002
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.00218
0.00327
0.00112
0.000778
0.004
0.005
0.004
0.005
0.002
0.0999
0.0193
0.002
0.0195
0.0628
0.0184
0.01
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

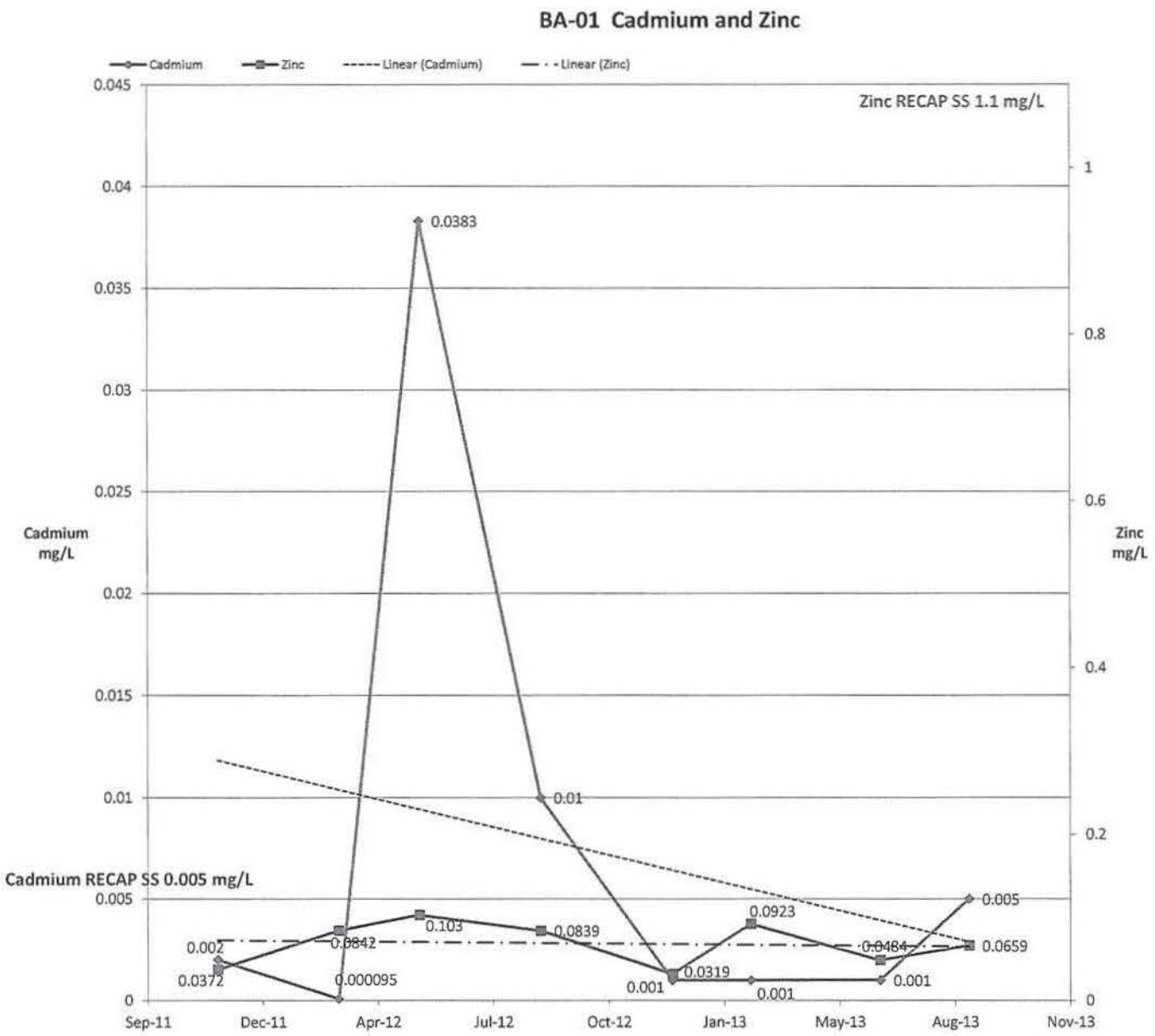

MW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.005
0.002
0.002
0.002
0.001
0.01
0.01
0.00728
0.000276
0.000166
0.000887
0.000506
0.000858
0.000166
0.000657
0.000271

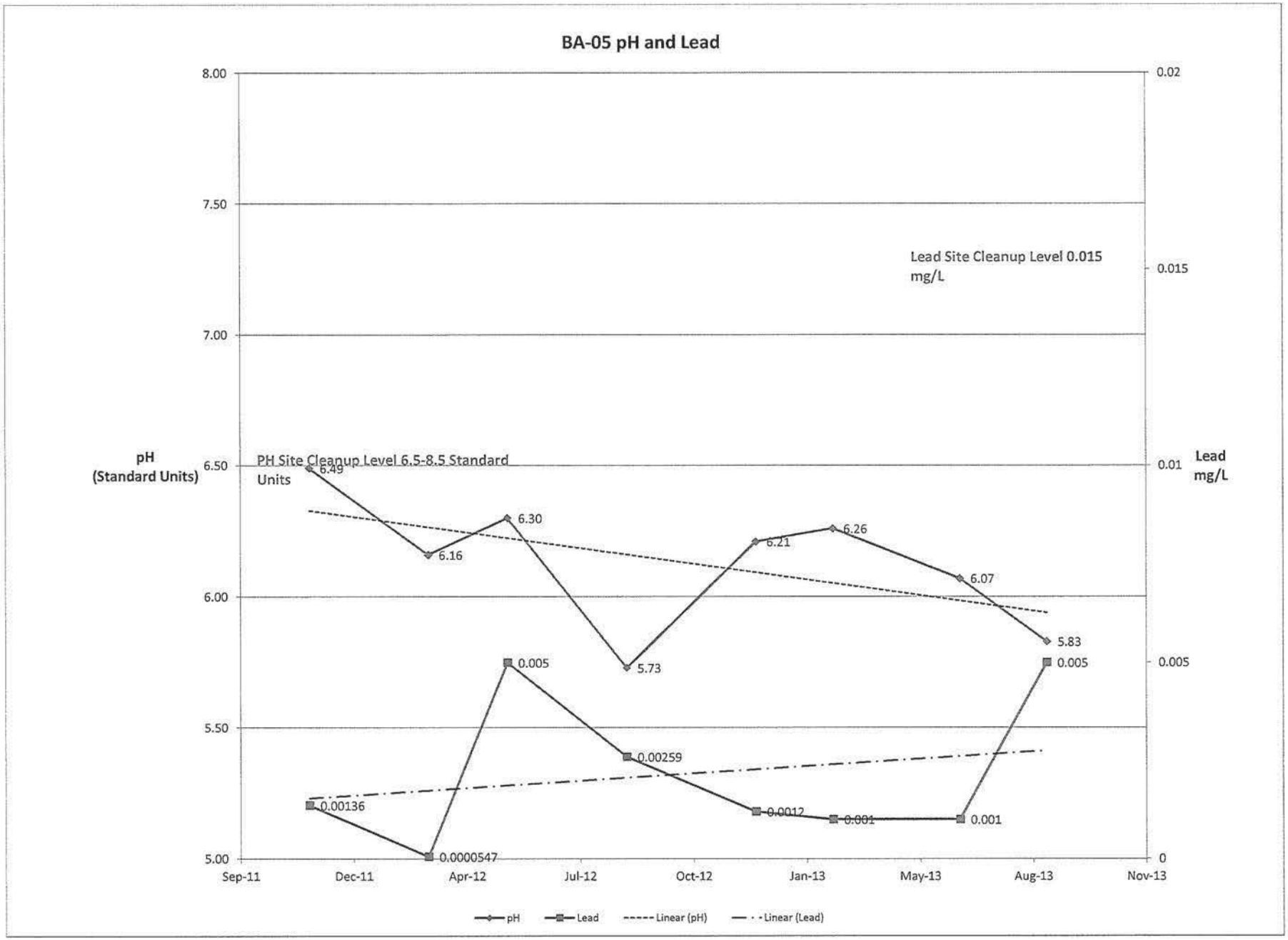

MW-4 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.002
0.002
0.000249
0.000153
0.000666
0.001
0.00115
0.005
0.00891
0.0314
0.00519
0.00547
0.0194
0.02
0.00269
0.02

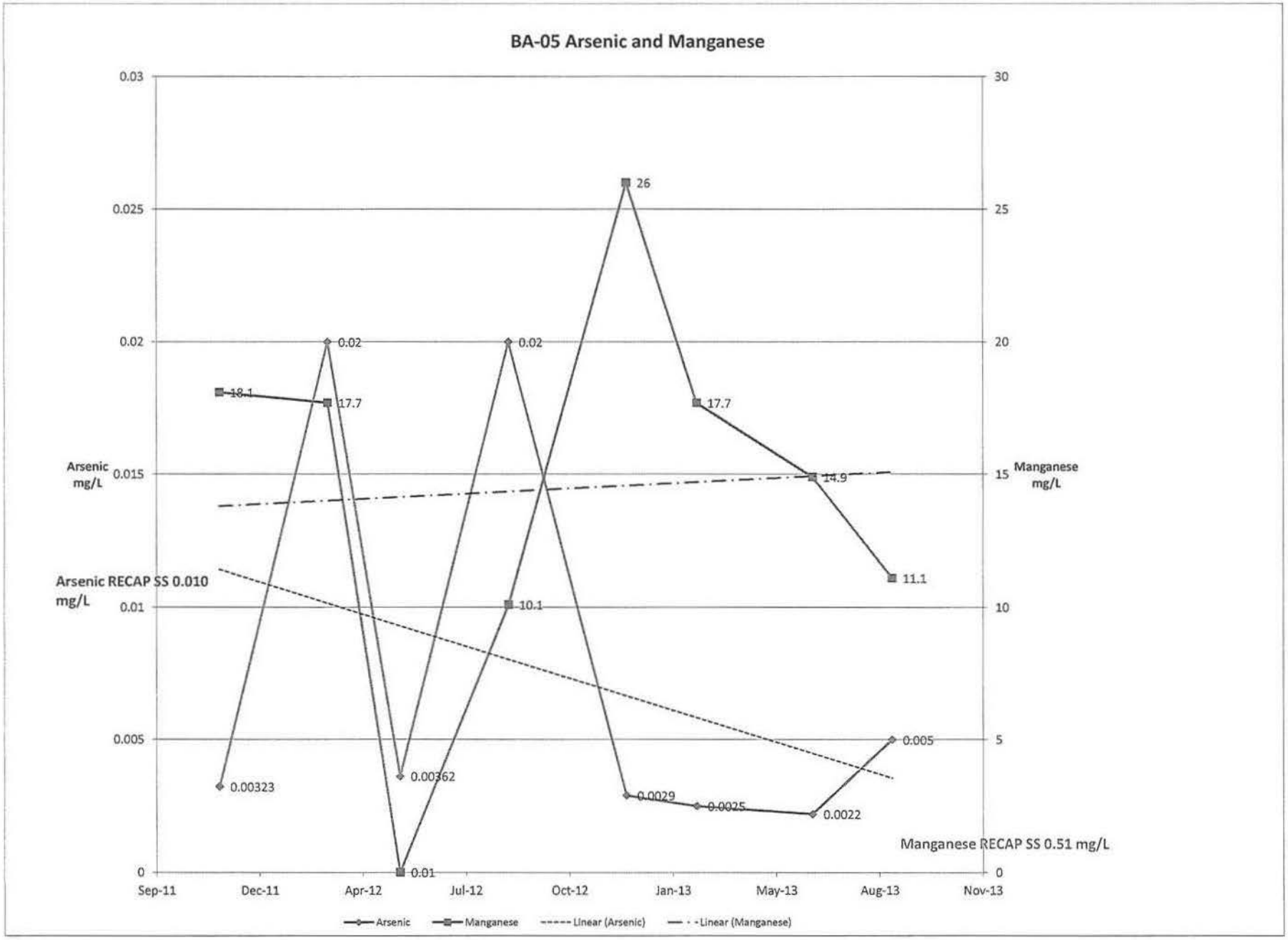

BA-01 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.025
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
0.0232
6.15
5.94
5.78
5.59
0.005
5.92
6.15
5.93
0.005
5.56
0.000724
0.001
0.001
0.001
0.001
pH
Lead
Linear (pH)
Linear (Lead)

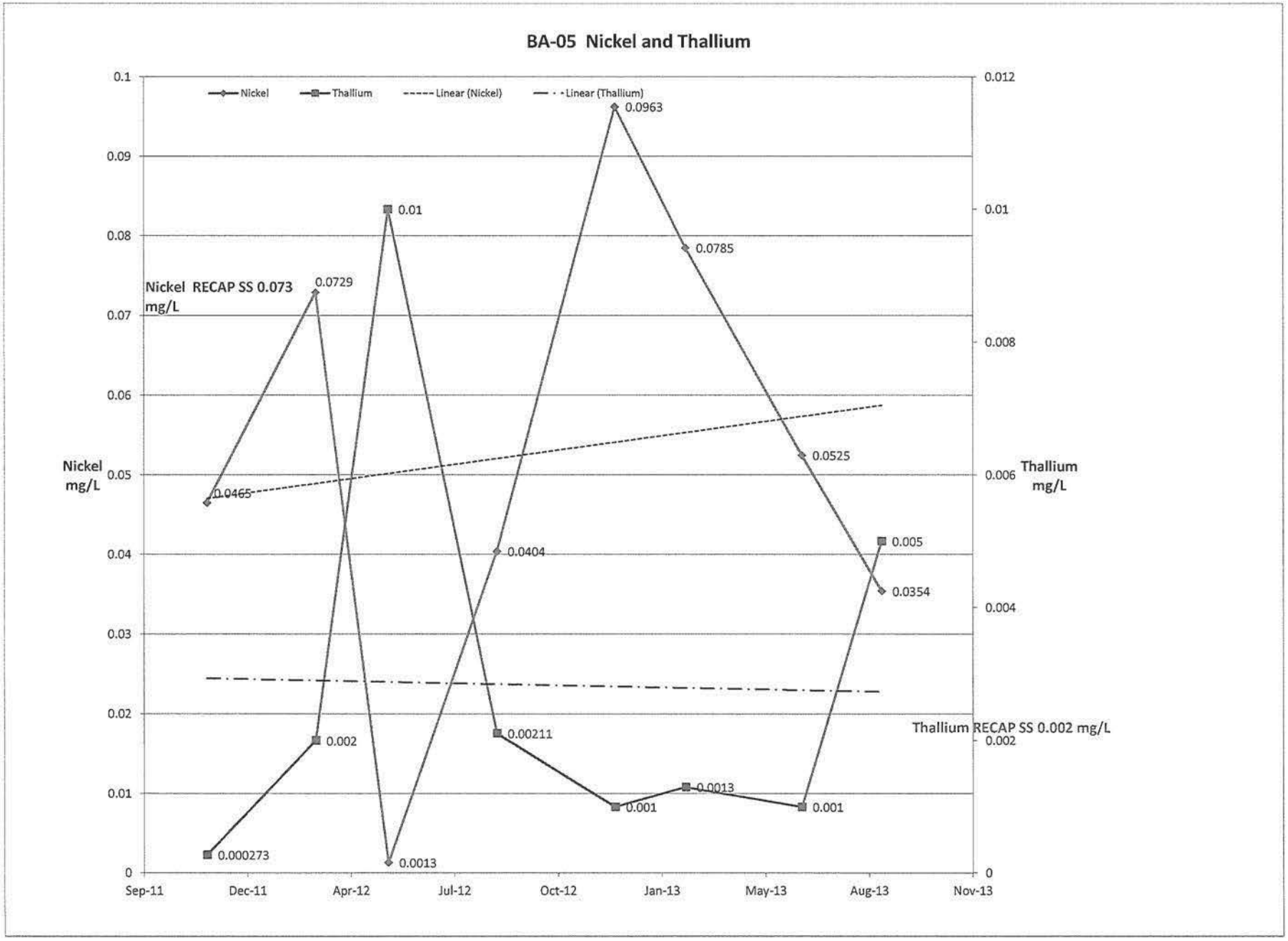

BA-01 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.025
0.02
0.015
0.01
0.005
0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
1.88
0.02
0.02
1.52
1.29
1.32
1.28
1.2
1.14
0.755
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.005
0.005
0.004
0.00362
0.0043
0.0036
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

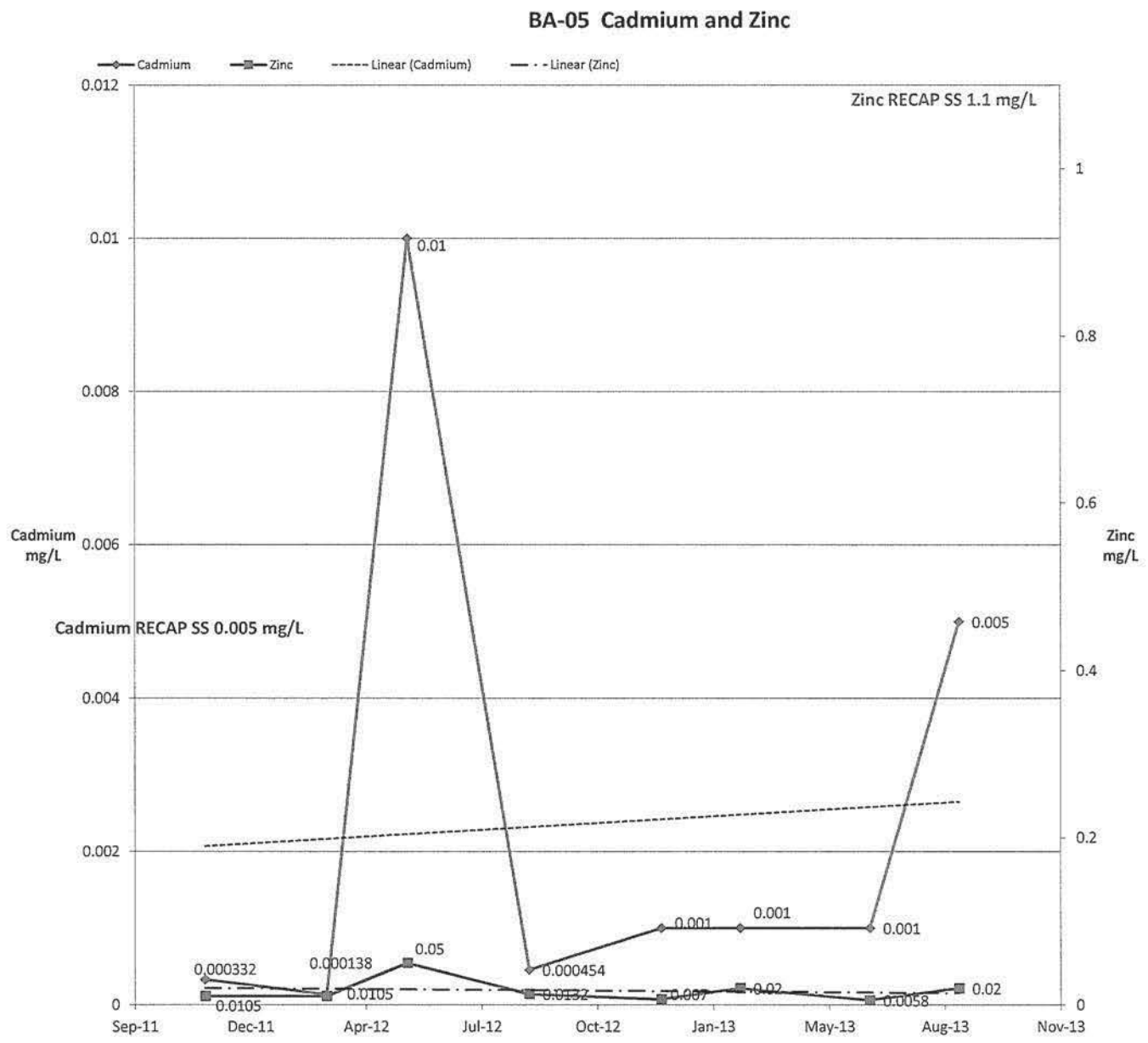

BA-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.162
0.01
0.005
0.0602
0.0431
0.0421
0.0397
0.0323
0.0315
0.002
0.0334
0.002
0.001
0.001
0.001
0.00029

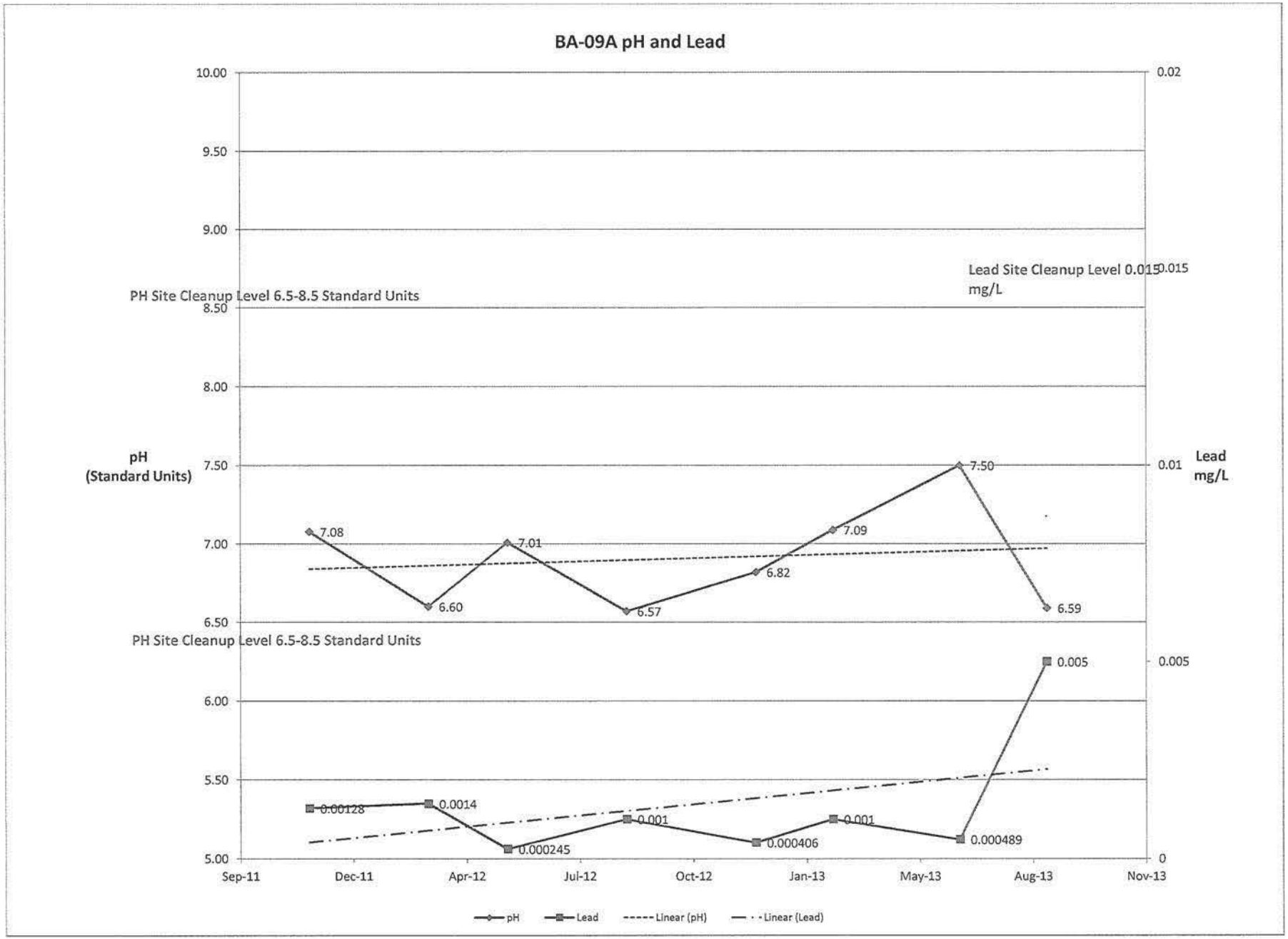

BA-01 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
1
0.8
0.6
0.4
0.2
0
0.0383
0.01
0.005
0.0923
0.103
0.0839
0.0842
0.0484
0.0659
0.002
0.0372
0.000095
0.001
0.0319
0.001
0.001
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

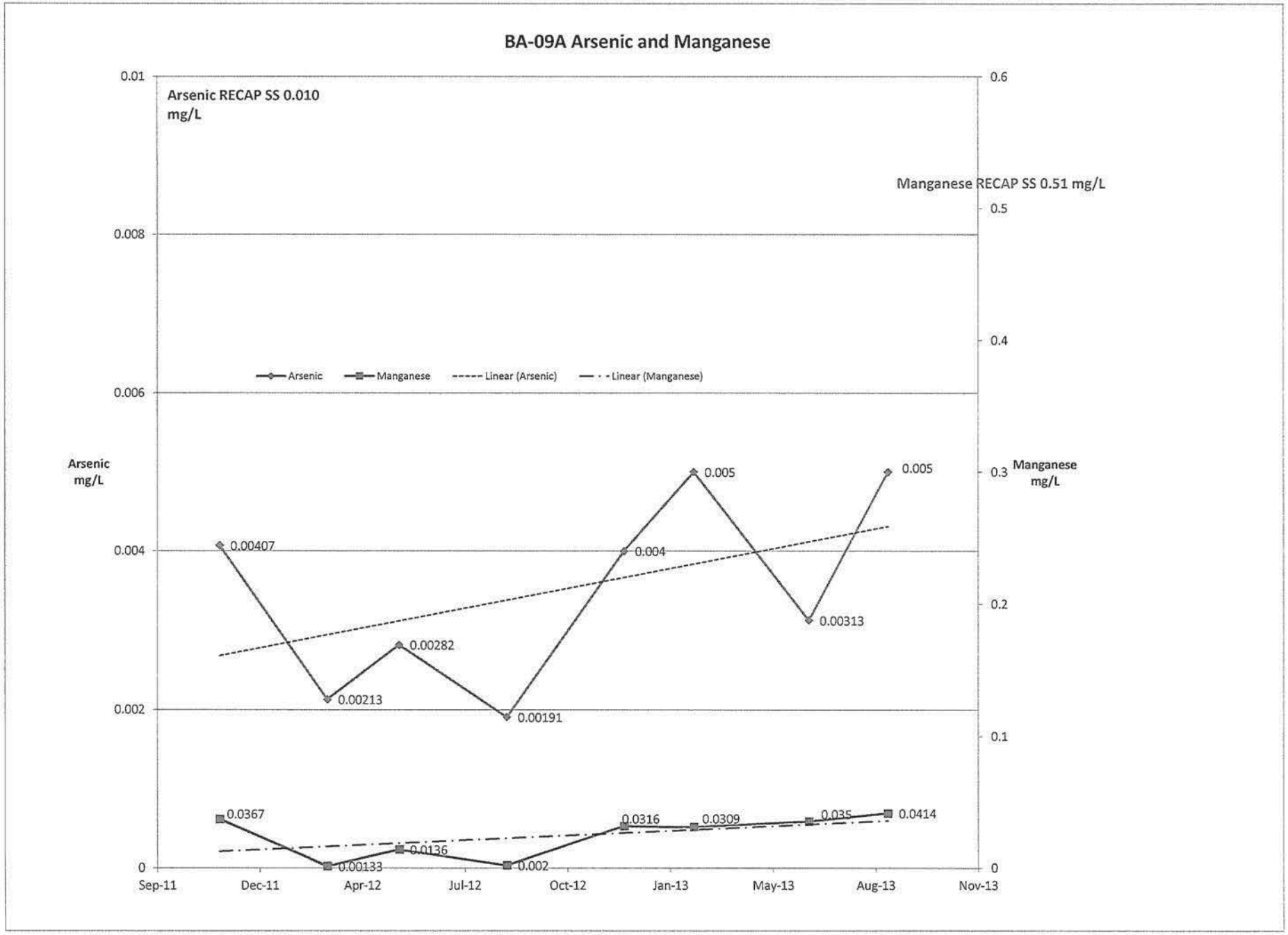

BA-05 pH and Lead
pH
(Standard Units)
Lead
mg/L
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
6.49
6.16
6.30
5.73
6.21
6.26
6.07
5.83
0.00136
0.0000547
0.005
0.00259
0.0012
0.001
0.001
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

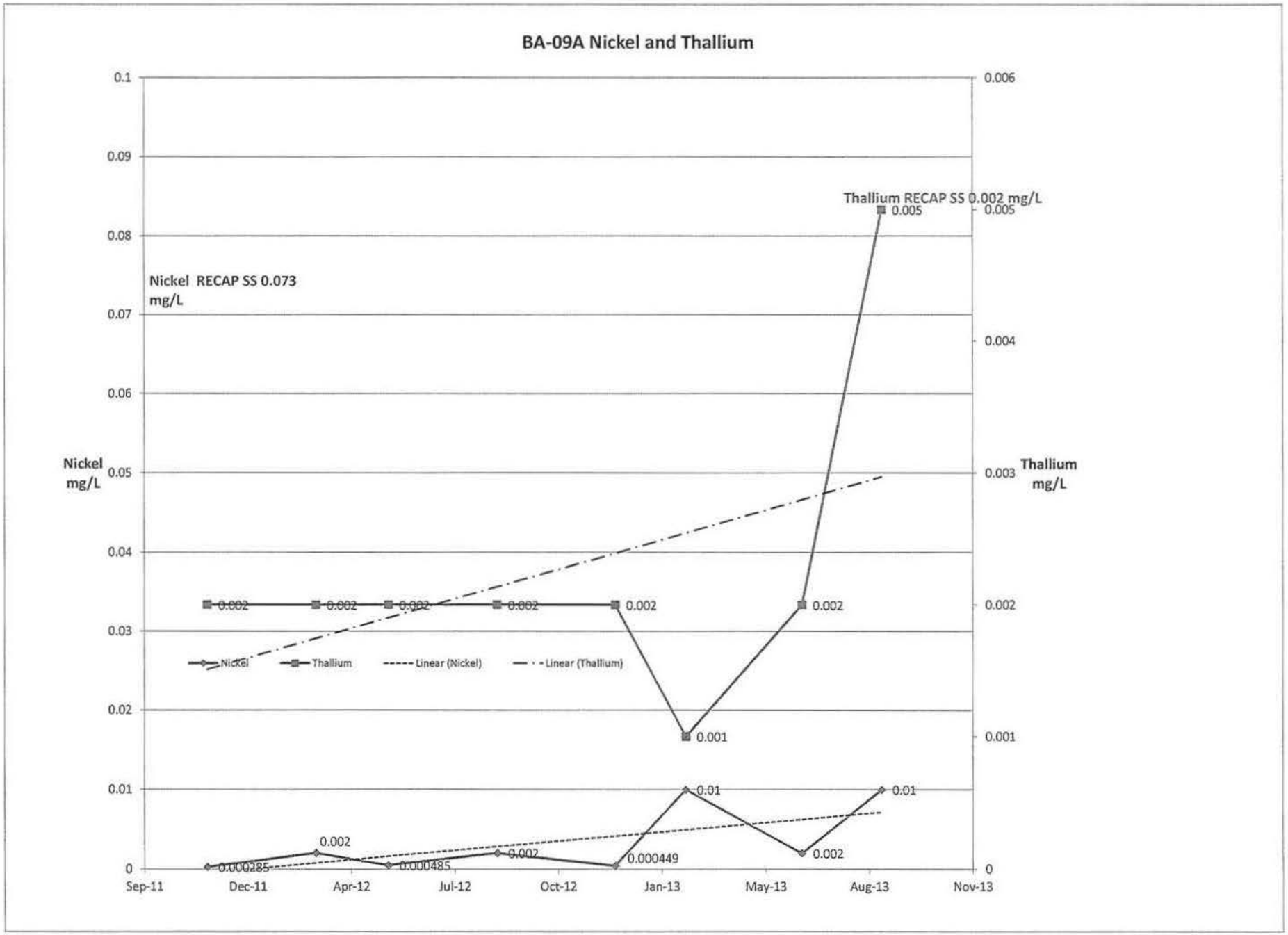

BA-05 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
30
25
20
15
10
5
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
18.1
17.7
0.02
0.00323
0.00362
0.01
0.02
10.1
26
17.7
14.9
11.1
0.0029
0.0025
0.0022
0.005
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

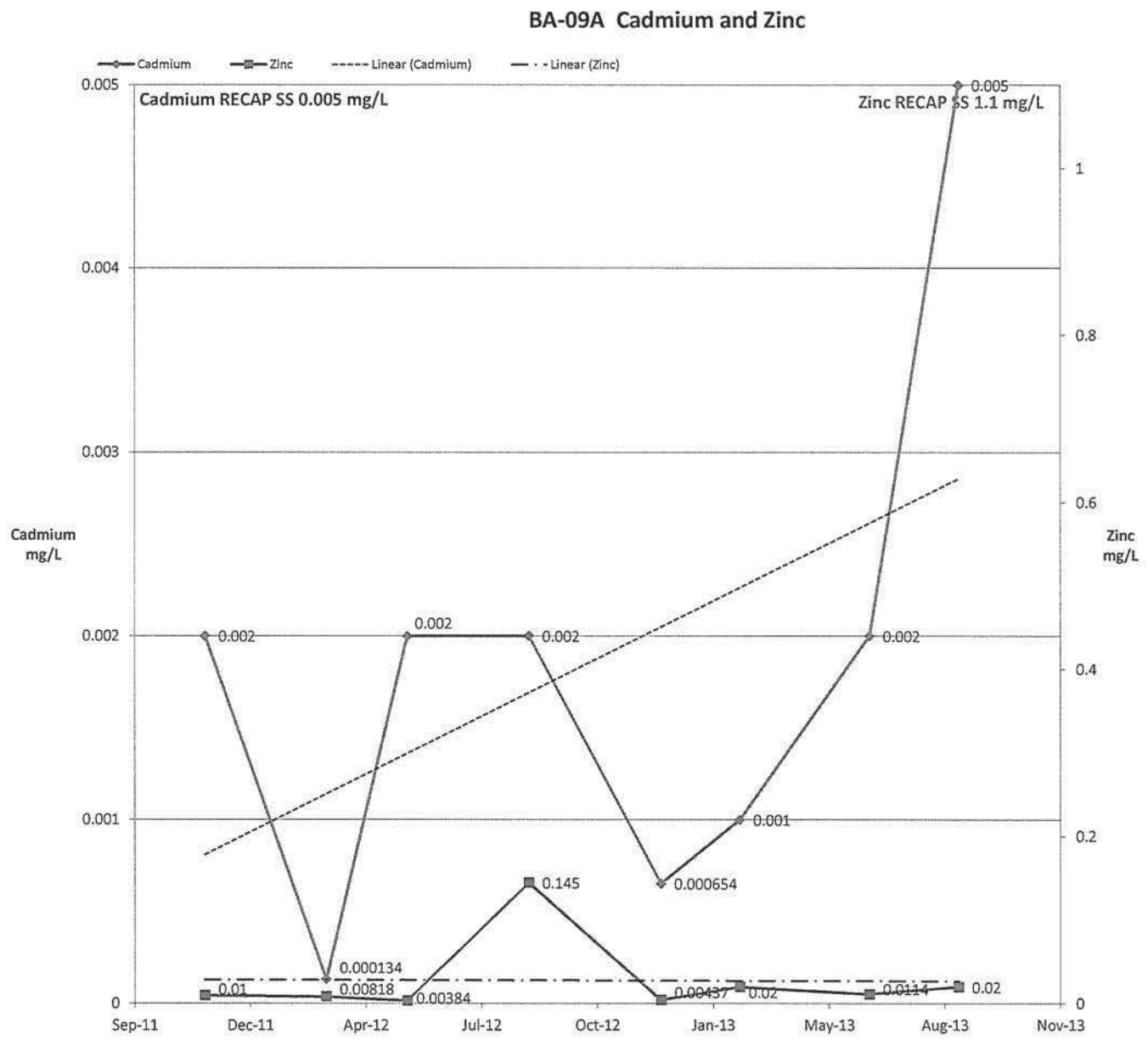

BA-05 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.0465
0.0729
0.0404
0.0963
0.0785
0.0525
0.0354
0.000273
0.002
0.0013
0.01
0.00211
0.001
0.0013
0.001
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

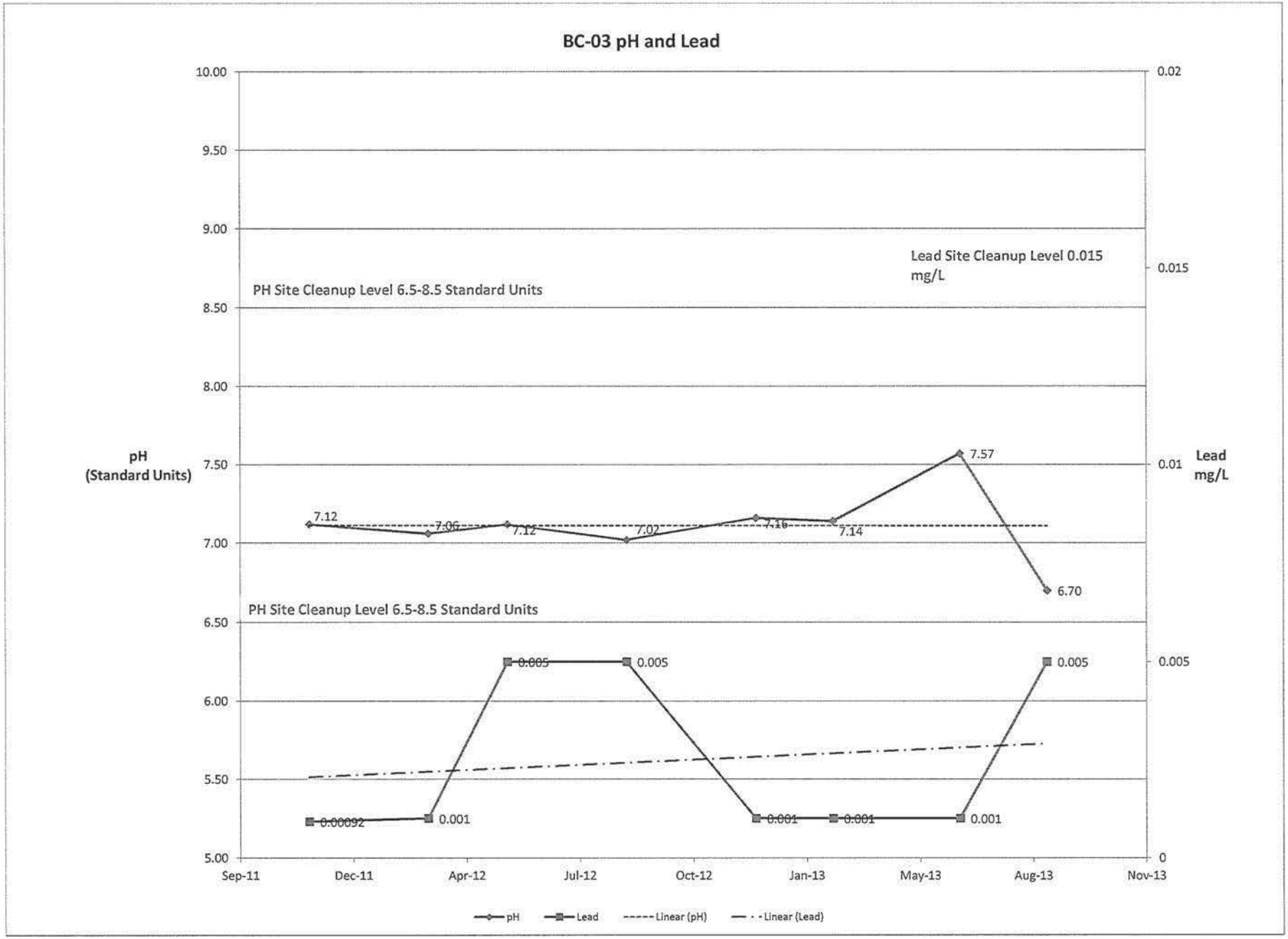

BA-05 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.01
0.005
0.001
0.001
0.001
0.000332
0.000138
0.05
0.000454
0.0105
0.0105
0.0132
0.007
0.02
0.0058
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

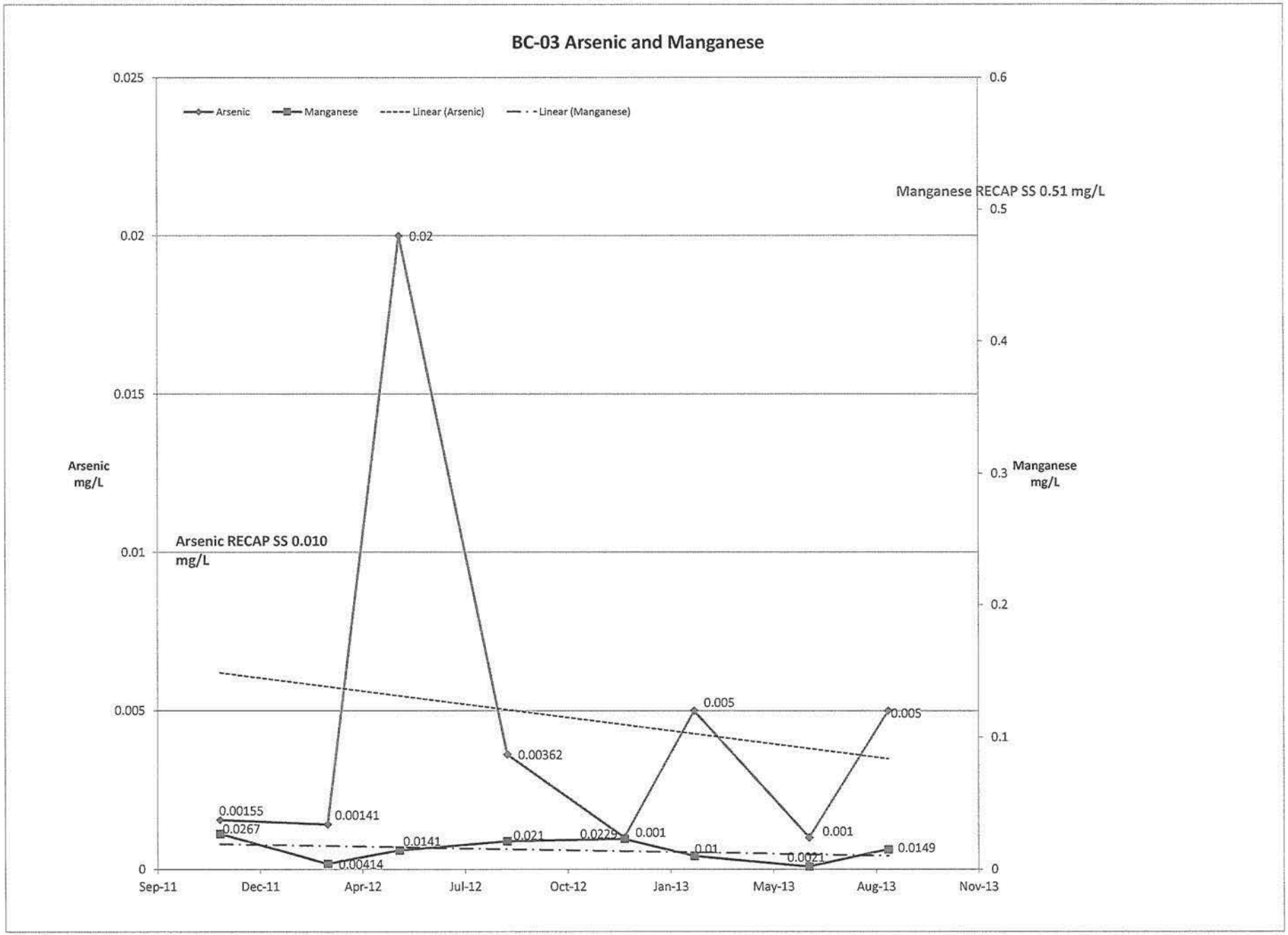

BA-09A pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.08
6.60
7.01
6.57
6.82
7.09
7.50
6.59
0.00128
0.0014
0.000245
0.001
0.000406
0.001
0.000489
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

