

Persulfate Pilot Study Groundwater Monitoring Status Report

Prepared for:

Lockheed Martin Corporation

Prepared by:

ARCADIS

February 24, 2012

FDEP Site No. 169624

FDEP Project No. 238148

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Engineers Certification

This Persulfate Pilot Study Groundwater Monitoring Status Report for groundwater at the Lockheed Martin Tallevast Site (also known as the Former American Beryllium Company Site) located at 1600 Tallevast Road in Manatee County, Florida has been prepared in accordance with good scientific and engineering practices by individuals under my direct supervision and me. The system substantially meets or exceeds the objectives stated in this report. No other warranty is implied or intended.



February 24, 2012

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Date

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Acronyms, Abbreviations, and Units of Measurement

FDEP	Florida Department of Environmental Protection
GCTLs	Groundwater Cleanup Target Levels
gpm	gallons per minute
IDR	Interim Data Report
IRA	interim remedial action
ISCO	in-situ chemical oxidation
LSAS	Lower Surficial Aquifer System
MCUO	Manatee County Utility Operations
µg/l	micrograms per liter
psi	pounds per square inch
RAP	Remedial Action Plan
ROI	radius of influence
TDS	total dissolved solids
UIC	Underground Injection Control
USAS	Upper Surficial Aquifer System
USEPA	United States Environmental Protection Agency
ZOD	zone of discharge

Introduction

1.1 Overview

This Persulfate Pilot Study Groundwater Monitoring Status Report has been prepared to describe groundwater monitoring activities associated with an in-situ chemical oxidation (ISCO) pilot study at the Lockheed Martin Corporation (Lockheed Martin) site. The “site” consists of both the Tallevast Facility (referred to as the “Facility” or “on-facility” portion of the site) located at 1600 Tallevast Road in Tallevast, Manatee County, Florida and the groundwater and surface water resources in the surrounding area as defined by the extent of groundwater impacted by contaminants of concern (referred to as the “off-facility” portion of the site). Submittal of this Persulfate Pilot Study Groundwater Monitoring Status Report was committed to in the 2010 Annual Groundwater Monitoring Report (ARCADIS, 2011a), the November 23, 2011 response (ARCADIS, 2011b) to the September 27, 2011 Florida Department of Environmental Protection (FDEP) comments on the 2010 Annual Groundwater Monitoring Report, and the 2011 Annual Groundwater Monitoring Report (ARCADIS, 2012).

Lockheed Martin is conducting assessment and cleanup tasks at the site pursuant to the requirements detailed in Consent Order No. 04-1328 executed by and between Lockheed Martin and the FDEP, effective July 28, 2004. Lockheed Martin completed the ISCO pilot study to support development of the revised Remedial Action Plan (RAP) (ARCADIS 2008a) for the site. The FDEP commented on the revised RAP in a letter dated March 16, 2009. Lockheed Martin responded by submitting a RAP Addendum on July 14, 2009 (ARCADIS 2009). A RAP approval order was issued by FDEP in a November 4, 2010 letter. A challenge to the RAP approval order was heard by an Administrative Law Judge, who recommended in an October 6, 2011 filing that FDEP issue a final order approving the RAP Addendum. The final order from FDEP was received on January 4, 2012.

1.2 2008 Persulfate Pilot Study

To evaluate the effectiveness of in-situ chemical oxidation to reduce concentrations and mass of volatile organic compounds (VOCs) and 1,4-dioxane in the shallow aquifer, Lockheed Martin proposed certain activities incorporated in an In-situ Pilot Study Work Plan (Plan) dated January 22, 2008 (ARCADIS, 2008b), which was approved by the Florida Department of Environmental Protection (FDEP) in an April 14, 2008 email following their comment letter on the proposed pilot testing dated January 30, 2008. The activities in the Plan included injecting activated persulfate, which is approved by the FDEP Bureau of Petroleum Storage Systems for the remediation of petroleum and other suitable contaminants in groundwater and soil as documented in the FDEP KlozurTM activated persulfate acceptance letter (FDEP, 2005). The activities proposed in the Plan included baseline (pre-injection), injection, and post-injection monitoring to evaluate the performance of the oxidant as well as the effect of the injectant on the general groundwater quality within the zone of discharge (ZOD). Baseline, injection, and early post-injection data were presented and discussed in the In-Situ Pilot Study Summary Report dated August 2008 and submitted to FDEP as Appendix L of the 2008 revised RAP. Subsequently, an alternate remedial strategy (focused groundwater extraction and injection) was proposed for treating areas of higher concentrations in the shallow aquifer. This alternate strategy was detailed in the RAP Addendum (ARCADIS, 2009). Although ISCO is not included in the selected site remediation design, the FDEP-approved In-Situ Pilot Study Work Plan calls for continued post-injection monitoring. Therefore, this Persulfate Pilot Study Groundwater Monitoring Status Report presents the ongoing (post-injection) monitoring as set forth in the Plan and is being submitted as described in previous monitoring reports and response to agency comments.

The parameters that were monitored as part of the Plan included the underground injection control (UIC) parameters referenced in the FDEP KlozurTM activated persulfate acceptance letter (sodium, sulfate, total dissolved solids (TDS), iron, and manganese) and metals required to be monitored by the Manatee County Utilities Operations (MCUO) Department in the discharge of the existing interim remedial action (IRA) groundwater recovery and treatment system (aluminum, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, and zinc). These

parameters were added to the monitoring program because the pilot test injection ZOD is within the zone of capture of the IRA recovery system and pilot study waters could have potentially affected the treatment system discharge water quality. Chemical oxidation bench test results conducted prior to the field pilot test indicated sodium persulfate has the potential to cause some of these parameters to be elevated above maximum concentration limits (MCLs), MCUO discharge limits, and/or baseline concentrations. Collectively, the UIC parameters and MCUO IRA parameters constitute the persulfate pilot study groundwater monitoring parameters.

Section 2

Background

Lockheed Martin submitted a RAP for the site on May 4, 2007. The FDEP provided comments on the May 2007 RAP in a letter dated July 27, 2007 in which the FDEP requested that a revised RAP be submitted. To adequately respond to the agency's comments, Lockheed Martin proposed completion of additional design-related studies, including potential treatment using ISCO in areas with higher VOC and 1,4-dioxane concentrations.

On behalf of Lockheed Martin, ARCADIS U.S., Inc. (ARCADIS) submitted the Plan dated January 22, 2008 in accordance with Chapter 62-780.700(2) of the Florida Administrative Code (F.A.C.). One tracer study test and one ISCO pilot test that would be conducted in the Upper Surficial Aquifer System (USAS) and one tracer study test that would be conducted in the Lower Shallow Aquifer System (LSAS) on the facility were described in the Plan. On January 30, 2008 the FDEP provided comments on the Plan. ARCADIS responded to the FDEP comments via a letter dated April 7, 2008. On April 14, 2008, via e-mail, the FDEP sent written approval of the Plan. The active injection ISCO portion of the Plan was implemented from April 15 to April 19, 2008. The post-injection persulfate pilot study groundwater monitoring began after ISCO injections were completed. Monitoring for persulfate pilot study parameters is associated solely with the ISCO pilot test conducted in the USAS. Tracer study tests in the USAS and LSAS did not require ongoing monitoring, because monitoring associated with the tracer study tests was completed only for the purpose of identifying when the target radius of influence (ROI) was achieved.

Portions of data collected during the pilot study (tracer studies as well as ISCO pilot study) have been presented previously to the FDEP in other documents, including the following:

- *Interim Data Report (IDR) – In-Situ Pilot Study* (ARCADIS 2008c)

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- *In-Situ Pilot Study Summary Report* (ARCADIS 2008d) [Appendix L-1 of the Revised RAP (ARCADIS 2008a)]
 - Appendix B, Tables B-9A through B-9D of the *RAP Addendum* (ARCADIS 2009)

Comments on the IDR were received from FDEP in a May 27, 2008 email which contained a May 14, 2008 internal memorandum from Simone Core to Bill Kutash. Lockheed Martin provided responses to those FDEP comments in a July 11, 2008 letter.

A comprehensive summary of persulfate pilot study parameter data collected through June 2011 and recommendations for future monitoring are provided herein.

Section 3

Field Efforts

Field efforts associated with the Plan included installation of injection wells (IW-1 and IW-3 for USAS and LSAS tracer study injections, respectively; and IW-2 for USAS ISCO pilot test persulfate injection), installation of monitoring wells, injection of tracers, injection of chemical oxidant, and monitoring of groundwater conditions. Only a portion of the field efforts pertain specifically to the ISCO pilot study, which is the subject of ongoing pilot study-related water quality monitoring. Additional details regarding the ISCO pilot study field efforts are described below. Details of the field efforts for the two tracer tests appear in other documents, as cited in Sections 1 and 2 above.

Well installation activities within the USAS began on February 11, 2008 and were completed on February 25, 2008. The USAS wells for the chemical oxidation pilot test were installed using hollow-stem auger drilling methods. The following wells were installed in conjunction with completing the ISCO pilot study in the USAS:

- One injection well (IW-2) that meets the definition of a Class V injection well in accordance with Chapter 62-528 of the F.A.C.
- Six monitoring wells (designated CO-A wells) located approximately 4 feet from the injection well (two in the shallow USAS and four in the deeper USAS)
- Seven monitoring wells (designated CO-B wells) located approximately 7 feet from the injection well (two in the shallow USAS and five in the deeper USAS)
- Five monitoring wells (designated CO-C wells) located approximately 10 feet from the injection well (two in the shallow USAS and three in the deeper USAS)
- Two monitoring wells (designated CO-D wells) located approximately 14 feet from the injection well (one in the shallow USAS and one in the deeper USAS)

A total volume of 4,350 gallons of 1% sodium persulfate solution was injected into well IW-2 from April 15 through April 19, 2008 to achieve a target 7-foot ROI. The persulfate solution was mixed on-facility in poly-tanks within secondary containment and distributed to the injection well via temporary piping placed on the ground surface. The injection rate was maintained at approximately 1.4 gallons per minute (gpm) at 3 to 4 pounds per square inch (psi) of wellhead pressure. In accordance with Table 3-B of the FDEP-approved Plan and subsequent revision based on FDEP comments provided in the April 14, 2008 email approval, monitoring for persulfate pilot study parameters began after the injection was complete. Pre-injection groundwater conditions were evaluated by conducting baseline monitoring prior to injections and by reviewing analytical data collected during other events not related to the ISCO pilot test. A summary of the monitoring points included in the post-injection monitoring is included in Table 1.

The locations of these monitoring points are shown in Attachment 1 (Figures 3A and 5 of the April 25, 2008 IDR). Five of the 20 CO wells in Table 1 and Attachment 1 (CO-A1D, CO-B1D, CO-B4D, CO-C1D, and CO-D1D) are identified in the Plan for long-term post-injection groundwater quality monitoring. The remaining 15 of the 20 installed CO wells included in Table 1 and Attachment 1 were only monitored during the injection timeframe to identify when the targeted ROI was achieved.

After conducting the ISCO pilot test, the monitoring frequency required by the FDEP (per their comments on the Plan) for the persulfate pilot study parameters is as follows:

- Weekly during the first month
- Monthly for the next two months
- Quarterly for the next two years
- Semi-annually thereafter until cessation criteria are achieved (FDEP approval to cease monitoring is required)

After the injections were completed and the initial monitoring had started, the FDEP commented that the persulfate pilot study parameters should include metals in addition to the UIC parameters

and that they should be monitored on the same frequency (FDEP memo dated May 14, 2008). Metals analyses were added starting with the first monthly event. However, no metals data were collected during the first, second, third, and fourth weekly post-injection monitoring events, as these events occurred prior to receiving the FDEP request. Some metals data for these initial time periods were available as other sampling programs were completed during this timeframe and some overlap of analytical parameters occurred.

Lockheed Martin can request permission from the FDEP to cease persulfate pilot study parameter monitoring after aquifer conditions have returned to pre-injection conditions or to below the FDEP GCTLs. Pre-injection conditions were characterized through baseline, pre-injection monitoring that was performed specifically for this purpose, as well as from monitoring data collected at the site as part of other unrelated data collection efforts.

Data included in this report were collected over a period of time beginning with the initial event (baseline [pre-injection] monitoring conducted March 10 through March 18, 2008 for most wells) and continuing through the 12th quarterly event. Sample event dates corresponding to the required sampling frequency are summarized below. These events were scheduled based on an injection pilot test completion date of April 19, 2008.

Weekly during the first month:

- Week 1 (week of 4/21/08) – 4/22/08 to 4/23/08
- Week 2 (week of 4/28/08) – 4/28/08
- Week 3 (week of 5/5/08) – 5/6/08 to 5/8/08
- Week 4 (week of 5/12/08) – 5/13/08

Monthly for the next two months:

- Month 1 (month of June) – 6/3 to 6/5/08 and 6/10 to 6/11/08
- Month 2 (month of July) – 7/9 to 7/10/08

Quarterly for the next two years:

- Quarter 1 (August/September/October) – 9/16 to 9/19/08 and 10/27 to 10/30/08
- Quarter 2 (November/December/January) – 1/26 to 1/28/09
- Quarter 3 (February/March/April) – 3/18/09 to 4/2/09
- Quarter 4 (May/June/July) – 7/8 to 7/15/09
- Quarter 5 (August/September/October) – 9/11 to 9/16/09
- Quarter 6 (November/December/January) – 12/8 to 12/17/09
- Quarter 7 (February/March/April) – 3/2/10 to 3/19/10
- Quarter 8 (May/June/July) – 6/1/10 to 6/10/10
- Quarter 9 (August/September/October) – 9/1/10 to 9/16/10
- Quarter 10 (November/December/January) – 12/7 to 12/16/10
- Quarter 11 (February/March/April) – 3/1 to 3/11/11
- Quarter 12 (May/June/July) – 6/1 to 6/9/11

Lockheed Martin has continued the quarterly sampling beyond the required eight quarters. The last quarterly sampling event occurred in June 2011 (resulting in 12 total quarterly events) and the first semi-annual event occurred in December 2011. Future sampling will be conducted on a semi-annual basis.

Persulfate pilot study analytical parameters and associated laboratory methods used during the monitoring events (pilot study specific events as well as events from overlapping programs) include the following:

- Sulfate via United States Environmental Protection Agency (USEPA) Methods For Chemical Analysis of Water and Wastes Method 300;
- Metals (aluminum, arsenic, beryllium, cadmium, chromium, copper, iron, lead, manganese, nickel, sodium, and zinc) via USEPA Method 6010B, and

-
- Total dissolved solids (TDS) via USEPA Standard Methods for the Examination of Water and Wastewater (SM) 2540C.

Section 4

Results

4.1 Overview

Groundwater samples from the four weekly, two monthly, and 12 quarterly sampling events were collected and analyzed for the persulfate pilot study parameters as described in Section 3. The analytical results from these sampling events include results from parameters related directly to the persulfate injections (i.e. sodium, sulfate and TDS) and parameters indirectly (i.e., metals liberated from aquifer solids) related to the persulfate injections (i.e. aluminum, arsenic, manganese, iron, and nickel). These results are discussed in greater detail below and in Section 5. Sulfate and TDS analytical results for samples collected at IRA extraction wells and monitoring wells are presented in Tables 2 and 3, respectively. Metals analytical results for samples collected at IRA extraction wells and monitoring wells are presented in Tables 4 and 5, respectively. Concentration trend plots for select persulfate pilot study parameters at monitoring well and extraction well locations are included in Attachment 2. The laboratory analytical data packages for persulfate pilot study parameter monitoring events not previously submitted to the FDEP are included in Attachment 3.

A comparison of pre-injection baseline levels to post-injection monitored levels and the regulatory levels is summarized in Table 6 and described in the following paragraphs. The results for the ISCO pilot study area wells (labeled “CO-”) are presented first, from the closest to the farthest wells from the injection well (Section 4.1), followed by results for the monitoring wells and extraction wells beyond the ISCO pilot study area (Section 4.2), with emphasis on wells that are downgradient from the ISCO pilot-test area.

Several parameters were monitored and evaluated as part of the persulfate pilot study which have demonstrated influence from the pilot study. The primary lines of evidence indicating pilot

study influence on groundwater quality at a given location include elevated concentrations of the parameters related directly to the persulfate injection (i.e., sodium, sulfate, and TDS), with sulfate being the most conservative and likely to migrate in groundwater. Concentrations of several monitored parameters were below detection limits or consistently below GCTL without indications of influence from the ISCO pilot test. Following the persulfate injection cadmium, chromium, copper, lead, and zinc were below detection limits or consistently below GCTL and are not discussed further in this report. Beryllium was only detected once in monitoring wells in excess of its GCTL during the ISCO pilot test and subsequent persulfate pilot study monitoring (MW-39 on 6/10/08 at 7.5 micrograms per liter [$\mu\text{g/l}$]; the GCTL for beryllium is 4 $\mu\text{g/l}$). All subsequent results have been non-detect or below GCTL and so beryllium is also not discussed further in this report. For the purpose of this report, the following parameters will be carried forward as parameters of interest for evaluation as part of the persulfate pilot study: aluminum, arsenic, manganese, sodium, iron, nickel, sulfate and TDS.

4.2 Study Area Monitoring Wells

The persulfate pilot study area monitoring wells included in the post-injection monitoring program include the five wells with the prefix “CO-” (CO-A1D, CO-B1D, CO-B4D, CO-C1D, and CO-D1D), as listed in Table 1. The concentration trends of the persulfate pilot study parameters of interest (i.e., those carried forward for evaluation per the discussion above: aluminum, arsenic, manganese, sodium, iron, nickel, sulfate, and TDS) in these five monitoring wells are shown on Figures 1 and 2. The graphs show that the persulfate pilot study parameters at CO-A1D (located 4 feet from the injection well), and CO-B1D and CO-B4D (located 7 feet from the injection well) were affected by the persulfate injection as concentrations of most parameters of interest increased in the individual wells from baseline conditions. Concentrations of most parameters of interest decreased by a factor of at least 5 spatially as the groundwater mixed with ISCO chemicals and flowed from the 4-foot ROI well (CO-A1D) to the 7-foot ROI wells (CO-B1D and CO-B4D). Following the initial rise in concentrations at individual wells due to the ISCO injection, concentrations of nickel, manganese, and sodium have dropped below the GCTLs and/or back to baseline levels in the 4-foot and 7-foot radius wells, while concentrations of aluminum in the 4-foot radius well (CO-A1D) and in the 7-foot radius wells (CO-B1D and

CO-B4D) have decreased steadily over the past year or more, but are still greater than the GCTL. Concentrations of arsenic have also steadily decreased over time and were detected below the GCTL in the March and June 2011 monitoring event in the 4-foot well and have been below the GCTL in the 7-foot wells since July 2009. Following the initial rise in concentrations due to ISCO injection and subsequent concentration decreases, a secondary concentration peak of iron, sulfate, and TDS is observed in one of the 7-foot ROI wells (CO-B4D).

Figure 2 shows the concentration trends at the outer-ring study area wells CO-C1D and CO-D1D, which are downgradient monitoring wells, located 10 feet and 14 feet from the injection well, respectively. Arsenic, nickel, manganese, and sodium have never been detected above their respective GCTL in these wells. Aluminum has been detected regularly above the GCTL at a consistent concentration at or slightly greater than background (no increasing or decreasing trend of concentration was observed in these wells). Iron has remained at or below baseline concentrations in CO-C1D while a slight increasing trend has been observed in CO-D1D over the past year. Sulfate and TDS in CO-C1D and CO-D1D have shown increasing trends over the past year.

4.3 USAS/LSAS Monitoring Wells and Extraction Wells

Concentrations of persulfate pilot study parameters in the USAS and LSAS monitoring wells and the extraction wells beyond the ISCO pilot study area have not changed significantly and have not been observed above background and GCTLs, except for aluminum, sulfate and TDS. Sulfate and TDS are parameters of interest directly related to the persulfate injections that have been observed at concentrations above pre-injection levels at USAS wells MW-36 and EW-105, and LSAS well EW-106 outside of the pilot study area. As an example, aluminum is the only metal parameter of interest that is observed above GCTL that may be associated with the persulfate injection at the study area wells located 10 to 14 feet from the injection well (CO-C1D and CO-D1D). Baseline aluminum concentrations are above GCTL at CO-C1D and CO-D1D. The concentrations of aluminum in EW-101, EW-105, and MW-38 (downgradient USAS monitoring and extraction wells from the study area) have not shown increasing trends since the ISCO injection (see Figure 3 for MW-38 trend graphs), indicating that the ROI and expected

groundwater quality change due to metals liberation from the persulfate injection did not extend beyond the 10-foot radially distant ROI wells. The sulfate and TDS concentration trends at MW-36 and EW-105, which are in the USAS and downgradient of the persulfate pilot test area by approximately 75 feet, show an increase which is further discussed below.

Within a few months following injections, sulfate and TDS concentrations increased above the GCTL at operating extraction well EW-105 for one sampling event, followed by a decrease to below the GCTL. More recently in the time period from late 2009 to early 2010, secondary concentration peaks (i.e., gradual increase, followed by a decrease) of sulfate and TDS were observed at EW-105. Sulfate concentrations during this secondary peak at EW-105 remained below the GTCL. Approximately 6 to 12 months following the secondary peak in sulfate and TDS concentrations observed at EW-105, increasing sulfate and TDS concentrations trends were also observed at MW-36, which is located downgradient of the study area and upgradient of EW-105. The initial sulfate and TDS response at operating extraction well EW-105, followed by a later secondary peak response at nearby and upgradient monitoring well MW-36 is likely due to flow path differences between the extraction well and MW-36. Sulfate concentrations are currently detected above the GCTL at MW-36.

Sulfate and TDS concentrations at EW-107 and MW-76, both located approximately 200 feet southeast of the persulfate pilot test area, are also showing a sulfate and TDS response similar that observed at EW-105 and MW-36; however, the EW-107 response appears to be lagging the response at EW-105 by approximately 9 to 12 months. Although the recent sulfate concentrations appear to be increasing at EW-107 and MW-76, the concentrations remain below the GCTLs.

Extraction well EW-106, which is located next to EW-105 and screened within the LSAS, has also shown sulfate and TDS concentration responses similar to EW-105 since late 2009. The concentrations of sulfate and TDS at EW-106 are currently above the baseline levels.

Concentrations of metals such as aluminum, arsenic, and iron have shown wide ranges of fluctuation in extraction wells further away from the study area (Table 4). Occasional minor increasing trends and detections above the GCTLs, such as arsenic at EW-110 between 2009 and

2011, have also been observed. These concentration fluctuations may be attributed to the extraction wells capturing water from locations of very different geochemical conditions occurring in ambient groundwater from distances beyond that anticipated to be influenced by the focused injection of persulfate in the study area. Because the water quality at operating extraction wells may be influenced by areas outside of the study area, it is necessary to infer the effects of persulfate injection in the vicinity of extraction wells based on the concentrations of sodium, sulfate, and TDS, which are directly related to the persulfate injection. Sulfate and TDS are more conservative indicators (i.e., less susceptible to attenuation processes) than sodium and serve as a qualitative tracer of groundwater that may have been influenced through persulfate injection. Since the concentrations of sulfate and TDS at the extraction wells furthest away from the injection well remained stable, the fluctuations of metal concentrations at these wells are most likely not the result of the persulfate injection, but rather due to natural variations in groundwater.

Section 5

Conclusions and Recommendations

This report describes the monitoring activities associated with the persulfate pilot study and recommendations for future monitoring activities. Included below is a summary of GCTL exceedances observed in the ISCO pilot study area, as discussed in detail in Section 4. The data evaluation presented in Section 4.3 is also summarized below and includes a discussion of the parameters directly related to the persulfate injections as observed at the monitoring wells and extraction wells outside of the immediate ISCO pilot study area.

Concentrations of nickel, manganese, and sodium in the ISCO pilot study area wells have been below their respective GCTLs or have returned to baseline concentrations. Aluminum was detected above its GCTL in the outer-ring ISCO pilot study area wells (both 10- and 14-foot ROI wells), but no increasing trend was observed and these detections are within the pre-injection, baseline ranges of values. Arsenic concentrations have been gradually decreasing to below the GCTL within the ISCO pilot study area and have returned to background levels. Over the past year, concentrations of iron, sulfate, and TDS within the outer-ring ISCO pilot study area wells increased.

No increases from persulfate injection in parameters of interest were observed at the monitoring wells and extraction wells outside the ISCO pilot study area that are included in the persulfate pilot study parameter monitoring, except for sulfate and TDS in MW-36, EW-105, and EW-106. Wells MW-36, EW-105, and EW-106 are downgradient of the persulfate injection area and in the immediate vicinity of the USAS groundwater pumping center of extraction wells EW-101 and EW-105. Sulfate and TDS response has been observed at MW-36 and EW-105. Based on the sulfate and TDS concentration trends observed at EW-105, sulfate concentrations at MW-36

are expected to decrease in the near future and return to levels below GCTLs. There is no evidence that the ISCO pilot testing has led to migration of persulfate pilot study parameters of interest off-facility, nor would this be expected given the capture zone currently in place due to the IRAP operation and the enhanced capture and contaminant extraction that will occur when the full RAP system goes into operation.

Based on the data summary and evaluations provided above, the following actions are recommended:

- Reduce persulfate pilot study monitoring parameters to aluminum, arsenic, iron, sulfate, and TDS only, and
- Maintain a sampling frequency of semi-annual (last quarterly event in June 2011, first semi-annual event in December 2011).

In addition to reducing the number of parameters monitored and the frequency of sampling, Lockheed Martin recommends that wells installed as part of the tracer study and ISCO pilot testing that are not part of the persulfate pilot study parameter monitoring be properly abandoned. The in situ study area wells proposed for well abandonment are listed in Table 7. In general the wells on Table 7 include most of the wells surrounding USAS tracer injection well IW-1 (prefix “T” plus IW-1) and LSAS tracer injection well IW-3 (prefix “TL” plus IW-3), and certain wells surrounding ISCO pilot test injection well IW-2 (prefix “CO”), with the exception of wells that would remain or be re-installed following abandonment. Thus, after properly abandoning the wells noted in Table 7, the following wells would be retained for the reasons noted:

- Chemical oxidation study area wells required for persulfate pilot study parameter monitoring: CO-A1D, CO-B1D, CO-B4D, CO-C1D, and CO-D1D.

When concentrations return to pre-injection conditions or are less than GCTLs at the persulfate pilot study parameter monitoring wells, Lockheed Martin will request FDEP approval to cease the persulfate pilot study parameter monitoring program.

Section 6

References

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TABLES

Table 1
Pilot Test Well Construction Information
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Well ID	Installation Date	Aquifer Zone	Total Well Depth (ft-bgs)	Screen Top (ft-bgs)	Screen Bottom (ft-bgs)	Top of Inner Casing (ft-msl)
USAS ISCO Pilot Test Wells						
IW-2	2/13/2008	USAS		27	30	31.50
CO-A1D	2/15/2008	USAS		27	30	31.47
CO-A2D	2/15/2008	USAS		27	30	31.42
CO-A2S	2/13/2008	USAS		19	24	31.47
CO-A3D	2/14/2008	USAS		27	30	31.45
CO-A3S	2/13/2008	USAS		19	24	31.40
CO-A4D	2/14/2008	USAS		27	30	31.47
CO-B1D	2/15/2008	USAS		27	30	31.42
CO-B1S	2/11/2008	USAS		19	24	31.42
CO-B2D	2/15/2008	USAS		27	30	31.47
CO-B3D	2/14/2008	USAS		27	30	31.45
CO-B4D	2/14/2008	USAS		27	30	31.37
CO-B5D	2/14/2008	USAS		27	30	31.34
CO-B5S	2/13/2008	USAS		19	24	31.44
CO-C1D	2/12/2008	USAS		26	30	31.41
CO-C1S	2/12/2008	USAS		19	24	31.51
CO-C2D	2/11/2008	USAS		26	30	31.46
CO-C3D	2/11/2008	USAS		26	30	31.52
CO-C3S	2/11/2008	USAS		19	24	31.27
CO-D1D	2/12/2008	USAS		26	30	31.43
CO-D1S	2/12/2008	USAS		19	24	31.52
USAS Tracer Test Wells						
IW-1	2/15/2008	USAS		27	30	30.99
T-A1D	2/18/2008	USAS		27	30	31.02
T-A1S	2/15/2008	USAS		19	24	30.84
T-A2D	2/18/2008	USAS		27	30	30.95
T-A2S	2/19/2008	USAS		19	24	30.93
T-A3D	2/19/2008	USAS		27	30	30.98
T-A3S	2/15/2008	USAS		19	24	30.90
T-A4D	2/18/2008	USAS		27	30	30.94
T-A4S	2/15/2008	USAS		19	24	30.87
T-B1D	2/18/2008	USAS		26	30	30.97
T-B1S	2/15/2008	USAS		19	24	30.83
T-B2D	2/18/2008	USAS		27	30	30.90
T-B2S	2/15/2008	USAS		19	24	30.91
T-B3D	2/14/2008	USAS		27	30	30.93
T-B3S	2/15/2008	USAS		19	24	30.90
T-B4D	2/14/2008	USAS		27	30	30.91
T-B4S	2/11/2008	USAS		19	24	30.95
T-B5D	2/18/2008	USAS		27	30	30.98
T-B5S	2/15/2008	USAS		19	24	30.88
T-C1D	2/12/2008	USAS		26	30	30.96
T-C1S	2/13/2008	USAS		19	24	30.97
T-C2D	2/12/2008	USAS		26	30	30.98
T-C2S	2/13/2008	USAS		19	24	31.02
T-C3D	2/12/2008	USAS		26	30	30.98
T-C3S	2/14/2008	USAS		19	24	30.99
T-C4D	2/13/2008	USAS		26	30	30.90
T-C4S	2/14/2008	USAS		19	24	30.89
T-C5D	2/13/2008	USAS		26	30	30.92
T-C5S	2/14/2008	USAS		19	24	30.95
T-C6D	2/13/2008	USAS		26	30	30.81
T-C6S	2/14/2008	USAS		19	24	30.90

See Notes on Page 2.

Table 1
Pilot Test Well Construction Information
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Well ID	Installation Date	Aquifer Zone	Total Well Depth (ft-bgs)	Screen Top (ft-bgs)	Screen Bottom (ft-bgs)	Top of Inner Casing (ft-msl)
LSAS Tracer Test Wells						
TL-INJ (IW-3)	2/5/2008	LSAS		35	40	30.99
TL-4-1	2/8/2008	LSAS		35	40	31.25
TL-4-2	2/7/2008	LSAS		35	40	31.20
TL-4-3	2/7/2008	LSAS		35	40	31.08
TL-5-1	3/14/2008	LSAS		27	30	31.18
TL-7-1	2/6/2008	LSAS		35	40	30.99
TL-10-1	2/6/2008	LSAS		35	40	31.26
ISCO COMP USAS Monitoring Wells						
MW-3	2/1/2001	USAS	17.95	5	20	30.52
MW-4	2/1/2001	USAS	18.87	4	19	31.50
MW-32	12/18/2004	USAS	30.17	24.5	29.5	31.00
MW-36	1/8/2005	USAS	27.85	23	28	31.71
MW-38	1/8/2005	USAS	27.98	23	28	31.15
MW-40	1/8/2005	USAS	27.75	23	28	31.32
MW-42	12/21/2004	USAS	26.97	23	28	31.49
MW-70	12/29/2004	USAS	27.41	23	29	31.89
MW-71	12/29/2004	USAS	28.28	24	29	31.23
MW-72	12/19/2004	USAS	28.77	23.5	28.5	30.97
MW-76	1/4/2005	USAS	27.79	23	28	30.84
EW-101	NA	USAS	30	15	30	30.31
EW-103	5/31/2006	USAS	25	5	20	29.86
EW-105	5/3/2006	USAS	30	5	25	30.40
EW-107	10/24/2007	USAS	32	7	27	29.64
EW-109	5/2/2006	USAS	30	5	25	30.10
ISCO COMP LSAS Monitoring Wells						
MW-37	12/19/2004	LSAS	40.55	35.5	40.5	31.60
MW-33	12/18/2004	LSAS	41.9	35.5	40.5	31.00
MW-39	12/19/2004	LSAS	40.42	35.5	40.5	31.18
EW-102	10/26/2007	LSAS	41	31	36	30.52
EW-104	5/31/2006	LSAS	36	26	31	29.77
EW-106	5/3/2006	LSAS	36	26	31	30.33
EW-108	NA	LSAS	40.5	35.5	40.5	30.09
EW-110	5/2/2006	LSAS	40	30	35	30.12
MW-43	12/21/2004	LSAS	40.15	35.5	40.5	31.48
MW-80	1/8/2005	LSAS	41	36	41	30.99

Notes:

1. LSAS - Lower Shallow Aquifer System
2. USAS - Upper Surficial Aquifer System
3. ISCO - In-Situ Chemical Oxidation Pilot Test
4. ft-bgs - feet below ground surface
5. ft-msl - feet below mean sea level
6. NA - Not available

Table 2
Summary of EW Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL			250,000	500,000
EW-102	3/12/2008	EW-102	260,000	630,000
	4/23/2008	EW-102	260,000	670,000
	5/6/2008	EW-102	270,000	720,000
	5/13/2008	EW-102	250,000	670,000
	6/5/2008	EW-102	310,000	740,000
	7/10/2008	EW-102	250,000	670,000
	9/19/2008	EW-102	2,000 U	240,000
	10/30/2008	EW-102	40,000 U	240,000
	1/27/2009	EW-102	37,000	300,000
	3/25/2009	EW-102 (UIC)	280,000	720,000
	7/9/2009	EW-102 (9:15 AM)	290,000	690,000
	9/15/2009	EW-102	290,000	690,000
	12/8/2009	EW-102	300,000 J	730,000
	3/16/2010	EW-102	270,000	690,000
	6/1/2010	EW-102	270,000	710,000
	9/1/2010	EW-102	240,000	700,000
	12/7/2010	EW-102	260,000	720,000
	3/1/2011	EW-102	250,000	700,000
	6/1/2011	EW-102	230,000	740,000
EW-103	10/27/2006	EW-103	110,000	260,000
	3/14/2008	EW-103	89,000	220,000
	4/23/2008	EW-103	130,000	220,000
	5/6/2008	EW-103	130,000	240,000
	5/13/2008	EW-103	110,000	230,000
	6/5/2008	EW-103	120,000	280,000
	7/10/2008	EW-103	120,000	250,000
	9/18/2008	EW-103	89,000	260,000
	10/30/2008	EW-103	94,000 J	260,000
	1/27/2009	EW-103	91,000	240,000
	3/20/2009	EW-103 (UIC)	110,000 J	290,000
	7/9/2009	EW-103 (9:20 AM)	160,000	300,000
	9/15/2009	EW-103	120,000	240,000
	12/8/2009	EW-103	110,000	230,000
	3/16/2010	EW-103	110,000	200,000
	6/1/2010	EW-103	100,000	220,000
	9/1/2010	EW-103	74,000	280,000
	12/7/2010	EW-103	140,000	330,000
	3/1/2011	EW-103	81,000	210,000
	6/1/2011	EW-103	62,000	150,000
EW-104	10/27/2006	EW-104	240,000	530,000
	3/12/2008	EW-104	210,000	440,000
	4/23/2008	EW-104	240,000	500,000
	5/6/2008	EW-104	240,000	500,000
	5/13/2008	EW-104	220,000	520,000
	6/5/2008	EW-104	220,000	460,000
	7/10/2008	EW-104	220,000	510,000
	9/18/2008	EW-104	3,000 I	170,000
	10/30/2008	EW-104	7,400 IJ	230,000
	1/27/2009	EW-104	130,000	290,000
	3/23/2009	EW-104 (UIC)	140,000	320,000
	7/9/2009	EW-104 (9:25 AM)	200,000	480,000
	9/15/2009	EW-104	200,000	460,000
	12/8/2009	EW-104	190,000	430,000
	3/16/2010	EW-104	160,000	370,000
	6/1/2010	EW-104	150,000	410,000
	9/1/2010	EW-104	110,000	360,000
	12/7/2010	EW-104	120,000	330,000
	3/1/2011	EW-104	110,000	320,000
	6/1/2011	EW-104	100,000	310,000

See Notes on Page 4.