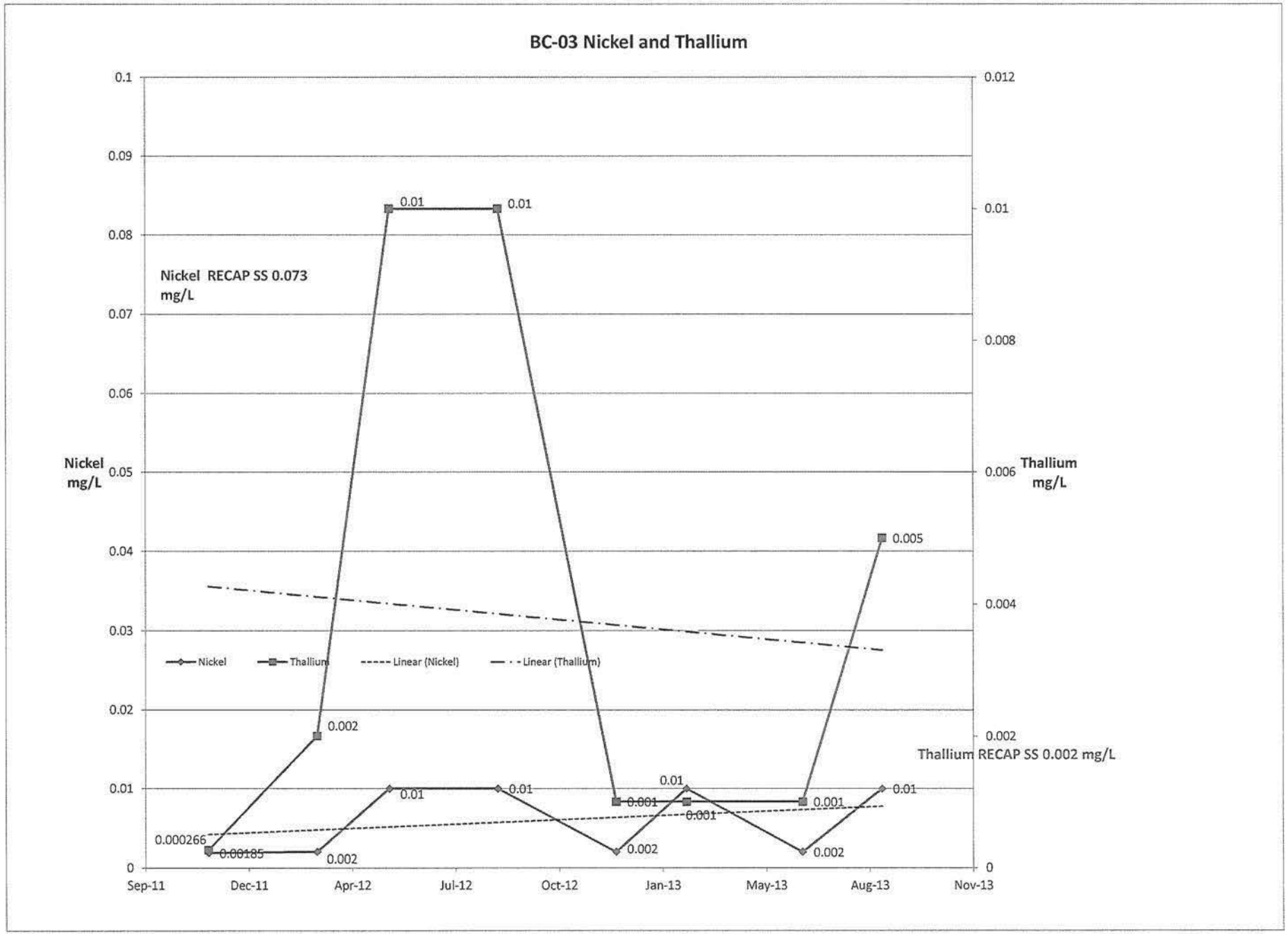

BA-09A Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.01
0.008
0.006
0.004
0.002
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00407
0.00213
0.00282
0.00191
0.004
0.005
0.00313
0.005
0.0367
0.00133
0.0136
0.002
0.0316
0.0309
0.035
0.0414
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

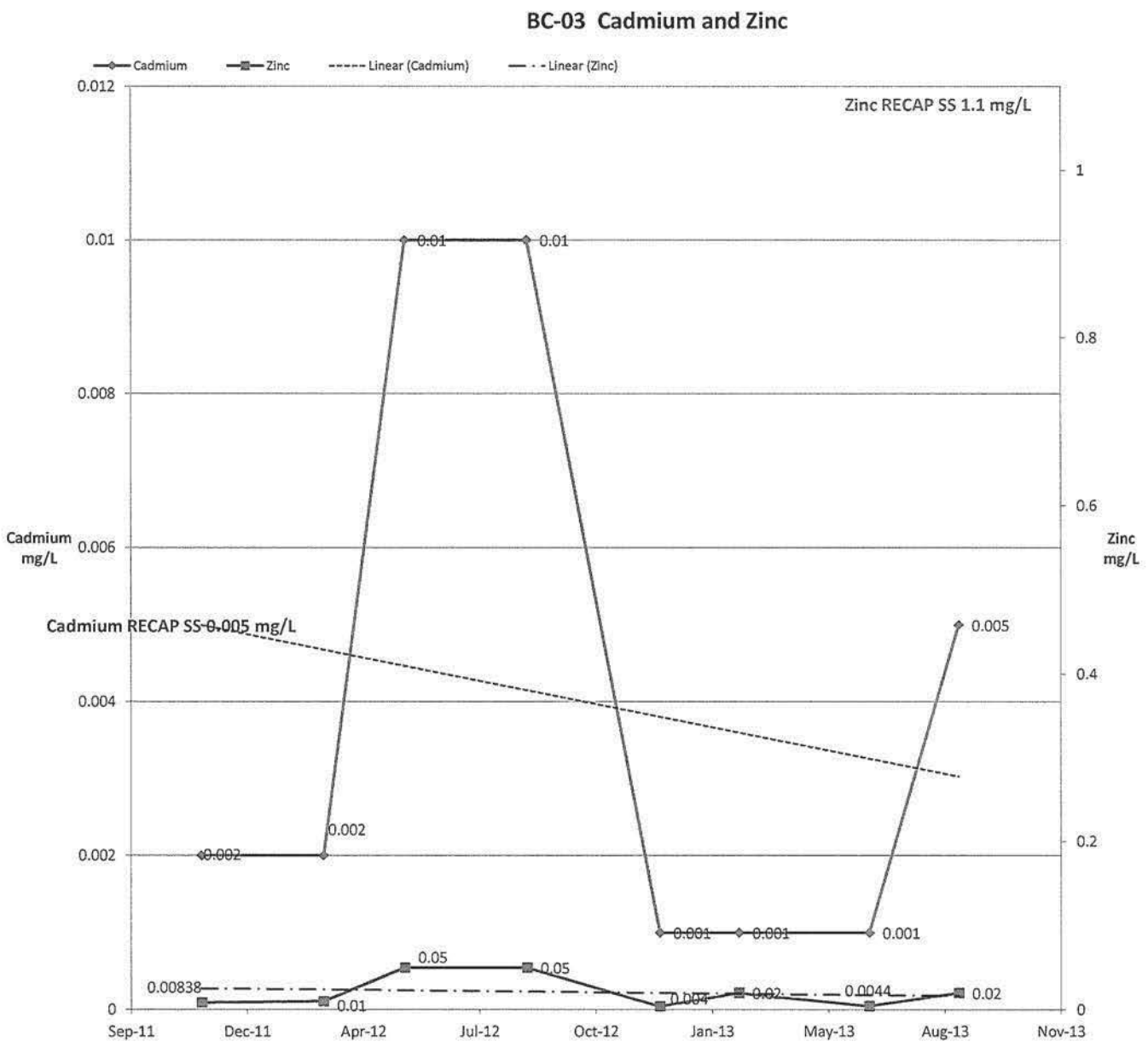

BA-09A Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.002
0.002
0.002
0.002
0.002
0.002
0.001
0.005
0.01
0.01
0.002
0.000285
0.000485
0.002
0.000449
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

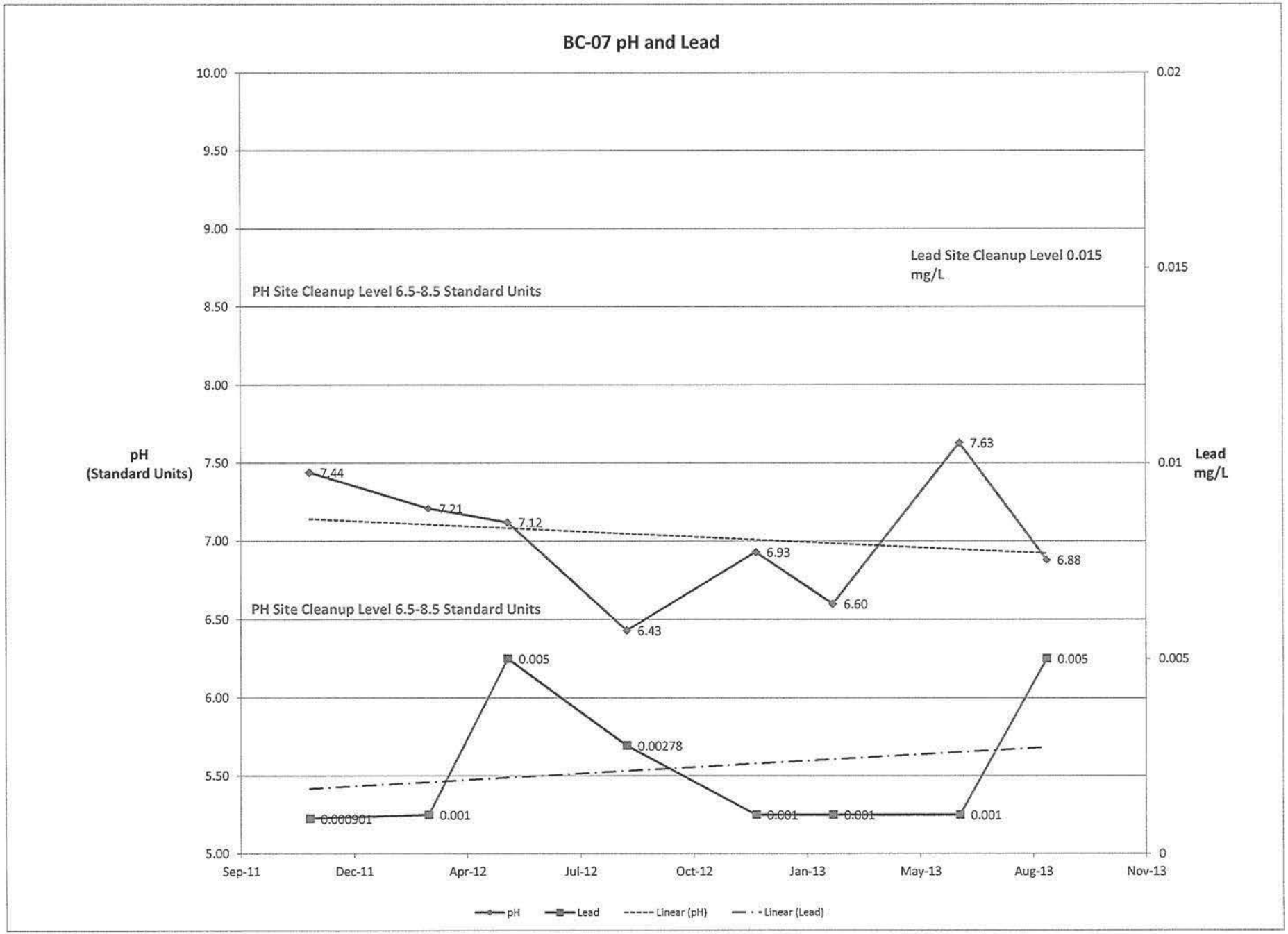

BA-09A Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.002
0.002
0.001
0.000654
0.000134
0.145
0.005
0.01
0.00818
0.00384
0.00437
0.02
0.0114
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

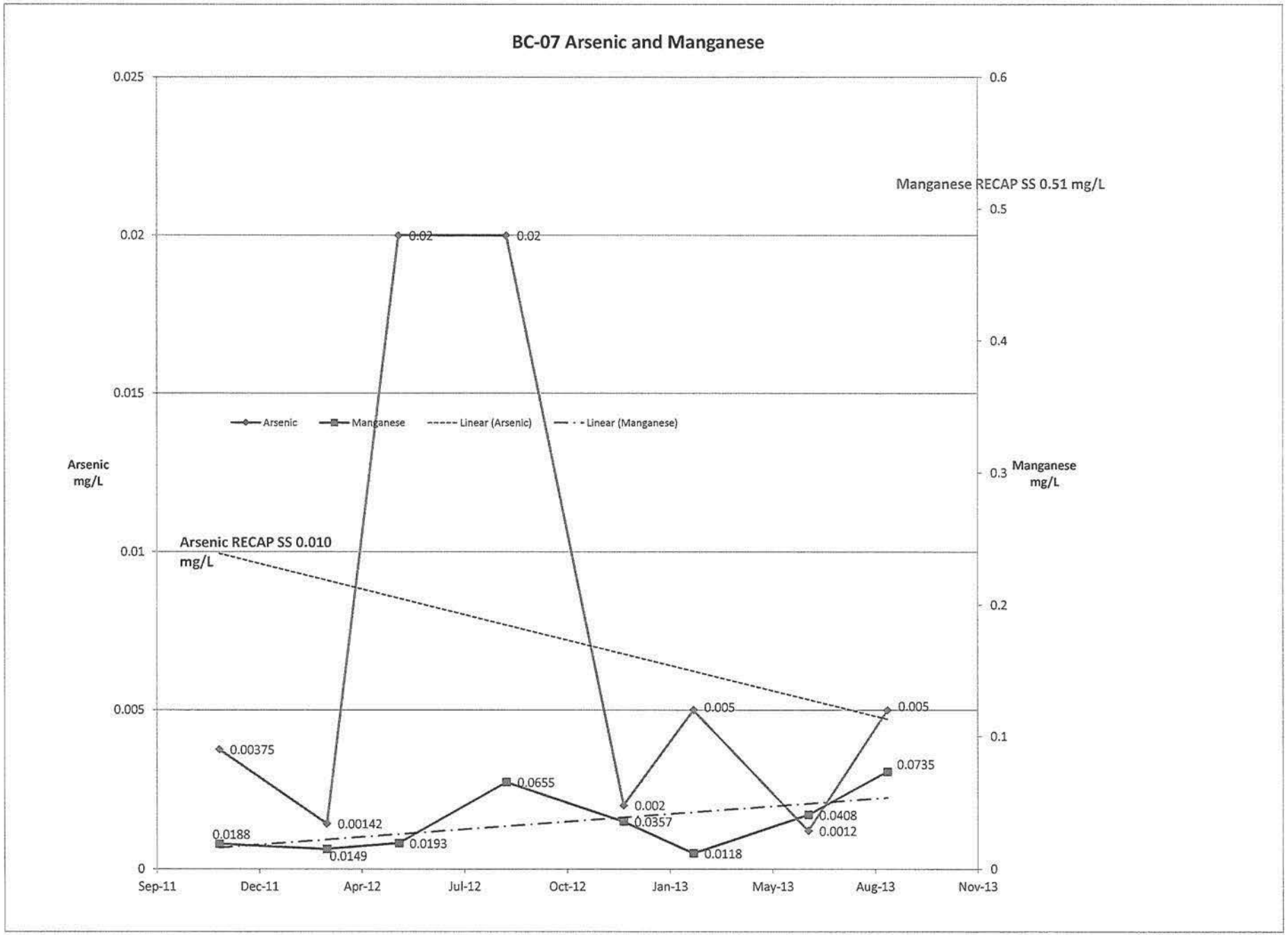

BC-03 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.12
7.06
7.12
7.02
7.16
7.14
7.57
6.70
0.00092
0.001
0.005
0.005
0.001
0.001
0.001
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

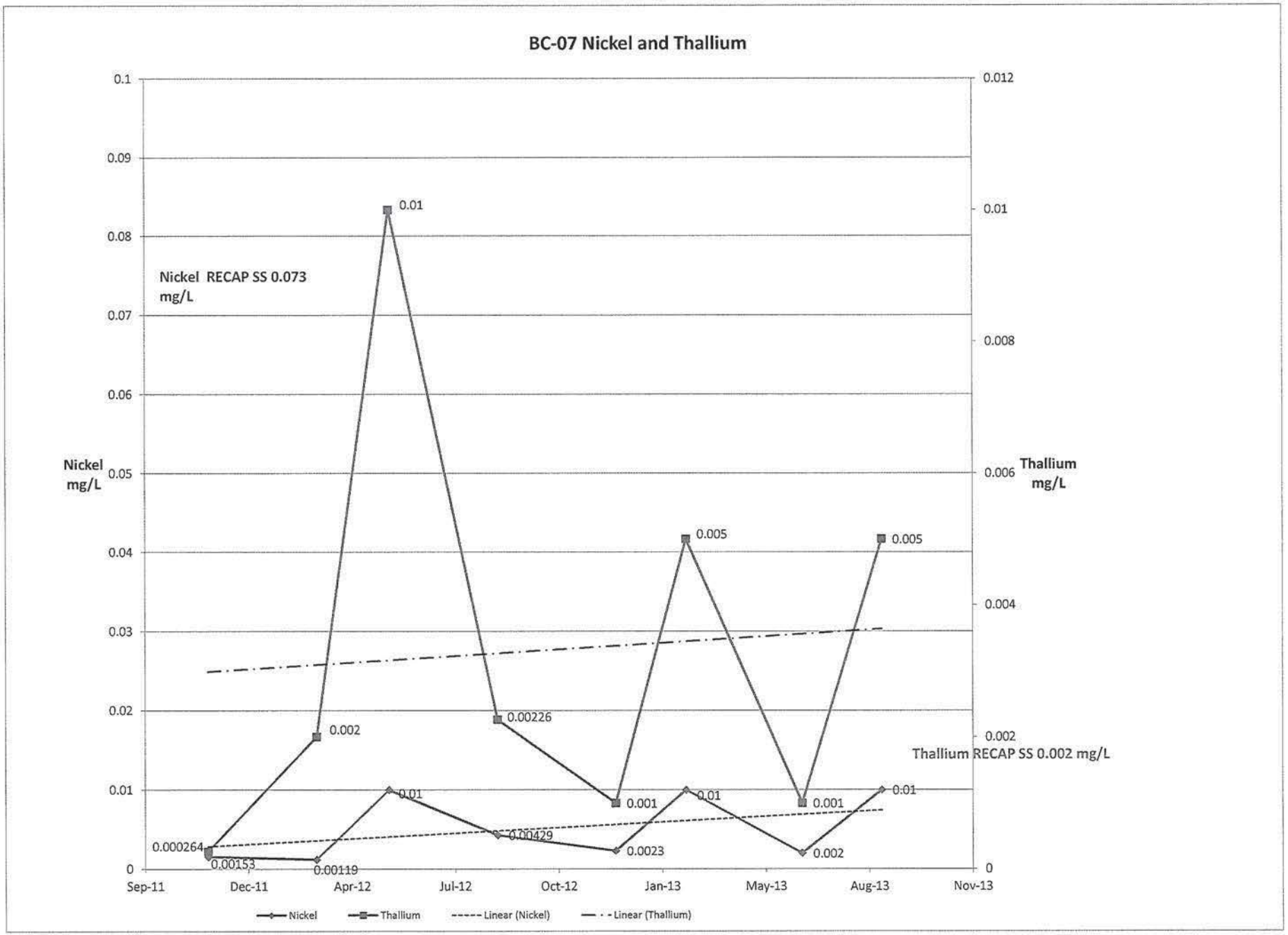

BC-03 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.02
0.00362
0.005
0.005
0.00155
0.00141
0.0267
0.00414
0.0141
0.021
0.0229
0.001
0.01
0.0021
0.001
0.0149

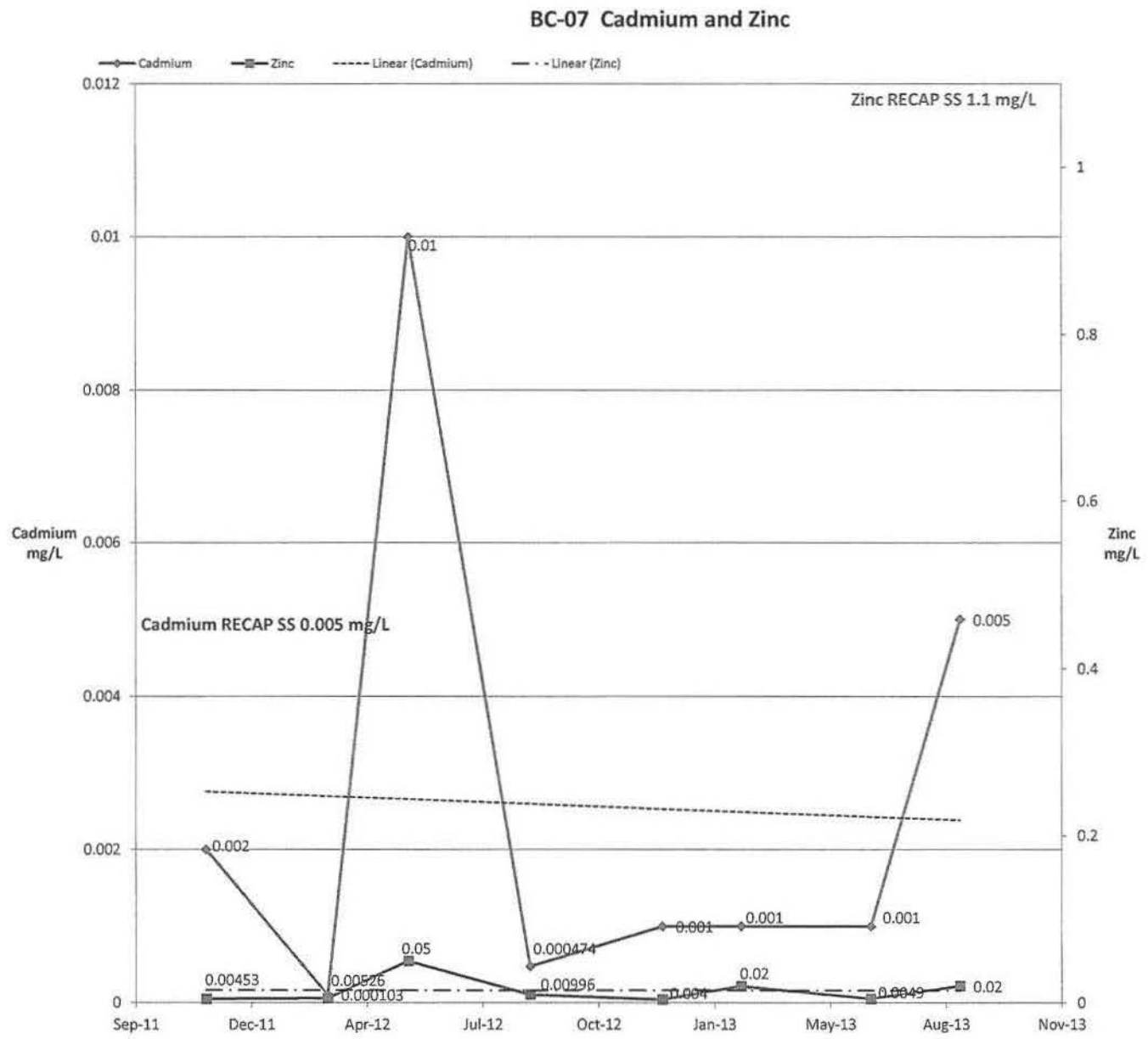

BC-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.01
0.005
0.002
0.01
0.01
0.01
0.01
0.001
0.001
0.001
0.002
0.002
0.002
0.000266
0.00185

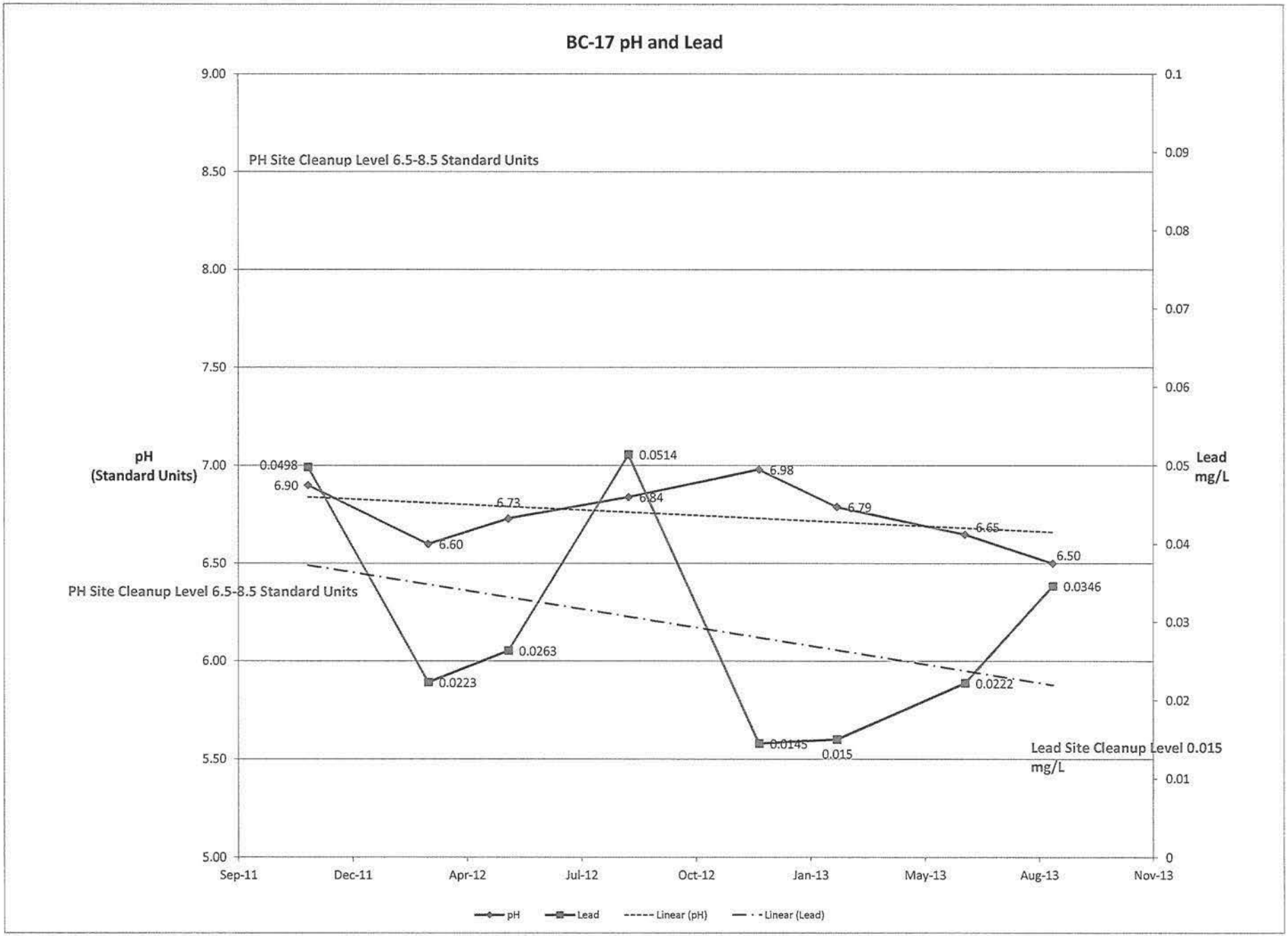

BC-03 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.01
0.01
0.001
0.001
0.001
0.005
0.05
0.05
0.01
0.00838
0.004
0.02
0.0044
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

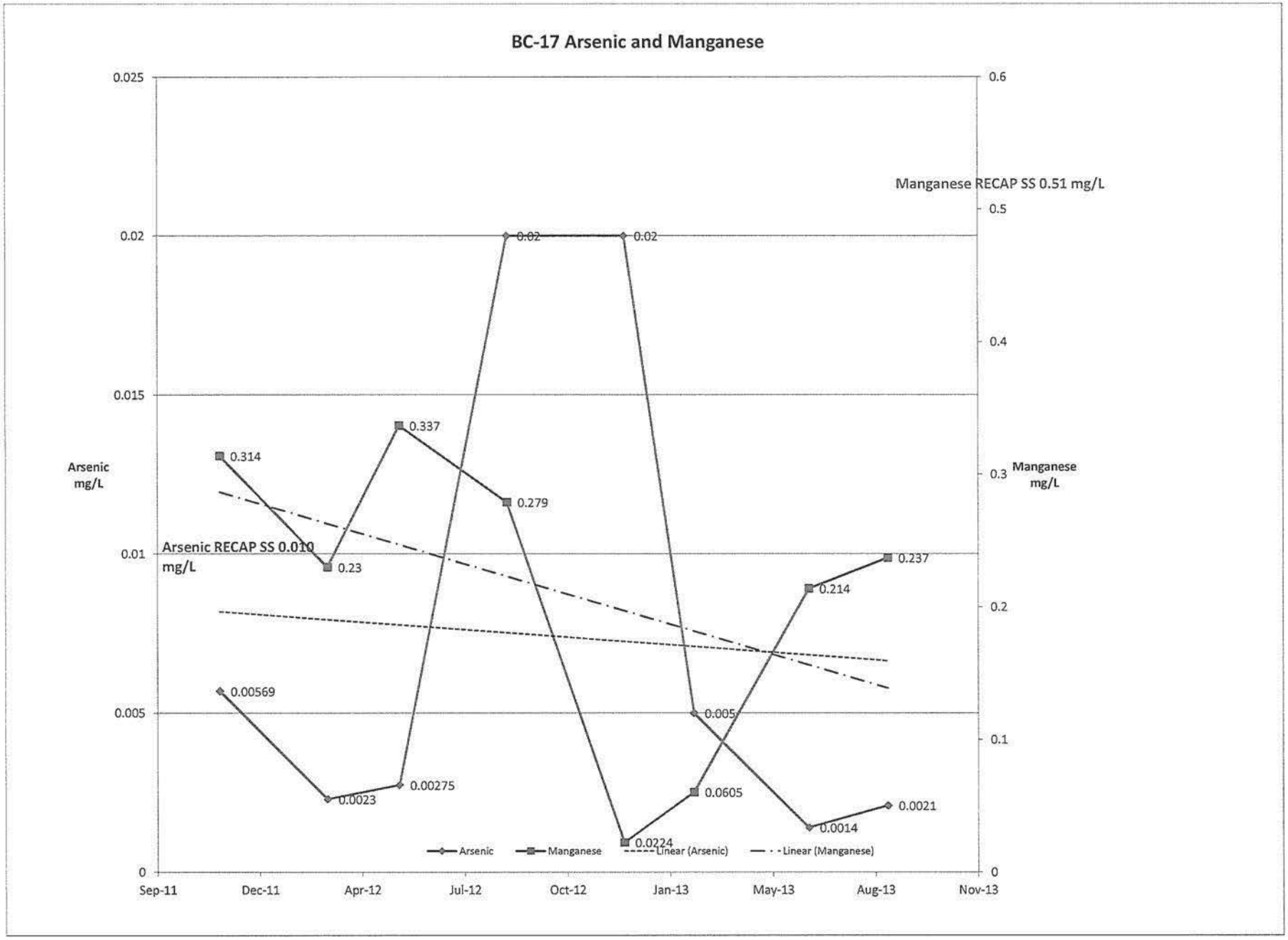

BC-07 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.44
7.21
7.12
6.43
6.93
6.60
7.63
6.88
0.000901
0.001
0.005
0.00278
0.001
0.001
0.001
0.005
pH
Lead
Linear (pH)
Linear (Lead)

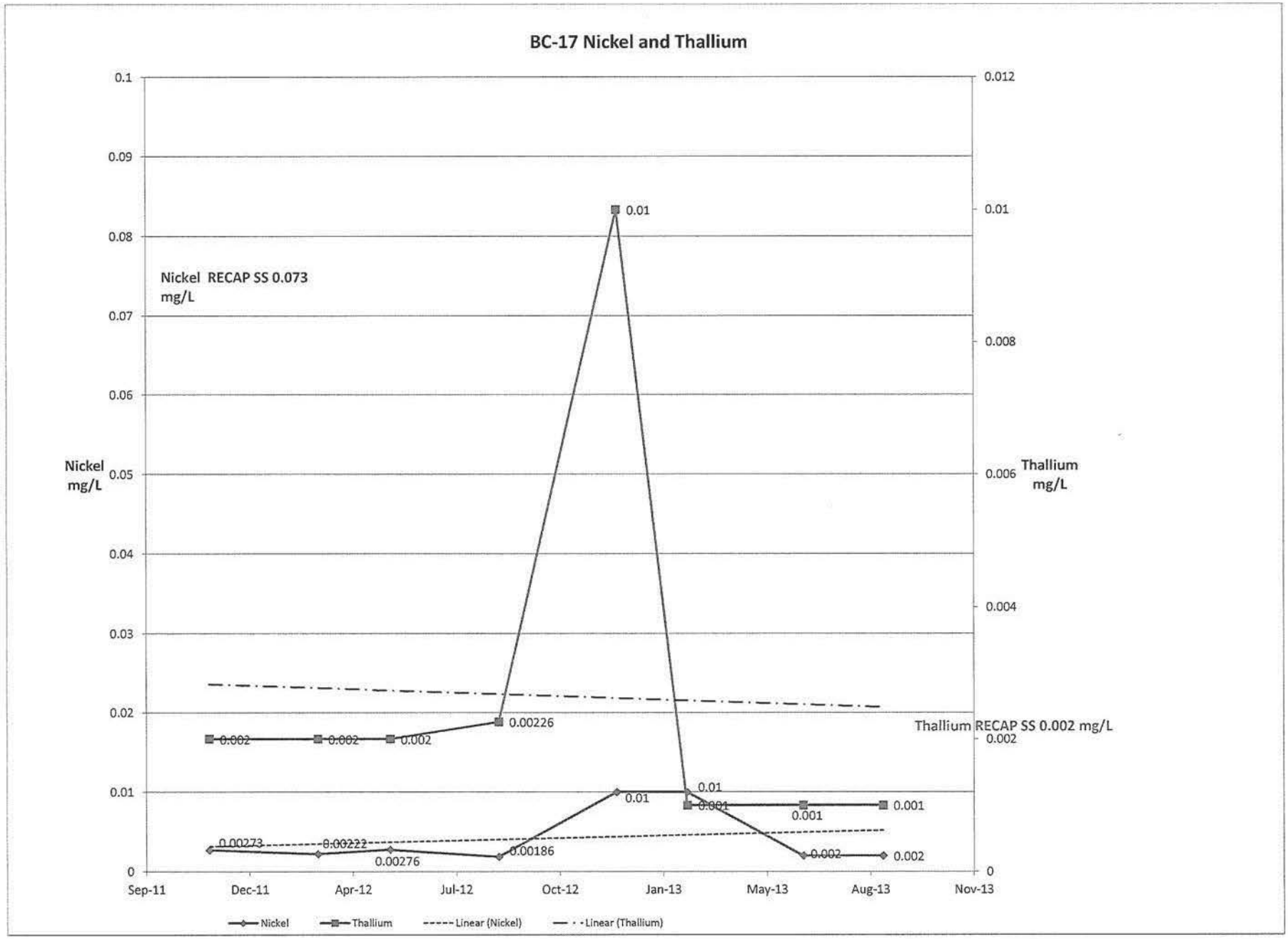

BC-07 Arsenic and Manganese
Arsenic
mg/L
Manganese
mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.02
0.02
0.00375
0.00142
0.0188
0.0149
0.0193
0.0655
0.002
0.0357
0.005
0.0118
0.0408
0.0012
0.005
0.0735

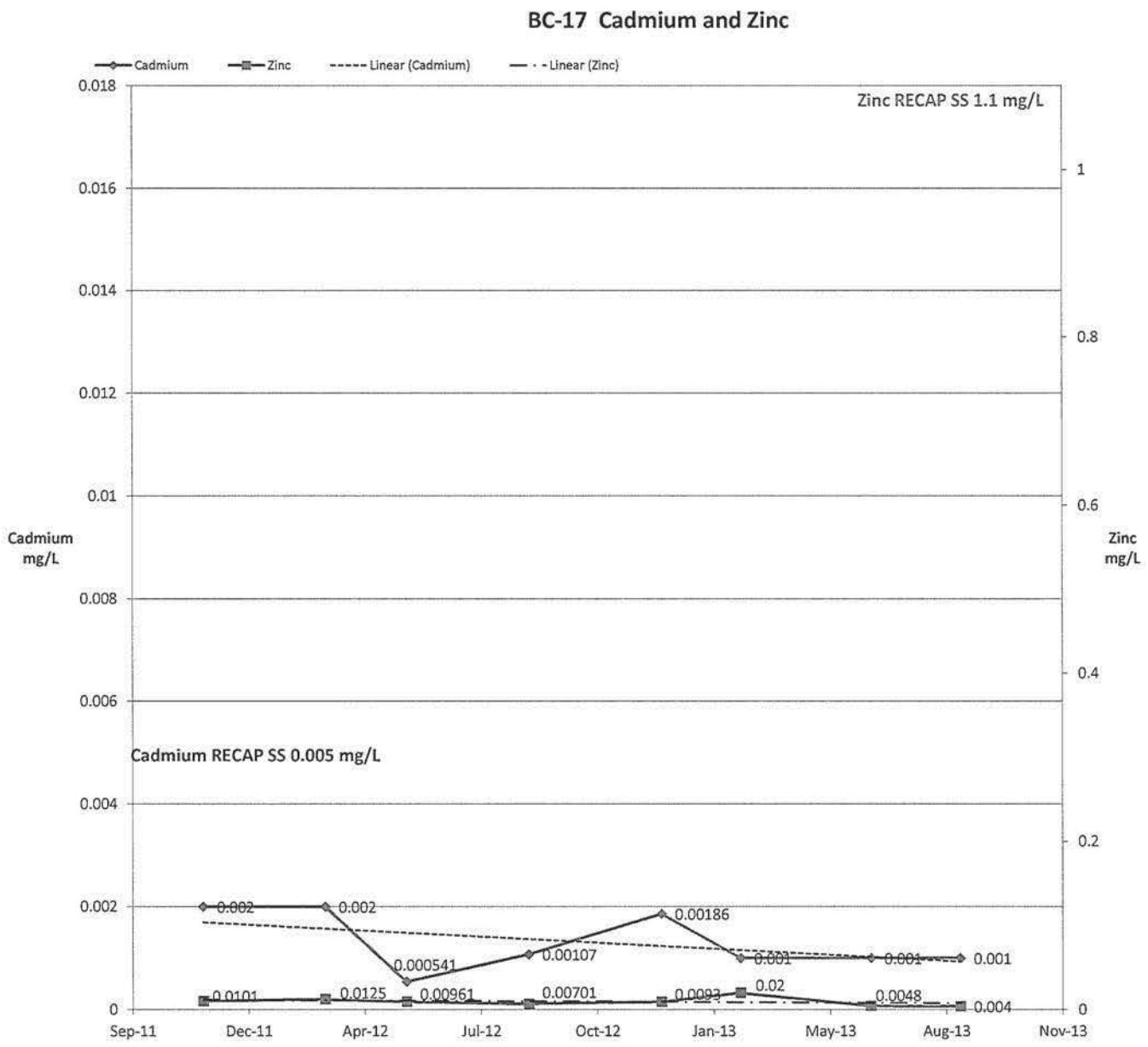

BC-07 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.002
0.00226
0.005
0.005
0.001
0.001
0.01
0.01
0.01
0.000264
0.00153
0.00119
0.00429
0.0023
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

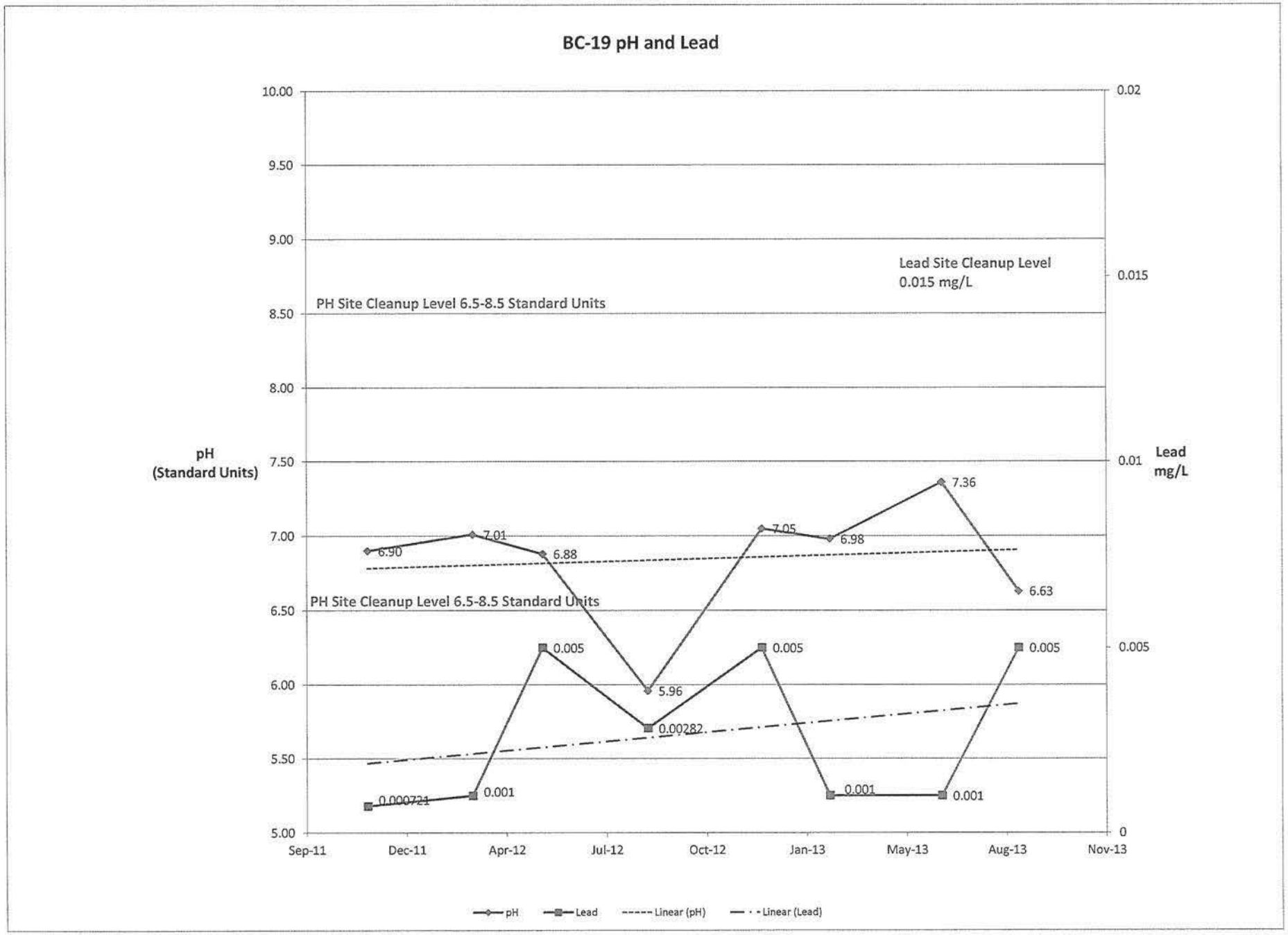

BC-07 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.01
0.002
0.005
0.001
0.001
0.001
0.000474
0.05
0.02
0.02
0.00453
0.00526
0.000103
0.00996
0.004
0.0049
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

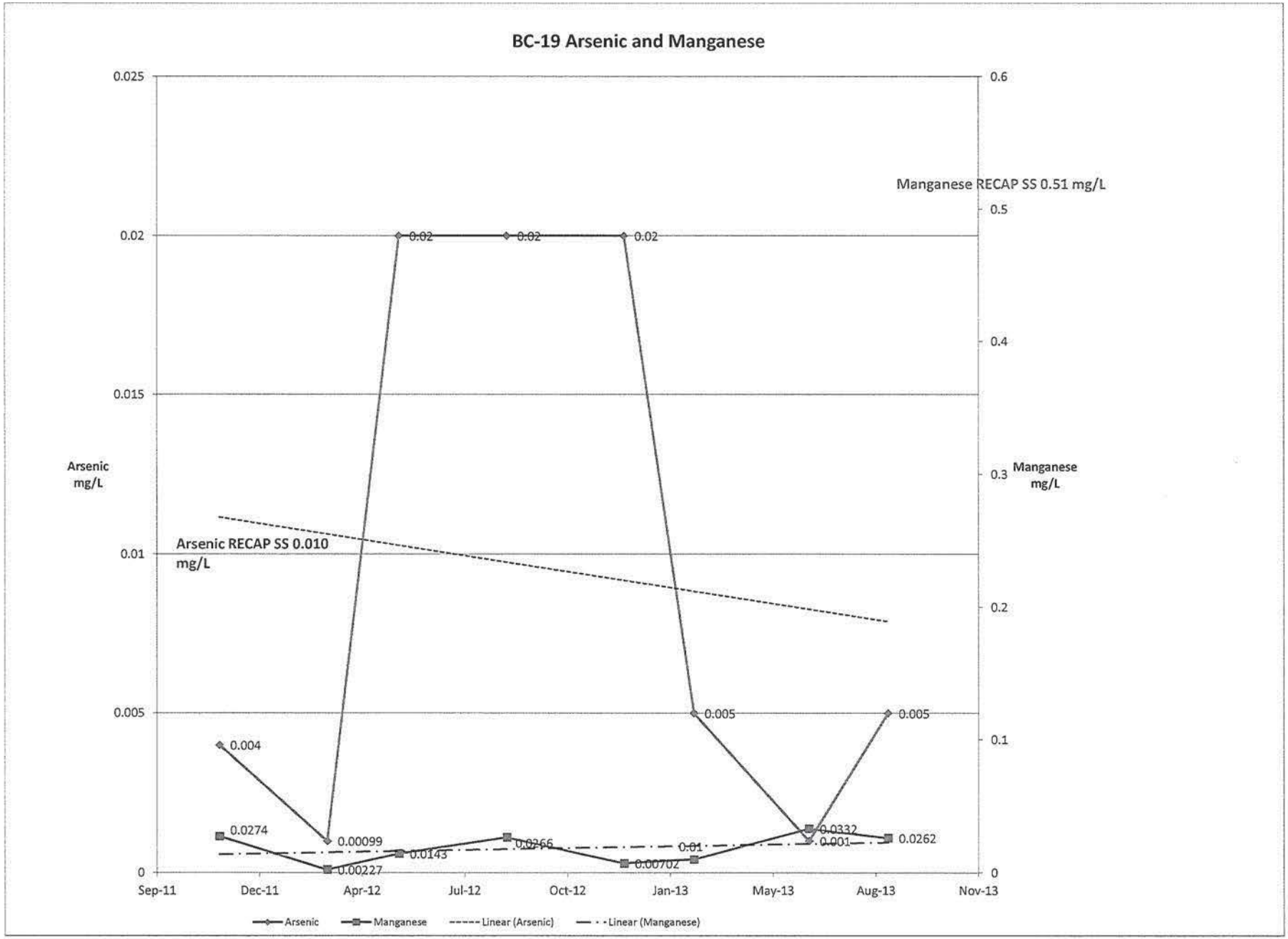

BC-17 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.0498
6.90
6.60
6.73
0.0223
0.0263
0.0514
6.84
6.98
0.0145
0.015
6.79
6.65
0.0222
6.50
0.0346
pH
Lead
Linear (pH)
Linear (Lead)

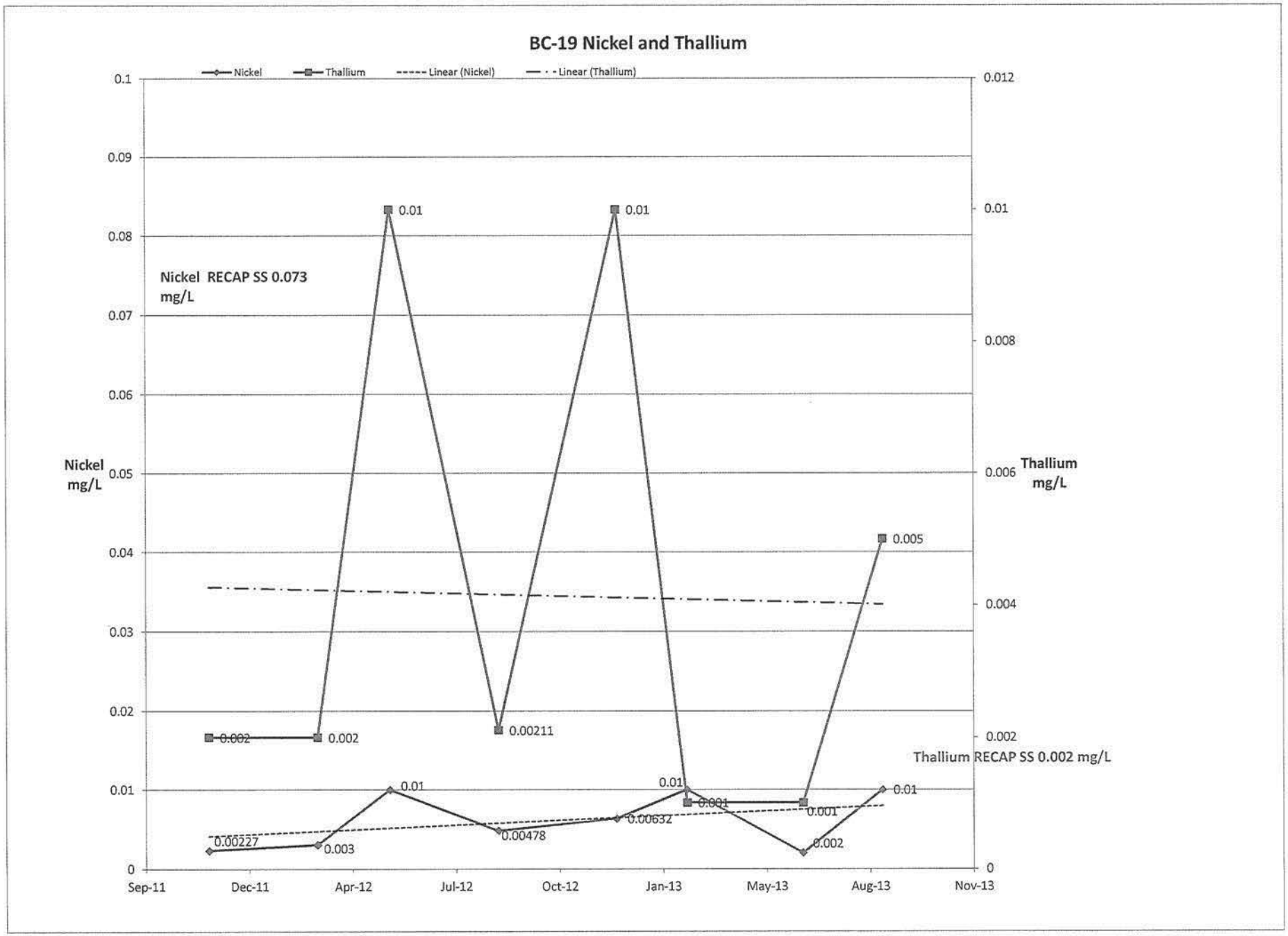

BC-17 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.314
0.23
0.337
0.279
0.02
0.02
0.0224
0.0605
0.214
0.237
0.00569
0.0023
0.00275
0.005
0.0014
0.0021
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

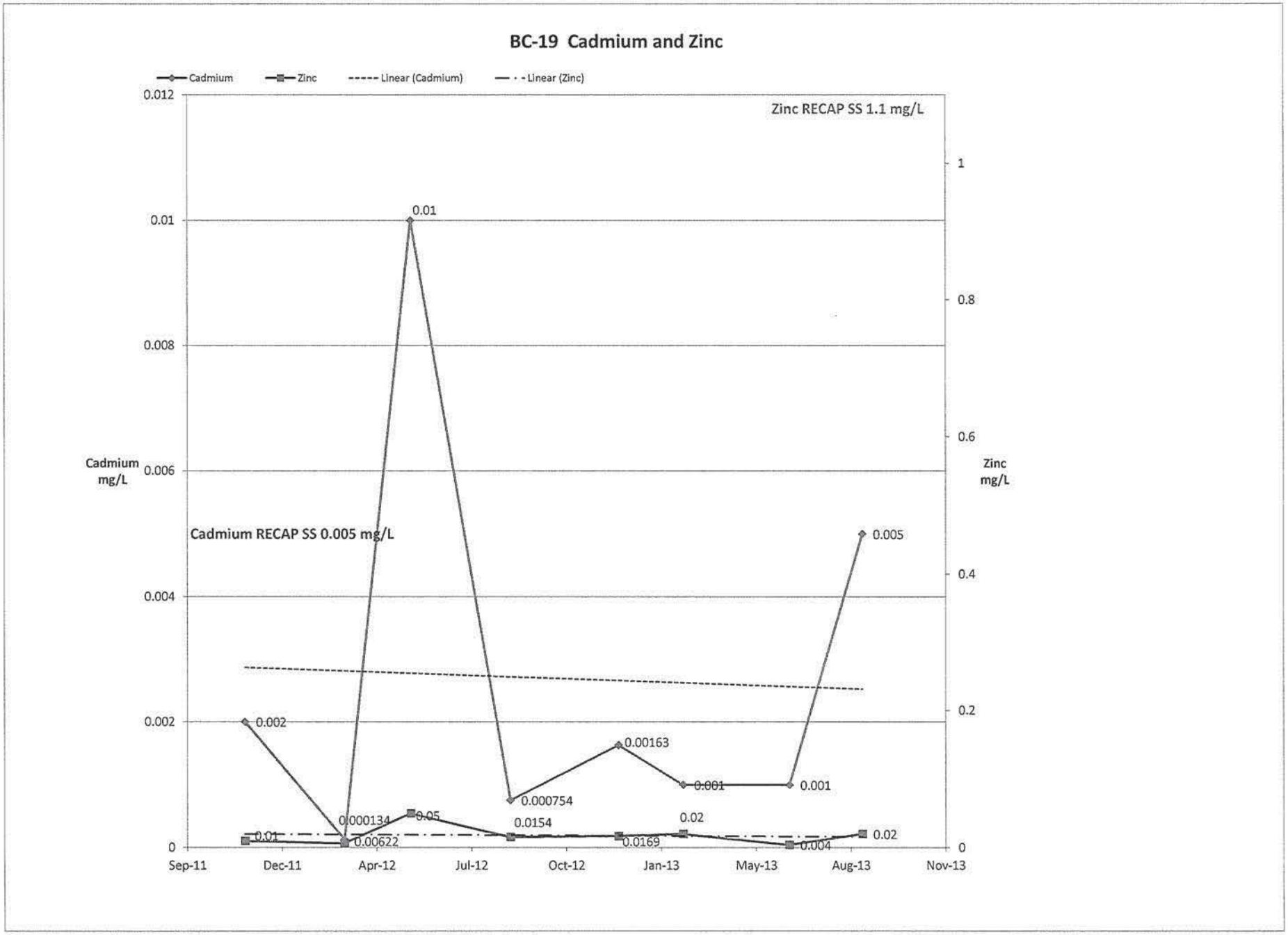

BC-17 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.00226
0.002
0.002
0.002
0.01
0.01
0.001
0.001
0.001
0.00273
0.00222
0.00276
0.00186
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)


BC-17 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
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.000541
0.00107
0.00186
0.001
0.001
0.001
0.0101
0.0125
0.00961
0.00701
0.0093
0.02
0.0048
0.004
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

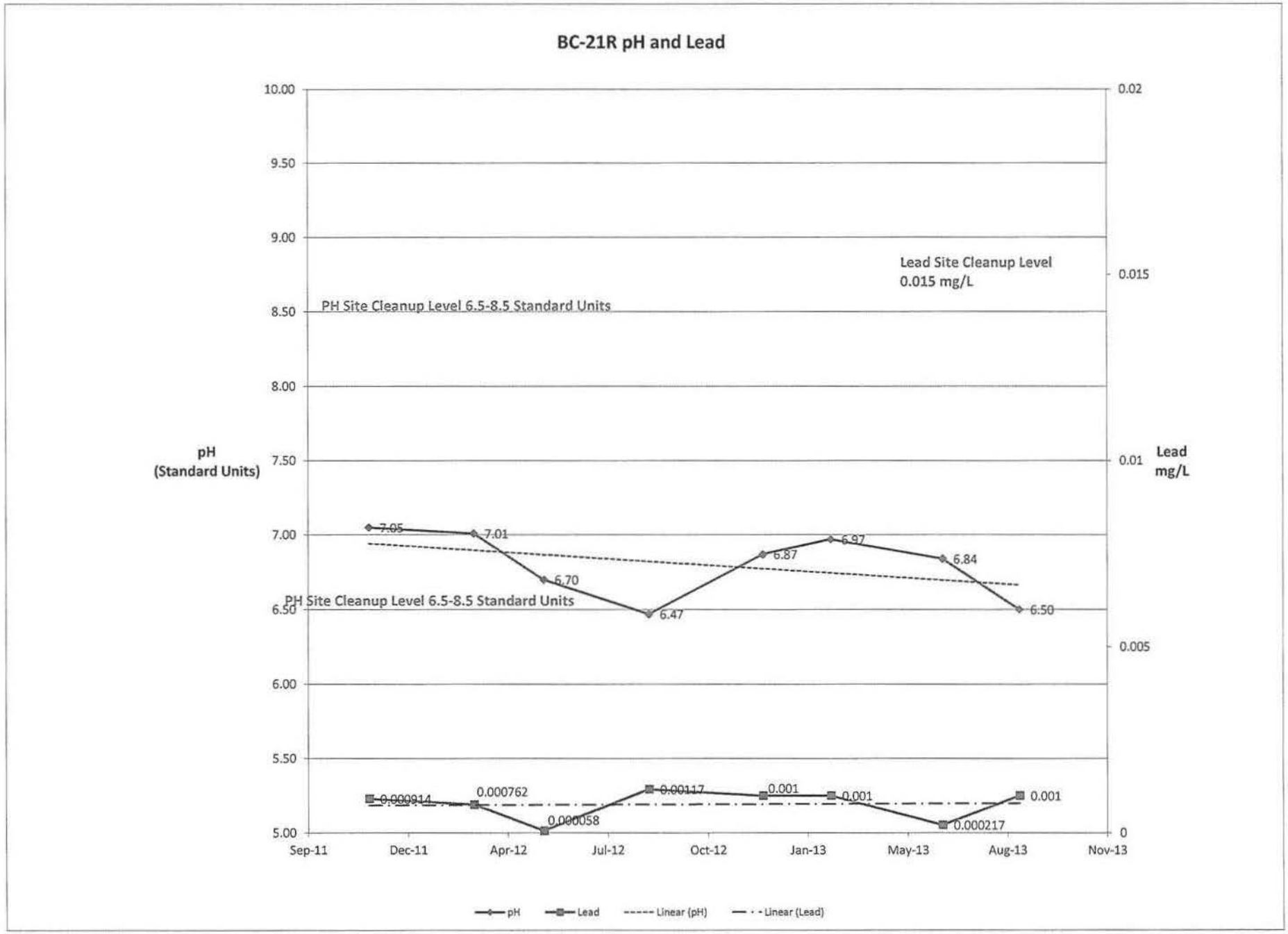

BC-19 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
6.90
7.01
6.88
5.96
7.05
6.98
7.36
6.63
0.000721
0.001
0.005
0.00282
0.005
0.001
0.001
0.005
pH
Lead
Linear (pH)
Linear (Lead)

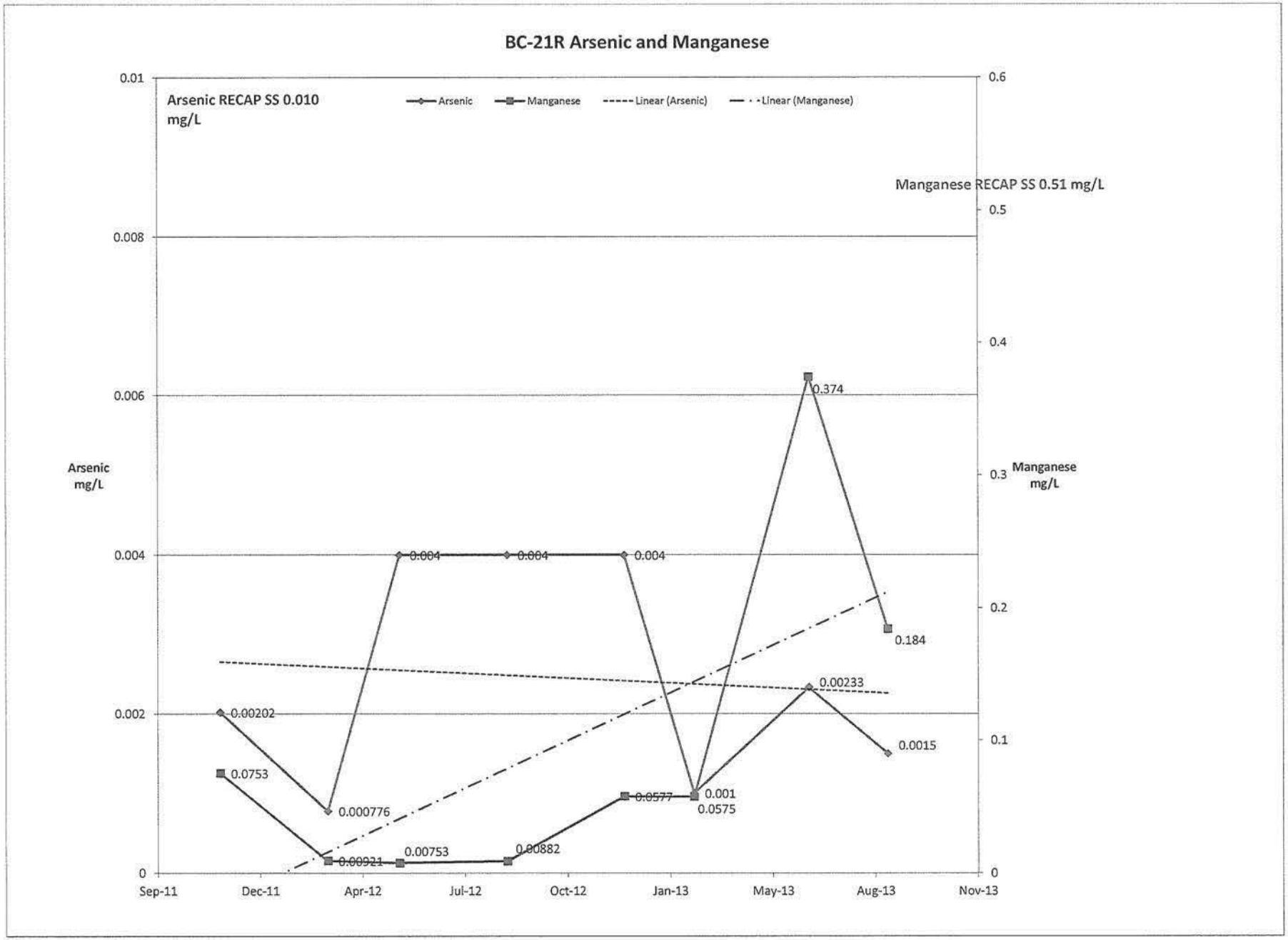

BC-19 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.02
0.02
0.02
0.004
0.005
0.005
0.0274
0.00099
0.00227
0.0143
0.0266
0.00702
0.01
0.0332
0.001
0.0262
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

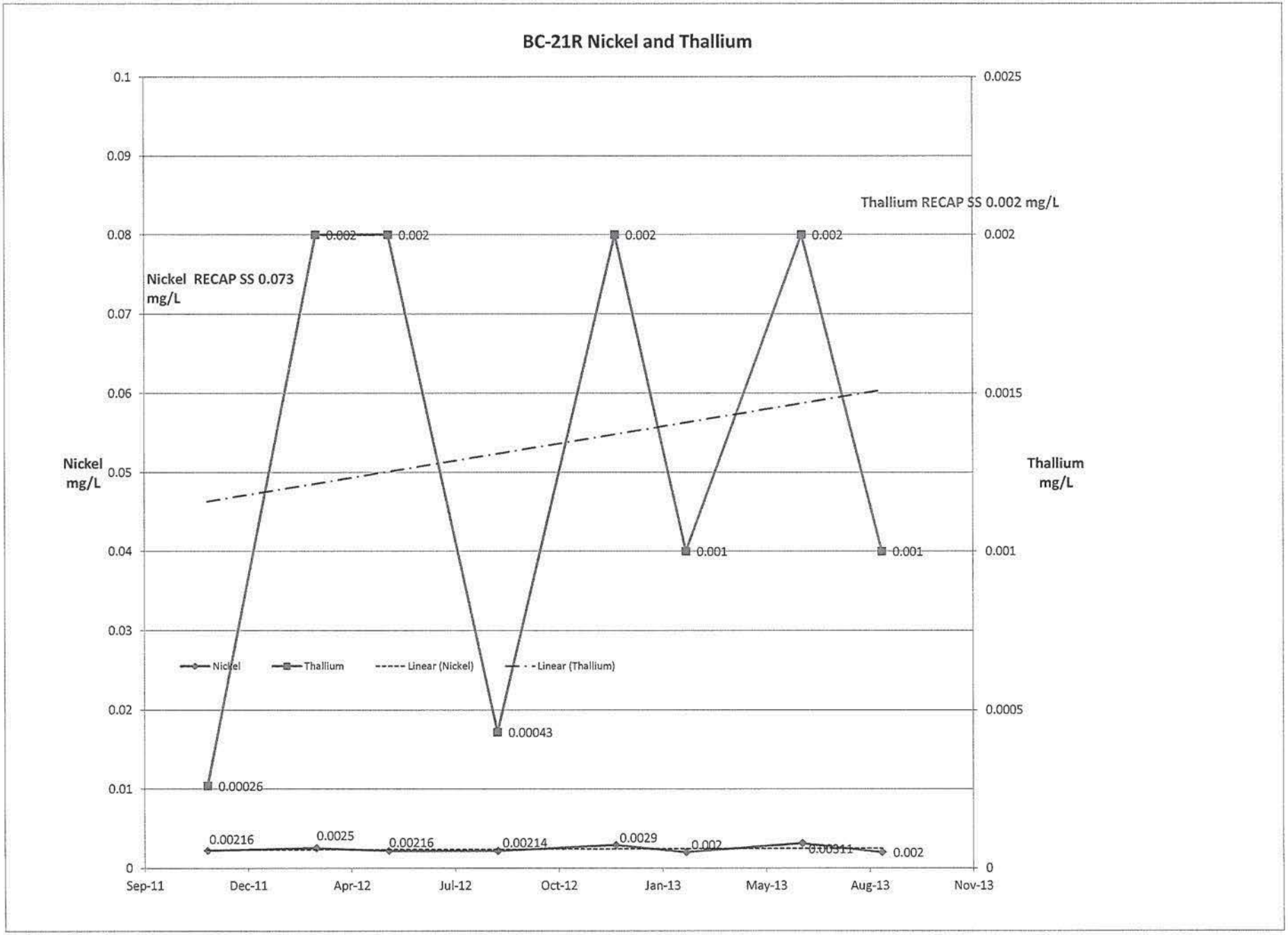

BC-19 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.01
0.005
0.002
0.002
0.00211
0.01
0.01
0.001
0.001
0.01
0.00227
0.003
0.00478
0.00632
0.002

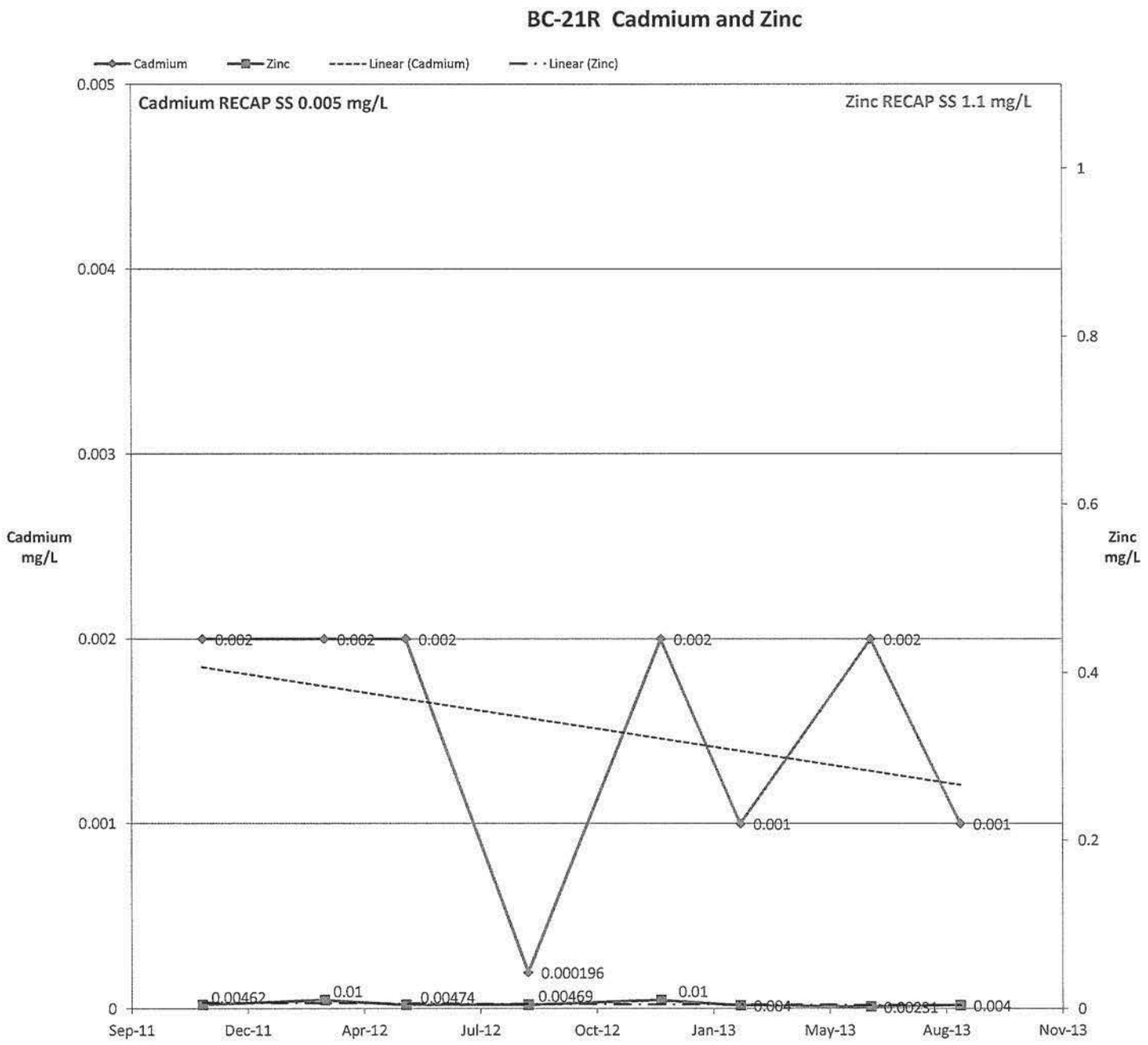


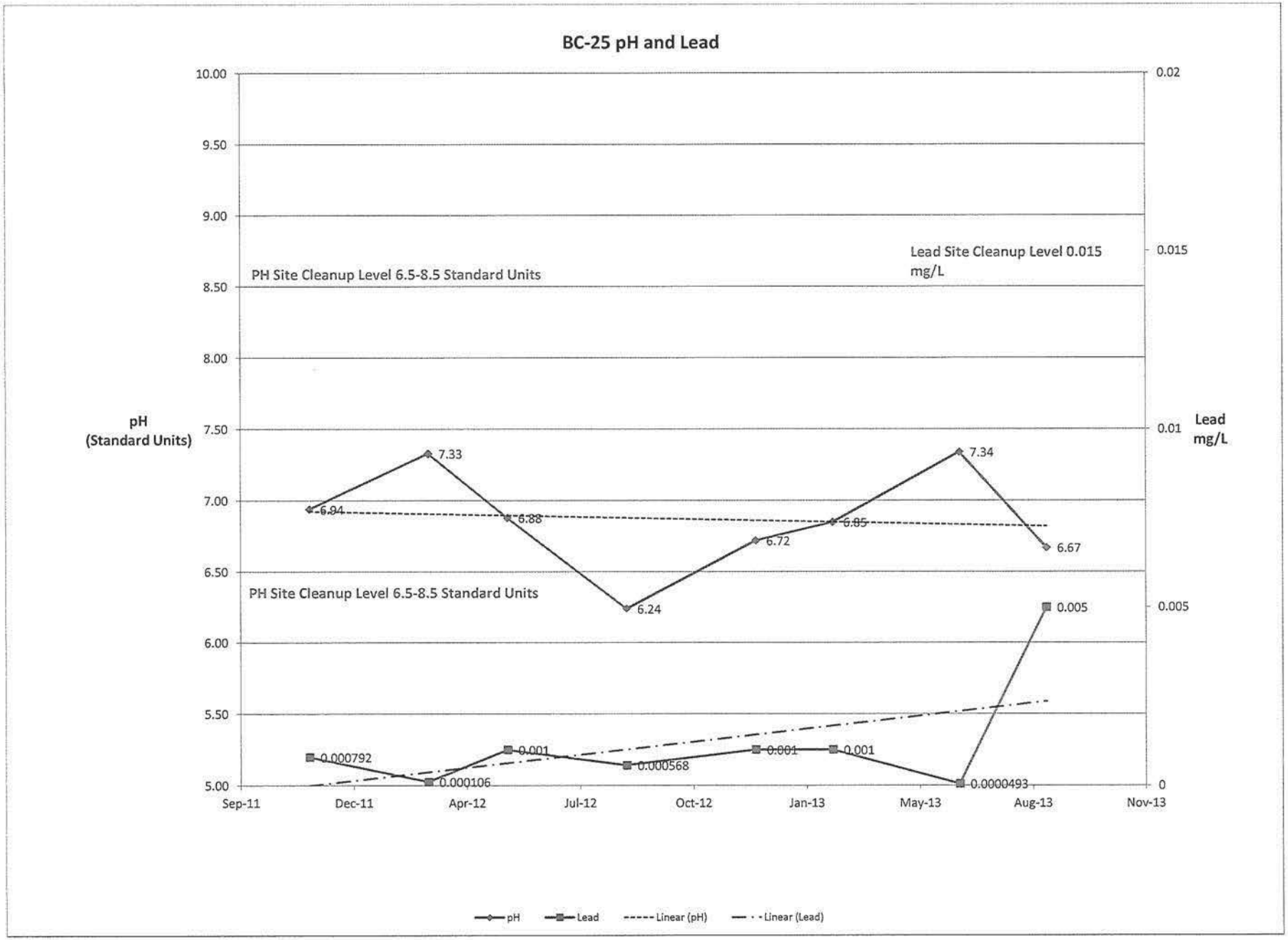
BC-19 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.01
0.005
0.002
0.00163
0.001
0.001
0.000754
0.000134
0.05
0.0154
0.02
0.01
0.00622
0.0169
0.004
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

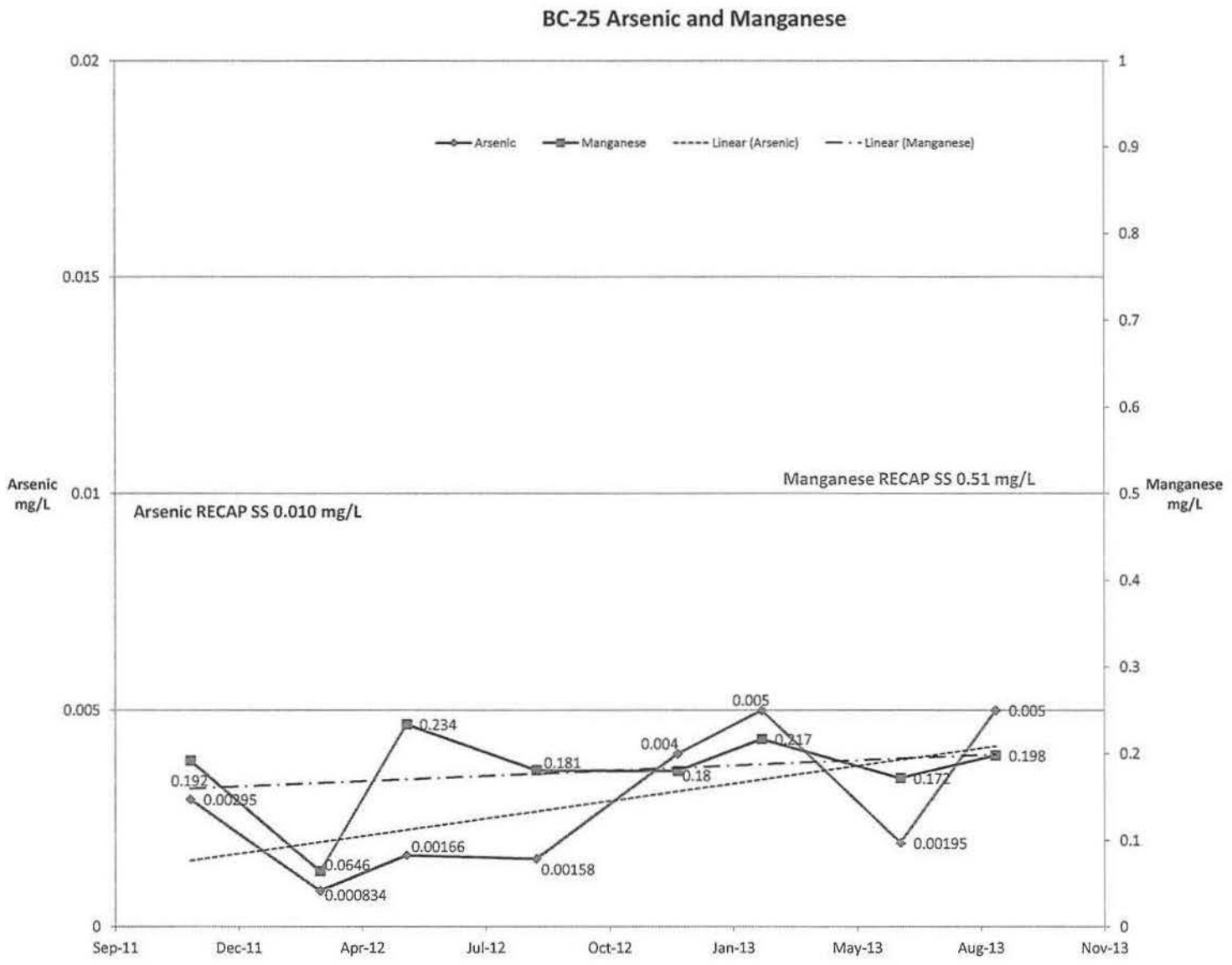

BC-21R pH and Lead
pH
(Standard Units)
Lead
mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
7.05
7.01
6.70
6.47
6.87
6.97
6.84
6.50
0.000914
0.000762
0.000058
0.00117
0.001
0.001
0.000217
0.001
pH
Lead
Linear (pH)
Linear (Lead)

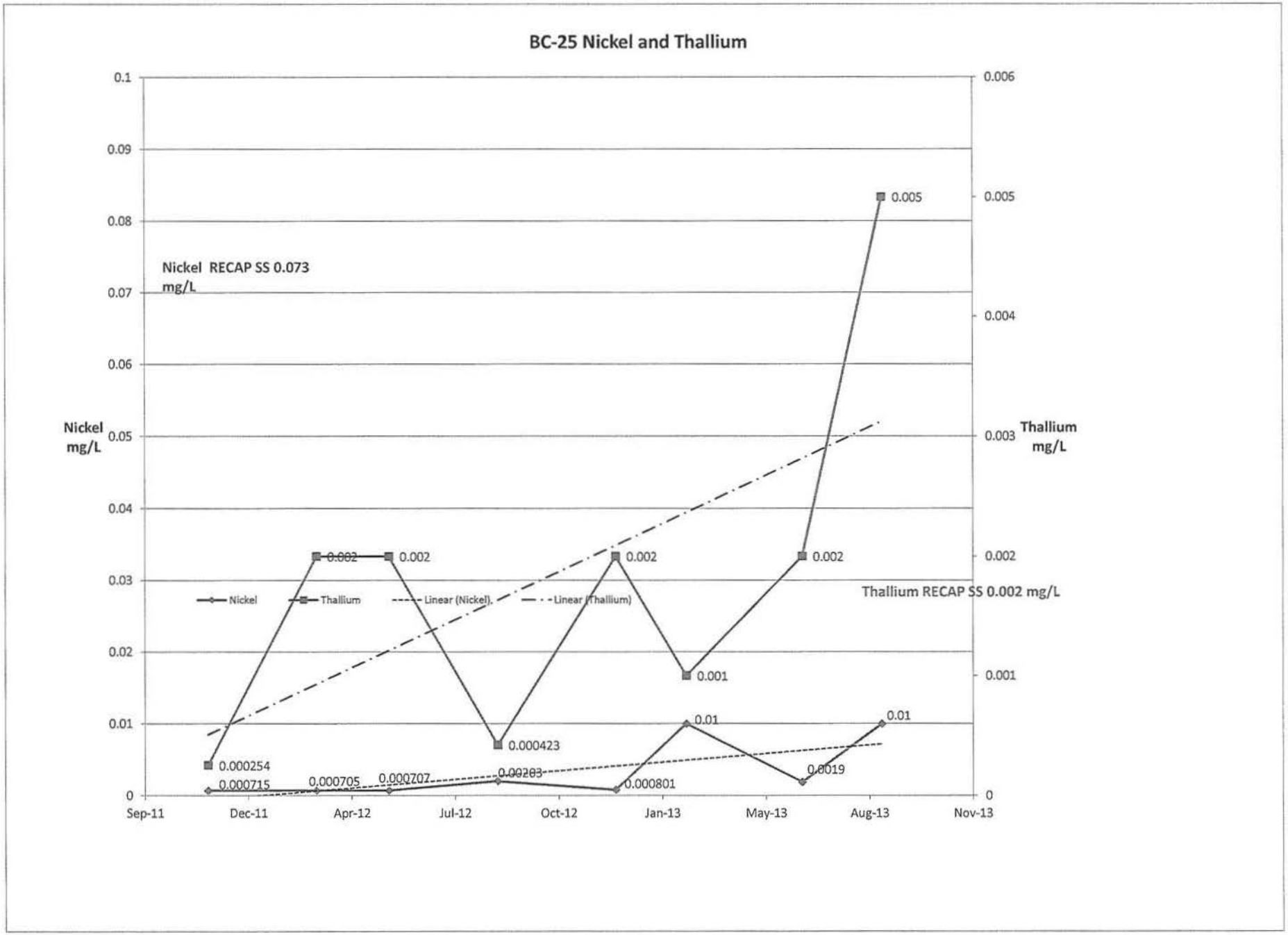

BC-21R Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.01
0.008
0.006
0.004
0.002
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.00202
0.000776
0.004
0.004
0.004
0.001
0.00233
0.0015
0.0753
0.00921
0.00753
0.00882
0.0577
0.0575
0.374
0.184

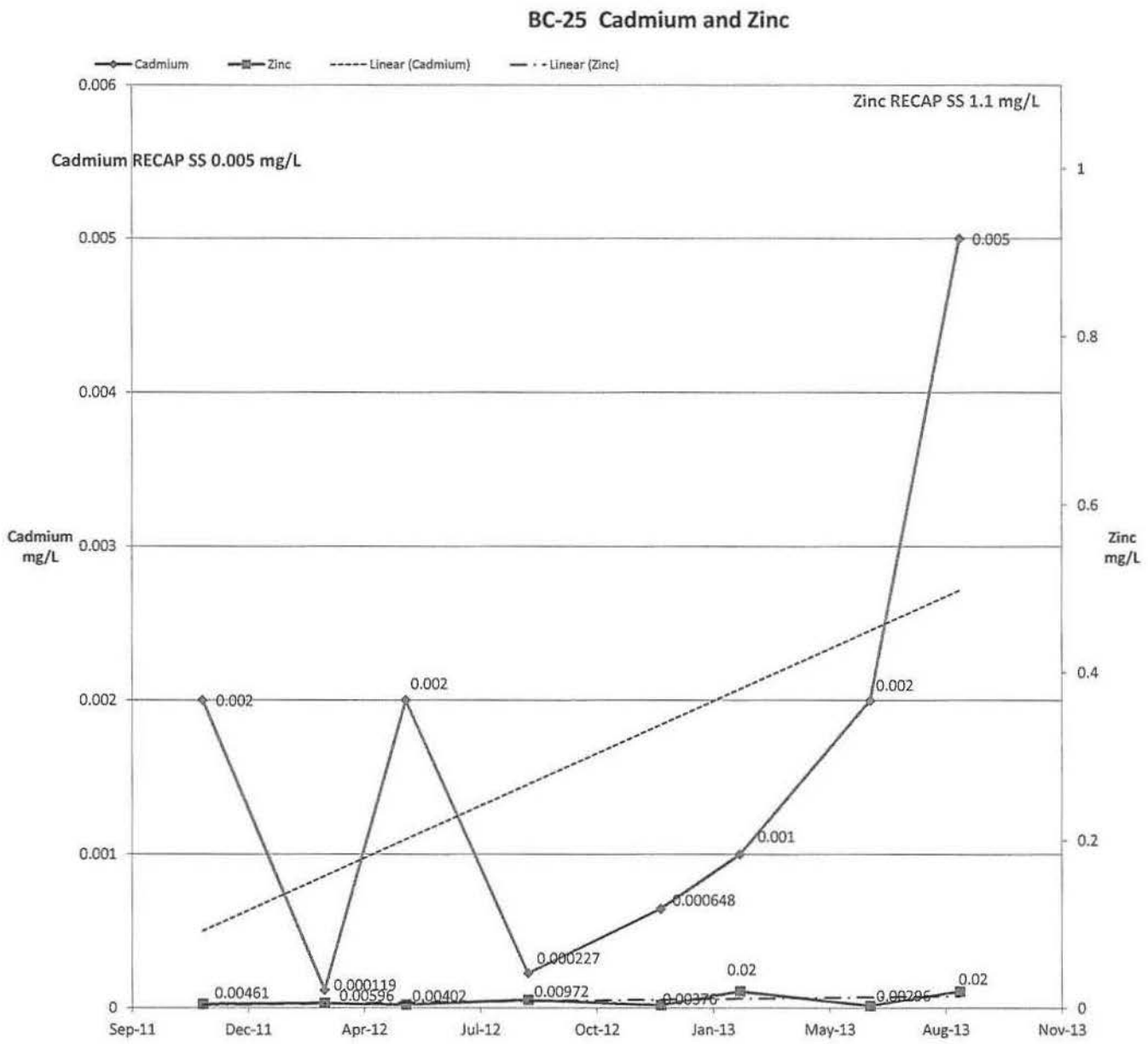

BC-21R Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.002
0.002
0.002
0.002
0.001
0.001
0.00043
0.00026
0.00216
0.0025
0.00216
0.00214
0.0029
0.002
0.00311
0.002