Table 2
Summary of EW Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL			250,000	500,000
EW-105	10/27/2006	EW-105	150,000	290,000
	3/18/2008	EW-105	85,000	200,000
	4/23/2008	EW-105	140,000 J	270,000
	5/6/2008	EW-105	230,000	310,000
	5/13/2008	EW-105	230,000	450,000
	6/5/2008	EW-105	290,000	730,000
	7/10/2008	EW-105	210,000	430,000
	9/18/2008	EW-105	67,000	230,000
	10/30/2008	EW-105	56,000 LJ	210,000
	1/28/2009	EW-105	110,000	230,000
	3/19/2009	EW-105 (UIC)	110,000	290,000
	7/9/2009	EW-105 (9:30 AM)	190,000	350,000
	9/15/2009	EW-105	200,000	400,000
	12/8/2009	EW-105	230,000	390,000
	3/16/2010	EW-105	230,000	370,000
	6/1/2010	EW-105	210,000	380,000
	9/1/2010	EW-105	110,000	270,000
	12/7/2010	EW-105	190,000	350,000
	3/1/2011	EW-105	190,000	360,000
	6/1/2011	EW-105	160,000	340,000
EW-106	10/27/2006	EW-106	340,000	700,000
	3/12/2008	EW-106	230,000	430,000
	4/23/2008	EW-106	270,000	510,000
	5/6/2008	EW-106	290,000 J	570,000
	5/13/2008	EW-106	280,000	550,000
	6/5/2008	EW-106	220,000	450,000
	7/10/2008	EW-106	290,000	570,000
	9/18/2008	EW-106	6,700	98,000
	10/30/2008	EW-106	200,000 J	340,000
	1/28/2009	EW-106	31,000	140,000
	3/24/2009	EW-106 (UIC)	160,000	340,000
	7/9/2009	EW-106 (9:35 AM)	300,000 J	620,000
	9/15/2009	EW-106	300,000	630,000
	12/8/2009	EW-106	330,000	590,000
	3/16/2010	EW-106	370,000	620,000
	6/1/2010	EW-106	370,000	710,000
	9/1/2010	EW-106	340,000	710,000
	12/7/2010	EW-106	370,000	740,000
	3/1/2011	EW-106	330,000	710,000
	6/1/2011	EW-106	350,000	700,000
EW-107	3/14/2008	EW-107	52,000	110,000
	4/23/2008	EW-107	51,000	94,000
	5/6/2008	EW-107	89,000	140,000
	5/13/2008	EW-107	83,000	150,000
	6/5/2008	EW-107	69,000	160,000
	7/10/2008	EW-107	80,000	120,000
	9/18/2008	EW-107	52,000	130,000
	10/30/2008	EW-107	55,000 J	150,000
	1/28/2009	EW-107	46,000	120,000
	3/24/2009	EW-107 (UIC)	59,000	150,000
	7/9/2009	EW-107 (9:40 AM)	68,000	140,000
	9/15/2009	EW-107	74,000	150,000
	12/8/2009	EW-107	96,000	160,000
	3/16/2010	EW-107	140,000	200,000
	6/1/2010	EW-107	140,000	210,000
	9/1/2010	EW-107	130,000	260,000
	12/7/2010	EW-107	160,000	270,000
	3/1/2011	EW-107	160,000	270,000
	6/1/2011	EW-107	160,000	280,000

See Notes on Page 4.

Table 2
Summary of EW Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL			250,000	500,000
EW-109	10/27/2006	EW-109	560,000	920,000
	3/14/2008	EW-109	570,000	1,100,000
	4/23/2008	EW-109	560,000	1,100,000
	5/7/2008	EW-109	630,000	1,200,000
	5/13/2008	EW-109	580,000	1,100,000
	7/10/2008	EW-109	560,000	1,100,000
	9/19/2008	EW-109	580,000	1,100,000
	10/29/2008	EW-109	40,000 U	1,100,000
	1/27/2009	EW-109	530,000 J	1,000,000
	3/20/2009	EW-109 (UIC)	550,000 [550,000]	1,100,000 [1,100,000]
	7/9/2009	EW-109 (9:50 AM)	580,000	1,000,000
	9/15/2009	EW-109	610,000	1,000,000
	12/8/2009	EW-109	620,000	1,000,000
	3/16/2010	EW-109	660,000	990,000
	6/1/2010	EW-109	630,000 J	960,000
	9/1/2010	EW-109	240,000	560,000
	12/7/2010	EW-109	480,000	830,000
	3/1/2011	EW-109	450,000	800,000
	6/1/2011	EW-109	410,000	750,000
EW-110	10/27/2006	EW-110	310,000	620,000
	3/12/2008	EW-110	490,000	870,000
	4/23/2008	EW-110	480,000	840,000
	5/6/2008	EW-110	680,000	860,000
	5/13/2008	EW-110	500,000	890,000
	6/5/2008	EW-110	550,000	820,000
	7/10/2008	EW-110	550,000	950,000
	9/19/2008	EW-110	4,000 I [3,400 I]	50,000 [48,000]
	10/29/2008	EW-110	40,000 U	120,000
	1/27/2009	EW-110	27,000	100,000
	3/20/2009	EW-110 (UIC)	520,000	1,100,000
	7/9/2009	EW-110 (9:55 AM)	520,000	1,000,000
	9/15/2009	EW-110	550,000	1,100,000
	12/8/2009	EW-110	620,000	980,000
	3/16/2010	EW-110	660,000	840,000
	6/1/2010	EW-110	520,000	1,000,000
	9/1/2010	EW-110 (9:30 AM)	520,000	890,000
	12/7/2010	EW-110	540,000 J	1,000,000
	3/1/2011	EW-110	480,000	890,000
	6/1/2011	EW-110	480,000	870,000
EXL-1 (EW-108)	3/12/2008	EW-108	220,000	630,000
	4/23/2008	EW-108	220,000	660,000
	5/6/2008	EW-108	230,000	650,000
	5/13/2008	EW-108	220,000	650,000
	6/5/2008	EW-108	280,000	780,000
	7/10/2008	EW-108	240,000	660,000
	9/18/2008	EW-108	320,000	740,000
	10/30/2008	EW-108	330,000 J	730,000
	1/27/2009	EW-108	9,300 I	190,000
	3/20/2009	EW-108 (UIC)	34,000	320,000
	7/9/2009	EW-108 (9:45 AM)	230,000	690,000
	9/15/2009	EW-108	230,000 J	670,000
	12/8/2009	EW-108	220,000	650,000
	3/16/2010	EW-108	190,000	620,000
	6/1/2010	EW-108	200,000 [200,000]	610,000 [610,000]
	9/1/2010	EW-108	180,000	620,000
	12/7/2010	EW-108	230,000	600,000
	3/1/2011	EW-108	190,000	610,000
	6/1/2011	EW-108	190,000	630,000

See Notes on Page 4.

Table 2
Summary of EW Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL			250,000	500,000
EXU-1 (EW-101)	9/23/2005	EXU-1-INF	NA	748,000 J
	9/24/2005	EXU-1-NOTANK	NA	646,000 J
	9/24/2005	EXU-1-TANK	NA	813,000 J
	3/12/2008	EW-101	120,000	250,000
	4/23/2008	EW-101	170,000	290,000
	5/6/2008	EW-101	150,000	280,000
	5/13/2008	EW-101	140,000	300,000
	6/5/2008	EW-101	110,000	250,000
	7/10/2008	EW-101	160,000	300,000
	9/18/2008	EW-101	110,000	230,000
	10/30/2008	EW-101	83,000 IJ	210,000
	1/27/2009	EW-101	95,000	240,000
	3/24/2009	EW-101 (UIC)	120,000	280,000
	7/9/2009	EW-101 (9:10 AM)	140,000	270,000
	9/15/2009	EW-101	140,000	240,000
	12/8/2009	EW-101	98,000 J	250,000
	3/16/2010	EW-101	160,000	260,000
	6/1/2010	EW-101	190,000	300,000
	9/1/2010	EW-101	160,000	400,000
	12/7/2010	EW-101	120,000	230,000
	3/1/2011	EW-101	100,000	220,000
	6/1/2011	EW-101	100,000 J	220,000

Notes:

1. **Bold font** indicates exceedance of Groundwater Cleanup Target Level (GCTL).
2. EW - Extraction Well.
3. GCTL - Groundwater Cleanup Target Level
4. I - Detected but below reporting limit. Result is an estimated concentration
5. J - Estimated value.
6. µg/l - micrograms per liter.
7. NA - Not Applicable.
8. TDS - Total Dissolved Solids.
9. U - The analyte was analyzed for, but not detected.
10. UIC - Underground Injection Control.
11. V - Indicates the analyte was detected in both the sample and the associated method blank.

Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
CO-A1D		3/10/2008	CO-A1D	350,000	690,000
		4/23/2008	CO-A1D	4,400,000 J	6,800,000
		5/7/2008	CO-1AD	4,800,000	13,000,000
		5/13/2008	CO-A1D	3,900,000	5,800,000
		6/4/2008	CO-A1D	2,400,000	3,600,000
		7/9/2008	CO-A1D	1,400,000	2,000,000
		9/18/2008	CO-A1D	590,000	990,000
		10/28/2008	CO-1AD	NA	710,000
		11/28/2008	CO-1AD	364,000	NA
		1/26/2009	CO-A1D	300,000	620,000
		4/2/2009	CO-A1D (UIC)	260,000	500,000
		7/13/2009	CO-A1D	220,000	450,000
		9/16/2009	CO-A1D	200,000	430,000
		12/17/2009	CO-A1D	210,000 [190,000]	340,000 [340,000]
		3/18/2010	CO-A1D	190,000	410,000
		6/9/2010	CO-A1D	170,000	310,000
		9/15/2010	CO-A1D	200,000	410,000
		12/14/2010	CO-A1D	210,000 [190,000]	340,000 [340,000]
		3/10/2011	CO-A1D	78,000	160,000
		6/9/2011	CO-A1D	140,000	250,000
CO-B1D		3/11/2008	CO-B1D	270,000	520,000
		4/23/2008	CO-B1D	960,000	1,400,000
		5/6/2008	CO-B1D	1,200,000	1,400,000
		5/13/2008	CO-B1D	900,000	1,200,000
		6/3/2008	CO-B1D	550,000	680,000
		7/10/2008	CO-B1D	320,000	480,000
		9/18/2008	CO-B1D	220,000	410,000
		10/27/2008	CO-B1D	210,000	400,000
		1/26/2009	CO-B1D	200,000	420,000
		4/2/2009	CO-B1D (UIC)	180,000	390,000
		7/13/2009	CO-B1D	180,000	300,000
		9/16/2009	CO-B1D	160,000	340,000
		12/17/2009	CO-B1D	160,000 J	320,000
		3/18/2010	CO-B1D	140,000	300,000
		6/9/2010	CO-B1D	140,000	270,000
		9/15/2010	CO-B1D	100,000	230,000
		12/14/2010	CO-B1D	130,000	250,000
		3/10/2011	CO-B1D	110,000 [110,000]	200,000 [180,000]
		6/9/2011	CO-B1D	90,000	160,000
CO-B4D		3/12/2008	CO-B4D	350,000	640,000
		4/23/2008	CO-B4D	1,400,000	2,200,000
		5/7/2008	CO-B4D	550,000	880,000
		5/13/2008	CO-B4D	500,000	770,000
		6/3/2008	CO-B4D	430,000	620,000
		7/10/2008	CO-B4D	380,000	610,000
		9/19/2008	CO-B4D	320,000	540,000
		10/28/2008	CO-B4D	NA	610,000
		11/28/2008	CO-B4D	311,000	NA
		1/26/2009	CO-B4D	320,000	630,000
		4/2/2009	CO-B4D (UIC)	340,000	650,000
		7/13/2009	CO-B4D	390,000 J	730,000
		9/16/2009	CO-B4D	430,000	890,000
		12/17/2009	CO-B4D	460,000 J	820,000
		3/18/2010	CO-B4D	460,000	900,000
		6/9/2010	CO-B4D	510,000	960,000
		9/16/2010	CO-B4D	500,000 [510,000]	1,000,000 [1,000,000]
		12/14/2010	CO-B4D	710,000 J	970,000
		3/10/2011	CO-B4D	740,000	900,000
		6/9/2011	CO-B4D	480,000 [480,000]	880,000 [860,000]

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Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
CO-C1D		3/12/2008	CO-C1D	270,000	520,000
		4/23/2008	CO-C1D	280,000	440,000
		5/6/2008	CO-C1D	240,000	280,000
		5/13/2008	CO-C1D	180,000	360,000
		6/3/2008	CO-C1D	260,000	280,000
		7/10/2008	CO-C1D	190,000	300,000
		9/18/2008	CO-C1D	220,000	390,000
		10/27/2008	CO-C1D	NA	420,000
		11/27/2008	CO-C1D	225,000	NA
		1/26/2009	CO-C1D	200,000	400,000
		4/2/2009	CO-C1D (UIC)	210,000	410,000
		7/13/2009	CO-C1D	230,000	440,000
		9/16/2009	CO-C1D	330,000	490,000
		12/17/2009	CO-C1D	290,000	510,000
		3/18/2010	CO-C1D	310,000	610,000
		6/9/2010	CO-C1D	350,000	680,000
		9/16/2010	CO-C1D	300,000 [300,000]	600,000 [630,000]
		12/14/2010	CO-C1D	410,000	590,000
		3/10/2011	CO-C1D	400,000	490,000
		6/9/2011	CO-C1D	280,000	460,000
CO-D1D		3/12/2008	CO-D1D	250,000	490,000
		4/23/2008	CO-D1D	220,000	380,000
		5/7/2008	CO-D1D	210,000	350,000
		5/13/2008	CO-D1D	200,000	350,000
		6/3/2008	CO-D1D	320,000	440,000
		7/9/2008	CO-D1D	270,000	360,000
		9/16/2008	CO-D1D	210,000 J	390,000
		10/27/2008	CO-D1D	NA	420,000
		11/27/2008	CO-D1D	230,000	NA
		1/26/2009	CO-D1D	240,000	460,000
		4/2/2009	CO-D1D (UIC)	250,000	480,000
		7/13/2009	CO-D1D	220,000	410,000
		9/16/2009	CO-D1D	250,000	550,000
		12/17/2009	CO-D1D	280,000	500,000
		3/19/2010	CO-D1D	320,000 J	610,000
		6/9/2010	CO-D1D	370,000	670,000
		9/16/2010	CO-D1D	320,000	640,000
		12/14/2010	CO-D1D	590,000	730,000
		3/10/2011	CO-D1D	450,000	750,000
		6/9/2011	CO-D1D	380,000 J	660,000
MW-3		2/13/2001	TT-MW-003-20010213	37,000	NA
		1/5/2005	TT-MW-003-20050105	17,000	NA
	5 - 20	3/13/2008	MW-3	24,000	160,000
	5 - 20	4/23/2008	MW-3	15,000	98,000
	5 - 20	5/7/2008	MW-3	33,000	160,000
	5 - 20	5/13/2008	MW-3	52,000	250,000
	5 - 20	6/4/2008	MW-3	64,000	230,000
	5 - 20	7/10/2008	MW-3	7,000	62,000
	5 - 20	9/16/2008	MW-3	16,000	160,000
	5 - 20	10/29/2008	MW-3	40,000 UJ	150,000
	5 - 20	1/27/2009	MW-3	16,000 J [15,000]	150,000 [150,000]
	5 - 20	4/2/2009	MW-3 (UIC)	12,000	120,000
	5 - 20	7/15/2009	MW-3	11,000	110,000
	5 - 20	9/16/2009	MW-3	9,300	110,000
	5 - 20	12/17/2009	MW-3	7,700	120,000
	5 - 20	3/17/2010	MW-3	7,100	88,000
	5 - 20	6/8/2010	MW-3	9,300	120,000
	5 - 20	9/16/2010	MW-3	6,300	60,000
	5 - 20	12/15/2010	MW-3	6,800	110,000
	5 - 20	3/9/2011	MW-3	16,000	100,000
	5 - 20	6/6/2011	MW-3	24,000 J	110,000

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Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
MW-4	4 - 19	2/13/2001	TT-MW-004-20010213	380,000	NA
	4 - 19	3/13/2008	MW-4	250,000	500,000
	4 - 19	4/23/2008	MW-4	250,000	470,000
	4 - 19	5/8/2008	MW-4	290,000	490,000
	4 - 19	5/13/2008	MW-4	220,000	440,000
	4 - 19	6/5/2008	MW-4	230,000 J	430,000
	4 - 19	7/9/2008	MW-4	220,000	430,000
	4 - 19	9/16/2008	MW-4	210,000	370,000
	4 - 19	10/30/2008	MW-4	190,000 J	380,000
	4 - 19	1/28/2009	MW-4	140,000	320,000
	4 - 19	4/2/2009	MW-4 (UIC)	260,000	520,000
	4 - 19	7/15/2009	MW-4	140,000	310,000
	4 - 19	9/16/2009	MW-4	100,000	300,000
	4 - 19	12/17/2009	MW-4	110,000 J	270,000
	4 - 19	3/11/2010	MW-4	190,000	400,000
	4 - 19	6/8/2010	MW-4	190,000	390,000
	4 - 19	9/8/2010	MW-4	160,000	390,000
	4 - 19	12/16/2010	MW-4	150,000	320,000
	4 - 19	3/11/2011	MW-4	160,000	290,000
	4 - 19	6/8/2011	MW-4	260,000 J	450,000
MW-32	24 - 29	6/27/2005	TT-MW-032-20050627	277,000	NA
	24.5 - 29.5	1/31/2006	MW-32	210,000	NA
	24.5 - 29.5	3/13/2008	MW-32	240,000	420,000
	24.5 - 29.5	5/8/2008	MW-32	240,000	370,000
	24.5 - 29.5	5/13/2008	MW-32	210,000	500,000
	24.5 - 29.5	6/5/2008	MW-32	230,000	400,000
	24.5 - 29.5	7/10/2008	MW-32	290,000	550,000
	24.5 - 29.5	9/16/2008	MW-32	340,000	570,000
	24.5 - 29.5	10/29/2008	MW-32	310,000	540,000
	24.5 - 29.5	1/26/2009	MW-32	270,000	500,000
	24.5 - 29.5	3/23/2009	MW-32 (UIC)	250,000	500,000
	24.5 - 29.5	7/8/2009	MW-32	290,000	560,000
	24.5 - 29.5	9/14/2009	MW-32	350,000	660,000
	24.5 - 29.5	12/15/2009	MW-32	250,000	430,000
	24.5 - 29.5	3/17/2010	MW-32	160,000	330,000
	24.5 - 29.5	6/4/2010	MW-32	76,000	170,000
	24.5 - 29.5	9/8/2010	MW-32	50,000	140,000
	24.5 - 29.5	12/13/2010	MW-32	44,000	150,000 Q
	24.5 - 29.5	3/11/2011	MW-32	90,000	190,000
	24.5 - 29.5	6/8/2011	MW-32	36,000	130,000
MW-33	35.5 - 40.5	3/18/2008	MW-33	320,000	610,000
	35.5 - 40.5	4/23/2008	MW-33	230,000	560,000
	35.5 - 40.5	5/7/2008	MW-33	260,000	650,000
	35.5 - 40.5	5/13/2008	MW-33	250,000	660,000
	35.5 - 40.5	6/5/2008	MW-33	240,000	630,000
	35.5 - 40.5	7/9/2008	MW-33	220,000	540,000
	35.5 - 40.5	9/16/2008	MW-33	220,000	570,000
	35.5 - 40.5	10/29/2008	MW-33	260,000	620,000
	35.5 - 40.5	1/26/2009	MW-33	230,000	590,000
	35.5 - 40.5	3/23/2009	MW-33 (UIC)	260,000	650,000
	35.5 - 40.5	7/8/2009	MW-33	290,000	670,000
	35.5 - 40.5	9/14/2009	MW-33	270,000	590,000
	35.5 - 40.5	12/15/2009	MW-33	280,000 J	600,000
	35.5 - 40.5	3/17/2010	MW-33	250,000	630,000
	35.5 - 40.5	6/4/2010	MW-33	260,000	590,000
	35.5 - 40.5	9/8/2010	MW-33	230,000	560,000
	35.5 - 40.5	12/13/2010	MW-33	220,000	510,000
	35.5 - 40.5	3/11/2011	MW-33	190,000	430,000
	35.5 - 40.5	6/7/2011	MW-33	150,000	430,000

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Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
MW-36	23 - 28	3/14/2008	MW-36	150,000 [150,000]	230,000 [220,000]
	23 - 28	4/23/2008	MW-36	150,000	250,000
	23 - 28	5/8/2008	MW-36	170,000	270,000
	23 - 28	5/13/2008	MW-36	140,000	280,000
	23 - 28	6/5/2008	MW-36	160,000	290,000
	23 - 28	7/10/2008	MW-36	170,000 [180,000]	320,000 [310,000]
	23 - 28	9/16/2008	MW-36	170,000	290,000
	23 - 28	10/29/2008	MW-36	190,000 [180,000]	350,000 [340,000]
	23 - 28	1/26/2009	MW-36	180,000	330,000
	23 - 28	3/19/2009	MW-36 (BW)	170,000	360,000
	23 - 28	3/19/2009	MW-36 (UIC)	180,000	NA
	23 - 28	7/10/2009	MW-36	230,000	420,000
	23 - 28	9/14/2009	MW-36	280,000	560,000
	23 - 28	12/15/2009	MW-36	380,000	650,000
	23 - 28	3/17/2010	MW-36	400,000	790,000
	23 - 28	6/10/2010	MW-36	450,000	860,000
	23 - 28	9/8/2010	MW-36	390,000	870,000
	23 - 28	12/16/2010	MW-36	570,000	860,000
	23 - 28	3/8/2011	MW-36	480,000	880,000
	23 - 28	6/8/2011	MW-36	440,000	900,000
MW-37	35.5 - 40.5	3/14/2008	MW-37	230,000	630,000
	35.5 - 40.5	4/23/2008	MW-37	230,000	640,000
	35.5 - 40.5	5/8/2008	MW-37	240,000	690,000
	35.5 - 40.5	5/13/2008	MW-37	240,000	690,000
	35.5 - 40.5	6/5/2008	MW-37	310,000	760,000
	35.5 - 40.5	7/9/2008	MW-37	260,000	690,000
	35.5 - 40.5	9/16/2008	MW-37	300,000	770,000
	35.5 - 40.5	10/29/2008	MW-37	230,000 [270,000]	720,000 [710,000]
	35.5 - 40.5	1/26/2009	MW-37	280,000	720,000
	35.5 - 40.5	3/19/2009	MW-37 (BW)	260,000	700,000
	35.5 - 40.5	3/19/2009	MW-37 (UIC)	260,000	NA
	35.5 - 40.5	7/14/2009	MW-37	180,000	600,000
	35.5 - 40.5	9/14/2009	MW-37	200,000	640,000
	35.5 - 40.5	12/14/2009	MW-37	190,000 J [220,000]	620,000 [620,000]
	35.5 - 40.5	3/17/2010	MW-37	200,000 [180,000]	620,000 [600,000]
	35.5 - 40.5	6/4/2010	MW-37	130,000	520,000
	35.5 - 40.5	9/2/2010	MW-37	130,000	460,000
	35.5 - 40.5	12/16/2010	MW-37	98,000	470,000
	35.5 - 40.5	3/10/2011	MW-37	120,000	410,000
	35.5 - 40.5	6/8/2011	MW-37	100,000	520,000
MW-38	23 - 28	3/14/2008	MW-38	260,000	430,000
	23 - 28	4/23/2008	MW-38	270,000	430,000
	23 - 28	5/8/2008	MW-38	280,000	410,000
	23 - 28	5/13/2008	MW-38	260,000	370,000
	23 - 28	6/4/2008	MW-38	250,000	460,000
	23 - 28	7/10/2008	MW-38	260,000	410,000
	23 - 28	9/16/2008	MW-38	230,000	380,000
	23 - 28	10/29/2008	MW-38	200,000	340,000
	23 - 28	1/26/2009	MW-38	180,000	310,000
	23 - 28	3/30/2009	MW-38 (UIC)	160,000	310,000
	23 - 28	7/10/2009	MW-38	170,000	300,000
	23 - 28	9/16/2009	MW-38	180,000	330,000
	23 - 28	12/17/2009	MW-38	160,000	270,000
	23 - 28	3/17/2010	MW-38	160,000	270,000
	23 - 28	6/9/2010	MW-38	130,000	230,000
	23 - 28	9/8/2010	MW-38	110,000	200,000
	23 - 28	12/13/2010	MW-38	100,000	170,000
	23 - 28	3/11/2011	MW-38	85,000	110,000
	23 - 28	6/7/2011	MW-38	61,000	120,000

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Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
MW-39	35.5 - 40.5	3/14/2008	MW-39	250,000 [250,000]	700,000 [680,000]
	35.5 - 40.5	4/23/2008	MW-39	320,000	860,000
	35.5 - 40.5	5/8/2008	MW-39	320,000	900,000
	35.5 - 40.5	5/13/2008	MW-39	310,000	880,000
	35.5 - 40.5	6/4/2008	MW-39	370,000	970,000
	35.5 - 40.5	7/9/2008	MW-39	360,000	890,000
	35.5 - 40.5	9/16/2008	MW-39	310,000	800,000
	35.5 - 40.5	10/29/2008	MW-39	370,000	890,000
	35.5 - 40.5	1/26/2009	MW-39	330,000	870,000
	35.5 - 40.5	3/30/2009	MW-39 (UIC)	300,000	830,000
	35.5 - 40.5	7/10/2009	MW-39	370,000	980,000
	35.5 - 40.5	9/16/2009	MW-39	260,000	740,000
	35.5 - 40.5	12/17/2009	MW-39	280,000	780,000
	35.5 - 40.5	3/17/2010	MW-39	200,000	610,000
	35.5 - 40.5	6/9/2010	MW-39	190,000 [180,000]	460,000 [480,000]
	35.5 - 40.5	9/8/2010	MW-39	56,000	850,000
	35.5 - 40.5	12/13/2010	MW-39	74,000	910,000
	35.5 - 40.5	3/11/2011	MW-39	67,000	860,000
	35.5 - 40.5	6/7/2011	MW-39	65,000	950,000
MW-40	23 - 28	3/14/2008	MW-40	230,000	420,000
	23 - 28	4/23/2008	MW-40	230,000	400,000
	23 - 28	5/7/2008	MW-40	250,000	420,000
	23 - 28	6/4/2008	MW-40	290,000	410,000
	23 - 28	7/10/2008	MW-40	260,000	430,000
	23 - 28	9/16/2008	MW-40	240,000	390,000
	23 - 28	10/29/2008	MW-40	130,000	370,000
	23 - 28	1/26/2009	MW-40	200,000	370,000
	23 - 28	3/19/2009	MW-40 (BW)	180,000	350,000
	23 - 28	3/19/2009	MW-40 (UIC)	190,000	NA
	23 - 28	7/9/2009	MW-40	210,000	400,000
	23 - 28	9/14/2009	MW-40	220,000	410,000
	23 - 28	12/14/2009	MW-40	240,000	380,000
	23 - 28	3/18/2010	MW-40	200,000	380,000
	23 - 28	6/9/2010	MW-40	170,000	300,000
	23 - 28	9/2/2010	MW-40	190,000	360,000
	23 - 28	12/14/2010	MW-40	270,000	360,000
	23 - 28	3/11/2011	MW-40	240,000	260,000
	23 - 28	6/7/2011	MW-40	150,000	260,000
MW-42	23 - 28	6/23/2005	TT-MW-042-20050623	391,000	NA
	23 - 28	1/31/2006	MW-42	410,000	NA
	23 - 28	3/14/2008	MW-42	340,000	550,000
	23 - 28	4/23/2008	MW-42	360,000	570,000
	23 - 28	5/7/2008	MW-42	330,000	540,000
	23 - 28	5/13/2008	MW-42	320,000	610,000
	23 - 28	6/4/2008	MW-42	330,000	560,000
	23 - 28	7/10/2008	MW-42	330,000	520,000
	23 - 28	9/16/2008	MW-42	300,000	480,000
	23 - 28	10/29/2008	MW-42	330,000	540,000
	23 - 28	1/26/2009	MW-42	290,000	470,000
	23 - 28	3/18/2009	MW-42 (BW)	290,000	490,000
	23 - 28	3/18/2009	MW-42 (UIC)	290,000	480,000
	23 - 28	7/10/2009	MW-42	300,000	520,000
	23 - 28	9/15/2009	MW-42	300,000	500,000
	23 - 28	12/14/2009	MW-42	320,000	460,000
	23 - 28	3/18/2010	MW-42	270,000 [270,000]	510,000 [490,000]
	23 - 28	6/8/2010	MW-42	280,000	480,000
	23 - 28	9/2/2010	MW-42	260,000	500,000
	23 - 28	12/14/2010	MW-42	260,000	460,000
	23 - 28	3/8/2011	MW-42	330,000	400,000
	23 - 28	6/9/2011	MW-42	190,000	370,000

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Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
MW-43	35.5 - 40.5	3/14/2008	MW-43	240,000	660,000
	35.5 - 40.5	4/23/2008	MW-43	280,000	720,000
	35.5 - 40.5	5/8/2008	MW-43	250,000	650,000
	35.5 - 40.5	5/13/2008	MW-43	250,000	730,000
	35.5 - 40.5	6/4/2008	MW-43	200,000	660,000
	35.5 - 40.5	7/9/2008	MW-43	240,000	720,000
	35.5 - 40.5	9/16/2008	MW-43	200,000	590,000
	35.5 - 40.5	10/30/2008	MW-43	210,000 J	620,000
	35.5 - 40.5	1/26/2009	MW-43	190,000	630,000
	35.5 - 40.5	3/23/2009	MW-43 (UIC)	220,000	720,000
	35.5 - 40.5	7/10/2009	MW-43	310,000	860,000
	35.5 - 40.5	9/15/2009	MW-43	310,000	860,000
	35.5 - 40.5	12/14/2009	MW-43	330,000	770,000
	35.5 - 40.5	3/18/2010	MW-43	310,000	830,000
	35.5 - 40.5	6/4/2010	MW-43	250,000	720,000
	35.5 - 40.5	9/2/2010	MW-43	270,000	850,000
	35.5 - 40.5	12/14/2010	MW-43	230,000	710,000
	35.5 - 40.5	3/8/2011	MW-43	220,000	610,000
	35.5 - 40.5	6/8/2011	MW-43	200,000	730,000
MW-70	23 - 29	6/23/2005	TT-MW-070-20050623	408,000	NA
	23 - 29	2/2/2006	MW-70	430,000	NA
	23 - 29	3/13/2008	MW-70	350,000	580,000
	23 - 29	5/6/2008	MW-70	570,000	560,000
	23 - 29	5/13/2008	MW-70	380,000	610,000
	23 - 29	6/4/2008	MW-70	420,000	580,000
	23 - 29	7/10/2008	MW-70	400,000	550,000
	23 - 29	9/18/2008	MW-70	360,000	660,000
	23 - 29	10/30/2008	MW-70	360,000	670,000
	23 - 29	1/27/2009	MW-70	320,000	340,000
	23 - 29	3/26/2009	MW-70 (UIC)	350,000 [360,000]	650,000 [660,000]
	23 - 29	7/14/2009	MW-70	370,000	670,000
	23 - 29	9/15/2009	MW-70	360,000 [360,000]	720,000 [700,000]
	23 - 29	12/9/2009	MW-70	390,000	640,000
	23 - 29	3/15/2010	MW-70	500,000	550,000
	23 - 29	6/7/2010	MW-70	310,000	550,000
	23 - 29	9/14/2010	MW-70	320,000	590,000
	23 - 29	12/15/2010	MW-70	320,000 [320,000]	500,000 [510,000]
	23 - 29	3/7/2011	MW-70	260,000	470,000
	23 - 29	6/8/2011	MW-70	230,000	450,000
MW-71	24 - 29	3/13/2008	MW-71	120,000	230,000
	24 - 29	5/6/2008	MW-71	120,000	200,000
	24 - 29	5/13/2008	MW-71	100,000	240,000
	24 - 29	6/4/2008	MW-71	120,000	260,000
	24 - 29	7/10/2008	MW-71	100,000	180,000
	24 - 29	9/17/2008	MW-71	96,000	170,000
	24 - 29	10/30/2008	MW-71	84,000 I	170,000
	24 - 29	1/27/2009	MW-71	60,000	160,000
	24 - 29	3/23/2009	MW-71 (IRAP)	76,000	NA
	24 - 29	3/23/2009	MW-71 (UIC)	NA	200,000
	24 - 29	7/14/2009	MW-71	87,000	170,000
	24 - 29	9/11/2009	MW-71	75,000	170,000
	24 - 29	12/9/2009	MW-71	82,000	170,000
	24 - 29	3/15/2010	MW-71	65,000	140,000
	24 - 29	6/7/2010	MW-71	56,000	130,000
	24 - 29	9/8/2010	MW-71	42,000	110,000
	24 - 29	12/9/2010	MW-71	42,000 J	94,000
	24 - 29	3/7/2011	MW-71	32,000	78,000
	24 - 29	6/6/2011	MW-71	24,000	78,000

See Notes on Page 7.

Table 3
Summary of Monitoring Well Sample Analytical Results
TDS and Sulfate
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Sulfate µg/L	Total Dissolved Solids µg/L
GCTL				250,000	500,000
MW-72	23.5 - 28.5	3/13/2008	MW-72	460,000	820,000
	23.5 - 28.5	4/23/2008	MW-72	480,000	800,000
	23.5 - 28.5	5/8/2008	MW-72	480,000	790,000
	23.5 - 28.5	5/13/2008	MW-72	460,000	830,000
	23.5 - 28.5	6/5/2008	MW-72	480,000	860,000
	23.5 - 28.5	7/10/2008	MW-72	480,000	850,000
	23.5 - 28.5	9/19/2008	MW-72	500,000	870,000
	23.5 - 28.5	10/30/2008	MW-72	480,000 J	840,000
	23.5 - 28.5	1/27/2009	MW-72	480,000	840,000
	23.5 - 28.5	3/23/2009	MW-72 (UIC)	460,000	880,000
	23.5 - 28.5	7/13/2009	MW-72	510,000 [510,000]	940,000 [950,000]
	23.5 - 28.5	9/11/2009	MW-72	550,000	950,000
	23.5 - 28.5	12/16/2009	MW-72	510,000	890,000
	23.5 - 28.5	3/16/2010	MW-72	520,000	910,000
	23.5 - 28.5	6/4/2010	MW-72	480,000	930,000
	23.5 - 28.5	9/8/2010	MW-72	460,000	970,000
	23.5 - 28.5	12/13/2010	MW-72	480,000	970,000
MW-76	23.5 - 28.5	3/8/2011	MW-72	480,000	950,000
	23.5 - 28.5	6/8/2011	MW-72	450,000 [450,000]	950,000 [970,000]
	23 - 28	3/13/2008	MW-76	84,000	130,000
	23 - 28	5/6/2008	MW-76	81,000	150,000
	23 - 28	5/13/2008	MW-76	50,000	130,000
	23 - 28	6/4/2008	MW-76	70,000 J	150,000
	23 - 28	7/10/2008	MW-76	60,000 [61,000]	110,000 [130,000]
	23 - 28	9/17/2008	MW-76	65,000	110,000
	23 - 28	10/30/2008	MW-76	64,000 I	120,000
	23 - 28	1/27/2009	MW-76	64,000	130,000
	23 - 28	3/26/2009	MW-76 (UIC)	63,000	140,000
	23 - 28	7/14/2009	MW-76	76,000	170,000
	23 - 28	9/15/2009	MW-76	83,000	180,000
	23 - 28	12/9/2009	MW-76	98,000	180,000
	23 - 28	3/16/2010	MW-76	120,000	150,000
	23 - 28	6/7/2010	MW-76	120,000	180,000
	23 - 28	9/10/2010	MW-76	130,000	270,000
	23 - 28	12/15/2010	MW-76	200,000 J	220,000
MW-80	23 - 28	3/7/2011	MW-76	97,000	180,000
	23 - 28	6/7/2011	MW-76	130,000	270,000
	36 - 41	3/18/2008	MW-80	290,000	740,000
	36 - 41	4/23/2008	MW-80	290,000	750,000
	36 - 41	5/8/2008	MW-80	300,000	750,000
	36 - 41	5/13/2008	MW-80	280,000	770,000
	36 - 41	6/5/2008	MW-80	290,000	790,000
	36 - 41	7/10/2008	MW-80	300,000	790,000
	36 - 41	9/18/2008	MW-80	300,000	800,000
	36 - 41	10/30/2008	MW-80	300,000 J	770,000
	36 - 41	1/27/2009	MW-80	260,000	760,000
	36 - 41	3/23/2009	MW-80 (UIC)	270,000 [280,000]	770,000 [770,000]
	36 - 41	7/13/2009	MW-80	320,000 [320,000]	840,000 [850,000]
	36 - 41	9/14/2009	MW-80	330,000 [330,000]	850,000 [850,000]
	36 - 41	12/16/2009	MW-80	370,000	810,000
	36 - 41	3/18/2010	MW-80	330,000	860,000
	36 - 41	6/4/2010	MW-80	320,000	840,000
	36 - 41	9/8/2010	MW-80	250,000	830,000
	36 - 41	12/13/2010	MW-80	310,000	860,000
	36 - 41	3/8/2011	MW-80	310,000 J	860,000
	36 - 41	6/8/2011	MW-80	310,000	890,000

Notes:

1. **Bold font** indicates exceedance of Groundwater Cleanup Target Level (GCTL)
2. BW - Blended Water sample
3. EW - Extraction Well.
4. GCTL - Groundwater Cleanup Target Levels
5. I - Detected but below reporting limit. Result is an estimated concentration.
6. IRAP - Interim Remedial Action Plan
7. J - Estimated value.
8. J3 - Estimated value. Spike recovery or RPD outside of criteria.
9. µg/l - Micrograms per liter.
10. NA - Not Analyzed
11. Q - Sample held beyond accepted holding time.
12. TDS - Total Dissolved Solids.
13. U - The analyte was analyzed for, but not detected.
14. UIC - Underground Injection Control.
15. UJ - The analyte was analyzed for, but not detected. The reporting limit is an estimated value.