BC-21R 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
0.002
0.001
0.001
0.000196
0.00462
0.01
0.00474
0.00469
0.01
0.004
0.00231
0.004
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13


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
6.94
7.33
6.88
6.24
6.72
6.85
7.34
6.67
0.000792
0.000106
0.001
0.000568
0.001
0.001
0.0000493
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

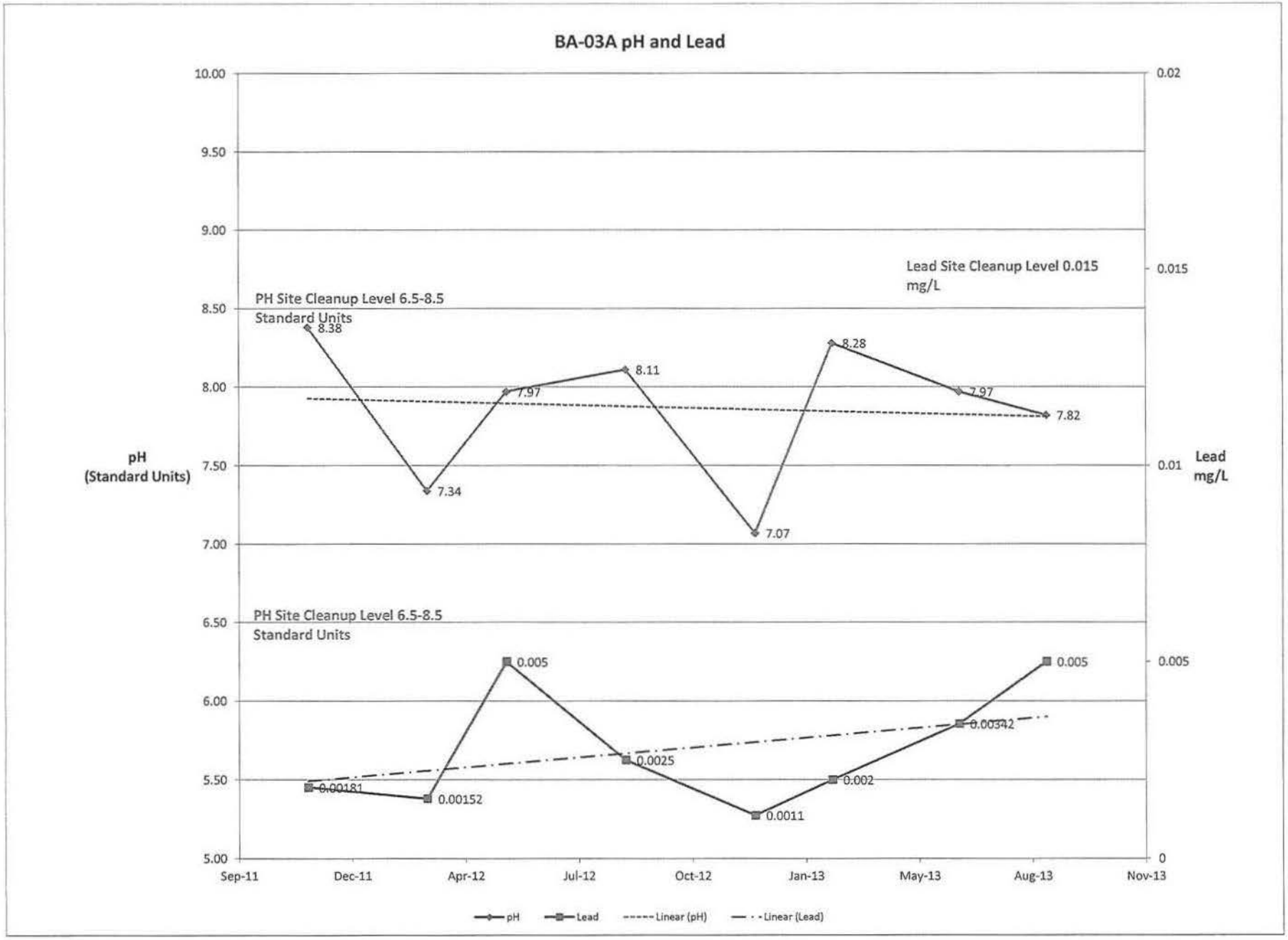

BC-25 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.02
0.015
0.01
0.005
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.192
0.00295
0.0646
0.000834
0.234
0.00166
0.181
0.00158
0.004
0.18
0.005
0.217
0.172
0.00195
0.005
0.198

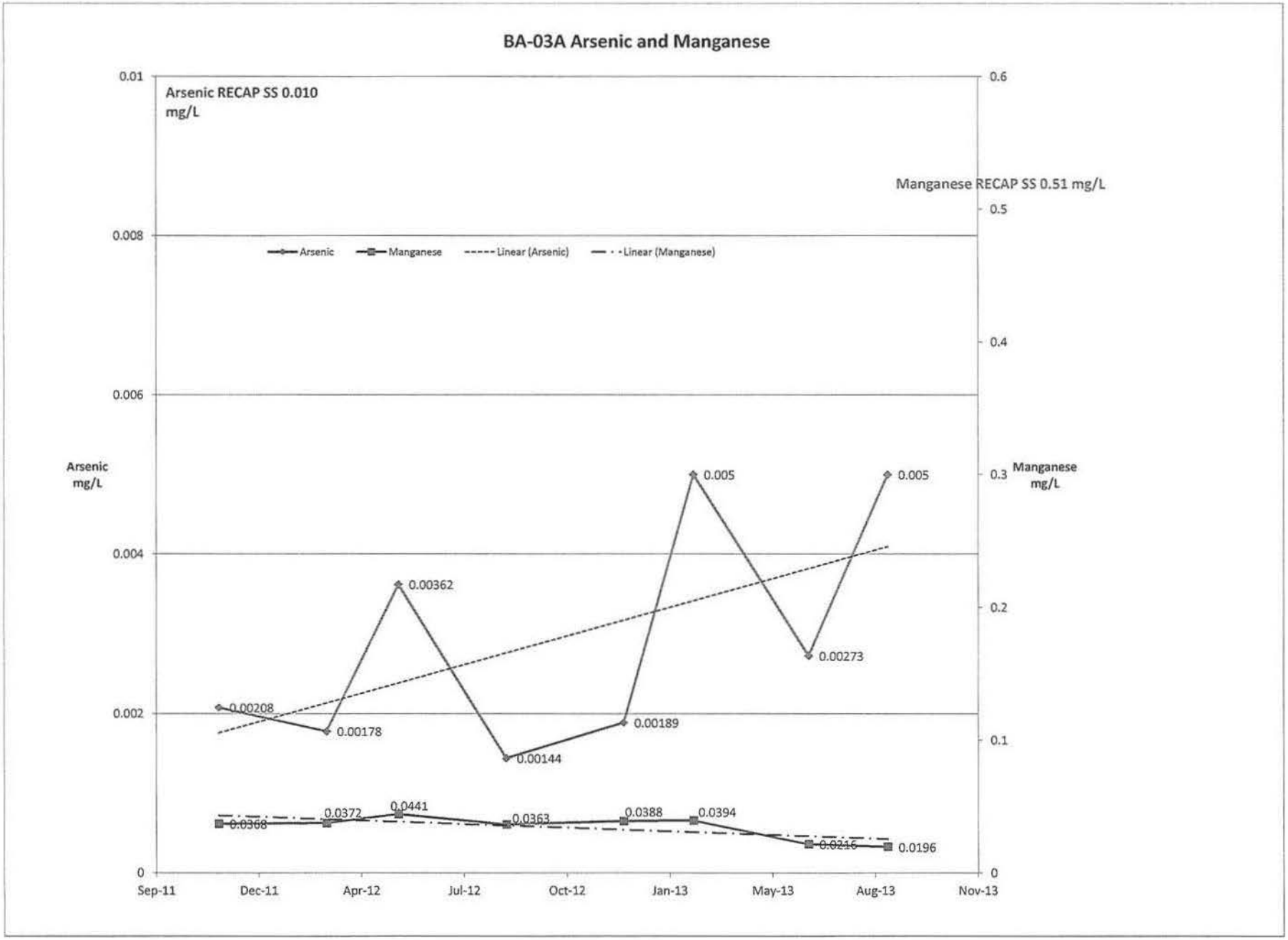

BC-25 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.000254
0.000715
0.002
0.000705
0.002
0.000707
0.000423
0.00283
0.002
0.000801
0.001
0.01
0.002
0.0019
0.005
0.01

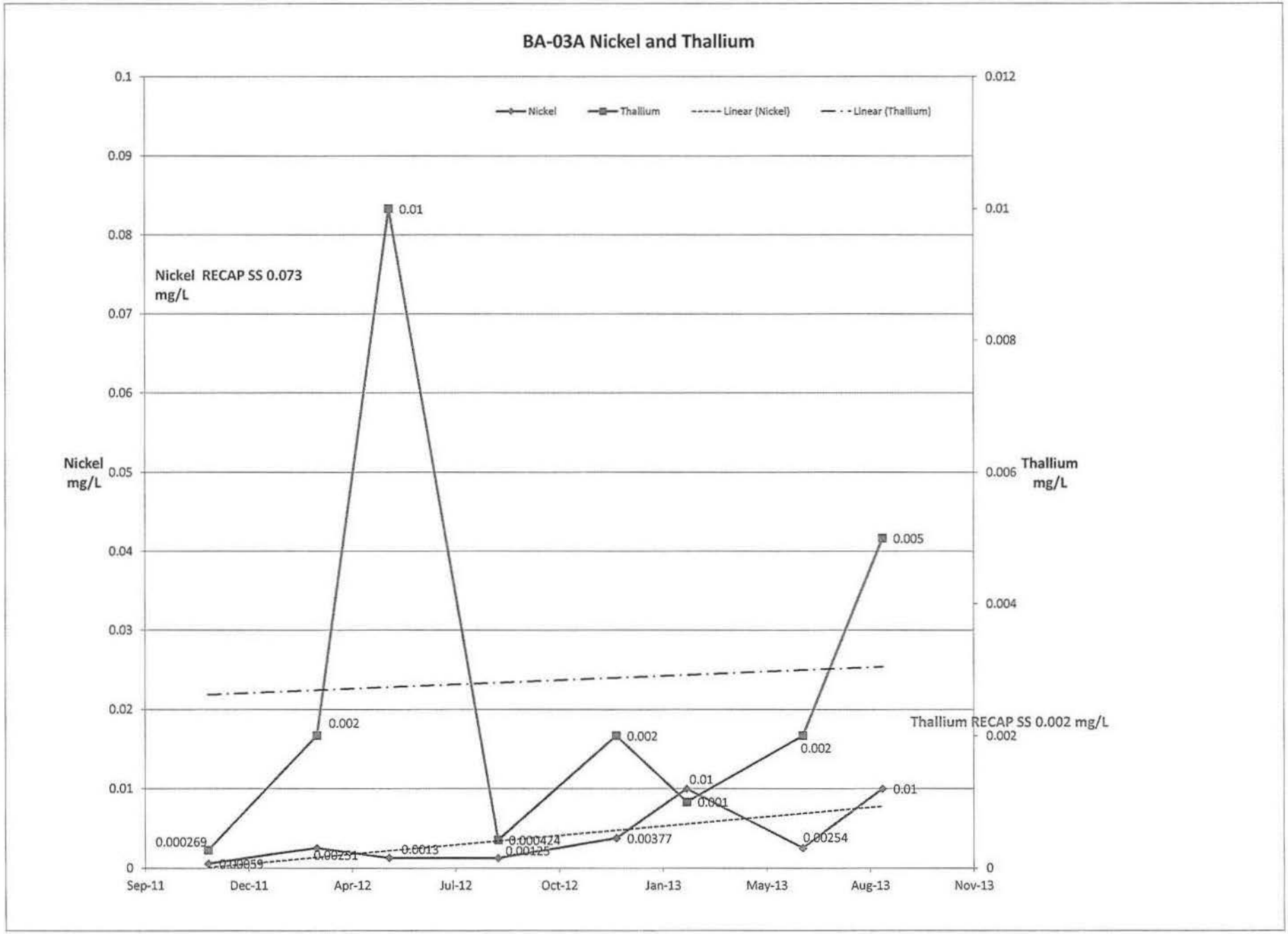

BC-25 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.006
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.002
0.005
0.001
0.000648
0.000227
0.00461
0.000119
0.00596
0.00402
0.00972
0.00376
0.02
0.00286
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

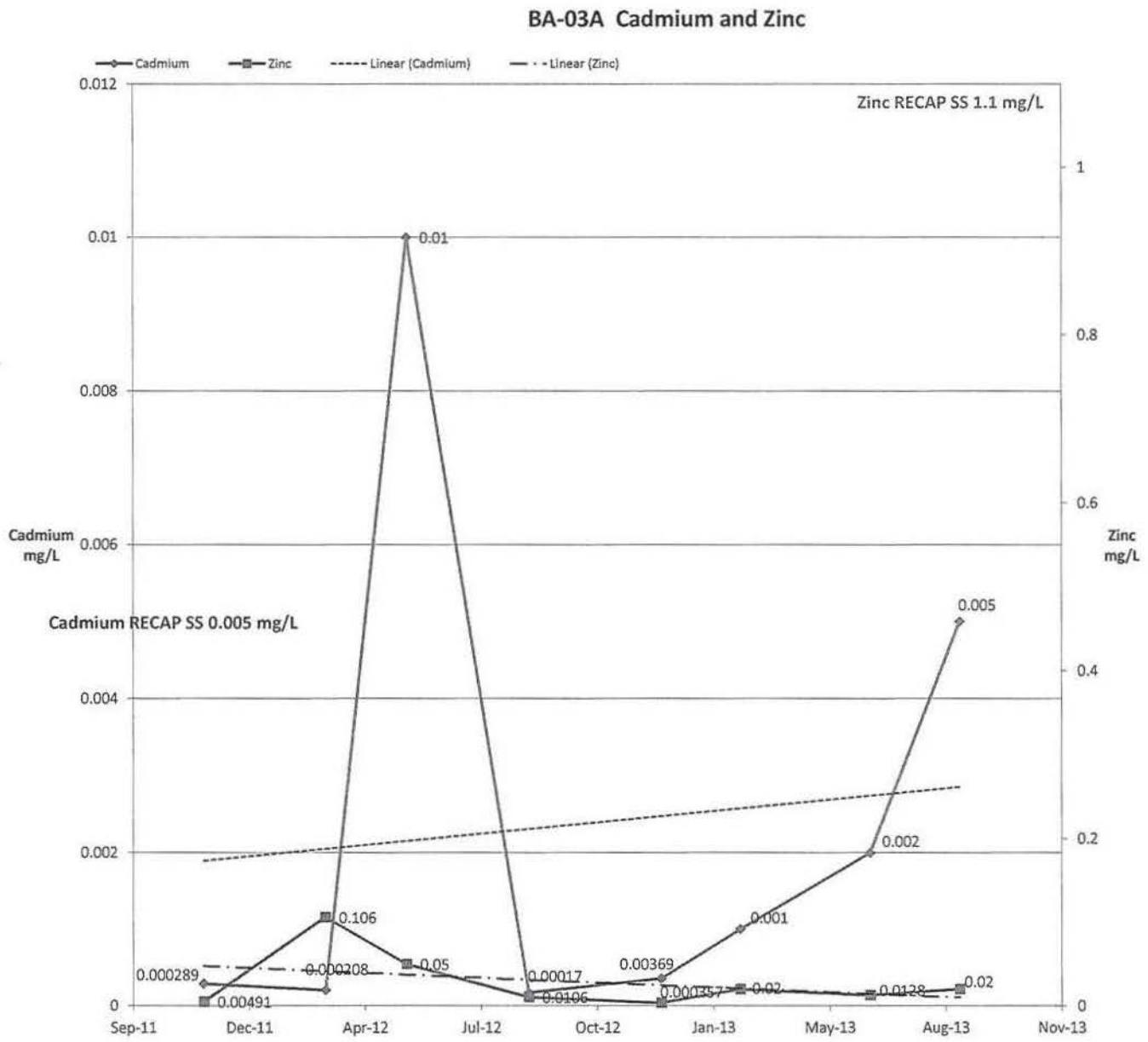
THIRD WATER BEARING ZONE

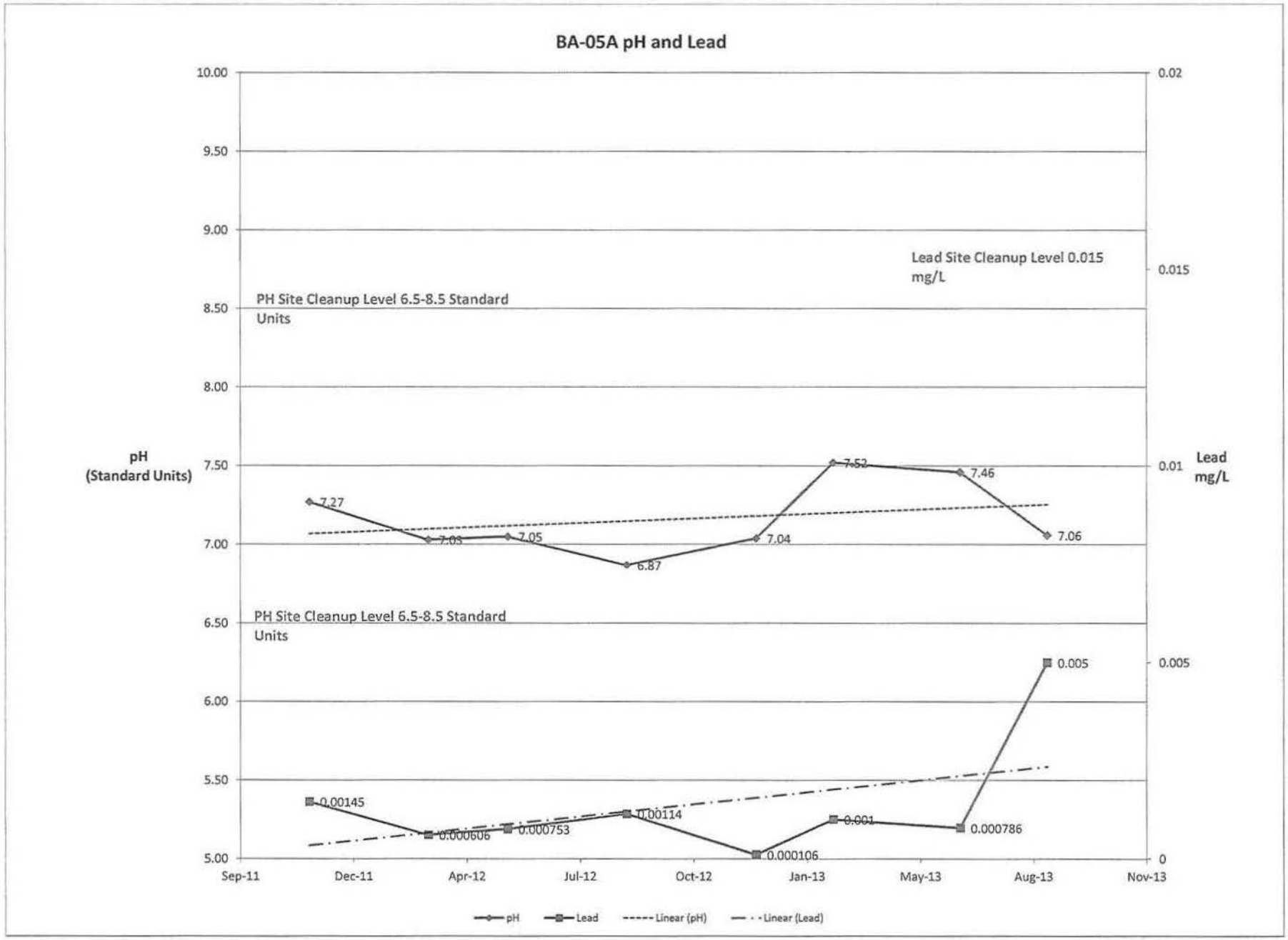
(PAST EIGHT QUARTERS)

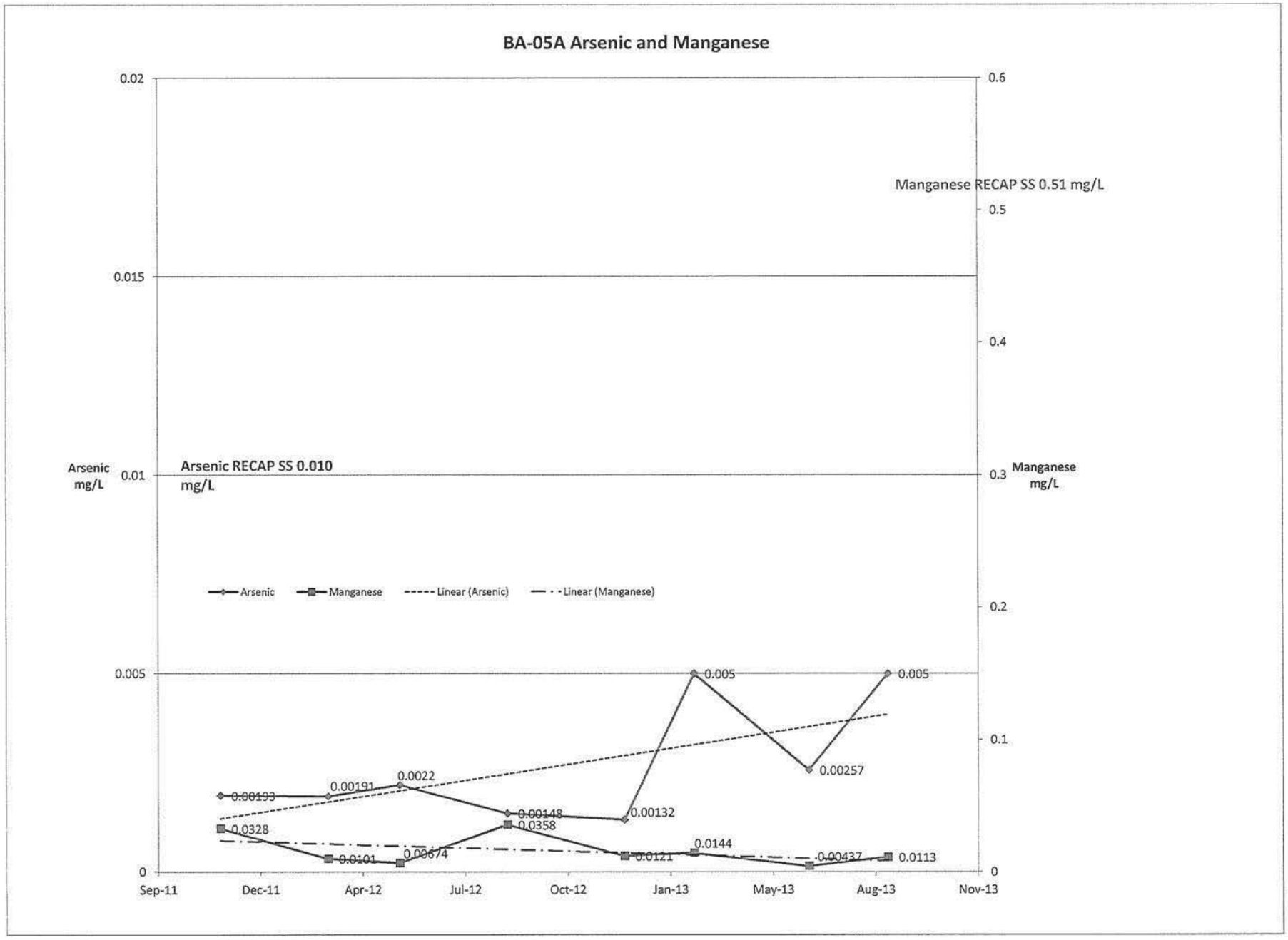

BA-03A pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.5-8.5
Standard Units
Lead Site Cleanup Level 0.015
mg/L
PH Site Cleanup Level 6.5-8.5
Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
8.38
7.34
7.97
8.11
7.07
8.28
7.97
7.82
0.005
0.00181
0.00152
0.0025
0.0011
0.002
0.00342
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

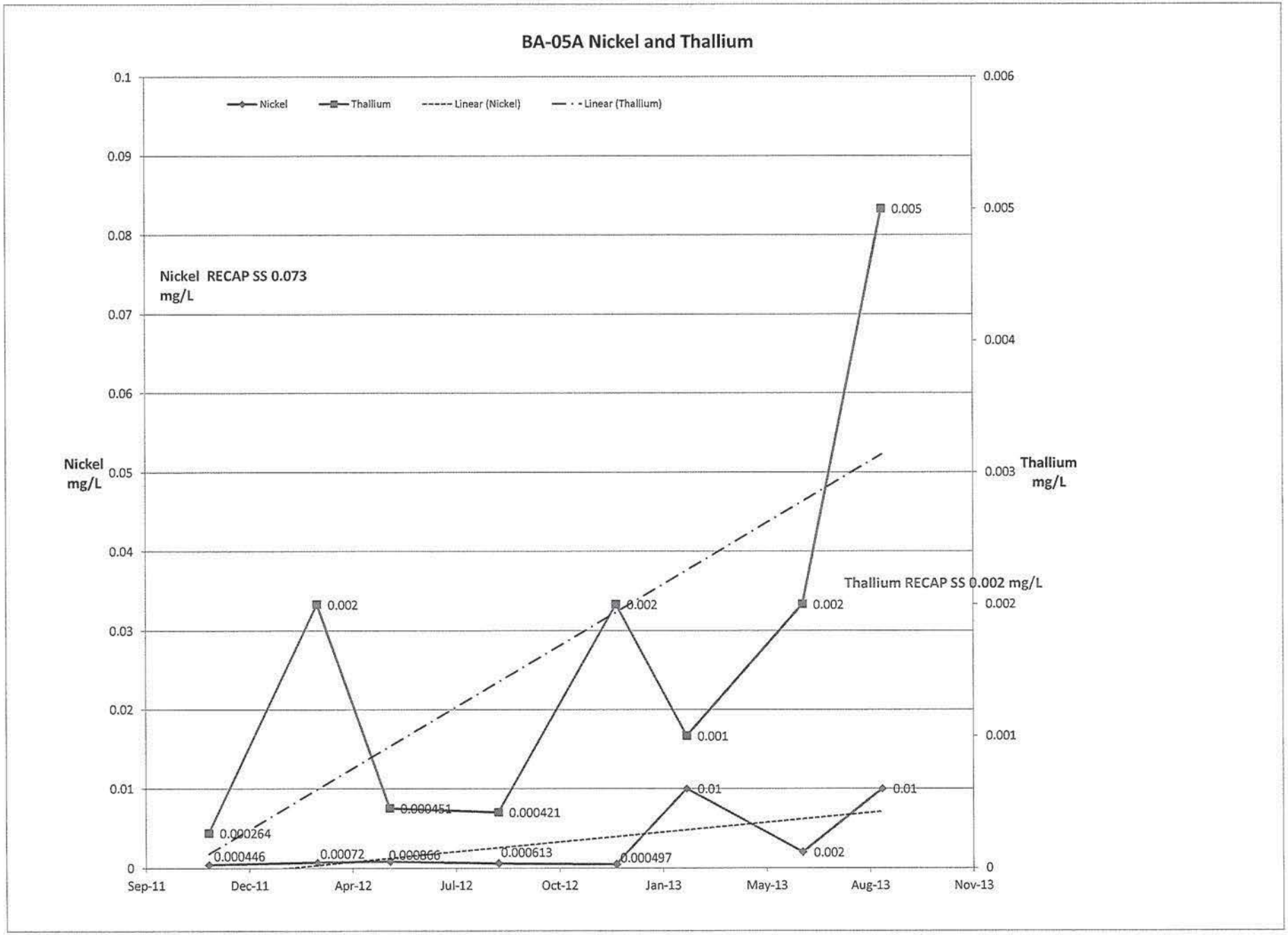

BA-03A Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.01
0.008
0.006
0.004
0.002
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00208
0.00178
0.00362
0.00144
0.00189
0.005
0.00273
0.005
0.0368
0.0372
0.0441
0.0363
0.0388
0.0394
0.0216
0.0196
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

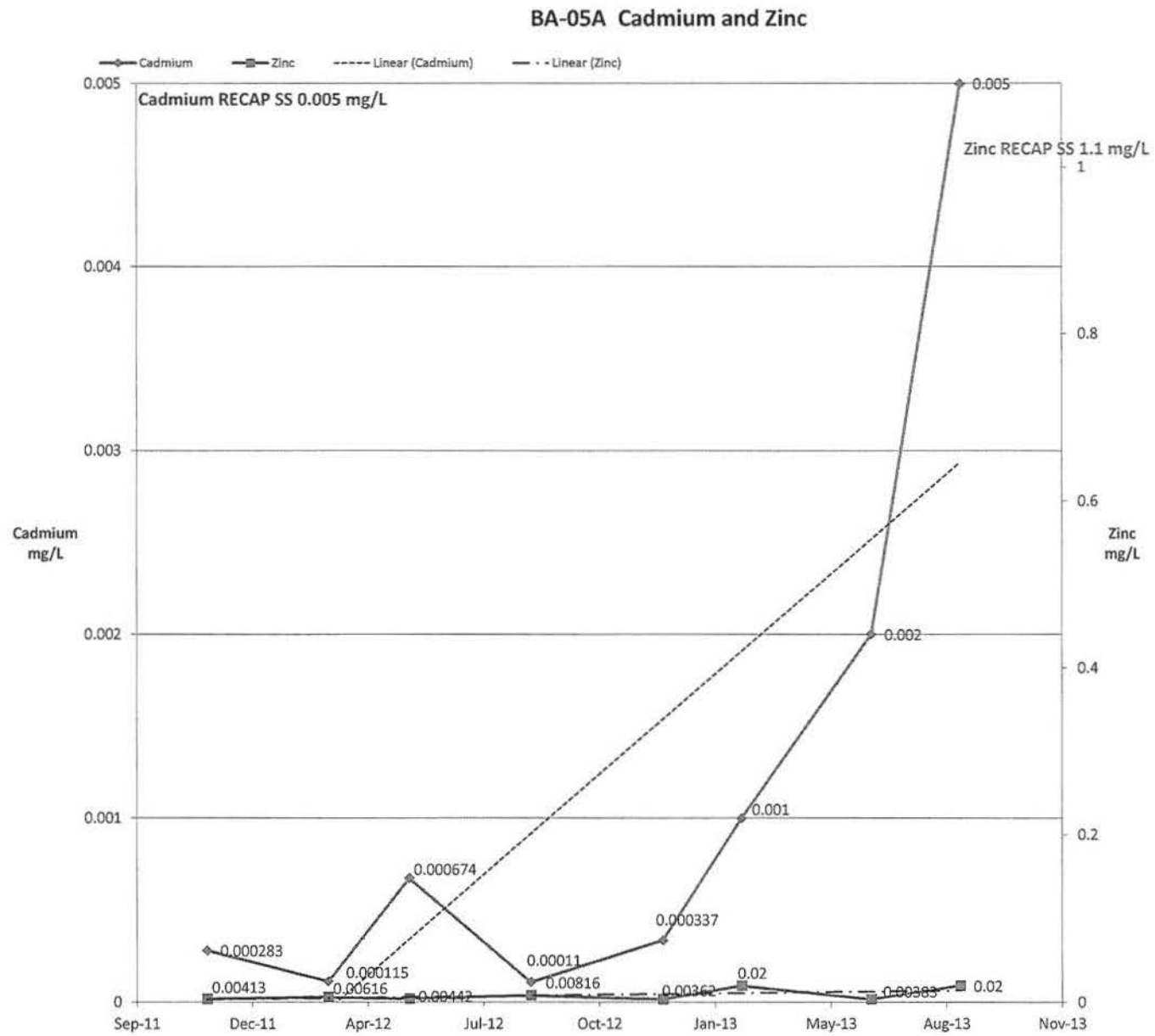

BA-03A Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.01
0.002
0.005
0.002
0.002
0.01
0.001
0.01
0.000269
0.00059
0.00251
0.0013
0.000424
0.00125
0.00377
0.00254

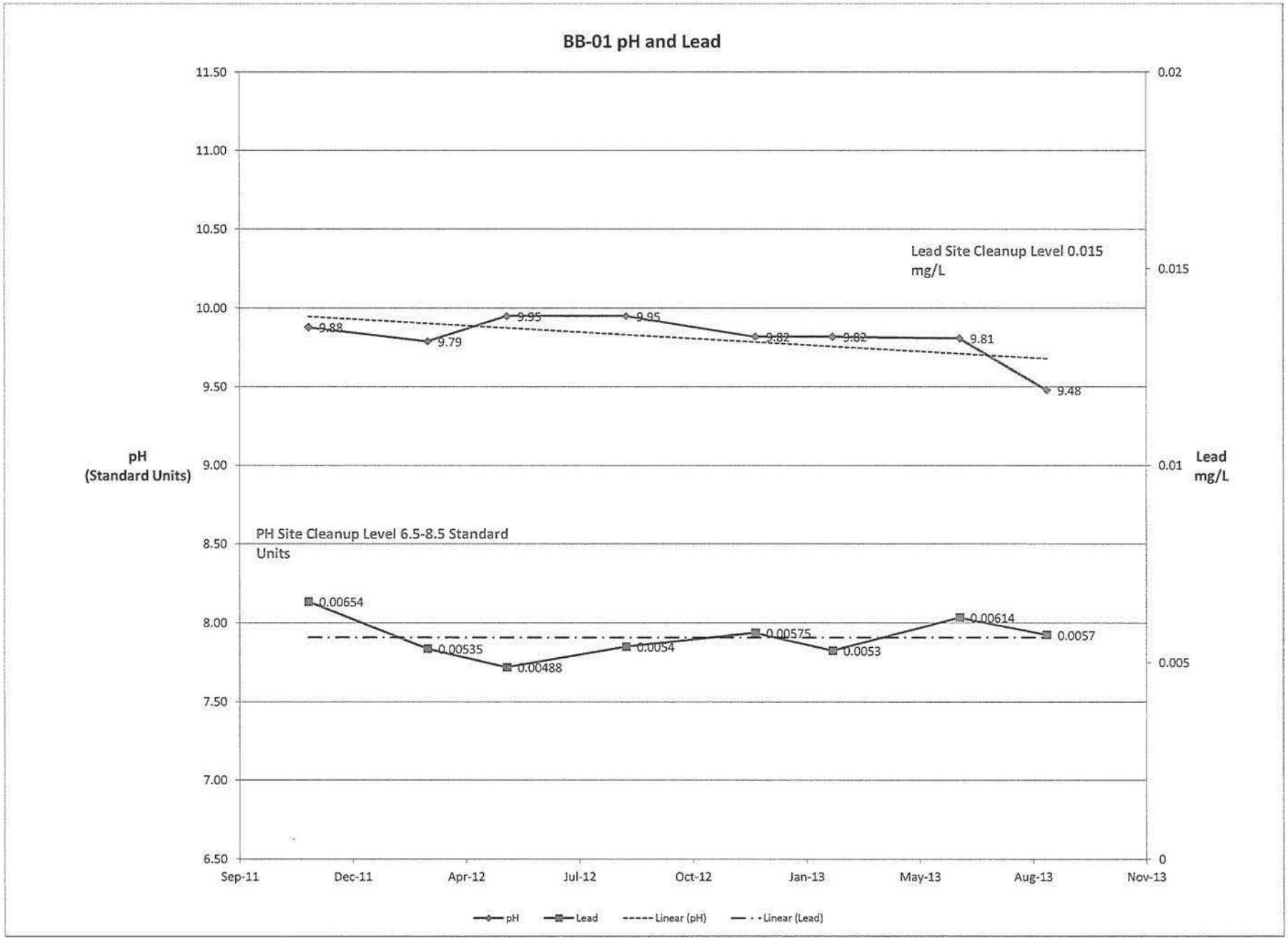

BA-03A Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.012
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.01
0.005
0.002
0.106
0.001
0.05
0.00369
0.000289
0.000208
0.00017
0.00491
0.0106
0.000357
0.02
0.0128
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

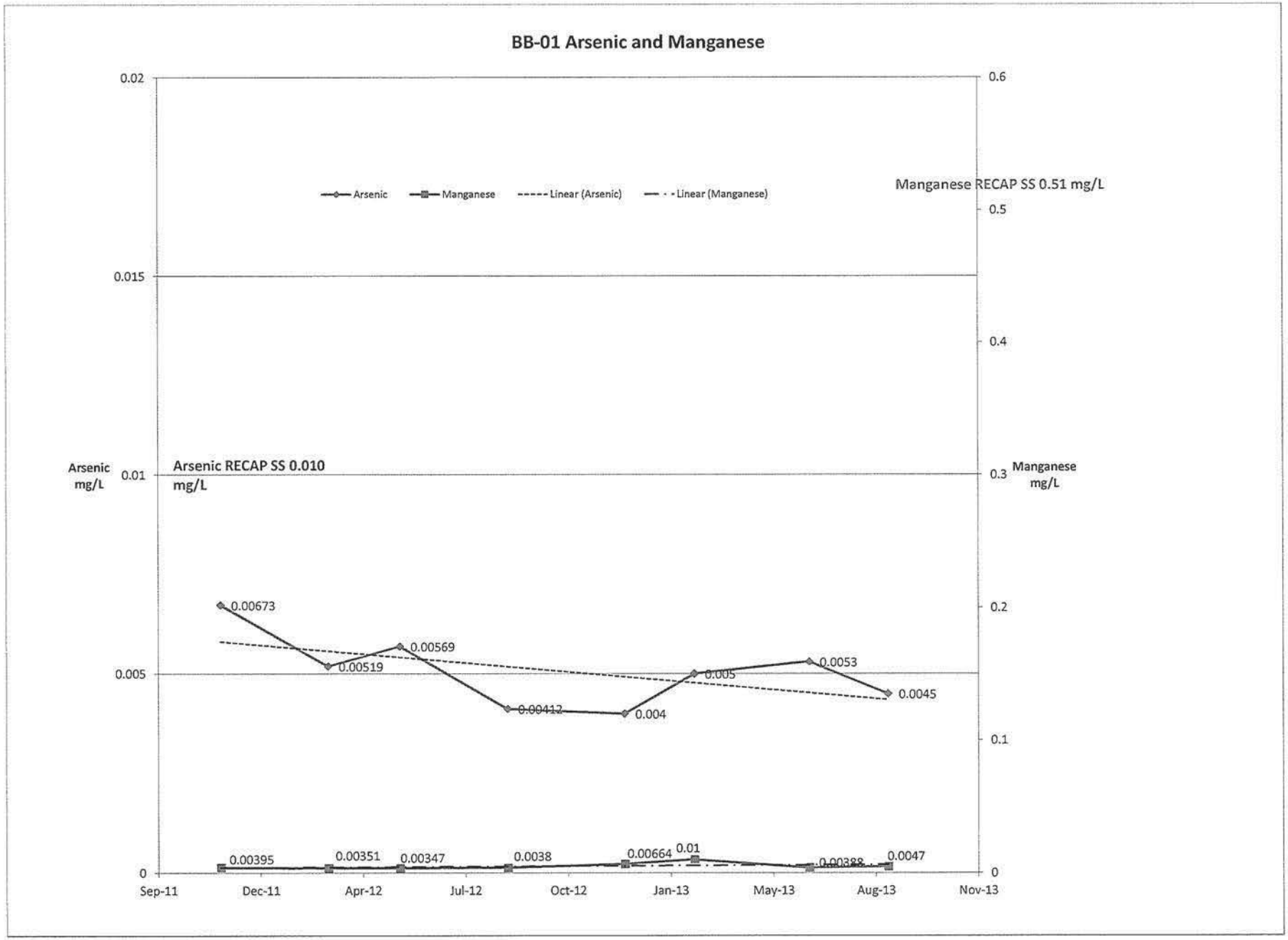

BA-05A pH and Lead
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.27
7.03
7.05
6.87
7.04
7.52
7.46
7.06
0.00145
0.000606
0.000753
0.00114
0.000106
0.001
0.000786
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