Table 4
Summary of EW Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-102	2/5/2008	EW-102	15 U	1.1 I	0.065 U	0.12 U	0.6 U	1.2 U	5,600	0.15 U	NA	0.32 U	NA	20 U
	2/12/2008	EW-102	50 U	0.76 I	0.065 U	0.12 U	1.2 I	1.2 U	4,500	0.15 U	NA	0.32 U	NA	6.5 U
	2/19/2008	EW-102	15 U	1.1 I	0.065 U	0.12 U	5 U	9.4	4,900	0.46 I	NA	0.32 U	NA	6.5 U
	2/26/2008	EW-102	15 U	1.2 I	0.065 U	0.12 U	0.6 U	1.2 U	6,100	0.15 U	NA	0.32 U	NA	6.5 U
	3/4/2008	EW-102	15 U	1 I	0.065 U	0.12 U	5 U	1.2 U	5,300 J	0.15 U	NA	0.32 U	NA	6.5 U
	3/12/2008	EW-102	15 U	1.4 I	0.065 U	0.12 U	5 U	1.2 U	8,000	0.15 U	170	0.32 U	35,000	6.5 U
	4/1/2008	EW-102-040108-1603	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35,000	NA
	4/7/2008	EW-102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,000	NA
	4/17/2008	EW-102	15 U	2.5 U	0.065 U	0.12 U	5 U	1.2 U	5,100	0.15 U	NA	0.32 U	NA	6.5 U
	4/22/2008	EW-102	17 I	1.6 IV	0.065 U	0.12 U	1.1 I	3.6 I	5,400	0.15 U	98	0.32 U	33,000	9.7 I
	4/23/2008	EW-102	NA	NA	NA	NA	NA	NA	5,500 V	NA	92	NA	32,000	NA
	4/28/2008	EW-102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34,000	NA
	5/6/2008	EW-102	15 U	1.7 IV	0.065 U	0.12 U	0.6 U	1.2 U	5,700 V	0.15 U	90	0.51 I	34,000 V	6.5 U
	5/13/2008	EW-102	NA	NA	NA	NA	NA	NA	5,300	NA	82	NA	30,000	NA
	6/5/2008	EW-102	15 U	1.5 I	0.065 U	0.12 U	0.63 I	1.2 U	10,000	0.15 U	150	0.32 U	34,000	6.5 U
	6/11/2008	EW-102	70 U	4.8 U	0.74 U	0.71 U	2.1 I	2.9 U	5,700	1.6 U	NA	4.7 U	NA	5.9 U
	7/10/2008	EW-102	55 I	4 U	5 U	1 U	2 U	2.9 U	4,000	2 U	65	2 U	31,000	5 U
	9/19/2008	EW-102	50 U	4 U	0.5 U	1 U	2 U	4.5 I	1,200	2 U	27	5.9 I	11,000	230
	10/30/2008	EW-102	50 U	4 U	0.5 U	1 U	2 U	3.9 I	1,100	2 U	17	4.6 IV	15,000	120
	12/17/2008	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	1,800	2 U	NA	3.6 I	NA	59
	1/27/2009	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	270	2 U	10	2 I	24,000	5 U
	3/25/2009	EW-102 (IRAP)	50 U	4 U	0.5 U	1 U	2 U	2.9 U	13,000	2 U	NA	2 U	NA	5 U
	3/25/2009	EW-102 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	180	NA	39,000	NA
	5/4/2009	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	13,000	2 U	NA	2 U	NA	11 I
	5/11/2009	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	7,900	2 U	NA	2 U	NA	5 U
	5/18/2009	EW-102	50 U	4 U	0.5 U	1 U	3 I	2.9 U	6,100	2 U	NA	2 U	NA	5 U
	5/26/2009	EW-102	50 U	4 U	0.5 U	1 U	2.5 I	2.9 U	5,100	2 U	NA	2 U	NA	5.6 I
	6/1/2009		86 I	8.4 I	0.5 U	1 U	2 U	2.9 U	5,700	2.6 I	NA	10	NA	5 U
	7/9/2009	EW-102 (9:15 AM)	50 U	4 U	0.5 U	1 U	2 U	2.9 U	7,200	2 U	100	2 U	35,000	5 U
	9/15/2009	EW-102	50 U	5.2 I	0.5 U	1 U	2 U	2.9 U	8,100	2 U	110	2 U	34,000	5 U
	12/8/2009	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	5,200	2 U	81	2 U	34,000	5 U
	3/2/2010	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	8,600	2 U	70	2 U	34,000	5 U
	6/1/2010	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	4,400	2 U	79	2 U	33,000	5 U
	9/1/2010	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	4,600	2 U	72	2 U	33,000	5 U
	12/7/2010	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	5,200	2 U	75	2 U	34,000	5 U
	3/1/2011	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	4,400	2 U	66	2 U	33,000	5 U
	6/1/2011	EW-102	50 U	4 U	0.5 U	1 U	2 U	2.9 U	4,200 J	2 U	67	2 U	33,000	5 U

See Notes on Page 10.

Table 4
Summary of EW Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-103	9/20/2006	EW-103	400	4.8 U	0.74 U	0.71 U	3 I	2.9 U	NA	1.6 U	NA	4.7 U	NA	9.6 I
	10/27/2006	EW-103	150 I	4.8 U	0.74 U	0.71 U	2 I	2.9 U	5,800	2.8 I	13	4.7 U	20,000	6.4 I
	11/21/2006	EW-103 112106	160 I	4.8 U	0.74 U	0.71 U	1.7 I	2.9 U	NA	1.6 U	NA	4.7 U	NA	5.9 U
	12/6/2006	EW-103 120606	70 U	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	NA	1.6 U	NA	4.7 U	NA	6.4 I
	12/13/2006	EW-103 121306	90.1 I	2.88 I	0.81 U	5 U	10 U	0.63 U	5,270 D	0.17 U	NA	0.6 I	NA	1.9 U
	1/15/2007	EW-103	416 J	6.38 I	0.81 U	5 U	2.86 I	0.63 U	35,000 D	0.17 U	NA	2.96 I	NA	1.9 U
	2/7/2007	EW103	986 ID	14.8 U	6.29	0.3 U	12 U	0.63 U	58,800 D	1.64 I	NA	3.13 I	NA	100 U
	3/22/2007	EW-103	910	4 U	0.7 I	0.9 I	36.9	3 U	NA	2 U	NA	24 I	NA	20 U
	4/18/2007	EW-103	1,210	18.6	0.81 U	0.734 I	23.7	1.53 I	137,000 D	5 U	NA	4.12 I	NA	12.3 I
	5/21/2007	EW-103	405	10 U	0.81 U	0.3 U	10 U	12 U	44,700 D	5 U	NA	2.71 I	NA	50 U
	6/20/2007	EW-103	1,080	25.1	0.7 U	2	19.5	6 I	161,000 D	19	NA	2 U	NA	9 I
	7/16/2007	EW-103	180 I	4 U	0.7 U	0.5 U	3 U	3 U	26,900	3 I	NA	2 U	NA	3 U
	9/26/2007	EW-103	540	10.2	0.7 U	0.7 I	15.5	5 I	73,500	9 I	NA	2 U	NA	14 I
	11/8/2007	EW-103	50 U	4 U	0.7 U	0.5 U	3 U	3 U	3,940	2 U	NA	2 U	NA	5.1 I
	3/4/2008	EW-103	190	2.8	0.099 I	0.13 I	7.7	1.4 I	7,200 J	0.23 I	NA	1.7	NA	49
	3/14/2008	EW-103	92	2.9 J	0.065 U	0.12 U	3.9 J	1.2 U	4,900	0.6 I	57 J	2.3	12,000	21 J
	4/1/2008	EW-103-040108-1616	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19,000	NA
	4/7/2008	GW-103	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,000	NA
	4/22/2008	EW-103	170	2.2 IV	0.065 U	0.12 U	1.9 I	1.2 U	18,000	0.15 U	10	1.2	18,000	8 I
	4/23/2008	EW-103	NA	NA	NA	NA	NA	NA	58,000 V	NA	9.5	NA	17,000	NA
	4/28/2008	EW-103	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17,000	NA
	5/6/2008	EW-103	77	1.4 IV	0.065 U	0.12 U	0.81 I	1.2 U	6,200 V	0.15 U	9.2	1.5	19,000 V	6.5 U
	5/13/2008	EW-103	NA	NA	NA	NA	NA	NA	4,600	NA	7.8	NA	16,000	NA
	6/5/2008	EW-103	250	3.8	0.065 U	0.12 U	3.3 I	1.2 U	28,000	0.19 I	13	1.6	13,000	6.5 U
	6/11/2008	EW-103	290	4.8 U	0.74 U	0.71 U	3.6 I	2.9 U	27,000	1.6 U	NA	4.7 U	NA	5.9 U
	7/10/2008	EW-103	120 I	4 U	5 U	1 U	2 U	2.9 U	3,800	2 U	7.7	2 U	16,000	5 U
	9/18/2008	EW-103	NA	NA	NA	NA	NA	NA	1,100	NA	54	NA	14,000	NA
	9/19/2008	EW-103	73 I	4 U	0.5 U	1 U	2 I	2.9 U	1,100	2 U	54	2.9 I	14,000	14 I
	10/30/2008	EW-103	92 I	4 U	0.5 U	1 U	2.2 I	2.9 U	710	2 U	44	3.1 I	15,000	24
	12/15/2008	EW-103	50 U	4 U	0.5 U	1 U	3.4 I	2.9 U	2,300	2 U	NA	2 U	NA	8.4 I
	1/27/2009	EW-103	50 U	4 U	0.5 U	1 U	2 U	2.9 U	4,700	2 U	52	2 U	13,000	7 I
	3/20/2009	EW-103 (IRAP)	78 I	4 U	0.5 U	1 U	2 U	2.9 U	13,000	3.4 I	NA	2 U	NA	5.7 I
	3/20/2009	EW-103 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	43	NA	15,000	NA
	5/4/2009	EW-103	8,000	130	1 U	10 U	5 I	29 U	950,000	25 I	NA	10 I	NA	43
	5/11/2009	EW-103	330	4 U	0.5 U	1 U	2.2 I	2.9 U	31,000	2 U	NA	2 U	NA	5 U
	5/18/2009	EW-103	75 I	4 U	0.5 U	1 U	2 U	2.9 U	8,600	2 U	NA	2 U	NA	5 U
	5/26/2009	EW-103	62 I	4 U	0.5 U	1 U	2 U	2.9 U	2,800	2 U	NA	2.7 I	NA	24
	6/1/2009	EW-103	570	4.1 I	0.5 U	1 U	7.7 I	2.9 U	72,000	13	NA	6 I	NA	5 U
	7/9/2009	EW-103 (9:20 AM)	150 I	4 U	0.5 U	1 U	2 U	2.9 U	2,800	2 U	8.9	2.1 I	21,000	5 U
	9/15/2009	EW-103	100 I	4 U	0.5 U	1 U	2 U	2.9 U	6,700	2 U	6.7	4 I	17,000	5 U
	12/8/2009	EW-103	79 I	4 U	0.5 U	1 U	2 U	2.9 U	1,900	2 U	7	2 U	17,000	5 U
	3/2/2010	EW-103	61 I	4 U	0.5 U	1 U	2 U	2.9 U	2,000	2 U	5.8	2 U	16,000	5 U
	6/1/2010	EW-103	130 I	4 U	0.5 U	1 U	2 U	2.9 U	6,200	2 U	6.7	2 U	16,000	5 U
	9/1/2010	EW-103	53 I	4 U	0.5 U	1 U	2 U	2.9 U	490	2 U	6.6	2 U	22,000	5 U
	12/7/2010	EW-103	76 I	4 U	0.5 U	1 U	2 U	2.9 U	6,100	2 U	22	2 U	26,000	5 U
	3/1/2011	EW-103	71 I	4 U	0.5 U	1 U	2 U	2.9 U	1,500	2 U	5.6	2 U	19,000	5 U
	6/1/2011	EW-103	72 I	4 U	0.5 U	1 U	2 U	2.9 U	1,300 J	2 U	4.6	2 U	14,000	5 U

See Notes on Page 10.

Table 4
Summary of EW Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-104	9/20/2006	EW-104	240	5.9 I	3.2 I	0.71 U	4.4 I	5.8 I	NA	9.8	NA	4.7 U	NA	55
	10/27/2006	EW-104	84 I	4.8 U	0.74 U	0.71 U	2 I	2.9 U	19,000	4.1 I	99	4.7 U	37,000	11 I
	11/21/2006	EW-104 112106	180 I	4.8 U	0.74 U	0.71 U	1.8 I	2.9 U	NA	1.6 U	NA	4.7 U	NA	5.9 U
	12/6/2006	EW-104 120606	70 U	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	NA	4.5 I	NA	4.7 U	NA	7.3 I
	12/13/2006	EW-104 121306	31 U	0.98 U	0.81 U	5 U	1.2 U	0.63 U	15,600 D	0.17 U	NA	0.47 U	NA	1.9 U
	1/15/2007	EW-104	72.8 J	0.98 U	0.81 U	5 U	1.39 I	0.63 U	19,200 D	0.17 U	NA	1.94 I	NA	1.9 U
	2/7/2007	EW104	1,850 D	10 U	0.81 U	0.3 U	12 UD	0.71 I	21,400 D	4.74 I	NA	6.01 I	NA	100 U
	3/22/2007	EW-104	860	4 U	0.7 U	0.7 I	7 I	3 U	NA	41	NA	41	NA	20 U
	4/18/2007	EW-104	310	0.98 U	0.81 U	0.522 I	3.21 I	0.63 U	22,800 D	0.17 U	NA	2.26 I	NA	4.9 I
	5/21/2007	EW-104	476	10 U	0.81 U	0.3 U	10 U	13 U	26,000 D	5 U	NA	2.52 I	NA	50 U
	6/20/2007	EW-104	290	4 U	0.7 U	0.5 U	4.8 I	4 I	26,400	2 I	NA	2 U	NA	12 I
	7/16/2007	EW-104	50 U	4 U	0.7 U	0.5 U	3 U	3 U	23,600	2 I	NA	2 U	NA	3 U
	9/26/2007	EW-104	80 I	4 U	0.7 U	0.5 U	3 U	3 U	19,900	2 U	NA	2 U	NA	5 I
	11/8/2007	EW-104	50 U	4 U	0.7 U	0.5 U	3 U	3 U	18,100	2 U	NA	2 U	NA	3 U
	3/4/2008	EW-104	170	1.2 I	0.065 U	0.12 U	5 U	39	23,000 J	3.3	NA	0.74 I	NA	8.5 I
	3/12/2008	EW-104	55	0.76 I	0.065 U	0.12 U	5 U	1.2 U	23,000	0.15 U	85	0.81 I	34,000	6.5 U
	4/1/2008	EW-104-040108-1618	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38,000	NA
	4/7/2008	GW-104	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33,000	NA
	4/22/2008	EW-104	44 I	1.7 IV	0.065 U	0.12 U	1.4 I	1.2 U	22,000	0.15 U	110	0.8 I	38,000	6.5 U
	4/23/2008	EW-104	NA	NA	NA	NA	NA	NA	20,000 V	NA	96	NA	33,000	NA
	4/28/2008	EW-104	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31,000	NA
	5/6/2008	EW-104	70	1.4 IV	0.065 U	0.12 U	0.6 U	1.2 U	21,000 V	0.15 U	93	0.98 I	36,000 V	6.5 U
	5/13/2008	EW-104	NA	NA	NA	NA	NA	NA	20,000	NA	95	NA	32,000	NA
	6/5/2008	EW-104	64	1.3 I	0.065 U	0.12 U	0.88 I	1.2 U	30,000	0.15 U	120	0.47 I	40,000	6.5 U
	6/11/2008	EW-104	170 I	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	29,000	1.6 U	NA	4.7 U	NA	9.5 I
	7/10/2008	EW-104	210	4 U	5 U	1 U	6 I	2.9 U	23,000	2 U	96	2.7 I	34,000	5 U
	9/18/2008	EW-104	98 I	4 U	0.5 U	1 U	12	7.2 I	16,000	2 U	7.8	2.5 I	14,000	25
	10/30/2008	EW-104	93 I	4 U	0.5 U	1 U	9.5 I	2.9 U	41,000	2 U	14	3.2 I	14,000	6 I
	12/15/2008	EW-104	55 I	4 U	0.5 U	1 U	2 U	2.9 U	23,000	2 U	NA	2 U	NA	5 U
	1/27/2009	EW-104	78 I	4 U	0.5 U	1 U	2 U	2.9 U	21,000	2 U	41	2 U	22,000	5 U
	3/23/2009	EW-104 (IRAP)	83 I	4 U	0.5 U	1 U	2 U	2.9 U	23,000	2 U	NA	2 U	NA	5 U
	3/23/2009	EW-104 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	45	NA	24,000	NA
	5/4/2009	EW-104	180 I	4 U	0.5 U	1 U	2.8 I	2.9 U	17,000	2 U	NA	13	NA	19 I
	5/11/2009	EW-104	57 I	4 U	0.5 U	1 U	2 I	2.9 U	21,000	2 U	NA	2.2 I	NA	5 U
	5/18/2009	EW-104	330	4 U	0.5 U	1 U	29	2.9 U	22,000	2.7 I	NA	4.1 I	NA	5 U
	5/26/2009	EW-104	57 I	4 U	0.5 U	1 U	2 U	2.9 U	18,000	2 U	NA	2 U	NA	5 U
	6/1/2009	EW-104	140 I	4 U	0.5 U	1 U	7.9 I	2.9 U	20,000	5.6 I	NA	2.9 I	NA	5 U
	7/9/2009	EW-104 (9:25 AM)	62 I	4 U	0.5 U	1 U	2 U	2.9 U	19,000	2 U	91	2 U	32,000	5 U
	9/15/2009	EW-104	59 I	4 U	0.5 U	1 U	2 U	2.9 U	19,000	2 U	86	2 U	29,000	5 U
	12/8/2009	EW-104	50 U	4 U	0.5 U	1 U	2 U	2.9 U	18,000	2 U	90	3.7 I	31,000	5 U
	3/2/2010	EW-104	1,900	4 U	0.5 U	1 U	5 I	4.1 I	19,000	2 U	85	25	30,000	5 U
	6/1/2010	EW-104	77 I	4 U	0.5 U	1 U	2 U	2.9 U	16,000	2 U	76	2 U	27,000	5 U
	9/1/2010	EW-104	130 I	4 U	0.5 U	1 U	4.1 I	2.9 U	15,000	2 U	70	2.7 I	27,000	5 U
	12/7/2010	EW-104	50 U	4 U	0.5 U	1 U	2 U	2.9 U	14,000	2 U	65	2 U	26,000	5 U
	3/1/2011	EW-104	50 U	4 U	0.5 U	1 U	2 U	2.9 U	12,000	2 U	65	2 U	25,000	5 U
	6/1/2011	EW-104	50 U	4 U	0.5 U	1 U	2 U	2.9 U	8,700 J	2 U	63	2 U	24,000	5 U

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Table 4
Summary of EW Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-105	9/20/2006	EW-105	82 I	8.1 I	0.74 U	0.71 U	1.7 U	2.9 U	NA	1.6 U	NA	4.7 U	NA	5.9 U
	10/27/2006	EW-105	90 I	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	3,700	1.6 U	12	4.7 U	19,000	5.9 U
	11/21/2006	EW-105 112106	210	9.4 I	0.74 U	0.71 U	2 I	2.9 U	NA	2.6 I	NA	4.7 U	NA	5.9 U
	12/6/2006	EW-105 120606	70 U	6.6 I	0.74 U	0.71 U	1.7 U	2.9 U	NA	1.6 U	NA	4.7 U	NA	8.1 I
	12/13/2006	EW-105 121306	59.1 I	4.37 I	0.81 U	5 U	10 U	0.63 U	3,520 D	0.17 U	NA	2.46 I	NA	1.9 U
	1/15/2007	EW-105	195 J	10.3	0.81 U	5 U	2.22 I	0.63 U	21,000 D	0.17 U	NA	4.26 I	NA	1.9 U
	2/7/2007	EW105	310 UD	12.7 U	0.81 U	0.3 U	12 UD	0.63 U	16,800 D	0.17 U	NA	6.32 I	NA	100 U
	3/22/2007	EW-105	200 U	35.4	0.7 U	1.3	7.2 I	3 U	NA	7 I	NA	5 I	NA	20 U
	4/18/2007	EW-105	566	82.2	0.81 U	0.69 I	12.5	1.25 I	150,000 D	0.17 U	NA	7.46 I	NA	4.16 I
	5/21/2007	EW-105	294	24.4	0.81 U	0.3 U	10 U	12.5 U	35,200 D	5 U	NA	8.73 I	NA	50 U
	6/20/2007	EW-105	450	75.8	0.7 U	1.1	9.8 I	6 I	109,000	12	NA	10 I	NA	26
	7/16/2007	EW-105	150 I	9.6 I	0.7 U	0.5 U	3 U	3 U	13,200	2 U	NA	7 I	NA	3 U
	9/26/2007	EW-105	490	106	0.7 U	1	9.3 I	4 I	141,000	10	NA	6 I	NA	7 I
	11/8/2007	EW-105	200 U	14.2	0.7 U	0.5 U	3 U	3 U	19,500	2 U	NA	6.62 I	NA	3 U
	3/4/2008	EW-105	130	24	0.065 U	0.12 U	5 U	2.7 I	41,000 J	0.15 U	NA	1.8	NA	6.5 U
	3/18/2008	EW-105	110	1.2 J	0.065 U	0.39 J	2.5 J	1.4 I	1,100	0.18 I	10 J	2.5	9,100	11 J
	4/23/2008	EW-105	NA	NA	NA	NA	NA	NA	110,000	NA	23	NA	16,000	NA
	5/6/2008	EW-105	210	26 V	0.065 U	0.37 I	1 I	1.2 U	37,000 V	0.15 U	20	8.8	25,000 V	8 I
	5/13/2008	EW-105	NA	NA	NA	NA	NA	NA	270,000	NA	52	NA	32,000	NA
	6/5/2008	EW-105	67	10	0.065 U	0.12 U	0.75 I	1.2 U	23,000	0.15 U	72	2.4	40,000	6.5 U
	6/11/2008	EW-105	70 U	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	14,000	1.6 U	NA	4.7 U	NA	5.9 U
	7/10/2008	EW-105	690	30	5 U	1 U	20	2.9 U	57,000	2 U	65	6.4 I	29,000	5 U
	9/18/2008	EW-105	120 I	4 U	0.5 U	1 U	2 U	2.9 U	410	2 U	4.5	6.8 I	6,500	6.7 I
	10/30/2008	EW-105	59 I	4 U	0.5 U	1 U	2 U	2.9 U	260	2 U	4.2	10	6,800	9 I
	12/15/2008	EW-105	50 U	4 U	0.5 U	1 U	2 U	2.9 U	450	2 U	NA	17	NA	14 I
	1/28/2009	EW-105	50 U	4 U	0.5 U	1 U	2 U	2.9 U	700	2 U	10	23	12,000	15 I
	3/19/2009	EW-105 (IRAP)	50 U	4 U	0.5 U	1 U	2 U	2.9 U	990	2 U	NA	26	NA	26
	3/19/2009	EW-105 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	15,000	NA
	5/4/2009	EW-105	220	43	0.5 U	1 U	2.9 I	2.9 U	63,000	2.2 I	NA	15	NA	43
	5/11/2009	EW-105	180 I	8.7 I	0.5 U	1 U	2 U	2.9 U	9,500	2 U	NA	14	NA	5 U
	5/18/2009	EW-105	290	31	0.5 U	1 U	4.1 I	2.9 U	49,000	6.6 I	NA	12	NA	5 U
	5/26/2009	EW-105	290	20	0.5 U	1 U	3.9 I	2.9 U	26,000	2 U	NA	12	NA	5 U
	6/1/2009	EW-105	170 I	5.3 I	0.5 U	1 U	2 U	2.9 U	10,000	3.5 I	NA	11	NA	5 U
	7/9/2009	EW-105 (9:30 AM)	160 I	5.6 I	0.5 U	1 U	2 U	2.9 U	11,000	2 U	20	13	26,000	5 U
	9/15/2009	EW-105	180 I	14	0.5 U	1 U	6.8 I	2.9 U	16,000	2 U	22	16	27,000	5 U
	12/8/2009	EW-105	160 I	8.1 I	0.5 U	1 U	2 U	2.9 U	11,000	2 U	23	16	30,000	5 U
	3/2/2010	EW-105	220	14	0.5 U	1 U	2 U	2.9 U	22,000	2 U	24	17	30,000	5 U
	6/1/2010	EW-105	230	15	0.5 U	1 U	2 U	2.9 U	20,000	2 U	22	18	27,000	5 U
	9/1/2010	EW-105	63 I	4 U	0.5 U	1 U	3.4 I	2.9 U	1,300	2 U	11	12	17,000	5 U
	12/7/2010	EW-105	110 I	6.2 I	0.5 U	1 U	2 U	2.9 U	8,800	2 U	22	17	25,000	5 U
	3/1/2011	EW-105	150 I	6 I	0.5 U	1 U	2 U	2.9 U	9,000	2 U	33	17	28,000	5 U
	6/1/2011	EW-105	180 I	13	0.5 U	1 U	2 U	2.9 U	21,000 J	2 U	27	20	24,000	5 U

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Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-106	9/20/2006	EW-106	1,400	4.8 U	0.74 U	0.71 U	7.2 I	2.9 U	NA	5.5	NA	4.7 I	NA	16 I
	10/27/2006	EW-106	370	7.8 I	0.74 U	0.71 U	3 I	2.9 U	33,000	7.1	100	4.7 U	65,000	11 I
	11/21/2006	EW-106 112106	170 I	4.8 U	0.74 U	0.71 U	1.7 I	2.9 U	NA	1.6 U	NA	4.7 U	NA	5.9 U
	12/6/2006	EW-106 120606	70 U	7.1 I	0.74 U	0.71 U	1.7 U	2.9 U	NA	8.4	NA	4.7 U	NA	8.7 I
	12/13/2006	EW-106 121306	33.7 I	5.71 I	0.81 U	5 U	10 U	0.63 U	25,600 D	0.17 U	NA	3.63 I	NA	1.9 U
	1/15/2007	EW-106	95.4 J	7.95 I	0.81 U	5 U	2.16 I	0.63 U	30,400 D	0.17 U	NA	4.77 I	NA	1.9 U
	2/7/2007	EW106	359 ID	15 U	0.81 U	0.3 U	12 UD	0.63 U	24,000 D	0.17 U	NA	4.59 I	NA	100 U
	3/22/2007	EW-106	50 U	4 U	0.7 U	0.5 U	3 U	3 U	NA	3 I	NA	3 I	NA	20 U
	4/18/2007	EW-106	124	15.1	0.81 U	0.3 U	1.68 I	1.57 I	27,700 D	0.17 U	NA	5.54 I	NA	4.2 I
	5/21/2007	EW-106	396	23.5	0.81 U	0.3 U	10 U	17.4 U	30,600 D	5 U	NA	5.27 I	NA	23.8 I
	6/20/2007	EW-106	340	16.2	0.7 U	0.5 U	3 U	3 U	29,600	3 I	NA	3 I	NA	7 I
	7/16/2007	EW-106	50 U	9.7 I	0.7 U	0.5 U	3 U	3 U	22,000	2 I	NA	2 I	NA	3 U
	9/26/2007	EW-106	170 I	15.1	0.7 U	0.5 U	3 U	3 U	25,000	3 I	NA	2 I	NA	8 I
	11/8/2007	EW-106	200 U	16.1	0.7 U	0.5 U	3 U	3 U	27,700	2 U	NA	5.2 I	NA	3 U
	3/4/2008	EW-106	240	44	0.065 U	0.12 U	16	2.3 I	40,000 J	0.27 I	NA	4.8	NA	6.5 U
	3/12/2008	EW-106	46 I	22	0.065 U	0.12 U	5 U	1.2 U	27,000	0.15 U	60	4.6	37,000	20 U
	4/1/2008	EW-106-040108-1624	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45,000	NA
	4/7/2008	GW-106	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43,000	NA
	4/22/2008	EW-106	35 I	18 V	0.065 U	0.12 U	1.1 I	2.5 I	24,000	0.15 U	72	4.1	45,000	6.5 U
	4/23/2008	EW-106	NA	NA	NA	NA	NA	NA	24,000	NA	70	NA	43,000	NA
	4/28/2008	EW-106	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35,000	NA
	5/6/2008	EW-106	42 I	24 V	0.065 U	0.12 U	0.6 U	1.2 U	26,000 V	0.15 U	74	4.7	46,000 V	6.5 U
	5/13/2008	EW-106	NA	NA	NA	NA	NA	NA	28,000	NA	75	NA	43,000	NA
	6/5/2008	EW-106	150	50	0.065 U	0.12 U	0.87 I	1.2 U	35,000	0.15 U	60	5.1	33,000	6.5 U
	6/11/2008	EW-106	70 U	24	0.74 U	0.71 U	1.7 U	2.9 U	27,000	1.6 U	NA	5.9 I	NA	5.9 U
	7/10/2008	EW-106	130 I	22	5 U	1 U	2 U	2.9 U	26,000	2 U	78	4.8 I	47,000	5 U
	9/18/2008	EW-106	60 I	16	0.5 U	1 U	2 U	2.9 U	5,500	2 U	6.3	2 U	6,000	5.1 I
	10/30/2008	EW-106	82 I	56	0.5 U	1 U	2 U	2.9 U	31,000	2 U	32	11	30,000	5 U
	12/15/2008	EW-106	62 I	29	0.5 U	1 U	2 U	2.9 U	20,000	2 U	NA	6 I	NA	8.7 I
	1/28/2009	EW-106	50 U	15	0.5 U	1 U	2 U	2.9 U	12,000	2 U	6.7	3.6 I	14,000	5 U
	3/24/2009	EW-106 (IRAP)	200 UB	36	0.5 U	1 U	2 U	2.9 U	21,000	3.7 I	NA	11	NA	22
	3/24/2009	EW-106 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	31	NA	28,000	NA
	5/4/2009	EW-106	61 I	19	0.5 U	1 U	2 U	2.9 U	19,000	2 U	NA	9.5	NA	15 I
	5/11/2009	EW-106	50 U	29	0.5 U	1 U	2 U	2.9 U	28,000	2 U	NA	6.2 I	NA	5 U
	5/18/2009	EW-106	50 U	22	0.5 U	1 U	2 U	2.9 U	28,000	3 I	NA	6 I	NA	5 U
	5/26/2009	EW-106	50 U	25	0.5 U	1 U	2 U	2.9 U	25,000	2 U	NA	5.1 I	NA	5 U
	6/1/2009	EW-106	50 U	22	0.5 U	1 U	2.3 I	2.9 U	28,000	5.7 I	NA	4.9 I	NA	5 U
	7/9/2009	EW-106 (9:35 AM)	96 I	30	0.5 U	1 U	2 U	2.9 U	29,000	2 U	87	6.1 I	50,000	5 U
	9/15/2009	EW-106	89 I	28	0.5 U	1 U	2 U	2.9 U	30,000	2 U	88	6.2 I	47,000	5 U
	12/8/2009	EW-106	70 I	32	0.5 U	1 U	2 U	2.9 U	35,000	2 U	82	6.6 I	48,000	5 U
	3/2/2010	EW-106	100 I	27	0.5 U	1 U	2 U	2.9 U	38,000	2 U	89	5.8 I	53,000	5 U
	6/1/2010	EW-106	150 I	26	0.5 U	1 U	2 U	2.9 U	44,000	2 U	91	8	52,000	5 U
	9/1/2010	EW-106	80 I	25	0.5 U	1 U	2 U	2.9 U	46,000	2 U	88	7.1 I	52,000	5 U
	12/7/2010	EW-106	75 I	23	0.5 U	1 U	2 U	2.9 U	46,000	2 U	87	6.1 I	52,000	5 U
	3/1/2011	EW-106	66 I	21	0.5 U	1 U	2 U	2.9 U	43,000	2 U	80	6.2 I	49,000	5 U
	6/1/2011	EW-106	57 I	21	0.5 U	1 U	2 U	2.9 U	46,000 J	2 U	89	7.8 I	49,000	5 U

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GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-107	2/5/2008	EW-107	73	2.2 I	0.085 I	0.12 U	0.72 I	1.2 U	3,900	0.15 U	NA	0.91 I	NA	20 U
	2/12/2008	EW-107	130	2 I	0.065 U	0.12 U	0.96 I	1.2 U	7,800	0.15 U	NA	0.91 I	NA	10 I
	2/19/2008	EW-107	410	7.4	0.065 U	0.12 U	5 U	1.2 U	70,000	0.15 U	NA	1.4	NA	7.2 J
	3/4/2008	EW-107	91	2.5	0.065 U	0.12 U	5	1.4 I	8,800 J	0.15 U	NA	2.4	NA	110
	3/14/2008	EW-107	53	2.5 J	0.065 U	0.12 U	2.1 J	1.9 I	6,100	0.92 I	4.6 J	2.2	4,800	31 J
	4/17/2008	EW-107	47 I	2.9	0.065 U	0.12 U	5 U	1.2 U	4,100	0.15 U	NA	0.32 UJ	NA	17 I
	4/23/2008	EW-107	NA	NA	NA	NA	NA	NA	3,500	NA	4 I	NA	5,700	NA
	5/6/2008	EW-107	260	3 V	0.065 U	0.12 U	0.6 U	11 V	17,000 V	0.85 I	4.3 I	1.7	12,000 V	12 I
	5/13/2008	EW-107	NA	NA	NA	NA	NA	NA	150,000	NA	5.3	NA	12,000	NA
	6/5/2008	EW-107	72	1.9 I	0.065 U	0.12 U	0.66 I	1.2 U	5,400	0.15 U	3.6 I	0.5 I	9,300	6.5 U
	6/11/2008	EW-107	710	6.9 I	0.74 U	0.71 U	1.7 U	2.9 U	48,000	1.6 U	NA	4.7 U	NA	5.9 U
	7/10/2008	EW-107	380	5.5 I	5 U	1 U	2 U	2.9 U	29,000	2 U	4 U	2 U	10,000	5 U
	9/18/2008	EW-107	67 I	4 U	0.5 U	1 U	2 U	2.9 U	3,400	2 U	1.7 I	2 U	7,300	5 U
	10/30/2008	EW-107	95 I	4 U	0.5 U	1 U	2 U	2.9 U	2,600	2 U	3.5 I	2 U	7,600	6.2 I
	12/18/2008	EW-107	83 I	4 U	0.5 U	1 U	2 U	2.9 U	1,500	2 U	4.2	2 U	5,300	5.4 I
	1/28/2009	EW-107	56 I	4 U	0.5 U	1 U	2 U	2.9 U	2,900	2 U	5.7	2 U	5,200	5 U
	3/24/2009	EW-107 (IRAP)	200 UB	4 U	0.5 U	1 U	2 U	2.9 U	7,500	2 U	NA	2 U	NA	5 U
	3/24/2009	EW-107 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	5,300	NA
	5/4/2009	EW-107	950	15	0.5 U	1 U	3.6 I	2.9 U	87,000	2 U	NA	2 U	NA	17 I
	5/11/2009	EW-107	87 I	4 U	0.5 U	1 U	2 U	2.9 U	2,100	2 U	NA	2 U	NA	5 U
	5/18/2009	EW-107	80 I	4 U	0.5 U	1 U	2 U	2.9 U	2,600	2 U	NA	2 U	NA	5 U
	5/26/2009	EW-107	140 I	4 I	0.5 U	1 U	2 U	2.9 U	6,300	2 U	NA	2 U	NA	5 U
	6/1/2009	EW-107	87 I	4 U	0.5 U	1 U	2 U	2.9 U	4,200	2.3 I	NA	2 U	NA	5 U
	7/9/2009	EW-107 (9:40 AM)	2,100	36	1 U	2 U	7.5 I	5.8 U	250,000	4 U	2 U	4 U	11,000	17 I
	9/15/2009	EW-107	100 I	4 U	0.5 U	1 U	2 U	2.9 U	1,900	2 U	4 I	2 U	11,000	5 U
	12/8/2009	EW-107	200 I	6.4 I	0.5 U	1 U	2 U	2.9 U	20,000	2 U	5	2 U	14,000	5 U
	3/2/2010	EW-107	220	4 U	0.5 U	1 U	2 U	2.9 U	3,300	2 U	5	2 U	14,000	5 U
	6/1/2010	EW-107	360	6.5 I	0.5 U	1 U	2 U	2.9 U	25,000	2 U	7.1	2 U	16,000	5 U
	9/1/2010	EW-107	220	4 U	0.5 U	1 U	2 U	2.9 U	6,900	2 U	7.3	2 U	17,000	440
	12/7/2010	EW-107	230	4 U	0.5 U	1 U	2 U	2.9 U	19,000	2 U	13	2 U	22,000	5 U
	3/1/2011	EW-107	260	4 U	0.5 U	1 U	2 U	2.9 U	21,000	2 U	15	2 U	23,000	5 U
	6/1/2011	EW-107	250	4 U	0.5 U	1 U	2 U	2.9 U	24,000 J	2 U	16	2.1 I	21,000	5 U

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Table 4
Summary of EW Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-109	9/20/2006	EW-109	240	4.8 U	0.74 U	0.71 U	2.1	2.9 U	NA	1.6 U	NA	4.7 U	NA	20 U
	10/27/2006	EW-109	1,300	17	0.74 U	0.71 U	4.3 I	33	46,000	15	25	4.7 U	45,000	110
	11/21/2006	EW-109 112106	400	4.8 U	0.74 U	0.71 U	2.1	2.9 U	NA	1.6 U	NA	4.7 U	NA	5.9 U
	12/6/2006	EW-109 120606	210	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	NA	3.1	NA	4.7 U	NA	11.1
	12/13/2006	EW-109 121306	361 J	4.32 I	0.81 U	5 U	10 U	0.63 U	10,500 D	0.17 U	NA	4.67 I	NA	3.79 I
	1/15/2007	EW-109	918 J	11.2	0.81 U	5 U	5.42 I	0.63 U	45,700 D	0.17 U	NA	8.98 I	NA	1.9 U
	2/7/2007	EW-109	1,140 D	24.2	0.81 U	0.3 U	12 UD	0.63 U	90,900 D	0.17 U	NA	9.29 I	NA	100 U
	3/22/2007	EW-109	1,180	4 U	0.8 I	3.2	26.9	3 U	NA	5.1	NA	14.1	NA	20 U
	4/18/2007	EW-109	1,350	38.8	0.81 U	0.552 I	21.5	4.7 I	140,000 D	5 U	NA	13.4	NA	12.4 I
	5/21/2007	EW-109	998	11.2	0.81 U	1.56	7.38 I	12.8 U	65,400 D	5 U	NA	9.27 I	NA	50 U
	6/20/2007	EW-109	1,710	60.4	0.7 U	3.4	23.8	4.1	259,000 D	25	NA	11.1	NA	8.1
	7/16/2007	EW-109	710	4 U	0.7 U	0.6 I	3 U	3 U	23,300	3.1	NA	3.1	NA	4.1
	9/26/2007	EW-109	400	4 U	0.7 U	0.5 U	16.8	3 U	20,500	2 U	NA	7.1	NA	15.1
	11/8/2007	EW-109	316	4 U	0.7 U	0.5 U	3 U	3 U	5,950	2 U	NA	2 U	NA	9.8 I
	3/14/2008	EW-109	89	1 J	0.065 U	0.2 J	2.1 J	1.8 I	400	0.15 I	11 J	1.4	54,000	19 J
	4/23/2008	EW-109	NA	NA	NA	NA	NA	NA	580	NA	6.2	NA	56,000	NA
	5/7/2008	EW-109	150	1.6 IV	0.065 U	0.28 I	1.2 I	2.4 IV	350 V	0.15 U	17	1.8	59,000 V	21
	5/13/2008	EW-109	NA	NA	NA	NA	NA	NA	1,200	NA	24	NA	59,000	NA
	6/11/2008	EW-109	800	4.8 U	0.74 U	0.8 I	1.7 U	2.9 U	4,400	1.6 U	NA	5.8 I	NA	19.1
	7/10/2008	EW-109	1,300	7.2 I	5 U	1 U	8.8 I	2.9 U	22,000 J	2 U	18	2.1 I	63,000	13.1
	9/19/2008	EW-109	96 I	4 U	0.5 U	1 U	2 U	2.9 U	340	2 U	5	2 U	59,000	14.1
	10/29/2008	EW-109	260	4 U	0.5 U	1 U	2.7 I	2.9 U	350	2 U	11	3.9 IV	63,000	10.1
	12/15/2008	EW-109	75 I	4 U	0.5 U	1 U	2 U	2.9 U	190 I	2 U	NA	2 U	NA	9.1
	1/27/2009	EW-109	67 I	4 U	0.5 U	1 U	2 U	2.9 U	370	2 U	33	2.3 I	53,000	7.6 I
	3/20/2009	EW-109 (IRAP)	140 I [140 I]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	4,300 [4,600]	2 U [2 U]	NA	2.9 I [2.3 I]	NA	9.4 I [9.8 I]
	3/20/2009	EW-109 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	47 [49]	NA	60,000 [61,000]	NA
	5/4/2009	EW-109	380	5.8 I	0.5 U	1 U	4.8 I	4.4 I	11,000	2 U	NA	6.3 I	NA	53
	5/11/2009	EW-109	1,800	19	0.5 U	1 U	17	2.9 U	69,000	2 U	NA	7.6 I	NA	14.1
	5/18/2009	EW-109	2,000	38	0.5 U	1 U	6.7 I	2.9 U	100,000	15	NA	5.4 I	NA	5 U
	5/26/2009	EW-109	1,200	10	0.5 U	1.3 I	2.9 I	2.9 U	31,000	2 U	NA	5.5 I	NA	6.1 I
	6/1/2009	EW-109	430	8.1 I	0.5 U	1 U	5.8 I	2.9 U	36,000	6.1 I	NA	7.1	NA	5.8 I
	7/9/2009	EW-109 (9:50 AM)	2,300	39	0.5 U	1 U	8.1 I	2.9 U	88,000	2 U	33	4.9 I	61,000	12.1
	9/15/2009	EW-109	830	7.1 I	0.5 U	1 U	2 U	2.9 U	15,000	2 U	30	3.1 I	58,000	5 U
	12/8/2009	EW-109	750	4 U	0.5 U	1 U	2 U	2.9 U	12,000	2 U	30	2.5 I	61,000	5 U
	3/2/2010	EW-109	1,600	29	0.5 U	2.6 I	2.6 I	2.9 U	93,000	2 U	28	2.5 I	62,000	5 U
	6/1/2010	EW-109	950	4 U	0.5 U	1 U	2 U	2.9 U	11,000 J	2 U	30	3.1 I	59,000	5 U
	9/1/2010	EW-109	380	4 U	0.5 U	1 U	2.2 I	2.9 U	860	2 U	9	2 U	31,000	6.2 I
	12/7/2010	EW-109	2,600	33	0.5 U	1 U	6.9 I	2.9 U	130,000	2 U	28	2 U	52,000	5 U
	3/1/2011	EW-109	2,200	57	0.5 U	1.1 I	4.7 I	3.5 I	290,000	4.8 I	33	4 U	49,000	5 U
	6/1/2011	EW-109	550	4 U	0.5 U	1 U	2 U	2.9 U	14,000 J	2.1 I	26	2.3 I	46,000	5 U

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Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EW-110	9/20/2006	EW-110	250	8.4 I	0.74 U	0.71 U	1.7 U	2.9 U	NA	9.6	NA	4.7 U	NA	30 U
	10/27/2006	EW-110	190 I	6.9 I	0.74 U	0.71 U	1.7 U	2.9 U	54,000	11	130	4.7 U	45,000	8.3 I
	11/21/2006	EW-110 112106	290	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	NA	1.6 U	NA	4.7 U	NA	6.1 I
	12/6/2006	EW-110 120606	270	6.8 I	0.74 U	0.71 U	1.7 U	2.9 U	NA	14	NA	4.7 U	NA	11 I
	12/13/2006	EW-110 121306	155 J	5.04 I	0.81 U	5 U	1.2 U	0.63 U	53,400 D	0.17 U	NA	4.47 I	NA	1.9 U
	1/15/2007	EW-110	495 J	4.18 I	0.81 U	5 U	1.97 I	0.63 U	53,900 D	0.202 I	NA	5.06 I	NA	1.9 U
	2/7/2007	EW110	310 UD	10 U	0.81 U	0.3 U	12 UD	0.63 U	55,400 D	2.96 I	NA	4.71 I	NA	100 U
	3/22/2007	EW-110	240 U	4 U	0.7 U	0.8 I	3 U	3 U	NA	9 I	NA	2 I	NA	20 U
	4/18/2007	EW-110	726	5.18 I	0.81 U	0.3 U	1.8 I	2.85 I	61,800 D	5 U	NA	5.34 I	NA	6.33 I
	5/21/2007	EW-110	442	10 U	0.81 U	0.626 I	10 U	17.2 U	62,800 D	5 U	NA	6.03 I	NA	50 U
	6/20/2007	EW-110	270	4 U	0.7 U	0.7 I	3 U	3 U	67,100	6 I	NA	3 I	NA	3 U
	7/16/2007	EW-110	200 I	4 U	0.7 U	0.5 U	3 U	3 U	67,800	7 I	NA	2 U	NA	3 U
	9/26/2007	EW-110	410	4 U	0.7 U	0.5 U	22.5	8 I	64,100	7 I	NA	11 I	NA	7 I
	11/8/2007	EW-110	200 U	4 U	0.7 U	0.5 U	3 U	3 U	61,000	2 U	NA	2 U	NA	3 U
	3/4/2008	EW-110	300	7.8	0.065 U	0.12 U	5 U	1.6 I	71,000 J	0.25 I	NA	4.4	NA	6.5 U
	3/12/2008	EW-110	220	7.6	0.065 U	0.12 U	5 U	1.2 U	73,000	0.15 U	140	4.1	54,000	6.5 U
	4/1/2008	EW-110-040108-1630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59,000	NA
	4/7/2008	GW-110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50,000	NA
	4/22/2008	EW-110	210	8.7 V	0.065 U	0.12 U	1.1 I	1.2 IV	67,000	0.15 U	150	3.7	54,000	6.5 U
	4/23/2008	EW-110	NA	NA	NA	NA	NA	NA	68,000	NA	140	NA	52,000	NA
	4/28/2008	EW-110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50,000	NA
	5/6/2008	EW-110	190	8.1 V	0.065 U	0.12 U	0.6 U	1.2 U	66,000 V	0.35 I	130	3.5	53,000 V	9.5 I
	5/13/2008	EW-110	NA	NA	NA	NA	NA	NA	68,000	NA	140	NA	51,000	NA
	6/5/2008	EW-110	180	7.2	0.065 U	0.12 U	2.3 I	1.2 U	67,000	0.15 U	140	3.7	49,000	6.5 U
	6/11/2008	EW-110	460	9 I	0.74 U	0.71 U	18	2.9 U	67,000	1.6 U	NA	11 I	NA	5.9 U
	7/10/2008	EW-110	260	8.4 I	5 U	1 U	2 U	2.9 U	63,000	2 U	140	3.6 I	56,000	5 U
	9/19/2008	EW-110	50 U [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	1,200 [1,200]	2 U [2 U]	1.7 I [1.5 I]	2 U [2 U]	3,700 [3,800]	5 U [5 U]
	10/29/2008	EW-110	140 I	4 U	0.5 U	1 U	2 U	2.9 U	22,000	2 U	5.5	2 U	4,600	5 U
	12/15/2008	EW-110	57 I	4.7 I	0.5 U	1 U	2 U	2.9 U	12,000	2 U	NA	2.2 I	NA	5 U
	1/27/2009	EW-110	50 U	4 U	0.5 U	1 U	2 U	2.9 U	29,000	2 U	5.1	2 U	10,000	5 U
	3/20/2009	EW-110 (IRAP)	310	10	0.5 U	1 U	2 U	2.9 U	90,000	14	NA	5.2 I	NA	5 U
	3/20/2009	EW-110 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	59,000	NA
	4/13/2009	EW-110	280 V	9.4	0.065 U	0.12 U	0.79 I	1.2 U	86,000 V	0.15 U	99 V	4.8	NA	6.5 U
	5/4/2009	EW-110	1,200	8.8 I	0.5 U	1 U	32	2.9 U	72,000	2.1 I	NA	16	NA	2 I
	5/11/2009	EW-110	170 I	8.2 I	0.5 U	1 U	2 U	2.9 U	60,000	2 U	NA	3.9 I	NA	5 U
	5/18/2009	EW-110	240	4 U	0.5 U	1 U	4.6 I	2.9 U	67,000	9 I	NA	3.9 I	NA	5 U
	5/26/2009	EW-110	420	10	0.5 U	1 U	3.2 I	2.9 U	71,000	2 U	NA	5.5 I	NA	5 U
	6/1/2009	EW-110	530	4 U	0.5 U	1 U	10	2.9 U	70,000	12	NA	8.3	NA	5 U
	7/9/2009	EW-110 (9:55 AM)	260	8 I	0.5 U	1 U	2 U	2.9 U	77,000	2 U	130	3.9 I	60,000	5 U
	9/15/2009	EW-110	260	12	0.5 U	1 U	2 U	24	74,000	2 U	140	3.9 I	57,000	5 U
	12/8/2009	EW-110	280	13	0.5 U	1 U	2 U	2.9 U	80,000	2 U	120	3.7 I	60,000	6.7 I
	3/2/2010	EW-110	550	14	0.5 U	1.4 I	14	2.9 U	75,000	2 U	130	9.1	60,000	5 U
	6/1/2010	EW-110	330	14	0.5 U	1 U	2 U	2.9 U	75,000	2 U	130	3.6 I	59,000	5 U
	9/1/2010	EW-110 (9:30 AM)	NA	NA	NA	NA	NA	NA	NA	NA	120	NA	57,000	NA
	9/1/2010	EW-110 (9:50 AM)	280	8.6 I	0.5 U	1 U	2 U	2.9 U	70,000	2 U	NA	3.5 I	NA	5 U
	12/7/2010	EW-110	340	12	0.5 U	1 U	3.5 I	2.9 U	68,000	2 U	120	3.1 I	58,000	5 U
	3/1/2011	EW-110	300	12	0.5 U	1 U	2 U	2.9 U	64,000	2.6 I	120	2.6 I	55,000	5 U
	6/1/2011	EW-110	310	12	0.5 U	1 U	2 U	2.9 U	63,000 J	2 U	120	2 U	55,000	5 U

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GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EXL-1 (EW-108)	2/5/2008	EW-108	91	1 I	0.065 U	0.12 U	0.72 I	1.2 U	3,100	0.15 U	NA	0.32 U	NA	22 U
	2/12/2008	EW-108	50 U	0.28 U	0.065 U	0.12 U	1.4 I	1.2 U	870	0.15 U	NA	0.37 I	NA	6.5 U
	2/19/2008	EW-108	15 U	0.45 I	0.065 U	0.12 U	5 U	2.4 I	590	0.16 I	NA	0.58 I	NA	6.5 U
	2/26/2008	EW-108	16 I	0.58 I	0.065 U	0.12 U	0.73 I	1.2 U	430	0.15 U	NA	0.6 I	NA	6.5 U
	3/4/2008	EW-108	17 I	2.5 U	0.065 U	0.12 U	5 U	4.6 I	480 J	0.19 I	NA	0.45 I	NA	8.1 I
	3/12/2008	EW-108	32 I	0.55 I	0.065 U	0.12 U	5 U	1.8 I	560	0.16 I	29	0.69 I	29,000	20 U
	4/1/2008	EW-108-040108-1624	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38,000	NA
	4/3/2008	EW-108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46,000	NA
	4/7/2008	GW-108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49,000	NA
	4/17/2008	EW-108	24 I	2.5 U	0.065 U	0.12 U	5 U	25	600	0.26 I	NA	0.32 UJ	NA	7.5 I
	4/22/2008	EW-108	15 U	0.77 IV	0.065 U	0.12 U	0.97 I	1.2 U	490	0.15 U	33	0.77 I	36,000	6.5 U
	4/23/2008	EW-108	NA	NA	NA	NA	NA	NA	580	NA	32	NA	33,000	NA
	4/28/2008	EW-108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35,000	NA
	5/6/2008	EW-108	15 U	0.77 IV	0.065 U	0.12 U	0.6 U	1.2 U	660 V	0.15 U	35	1.1	32,000 V	6.5 U
	5/13/2008	EW-108	NA	NA	NA	NA	NA	NA	920	NA	39	NA	32,000	NA
	6/5/2008	EW-108	15 U	0.35 I	0.065 U	0.12 U	0.85 I	4.4 I	1,500	0.15 U	57	0.62 I	42,000	6.5 U
	6/11/2008	EW-108	70 U	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	780	1.6 U	NA	4.7 U	NA	5.9 U
	7/10/2008	EW-108	74 I	4 U	5 U	1 U	2 U	2.9 U	1,300	2 U	45	2 U	35,000	5 U
	9/18/2008	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	8,900	2 U	140	2 U	46,000	15 I
	10/30/2008	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	19,000	2 U	170	2.3 I	44,000	19 I
	12/15/2008	EW-108	50 U	4 U	0.5 U	1 U	2.7 I	2.9 U	380	2 U	NA	2.6 I	NA	15 I
	1/27/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	330	2 U	19	2 U	12,000	5 U
	3/20/2009	EW-108 (IRAP)	50 U	4 U	0.5 U	1 U	2 U	2.9 U	260	2 U	NA	2.1 I	NA	11 I
	3/20/2009	EW-108 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	22,000	NA
	5/4/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,000	2 U	NA	2 U	NA	5 U
	5/11/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	1,100	2 U	NA	2 U	NA	5 U
	5/18/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	1,400	2 U	NA	2 U	NA	5 U
	5/26/2009	EW-108	50 U	4 U	0.5 U	1 U	2.2 I	2.9 U	1,600	2 U	NA	2 U	NA	5 U
	6/1/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	1,500	2 U	NA	2 U	NA	5 U
	7/9/2009	EW-108 (9:45 AM)	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,100	2 U	51	2 U	34,000	5 U
	9/15/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,300	2 U	50	2 U	32,000	5 U
	12/8/2009	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,400	2 U	50	2 U	33,000	5 U
	3/2/2010	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,800	2 U	47	2 U	34,000	5 U
	6/1/2010	EW-108	50 U [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	3,200 [3,100]	2 U [2 U]	51 [50]	2 U [2 U]	33,000 [32,000]	5 U [5 U]
	9/1/2010	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	3,400	2 U	53	2 U	33,000	180
	12/7/2010	EW-108	100 I	4 U	0.5 U	1 U	2 U	2.9 U	12,000	2 U	48	2 U	34,000	5 U
	3/1/2011	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	3,800	2 U	50	2 U	31,000	5 U
	6/1/2011	EW-108	50 U	4 U	0.5 U	1 U	2 U	2.9 U	3,900 J	2 I	50	2 U	32,000	5 U

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Table 4
Summary of EW Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL			200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
EXU-1 (EW-101)	9/23/2005	EXU-1-INF	NA	NA	NA	NA	NA	NA	22,400	NA	NA	NA	NA	NA
	9/24/2005	EXU-1-NOTANK	NA	NA	NA	NA	NA	NA	35.8 U	NA	NA	NA	NA	NA
	9/24/2005	EXU-1-TANK	NA	NA	NA	NA	NA	NA	22,300	NA	NA	NA	NA	NA
	2/5/2008	EW-101	130	11	0.065 U	0.19 I	0.6 U	1.2 U	2,400	0.15 U	NA	12	NA	20 U
	2/12/2008	EW-101	170	14	0.065 U	0.31 I	1.2 I	1.2 U	6,500	0.15 U	NA	16	NA	7.5 I
	2/19/2008	EW-101	600	69	0.065 U	0.12 U	5 U	1.2 U	72,000	0.78 I	NA	16	NA	7.4 I
	2/26/2008	EW-101	340	44	0.065 U	0.19 I	0.71 I	1.2 U	31,000	0.15 U	NA	15	NA	8.1 I
	3/4/2008	EW-101	380	52	0.065 U	0.13 I	5 U	1.2 U	33,000 J	0.15 U	NA	16	NA	8.8 I
	3/12/2008	EW-101	320	29	0.065 U	0.28 I	5 U	1.2 U	19,000	0.15 U	13	10	19,000	54 U
	4/1/2008	EW-101-040108-1612	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30,000	NA
	4/7/2008	GW-101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25,000	NA
	4/17/2008	EW-101	140	11	0.065 U	0.13 I	5 U	1.2 U	9,700	0.15 U	NA	13	NA	6.5 U
	4/22/2008	EW-101	150	10 V	0.065 U	0.19 I	1.1 I	1.2 U	7,800	0.15 U	17	13	25,000	6.5 U
	4/23/2008	EW-101	NA	NA	NA	NA	NA	NA	9,500 V	NA	20	NA	27,000	NA
	4/28/2008	EW-101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22,000	NA
	5/6/2008	EW-101	140	10 V	0.065 U	0.28 I	0.6 U	2.5 IV	5,900 V	0.15 U	16	14	25,000 V	8 I
	5/13/2008	EW-101	NA	NA	NA	NA	NA	NA	5,700	NA	15	NA	23,000	NA
	6/5/2008	EW-101	120	5.5	0.065 U	0.32 I	0.82 I	1.2 U	1,400	0.15 U	8.4	9.9	13,000	6.5 U
	6/11/2008	EW-101	120 I	8.3 I	0.74 U	0.71 U	1.7 U	2.9 U	5,800	1.6 U	NA	13 I	NA	5.9 U
	7/10/2008	EW-101	160 I	8.7 I	5 U	1 U	2 U	2.9 U	5,500	2 U	19	13	25,000	5 U
	9/18/2008	EW-101	NA	NA	NA	NA	NA	NA	2,700	NA	7	NA	13,000	NA
	9/19/2008	EW-101	180 I	10	0.5 U	1 U	2 U	2.9 U	2,700	2 U	7	15	13,000	5.6 I
	10/30/2008	EW-101	190 I	6.2 I	0.5 U	1 U	2 U	2.9 U	1,900	2 U	4.5	17	12,000	5 U
	12/15/2008	EW-101	190 I	4 U	0.5 U	1 U	2 U	2.9 U	1,700	2 U	NA	24	NA	6.4 I
	1/27/2009	EW-101	220	9.2 I	0.5 U	1 U	2 U	2.9 U	3,000	2 U	8.5	29	15,000	5 U
	3/24/2009	EW-101 (IRAP)	240 UB	9.9 I	0.5 U	1 U	2 U	2.9 U	4,000	2 U	NA	33	NA	5 U
	3/24/2009	EW-101 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	8.9	NA	17,000	NA
	5/4/2009	EW-101	150 I	9.2 I	0.5 U	1 U	2 U	2.9 U	4,700	2 U	NA	27	NA	31
	5/11/2009	EW-101	150 I	10	0.5 U	1 U	2 U	2.9 U	2,400	2 U	NA	24	NA	5 U
	5/18/2009	EW-101	440	53	0.5 U	1 U	2.6 I	2.9 U	40,000	6.2 I	NA	23	NA	5 U
	5/26/2009	EW-101	160 I	8.5 I	0.5 U	1 U	2 U	2.9 U	4,200	2 U	NA	20	NA	5 U
	6/1/2009	EW-101	160 I	12	0.5 U	1 U	2 U	2.9 U	6,200	2.3 I	NA	19	NA	5 U
	7/9/2009	EW-101 (9:10 AM)	300	36	0.5 U	1 U	2 U	2.9 U	24,000	2 U	14	19	21,000	5 U
	9/15/2009	EW-101	150 I	11	0.5 U	1 U	2 U	2.9 U	3,900	2 U	12	20	18,000	5 U
	12/8/2009	EW-101	140 I	11	0.5 U	1 U	2 U	2.9 U	2,800	2 U	17	22	21,000	5 U
	3/2/2010	EW-101	560	84	0.5 U	1.7 I	2.5 I	2.9 U	73,000	2 U	25	20	28,000	5.1 I
	6/1/2010	EW-101	180 I	13	0.5 U	1 U	2 U	2.9 U	8,200	2 U	25	19	25,000	5 U
	9/1/2010	EW-101	77 I	7.4 I	0.5 U	1 U	2 U	2.9 U	5,100	2 U	24	11	24,000	6.1 I
	12/7/2010	EW-101	110 I	10	0.5 U	1 U	2 U	2.9 U	5,500	2 U	16	15	20,000	5 U
	3/1/2011	EW-101	170 I	15	0.5 U	1 U	2 U	2.9 U	11,000 J	2 U	16	15	20,000	5 U
	6/1/2011	EW-101	99 I	7.6 I	0.5 U	1 U	2 U	2.9 U	4,900 J	2.3 I	17	16	20,000	5 U

Notes:

- Bold font** indicates exceedance of Groundwater Cleanup Target Level (GCTL).
- D - The value is the result of a secondary dilution.
- EW - Extraction Well.
- GCTL - Groundwater Cleanup Target Level
- I - Detected but below reporting limit. Result is an estimated concentration.
- IRAP - Interim Remedial Action Plan.
- J - Estimated value.
- µg/l - Micrograms per liter.
- NA - Not Applicable.
- TDS - Total Dissolved Solids.
- U - The analyte was analyzed for, but not detected.
- UB - Compound considered non-detect at the listed value due to associated blank contamination.
- UIC - Underground Injection Control.
- UJ - The analyte was analyzed for, but not detected. The reporting limit is an estimated value.
- V - Indicates the analyte was detected in both the sample and the associated method blank.

Table 5
Summary of Monitoring Well Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
CO-A1D		3/10/2008	CO-A1D	98	2.4 I	0.065 U	0.12 U	5.7 V	1.2 U	71,000	0.15 U	77	0.94 I	60,000	27
		4/23/2008	CO-A1D	NA	NA	NA	NA	NA	NA	43,000 V	NA	960	NA	1,300,000	NA
		5/7/2008	CO-1AD	9,500	530 V	0.68	5	4.1 I	3.4 IV	120,000	0.15 U	930	350	1,200,000	410
		5/13/2008	CO-A1D	NA	NA	NA	NA	NA	NA	130,000	NA	810	NA	850,000	NA
		6/4/2008	CO-A1D	6,000	320	0.31 I	1.2	2 I	1.2 U	100,000	0.15 U	620	320	360,000	NA
		7/9/2008	CO-A1D	3,800	160	5 U	1 I	2.5 I	2.9 U	71,000	2 U	280	170	180,000	120
		9/18/2008	CO-A1D	NA	NA	NA	NA	NA	NA	43,000	NA	110	NA	88,000	NA
		10/28/2008	CO-1AD	1,500	97	0.5 U	1 U	2.9 I	2.9 U	31,000	2 U	75	46	72,000	45
		1/26/2009	CO-A1D	1,000	67	0.5 U	1 U	2 U	2.9 U	28,000	2 U	70	40	54,000	23
		4/2/2009	CO-A1D (UIC)	910	52 V	0.5 U	1.2 I	2.8 I	2.9 U	24,000	2 U	59	36	49,000	55 V
		7/13/2009	CO-A1D	1,000	23	0.5 U	1 U	2 U	2.9 U	22,000	2 U	46	24	39,000	18 I
		9/16/2009	CO-A1D	1,100	20	0.5 U	1 U	2.9 I	2.9 U	22,000	2 U	41	22	36,000	21
		12/17/2009	CO-A1D	830 [820]	20 [21]	0.5 U [0.5 U]	1 U [1 U]	2.4 I [2 U]	2.9 U [2.9 U]	25,000 [25,000]	2 U [2 U]	40 [40]	20 [20]	34,000 [34,000]	17 I [17 I]
		3/18/2010	CO-A1D	810	22	0.5 U	1 U	2 U	2.9 U	28,000 J	2 U	41	17	34,000	16 I
		6/9/2010	CO-A1D	830	12	0.5 U	1 U	2 U	2.9 U	23,000	2 U	30	12	29,000	13 I
		9/15/2010	CO-A1D	640	11	0.5 U	1 U	2 U	2.9 U	27,000	2 U	35	14	29,000	13 I
		12/14/2010	CO-A1D	630 [650]	14 [15]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 I]	2.9 U [2.9 U]	26,000 [25,000]	2 U [2 U]	30 [29]	16 [18]	26,000 [26,000]	14 I [15 I]
		3/10/2011	CO-A1D	450	6 I	0.5 U	1 U	2 U	2.9 U	8,900	2 U	11	11	17,000	10 I
		6/9/2011	CO-A1D	450	6.5 I	0.5 U	1 U	2 U	2.9 U	22,000	2 U	22	7.5 I	22,000	8.2 I
CO-B1D		3/11/2008	CO-B1D	60	0.94 I	0.065 U	0.12 U	1.1 IV	4.7 I	52,000	0.15 U	55	2.3	51,000	6.5 U
		4/23/2008	CO-B1D	NA	NA	NA	NA	NA	NA	60,000 V	NA	170	NA	190,000	NA
		5/6/2008	CO-B1D	680	33 V	0.065 U	0.12 U	0.6 U	1.2 U	85,000 V	0.15 U	120	14	190,000	20
		5/13/2008	CO-B1D	NA	NA	NA	NA	NA	NA	76,000	NA	100	NA	180,000	NA
		6/3/2008	CO-B1D	200	27	0.065 U	0.12 U	0.97 I	1.2 U	43,000	0.15 U	61	6.6	89,000	NA
		7/10/2008	CO-B1D	220	4.5 I	5 U	1 U	2 U	2.9 U	28,000	2 U	36	6.4 I	62,000	14 I
		9/18/2008	CO-B1D	NA	NA	NA	NA	NA	NA	3,300	NA	4.2	NA	8,600	NA
		10/27/2008	CO-B1D	190 I	12	0.5 U	1 U	2 U	2.9 U	22,000	2 U	29	8.5	53,000	5.5 I
		1/26/2009	CO-B1D	160 I	9.4 I	0.5 U	1 U	2 U	2.9 U	25,000	2 U	33	9.3	43,000	5 U
		4/2/2009	CO-B1D (UIC)	250	18 V	0.5 U	1 I	2 U	3.5 I	26,000	2 U	35	11	43,000	70 V
		7/13/2009	CO-B1D	280	8 I	0.5 U	1 U	2 U	2.9 U	24,000	2 U	29	11	34,000	5 U
		9/16/2009	CO-B1D	320	4 U	0.5 U	1 U	2 U	2.9 U	21,000	2 U	23	8.5	30,000	5 U
		12/17/2009	CO-B1D	310	4 U	0.5 U	1 U	2 U	2.9 U	24,000	2 U	23	7.1 I	30,000	5.1 I
		3/18/2010	CO-B1D	320	4.2 I	0.5 U	1 U	2 U	2.9 U	23,000	2 U	19	4.6 I	27,000	5 U
		6/9/2010	CO-B1D	280	4 U	0.5 U	1 U	2 U	2.9 U	19,000	2 U	15	3.8 I	24,000	5 U
		9/15/2010	CO-B1D	260	4 U	0.5 U	1 U	2 U	2.9 U	14,000	2 U	10	7.7 I	20,000	5 U
		12/14/2010	CO-B1D	270	5.3 I	0.5 U	1 U	2 U	2.9 U	16,000	2 U	11	9.9	20,000	5 U
		3/10/2011	CO-B1D	470 [240]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	17,000 [14,000]	2 U [2 U]	9.9 [10]	6 I [6.1 I]	18,000 [18,000]	5 U [5 U]
		6/9/2011	CO-B1D	210	4 U	0.5 U	1 U	2 U	2.9 U	11,000	2 U	9.1	5.2 I	16,000	5 U

See Notes on Page 11.