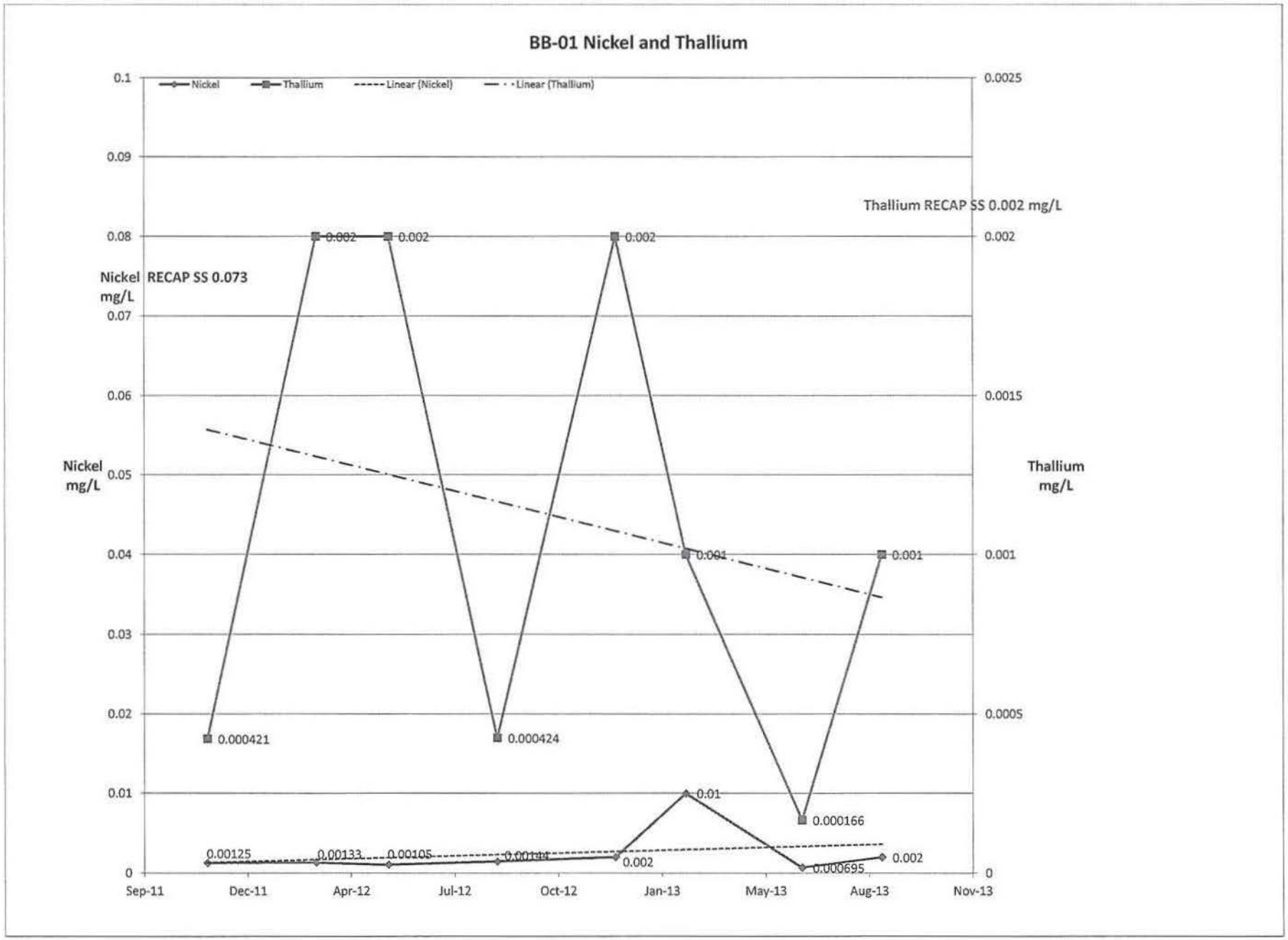

BA-05A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.00193
0.00191
0.0022
0.00148
0.00132
0.005
0.00257
0.005
0.0328
0.0101
0.00674
0.0358
0.0121
0.0144
0.00437
0.0113

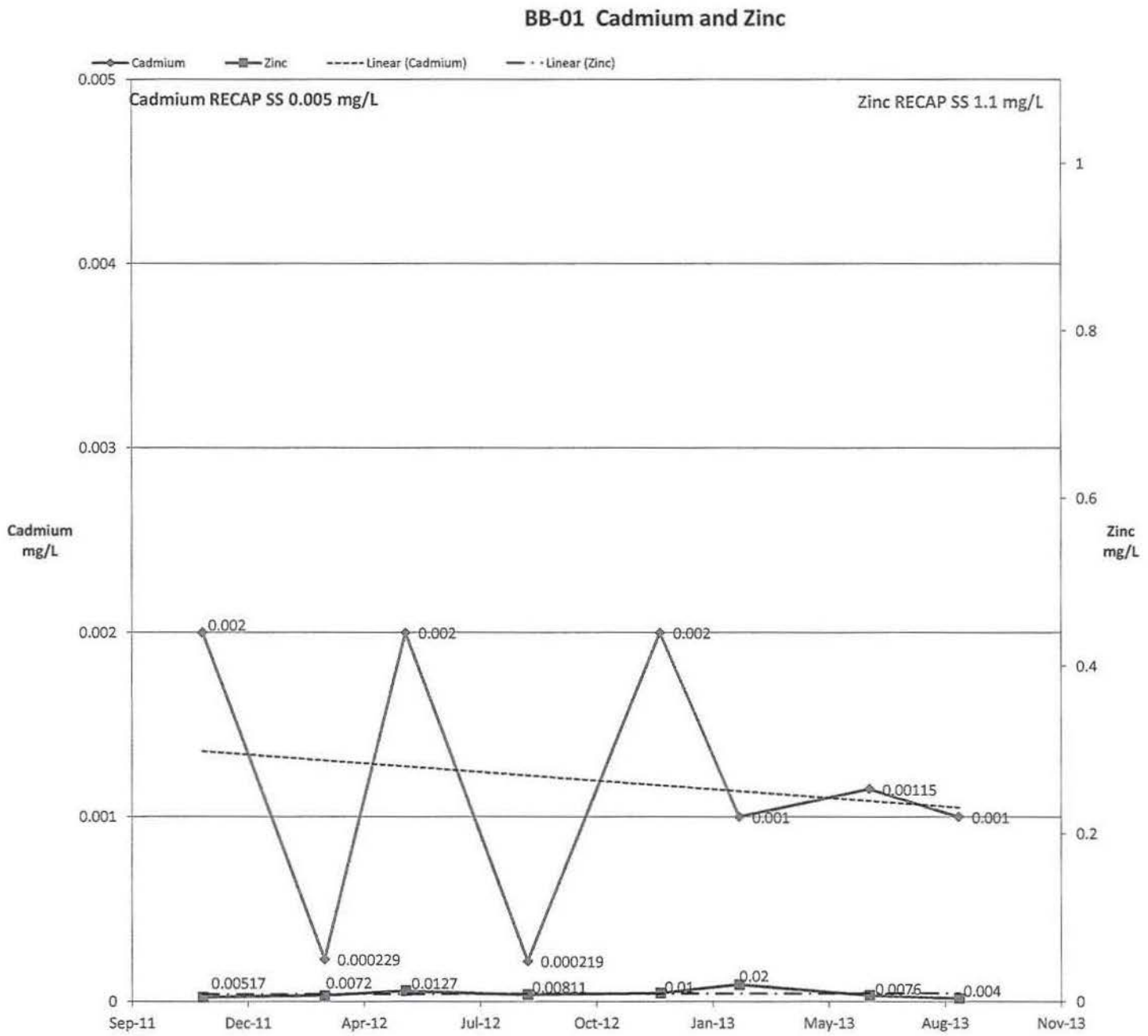

BA-05A Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.005
0.002
0.002
0.002
0.001
0.01
0.01
0.002
0.000264
0.000451
0.000421
0.000446
0.00072
0.000866
0.000613
0.000497

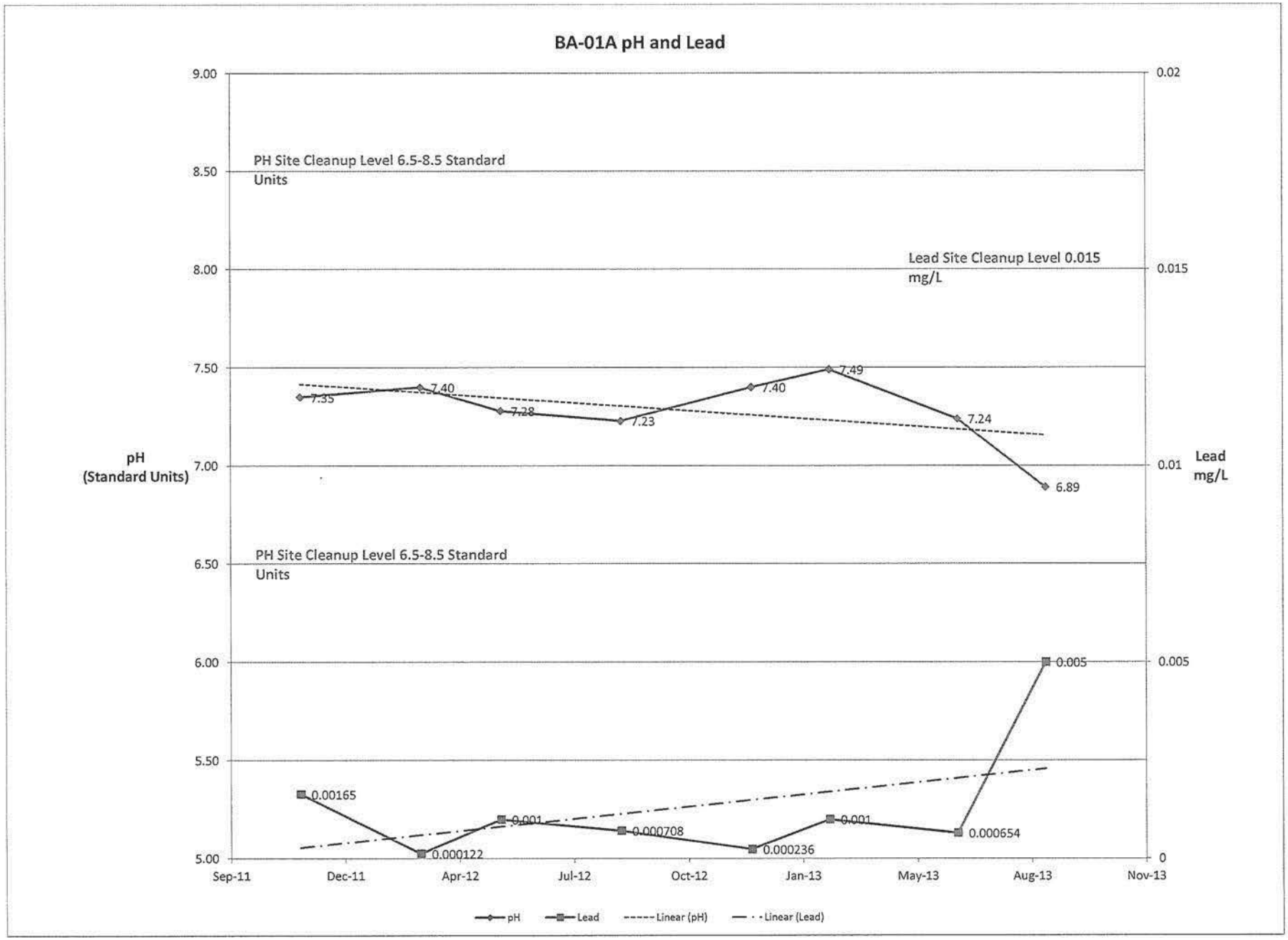

BA-05A Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.005
0.002
0.001
0.000674
0.000337
0.000283
0.000115
0.00011
0.02
0.02
0.00413
0.00616
0.00442
0.00816
0.00362
0.00383

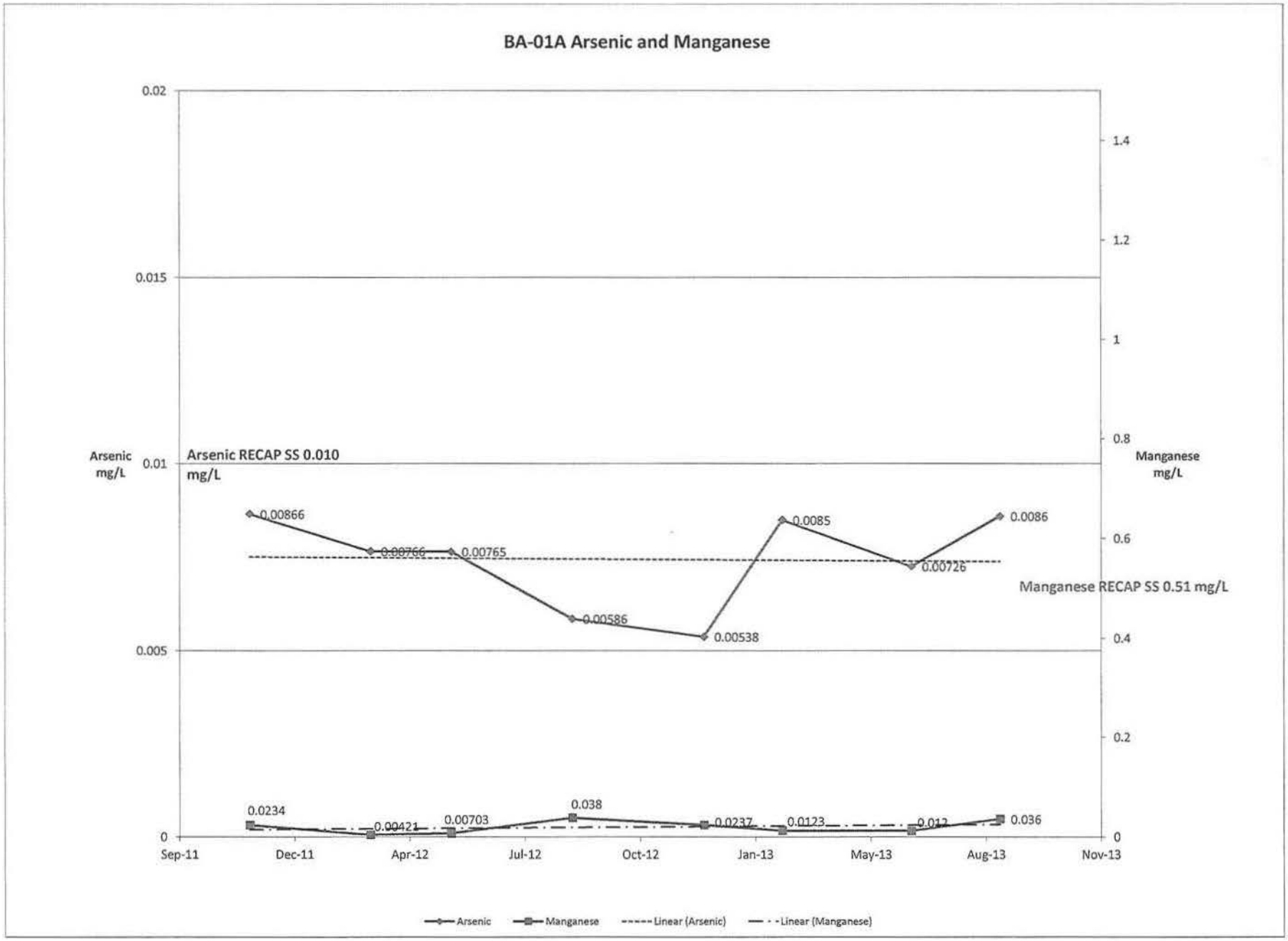

BB-01 pH and Lead
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
9.88
9.79
9.95
9.95
9.82
9.82
9.81
9.48
0.00654
0.00535
0.00488
0.0054
0.00575
0.0053
0.00614
0.0057
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

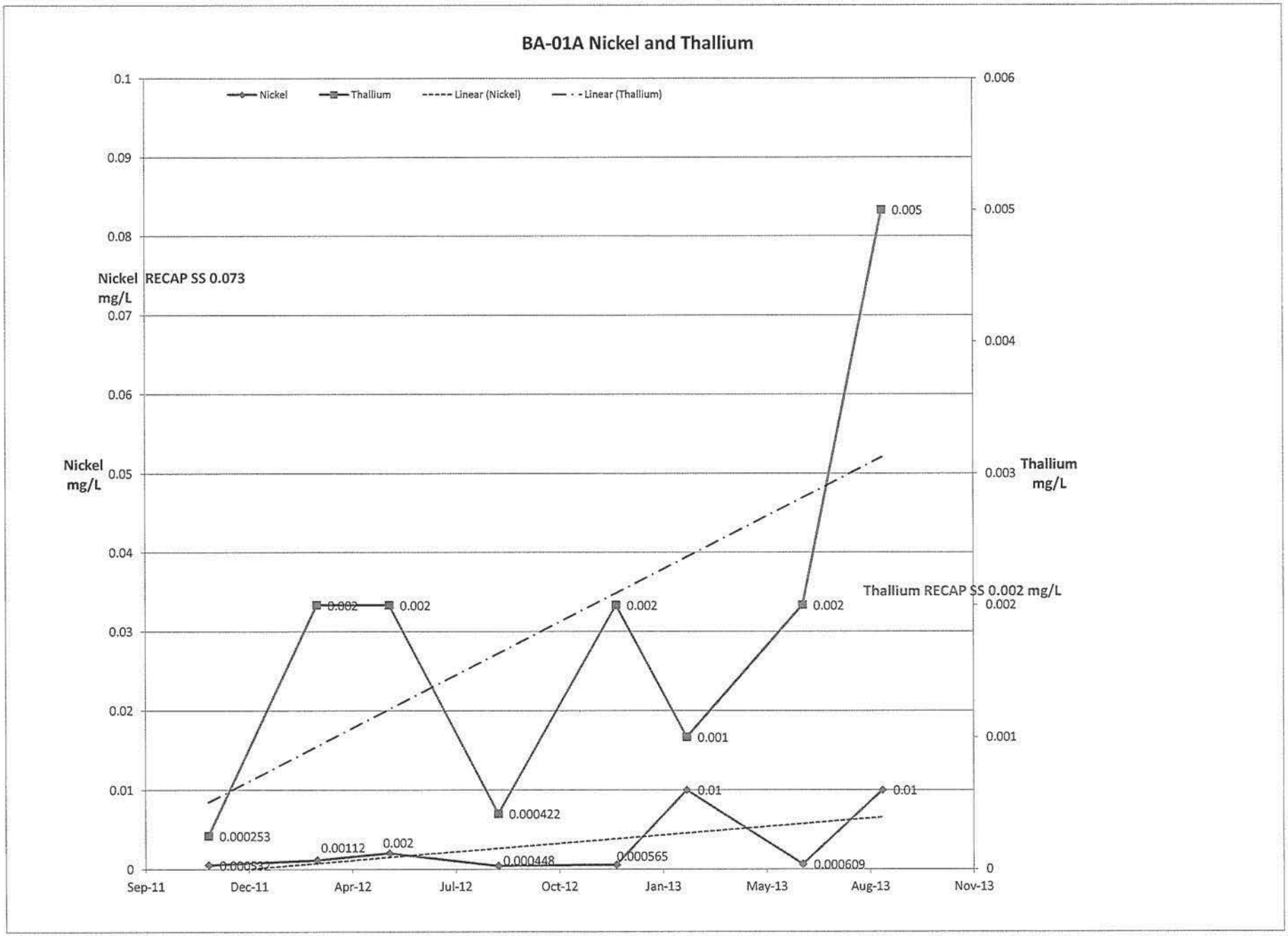

BB-01 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00673
0.00519
0.00569
0.00412
0.004
0.005
0.0053
0.0045
0.00395
0.00351
0.00347
0.0038
0.00664
0.01
0.00388
0.0047
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

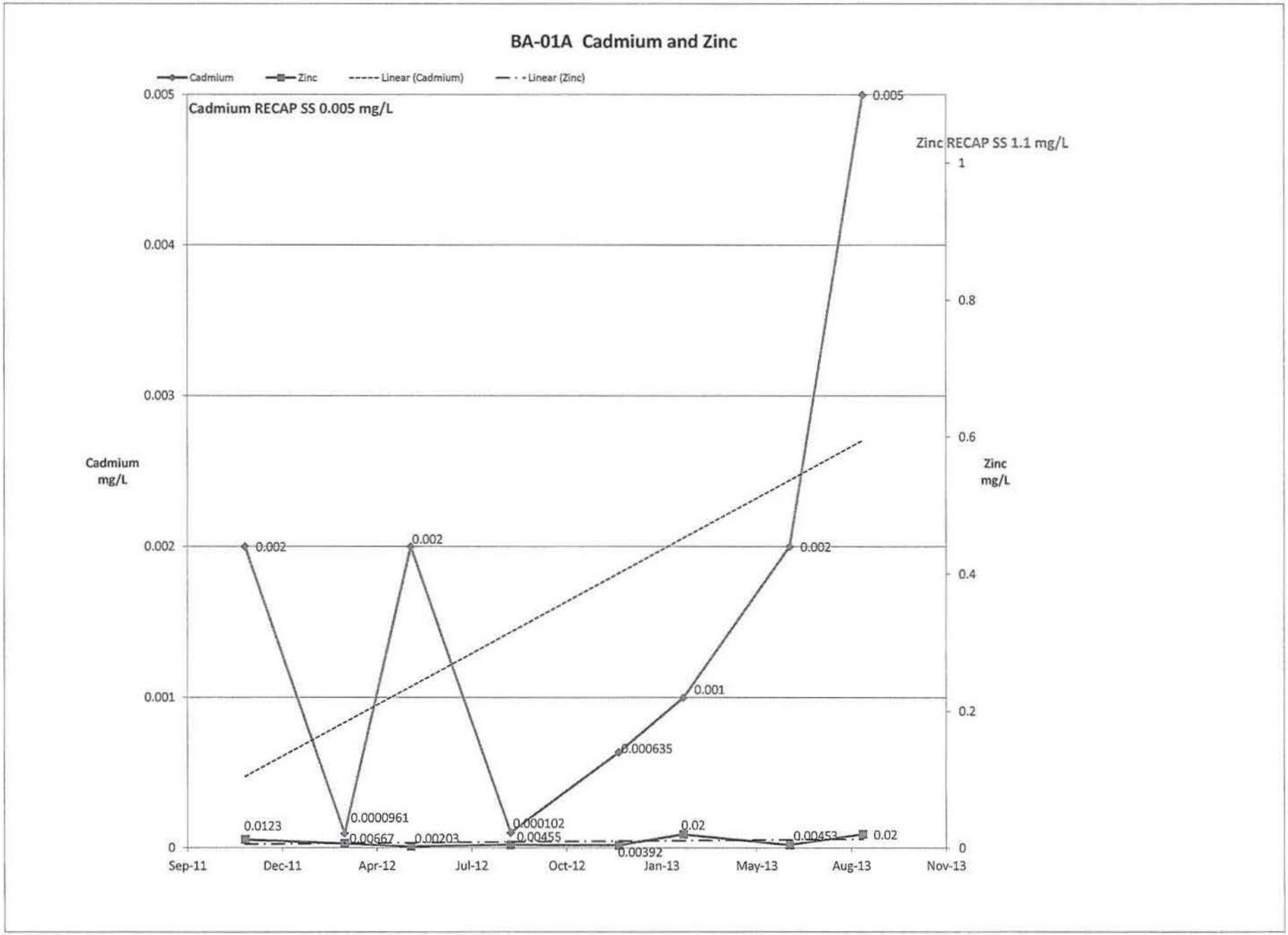

BB-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.001
0.001
0.000421
0.000424
0.000166
0.01
0.00125
0.00133
0.00105
0.00144
0.002
0.000695
0.002
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13


BB-01 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
0.00115
0.001
0.001
0.000229
0.000219
0.00517
0.0072
0.0127
0.00811
0.01
0.02
0.0076
0.004
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13


BA-01A 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 (Standard Units)
Lead mg/L
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
7.35
7.40
7.28
7.23
7.40
7.49
7.24
6.89
0.00165
0.000122
0.001
0.000708
0.000236
0.001
0.000654
0.005
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

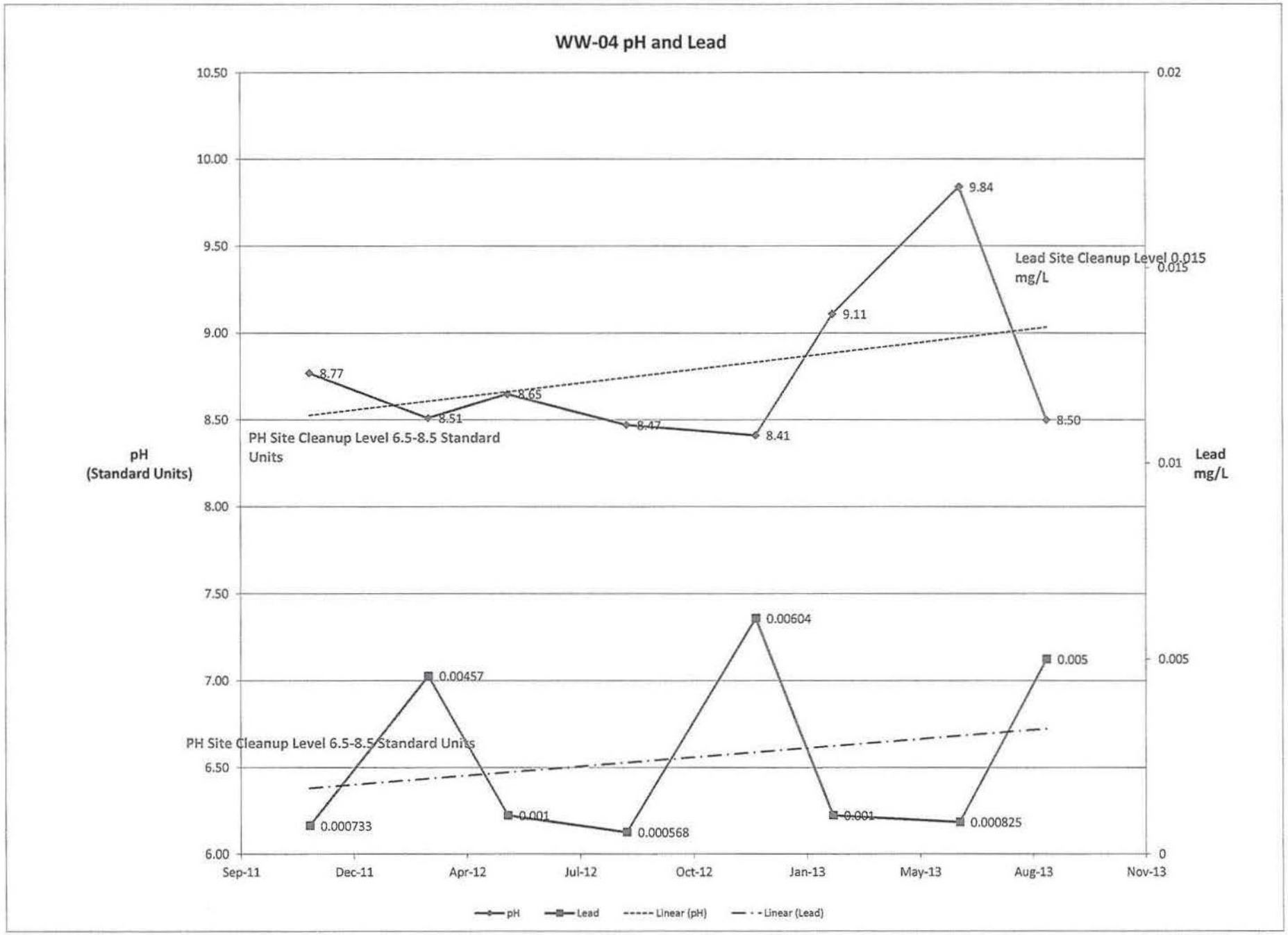

BA-01A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.00866
0.00766
0.00765
0.00586
0.00538
0.0085
0.00726
0.0086
0.0234
0.00421
0.00703
0.038
0.0237
0.0123
0.012
0.036
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

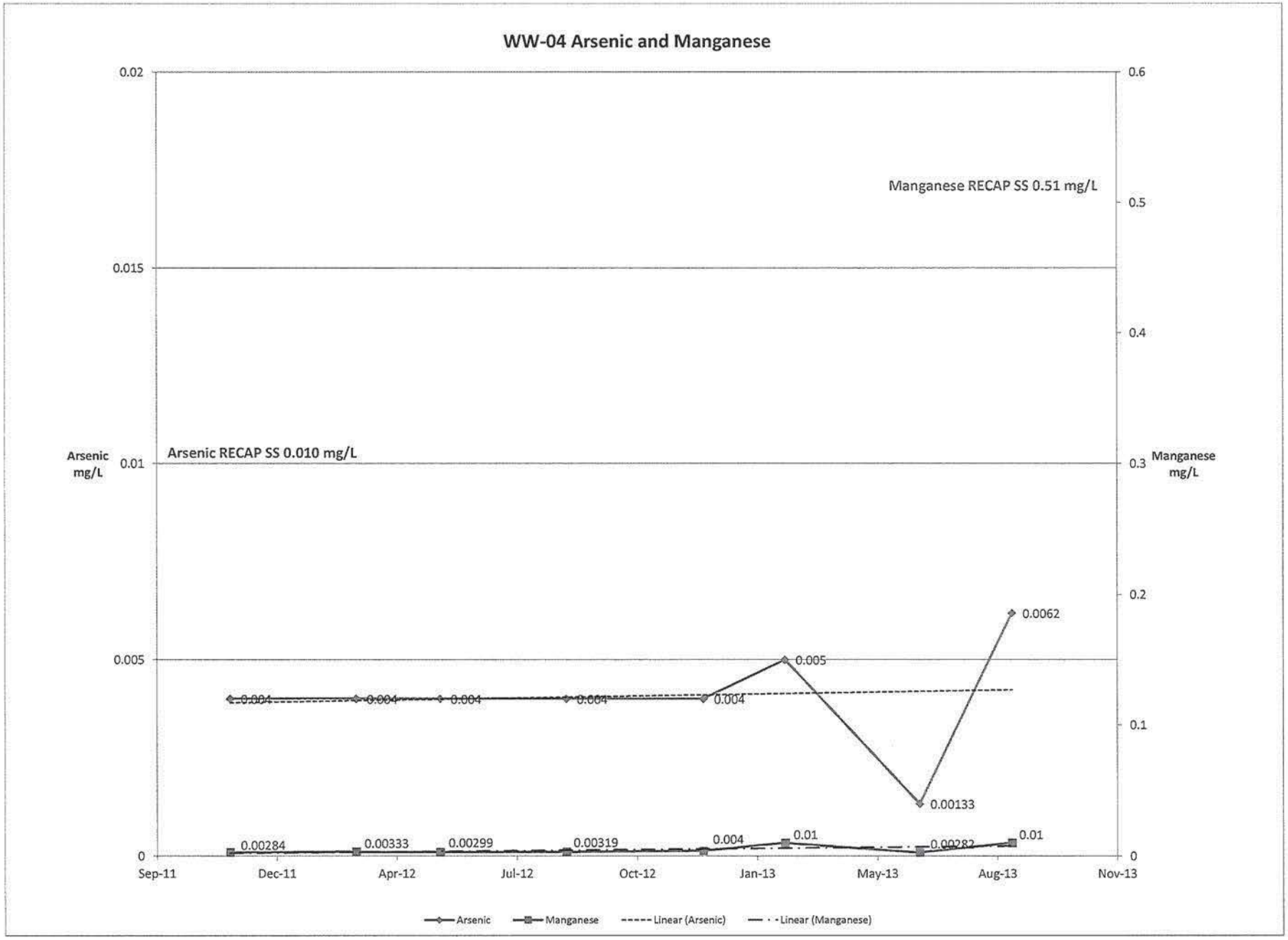

BA-01A Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
RECAP SS 0.073
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.000253
0.002
0.002
0.000422
0.002
0.001
0.002
0.005
0.000532
0.00112
0.002
0.000448
0.000565
0.01
0.000609
0.01

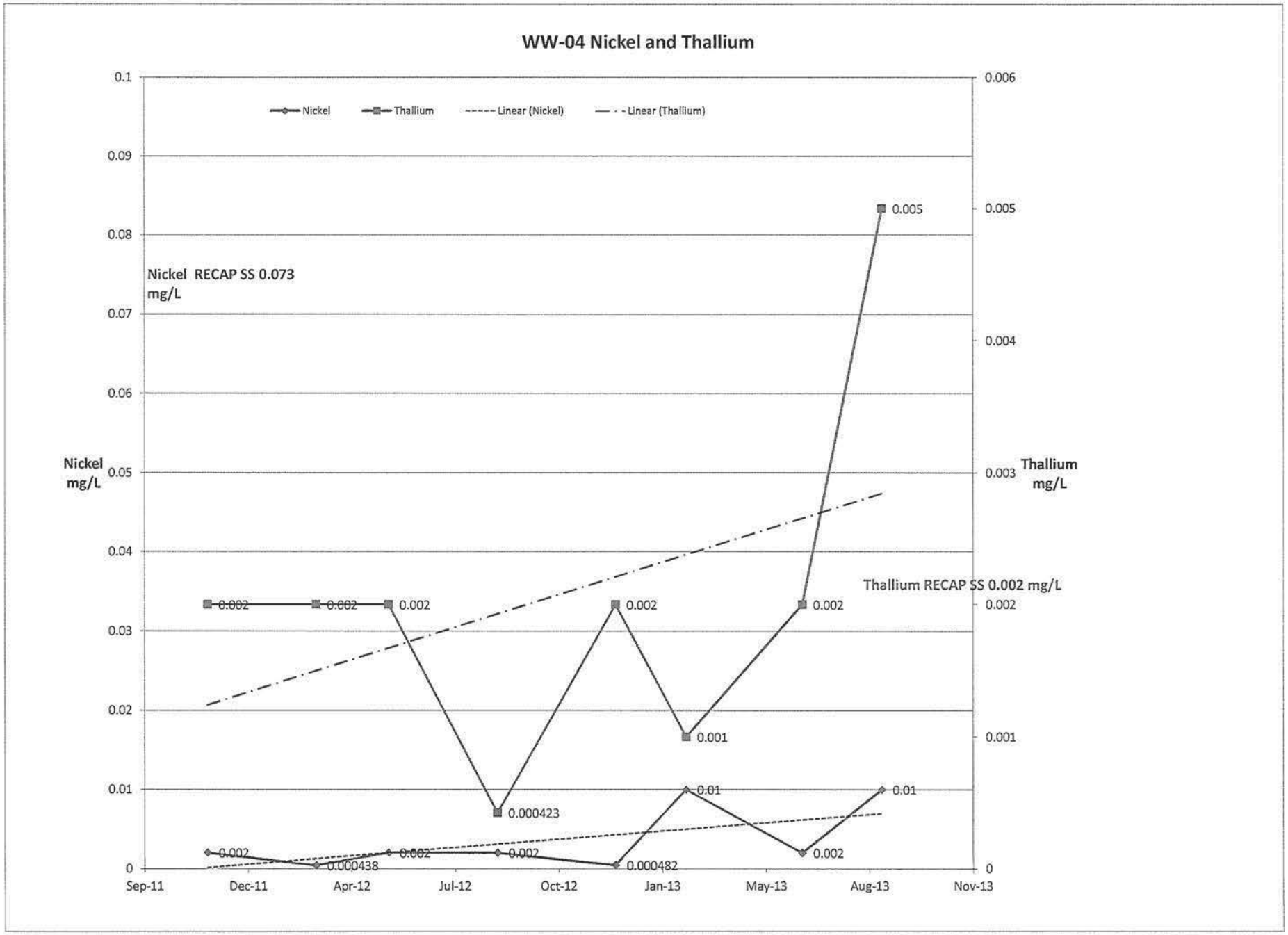

BA-01A Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.005
0.002
0.002
0.002
0.001
0.000635
0.0123
0.0000961
0.00667
0.00203
0.000102
0.00455
0.00392
0.02
0.00453
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

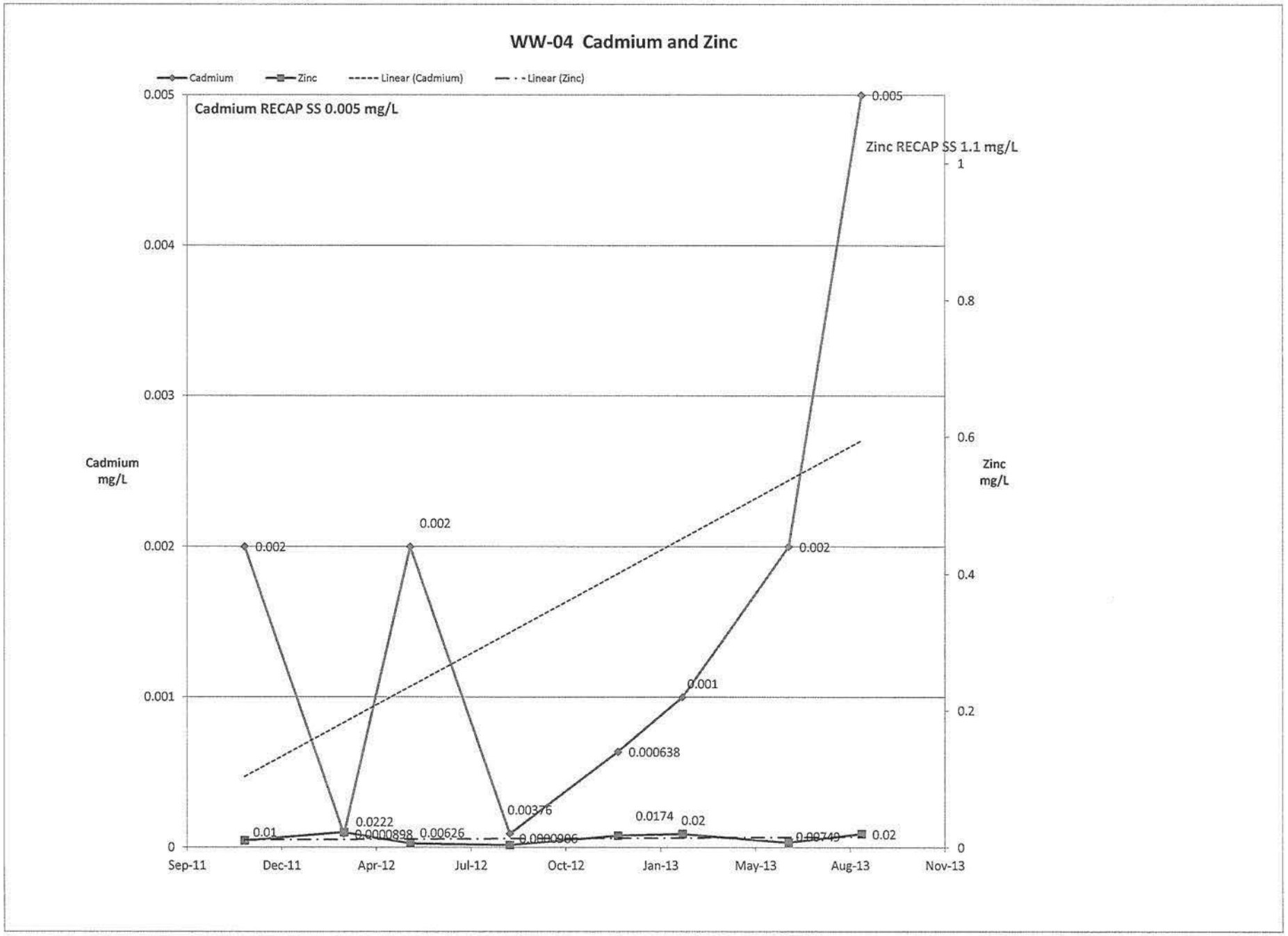
WATER WELLS

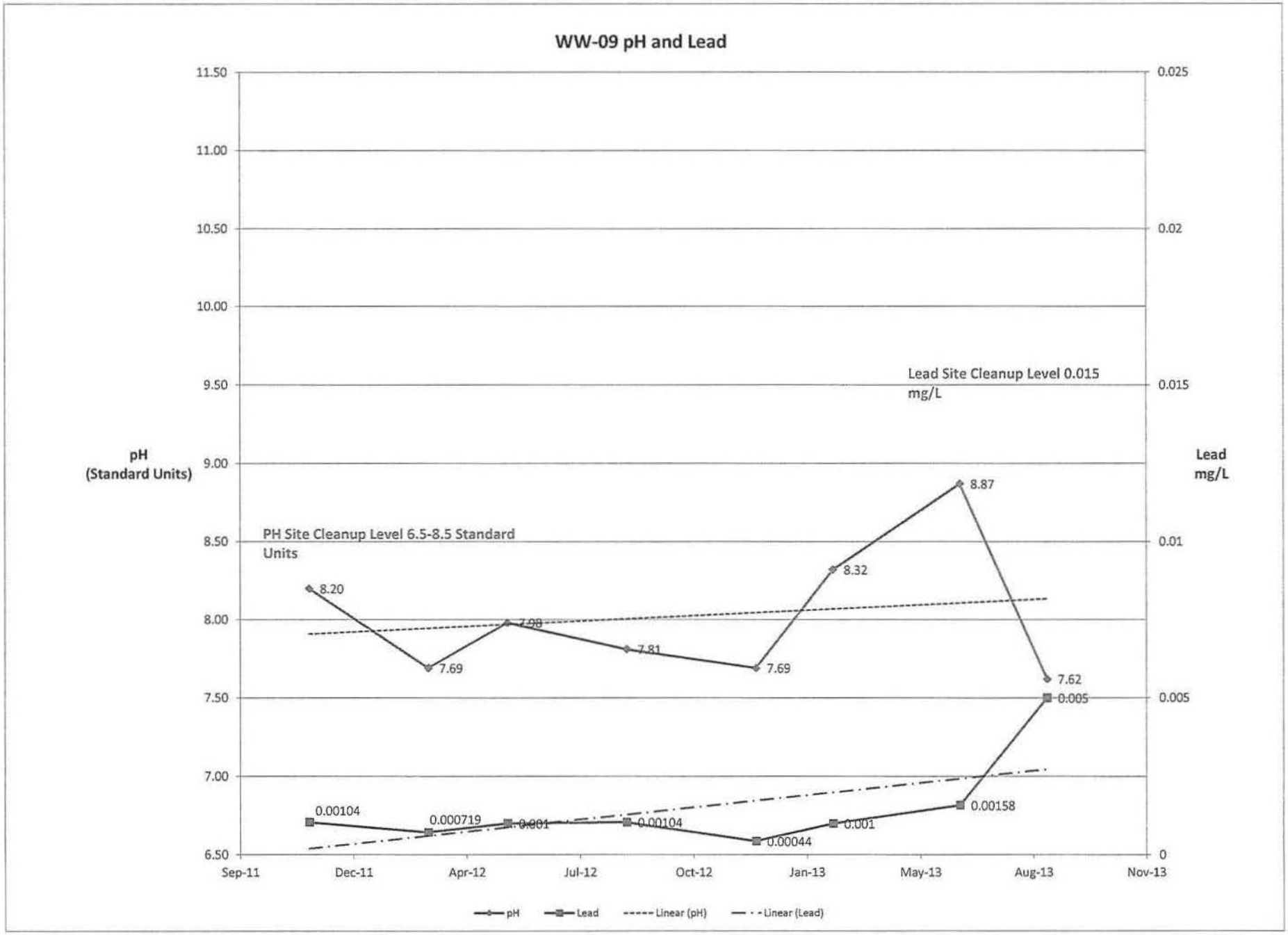
(PAST EIGHT QUARTERS)