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Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
CO-B4D		3/12/2008	CO-B4D	120	9.9	0.065 U	0.12 U	1.1 IV	1.2 U	56,000	0.15 U	92	1.1	54,000	6.5 U
		4/23/2008	CO-B4D	NA	NA	NA	NA	NA	NA	75,000 V	NA	260	NA	250,000	NA
		5/7/2008	CO-B4D	1,500	21 V	0.089 I	0.3 I	0.6 U	1.2 U	60,000	0.15 U	92	31	77,000	41
		5/13/2008	CO-B4D	NA	NA	NA	NA	NA	NA	60,000	NA	76	NA	62,000	NA
		6/3/2008	CO-B4D	280	12	0.065 U	0.12 U	0.68 I	1.2 U	61,000	0.15 U	65	7.9	56,000	NA
		7/10/2008	CO-B4D	230	4 U	5 U	1 U	2 U	2.9 U	40,000	2 U	39	2.3 I	39,000	30
		9/19/2008	CO-B4D	NA	NA	NA	NA	NA	NA	49,000	NA	49	NA	45,000	NA
		10/28/2008	CO-B4D	180 I	7.6 I	0.5 U	1 U	2 U	2.9 U	49,000	2 U	49	4.4 I	45,000	18 I
		1/26/2009	CO-B4D	180 I	9 I	0.5 U	1 U	2 U	2.9 U	50,000	2 U	51	4.3 I	43,000	7.6 I
		4/2/2009	CO-B4D (UIC)	290	9 IV	0.5 U	1.5 I	2.3 I	2.9 U	52,000	2 U	49	4 I	46,000	27 V
		7/13/2009	CO-B4D	330	4.8 I	0.5 U	1 U	2 U	2.9 U	56,000 J	2 U	54	4.7 I	44,000	5 U
		9/16/2009	CO-B4D	350	4 U	0.5 U	1 U	2 U	2.9 U	60,000	2 U	54	2.8 I	48,000	5 U
		12/17/2009	CO-B4D	350	4.6 I	0.5 U	1 U	2 U	2.9 U	62,000	2 U	56	2 U	49,000	5.2 I
		3/18/2010	CO-B4D	310	4 U	0.5 U	1 U	2 U	2.9 U	66,000	2 U	57	2 U	54,000	5.4 I
		6/9/2010	CO-B4D	320	4 U	0.5 U	1 U	2 U	2.9 U	69,000	2 U	59	2 U	57,000	6.7 I
		9/16/2010	CO-B4D	300 [300]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	70,000 [70,000]	2 U [2 U]	58 [58]	2.5 I [2.5 I]	57,000 [57,000]	8.3 I [5.8 I]
		12/14/2010	CO-B4D	310	4 U	0.5 U	1 I	2 U	2.9 U	64,000 J	2 I	54	2 U	57,000	6.1 I
		3/10/2011	CO-B4D	290	4 U	0.5 U	1 U	2 U	2.9 U	62,000	2 U	57	2 U	55,000	10 I
		6/9/2011	CO-B4D	320 [310]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	65,000 [66,000]	2.1 I [2.1 I]	60 [59]	2 U [2 U]	57,000 [56,000]	5.3 I [5 U]
CO-C1D		3/12/2008	CO-C1D	190	2.6	0.065 U	0.12 U	1.3 IV	1.2 U	39,000	0.2 I	28	1.6	43,000	7.8 I
		4/23/2008	CO-C1D	NA	NA	NA	NA	NA	NA	34,000 V	NA	22	NA	38,000	NA
		5/6/2008	CO-C1D	170	2.3 IV	0.065 U	0.12 U	0.6 U	1.2 U	18,000 V	0.15 U	11	4.6	27,000	6.5 U
		5/13/2008	CO-C1D	NA	NA	NA	NA	NA	NA	22,000	NA	13	NA	28,000	NA
		6/3/2008	CO-C1D	150	1.5 I	0.065 U	0.12 U	3.3 I	1.2 U	24,000	0.15 U	17	9.4	28,000	NA
		7/10/2008	CO-C1D	220	4 U	5 U	1 U	2 U	2.9 U	19,000	2 U	12	8.9	27,000	6.2 I
		9/18/2008	CO-C1D	NA	NA	NA	NA	NA	NA	29,000	NA	19	NA	33,000	NA
		10/27/2008	CO-C1D	200	4.1 I	0.5 U	1 U	2 U	2.9 U	30,000	2 U	19	6.6 I	35,000	77
		1/26/2009	CO-C1D	190 I	4.7 I	0.5 U	1 U	2 U	2.9 U	29,000	2 U	20	6.1 I	29,000	24
		4/2/2009	CO-C1D (UIC)	290	8.9 IV	0.5 U	1 U	2.3 I	2.9 U	34,000	2 U	21	6.9 I	34,000	46 V
		7/13/2009	CO-C1D	190 I	4 U	0.5 U	1 U	2 U	2.9 U	29,000	2 U	19	7.4 I	32,000	5 U
		9/16/2009	CO-C1D	200	4 U	0.5 U	1 U	2 U	2.9 U	26,000	2 U	16	4.1 I	30,000	5 U
		12/17/2009	CO-C1D	240	4 U	0.5 U	1 U	2 U	2.9 U	36,000	2 U	22	3 I	36,000	8.8 I
		3/18/2010	CO-C1D	230	4 U	0.5 U	1 U	2 U	2.9 U	36,000	2 U	21	2.3 I	39,000	5 U
		6/9/2010	CO-C1D	240	4 U	0.5 U	1 U	2 U	2.9 U	40,000	2 U	23	2 U	43,000	5 U
		9/16/2010	CO-C1D	220 [220]	4 U [4.4 I]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	36,000 [37,000]	2 U [2 U]	20 [21]	4.7 I [4.6 I]	39,000 [40,000]	5 U [5 U]
		12/14/2010	CO-C1D	260	4 U	0.5 U	1 U	2 U	2.9 U	34,000	2 U	19	5.8 I	37,000	5 U
		3/10/2011	CO-C1D	220	4 U	0.5 U	1 U	2 U	2.9 U	33,000	2 U	20	3.9 I	36,000	5 U
		6/9/2011	CO-C1D	190 I	4 U	0.5 U	1 U	2 U	2.9 U	26,000	2.3 I	17	2.2 I	32,000	5 U

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Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
CO-D1D		3/12/2008	CO-D1D	240	3.9	0.065 U	0.12 U	1.9 IV	1.2 U	44,000	0.15 U	36	1.2	42,000	17 I
		4/23/2008	CO-D1D	NA	NA	NA	NA	NA	NA	32,000 V	NA	27	NA	32,000	NA
		5/7/2008	CO-D1D	150	1.8 IV	0.065 U	0.12 U	0.6 U	1.2 U	27,000	0.15 U	20	2	31,000	6.5 U
		5/13/2008	CO-D1D	NA	NA	NA	NA	NA	NA	21,000	NA	18	NA	27,000	NA
		6/3/2008	CO-D1D	140	1.4 I	0.065 U	0.12 U	0.6 U	1.2 U	35,000	0.15 U	29	1.8	33,000	NA
		7/9/2008	CO-D1D	240	4 U	5 U	1 U	2 U	2.9 U	27,000	2 U	20	5.2 I	30,000	12 I
		9/16/2008	CO-D1D	NA	NA	NA	NA	NA	NA	31,000	NA	25	NA	30,000	NA
		10/27/2008	CO-D1D	360	4 U	0.5 U	1 U	3.4 I	2.9 U	39,000	2 U	30	8.3	33,000	38
		1/26/2009	CO-D1D	150 I	4 U	0.5 U	1 U	2 U	2.9 U	41,000	2 U	32	4.1 I	31,000	11 I
		4/2/2009	CO-D1D (UIC)	170 I	8.7 IV	0.5 U	1 I	2 U	2.9 U	47,000	2 U	35	4 I	36,000	12 IV
		7/13/2009	CO-D1D	160 I	4 U	0.5 U	1 U	2 U	2.9 U	29,000 J	2 U	20	5.1 I	29,000	5 U
		9/16/2009	CO-D1D	210	4 U	0.5 U	1 U	2 U	2.9 U	38,000	2 U	26	3.7 I	33,000	5 U
		12/17/2009	CO-D1D	230	4 U	0.5 U	1 U	2 U	2.9 U	44,000	2 U	29	3 I	35,000	5 U
		3/19/2010	CO-D1D	230	4 U	0.5 U	1 U	2 U	2.9 U	51,000 J	2 U	33	2 U	40,000	5 U
		6/9/2010	CO-D1D	250	4 U	0.5 U	1 U	2 U	2.9 U	54,000 J	2 U	33	2 U	42,000	6.4 I
		9/16/2010	CO-D1D	220	4 U	0.5 U	1 U	2 U	2.9 U	53,000	2 U	30	2.7 I	38,000	5 U
		12/14/2010	CO-D1D	260	5.2 I	0.5 U	1 U	2 U	2.9 U	58,000	2 U	33	3 I	46,000	5 U
		3/10/2011	CO-D1D	250	4 U	0.5 U	1 U	2 U	2.9 U	60,000	2 U	38	2 U	46,000	7.5 I
		6/9/2011	CO-D1D	260	4 U	0.5 U	1 U	2 U	2.9 U	59,000	2 U	41	2 U	44,000	5 U
MW-3		2/13/2001	TT-MW-003-20010213	NA	NA	4 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA
	20	6/17/2004	TT-MW-003D_20040617	732	1.8 I	0.25 UJ	0.5 U	2.9 IJ	2 UJ	NA	0.68 I	1.4 I	2.6 I	NA	NA
		1/5/2005	TT-MW-003-20050105	NA	NA	NA	NA	NA	NA	50 U	NA	10 U	NA	NA	NA
	5 - 20	9/11/2007	MW-3	600	4 U	NA	NA	NA	NA	110	NA	NA	NA	NA	NA
	5 - 20	3/13/2008	MW-3	54	1.5 I	0.065 U	0.16 I	0.6 U	1.2 U	47 I	0.15 U	1.5 I	0.54 I	4,300	9.2 J
	5 - 20	4/23/2008	MW-3	NA	NA	NA	NA	NA	NA	97 IV	NA	1.3 I	NA	3,500	NA
	5 - 20	5/7/2008	MW-3	120	1.5 IV	0.065 U	0.14 I	0.6 U	1.7 IV	110 V	0.42 I	1.7 I	0.99 I	3,600 V	7 I
	5 - 20	5/13/2008	MW-3	NA	NA	NA	NA	NA	NA	83 I	NA	1.8 I	NA	8,300	NA
	5 - 20	6/4/2008	MW-3	44 I	1.3 I	0.065 U	0.13 I	0.61 I	1.2 U	96 I	0.15 U	3.7 I	0.32 U	9,200	NA
	5 - 20	7/10/2008	MW-3	340	4 U	5 U	1 U	2 U	2.9 U	50 U	2 U	4 U	2 U	1,500	5 U
	5 - 20	9/16/2008	MW-3	NA	NA	NA	NA	NA	NA	50 U	NA	1 U	NA	2,900	NA
	5 - 20	10/29/2008	MW-3	68 I	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1 U	2 U	2,000	5.2 I
	5 - 20	1/27/2009	MW-3	96 I [89 I]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	50 U [50 U]	2 U [2 U]	1.2 I [1.1 I]	2 U [2 U]	2,200 [2,200]	5 U [5 U]
	5 - 20	4/2/2009	MW-3 (BW)	NA	NA	NA	NA	NA	NA	50 U	NA	1.1 I	NA	NA	NA
	5 - 20	4/2/2009	MW-3 (UIC)	100 I	6.3 IV	0.5 U	1 U	2 U	2.9 U	68 I	2 U	1.4 I	3 I	1,800	9.2 IV
	5 - 20	7/15/2009	MW-3	87 I	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1 U	2 U	1,700	5 U
	5 - 20	9/16/2009	MW-3	80 I	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1 U	2 U	1,600	11 I
	5 - 20	12/17/2009	MW-3	69 I	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1 U	2 U	1,000	5 U
	5 - 20	3/17/2010	MW-3	130 I	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1 U	2 U	2,000	5 U
	5 - 20	6/8/2010	MW-3	50 U	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1.1 I	2 U	1,900	5 U
	5 - 20	9/16/2010	MW-3	470	4 U	0.5 U	1 U	2 U	2.9 U	70 I	2 U	1 U	2 U	1,700	5 U
	5 - 20	12/15/2010	MW-3	87 I	4.7 I	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1.1 I	2 U	1,300	5 U
	5 - 20	3/9/2011	MW-3	200	4 U	0.5 U	1 U	2 U	2.9 U	83 I	2 U	1.1 I	2 U	2,700	5 U
	5 - 20	6/6/2011	MW-3	50 U	4 U	0.5 U	1 U	2 U	2.9 U	50 U	2 U	1 U	2 U	3,000	5 U

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Table 5
Summary of Monitoring Well Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-4	4 - 19	2/13/2001	TT-MW-004-20010213	NA	NA	4 U	NA	5 U	NA	NA	NA	NA	NA	NA	NA
	20	6/17/2004	TT-MW-004D_20040617	2,010	1.2 I	0.25 UJ	0.5 U	4.3 IJ	2 UJ	NA	1.9	14.8	2.7 I	NA	NA
	4 - 19	9/11/2007	MW-4	290	4 U	NA	NA	NA	NA	2,500	NA	NA	NA	NA	NA
	4 - 19	3/13/2008	MW-4	290	0.7 I	0.065 U	0.15 I	0.6 U	1.2 U	3,300	0.33 I	19	1.6	32,000	21 J
	4 - 19	4/23/2008	MW-4	NA	NA	NA	NA	NA	NA	1,600 V	NA	17	NA	29,000	NA
	4 - 19	5/8/2008	MW-4	200	1.1 IV	0.065 U	0.14 I	0.6 U	1.2 U	1,700 V	0.15 U	18	1.2	33,000 V	13 I
	4 - 19	5/13/2008	MW-4	NA	NA	NA	NA	NA	NA	570	NA	15	NA	27,000	NA
	4 - 19	6/5/2008	MW-4	260	0.61 I	0.065 U	0.19 I	0.78 I	1.2 U	920	0.21 I	17	0.57 I	26,000	NA
	4 - 19	7/9/2008	MW-4	360	4 U	5 U	1 U	2 U	2.9 U	980	2 U	16	2 U	27,000	9 I
	4 - 19	9/16/2008	MW-4	NA	NA	NA	NA	NA	NA	4,100	NA	17	NA	30,000	NA
	4 - 19	10/30/2008	MW-4	360	4 U	0.5 U	1 U	2 U	2.9 U	2,400	2 U	13	2 U	26,000	8.6 I
	4 - 19	1/28/2009	MW-4	160 I	4 U	0.5 U	1 U	2 U	2.9 U	1,300	2 U	11	2 U	20,000	5 U
	4 - 19	4/2/2009	MW-4 (UIC)	420	4.4 IV	0.5 U	1 U	2 U	2.9 U	12,000	2 U	17	2.8 I	35,000	8.8 IV
	4 - 19	7/15/2009	MW-4	160 I	4 U	0.5 U	1 U	2 U	2.9 U	1,400	2 U	10	2 U	22,000	5 U
	4 - 19	9/16/2009	MW-4	440	4 U	0.5 U	1 U	2 U	2.9 U	1,400	2 U	7.9	2 U	16,000	5 U
	4 - 19	12/17/2009	MW-4	250	4 U	0.5 U	1 U	2 U	2.9 U	470	2 U	11	2 U	15,000	5 U
	4 - 19	3/11/2010	MW-4	210	4 U	0.5 U	1 U	2 U	2.9 U	820	2 U	13	2 U	16,000	5 U
	4 - 19	6/8/2010	MW-4	430	4 U	0.5 U	1 U	2 U	2.9 U	1,300	2 U	11	2 U	22,000	9.7 I
	4 - 19	9/8/2010	MW-4	140 I	4 U	0.5 U	1 U	2 U	2.9 U	2,700	2 U	14	2 U	24,000	7.8 I
	4 - 19	12/16/2010	MW-4	73 I	4 U	0.5 U	1 U	2 U	2.9 U	200	2 U	8.7	2 U	16,000	5 U
	4 - 19	3/11/2011	MW-4	240	4 U	0.5 U	1 U	2 U	2.9 U	410	2 U	8.1	2 U	18,000	5.6 I
	4 - 19	6/8/2011	MW-4	170 I	4 U	0.5 U	1 U	2 U	2.9 U	210	2 U	10	2 U	15,000	5 U
MW-32	24 - 29	6/27/2005	TT-MW-032-20050627	NA	NA	NA	NA	NA	NA	20,400	NA	33	NA	NA	NA
	24.5 - 29.5	1/31/2006	MW-32	NA	NA	NA	NA	NA	NA	17,000	NA	19	NA	NA	NA
	24.5 - 29.5	9/10/2007	MW-32	140 I	4 U	NA	NA	NA	NA	20,200	NA	NA	NA	NA	NA
	24.5 - 29.5	3/13/2008	MW-32	500	2.2 I	0.065 U	0.12 U	0.78 I	1.2 U	26,000	0.27 I	22	1.8	46,000	8.5 J
	24.5 - 29.5	4/1/2008	MW-32-040108-1449	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,000	NA
	24.5 - 29.5	4/7/2008	MW-32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30,000	NA
	24.5 - 29.5	4/22/2008	MW-32	470	2.7 V	0.065 U	0.12 U	1.7 I	1.2 U	12,000	0.27 I	13	1.7	28,000	37
	24.5 - 29.5	4/28/2008	MW-32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,000	NA
	24.5 - 29.5	5/8/2008	MW-32	83	3.1 V	0.065 U	0.12 U	0.6 U	2.1 IV	15,000	0.15 U	11	1.4	35,000	6.5 U
	24.5 - 29.5	5/13/2008	MW-32	NA	NA	NA	NA	NA	NA	17,000	NA	12	NA	32,000	NA
	24.5 - 29.5	6/5/2008	MW-32	120	2.1 I	0.065 U	0.12 U	0.7 I	1.2 U	16,000	0.15 U	14	0.73 I	28,000	NA
	24.5 - 29.5	6/10/2008	MW-32	150 I	4.8 UJ	0.74 U	0.71 U	1.7 U	2.9 U	19,000	4 I	NA	4.7 U	NA	8.7 I
	24.5 - 29.5	7/10/2008	MW-32	130 I	4 U	5 U	1 U	2 U	2.9 U	21,000	2 U	15	2 U	36,000	5 U
	24.5 - 29.5	9/16/2008	MW-32	130 I	4 U	0.5 U	1 U	2 U	2.9 U	28,000	2 U	21	2 U	35,000	5.7 I
	24.5 - 29.5	10/29/2008	MW-32	150 I	4 U	0.5 U	1 U	2 U	2.9 U	25,000	2 U	19	2 U	35,000	6.2 I
	24.5 - 29.5	1/26/2009	MW-32	93 I	4 U	0.5 U	1 U	2 U	2.9 U	22,000	2 U	17	2 U	31,000	5 U
	24.5 - 29.5	3/23/2009	MW-32 (BW)	NA	NA	NA	NA	NA	NA	22,000	NA	16	NA	NA	NA
	24.5 - 29.5	3/23/2009	MW-32 (UIC)	97 I	4 U	0.5 U	1 U	2 U	2.9 U	22,000	2 U	16	2 U	34,000	5.8 I
	24.5 - 29.5	7/8/2009	MW-32	83 I	4 U	0.5 U	1 U	2 U	2.9 U	22,000	2 U	16	2 U	37,000	5 U
	24.5 - 29.5	9/14/2009	MW-32	88 I	5 I	0.5 U	1 U	2 U	2.9 U	25,000	2 U	18	2 U	39,000	5 U
	24.5 - 29.5	12/15/2009	MW-32	86 I	4 U	0.5 U	1 U	2 U	2.9 U	19,000	2 U	13	2 U	31,000	5 U
	24.5 - 29.5	3/17/2010	MW-32	110 I	4.2 I	0.5 U	1 U	2 U	2.9 U	16,000	2 U	11	2 U	27,000	5 U
	24.5 - 29.5	6/4/2010	MW-32	72 I	4.7 I	0.5 U	1 U	2 U	2.9 U	6,100	2 U	3.7 I	2 U	18,000	5 U
	24.5 - 29.5	9/8/2010	MW-32	62 I	4 U	0.5 U	1 U	2 U	2.9 U	5,400	2 U	3.1 I	2 U	16,000	5 U
	24.5 - 29.5	12/13/2010	MW-32	50 U	4 U	0.5 U	1 U	2 U	2.9 U	5,000	2 U	3.7 I	2 U	15,000	5 U
	24.5 - 29.5	3/11/2011	MW-32	160 I	4 U	0.5 U	1 U	2 U	2.9 U	8,500	2 I	5	2 U	17,000	6.1 I
	24.5 - 29.5	6/8/2011	MW-32	110 I	5 I	0.5 U	1 U	2 U	2.9 U	5,100 J	2 U	2.3 I	2 U	9,400	5 U

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Table 5
Summary of Monitoring Well Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-33	35.5 - 40.5	4/24/2007	MW-33	104	0.98 U	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	7/10/2007	MW-33	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	9/10/2007	MW-33	70 I	4 U	NA	NA	NA	NA	10,700	NA	NA	NA	NA	NA
	35.5 - 40.5	3/18/2008	MW-33	83	1.4 J	0.39 I	0.12 U	1.4 J	1.2 U	15,000	0.15 U	170 J	1.7	33,000	6.5 U
	35.5 - 40.5	4/1/2008	MW-33-040108-1236	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40,000	NA
	35.5 - 40.5	4/1/2008	MW-33-040108-715	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37,000	NA
	35.5 - 40.5	4/1/2008	MW-33-0401108-1356	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40,000	NA
	35.5 - 40.5	4/7/2008	MW-33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	650	NA
	35.5 - 40.5	4/22/2008	MW-33	47 I	0.99 IV	0.065 U	0.12 U	1.3 I	1.2 U	10,000	0.15 U	160	2.1	38,000	8.6 I
	35.5 - 40.5	4/23/2008	MW-33	NA	NA	NA	NA	NA	NA	9,900	NA	140	NA	36,000	NA
	35.5 - 40.5	4/28/2008	MW-33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36,000	NA
	35.5 - 40.5	5/7/2008	MW-33	20 I	1.3 IV	0.065 U	0.12 U	0.6 U	1.2 U	13,000 V	0.15 U	170	2.1	45,000 V	6.5 U
	35.5 - 40.5	5/13/2008	MW-33	NA	NA	NA	NA	NA	NA	12,000	NA	150	NA	41,000	NA
	35.5 - 40.5	6/5/2008	MW-33	19 I	0.61 I	0.065 U	0.12 U	0.65 I	1.2 U	11,000	0.15 U	160	1.5	41,000	NA
	35.5 - 40.5	6/10/2008	MW-33	70 U	4.8 UJ	0.74 U	0.71 U	1.7 U	2.9 U	14,000	2.6 I	NA	4.7 U	NA	6.5 I
	35.5 - 40.5	7/9/2008	MW-33	79 I	4 U	5 U	1 U	2 U	2.9 U	8,900	2 U	140	2.3 I	37,000	7.4 I
	35.5 - 40.5	9/16/2008	MW-33	50 U	4 U	0.5 U	1 U	2 U	2.9 U	9,900	2 U	150	2.6 I	36,000	5 U
	35.5 - 40.5	10/29/2008	MW-33	50 U	5.9 I	0.5 U	1 U	2 U	2.9 U	12,000	2 U	160	4.4 IV	46,000	5 U
	35.5 - 40.5	1/26/2009	MW-33	50 U	4 U	0.5 U	1 U	2 U	2.9 U	11,000	2 U	140	2 U	37,000	5 U
	35.5 - 40.5	3/23/2009	MW-33 (BW)	NA	NA	NA	NA	NA	NA	14,000	NA	160	NA	NA	NA
	35.5 - 40.5	3/23/2009	MW-33 (UIC)	50 U	4 U	0.5 U	1 U	2 U	2.9 U	17,000	2 U	170	3 I	50,000	5 U
	35.5 - 40.5	7/8/2009	MW-33	250	4.3 I	0.5 U	1 U	2.2 I	2.9 U	20,000	2 U	170	2.8 I	52,000	7.7 I
	35.5 - 40.5	9/14/2009	MW-33	50 U	5 I	0.5 U	1 U	2 U	2.9 U	18,000	2 U	160	2.7 I	46,000	5 U
	35.5 - 40.5	12/15/2009	MW-33	74 I	4 U	0.5 U	1 U	2 U	2.9 U	25,000 J	2 U	160	2 U	44,000 J	8.7 I
	35.5 - 40.5	3/17/2010	MW-33	50 U	4 U	0.5 U	1 U	2 U	2.9 U	27,000	2 U	160	2 U	46,000	5 U
	35.5 - 40.5	6/4/2010	MW-33	64 I	5.6 I	0.5 U	1 U	2 U	2.9 U	31,000	2 U	170	3.1 I	44,000	5 U
	35.5 - 40.5	9/8/2010	MW-33	50 I	4 U	0.5 U	1 U	2 U	2.9 U	26,000	2 U	150	2 I	36,000	5 U
	35.5 - 40.5	12/13/2010	MW-33	82 I	5.3 I	0.5 U	1 U	2 U	2.9 U	25,000	2 U	130	2 U	34,000	5 U
	35.5 - 40.5	3/11/2011	MW-33	50 U	4 U	0.5 U	1 U	2 U	2.9 U	24,000	2 U	120	2 U	31,000	5 U
	35.5 - 40.5	6/7/2011	MW-33	50 U	4.3 I	0.5 U	1 U	2 U	3 I	19,000	2 U	110	2 U	28,000	5 U
MW-36	23 - 28	4/25/2007	MW-36	770	20.2	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	7/10/2007	MW-36	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	9/10/2007	MW-36	550	16.3	NA	NA	NA	NA	5,750	NA	NA	NA	NA	NA
	23 - 28	3/14/2008	MW-36	470 [450]	20 J [21 J]	0.065 U [0.065 U]	1.3 J [1.3 J]	0.81 J [0.82 J]	1.2 U [1.2 U]	8,800 [8,700]	0.36 I [0.33 I]	11 J [11 J]	6.3 [6.6]	16,000 [17,000]	9 J [10 J]
	23 - 28	4/23/2008	MW-36	NA	NA	NA	NA	NA	NA	7,900 V	NA	12	NA	19,000	NA
	23 - 28	5/8/2008	MW-36	370	16 V	0.065 U	0.45 I	0.6 U	2.2 IV	7,400	0.15 U	11	5.8	21,000	6.5 U
	23 - 28	5/13/2008	MW-36	NA	NA	NA	NA	NA	NA	8,100	NA	10	NA	18,000	NA
	23 - 28	6/5/2008	MW-36	300	17	0.065 U	0.3 I	0.6 U	1.2 U	7,300	0.15 U	12	5.8	19,000	NA
	23 - 28	6/10/2008	MW-36	350	14	0.74 U	0.71 U	1.7 U	2.9 U	6,900	1.6 U	NA	5 I	NA	5.9 U
	23 - 28	7/10/2008	MW-36	400 [390]	16 [16]	5 U [5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	7,400 [7,400]	2 U [2 U]	13 [14]	6.9 I [7.1 I]	20,000 [20,000]	5 U [7.2 I]
	23 - 28	9/16/2008	MW-36	280	21	0.5 U	1 U	2 U	2.9 U	6,900	2 U	12	6.7 I	18,000	6.2 I
	23 - 28	10/29/2008	MW-36	390 [380]	23 [23]	0.5 U [0.5 U]	1 U [1 U]	2 U [3.1 I]	2.9 U [2.9 U]	9,000 [8,900]	2 U [2 U]	15 [15]	9.9 V [9.3 V]	22,000 [23,000]	6.7 I [5.8 I]
	23 - 28	1/26/2009	MW-36	520	22	0.5 U	1 U	2 U	2.9 U	9,400	2 U	15	8.2	21,000	5 U
	23 - 28	3/19/2009	MW-36 (BW)	330	20 V	0.065 U	0.34 I	1.1 IV	16	9,000	0.15 U	15	8.9 V	24,000	6.7 I
	23 - 28	3/19/2009	MW-36 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	NA	5 U
	23 - 28	7/10/2009	MW-36	450	18	0.5 U	1 U	2 U	2.9 U	13,000	2 U	17	10	29,000	5 U
	23 - 28	9/14/2009	MW-36	510	18	0.5 U	1 U	2 U	2.9 U	16,000	2 U	20	13	35,000	11 I
	23 - 28	12/15/2009	MW-36	590	18	0.5 U	1 I	2 U	2.9 U	20,000	2 U	24	18	42,000	9.3 I
	23 - 28	3/17/2010	MW-36	690	18	0.5 U	2.7 I	2 U	2.9 U	22,000	2 U	26	23	50,000	12 I
	23 - 28	6/10/2010	MW-36	1,000	18	0.5 U	4.1	2.4 I	2.9 U	25,000	2 U	30	35	49,000	15 I
	23 - 28	9/8/2010	MW-36	610	19	0.5 U	1.9 I	2 U	2.9 U	23,000	2 U	33	50	52,000	11 I
	23 - 28	12/16/2010	MW-36	650	21	0.5 U	2.1 I	2 U	2.9 U	25,000	2 U	32	58	52,000	9.6 I
	23 - 28	3/8/2011	MW-36	600	13	0.5 U	1.7 I	2 U	2.9 U	21,000	2.3 I	28	56	50,000	10 I
	23 - 28	6/8/2011	MW-36	610	14	0.5 U	1.5 I	2 U	2.9 U	23,000	2 U	27	56	48,000	11 I

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Table 5
Summary of Monitoring Well Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-37	35.5 - 40.5	4/25/2007	MW-37	41.9 I	0.98 U	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	7/10/2007	MW-37	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	9/10/2007	MW-37	50 U	4 U	NA	NA	NA	NA	1,670	NA	NA	NA	NA	NA
	35.5 - 40.5	3/14/2008	MW-37	22 I	0.61 J	0.47 I	0.12 U	1.1 J	1.2 U	2,000	0.15 U	91 J	1.4	31,000	11 J
	35.5 - 40.5	4/1/2008	MW-37-040108-1428	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	67,000	NA
	35.5 - 40.5	4/7/2008	MW-37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	57,000	NA
	35.5 - 40.5	4/22/2008	MW-37	50	1 IV	0.2 I	0.12 U	1.6 I	1.2 U	3,700	0.15 U	160	4.5	56,000	12 I
	35.5 - 40.5	4/23/2008	MW-37	NA	NA	NA	NA	NA	NA	2,700 V	NA	100	NA	39,000	NA
	35.5 - 40.5	4/28/2008	MW-37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	53,000	NA
	35.5 - 40.5	5/8/2008	MW-37	19 I	0.98 IV	0.065 U	0.12 U	0.62 I	1.2 U	2,900	0.15 U	110	3	43,000	6.5 U
	35.5 - 40.5	5/13/2008	MW-37	NA	NA	NA	NA	NA	NA	3,200	NA	120	NA	42,000	NA
	35.5 - 40.5	6/5/2008	MW-37	17 I	0.41 I	0.065 U	0.12 U	1.1 I	1.2 U	4,300	0.15 U	170	4.8	53,000	NA
	35.5 - 40.5	6/10/2008	MW-37	70 U	4.8 UJ	0.74 U	0.71 U	1.7 U	2.9 U	3,900	1.6 U	NA	4.7 U	NA	5.9 U
	35.5 - 40.5	7/9/2008	MW-37	200 I	4 U	5 U	1 U	2.4 I	2.9 U	4,900	2 U	150	6.9 I	54,000	8 I
	35.5 - 40.5	9/16/2008	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	5,000	2 U	180	6.2 I	56,000	5 U
	35.5 - 40.5	10/29/2008	MW-37	50 U [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	3.2 I [2 I]	2.9 U [2.9 U]	4,200 [4,200]	2 U [2 U]	140 [140]	5.7 IV [6.7 IV]	50,000 [50,000]	6.3 I [8.1 I]
	35.5 - 40.5	1/26/2009	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	4,200	2 U	150	5.9 I	47,000	5 U
	35.5 - 40.5	3/19/2009	MW-37 (BW)	15 U	4 V	0.065 U	0.12 U	1.4 IV	1.2 U	4,900	0.15 U	86	4.2 V	45,000	6.5 U
	35.5 - 40.5	3/19/2009	MW-37 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.8 I	NA	5 U
	35.5 - 40.5	7/14/2009	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,500	2 U	90	3.2 I	33,000	5 U
	35.5 - 40.5	9/14/2009	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,500	2 U	89	2.5 I	37,000	5.7 I
	35.5 - 40.5	12/14/2009	MW-37	50 U [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	1,300 [1,300]	2 U [2 U]	46 [44]	2 U [2 U]	37,000 [35,000]	5 U [5 U]
	35.5 - 40.5	3/17/2010	MW-37	50 U [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	2,900 [3,000]	2 U [2 U]	110 [110]	2.7 I [3 I]	40,000 [40,000]	28 [27]
	35.5 - 40.5	6/4/2010	MW-37	67 I	4 U	0.5 U	1 U	2 U	2.9 U	4,100	2 U	88	3.3 I	33,000	6.5 I
	35.5 - 40.5	9/2/2010	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	5,400	2 U	170	7.5 I	39,000	6.6 I
	35.5 - 40.5	12/16/2010	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,500	2 U	88	2 U	30,000	5 U
	35.5 - 40.5	3/10/2011	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	3,800	2.2 I	140	4.8 I	36,000	5 U
	35.5 - 40.5	6/8/2011	MW-37	50 U	4 U	0.5 U	1 U	2 U	2.9 U	3,300	2.1 I	72	2 U	31,000	16 I
MW-38	23 - 28	4/24/2007	MW-38	604	3.18 I	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	7/10/2007	MW-38	440 [440]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	9/10/2007	MW-38	2,230	4.1 I	NA	NA	NA	NA	38,400	NA	NA	NA	NA	NA
	23 - 28	3/14/2008	MW-38	440	2.4 J	0.19 I	0.12 U	0.9 J	1.5 I	29,000	0.62 I	15 J	0.68 I	37,000	9.2 J
	23 - 28	4/23/2008	MW-38	NA	NA	NA	NA	NA	NA	30,000 V	NA	14	NA	41,000	NA
	23 - 28	5/8/2008	MW-38	430	2.8 V	0.065 U	0.12 U	0.6 U	1.2 U	28,000 V	0.15 U	14	1.1	41,000 V	6.5 U
	23 - 28	5/13/2008	MW-38	NA	NA	NA	NA	NA	NA	28,000	NA	13	NA	37,000	NA
	23 - 28	6/4/2008	MW-38	370	1.9 I	0.065 U	0.12 U	0.6 U	1.2 U	26,000	0.15 U	13	0.32 U	34,000	NA
	23 - 28	6/10/2008	MW-38	440	4.8 UJ	0.74 U	0.71 U	1.7 U	2.9 U	27,000	4.3 I	NA	4.7 U	NA	5.9 U
	23 - 28	7/10/2008	MW-38	480	4 U	5 U	1 U	2 U	2.9 U	26,000	2 U	12	2 U	36,000	5 U
	23 - 28	9/16/2008	MW-38	560	4 U	0.5 U	1 U	2 U	2.9 U	26,000	2 U	14	2 U	33,000	12 I
	23 - 28	10/29/2008	MW-38	390	4 U	0.5 U	1 U	2 U	2.9 U	20,000	2 U	9.6	2 U	27,000	6.7 I
	23 - 28	1/26/2009	MW-38	320	4 U	0.5 U	1 U	2 U	2.9 U	18,000	2 U	9.1	2 U	21,000	5.9 I
	23 - 28	3/30/2009	MW-38 (BW)	NA	NA	NA	NA	NA	NA	20,000	NA	11	NA	NA	NA
	23 - 28	3/30/2009	MW-38 (UIC)	350	4.7 I	0.5 U	1 U	2 U	2.9 U	19,000	2 U	10	8.9	25,000	5 U
	23 - 28	7/10/2009	MW-38	360	4 U	0.5 U	1 U	2 U	2.9 U	16,000	2 U	7.1	2 U	21,000	5 U
	23 - 28	9/16/2009	MW-38	350	4 U	0.5 U	1 U	2 U	2.9 U	18,000	2 U	8	2 U	24,000	5 U
	23 - 28	12/17/2009	MW-38	340	4 U	0.5 U	1 U	2 U	2.9 U	17,000	2 U	8.1	2 U	23,000	5 U
	23 - 28	3/17/2010	MW-38	320	4 U	0.5 U	1 U	2 U	2.9 U	17,000	2 U	7.7	2 U	22,000	5 U
	23 - 28	6/9/2010	MW-38	370	4 U	0.5 U	1 U	2 U	2.9 U	15,000	2 U	7.1	2 U	18,000	5 U
	23 - 28	9/8/2010	MW-38	310	4 U	0.5 U	1 U	2 U	2.9 U	15,000	2 U	5.8	2 U	17,000	5 U
	23 - 28	12/13/2010	MW-38	250	4 U	0.5 U	1 U	2 U	2.9 U	12,000	3 I	5.8	2 U	14,000	5 U
	23 - 28	3/11/2011	MW-38	260	4 U	0.5 U	1 U	2 U	2.9 U	9,600	2 U	4.7	2 U	11,000	5 U
	23 - 28	6/7/2011	MW-38	230	4 U	0.5 U	1 U	2 U	2.9 U	7,400	2 U	4	2 U	9,000	5 U

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Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-39	35.5 - 40.5	4/24/2007	MW-39	87.5 I	0.98 U	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	7/10/2007	MW-39	160 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	9/10/2007	MW-39	210	4 U	NA	NA	NA	NA	330	NA	NA	NA	NA	NA
	35.5 - 40.5	3/14/2008	MW-39	25 I [16 I]	0.46 J [0.42 J]	0.065 U [0.065 U]	0.12 U [0.12 U]	1 J [0.89 J]	1.2 U [1.2 U]	4,500 [4,500]	0.15 U [0.15 U]	140 J [130 J]	0.38 I [0.32 U]	29,000 [28,000]	7.8 J [6.8 J]
	35.5 - 40.5	4/1/2008	MW-39-040108-1435	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41,000	NA
	35.5 - 40.5	4/7/2008	MW-39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43,000	NA
	35.5 - 40.5	4/22/2008	MW-39	120	1.2 IV	0.093 I	0.12 U	1.9 I	6.7	7,700	0.43 I	210	0.7 I	44,000	14 I
	35.5 - 40.5	4/23/2008	MW-39	NA	NA	NA	NA	NA	NA	6,200 V	NA	170	NA	43,000	NA
	35.5 - 40.5	4/28/2008	MW-39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48,000	NA
	35.5 - 40.5	5/8/2008	MW-39	26 I	1.1 IV	0.065 U	0.12 U	0.6 U	1.2 U	6,100 V	0.15 I	170	0.63 I	43,000 V	7.6 I
	35.5 - 40.5	5/13/2008	MW-39	NA	NA	NA	NA	NA	NA	6,000	NA	160	NA	41,000	NA
	35.5 - 40.5	6/4/2008	MW-39	27 I	0.33 I	0.065 U	0.12 U	0.95 I	1.2 U	6,900	0.15 U	190	0.32 U	54,000	NA
	35.5 - 40.5	6/10/2008	MW-39	470	4.8 UJ	7.5	0.71 U	8 I	8.6 I	7,800	4.3 I	NA	13 I	NA	38
	35.5 - 40.5	7/9/2008	MW-39	130 I	4 U	5 U	1 U	2 U	2.9 U	7,800	2 U	190	2 U	54,000	6.8 I
	35.5 - 40.5	9/16/2008	MW-39	90 I	4 U	0.5 U	1 U	2 U	2.9 U	6,600	2 U	150	2.6 I	45,000	9.7 I
	35.5 - 40.5	10/29/2008	MW-39	260	4 U	0.51 I	1 U	3.4 I	2.9 U	7,800	2 U	130	3.3 IV	53,000	22
	35.5 - 40.5	1/26/2009	MW-39	75 I	4 U	0.5 U	1 U	2 U	2.9 U	6,600	2 U	150	2 U	51,000	14 I
	35.5 - 40.5	3/30/2009	MW-39 (BW)	NA	NA	NA	NA	NA	NA	3,200	NA	110	NA	NA	NA
	35.5 - 40.5	3/30/2009	MW-39 (UIC)	92 I	4 U	0.5 U	1 U	2 U	2.9 U	2,800	2 U	110	2.3 I	55,000	19 I
	35.5 - 40.5	7/10/2009	MW-39	50 I	4 U	0.5 U	1 U	2.5 I	2.9 U	9,000	2 U	170	2 U	54,000	5.8 I
	35.5 - 40.5	9/16/2009	MW-39	250	4 U	0.5 U	1 U	4 I	2.9 U	37,000	2 U	290	2 U	39,000	31
	35.5 - 40.5	12/17/2009	MW-39	220	4 U	0.5 U	1 U	5.1 I	2.9 U	41,000	2 U	410	2.2 I	41,000	31
	35.5 - 40.5	3/17/2010	MW-39	50 U	4 U	0.5 U	1 U	2 U	2.9 U	2,500	2 U	49	2 U	38,000	5 U
	35.5 - 40.5	6/9/2010	MW-39	75 I [81 I]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2.4 I [2 U]	2.9 U [2.9 U]	6,500 [6,700]	2 U [2 U]	190 [190]	2 U [2 U]	31,000 [32,000]	5 U [5 U]
	35.5 - 40.5	9/8/2010	MW-39	90 I	4 U	0.5 U	1 U	2 U	2.9 U	1,300	2 U	19	2 U	9,100	5 U
	35.5 - 40.5	12/13/2010	MW-39	67 I	4 U	0.5 U	1 U	2 U	2.9 U	1,200	3.1 I	17	2 U	9,200	5 U
	35.5 - 40.5	3/11/2011	MW-39	100 I	4 U	0.5 U	1 U	2 U	2.9 U	1,700	2.1 I	27	2 U	9,700	8.6 I
	35.5 - 40.5	6/7/2011	MW-39	140 I	4 U	0.5 U	1 U	2 U	2.9 U	1,500	2 U	22	2 U	10,000	9.3 I
MW-40	23 - 28	9/11/2007	MW-40	260	4 U	NA	NA	NA	NA	31,900	NA	NA	NA	NA	NA
	23 - 28	3/14/2008	MW-40	330	5.7 J	0.065 U	0.12 U	0.82 J	1.2 U	40,000	0.18 I	16 J	1.3	54,000	7.4 J
	23 - 28	4/23/2008	MW-40	NA	NA	NA	NA	NA	NA	36,000 V	NA	15	NA	50,000	NA
	23 - 28	5/7/2008	MW-40	240	5 V	0.065 U	0.12 U	0.6 U	1.2 U	35,000 V	0.15 U	15	1	51,000 V	6.5 U
	23 - 28	6/4/2008	MW-40	240	5	0.065 U	0.12 U	0.6 U	1.2 U	39,000	0.15 U	17	0.72 I	51,000	NA
	23 - 28	6/10/2008	MW-40	290	4.8 UJ	0.74 U	0.71 U	1.7 U	2.9 U	37,000	6.4	NA	4.7 U	NA	5.9 U
	23 - 28	7/10/2008	MW-40	310	6.3 I	5 U	1 U	2 U	2.9 U	37,000	2 U	15	2 U	53,000	5 U
	23 - 28	9/16/2008	MW-40	270	5.1 I	0.5 U	1 U	2 U	2.9 U	33,000	2 U	14	2 U	49,000	5 I
	23 - 28	10/29/2008	MW-40	280	6.7 I	0.5 U	1 U	2 U	2.9 U	31,000	2 U	14	3.2 IV	47,000	5 U
	23 - 28	1/26/2009	MW-40	220	4.4 I	0.5 U	1 U	2 U	2.9 U	27,000	2 U	12	2 U	39,000	5 U
	23 - 28	3/19/2009	MW-40 (BW)	210	4.6 V	0.065 U	0.12 U	1 IV	1.2 U	27,000	0.15 U	12	1.4 V	43,000	6.5 U
	23 - 28	3/19/2009	MW-40 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 U	NA	5 U
	23 - 28	7/9/2009	MW-40	200 I	4 U	0.5 U	1 U	2 U	2.9 U	26,000	2 U	9.8	2 U	41,000	5 U
	23 - 28	9/14/2009	MW-40	270	4.1 I	0.5 U	1 U	2 U	2.9 U	34,000	2 U	14	2 U	51,000	8.4 I
	23 - 28	12/14/2009	MW-40	270	6 I	0.5 U	1 U	2 U	2.9 U	34,000	2 U	13	2 U	50,000	5 U
	23 - 28	3/18/2010	MW-40	430	4.7 I	0.5 U	1 U	2 U	2.9 U	32,000	2 U	11	2 U	48,000	5 U
	23 - 28	6/9/2010	MW-40	280	4 U	0.5 U	1 U	2 U	2.9 U	27,000	2 U	8.7	2 U	40,000	5 U
	23 - 28	9/2/2010	MW-40	320	4 U	0.5 U	1 U	2 U	2.9 U	33,000	2 U	11	2 U	40,000	5 U
	23 - 28	12/14/2010	MW-40	230	6.7 I	0.5 U	1 U	2 U	2.9 U	31,000	2 U	11	2 U	38,000	5 U
	23 - 28	3/11/2011	MW-40	380	4 U	0.5 U	1 U	2 U	2.9 U	28,000	2 U	11	2 U	34,000	5 U
	23 - 28	6/7/2011	MW-40	440	4 U	0.5 U	1 U	2 U	2.9 U	26,000	2 U	11	2 U	30,000	5 U