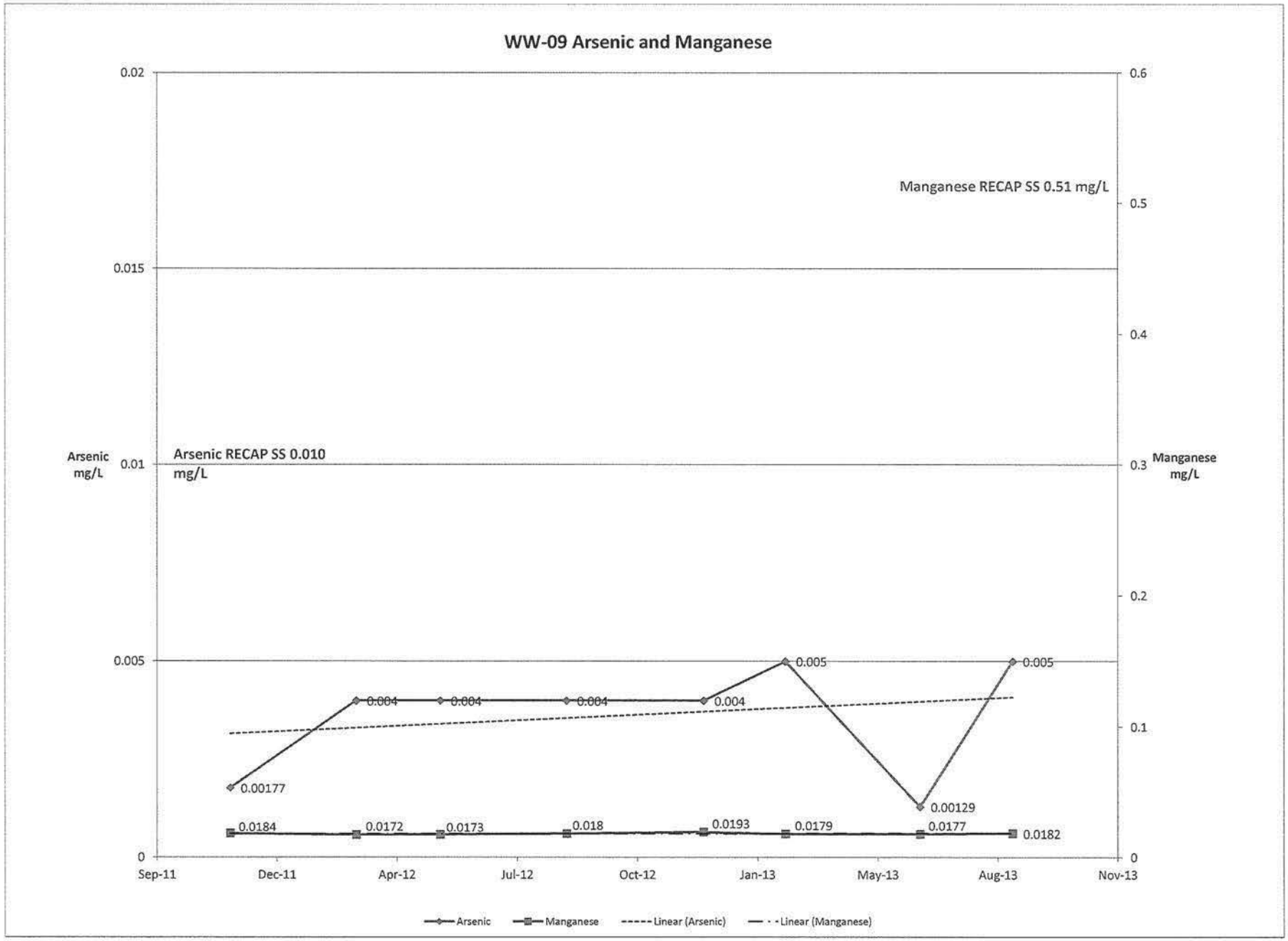

WW-04 pH and Lead
pH
(Standard Units)
Lead
mg/L
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
8.77
8.51
8.65
8.47
8.41
9.11
9.84
8.50
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
0.000733
0.00457
0.001
0.000568
0.00604
0.001
0.000825
0.005
PH Site Cleanup Level 6.5-8.5 Standard Units
pH
Lead
Linear (pH)
Linear (Lead)

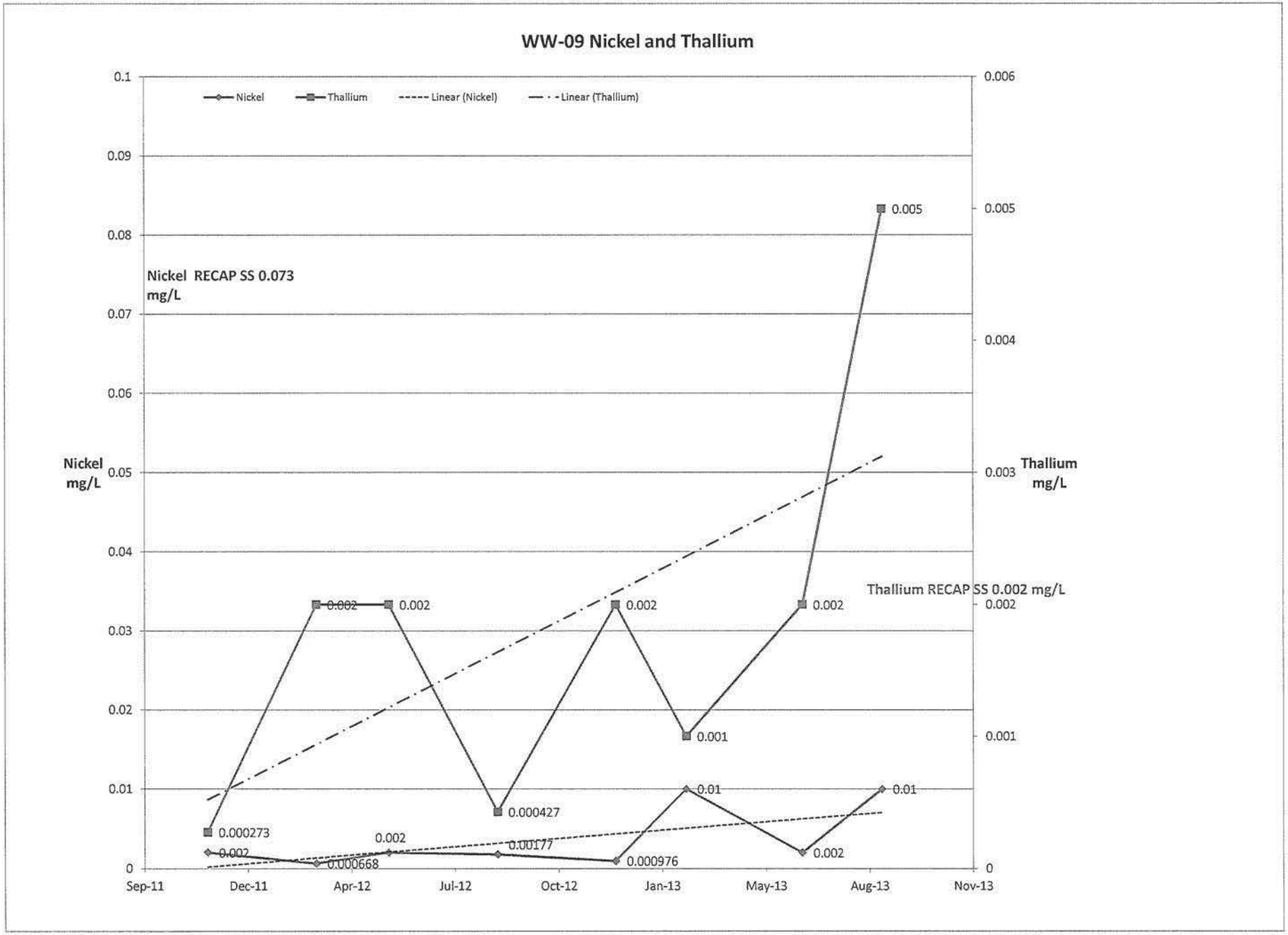

WW-04 Arsenic and Manganese
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.004
0.004
0.004
0.004
0.004
0.005
0.00133
0.0062
0.00284
0.00333
0.00299
0.00319
0.004
0.01
0.00282
0.01
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

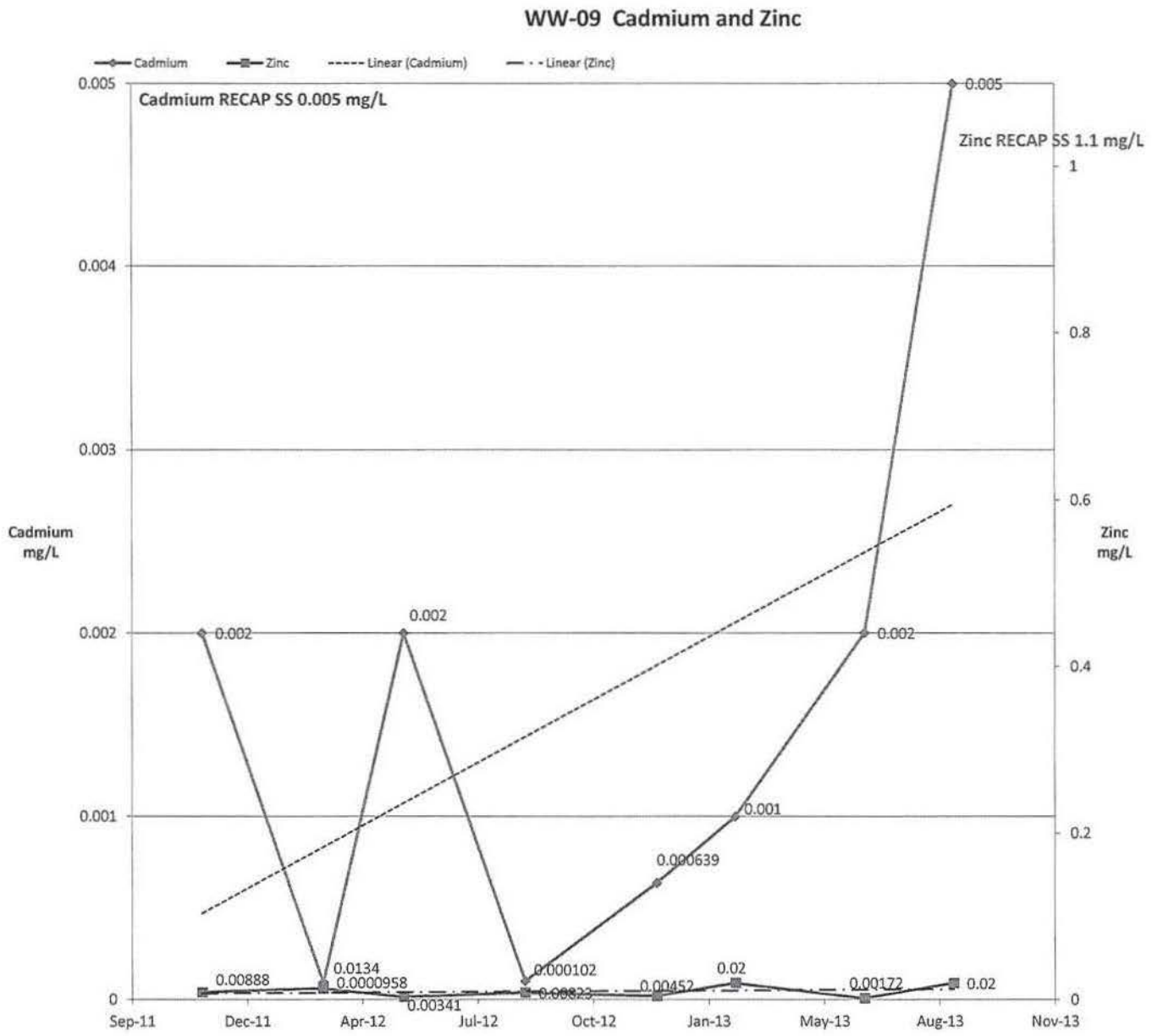

WW-04 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.002
0.002
0.002
0.000423
0.002
0.001
0.002
0.005
0.002
0.000438
0.002
0.002
0.000482
0.01
0.002
0.01

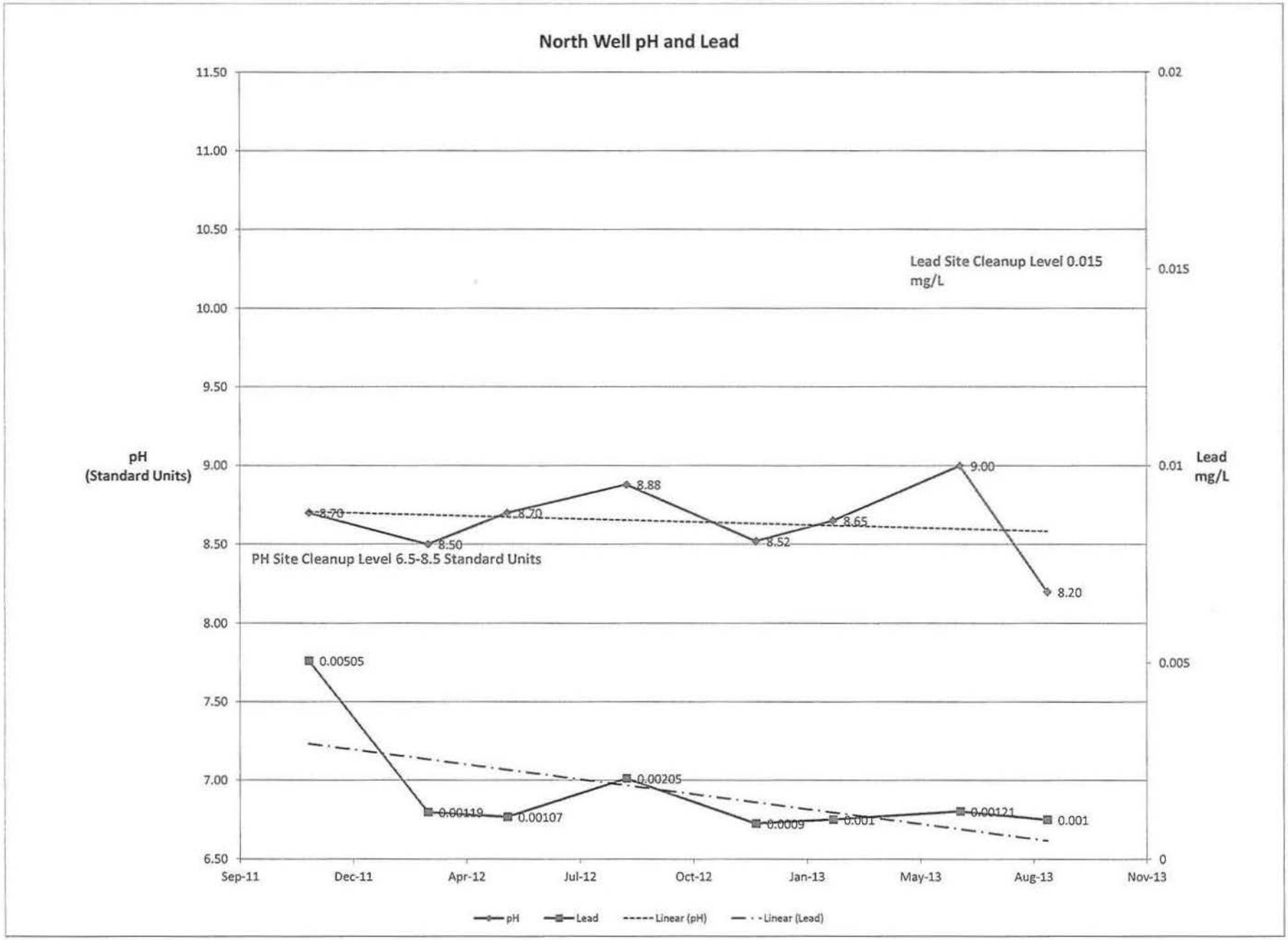

WW-04 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.005
0.002
0.002
0.002
0.001
0.000638
0.00376
0.01
0.0222
0.0000898
0.00626
0.0000906
0.0174
0.02
0.00749
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

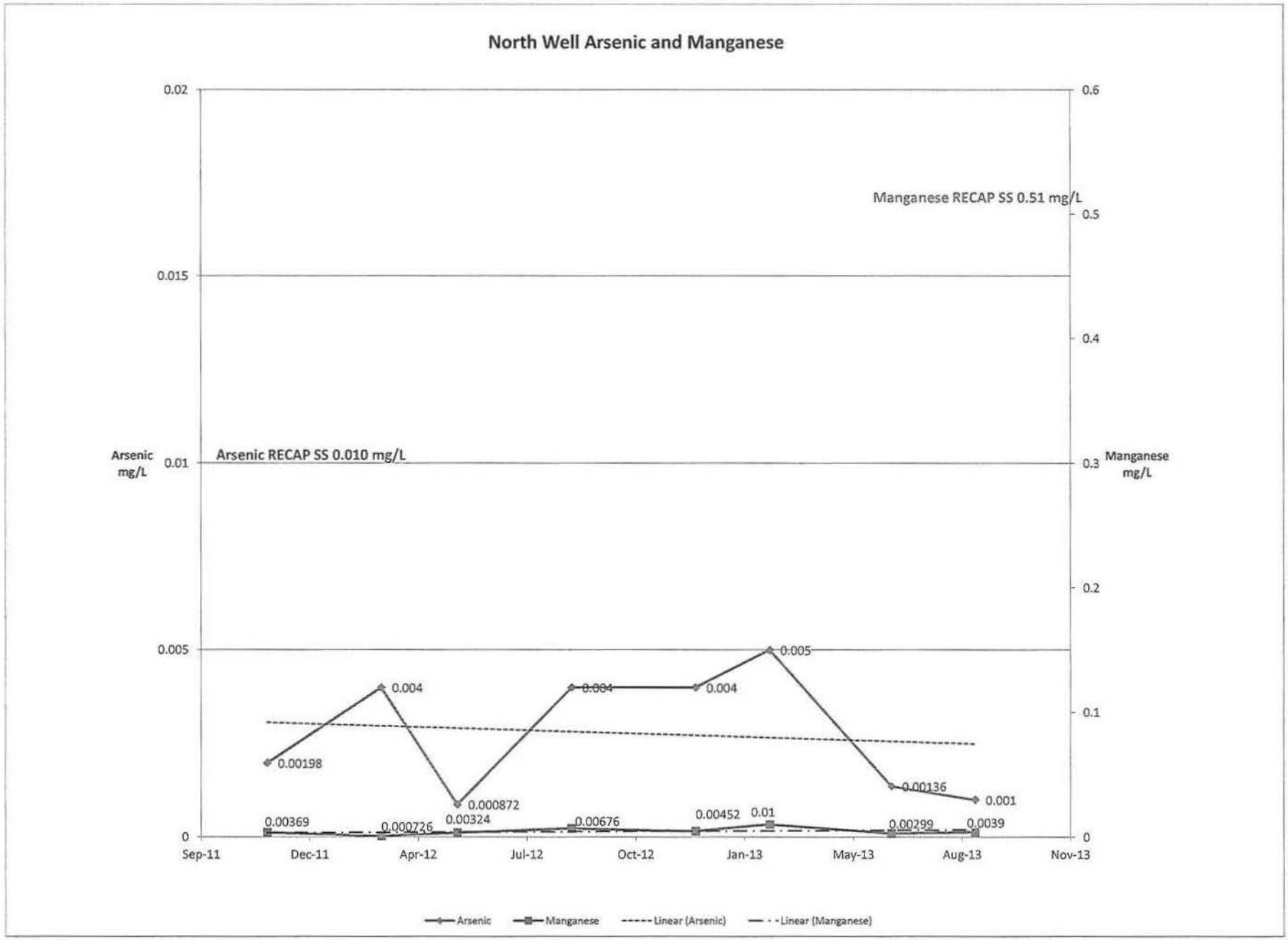

WW-09 pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.025
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.20
7.69
7.98
7.81
7.69
8.32
8.87
7.62
0.00104
0.000719
0.001
0.00104
0.00044
0.001
0.00158
0.005
pH
Lead
Linear (pH)
Linear (Lead)

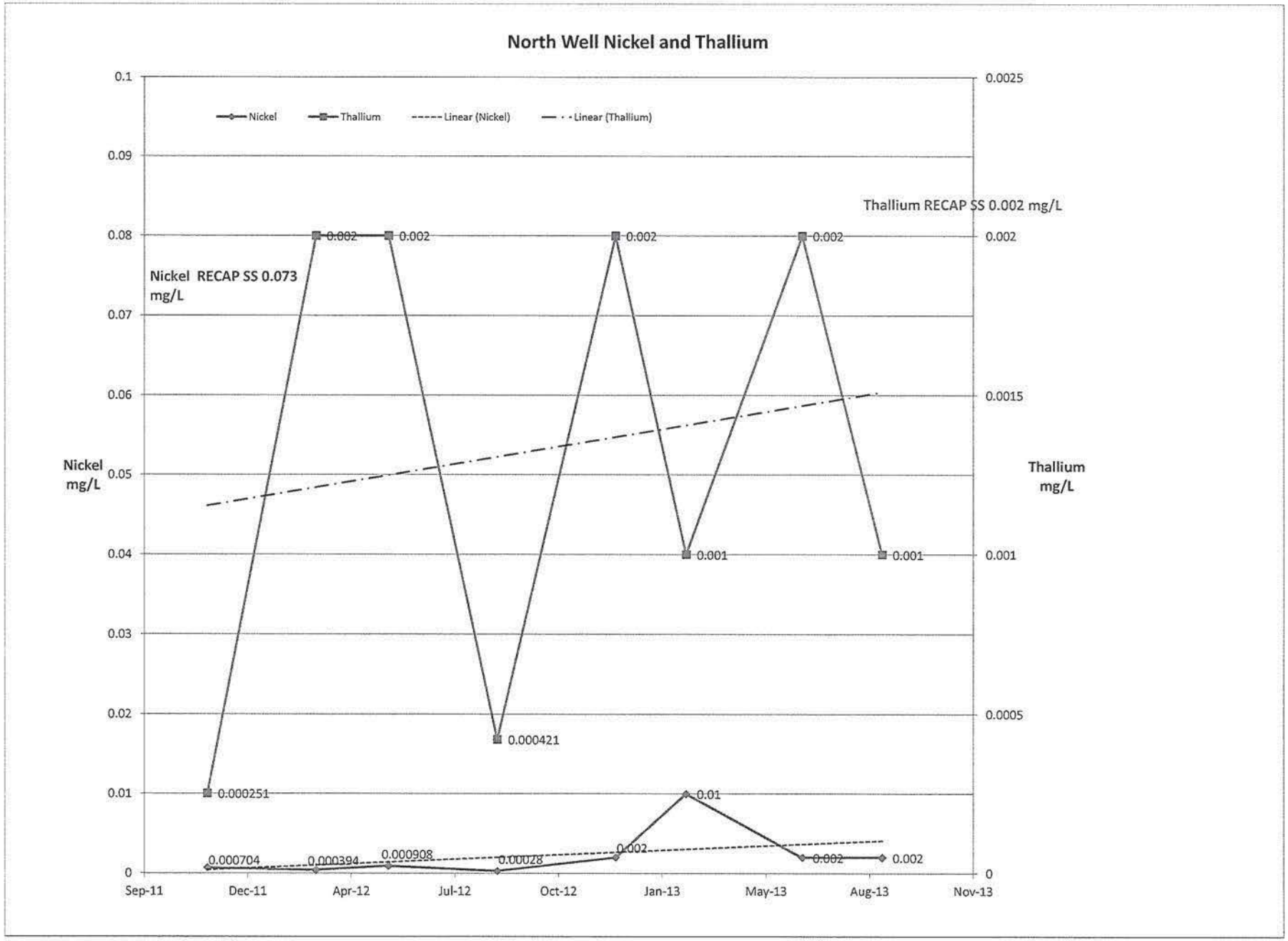

WW-09 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.00177
0.004
0.004
0.004
0.004
0.005
0.00129
0.005
0.0184
0.0172
0.0173
0.018
0.0193
0.0179
0.0177
0.0182
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

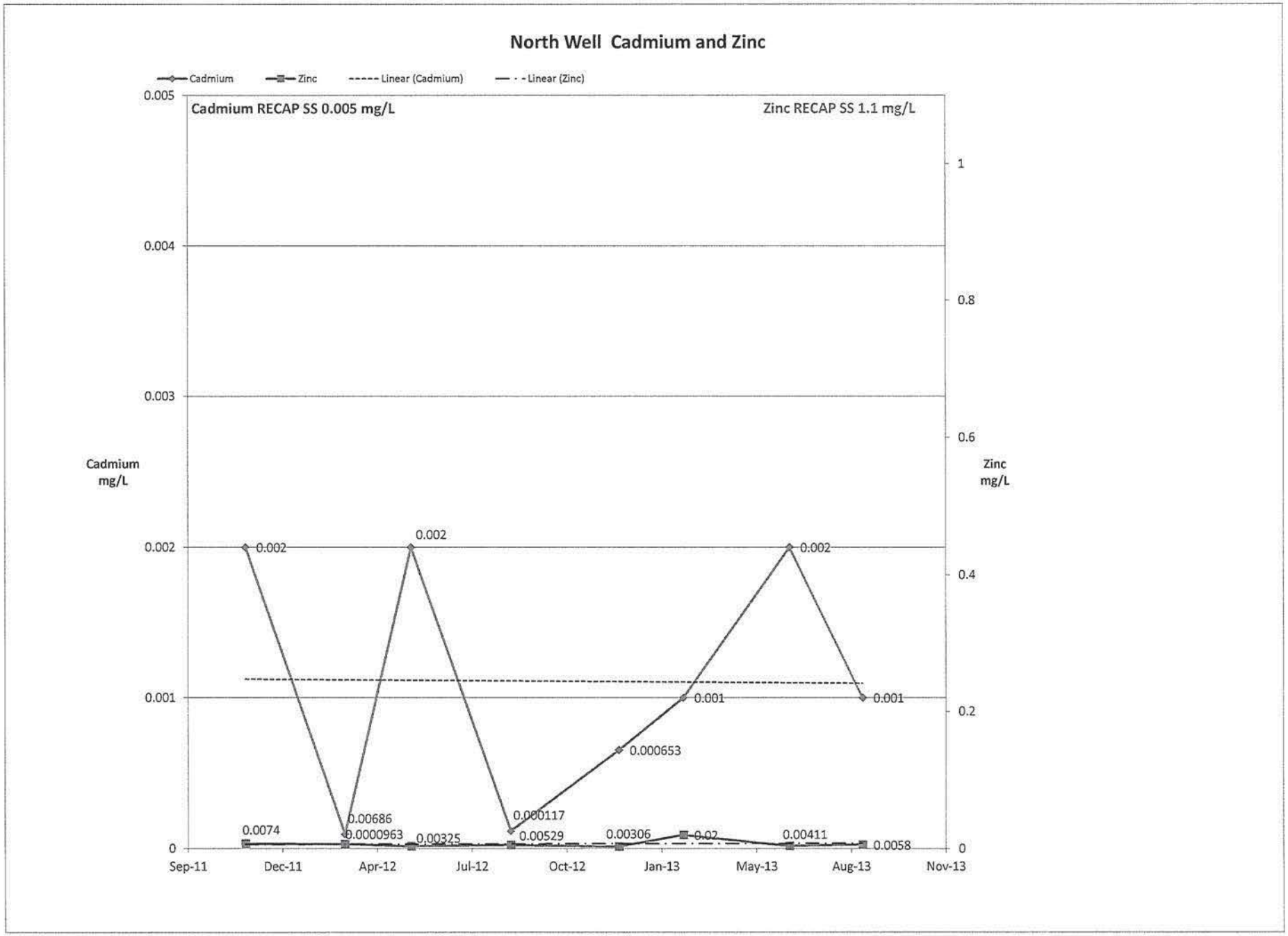

WW-09 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.000273
0.002
0.002
0.002
0.000668
0.002
0.000427
0.00177
0.002
0.000976
0.001
0.01
0.002
0.002
0.005
0.01

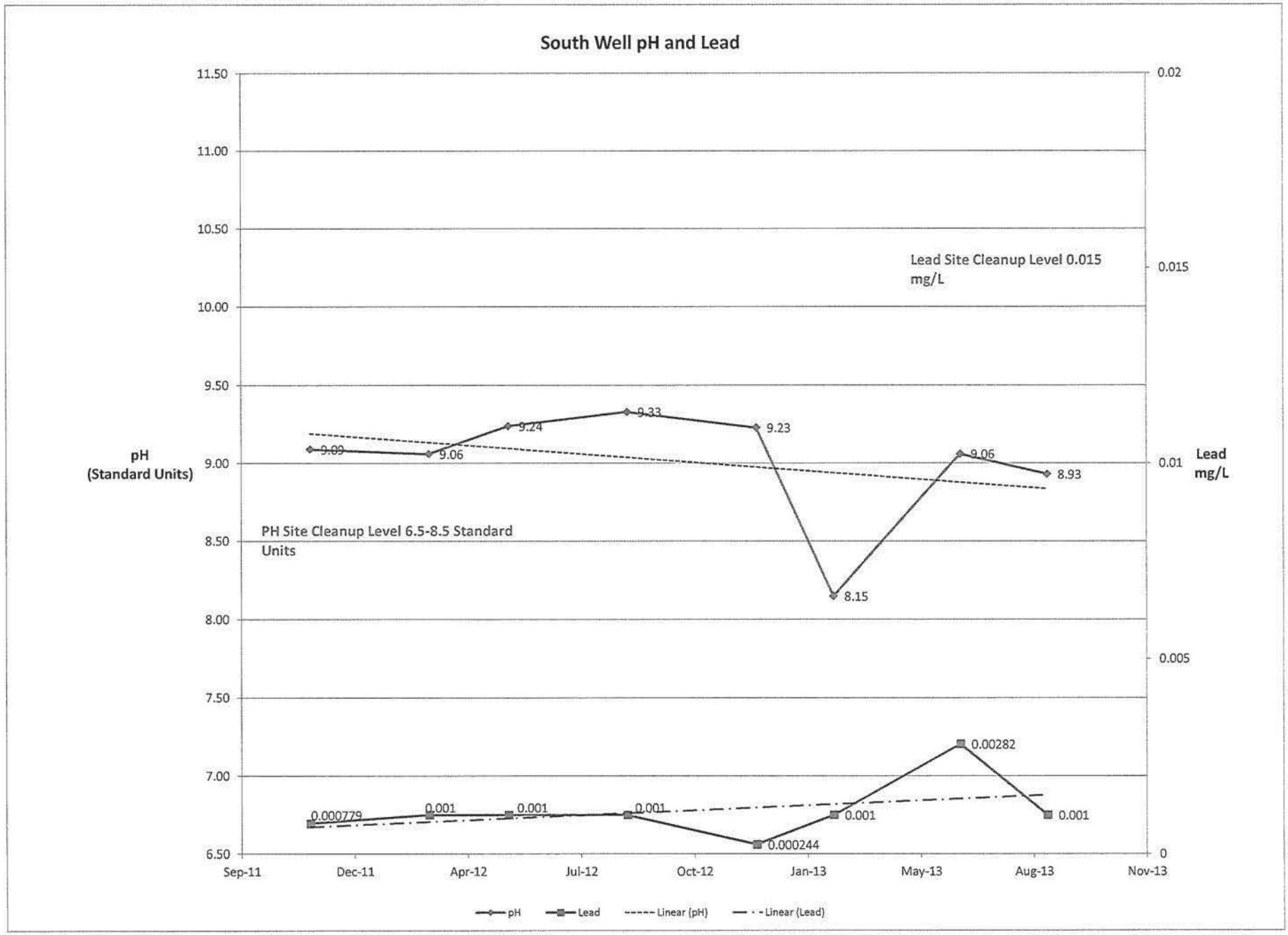

WW-09 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.005
0.002
0.002
0.002
0.001
0.000639
0.00888
0.0134
0.0000958
0.00341
0.000102
0.00823
0.00452
0.02
0.00172
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

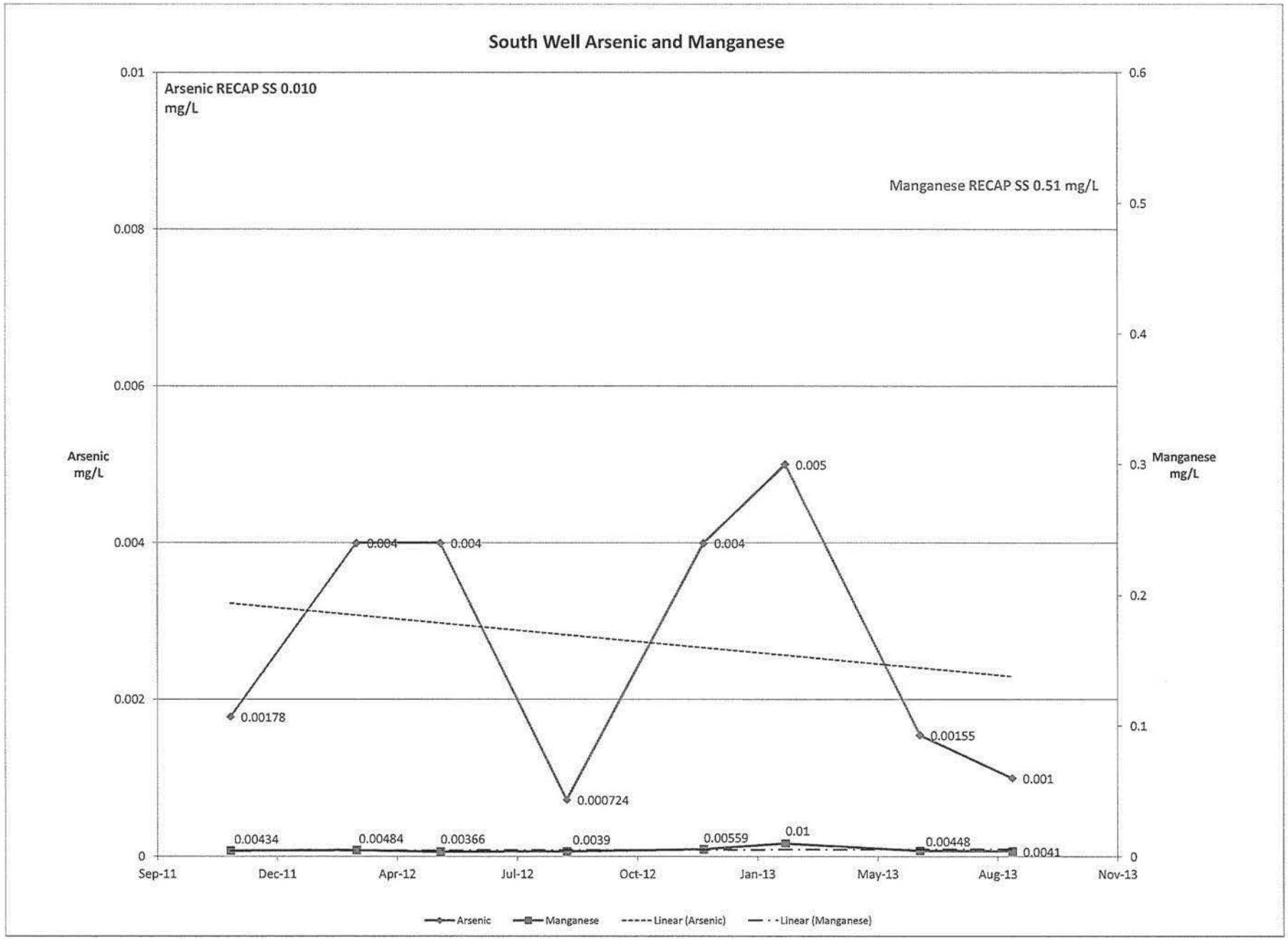

North Well pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.70
8.50
8.70
8.88
8.52
8.65
9.00
8.20
0.00505
0.00119
0.00107
0.00205
0.0009
0.001
0.00121
0.001
pH
Lead
Linear (pH)
Linear (Lead)

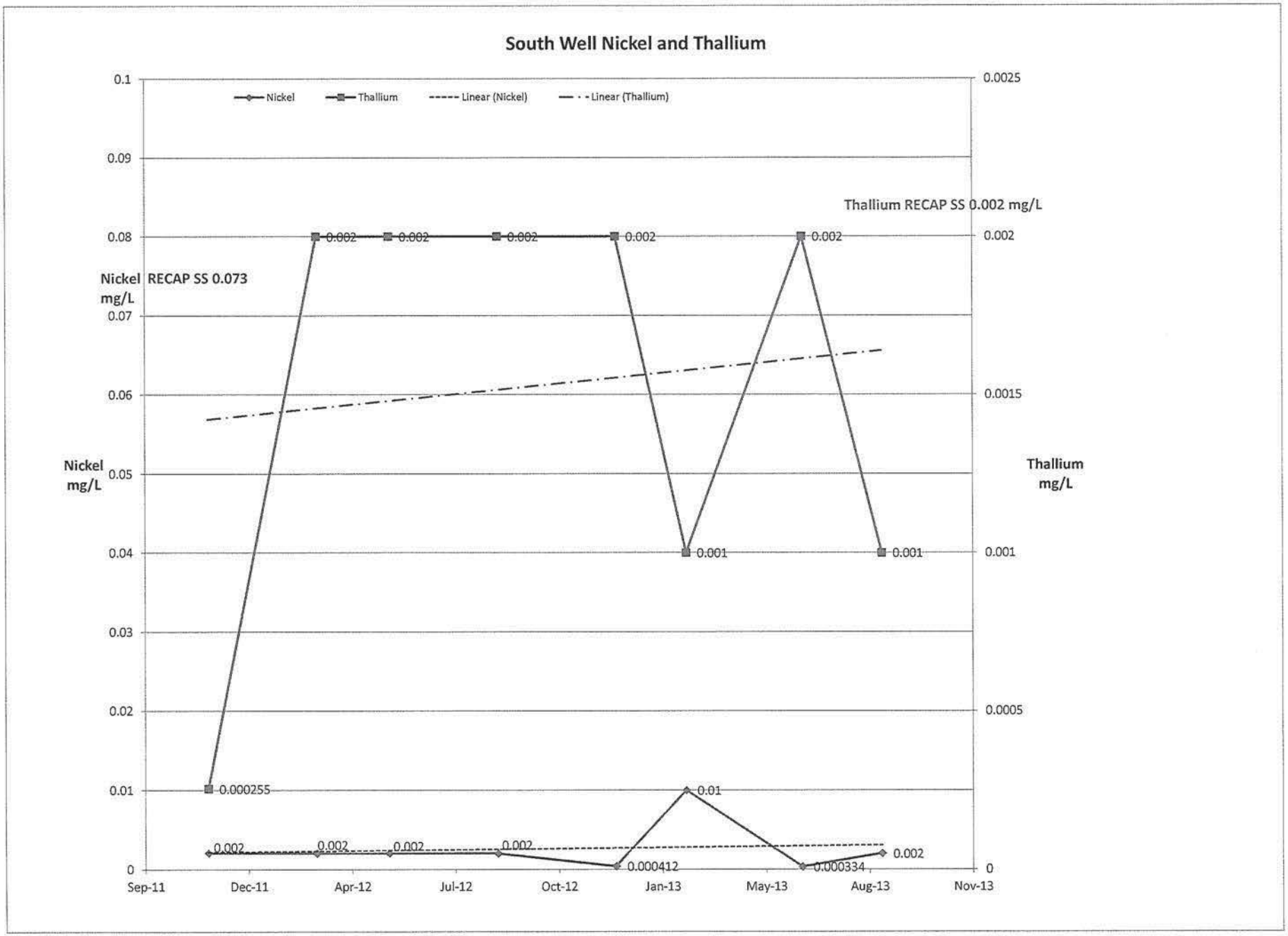

North Well Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.00198
0.004
0.000872
0.004
0.004
0.005
0.00136
0.001
0.00369
0.000726
0.00324
0.00676
0.00452
0.01
0.00299
0.0039
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

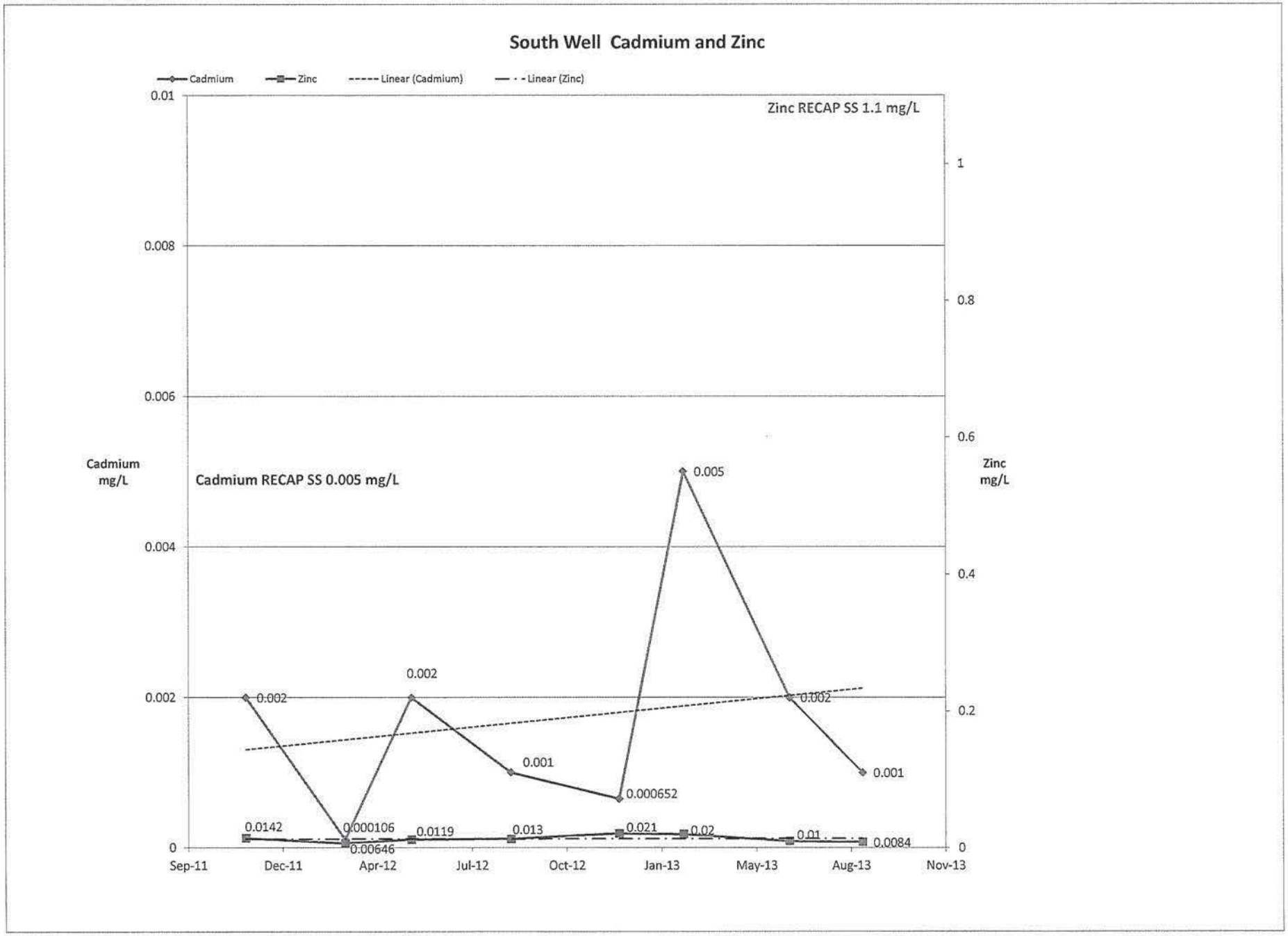

North Well Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.001
0.001
0.000421
0.000251
0.01
0.000704
0.000394
0.000908
0.00028
0.002
0.002
0.002
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