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Tallevast, Florida

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GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-42	23 - 28	6/23/2005	TT-MW-042-20050623	NA	NA	NA	NA	NA	NA	9,690	NA	31.9	NA	NA	NA
	23 - 28	1/31/2006	MW-42	NA	NA	NA	NA	NA	NA	8,000	NA	26	NA	NA	NA
	23 - 28	4/24/2007	MW-42	264	17.6	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	7/11/2007	MW-42	240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	9/10/2007	MW-42	260 [360]	8.1 I [7.9 I]	NA	NA	NA	NA	7,570 [7,420]	NA	NA	NA	NA	NA
	23 - 28	3/14/2008	MW-42	180	16 J	0.065 U	0.48 J	0.66 J	1.2 U	7,000	0.15 U	16 J	5.3	40,000	26 J
	23 - 28	4/23/2008	MW-42	NA	NA	NA	NA	NA	NA	6,800 V	NA	17	NA	46,000	NA
	23 - 28	5/7/2008	MW-42	160	16 V	0.065 U	0.12 U	0.6 U	1.2 U	6,300 V	0.15 U	13	3	40,000 V	6.5 U
	23 - 28	5/13/2008	MW-42	NA	NA	NA	NA	NA	NA	6,400	NA	14	NA	39,000	NA
	23 - 28	6/4/2008	MW-42	170	15	0.065 U	0.32 I	1.3 I	1.2 U	6,200	0.15 U	16	4.9	39,000	NA
	23 - 28	6/10/2008	MW-42	200	13 J	0.74 U	0.71 U	1.7 U	2.9 U	6,700	1.8 I	NA	4.7 U	NA	20
	23 - 28	7/10/2008	MW-42	260	15	5 U	1 U	2 U	2.9 U	6,200	2 U	15	4.1 I	44,000	5.3 I
	23 - 28	9/16/2008	MW-42	240	16	0.5 U	1 U	2 U	2.9 U	6,500	2 U	17	6.8 I	43,000	7.4 I
	23 - 28	10/29/2008	MW-42	210	17	0.5 U	1 U	2 U	2.9 U	6,300	2 U	16	7.3 IV	42,000	8.1 I
	23 - 28	1/26/2009	MW-42	170 I	12	0.5 U	1 U	2 U	2.9 U	5,700	2 U	14	3.2 I	35,000	8.8 I
	23 - 28	3/18/2009	MW-42 (BW)	180	14	0.065 U	0.12 U	0.6 U	1.2 U	6,200	0.15 U	15	6	39,000	58
	23 - 28	3/18/2009	MW-42 (UIC)	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.1 I	NA	5 U
	23 - 28	7/10/2009	MW-42	250	17	0.5 U	1 U	2 U	2.9 U	6,200	2 U	15	5.4 I	38,000	17 I
	23 - 28	9/15/2009	MW-42	190 I	17	0.5 U	1 U	2 U	2.9 U	5,700	2 U	13	3.7 I	39,000	5 U
	23 - 28	12/14/2009	MW-42	200	19	0.5 U	1 U	2 U	2.9 U	6,400	2 U	14	4.7 I	43,000	6.7 I
	23 - 28	3/18/2010	MW-42	250 [200 I]	19 [17]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	7,500 [6,500]	2 U [2 U]	13 [13]	4.3 I [4.2 I]	43,000 [44,000]	9 I [7.8 I]
	23 - 28	6/8/2010	MW-42	230	14	0.5 U	1 U	2 U	2.9 U	6,200	2 U	11	2.4 I	39,000	10 I
	23 - 28	9/2/2010	MW-42	220	20	0.5 U	1 U	2 U	2.9 U	7,300	2 U	12	3.4 I	42,000	8.3 I
	23 - 28	12/14/2010	MW-42	190 I	18	0.5 U	1 U	2 U	2.9 U	5,800	2 U	12	3.4 I	37,000	5 U
	23 - 28	3/8/2011	MW-42	210	16	0.5 U	1 U	2 U	2.9 U	6,000	2 U	10	2.1	33,000	11 I
	23 - 28	6/9/2011	MW-42	260	18	0.5 U	1 U	2 U	2.9 U	5,800	2 U	8.6	2 U	26,000	5 U
MW-43	35.5 - 40.5	4/24/2007	MW-43	31 U	0.98 U	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	7/11/2007	MW-43	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	35.5 - 40.5	9/10/2007	MW-43	130 I	4 U	NA	NA	NA	NA	10,600	NA	NA	NA	NA	NA
	35.5 - 40.5	3/14/2008	MW-43	26 I	0.38 J	0.065 U	0.12 U	1.1 J	7.4	10,000	0.15 I	120 J	2.7	62,000	12 J
	35.5 - 40.5	4/1/2008	MW-43-040108-1440	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110,000	NA
	35.5 - 40.5	4/7/2008	MW-43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	94,000	NA
	35.5 - 40.5	4/22/2008	MW-43	1,000	1.2 IV	0.065 U	0.12 U	5.1	1.2 U	13,000	0.32 I	170	3.5	86,000	13 I
	35.5 - 40.5	4/23/2008	MW-43	NA	NA	NA	NA	NA	NA	13,000 V	NA	140	NA	75,000	NA
	35.5 - 40.5	4/28/2008	MW-43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110,000	NA
	35.5 - 40.5	5/8/2008	MW-43	17 I	0.61 IV	0.065 U	0.12 U	0.6 U	1.2 U	7,100	0.15 U	110	2.4	63,000	6.5 U
	35.5 - 40.5	5/13/2008	MW-43	NA	NA	NA	NA	NA	NA	12,000	NA	130	NA	69,000	NA
	35.5 - 40.5	6/4/2008	MW-43	170	0.39 I	0.065 U	0.12 U	1.7 I	1.2 U	8,400	0.15 U	99	1.7	52,000	NA
	35.5 - 40.5	6/10/2008	MW-43	1,300	4.8 UJ	0.74 U	0.71 U	7.2 I	2.9 U	17,000	4.3 I	NA	5.2 I	NA	6.6 I
	35.5 - 40.5	7/9/2008	MW-43	190 I	4 U	5 U	1 U	2 U	2.9 U	12,000	2 U	140	3.4 I	85,000	8.7 I
	35.5 - 40.5	9/16/2008	MW-43	120 I	4 U	0.5 U	1 U	2 U	2.9 U	7,800	2 U	97	2.9 I	54,000	18 I
	35.5 - 40.5	10/30/2008	MW-43	100 I	4 U	0.5 U	1 U	2 U	2.9 U	7,300	2 U	90	2.2 I	53,000	14 I
	35.5 - 40.5	1/26/2009	MW-43	50 U	4 U	0.5 U	1 U	2 U	2.9 U	5,200	2 U	71	2 U	40,000	5 U
	35.5 - 40.5	3/23/2009	MW-43 (BW)	NA	NA	NA	NA	NA	NA	8,900	NA	120	NA	NA	NA
	35.5 - 40.5	3/23/2009	MW-43 (UIC)	90 I	4 U	0.5 U	1 U	2.7 I	2.9 U	7,800	2 U	100	3.3 I	54,000	17 I
	35.5 - 40.5	7/10/2009	MW-43	57 I	4 U	0.5 U	1 U	2 U	2.9 U	10,000	2 U	150	2.2 I	84,000	6.5 I
	35.5 - 40.5	9/15/2009	MW-43	50 U	4 U	0.5 U	1 U	2 U	2.9 U	10,000	2 U	170	2.7 I	96,000	5 U
	35.5 - 40.5	12/14/2009	MW-43	50 U	4 U	0.5 U	1 U	2 U	2.9 U	8,000	2 U	140	2.4 I	89,000	5 U
	35.5 - 40.5	3/18/2010	MW-43	69 I	4 U	0.5 U	1 U	2 U	2.9 U	9,400	2 U	170	3.2 I	100,000	7.2 I
	35.5 - 40.5	6/4/2010	MW-43	70 I	4 U	0.5 U	1 U	2 U	2.9 U	7,000	2 U	120	2.3 I	77,000	5 U
	35.5 - 40.5	9/2/2010	MW-43	90 I	4 U	0.5 U	1 U	2.1 I	2.9 U	9,400	2 U	170	4.1 I	92,000	8.8 I
	35.5 - 40.5	12/14/2010	MW-43	66 I	4 U	0.5 U	1 U	2 I	2.9 U	7,200	2 U	130	2.3 I	77,000	5.2 I
	35.5 - 40.5	3/8/2011	MW-43	130 I	4 U	0.5 U	1 U	2 U	2.9 U	4,600	2 U	87	2 U	58,000	5 U
	35.5 - 40.5	6/8/2011	MW-43	50 U	4 U	0.5 U	1 U	2 U	2.9 U	6,600	2.1 I	120	2 U	68,000	5 U

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Table 5
Summary of Monitoring Well Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-70	23 - 29	6/23/2005	TT-MW-070-20050623	NA	NA	NA	NA	NA	NA	64,300	NA	75.2	NA	NA	NA
	23 - 29	2/2/2006	MW-70	NA	NA	NA	NA	NA	NA	62,000	NA	65	NA	NA	NA
	23 - 29	4/24/2007	MW-70	1,120	2.6 I	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 29	7/11/2007	MW-70	920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 29	9/11/2007	MW-70	230	4 U	NA	NA	NA	NA	8,000	NA	NA	NA	NA	NA
	23 - 29	3/13/2008	MW-70	620	3.4	0.065 U	0.12 U	1.3 I	22	36,000	0.31 I	27	1.7	42,000	18 J
	23 - 29	5/6/2008	MW-70	410	3.7 V	0.065 U	0.12 U	0.6 U	1.2 U	37,000 V	0.18 I	27	0.74 I	37,000 V	10 I
	23 - 29	5/13/2008	MW-70	NA	NA	NA	NA	NA	NA	32,000	NA	25	NA	32,000	NA
	23 - 29	6/4/2008	MW-70	340	3.5	0.065 U	0.12 U	0.75 I	1.2 U	30,000	0.15 U	24	0.32 U	31,000	NA
	23 - 29	6/11/2008	MW-70	2,000	4.8 UJ	0.74 U	0.71 U	3.7 I	2.9 U	38,000	8.2	NA	4.7 U	NA	47
	23 - 29	7/10/2008	MW-70	460	4 U	5 U	1 U	2 U	2.9 U	27,000	2 U	22	2 U	30,000	20
	23 - 29	9/18/2008	MW-70	210	4.1 I	0.5 U	1 U	2 U	2.9 U	28,000	2 U	24	2 U	34,000	9.8 I
	23 - 29	10/30/2008	MW-70	280	8.8 I	0.5 U	1 U	2 U	2.9 U	35,000	2 U	73	2.7 IV	38,000	18 I
	23 - 29	1/27/2009	MW-70	120 I	4 U	0.5 U	1 U	2 U	2.9 U	1,600	2 U	10	2 U	17,000	150
	23 - 29	3/26/2009	MW-70 (UIC)	280 [270]	4.5 I [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	34,000 [35,000]	2 U [2 U]	26 [27]	2 U [2 U]	38,000 [39,000]	5 U [5 U]
	23 - 29	7/14/2009	MW-70	260	6.1 I	0.5 U	1 U	2 U	2.9 U	24,000	2 U	21	2 U	36,000	5 U
	23 - 29	9/15/2009	MW-70	350 [350]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	29,000 J [30,000]	2 U [2 U]	24 [25]	2 U [2 U]	39,000 [39,000]	5 U [5 U]
	23 - 29	12/9/2009	MW-70	350	6.3 I	0.5 U	1 U	2 U	2.9 U	31,000	2 U	24	2 U	40,000	5 U
	23 - 29	3/15/2010	MW-70	300	5.7 I	0.5 U	1 U	2 U	2.9 U	30,000 J	2 U	22	2 U	40,000	5 U
	23 - 29	6/7/2010	MW-70	440	4.5 I	0.5 U	1 U	2 U	2.9 U	24,000	2 U	20	2 U	38,000	5.4 I
	23 - 29	9/14/2010	MW-70	210	4 U	0.5 U	1 U	2 U	2.9 U	21,000 J	2 U	18	2 U	37,000 J	5 U
	23 - 29	12/15/2010	MW-70	300 [320]	7.6 I [9.3 I]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	29,000 [28,000]	2 U [2 U]	20 [19]	2 U [2 U]	36,000 [34,000]	5 U [5 U]
	23 - 29	3/7/2011	MW-70	310	5.7 I	0.5 U	1 U	2 U	2.9 U	24,000	2 U	17	2 U	32,000	5 U
	23 - 29	6/8/2011	MW-70	280	5.6 I	0.5 U	1 U	2 U	2.9 U	25,000	2 U	20	2 U	30,000	5 U
MW-71	24 - 29	4/25/2007	MW-71	230	0.98 U	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	24 - 29	7/11/2007	MW-71	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	24 - 29	9/12/2007	MW-71	290	4 U	NA	NA	NA	NA	900	NA	NA	NA	NA	NA
	24 - 29	3/13/2008	MW-71	1,300	1.6 I	0.074 I	0.12 U	2.1 I	1.2 U	2,300	0.6 I	6.3	1.2	24,000	7 J
	24 - 29	5/6/2008	MW-71	380	1.8 IV	0.065 U	0.12 U	0.89 I	1.2 U	1,200 V	0.18 I	6.5	0.87 I	24,000 V	6.5 U
	24 - 29	5/13/2008	MW-71	NA	NA	NA	NA	NA	NA	1,200	NA	4.8 I	NA	23,000	NA
	24 - 29	6/4/2008	MW-71	550	1.5 I	0.065 U	0.12 U	1.8 I	1.2 U	1,400	0.21 I	6.6	0.32 U	23,000	NA
	24 - 29	6/11/2008	MW-71	2,100	14	0.74 U	1.2 I	17	2.9 U	2,700	5 I	NA	4.7 U	NA	15 I
	24 - 29	7/10/2008	MW-71	320	4 U	5 U	1 U	2 U	2.9 U	910	2 U	4.5	2 U	19,000	5 U
	24 - 29	9/17/2008	MW-71	560	4 U	0.5 U	1 U	2 U	2.9 U	1,300	2 U	6.9	2 U	18,000	5 U
	24 - 29	10/30/2008	MW-71	540	4 U	0.5 U	1 U	2.4 I	2.9 U	1,100	2 U	6.5	2 U	17,000	13 I
	24 - 29	1/27/2009	MW-71	840	4 U	0.5 U	1 U	2 U	2.9 U	1,100	2 U	5.6	2 U	15,000	5 U
	24 - 29	3/23/2009	MW-71 (BW)	NA	NA	NA	NA	NA	NA	980	NA	6.1	NA	NA	NA
	24 - 29	3/23/2009	MW-71 (UIC)	140 I	4 U	0.5 U	1 U	2 U	2.9 U	1,100	2 U	6.1	2 U	19,000	5 U
	24 - 29	7/14/2009	MW-71	210	4 U	0.5 U	1 U	2 U	2.9 U	760	2 U	3.9 I	2 U	17,000	5 U
	24 - 29	9/11/2009	MW-71	180 I	4 U	0.5 U	1 U	2 U	2.9 U	720	2 U	4.2	2 U	16,000	7.8 I
	24 - 29	12/9/2009	MW-71	180 I	4 U	0.5 U	1 U	2 U	2.9 U	760	2 U	4.5	2 U	15,000	5 U
	24 - 29	3/15/2010	MW-71	220	4 U	0.5 U	1 U	2 I	2.9 U	640	2 U	4.1	2 U	13,000	5 U
	24 - 29	6/7/2010	MW-71	230	4 U	0.5 U	1 U	2 U	2.9 U	630	2 U	3.6 I	2 U	12,000	5 U
	24 - 29	9/8/2010	MW-71	200	4 U	0.5 U	1 U	2 U	2.9 U	460	2 U	3.3 I	2 U	10,000	5 U
	24 - 29	12/9/2010	MW-71	180 I	4 U	0.5 U	1 U	2 U	2.9 U	460	2.7 I	3.7 I	2 U	11,000	5 U
	24 - 29	3/7/2011	MW-71	190 I	4 U	0.5 U	1 U	2 U	2.9 U	280	2 U	2.6 I	2 U	8,800	5 U
	24 - 29	6/6/2011	MW-71	180 I	4 U	0.5 U	1 U	2 U	2.9 U	340	2 U	2.4 I	2 U	7,700	5 U

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Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-72	23.5 - 28.5	4/24/2007	MW-72	3,740	3.9 I	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23.5 - 28.5	7/11/2007	MW-72	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23.5 - 28.5	9/10/2007	MW-72	1,140	4 U	NA	NA	NA	NA	9,700	NA	NA	NA	NA	NA
	23.5 - 28.5	3/13/2008	MW-72	810	4.9	0.065 U	0.12 U	0.6 U	1.2 U	9,100	0.15 U	14	0.35 I	46,000	16 J
	23.5 - 28.5	4/23/2008	MW-72	NA	NA	NA	NA	NA	NA	8,600 V	NA	14	NA	47,000	NA
	23.5 - 28.5	5/8/2008	MW-72	680	5.8 V	0.065 U	0.12 U	0.6 U	1.2 IV	8,500	0.15 U	14	0.36 I	52,000	6.5 U
	23.5 - 28.5	5/13/2008	MW-72	NA	NA	NA	NA	NA	NA	9,100	NA	14	NA	46,000	NA
	23.5 - 28.5	6/5/2008	MW-72	410	4.7	0.065 U	0.12 U	0.6 U	1.2 U	8,500	0.15 U	14	0.32 U	43,000	NA
	23.5 - 28.5	6/11/2008	MW-72	480	4.8 UJ	0.74 U	0.71 U	1.7 U	2.9 U	10,000	2 I	NA	4.7 U	NA	5.9 U
	23.5 - 28.5	7/10/2008	MW-72	570	4 U	5 U	1 U	2 U	2.9 U	9,600	2 U	17	2 U	49,000	5 U
	23.5 - 28.5	9/19/2008	MW-72	540	6.9 I	0.5 U	1 U	2 U	2.9 U	11,000	2 U	16	2 U	51,000	5.7 I
	23.5 - 28.5	10/30/2008	MW-72	760	7.8 I	0.5 U	1 U	2 U	2.9 U	10,000	2 U	16	2 U	50,000	5 U
	23.5 - 28.5	1/27/2009	MW-72	610	5.8 I	0.5 U	1 U	2 U	2.9 U	10,000	2 U	16	2 U	48,000	5 U
	23.5 - 28.5	3/23/2009	MW-72 (BW)	NA	NA	NA	NA	NA	NA	11,000	NA	15	NA	NA	NA
	23.5 - 28.5	3/23/2009	MW-72 (UIC)	640	4 U	0.5 U	1 U	2 U	2.9 U	11,000 J	2 U	16	2 U	50,000 J	12 I
	23.5 - 28.5	7/13/2009	MW-72	560 [530]	7.2 I [4.7 I]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	11,000 [11,000]	2 U [2 U]	16 [15]	2 U [2 U]	55,000 [52,000]	5 U [5 U]
	23.5 - 28.5	9/11/2009	MW-72	810	7.6 I	0.5 U	1 U	2 U	2.9 U	10,000	2 U	15	2 U	54,000	5.6 I
	23.5 - 28.5	12/16/2009	MW-72	960	4 U	0.5 U	1 U	2 U	2.9 U	11,000	2 U	15	2 U	53,000	5 U
	23.5 - 28.5	3/16/2010	MW-72	1,300	4 U	0.5 U	1 U	2 U	2.9 U	9,400	2 U	14	2 U	55,000	5.1 I
	23.5 - 28.5	6/4/2010	MW-72	2,700	6.3 I	0.5 U	1 U	2 U	2.9 U	10,000	2 U	18	2 U	56,000	9.5 I
	23.5 - 28.5	9/8/2010	MW-72	470	4 U	0.5 U	1 U	2 U	2.9 U	9,400	2 U	17	2 U	54,000	5 U
	23.5 - 28.5	12/13/2010	MW-72	5,800	4 U	0.5 U	1 U	2 U	2.9 U	7,100	3.7 I	12	2 U	52,000	5 U
	23.5 - 28.5	3/8/2011	MW-72	1,300	4 U	0.5 U	1 U	2 U	2.9 U	9,100	2 U	15	2 U	53,000	5 U
	23.5 - 28.5	6/8/2011	MW-72	1,300 [920]	4 U [4 I]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	9,200 [8,900]	2 U [2 U]	14 [13]	2 U [2 U]	52,000 [52,000]	5 U [5 U]
MW-76	23 - 28	4/24/2007	MW-76	275	3.1 I	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	7/10/2007	MW-76	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	23 - 28	9/11/2007	MW-76	170 I	4 U	NA	NA	NA	NA	7,130	NA	NA	NA	NA	NA
	23 - 28	3/13/2008	MW-76	6,000	4.7	0.13 I	0.15 I	8.5	1.2 U	11,000	2.3	11	2.1	30,000	6.5 U
	23 - 28	5/6/2008	MW-76	1,200	4.6 V	0.065 U	0.12 U	1.3 I	1.2 U	11,000 V	0.41 I	8.4	0.87 I	29,000 V	6.5 U
	23 - 28	5/13/2008	MW-76	NA	NA	NA	NA	NA	NA	7,000	NA	5.3	NA	23,000	NA
	23 - 28	6/4/2008	MW-76	1,200	4	0.065 U	0.12 U	2.2 I	1.2 U	8,900	0.47 I	7.8	0.62 I	24,000	NA
	23 - 28	6/11/2008	MW-76	200 I	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	5,200	1.6 U	NA	4.7 U	NA	5.9 U
	23 - 28	6/18/2008	MW-76	240	4.8 U	0.74 U	0.71 U	1.7 U	2.9 U	5,400	1.6 U	5.5 I	4.7 U	20,000	5.9 U
	23 - 28	7/10/2008	MW-76	320 [320]	4 U [4.8 I]	5 U [5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	7,800 [7,900]	2 U [2 U]	6.3 [6.5]	2 U [2 U]	23,000 [24,000]	5 U [5 U]
	23 - 28	9/17/2008	MW-76	1,100	4 U	0.5 U	1 U	2 U	2.9 U	7,700	2 U	7	2 U	22,000	5 U
	23 - 28	10/30/2008	MW-76	190 I	5.3 I	0.5 U	1 U	2 U	2.9 U	7,900	2 U	7.3	2 U	25,000	5 U
	23 - 28	1/27/2009	MW-76	420	4.7 I	0.5 U	1 U	2 U	2.9 U	5,200	2 U	7.5	2 U	24,000	5 U
	23 - 28	3/25/2009	MW-76 (UIC)	340	4 U	0.5 U	1 U	2 U	2.9 U	7,500	2 U	6.6	2 U	25,000	5 U
	23 - 28	7/14/2009	MW-76	230	4.4 I	0.5 U	1 U	2 U	2.9 U	8,600	2 U	7.1	2 U	24,000	5 U
	23 - 28	9/15/2009	MW-76	200 I	4 U	0.5 U	1 U	2 U	2.9 U	9,600	2 U	8	2 U	26,000	5 U
	23 - 28	12/9/2009	MW-76	190 I	4 U	0.5 U	1 U	2 U	2.9 U	12,000	2 U	10	2 U	29,000	5 U
	23 - 28	3/16/2010	MW-76	290	4 U	0.5 U	1 U	2 U	2.9 U	10,000	2 U	11	2 U	27,000	5 U
	23 - 28	6/7/2010	MW-76	260	4 U	0.5 U	1 U	2 U	2.9 U	17,000	2 U	13	2 U	34,000	5 U
	23 - 28	9/10/2010	MW-76	220	5.5 I	0.5 U	1 U	2 U	2.9 I	22,000	2 U	16	2 U	38,000	6.8 I
	23 - 28	12/15/2010	MW-76	240	4 U	0.5 U	1 U	2 U	2.9 U	21,000 J	2 U	17	2 U	35,000	5 U
	23 - 28	3/7/2011	MW-76	290	4 U	0.5 U	1 U	2 U	2.9 U	14,000	2.2 I	13	2 U	25,000	5 U
	23 - 28	6/7/2011	MW-76	260	5.5 I	0.5 U	1 U	2 U	2.9 U	22,000	2 U	20	2 U	34,000	5 U

See Notes on Page 11.

Table 5
Summary of Monitoring Well Sample Analytical Results - Metals
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Location ID:	Depth feet	Date Collected	Sample Name	Aluminum µg/L	Arsenic µg/L	Beryllium µg/L	Cadmium µg/L	Chromium µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Manganese µg/L	Nickel µg/L	Sodium µg/L	Zinc µg/L
GCTL				200	10	4	5	100	1,000	300	15	50	100	160,000	5,000
MW-80	36 - 41	4/24/2007	MW-80	80.1 I	0.98 U	0.81 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	36 - 41	7/11/2007	MW-80	50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	36 - 41	9/10/2007	MW-80	50 U	4 U	NA	NA	NA	NA	450	NA	NA	NA	NA	NA
	36 - 41	3/18/2008	MW-80	15 U	0.55 J	0.065 U	0.12 U	1.2 J	1.2 U	370	0.15 U	49 J	0.32 U	29,000	8.7 J
	36 - 41	4/1/2008	MW-80-040108-1454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32,000	NA
	36 - 41	4/7/2008	MW-80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28,000	NA
	36 - 41	4/22/2008	MW-80	66	1.3 IV	0.065 U	0.12 U	1.6 I	1.2 U	610	1 I	71	0.47 I	32,000	15 I
	36 - 41	4/23/2008	MW-80	NA	NA	NA	NA	NA	NA	430 V	NA	51	NA	31,000	NA
	36 - 41	4/28/2008	MW-80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29,000	NA
	36 - 41	5/8/2008	MW-80	25 I	1 IV	0.065 U	0.12 U	0.77 I	1.3 IV	480	0.16 I	60	0.53 I	33,000	17 I
	36 - 41	5/13/2008	MW-80	NA	NA	NA	NA	NA	NA	450	NA	54	NA	32,000	NA
	36 - 41	6/5/2008	MW-80	15 U	0.62 I	0.065 U	0.48 I	0.9 I	9.8	500	0.22 I	58	0.57 I	29,000	NA
	36 - 41	6/11/2008	MW-80	70 U	4.8 UJ	0.74 U	0.71 U	2.4 I	2.9 U	1,800	1.6 U	NA	4.7 U	NA	5.9 U
	36 - 41	7/10/2008	MW-80	50 U	4 U	5 U	1 U	2 U	2.9 U	550	2 U	63	2 U	34,000	5 U
	36 - 41	9/18/2008	MW-80	50 U	4 U	0.5 U	1 U	2 U	2.9 U	580	2 U	58	2 U	34,000	6 I
	36 - 41	10/30/2008	MW-80	180 I	4 U	0.5 U	1 U	3 I	2.9 U	890	2 U	66	2 U	33,000	23
	36 - 41	1/27/2009	MW-80	50 U	4 U	0.5 U	1 U	2 U	2.9 U	520	2 U	52	2 U	30,000	6.8 I
	36 - 41	3/23/2009	MW-80 (BW)	NA	NA	NA	NA	NA	NA	440	NA	50	NA	NA	NA
	36 - 41	3/23/2009	MW-80 (UIC)	50 U [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	470 [430]	2 U [2 U]	52 [49]	2 U [2 U]	32,000 [31,000]	5 U [12 I]
	36 - 41	7/13/2009	MW-80	53 I [50 U]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	410 [410]	2 U [2 U]	51 [51]	2 U [2 U]	36,000 [35,000]	5 U [5 U]
	36 - 41	9/14/2009	MW-80	50 U [51 I]	4 U [4 U]	0.5 U [0.5 U]	1 U [1 U]	2 U [2 U]	2.9 U [2.9 U]	530 [530]	2 U [2 U]	56 [56]	2 U [2 U]	37,000 [38,000]	5.8 I [5 U]
	36 - 41	12/16/2009	MW-80	50 U	4 U	0.5 U	1 U	2 U	2.9 U	470	2 U	53	2 U	38,000	6 I
	36 - 41	3/18/2010	MW-80	85 I	4 U	0.5 U	1 U	2 U	3.5 I	570	2 U	53	2 U	39,000	8 I
	36 - 41	6/4/2010	MW-80	50 U	4 U	0.5 U	1 U	2 U	2.9 U	560	2 U	57	2 U	41,000	5 U
	36 - 41	9/8/2010	MW-80	81 I	4 U	0.5 U	1 U	2.2 I	2.9 U	780	2 U	63	2 U	37,000	5.5 I
	36 - 41	12/13/2010	MW-80	50 U	4 U	0.5 U	1 U	2 U	2.9 U	560	8.5 I	54	2 U	38,000	5.8 I
	36 - 41	3/8/2011	MW-80	120 I	4 U	0.5 U	1 U	2 U	2.9 U	580	2.4 I	54	2 U	38,000	11 I
	36 - 41	6/8/2011	MW-80	98 I	4 U	0.5 U	1 U	2 U	2.9 U	580	2 U	54	2 U	39,000	8.4 I

Notes:

- 1. Bold font** indicates exceedance of Groundwater Cleanup Target Levels (GCTL)
- BW - Blended Water sample
- GCTL - Groundwater Cleanup Target Levels.
- I - Detected but below reporting limit. Result is an estimated concentration.
- J - Estimated value.
- J3 - Estimated value. Spike recovery or RPD outside of criteria.
- µg/l - Micrograms per liter.
- NA - Not Analyzed
- U - The analyte was analyzed for, but not detected.
- UIC - Underground Injection Control.
- UJ - The analyte was analyzed for, but not detected. The reporting limit is an estimated value.
- V - Indicates the analyte was detected in both the sample and the associated method blank.

Table 6
Persulfate Pilot Study Monitoring Summary
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

	Study Area Monitoring Wells (CO Wells)	USAS / LSAS Monitoring Wells (MW Wells)
Aluminum	- Mostly returned to at or near baseline - Residual exceedances of the GCTL (200 ug/L)	No observable increase in concentrations, except in MW-72
Arsenic	Returned to baseline / less than the GCTL (10 ug/L) in all wells	No observable increase in concentrations
Iron	- Baseline > GCTL (300 ug/L) - Concentrations in most wells have returned to baseline level - CO-B4D increased in last year but still below baseline - CO-D1D increased above baseline in last year	No observable increase in concentrations, except for MW-36 and MW-76
Nickel	Concentrations returned to less than the GCTL (100 ug/L) and/or background	Few detections, no observable increase in concentrations, except for MW-36 which is still below the GCTL
Manganese	Concentrations returned to baseline (10 – 80 ug/L) and/or less than GCTL (50 ug/L)	- Below GCTL in USAS MWs - Above GCTL in LSAS MWs but not a significant deviation from the baseline
Sodium	Concentrations returned to baseline/less than the GCTL (160,000 ug/L)	- No exceedances - Concentrations returned to baseline in most wells with some slightly upward trending still below GCTL
Sulfate	- Concentrations returned to baseline (250 – 350 mg/L) in wells nearest injection well (4-7') except CO-B4D which shows a trailing response - Concentrations continue to indicate a trailing response in wells further from the injection well (10-14')	- Some wells exhibited concentrations greater than GCTL (250 mg/L) - No observable increase in concentrations, except in MW-36 and slightly in MW-76
TDS	- Concentrations returned to baseline (290 – 690 mg/L) in wells nearest injection well (4-7') except CO-B4D which shows a trailing response - Concentrations continue to indicate a trailing response in wells further from the injection well (10-14')	No observable increase in concentrations, except in MW-36

Table 7
Proposed Wells for Abandonment
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

Well ID	Installation Date	Aquifer Zone
USAS ISCO Pilot Test Wells		
IW-2	2/13/2008	USAS
CO-A2D	2/15/2008	USAS
CO-A2S	2/13/2008	USAS
CO-A3D	2/14/2008	USAS
CO-A3S	2/13/2008	USAS
CO-A4D	2/14/2008	USAS
CO-B1S	2/11/2008	USAS
CO-B2D	2/15/2008	USAS
CO-B3D	2/14/2008	USAS
CO-B5D	2/14/2008	USAS
CO-B5S	2/13/2008	USAS
CO-C1S	2/12/2008	USAS
CO-C2D	2/11/2008	USAS
CO-C3D	2/11/2008	USAS
CO-C3S	2/11/2008	USAS
CO-D1S	2/12/2008	USAS
USAS Tracer Test Wells		
IW-1	2/15/2008	USAS
T-A1D	2/18/2008	USAS
T-A1S	2/15/2008	USAS
T-A2D	2/18/2008	USAS
T-A2S	2/19/2008	USAS
T-A3D	2/19/2008	USAS
T-A3S	2/15/2008	USAS
T-A4D	2/18/2008	USAS
T-A4S	2/15/2008	USAS
T-B1D	2/18/2008	USAS
T-B1S	2/15/2008	USAS
T-B2D	2/18/2008	USAS
T-B2S	2/15/2008	USAS
T-B3D	2/14/2008	USAS
T-B3S	2/15/2008	USAS
T-B4D	2/14/2008	USAS
T-B4S	2/11/2008	USAS
T-B5D	2/18/2008	USAS
T-B5S	2/15/2008	USAS
T-C1D	2/12/2008	USAS
T-C1S	2/13/2008	USAS
T-C2D	2/12/2008	USAS
T-C2S	2/13/2008	USAS
T-C3D	2/12/2008	USAS
T-C3S	2/14/2008	USAS
T-C4D	2/13/2008	USAS
T-C4S	2/14/2008	USAS
T-C5D	2/13/2008	USAS
T-C5S	2/14/2008	USAS
T-C6D	2/13/2008	USAS
T-C6S	2/14/2008	USAS

See Notes on Page 2.