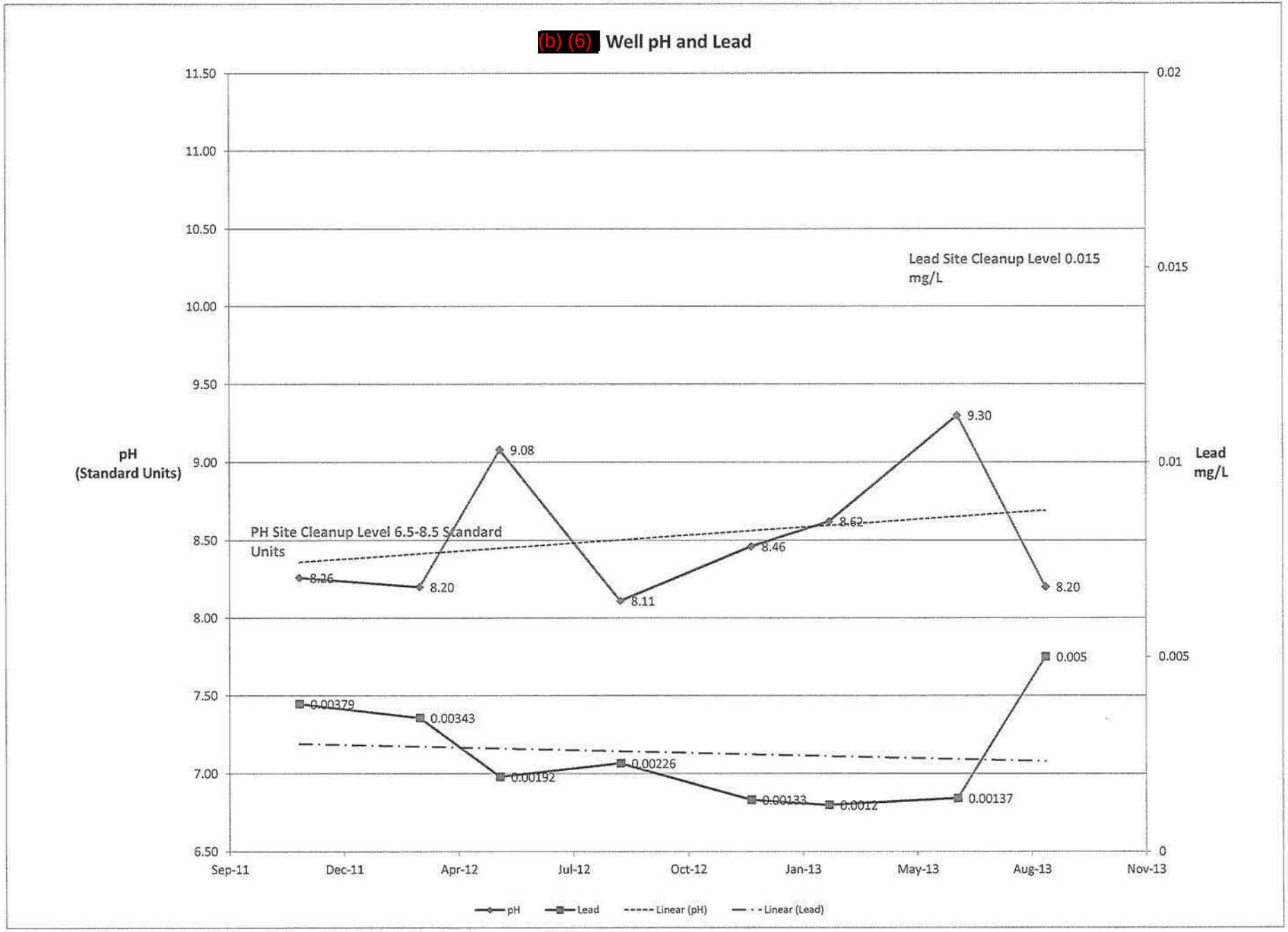

North Well Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.002
0.001
0.001
0.000653
0.000117
0.00686
0.0000963
0.00325
0.00529
0.00306
0.02
0.00411
0.0058
0.0074
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

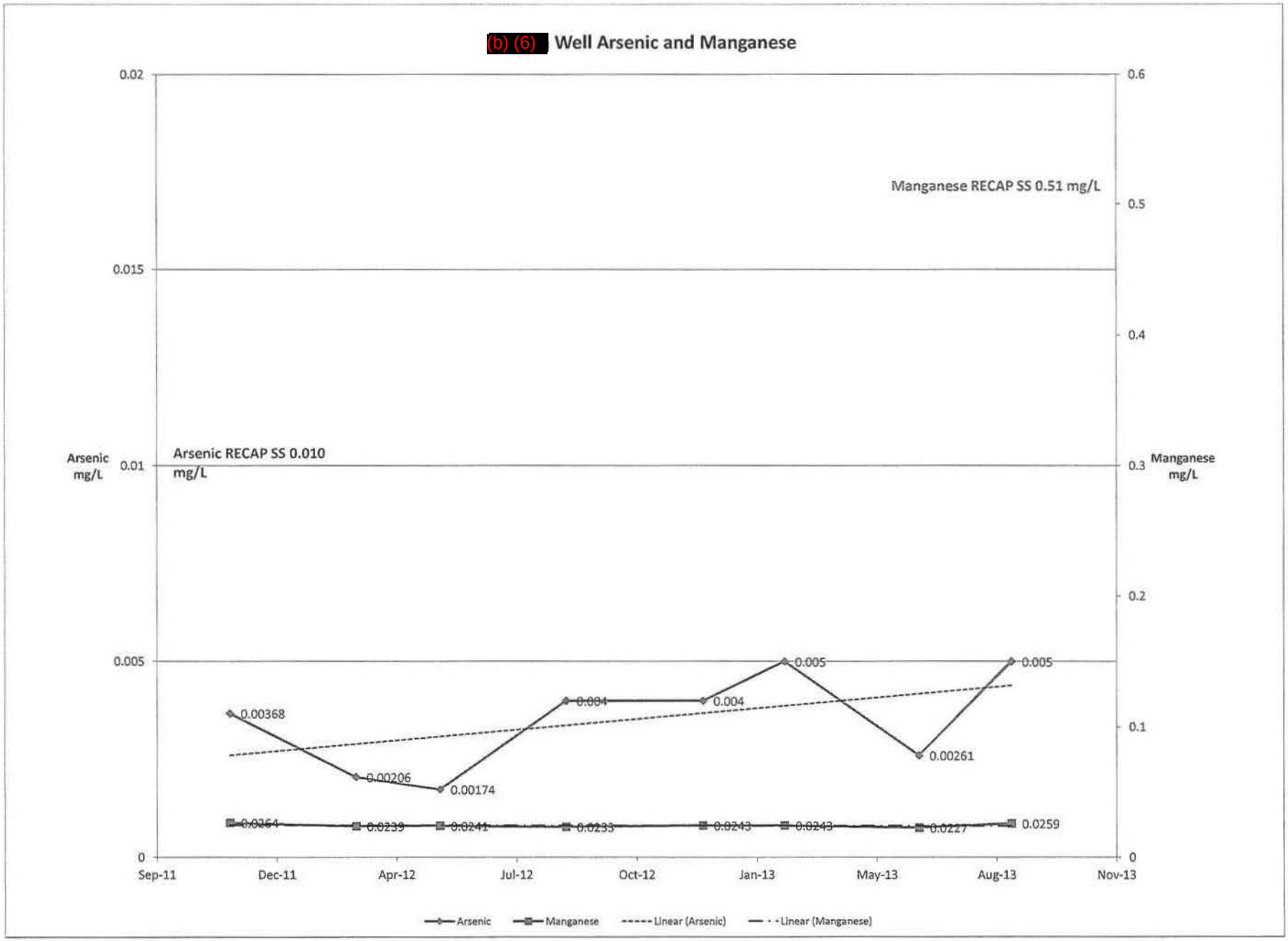

South Well pH and Lead
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
9.09
9.06
9.24
9.33
9.23
8.15
9.06
8.93
0.000779
0.001
0.001
0.001
0.000244
0.001
0.00282
0.001
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
pH
Lead
Linear (pH)
Linear (Lead)

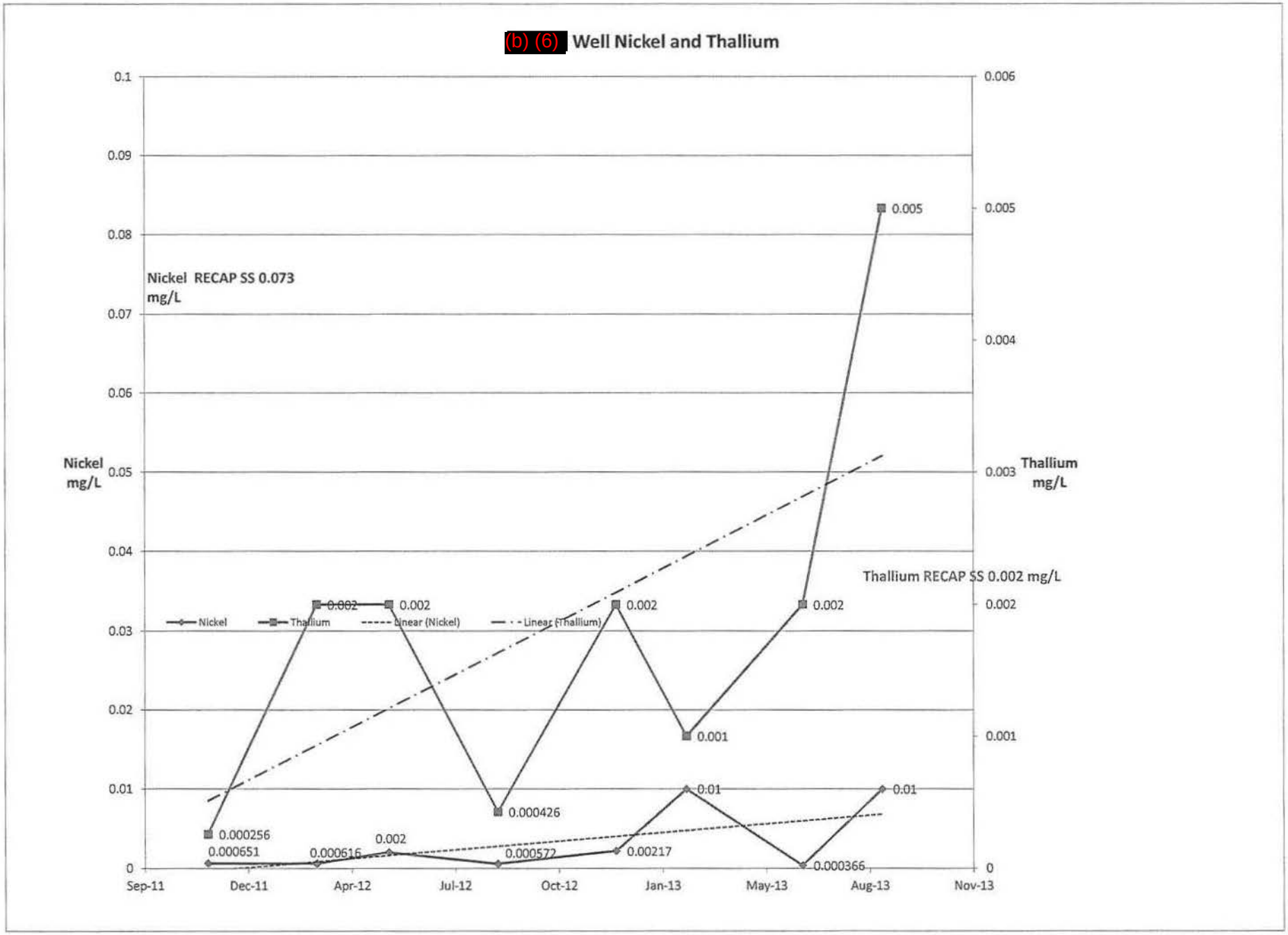

South Well Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic mg/L
Manganese mg/L
0.01
0.008
0.006
0.004
0.002
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00178
0.004
0.004
0.000724
0.004
0.005
0.00155
0.001
0.00434
0.00484
0.00366
0.0039
0.00559
0.01
0.00448
0.0041
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

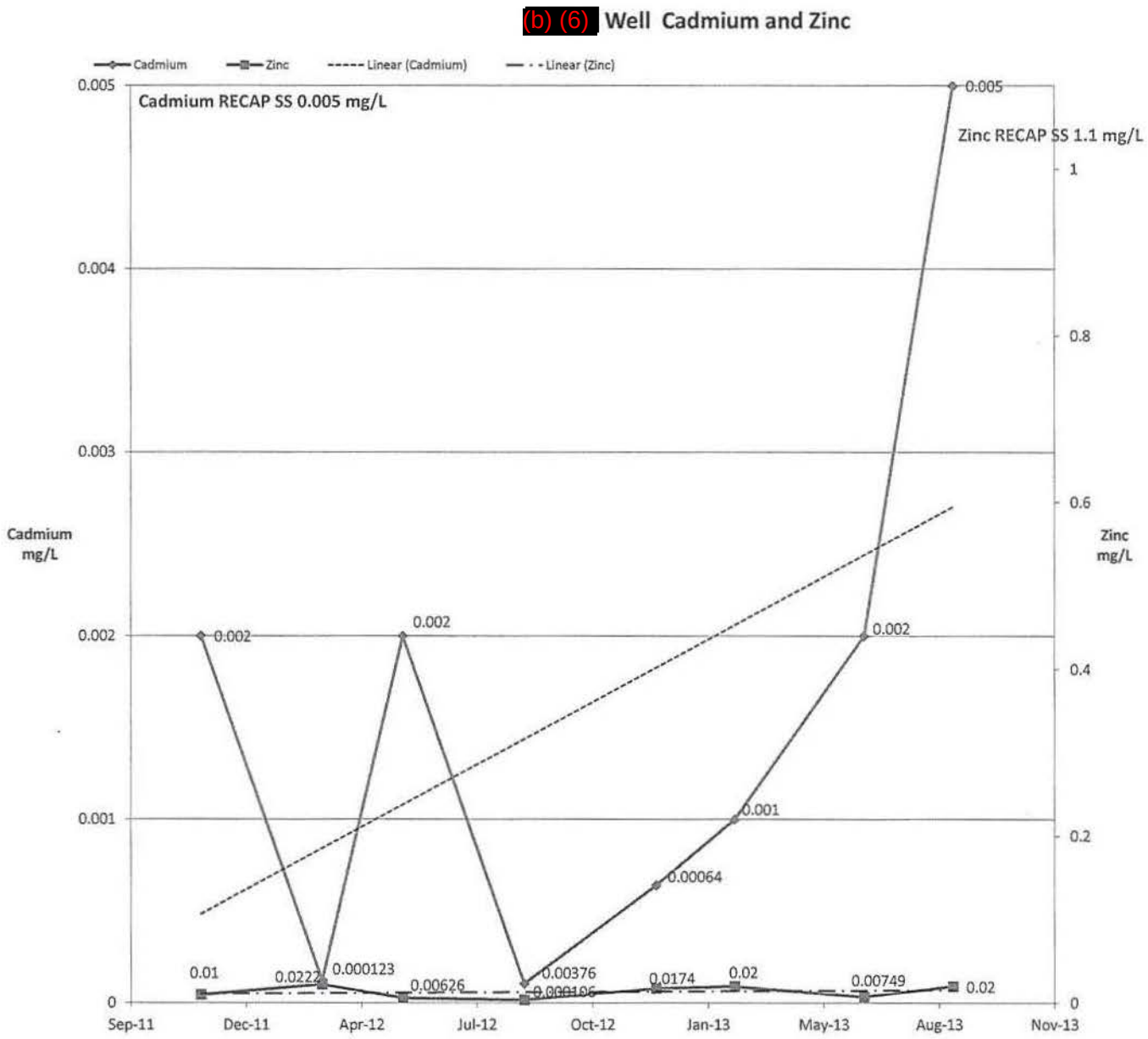

South Well Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.001
0.001
0.000255
0.01
0.002
0.002
0.002
0.002
0.000412
0.000334
0.002
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13


South Well 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
0.01
0.008
0.006
0.004
0.002
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.001
0.000652
0.005
0.002
0.001
0.0142
0.000106
0.00646
0.0119
0.013
0.021
0.02
0.01
0.0084
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13


(b) (6) 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
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.26
8.20
9.08
8.11
8.46
8.62
9.30
8.20
0.00379
0.00343
0.00192
0.00226
0.00133
0.0012
0.00137
0.005
pH
Lead
Linear (pH)
Linear (Lead)

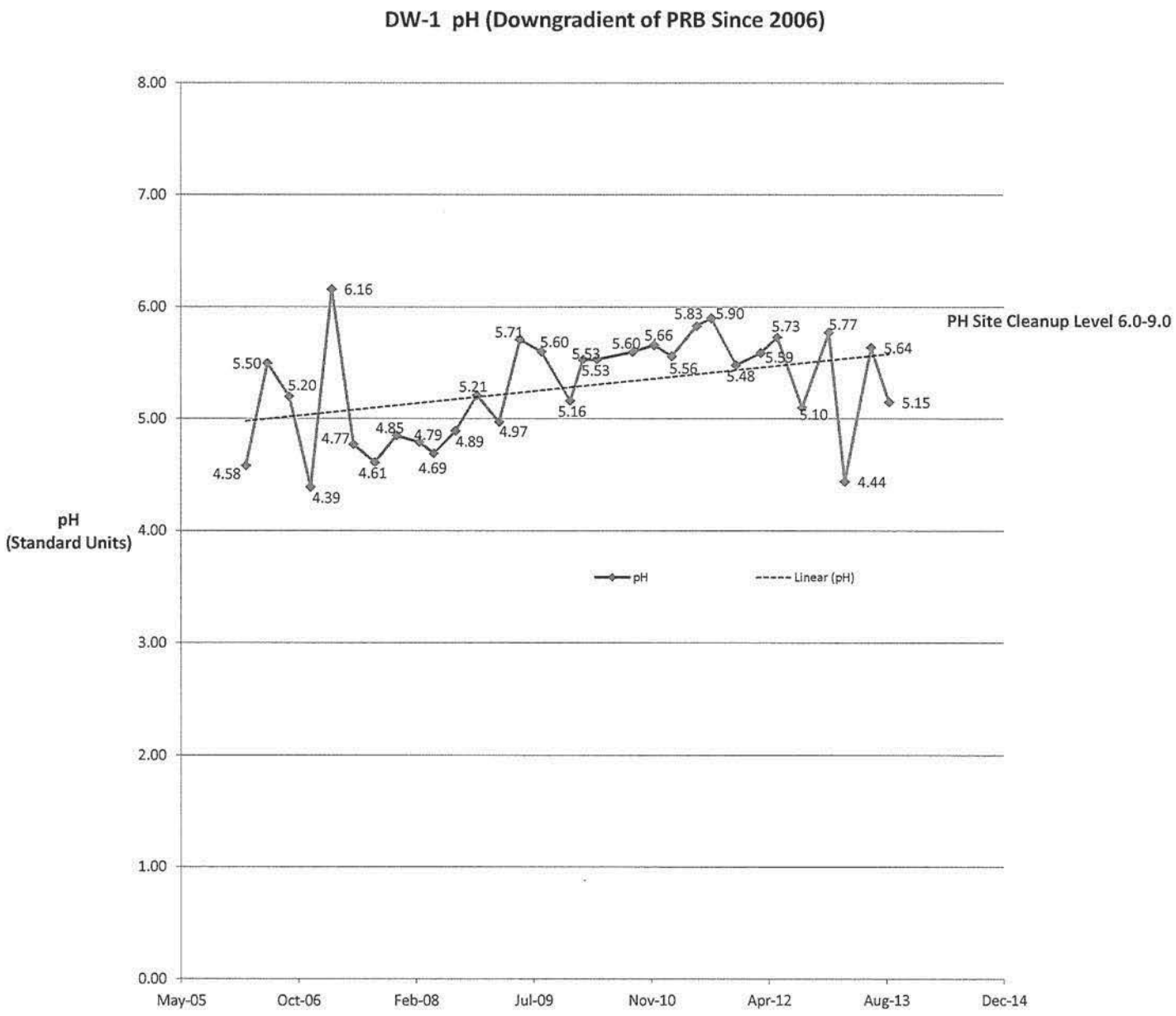

(b) (6) Well Arsenic and Manganese
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00368
0.00206
0.00174
0.004
0.004
0.005
0.00261
0.005
0.0264
0.0239
0.0241
0.0233
0.0243
0.0243
0.0227
0.0259
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

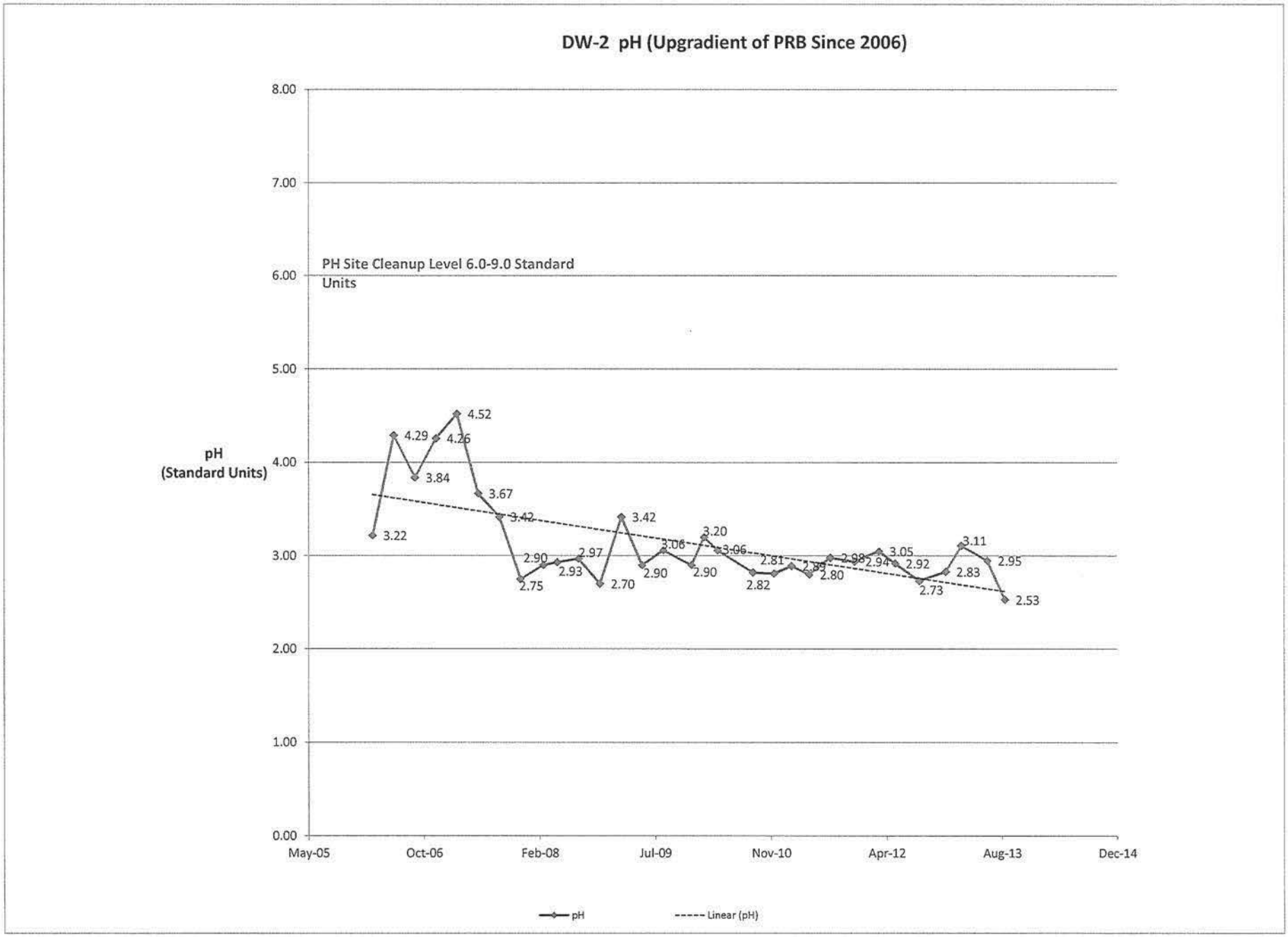

(b) (6) Well Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.006
0.005
0.004
0.003
0.002
0.001
0
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13
0.000256
0.002
0.002
0.000426
0.002
0.001
0.002
0.005
0.000651
0.000616
0.002
0.000572
0.00217
0.01
0.000366
0.01

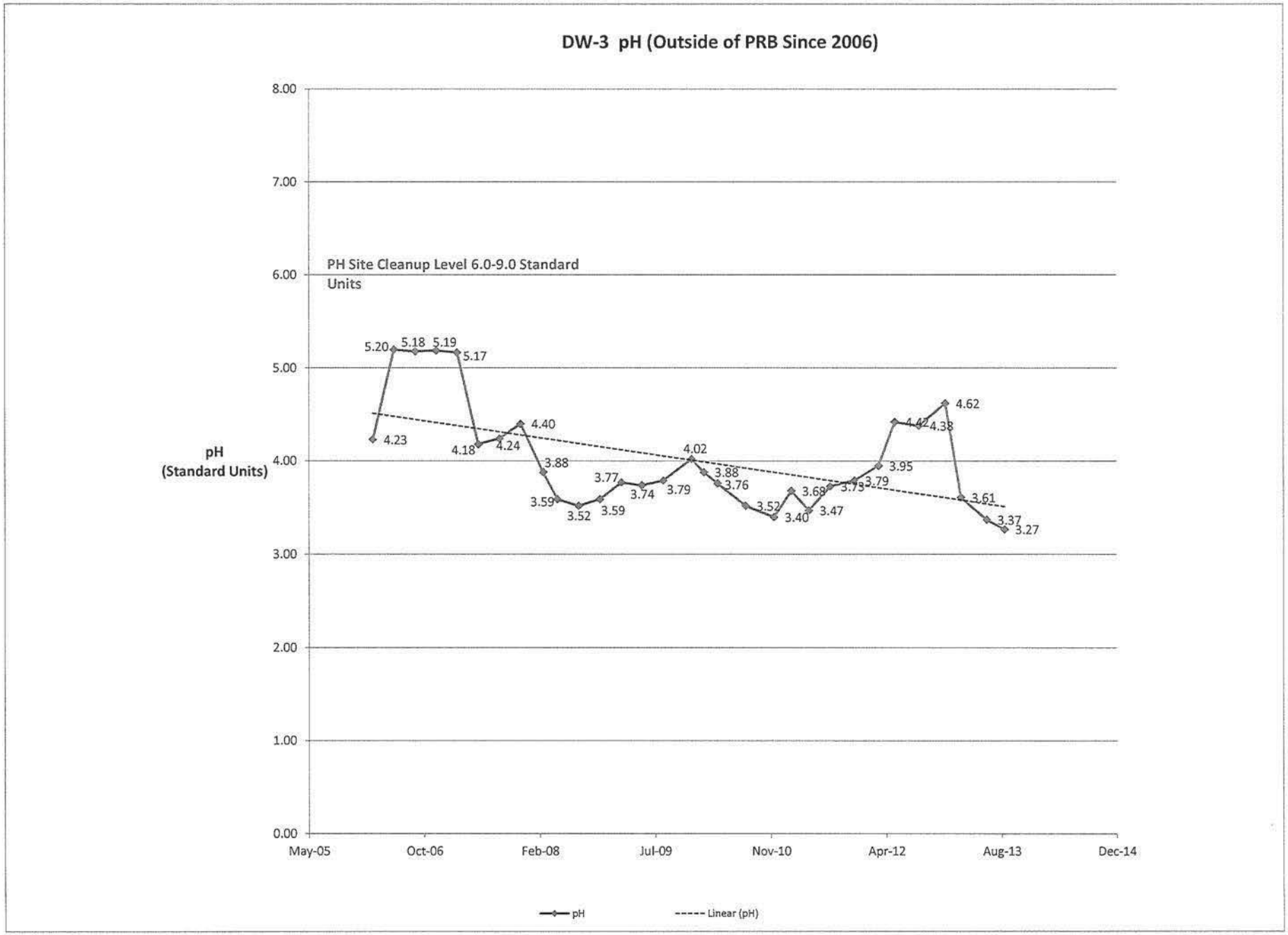

(b) (6) Well Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Cadmium RECAP SS 0.005 mg/L
Zinc RECAP SS 1.1 mg/L
Cadmium mg/L
Zinc mg/L
0.005
0.004
0.003
0.002
0.001
0
1
0.8
0.6
0.4
0.2
0
0.005
0.002
0.002
0.002
0.001
0.00064
0.01
0.0222
0.000123
0.00626
0.00376
0.000106
0.0174
0.02
0.00749
0.02
Sep-11
Dec-11
Apr-12
Jul-12
Oct-12
Jan-13
May-13
Aug-13
Nov-13

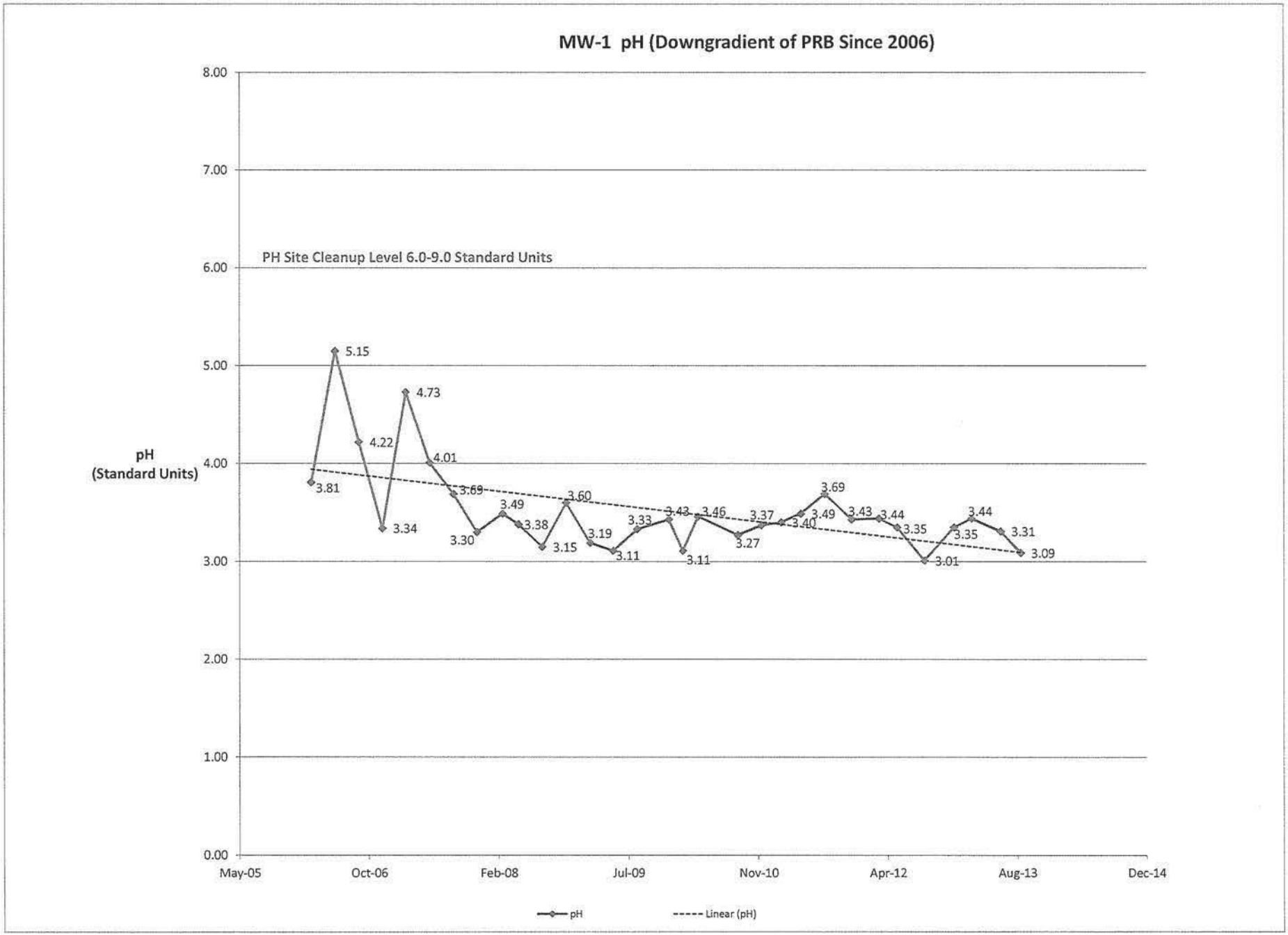
FIRST WATER BEARING ZONE

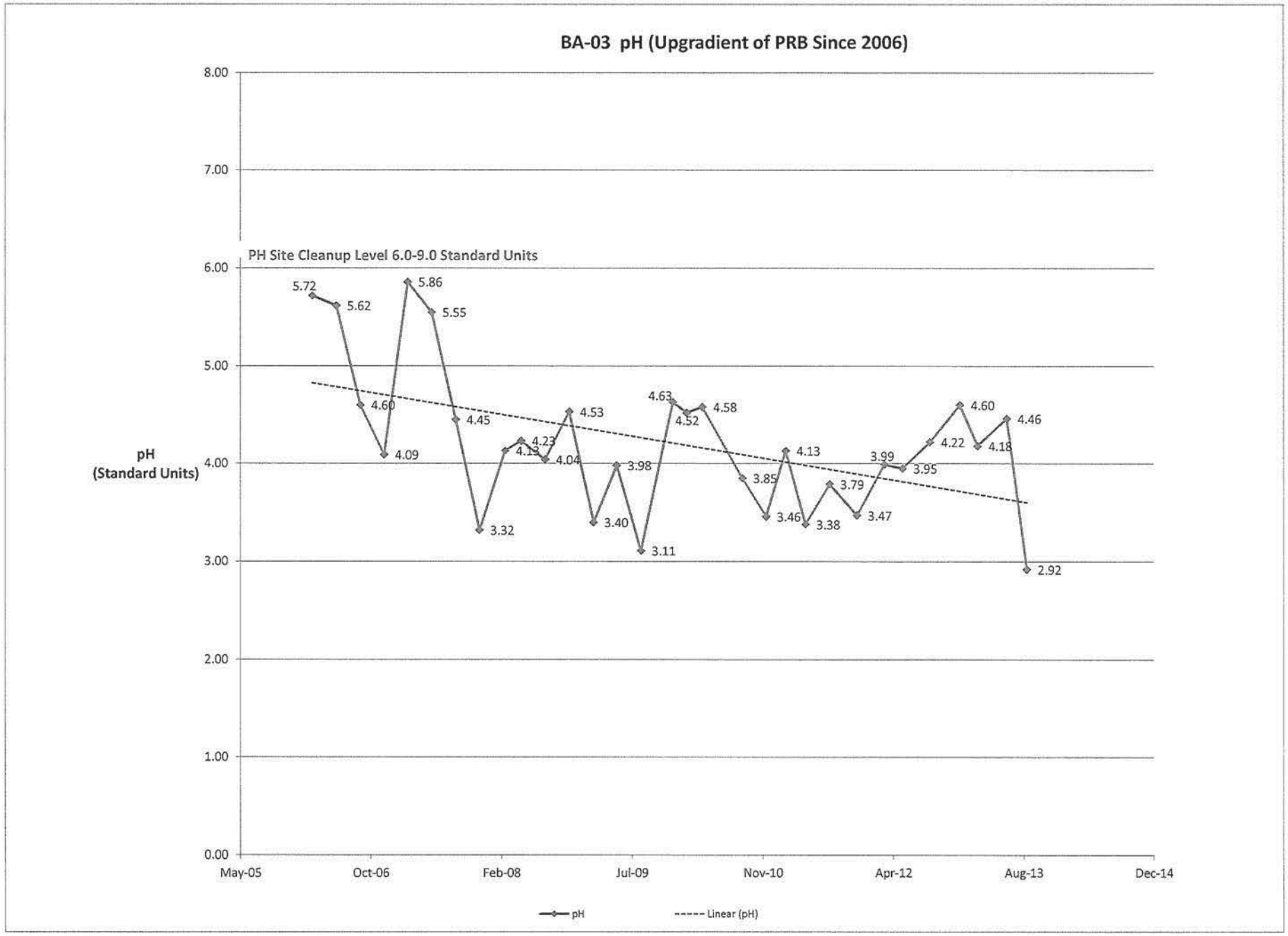
(SINCE 2006)


DW-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
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
4.58
5.50
5.20
4.39
6.16
4.77
4.61
4.85
4.79
4.69
4.89
5.21
4.97
5.71
5.60
5.16
5.53
5.53
5.60
5.66
5.56
5.83
5.90
5.48
5.59
5.73
5.10
5.77
4.44
5.64
5.15
PH Site Cleanup Level 6.0-9.0
pH
Linear (pH)


DW-2 pH (Upgradient of PRB Since 2006)
PH Site Cleanup Level 6.0-9.0 Standard Units
pH (Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
3.22
4.29
3.84
4.26
4.52
3.67
3.42
2.75
2.90
2.93
2.97
2.70
3.42
2.90
3.06
2.90
3.20
3.06
2.82
2.81
2.89
2.80
2.98
2.94
3.05
2.92
2.73
2.83
3.11
2.95
2.53
pH
Linear (pH)

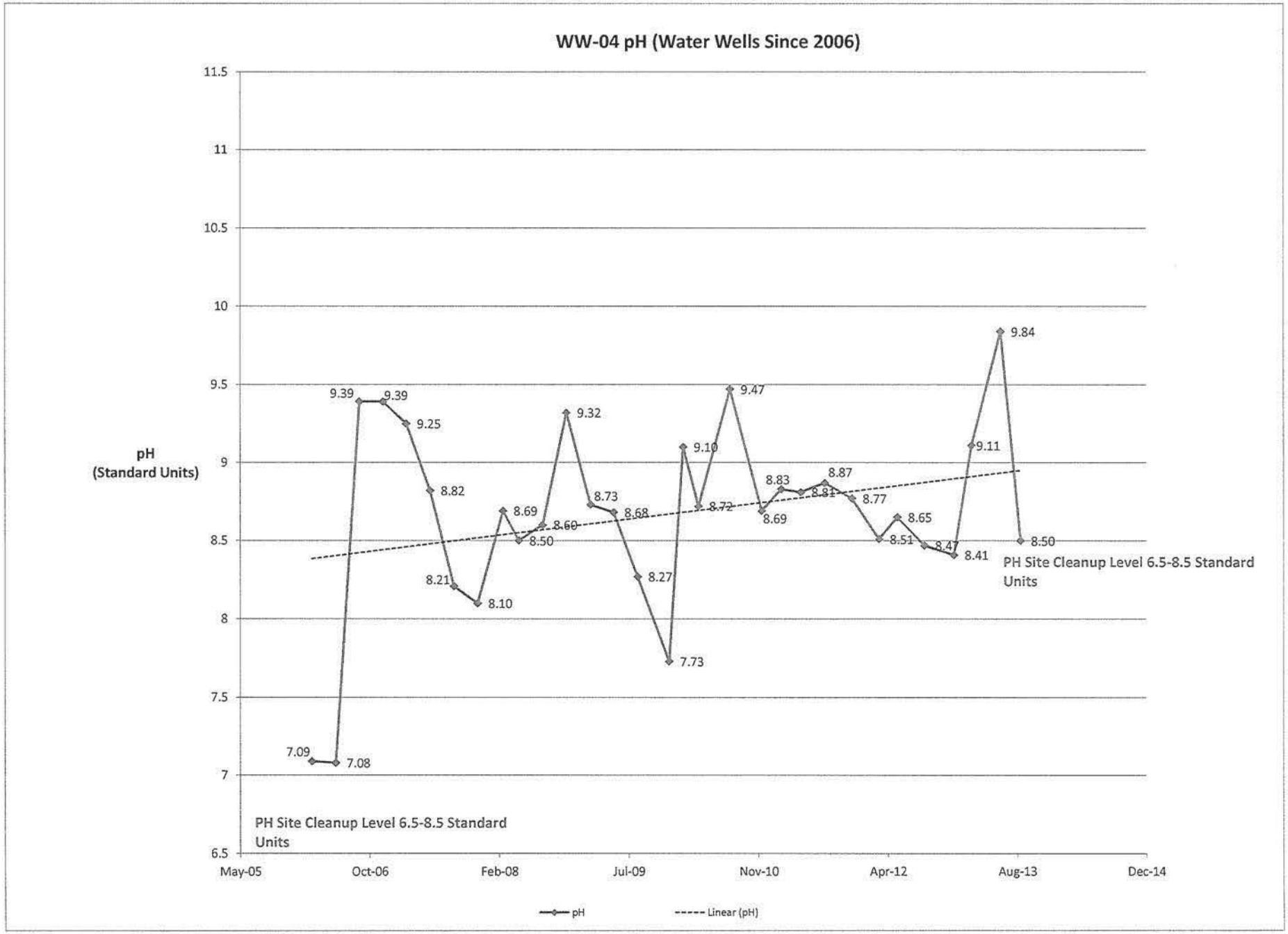

DW-3 pH (Outside of PRB Since 2006)
PH Site Cleanup Level 6.0-9.0 Standard Units
pH (Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
5.20
5.18
5.19
5.17
4.23
4.18
4.24
4.40
3.88
3.59
3.52
3.59
3.77
3.74
3.79
4.02
3.88
3.76
3.52
3.40
3.68
3.47
3.73
3.79
3.95
4.42
4.38
4.62
3.61
3.37
3.27
pH
Linear (pH)

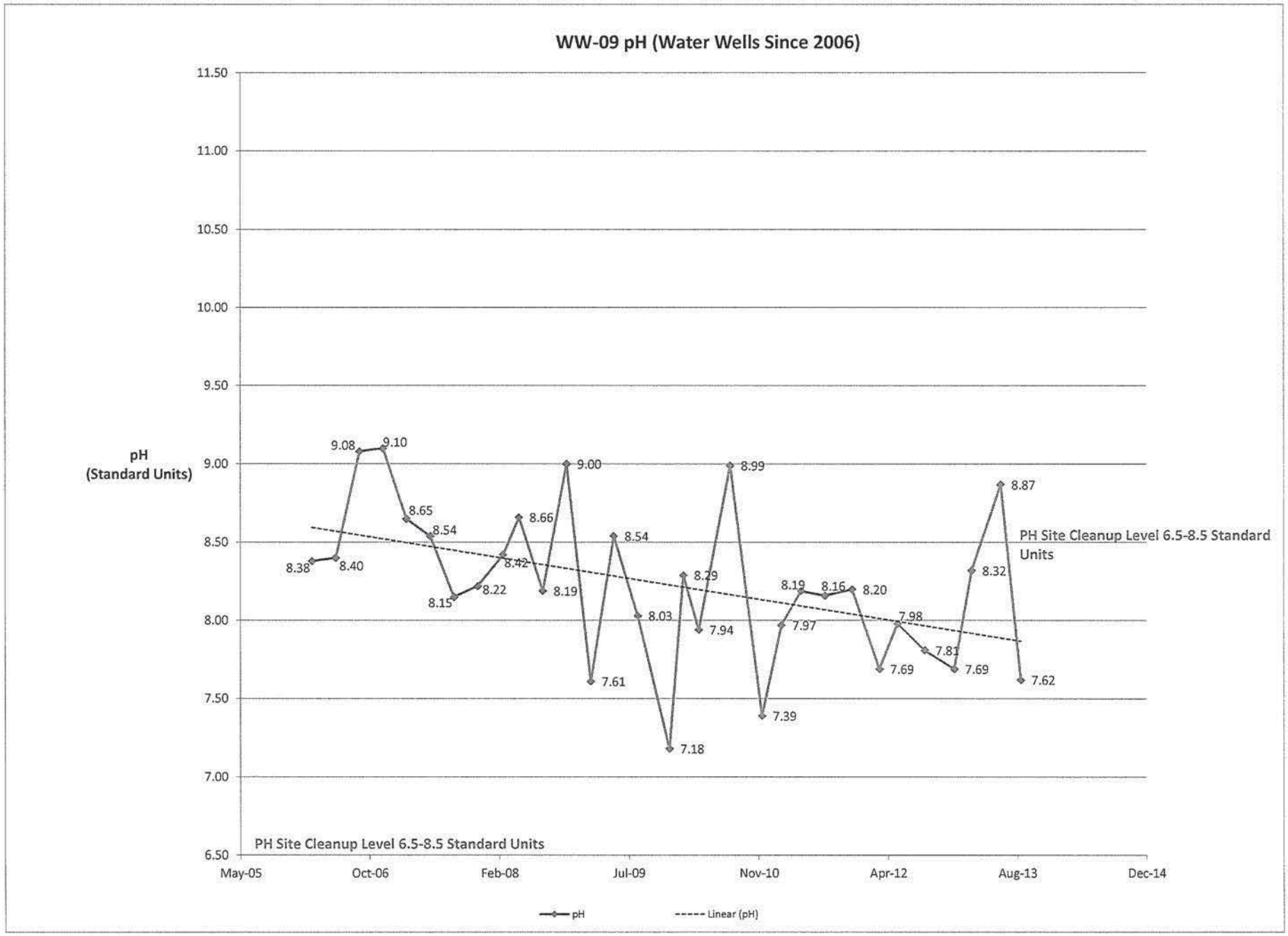

MW-1 pH (Downgradient of PRB Since 2006)
PH Site Cleanup Level 6.0-9.0 Standard Units
pH
(Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
5.15
4.73
4.22
4.01
3.81
3.69
3.34
3.30
3.49
3.38
3.60
3.15
3.19
3.11
3.33
3.43
3.46
3.11
3.37
3.27
3.40
3.49
3.69
3.43
3.44
3.35
3.01
3.35
3.44
3.31
3.09
pH
Linear (pH)