Table 7
Proposed Wells for Abandonment
Persulfate Pilot Study Groundwater Monitoring Status Report
Lockheed Martin, Tallevast Site
Tallevast, Florida

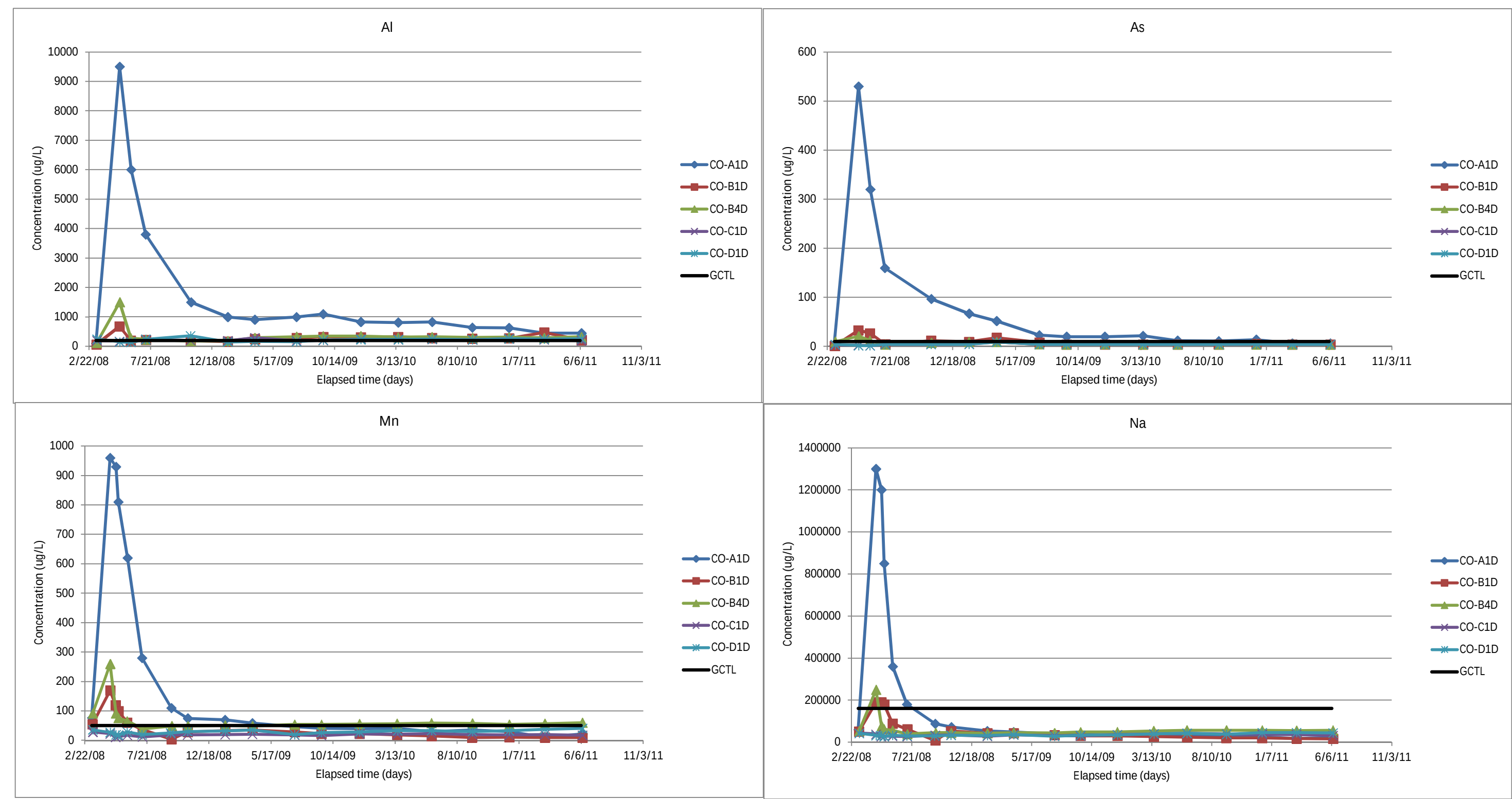
Well ID	Installation Date	Aquifer Zone
LSAS Tracer Test Wells		
TL-INJ (IW-3)	2/5/2008	LSAS
TL-4-1	2/8/2008	LSAS
TL-4-2	2/7/2008	LSAS
TL-4-3	2/7/2008	LSAS
TL-5-1	3/14/2008	LSAS
TL-7-1	2/6/2008	LSAS
TL-10-1	2/6/2008	LSAS

Notes:

1. LSAS = Lower Shallow Aquifer System
2. USAS = Upper Surficial Aquifer System
3. ISCO = In-Situ Chemical Oxidation Pilot Test

FIGURES

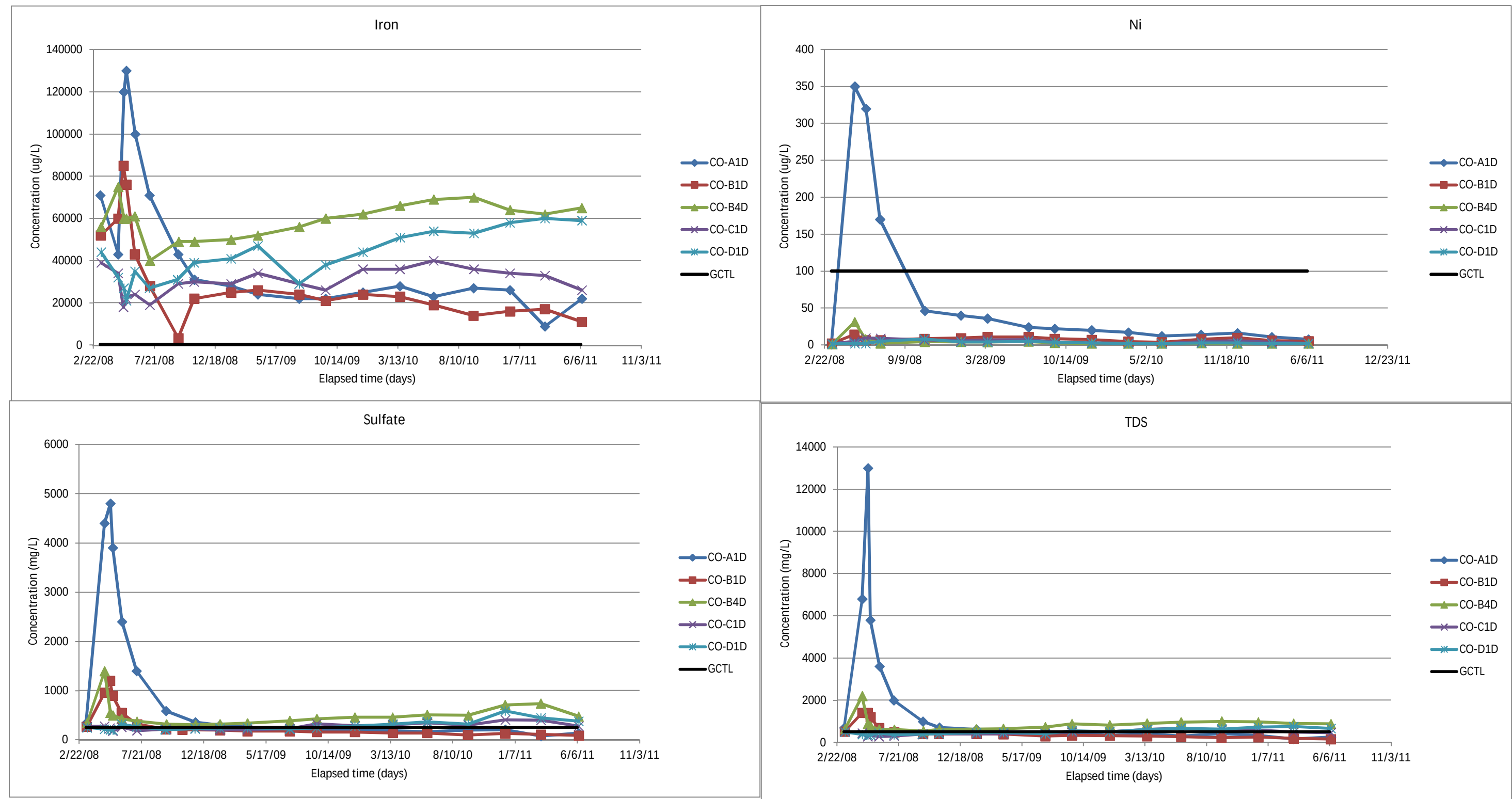
Figure 1 Concentration Trends of Select Persulfate Pilot Study Parameters in Study Area Monitoring Wells (4-14 Feet from Injection Well IW-2)



Legend:

- ug/L- micrograms per liter
- UIC- Underground Injection Control
- GCTL- Groundwater Cleanup Target Levels
- Al- aluminum
- As- arsenic
- Mn- manganese
- Na- sodium
- CO-A wells are located approximately 4 feet from the injection well
- CO-B wells are located approximately 7 feet from the injection well
- CO-C wells are located approximately 10 feet from the injection well
- CO-D wells are located approximately 14 feet from the injection well

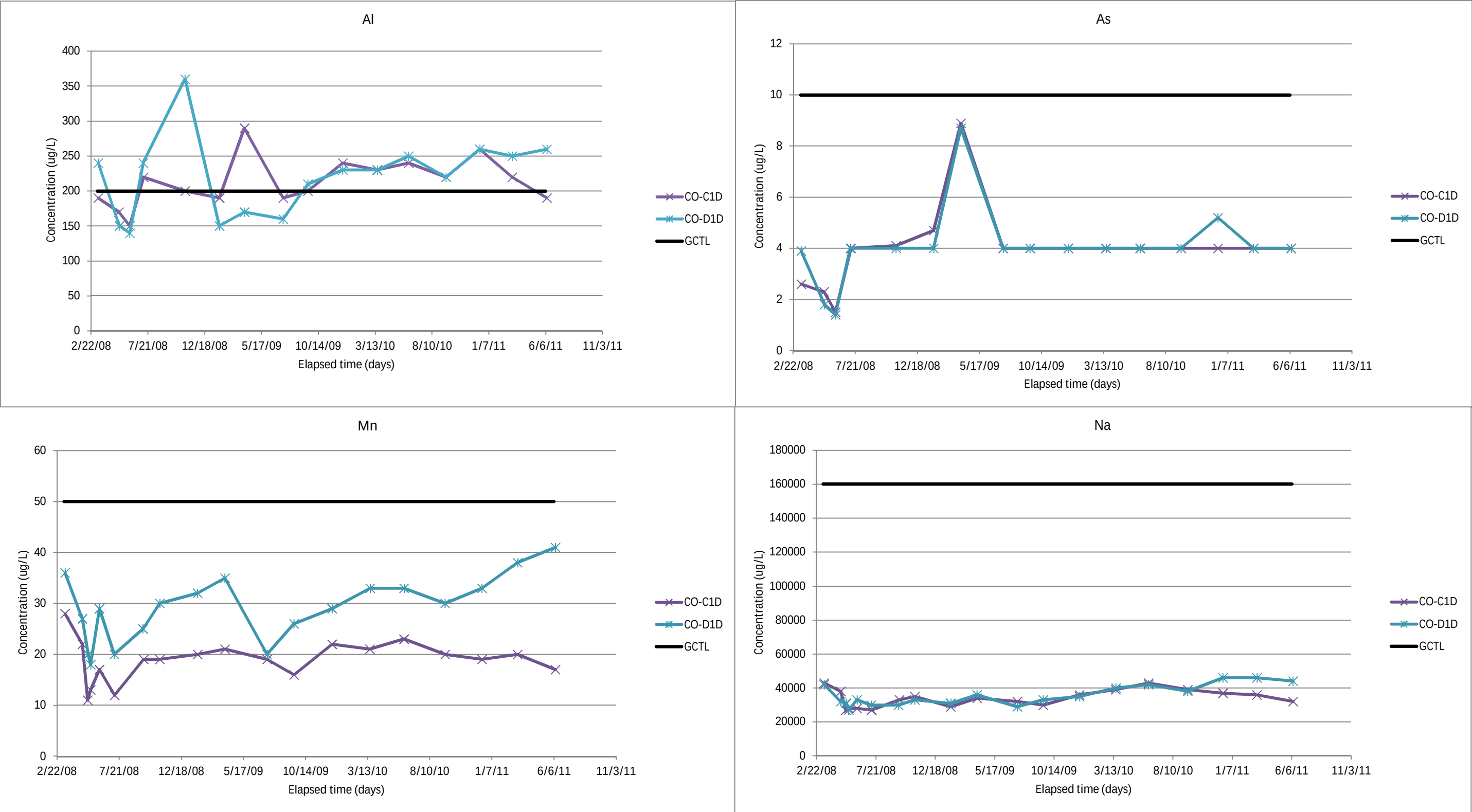
Figure 1 Concentration Trends of Select Persulfate Pilot Study Parameters in Study Area Monitoring Wells (4-14 Feet from Injection Well IW-2)



Legend:

- ug/L- micrograms per liter
- UIC- Underground Injection Control
- GCTL- Groundwater Cleanup Target Levels
- Ni- Nickel
- TDS- Total Dissolved Solids
- CO-A wells are located approximately 4 feet from the injection well
- CO-B wells are located approximately 7 feet from the injection well
- CO-C wells are located approximately 10 feet from the injection well
- CO-D wells are located approximately 14 feet from the injection well

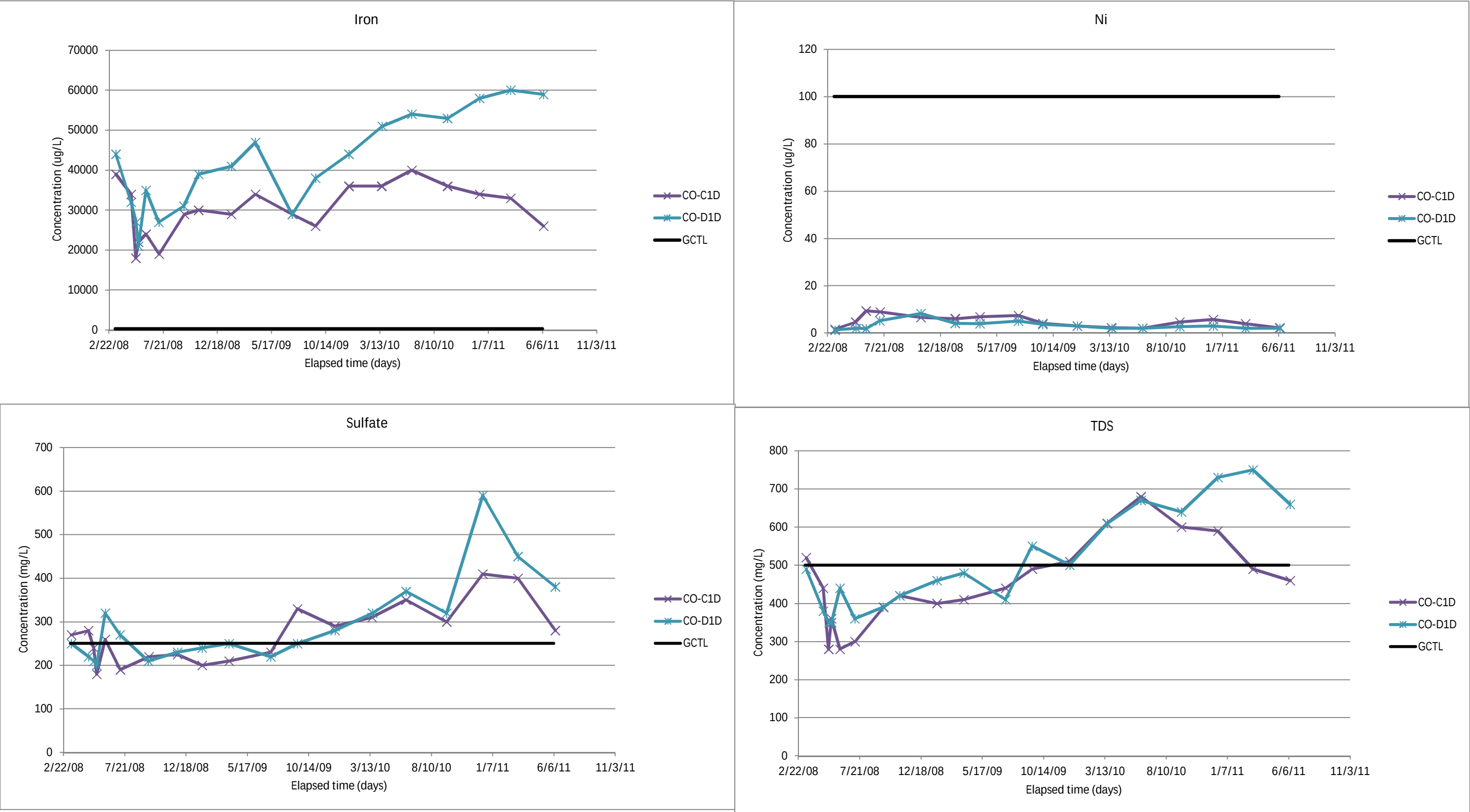
Figure 2 Concentration Trends of Select Persulfate Pilot Study Parameters in Study Area Monitoring Wells (10-14 Feet From Injection Well IW-2)



Legend:

- ug/L- micrograms per liter
- UIC- Underground Injection Control
- GCTL- Groundwater Cleanup Target Levels
- Al- aluminum
- As- arsenic
- Mn- manganese
- Na- sodium
- CO-C wells are located approximately 10 feet from the injection well
- CO-D wells are located approximately 14 feet from the injection well

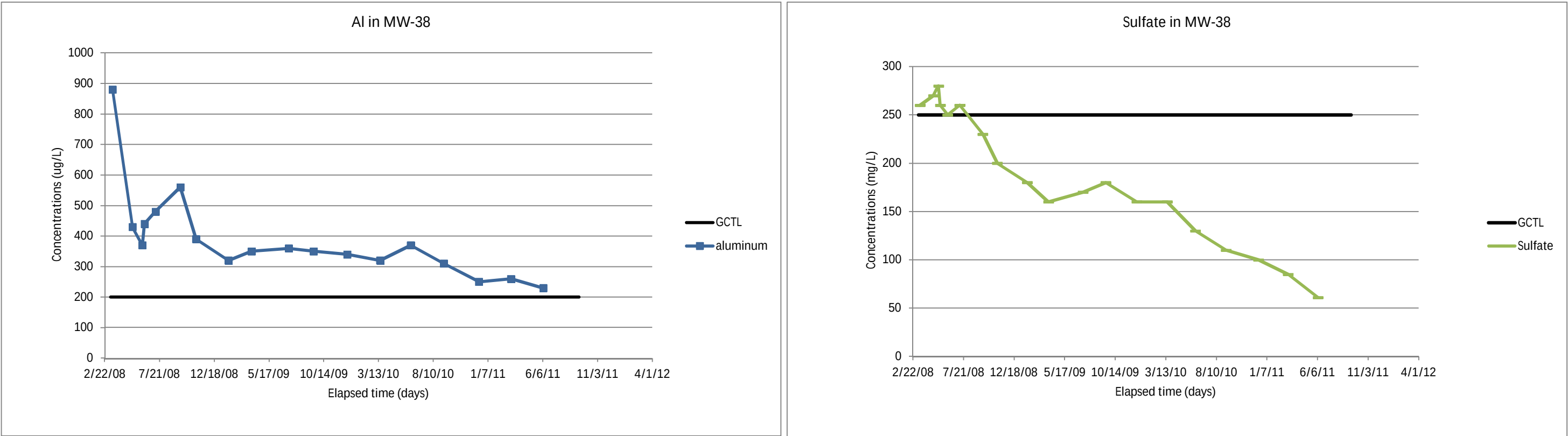
Figure 2 Concentration Trends of Select Persulfate Pilot Study Parameters in Study Area Monitoring Wells (10-14 Feet From Injection Well IW-2)



Legend:

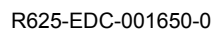
- ug/L- micrograms per liter
- UIC- Underground Injection Control
- GCTL- Groundwater Cleanup Target Levels
- Ni- Nickel
- TDS- Total Dissolved Solids
- CO-C wells are located approximately 10 feet from the injection well
- CO-D wells are located approximately 14 feet from the injection well

Figure 3 Concentration Trends of Aluminum and Sulfate in Persulfate Pilot Study Observation Well MW-38

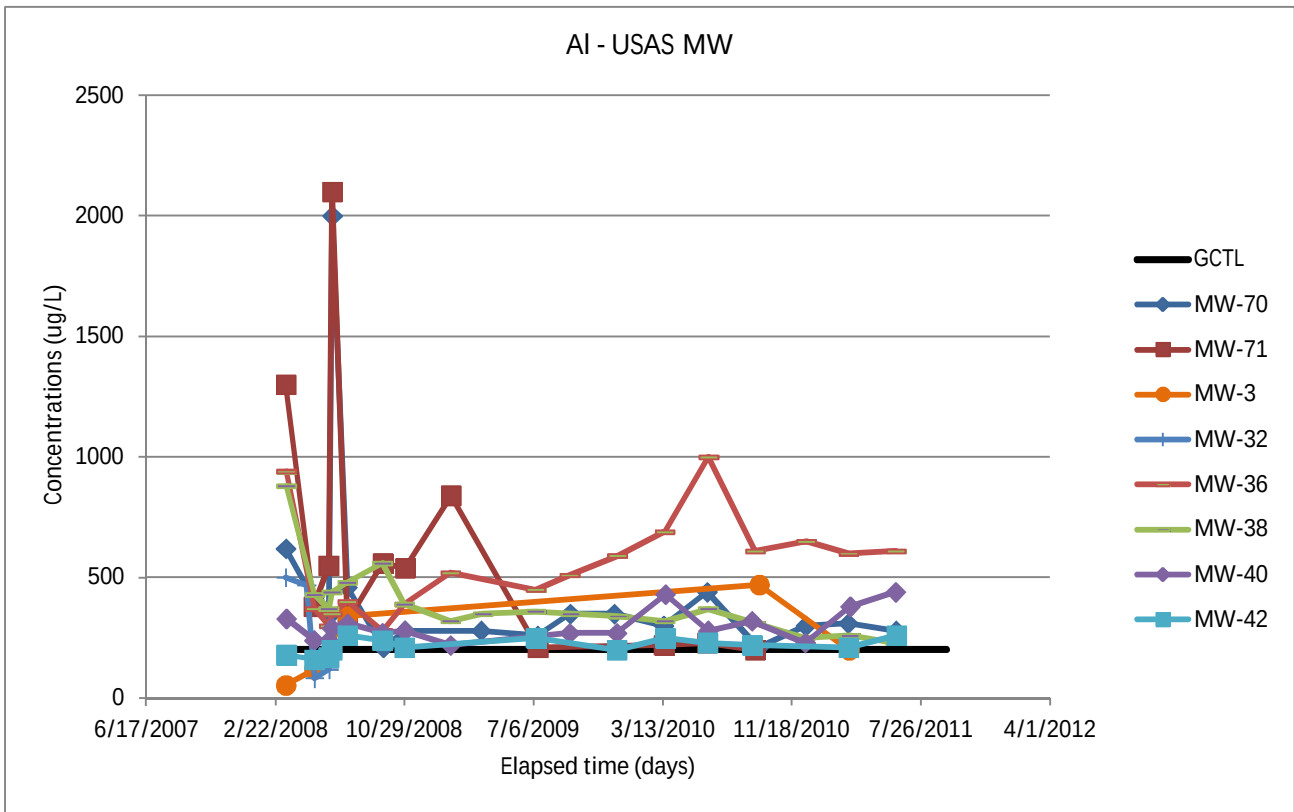
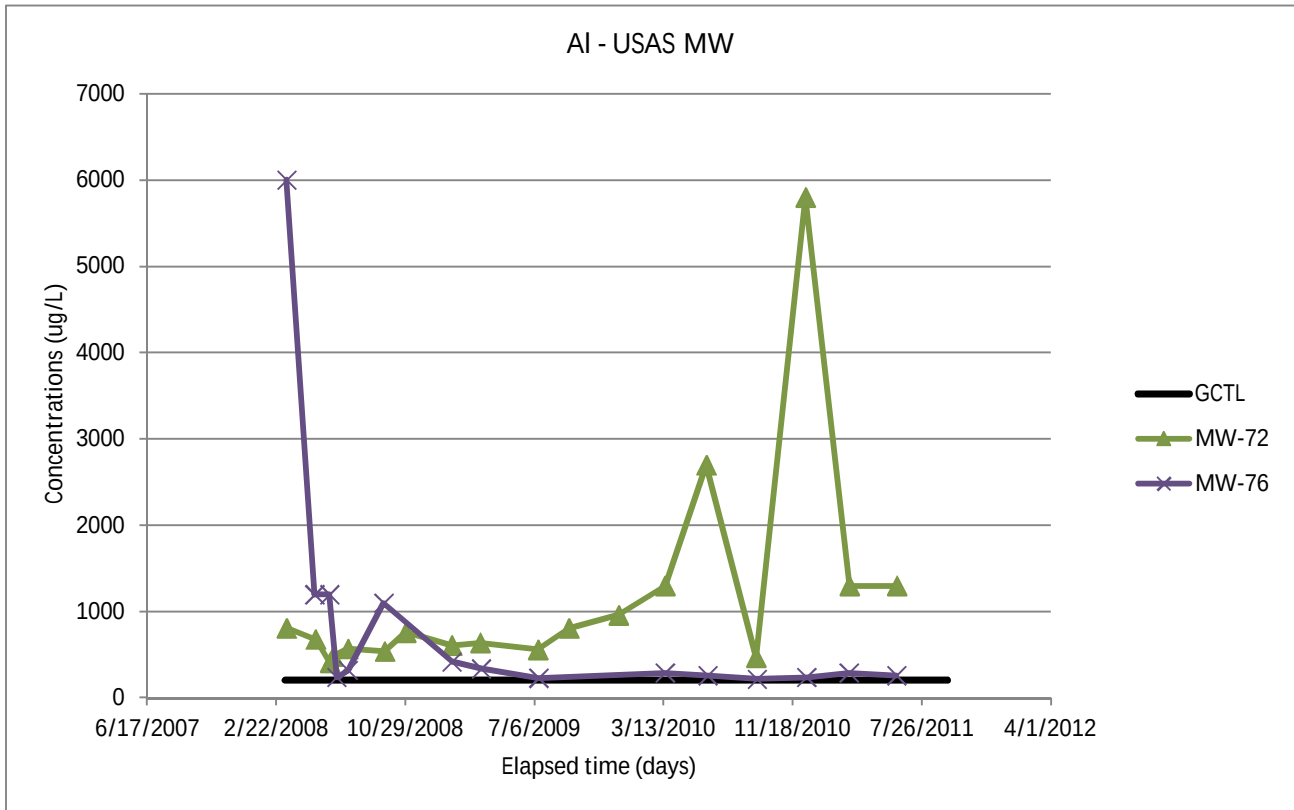


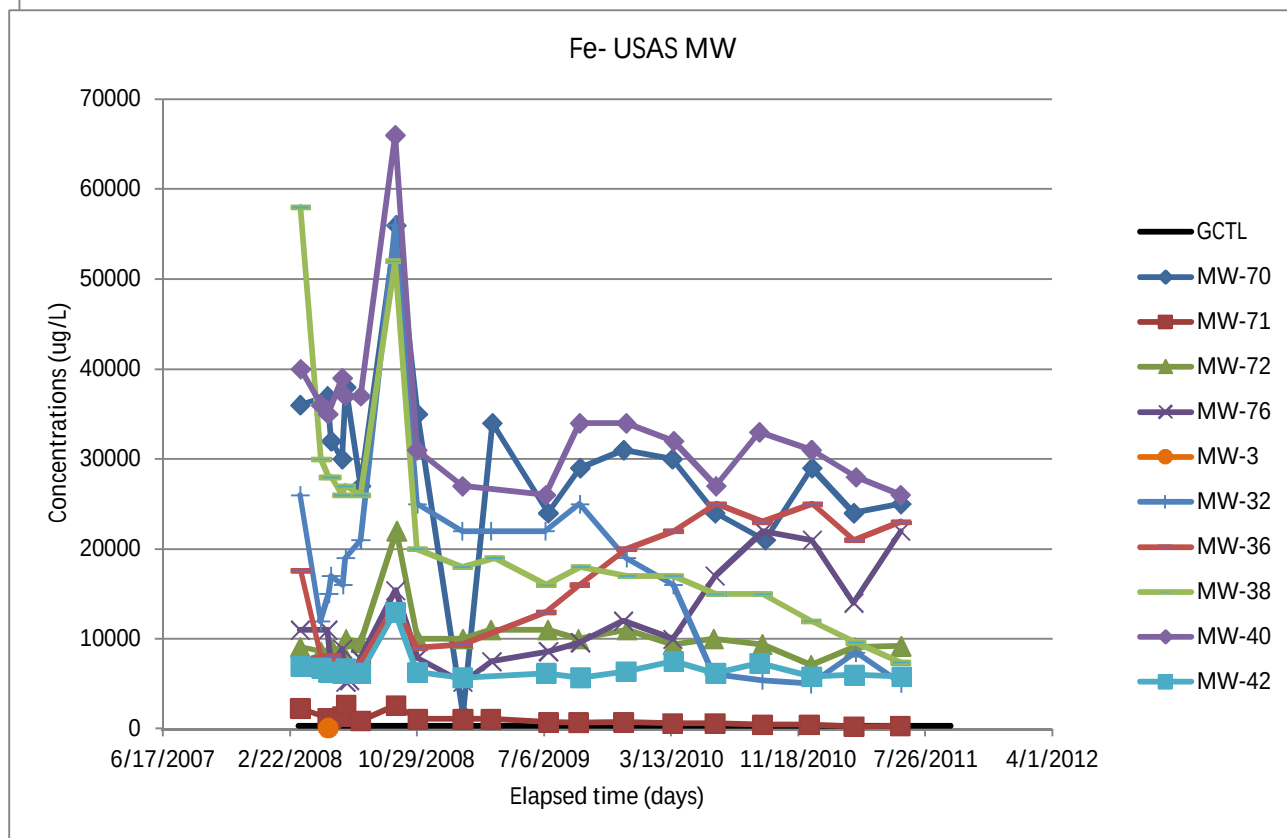
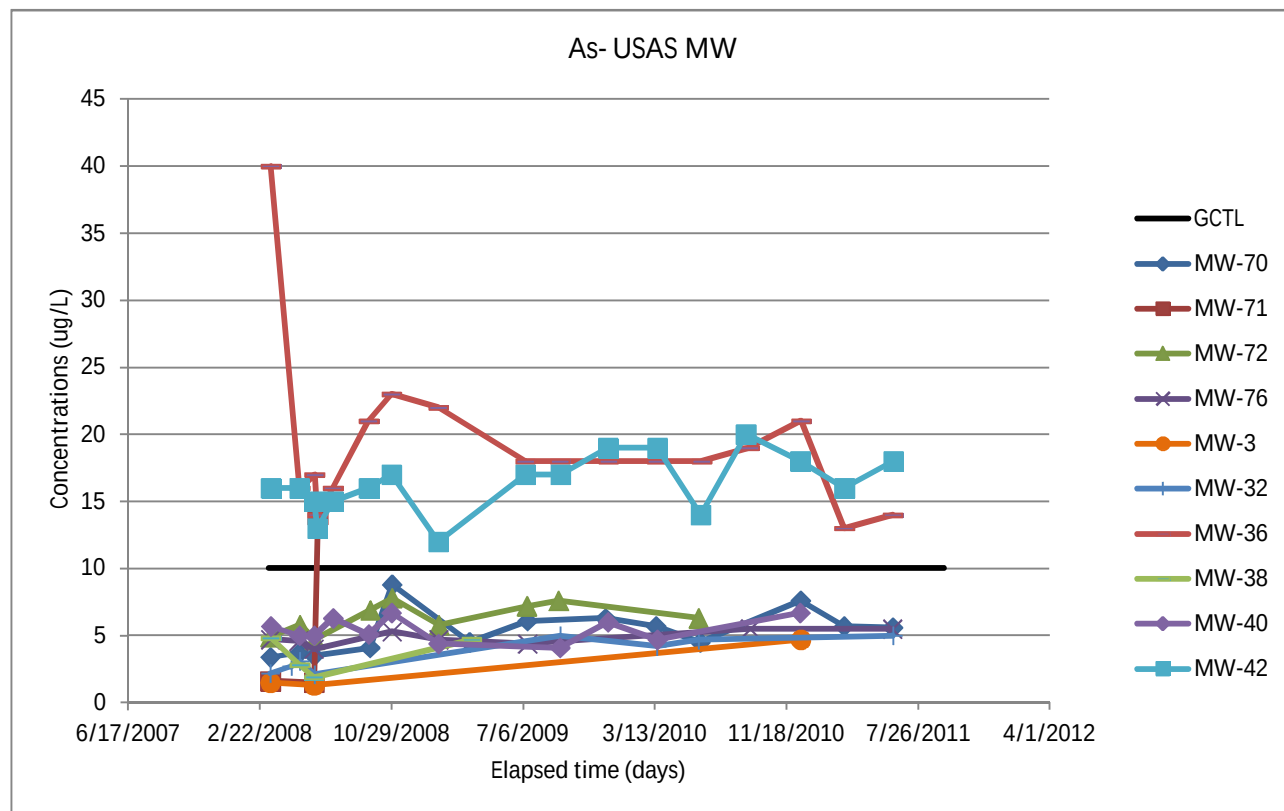
Legend:
- ug/L- micrograms per liter
- GCTL- Groundwater Cleanup Target Level
- UIC- Underground Injection Control
- Al- aluminum