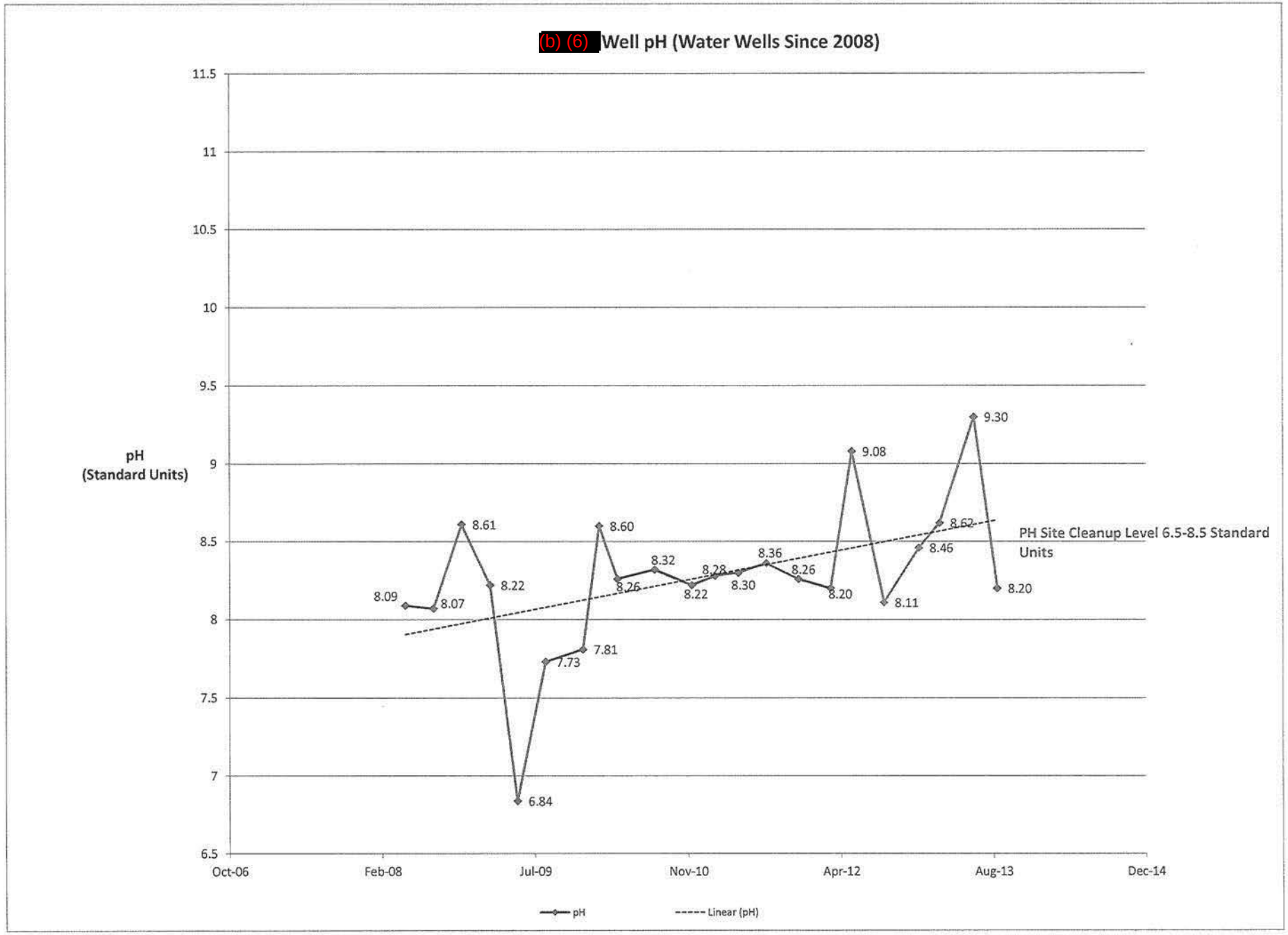

BA-03 pH (Upgradient of PRB Since 2006)
PH Site Cleanup Level 6.0-9.0 Standard Units
pH
(Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
5.72
5.62
4.60
4.09
5.86
5.55
4.45
3.32
4.13
4.23
4.04
4.53
3.40
3.98
3.11
4.63
4.52
4.58
3.85
3.46
4.13
3.38
3.79
3.47
3.99
3.95
4.22
4.60
4.18
4.46
2.92
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
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
7.09
7.08
9.39
9.39
9.25
8.82
8.21
8.10
8.69
8.50
8.60
9.32
8.73
8.68
8.27
7.73
9.10
8.72
9.47
8.69
8.83
8.81
8.87
8.77
8.51
8.65
8.47
8.41
9.11
9.84
8.50
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
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
Dec-14
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
7.69
8.32
8.87
7.62
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
pH
Linear (pH)


(b) (6) Well pH (Water Wells Since 2008)
pH
(Standard Units)
11.5
11
10.5
10
9.5
9
8.5
8
7.5
7
6.5
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
8.09
8.07
8.61
8.22
6.84
7.73
7.81
8.60
8.26
8.32
8.22
8.28
8.30
8.36
8.26
8.20
9.08
8.11
8.46
8.62
9.30
8.20
PH Site Cleanup Level 6.5-8.5 Standard Units
pH
Linear (pH)

ATTACHMENT D

DATA VALIDATION PACKAGE

Data Validation Report

DELATTE METALS PROJECT

SDG: L0033633 **October 2013**

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: L0033633

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2013

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.

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[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 9, 2013. Four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria.
2. The samples were collected on August 26, 2013, and August 27, 2013.
3. The laboratory in Lafayette received the samples on August 28, 2013.
4. All of the samples were subcontracted to Accutest-Mid Atlantic laboratory in Dayton, New Jersey.
5. All results were from SW-846 method 6020A.
6. Samples BA-01 and MW-04 had both total and dissolved metal analysis requested. All remaining samples only had total metal analysis requested. All of the remaining samples had just total metals requested.
7. Client samples DW-03, BA-03, MW-A, and North Well were the four samples that full data validation was requested on. This request was made on September 24, 2013.
8. Arsenic, cadmium, lead, nickel, thallium, zinc and manganese were analyzed by the laboratory as per the chain of custody.
9. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
10. Field Duplicates were run on client samples BC-19, BC-17, DW-03, and BA-03.
11. There was a serious variation between field sample BA-03 and its field duplicate. The data appeared to be accurate in the laboratory raw data however, this discrepancy could be due to many factors so could not be qualified for it. It is mentioned for notation.

E1 - Sample Identification Cross-Reference Table

Site Samples Sorted by Fraction

Delatte Metals

L0033633

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **L0033633**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	NORTH WELL	L0033633-19	Site Sample	Water	Low	08/27/2013 9:45
	DW-03	L0033633-23	Site Sample	Water	Low	08/27/2013 14:14
	MW-A	L0033633-29	Site Sample	Water	Low	08/27/2013 15:30
	BA-03	L0033633-33	Site Sample	Water	Low	08/27/2013 15:56

E2 - Summary of Validated Sample Detects

Sorted by Client Sample, Fraction, and Elution Order

Delatte Metals
L0033633

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0033633**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BA-03									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	70.9	µg/L
		Cadmium	Site Sample	Water	Low	10	5	251 J	µg/L
		Lead	Site Sample	Water	Low	10	5	268	µg/L
		Manganese	Site Sample	Water	Low	50	50	6,740	µg/L
		Nickel	Site Sample	Water	Low	10	10	179	µg/L
		Zinc	Site Sample	Water	Low	10	20	783	µg/L
DW-03									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	40.1	µg/L
		Lead	Site Sample	Water	Low	10	5	7.1	µg/L
		Manganese	Site Sample	Water	Low	10	10	3,080	µg/L
		Nickel	Site Sample	Water	Low	10	10	128	µg/L
		Zinc	Site Sample	Water	Low	10	20	182	µg/L
NORTH WELL									
	Metals								
		Manganese	Site Sample	Water	Low	2	2	3.9	µg/L
		Zinc	Site Sample	Water	Low	2	4	5.8	µg/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

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Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0033633**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
	Arsenic								
		BA-03	Site Sample	Water	Low	10	5	70.9	µg/L
		DW-03	Site Sample	Water	Low	10	5	40.1	µg/L
	Cadmium								
		BA-03	Site Sample	Water	Low	10	5	251 J	µg/L
	Lead								
		BA-03	Site Sample	Water	Low	10	5	268	µg/L
		DW-03	Site Sample	Water	Low	10	5	7.1	µg/L
	Manganese								
		BA-03	Site Sample	Water	Low	50	50	6,740	µg/L
		DW-03	Site Sample	Water	Low	10	10	3,080	µg/L
		NORTH WELL	Site Sample	Water	Low	2	2	3.9	µg/L
	Nickel								
		BA-03	Site Sample	Water	Low	10	10	179	µg/L
		DW-03	Site Sample	Water	Low	10	10	128	µg/L
	Zinc								
		BA-03	Site Sample	Water	Low	10	20	783	µg/L
		DW-03	Site Sample	Water	Low	10	20	182	µg/L
		NORTH WELL	Site Sample	Water	Low	2	4	5.8	µg/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: L0033633

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2013

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): L0033633

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
• 2 method blank(s)
• 2 matrix spike(s)
• 2 matrix spike duplicate(s)
• 0 lab duplicate(s)
• 2 linear dilution sample(s)
• 0 post digestion spike(s)
• 0 post digestion spike duplicate(s)
• 2 laboratory control sample(s)
• 0 laboratory control sample dup(s)

NOTES:

1. The results for 31 total water samples were received by TerraBase, Inc. on October 9, 2013. Four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria.
2. The samples were collected on August 26, 2013, and August 27, 2013.
3. The laboratory in Lafayette received the samples on August 28, 2013.
4. All of the samples were subcontracted to Accutest-Mid Atlantic laboratory in Dayton, New Jersey.
5. All results were from SW-846 method 6020A.
6. Samples BA-01 and MW-04 had both total and dissolved metal analysis requested. All remaining samples only had total metal analysis requested. All of the remaining samples had just total metals requested.
7. Client samples DW-03, BA-03, MW-A, and North Well were the four samples that full data validation was requested on. This request was made on September 24, 2013.
8. Arsenic, cadmium, lead, nickel, thallium, zinc and manganese were analyzed by the laboratory as per the chain of custody.
9. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
10. Field Duplicates were run on client samples BC-19, BC-17, DW-03, and BA-03.

11. There was a serious variation between field sample BA-03 and its field duplicate. The data appeared to be accurate in the laboratory raw data however, this discrepancy could be due to many factors so could not be qualified for it. It is mentioned for notation.

M1 - Summary of Metal Data Validation Issues

Sorted by SDG Print Sequence Number

Delatte Metals
L0033633

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0033633**

Client Sample	*Analyte Qualification*							
	AS	CO	HT	IC	CC	BC	MS	CQ
BA-03		•					•	
DW-03		•					•	
MW-A		•					•	
NORTH 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
L0033633

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0033633**

Client Sample	Analyte Name	AS	CO	HT	IC	CC	BC	MS	CQ	Lab Result	Units	Validated Result	Units
BA-03													
	Arsenic	-	49	-	-	-	-	-	-	70.9	µg/L	70.9	µg/L
	Cadmium	-	-	-	-	-	-	19	-	251	µg/L	251 J	µg/L
DW-03													
	Arsenic	-	49	-	-	-	-	-	-	40.1	µg/L	40.1	µg/L
	Cadmium	-	-	-	-	-	-	19	-	5 U	µg/L	5 U	µg/L
MW-A													
	Arsenic	-	49	-	-	-	-	-	-	5 U	µg/L	5 U	µg/L
	Cadmium	-	-	-	-	-	-	19	-	5 U	µg/L	5 U	µg/L
NORTH WELL													
	Arsenic	-	49	-	-	-	-	-	-	1 U	µg/L	1 U	µg/L
	Cadmium	-	-	-	-	-	-	19	-	1 U	µg/L	1 U	µg/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: **L0033633**

Qualification Category: **MS**

Qualification Code: **19**

Qualification Description: The matrix spike/ matrix spike duplicate or sample/sample duplicate relative percent difference (RPD) fell outside acceptable limits.

Qualification Action: Data for matrix spikes and sample duplicates are generated to determine long term precision of the analytical method on various matrices and to demonstrate acceptable method precision at the time of analysis. While these data alone cannot be used to evaluate the precision of individual samples, it is notable that possible precision related error may be present. Therefore all positive results are qualified as estimated (J).

Qualification Category: **CO**

Qualification Code: **49**

Qualification Description: The percent relative standard deviation (RSD) limit between an analyte of a target sample and its field duplicate exceeded criteria.

Qualification Action: According to the project specific Quality Assurance Project Plan (QAPP), the analyte of concern is qualified as an estimate if the criteria is exceeded between a target sample and its field duplicate.

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

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M4 - Validated Metal Results

Delatte Metals
L0033633

Client Sample ID:	**NORTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**L0033633**
Lab Sample ID:	**L0033633-19**	Sampling Date/Time:	**08/27/2013 9:45**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	1 U	µg/L
7440-43-9	Cadmium	6020A	2	1	1 U	µg/L
7439-92-1	Lead	6020A	2	1	1 U	µg/L
7439-96-5	Manganese	6020A	2	2	3.9	µg/L
7440-02-0	Nickel	6020A	2	2	2 U	µg/L
7440-28-0	Thallium	6020A	2	1	1 U	µg/L
7440-66-6	Zinc	6020A	2	4	5.8	µg/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

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TerraBase Inc.

M4 - Validated Metal Results

Delatte Metals
L0033633

Client Sample ID:	**DW-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**L0033633**
Lab Sample ID:	**L0033633-23**	Sampling Date/Time:	**08/27/2013 14:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	40.1	µg/L
7440-43-9	Cadmium	6020A	10	5	5 U	µg/L
7439-92-1	Lead	6020A	10	5	7.1	µg/L
7439-96-5	Manganese	6020A	10	10	3,080	µg/L
7440-02-0	Nickel	6020A	10	10	128	µg/L
7440-28-0	Thallium	6020A	10	5	5 U	µg/L
7440-66-6	Zinc	6020A	10	20	182	µg/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

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M4 - Validated Metal Results

Delatte Metals
L0033633

Client Sample ID:	**MW-A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**L0033633**
Lab Sample ID:	**L0033633-29**	Sampling Date/Time:	**08/27/2013 15:30**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	5 U	µg/L
7440-43-9	Cadmium	6020A	10	5	5 U	µg/L
7439-92-1	Lead	6020A	10	5	5 U	µg/L
7439-96-5	Manganese	6020A	10	10	10 U	µg/L
7440-02-0	Nickel	6020A	10	10	10 U	µg/L
7440-28-0	Thallium	6020A	10	5	5 U	µg/L
7440-66-6	Zinc	6020A	10	20	20 U	µg/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

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TerraBase Inc

M4 - Validated Metal Results

Delatte Metals
L0033633

Client Sample ID:	**BA-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**L0033633**
Lab Sample ID:	**L0033633-33**	Sampling Date/Time:	**08/27/2013 15:56**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7440-38-2	Arsenic	6020A	10	5	70.9	µg/L	
7440-43-9	Cadmium	6020A	10	5	251 J	µg/L	*
7439-92-1	Lead	6020A	10	5	268	µg/L	
7439-96-5	Manganese	6020A	50	50	6,740	µg/L	
7440-02-0	Nickel	6020A	10	10	179	µg/L	
7440-28-0	Thallium	6020A	10	5	5 U	µg/L	
7440-66-6	Zinc	6020A	10	20	783	µg/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

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TerraBase Inc

DELATTE METALS PROJECT

ALL LAB LEVEL RESULTS

SDG: L0033633

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2013

E1 - Sample Identification Cross-Reference Table

Site Samples Sorted by Fraction

Delatte Metals

0033633A

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **0033633A**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	BA-09A	L0033633-01	Site Sample	Water	Low	08/26/2013 14:42
	BA-09	L0033633-02	Site Sample	Water	Low	08/26/2013 14:26
	MW-04	L0033633-03	Site Sample	Water	Low	08/26/2013 15:04
	MW-04	L0033633-03F	Dissolved TRG	Water	Low	08/26/2013 15:04
	WW-09	L0033633-04	Site Sample	Water	Low	08/26/2013 15:15
	WW-04	L0033633-05	Site Sample	Water	Low	08/26/2013 13:14
	(b) (6) WELL	L0033633-06	Site Sample	Water	Low	08/26/2013 13:19
	BC-03	L0033633-07	Site Sample	Water	Low	08/26/2013 12:24
	BC-07	L0033633-08	Site Sample	Water	Low	08/26/2013 8:41
	DW-04	L0033633-09	Site Sample	Water	Low	08/26/2013 9:11
	BC-19	L0033633-10	Site Sample	Water	Low	08/26/2013 9:31
	DUPLICATE #1	L0033633-11	Site Sample	Water	Low	08/26/2013 9:31
	BC-25	L0033633-12	Site Sample	Water	Low	08/26/2013 10:04
	MW-03	L0033633-13	Site Sample	Water	Low	08/26/2013 10:23
	MW-06	L0033633-14	Site Sample	Water	Low	08/26/2013 10:59
	BB-01	L0033633-15	Site Sample	Water	Low	08/27/2013 8:45
	SOUTH WELL	L0033633-16	Site Sample	Water	Low	08/27/2013 8:55
	BC-17	L0033633-17	Site Sample	Water	Low	08/27/2013 9:34
	DUPLICATE #2	L0033633-18	Site Sample	Water	Low	08/27/2013 9:34
	NORTH WELL	L0033633-19	Site Sample	Water	Low	08/27/2013 9:45
	BC-21R	L0033633-20	Site Sample	Water	Low	08/27/2013 10:12
	BS-01A	L0033633-21	Site Sample	Water	Low	08/27/2013 11:37
	BA-01	L0033633-22	Site Sample	Water	Low	08/27/2013 11:17
	BA-01	L0033633-22F	Dissolved TRG	Water	Low	08/27/2013 11:17
	DW-03	L0033633-23	Site Sample	Water	Low	08/27/2013 14:14
	DUPLICATE #3	L0033633-24	Site Sample	Water	Low	08/27/2013 14:14
	PW-04	L0033633-25	Site Sample	Water	Low	08/27/2013 14:41
	DW-02	L0033633-26	Site Sample	Water	Low	08/27/2013 10:43
	BA-05A	L0033633-27	Site Sample	Water	Low	08/27/2013 13:43
	BA-05	L0033633-28	Site Sample	Water	Low	08/27/2013 13:22
	MW-A	L0033633-29	Site Sample	Water	Low	08/27/2013 5:30
	DW-1	L0033633-30	Site Sample	Water	Low	08/27/2013 17:41
	MW-01	L0033633-31	Site Sample	Water	Low	08/27/2013 18:11
	BA-03A	L0033633-32	Site Sample	Water	Low	08/27/2013 16:26
	BA-03	L0033633-33	Site Sample	Water	Low	08/27/2013 15:56
	DUPLICATE #4	L0033633-34	Site Sample	Water	Low	08/27/2013 15:56
	MW-02	L0033633-35	Site Sample	Water	Low	08/27/2013 16:55

E2 - Summary of Validated Sample Detects

Sorted by Client Sample, Fraction, and Elution Order

Delatte Metals
0033633A

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BA-01									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BA-03									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BA-03A									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BA-05									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BA-05A									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	

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: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BA-09									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BA-09A									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BB-01									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	2	2	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
BC-03									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BC-07									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BC-17									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	2	2	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
BC-19									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BC-21R									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	2	2	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
BC-25									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
BS-01A									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
DUPLICATE #1									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
DUPLICATE #2									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	2	2	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
DUPLICATE #3									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
DUPLICATE #4									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
DW-02									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
DW-03									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
DW-04									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
DW-1									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
MW-01									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
MW-02									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
MW-03									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
MW-04									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
MW-06									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	50	50	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
MW-A									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
NORTH WELL									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	2	2	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
PW-04									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
(b) (6) **WELL**									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
SOUTH WELL									
	Metals								
		Arsenic	Site Sample	Water	Low	2	1	-	
		Cadmium	Site Sample	Water	Low	2	1	-	
		Lead	Site Sample	Water	Low	2	1	-	
		Manganese	Site Sample	Water	Low	2	2	-	
		Nickel	Site Sample	Water	Low	2	2	-	
		Thallium	Site Sample	Water	Low	2	1	-	
		Zinc	Site Sample	Water	Low	2	4	-	
WW-04									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	
WW-09									
	Metals								
		Arsenic	Site Sample	Water	Low	10	5	-	
		Cadmium	Site Sample	Water	Low	10	5	-	
		Lead	Site Sample	Water	Low	10	5	-	
		Manganese	Site Sample	Water	Low	10	10	-	
		Nickel	Site Sample	Water	Low	10	10	-	
		Thallium	Site Sample	Water	Low	10	5	-	
		Zinc	Site Sample	Water	Low	10	20	-	

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

E3 - Summary of Validated Analyte Detects

Sorted by Fraction, Analyte and Client Sample

Delatte Metals
0033633A

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
	Arsenic								
		BA-01	Site Sample	Water	Low	10	5	-	
		BA-03	Site Sample	Water	Low	10	5	-	
		BA-03A	Site Sample	Water	Low	10	5	-	
		BA-05	Site Sample	Water	Low	10	5	-	
		BA-05A	Site Sample	Water	Low	10	5	-	
		BA-09	Site Sample	Water	Low	10	5	-	
		BA-09A	Site Sample	Water	Low	10	5	-	
		BB-01	Site Sample	Water	Low	2	1	-	
		BC-03	Site Sample	Water	Low	10	5	-	
		BC-07	Site Sample	Water	Low	10	5	-	
		BC-17	Site Sample	Water	Low	2	1	-	
		BC-19	Site Sample	Water	Low	10	5	-	
		BC-21R	Site Sample	Water	Low	2	1	-	
		BC-25	Site Sample	Water	Low	10	5	-	
		BS-01A	Site Sample	Water	Low	10	5	-	
		DUPLICATE #1	Site Sample	Water	Low	10	5	-	
		DUPLICATE #2	Site Sample	Water	Low	2	1	-	
		DUPLICATE #3	Site Sample	Water	Low	10	5	-	
		DUPLICATE #4	Site Sample	Water	Low	10	5	-	
		DW-02	Site Sample	Water	Low	10	5	-	
		DW-03	Site Sample	Water	Low	10	5	-	
		DW-04	Site Sample	Water	Low	10	5	-	
		DW-1	Site Sample	Water	Low	10	5	-	
		MW-01	Site Sample	Water	Low	10	5	-	
		MW-02	Site Sample	Water	Low	10	5	-	
		MW-03	Site Sample	Water	Low	2	1	-	
		MW-04	Site Sample	Water	Low	10	5	-	
		MW-06	Site Sample	Water	Low	2	1	-	
		MW-A	Site Sample	Water	Low	10	5	-	
		NORTH WELL	Site Sample	Water	Low	2	1	-	
		PW-04	Site Sample	Water	Low	10	5	-	
		(b) (6) WELL	Site Sample	Water	Low	10	5	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		SOUTH WELL	Site Sample	Water	Low	2	1	-	
		WW-04	Site Sample	Water	Low	10	5	-	
		WW-09	Site Sample	Water	Low	10	5	-	
	Cadmium								
		BA-01	Site Sample	Water	Low	10	5	-	
		BA-03	Site Sample	Water	Low	10	5	-	
		BA-03A	Site Sample	Water	Low	10	5	-	
		BA-05	Site Sample	Water	Low	10	5	-	
		BA-05A	Site Sample	Water	Low	10	5	-	
		BA-09	Site Sample	Water	Low	10	5	-	
		BA-09A	Site Sample	Water	Low	10	5	-	
		BB-01	Site Sample	Water	Low	2	1	-	
		BC-03	Site Sample	Water	Low	10	5	-	
		BC-07	Site Sample	Water	Low	10	5	-	
		BC-17	Site Sample	Water	Low	2	1	-	
		BC-19	Site Sample	Water	Low	10	5	-	
		BC-21R	Site Sample	Water	Low	2	1	-	
		BC-25	Site Sample	Water	Low	10	5	-	
		BS-01A	Site Sample	Water	Low	10	5	-	
		DUPLICATE #1	Site Sample	Water	Low	10	5	-	
		DUPLICATE #2	Site Sample	Water	Low	2	1	-	
		DUPLICATE #3	Site Sample	Water	Low	10	5	-	
		DUPLICATE #4	Site Sample	Water	Low	10	5	-	
		DW-02	Site Sample	Water	Low	10	5	-	
		DW-03	Site Sample	Water	Low	10	5	-	
		DW-04	Site Sample	Water	Low	10	5	-	
		DW-1	Site Sample	Water	Low	10	5	-	
		MW-01	Site Sample	Water	Low	10	5	-	
		MW-02	Site Sample	Water	Low	10	5	-	
		MW-03	Site Sample	Water	Low	2	1	-	
		MW-04	Site Sample	Water	Low	10	5	-	
		MW-06	Site Sample	Water	Low	2	1	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		MW-A	Site Sample	Water	Low	10	5	-	
		NORTH WELL	Site Sample	Water	Low	2	1	-	
		PW-04	Site Sample	Water	Low	10	5	-	
		(b) (6) WELL	Site Sample	Water	Low	10	5	-	
		SOUTH WELL	Site Sample	Water	Low	2	1	-	
		WW-04	Site Sample	Water	Low	10	5	-	
		WW-09	Site Sample	Water	Low	10	5	-	
	Lead								
		BA-01	Site Sample	Water	Low	10	5	-	
		BA-03	Site Sample	Water	Low	10	5	-	
		BA-03A	Site Sample	Water	Low	10	5	-	
		BA-05	Site Sample	Water	Low	10	5	-	
		BA-05A	Site Sample	Water	Low	10	5	-	
		BA-09	Site Sample	Water	Low	10	5	-	
		BA-09A	Site Sample	Water	Low	10	5	-	
		BB-01	Site Sample	Water	Low	2	1	-	
		BC-03	Site Sample	Water	Low	10	5	-	
		BC-07	Site Sample	Water	Low	10	5	-	
		BC-17	Site Sample	Water	Low	2	1	-	
		BC-19	Site Sample	Water	Low	10	5	-	
		BC-21R	Site Sample	Water	Low	2	1	-	
		BC-25	Site Sample	Water	Low	10	5	-	
		BS-01A	Site Sample	Water	Low	10	5	-	
		DUPLICATE #1	Site Sample	Water	Low	10	5	-	
		DUPLICATE #2	Site Sample	Water	Low	2	1	-	
		DUPLICATE #3	Site Sample	Water	Low	10	5	-	
		DUPLICATE #4	Site Sample	Water	Low	10	5	-	
		DW-02	Site Sample	Water	Low	10	5	-	
		DW-03	Site Sample	Water	Low	10	5	-	
		DW-04	Site Sample	Water	Low	10	5	-	
		DW-1	Site Sample	Water	Low	10	5	-	
		MW-01	Site Sample	Water	Low	10	5	-	
		MW-02	Site Sample	Water	Low	10	5	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		MW-03	Site Sample	Water	Low	2	1	-	
		MW-04	Site Sample	Water	Low	10	5	-	
		MW-06	Site Sample	Water	Low	2	1	-	
		MW-A	Site Sample	Water	Low	10	5	-	
		NORTH WELL	Site Sample	Water	Low	2	1	-	
		PW-04	Site Sample	Water	Low	10	5	-	
		(b) (6) WELL	Site Sample	Water	Low	10	5	-	
		SOUTH WELL	Site Sample	Water	Low	2	1	-	
		WW-04	Site Sample	Water	Low	10	5	-	
		WW-09	Site Sample	Water	Low	10	5	-	
	Manganese								
		BA-01	Site Sample	Water	Low	10	10	-	
		BA-03	Site Sample	Water	Low	50	50	-	
		BA-03A	Site Sample	Water	Low	10	10	-	
		BA-05	Site Sample	Water	Low	50	50	-	
		BA-05A	Site Sample	Water	Low	10	10	-	
		BA-09	Site Sample	Water	Low	10	10	-	
		BA-09A	Site Sample	Water	Low	10	10	-	
		BB-01	Site Sample	Water	Low	2	2	-	
		BC-03	Site Sample	Water	Low	10	10	-	
		BC-07	Site Sample	Water	Low	10	10	-	
		BC-17	Site Sample	Water	Low	2	2	-	
		BC-19	Site Sample	Water	Low	10	10	-	
		BC-21R	Site Sample	Water	Low	2	2	-	
		BC-25	Site Sample	Water	Low	10	10	-	
		BS-01A	Site Sample	Water	Low	10	10	-	
		DUPLICATE #1	Site Sample	Water	Low	10	10	-	
		DUPLICATE #2	Site Sample	Water	Low	2	2	-	
		DUPLICATE #3	Site Sample	Water	Low	10	10	-	
		DUPLICATE #4	Site Sample	Water	Low	50	50	-	
		DW-02	Site Sample	Water	Low	50	50	-	
		DW-03	Site Sample	Water	Low	10	10	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		DW-04	Site Sample	Water	Low	10	10	-	
		DW-1	Site Sample	Water	Low	10	10	-	
		MW-01	Site Sample	Water	Low	50	50	-	
		MW-02	Site Sample	Water	Low	10	10	-	
		MW-03	Site Sample	Water	Low	50	50	-	
		MW-04	Site Sample	Water	Low	10	10	-	
		MW-06	Site Sample	Water	Low	50	50	-	
		MW-A	Site Sample	Water	Low	10	10	-	
		NORTH WELL	Site Sample	Water	Low	2	2	-	
		PW-04	Site Sample	Water	Low	10	10	-	
		(b) (6) WELL	Site Sample	Water	Low	10	10	-	
		SOUTH WELL	Site Sample	Water	Low	2	2	-	
		WW-04	Site Sample	Water	Low	10	10	-	
		WW-09	Site Sample	Water	Low	10	10	-	
	Nickel								
		BA-01	Site Sample	Water	Low	10	10	-	
		BA-03	Site Sample	Water	Low	10	10	-	
		BA-03A	Site Sample	Water	Low	10	10	-	
		BA-05	Site Sample	Water	Low	10	10	-	
		BA-05A	Site Sample	Water	Low	10	10	-	
		BA-09	Site Sample	Water	Low	10	10	-	
		BA-09A	Site Sample	Water	Low	10	10	-	
		BB-01	Site Sample	Water	Low	2	2	-	
		BC-03	Site Sample	Water	Low	10	10	-	
		BC-07	Site Sample	Water	Low	10	10	-	
		BC-17	Site Sample	Water	Low	2	2	-	
		BC-19	Site Sample	Water	Low	10	10	-	
		BC-21R	Site Sample	Water	Low	2	2	-	
		BC-25	Site Sample	Water	Low	10	10	-	
		BS-01A	Site Sample	Water	Low	10	10	-	
		DUPLICATE #1	Site Sample	Water	Low	10	10	-	
		DUPLICATE #2	Site Sample	Water	Low	2	2	-	
		DUPLICATE #3	Site Sample	Water	Low	10	10	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		DUPLICATE #4	Site Sample	Water	Low	10	10	-	
		DW-02	Site Sample	Water	Low	10	10	-	
		DW-03	Site Sample	Water	Low	10	10	-	
		DW-04	Site Sample	Water	Low	10	10	-	
		DW-1	Site Sample	Water	Low	10	10	-	
		MW-01	Site Sample	Water	Low	10	10	-	
		MW-02	Site Sample	Water	Low	10	10	-	
		MW-03	Site Sample	Water	Low	2	2	-	
		MW-04	Site Sample	Water	Low	10	10	-	
		MW-06	Site Sample	Water	Low	2	2	-	
		MW-A	Site Sample	Water	Low	10	10	-	
		NORTH WELL	Site Sample	Water	Low	2	2	-	
		PW-04	Site Sample	Water	Low	10	10	-	
		[redacted] WELL	Site Sample	Water	Low	10	10	-	
		SOUTH WELL	Site Sample	Water	Low	2	2	-	
		WW-04	Site Sample	Water	Low	10	10	-	
		WW-09	Site Sample	Water	Low	10	10	-	
	Thallium								
		BA-01	Site Sample	Water	Low	10	5	-	
		BA-03	Site Sample	Water	Low	10	5	-	
		BA-03A	Site Sample	Water	Low	10	5	-	
		BA-05	Site Sample	Water	Low	10	5	-	
		BA-05A	Site Sample	Water	Low	10	5	-	
		BA-09	Site Sample	Water	Low	10	5	-	
		BA-09A	Site Sample	Water	Low	10	5	-	
		BB-01	Site Sample	Water	Low	2	1	-	
		BC-03	Site Sample	Water	Low	10	5	-	
		BC-07	Site Sample	Water	Low	10	5	-	
		BC-17	Site Sample	Water	Low	2	1	-	
		BC-19	Site Sample	Water	Low	10	5	-	
		BC-21R	Site Sample	Water	Low	2	1	-	
		BC-25	Site Sample	Water	Low	10	5	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		BS-01A	Site Sample	Water	Low	10	5	-	
		DUPLICATE #1	Site Sample	Water	Low	10	5	-	
		DUPLICATE #2	Site Sample	Water	Low	2	1	-	
		DUPLICATE #3	Site Sample	Water	Low	10	5	-	
		DUPLICATE #4	Site Sample	Water	Low	10	5	-	
		DW-02	Site Sample	Water	Low	10	5	-	
		DW-03	Site Sample	Water	Low	10	5	-	
		DW-04	Site Sample	Water	Low	10	5	-	
		DW-1	Site Sample	Water	Low	10	5	-	
		MW-01	Site Sample	Water	Low	10	5	-	
		MW-02	Site Sample	Water	Low	10	5	-	
		MW-03	Site Sample	Water	Low	2	1	-	
		MW-04	Site Sample	Water	Low	10	5	-	
		MW-06	Site Sample	Water	Low	2	1	-	
		MW-A	Site Sample	Water	Low	10	5	-	
		NORTH WELL	Site Sample	Water	Low	2	1	-	
		PW-04	Site Sample	Water	Low	10	5	-	
		(b) (6) [redacted] WELL	Site Sample	Water	Low	10	5	-	
		SOUTH WELL	Site Sample	Water	Low	2	1	-	
		WW-04	Site Sample	Water	Low	10	5	-	
		WW-09	Site Sample	Water	Low	10	5	-	
	Zinc								
		BA-01	Site Sample	Water	Low	10	20	-	
		BA-03	Site Sample	Water	Low	10	20	-	
		BA-03A	Site Sample	Water	Low	10	20	-	
		BA-05	Site Sample	Water	Low	10	20	-	
		BA-05A	Site Sample	Water	Low	10	20	-	
		BA-09	Site Sample	Water	Low	10	20	-	
		BA-09A	Site Sample	Water	Low	10	20	-	
		BB-01	Site Sample	Water	Low	2	4	-	
		BC-03	Site Sample	Water	Low	10	20	-	
		BC-07	Site Sample	Water	Low	10	20	-	
		BC-17	Site Sample	Water	Low	2	4	-	

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

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **0033633A**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
		BC-19	Site Sample	Water	Low	10	20	-	
		BC-21R	Site Sample	Water	Low	2	4	-	
		BC-25	Site Sample	Water	Low	10	20	-	
		BS-01A	Site Sample	Water	Low	10	20	-	
		DUPLICATE #1	Site Sample	Water	Low	10	20	-	
		DUPLICATE #2	Site Sample	Water	Low	2	4	-	
		DUPLICATE #3	Site Sample	Water	Low	10	20	-	
		DUPLICATE #4	Site Sample	Water	Low	10	20	-	
		DW-02	Site Sample	Water	Low	10	20	-	
		DW-03	Site Sample	Water	Low	10	20	-	
		DW-04	Site Sample	Water	Low	10	20	-	
		DW-1	Site Sample	Water	Low	10	20	-	
		MW-01	Site Sample	Water	Low	10	20	-	
		MW-02	Site Sample	Water	Low	10	20	-	
		MW-03	Site Sample	Water	Low	2	4	-	
		MW-04	Site Sample	Water	Low	10	20	-	
		MW-06	Site Sample	Water	Low	2	4	-	
		MW-A	Site Sample	Water	Low	10	20	-	
		NORTH WELL	Site Sample	Water	Low	2	4	-	
		PW-04	Site Sample	Water	Low	10	20	-	
		(b) (6) [redacted] WELL	Site Sample	Water	Low	10	20	-	
		SOUTH WELL	Site Sample	Water	Low	2	4	-	
		WW-04	Site Sample	Water	Low	10	20	-	
		WW-09	Site Sample	Water	Low	10	20	-	

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

M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**BA-09A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-01**	Sampling Date/Time:	**08/26/2013 14:42**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**BA-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-02**	Sampling Date/Time:	**08/26/2013 14:26**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**MW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-03**	Sampling Date/Time:	**08/26/2013 15:04**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**MW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Dissolved TRG**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-03F**	Sampling Date/Time:	**08/26/2013 15:04**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**WW-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-04**	Sampling Date/Time:	**08/26/2013 15:15**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**WW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-05**	Sampling Date/Time:	**08/26/2013 13:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	(b) (6) [redacted] **WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-06**	Sampling Date/Time:	**08/26/2013 13:19**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-07**	Sampling Date/Time:	**08/26/2013 12:24**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BC-07**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-08**	Sampling Date/Time:	**08/26/2013 8:41**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**DW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-09**	Sampling Date/Time:	**08/26/2013 9:11**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BC-19**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-10**	Sampling Date/Time:	**08/26/2013 9:31**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**DUPLICATE #1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-11**	Sampling Date/Time:	**08/26/2013 9:31**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**BC-25**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-12**	Sampling Date/Time:	**08/26/2013 10:04**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**MW-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-13**	Sampling Date/Time:	**08/26/2013 10:23**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**MW-06**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-14**	Sampling Date/Time:	**08/26/2013 10:59**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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
0033633A

Client Sample ID:	**BB-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-15**	Sampling Date/Time:	**08/27/2013 8:45**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	2	2	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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
0033633A

Client Sample ID:	**SOUTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-16**	Sampling Date/Time:	**08/27/2013 8:55**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	2	2	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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
0033633A

Client Sample ID:	**BC-17**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-17**	Sampling Date/Time:	**08/27/2013 9:34**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	2	2	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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
0033633A

Client Sample ID:	**DUPLICATE #2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-18**	Sampling Date/Time:	**08/27/2013 9:34**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	2	2	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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
0033633A

Client Sample ID:	**NORTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-19**	Sampling Date/Time:	**08/27/2013 9:45**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	2	2	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**BC-21R**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-20**	Sampling Date/Time:	**08/27/2013 10:12**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	2	1	-	
7440-43-9	Cadmium	6020A	2	1	-	
7439-92-1	Lead	6020A	2	1	-	
7439-96-5	Manganese	6020A	2	2	-	
7440-02-0	Nickel	6020A	2	2	-	
7440-28-0	Thallium	6020A	2	1	-	
7440-66-6	Zinc	6020A	2	4	-	

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
0033633A

Client Sample ID:	**BS-01A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-21**	Sampling Date/Time:	**08/27/2013 11:37**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BA-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-22**	Sampling Date/Time:	**08/27/2013 11:17**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BA-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Dissolved TRG**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-22F**	Sampling Date/Time:	**08/27/2013 11:17**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**DW-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-23**	Sampling Date/Time:	**08/27/2013 14:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**DUPLICATE #3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-24**	Sampling Date/Time:	**08/27/2013 14:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**PW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-25**	Sampling Date/Time:	**08/27/2013 14:41**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**DW-02**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-26**	Sampling Date/Time:	**08/27/2013 10:43**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BA-05A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-27**	Sampling Date/Time:	**08/27/2013 13:43**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**BA-05**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-28**	Sampling Date/Time:	**08/27/2013 13:22**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**MW-A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-29**	Sampling Date/Time:	**08/27/2013 5:30**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**DW-1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-30**	Sampling Date/Time:	**08/27/2013 17:41**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**MW-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-31**	Sampling Date/Time:	**08/27/2013 18:11**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**BA-03A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-32**	Sampling Date/Time:	**08/27/2013 16:26**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**BA-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-33**	Sampling Date/Time:	**08/27/2013 15:56**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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
0033633A

Client Sample ID:	**DUPLICATE #4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-34**	Sampling Date/Time:	**08/27/2013 15:56**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	50	50	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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M4 - Validated Metal Results

Delatte Metals
0033633A

Client Sample ID:	**MW-02**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**NA**	SDG ID:	**0033633A**
Lab Sample ID:	**L0033633-35**	Sampling Date/Time:	**08/27/2013 16:55**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7440-38-2	Arsenic	6020A	10	5	-	
7440-43-9	Cadmium	6020A	10	5	-	
7439-92-1	Lead	6020A	10	5	-	
7439-96-5	Manganese	6020A	10	10	-	
7440-02-0	Nickel	6020A	10	10	-	
7440-28-0	Thallium	6020A	10	5	-	
7440-66-6	Zinc	6020A	10	20	-	

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

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ATTACHMENT E

LEVEL IV DATA PACKAGE

(CD ATTACHED)

ATTACHMENT F

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:	Nick Rodehorst, E.I.	
Telephone:	504-342-2340		Telephone:	504-342-2340	
Signature:	for	Date: 10/31/13	Signature:		Date: 10/31/13

State Contact (if appropriate)		
Name:	Fernando Iturralde (LDEQ)	
Telephone:	225-219-3689	
Signature:		Date:

II. GENERAL SITE INFORMATION

Site Name:	Delatte Metals Superfunds Site		
State:	Louisiana		
Period Covered:	10/01/2012	to 30/09/2013	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 has conducted sampling 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: 26/08/2013
If no, why:			
Date of next planned checklist evaluation:	30/10/2014		
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: 09/01/2009
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: **No significant site events occurred outside of the typical sampling and PRB inspection.**

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 9355.0-7-4FS-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 sampling and 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.	