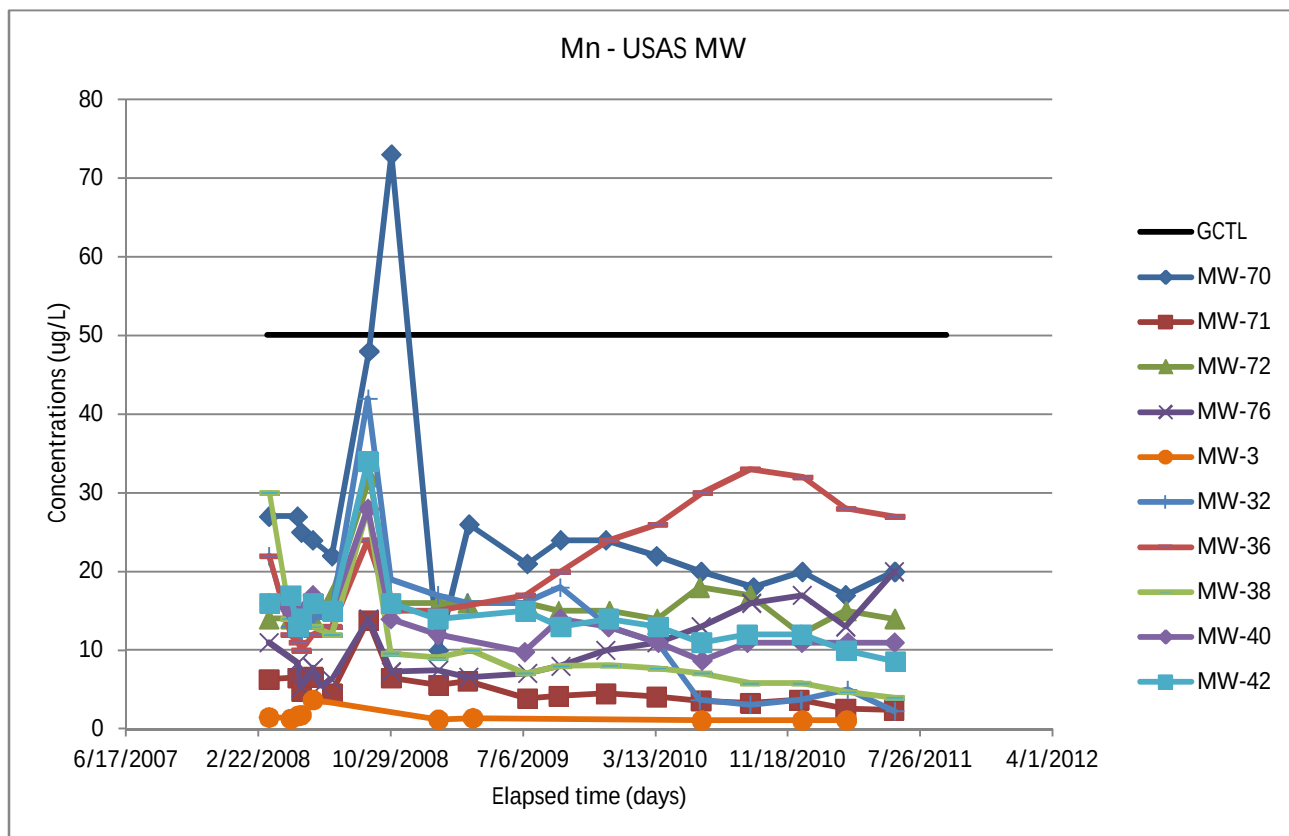
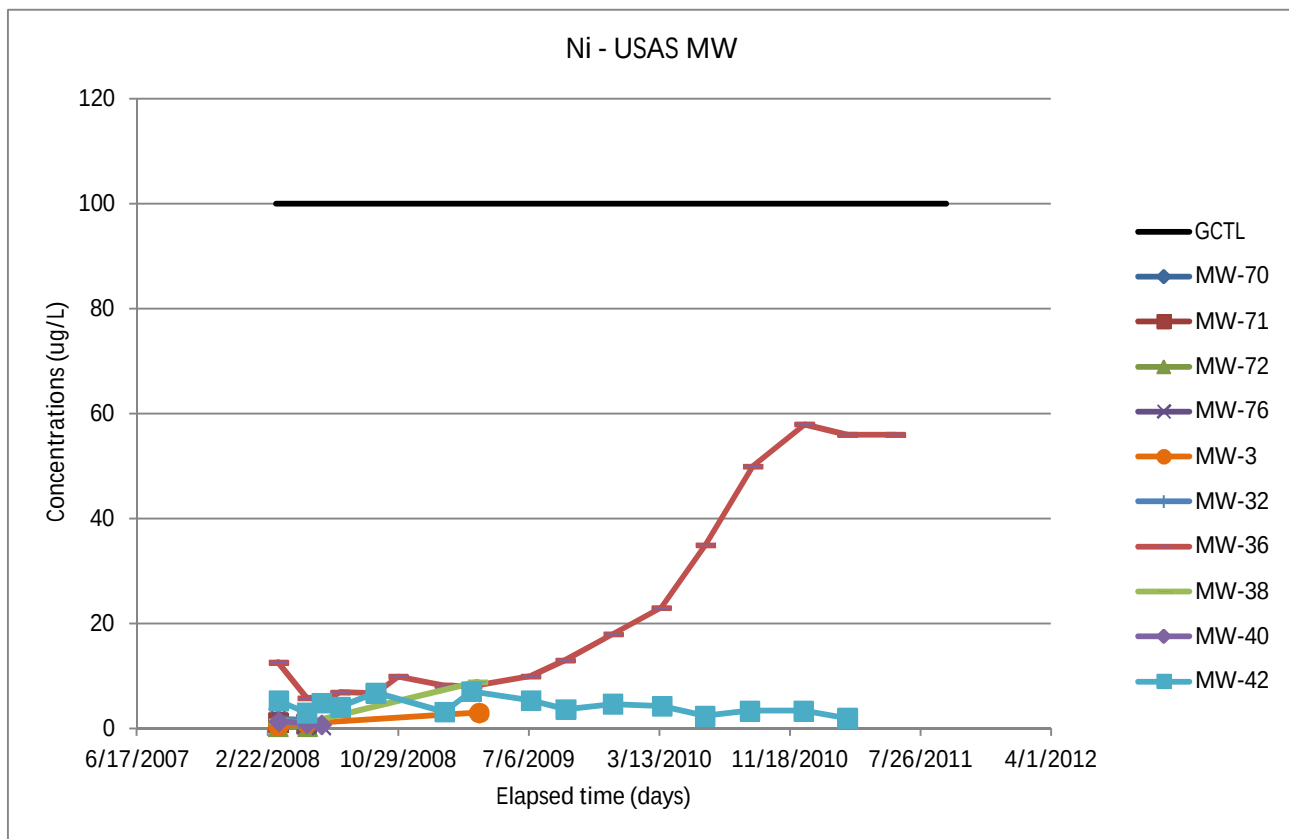
**ATTACHMENT 1— LOCATION OF ISCO MONITORING POINTS
(FIGURES 3A AND 5 OF THE APRIL 25, 2008 IDR)**

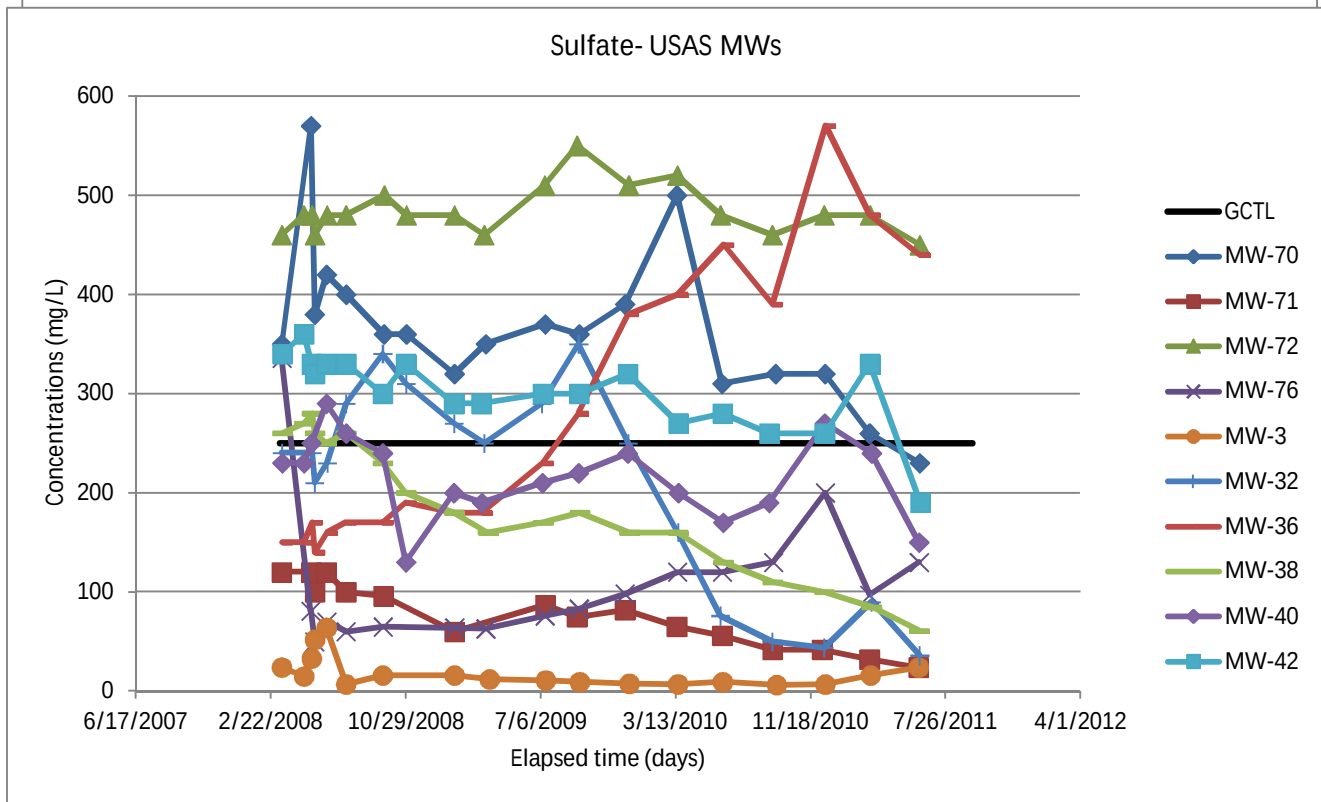
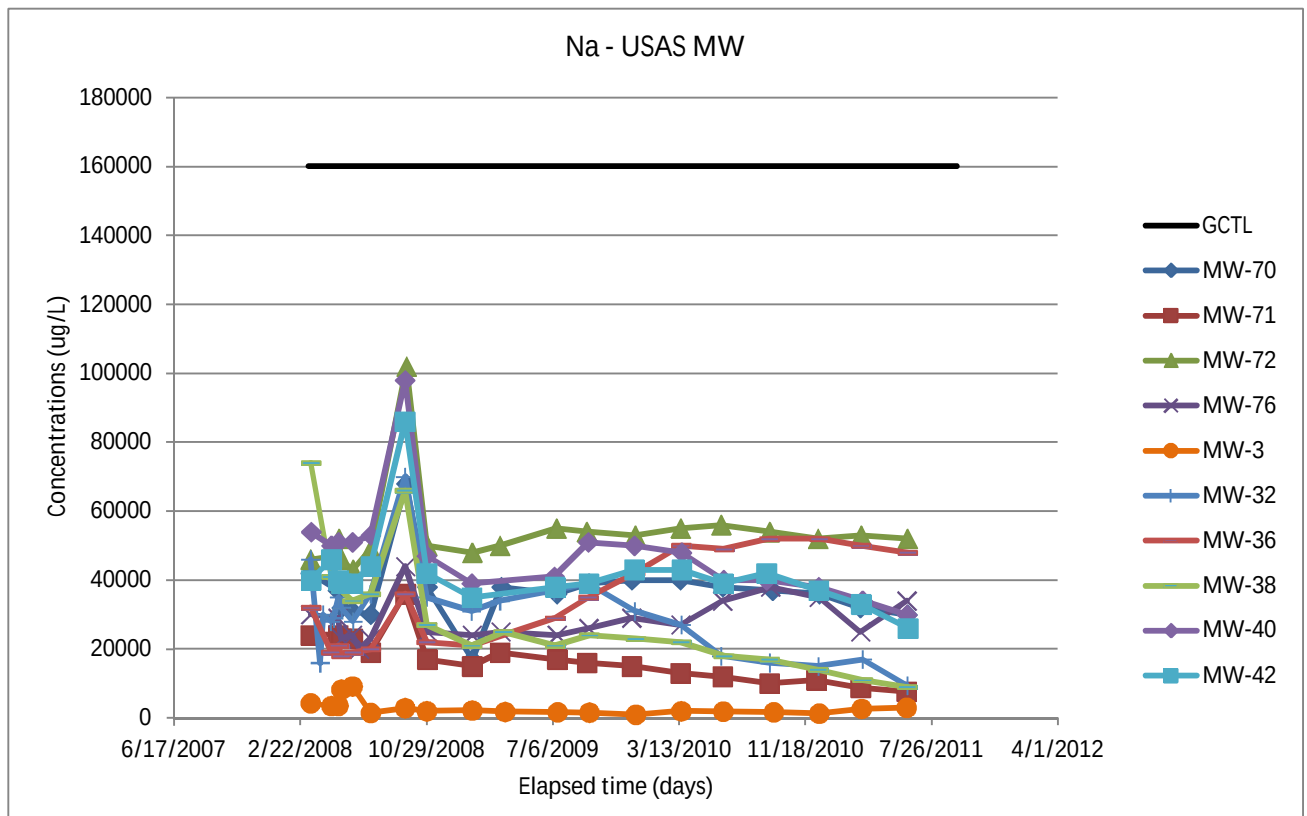


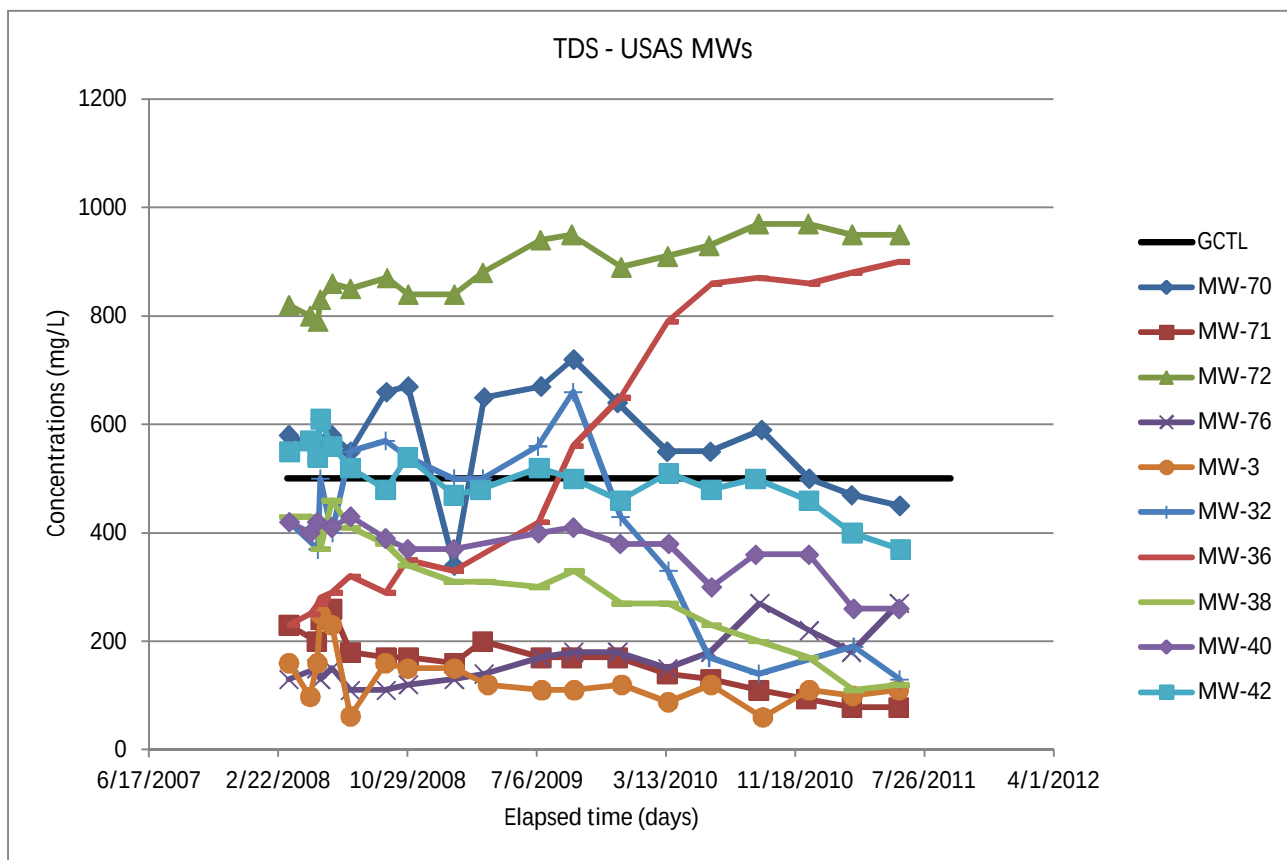
**ATTACHMENT 2— CONCENTRATION TRENDS FOR SELECT
PERSULFATE PILOT STUDY PARAMETERS AT MONITORING AND
EXTRACTION WELLS**

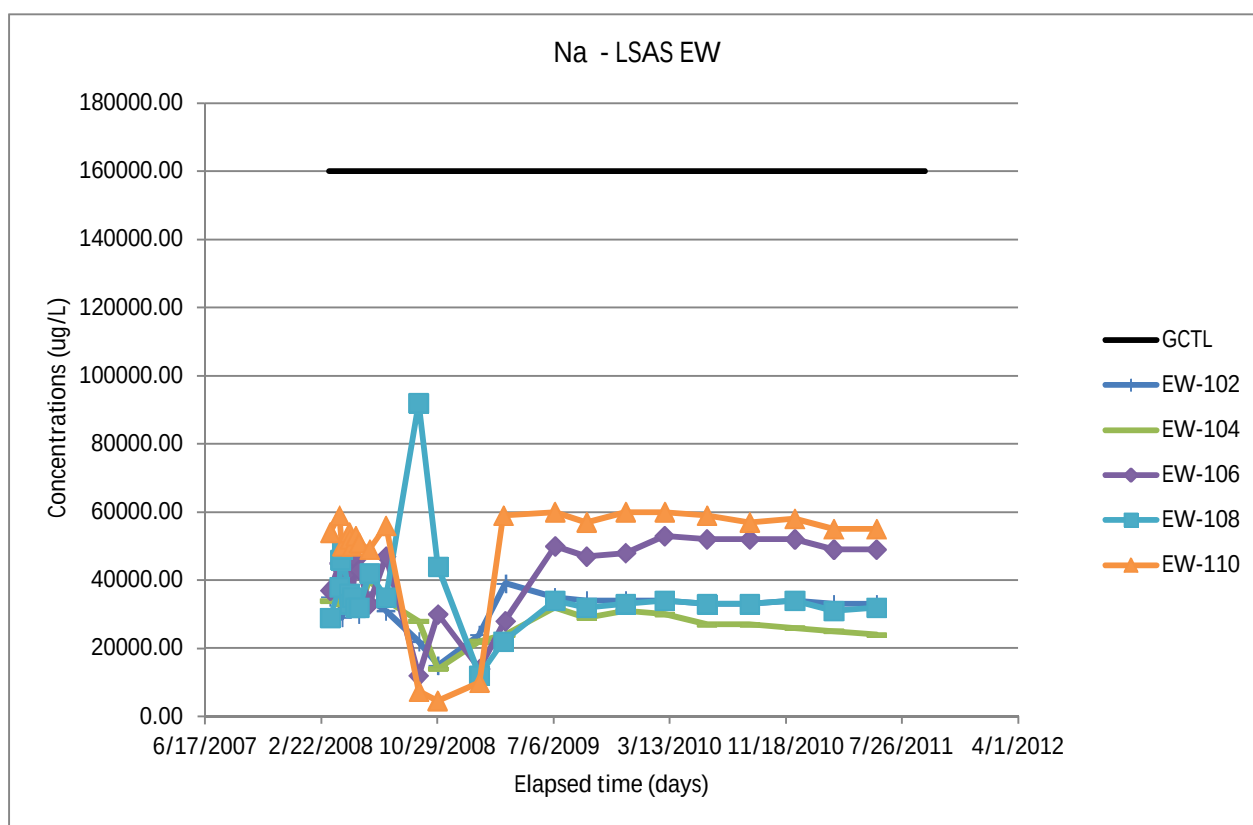
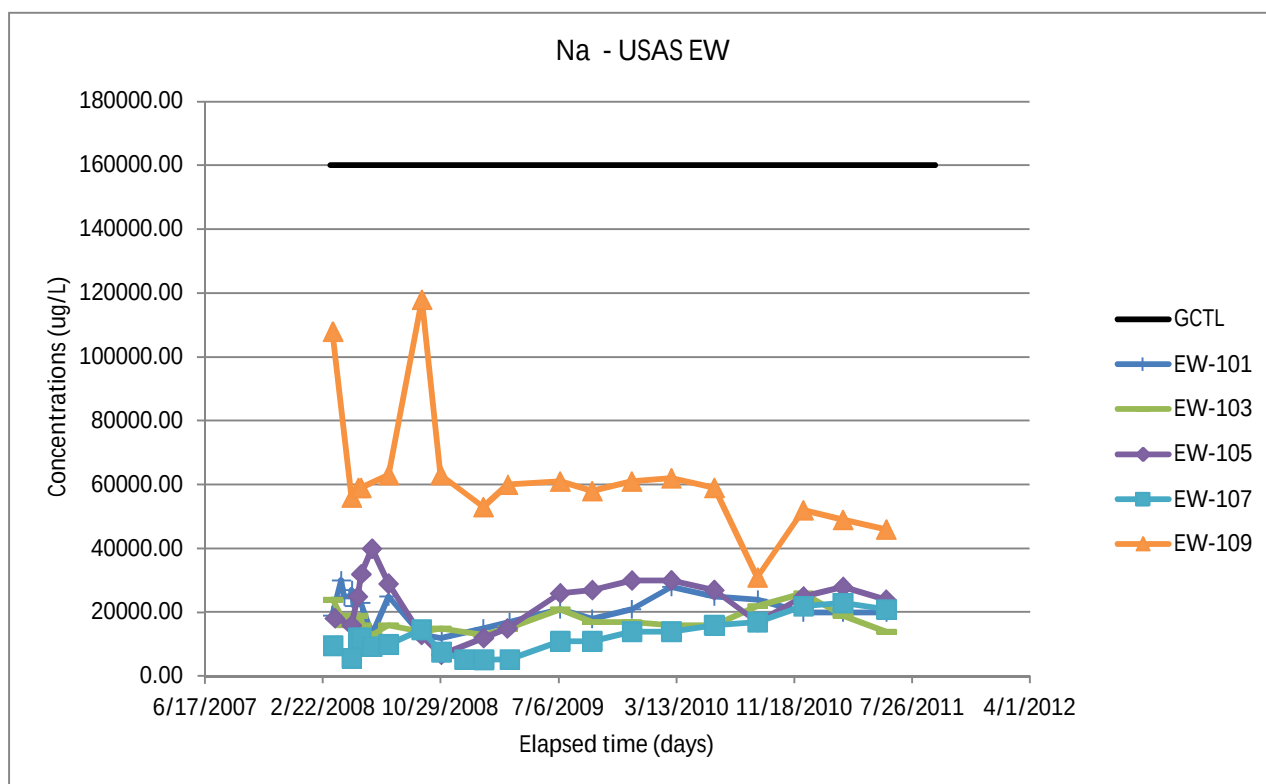


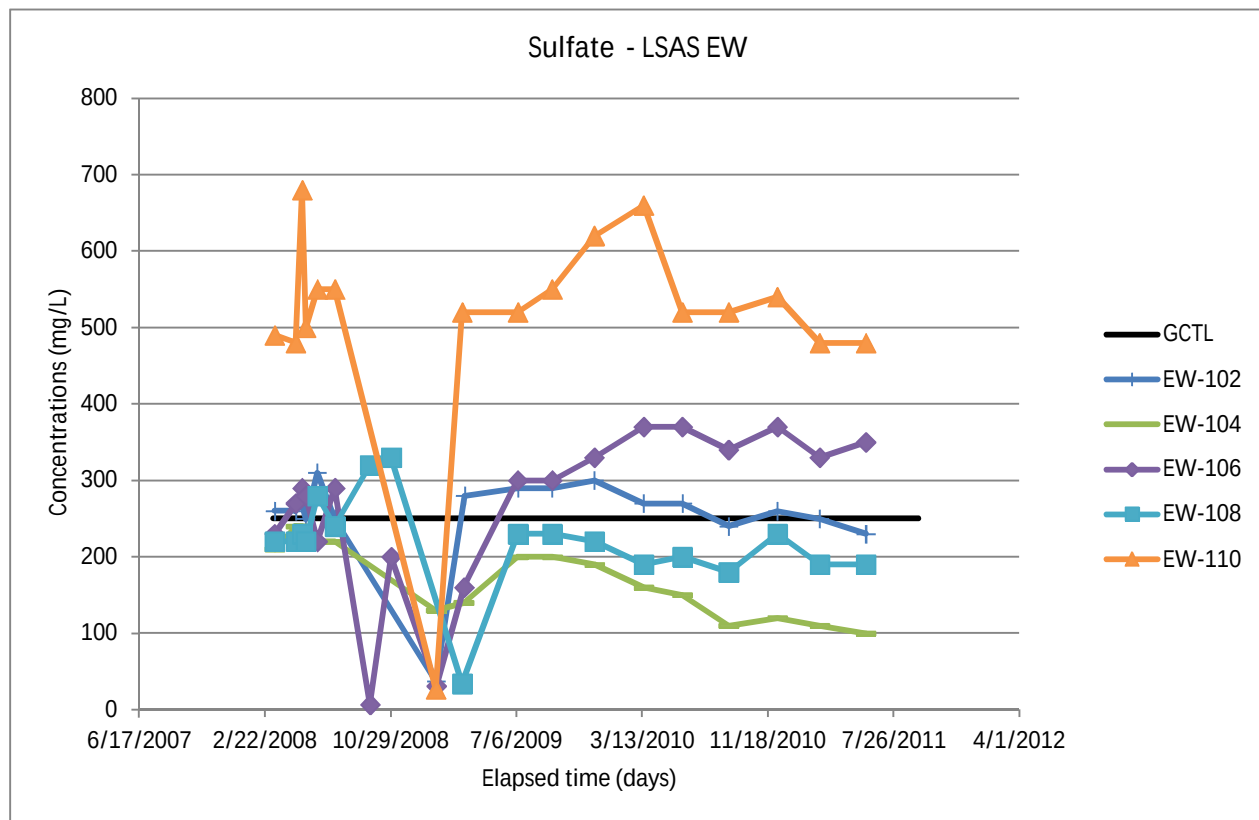
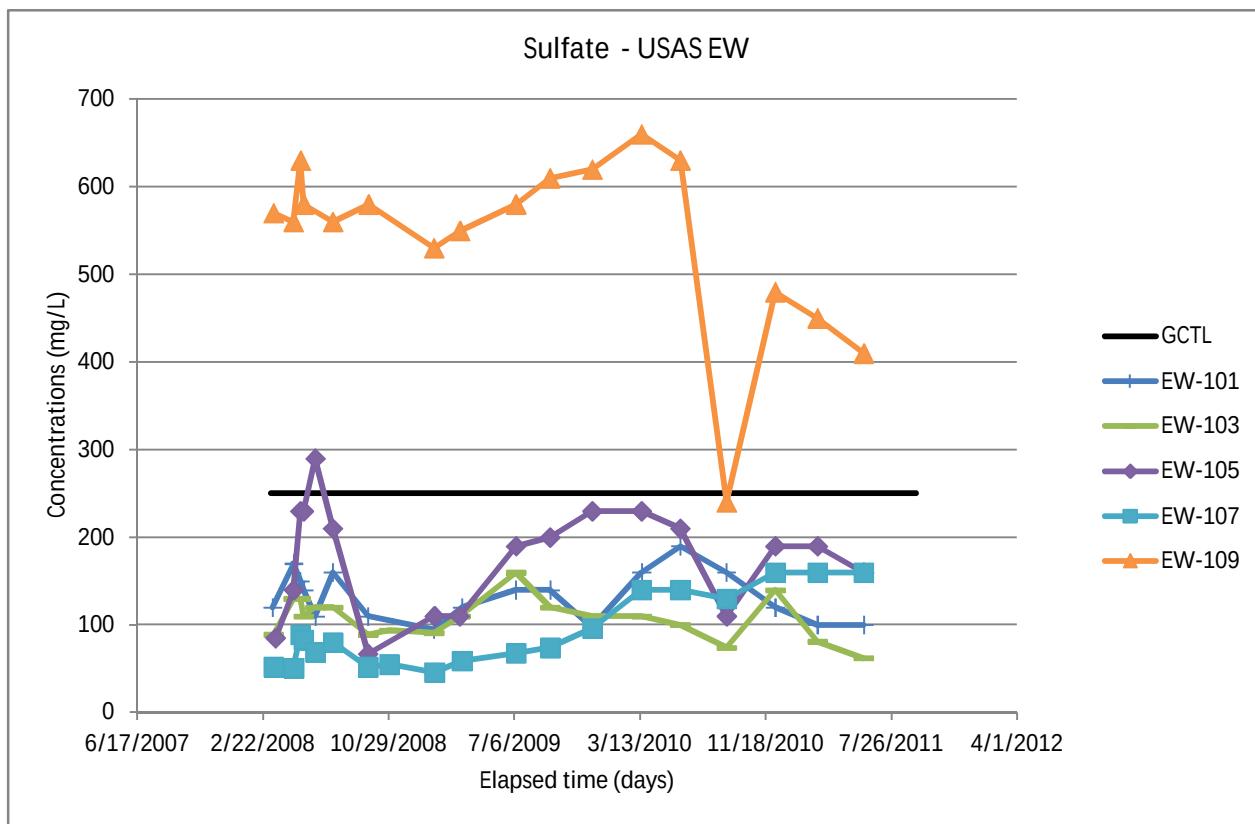


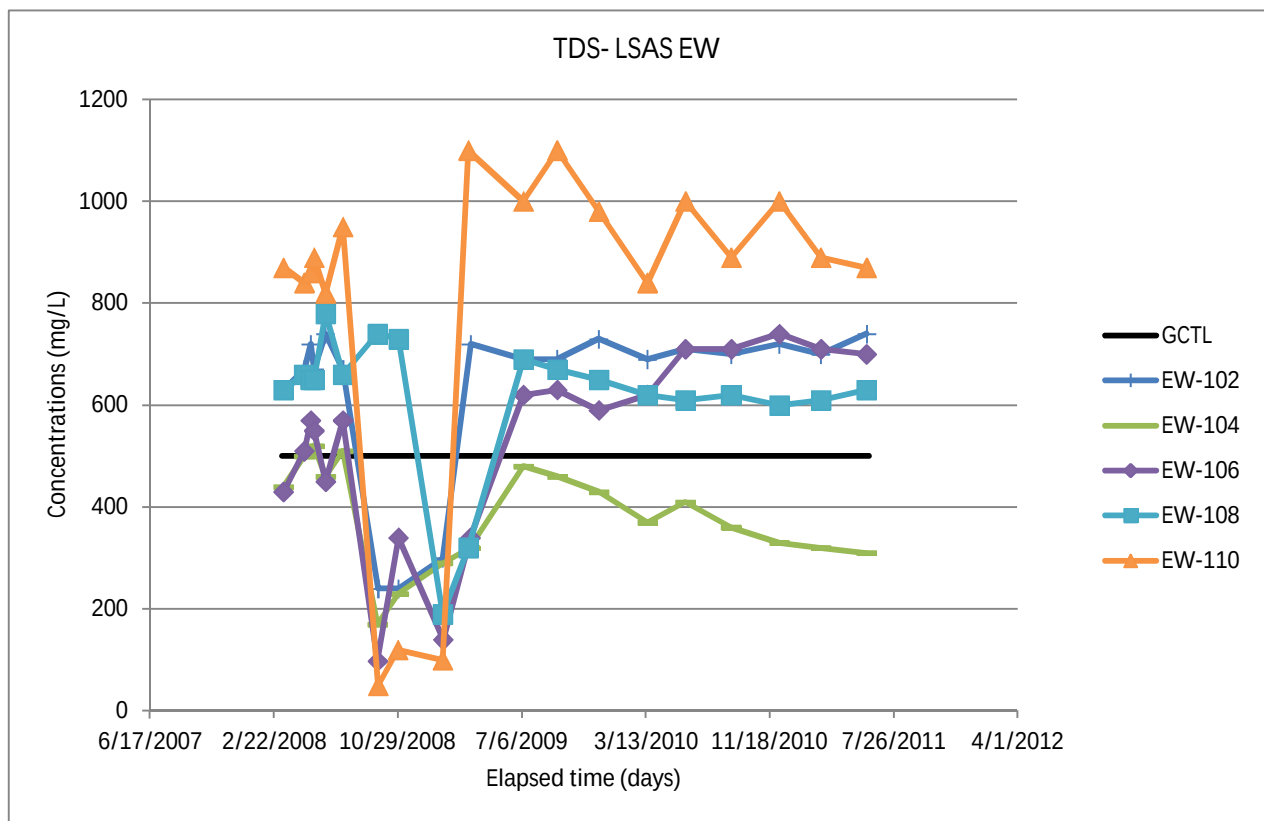
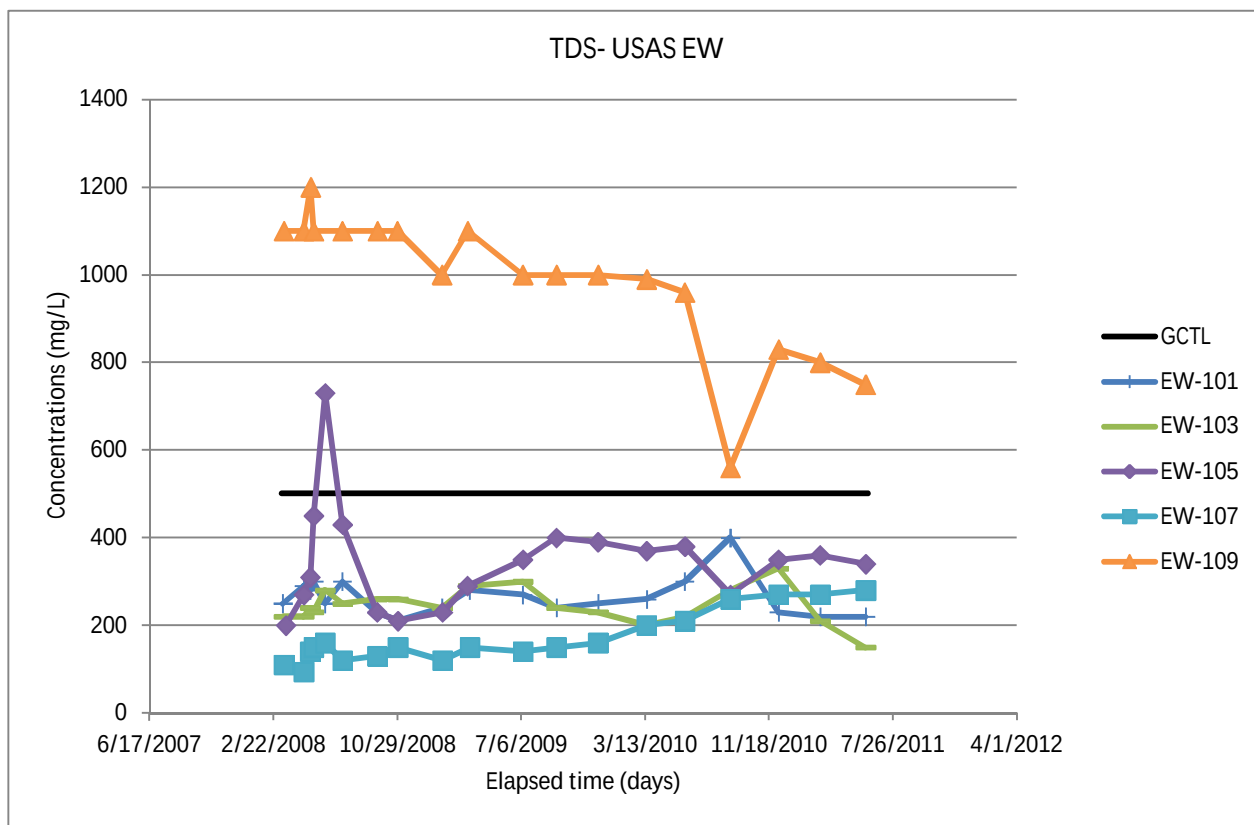


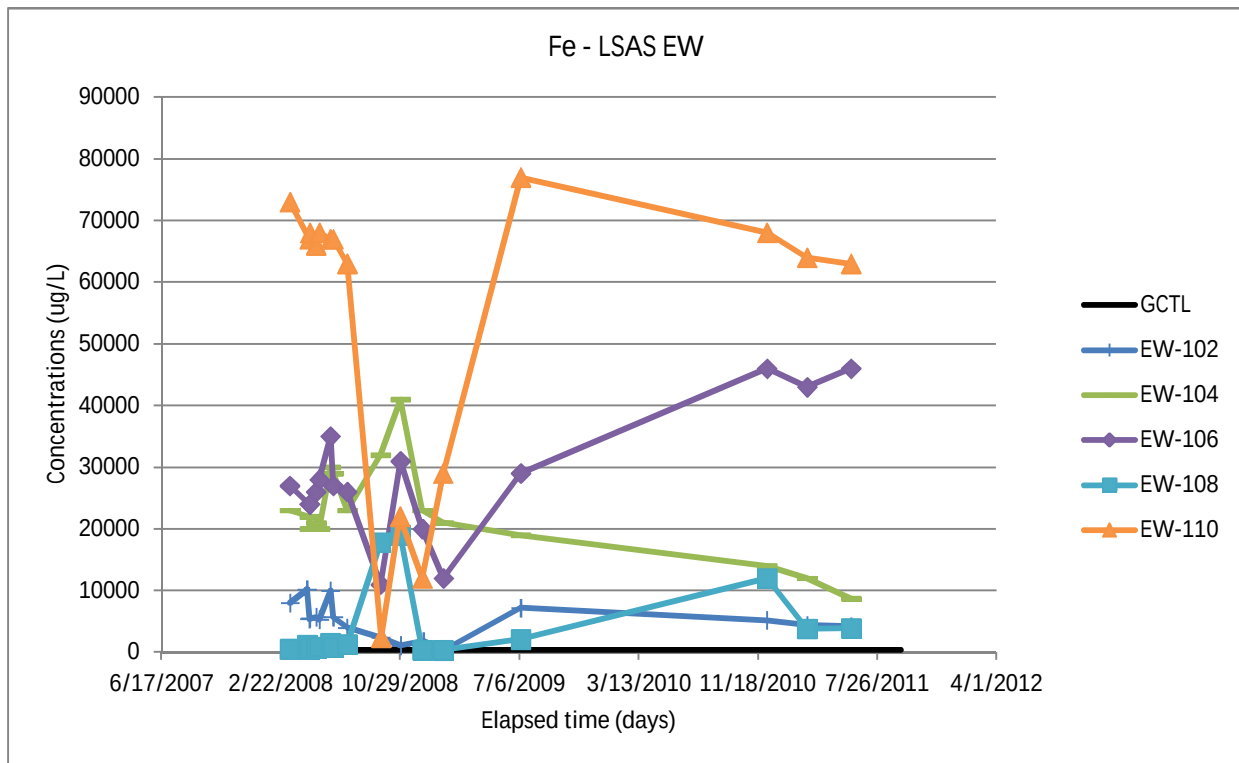
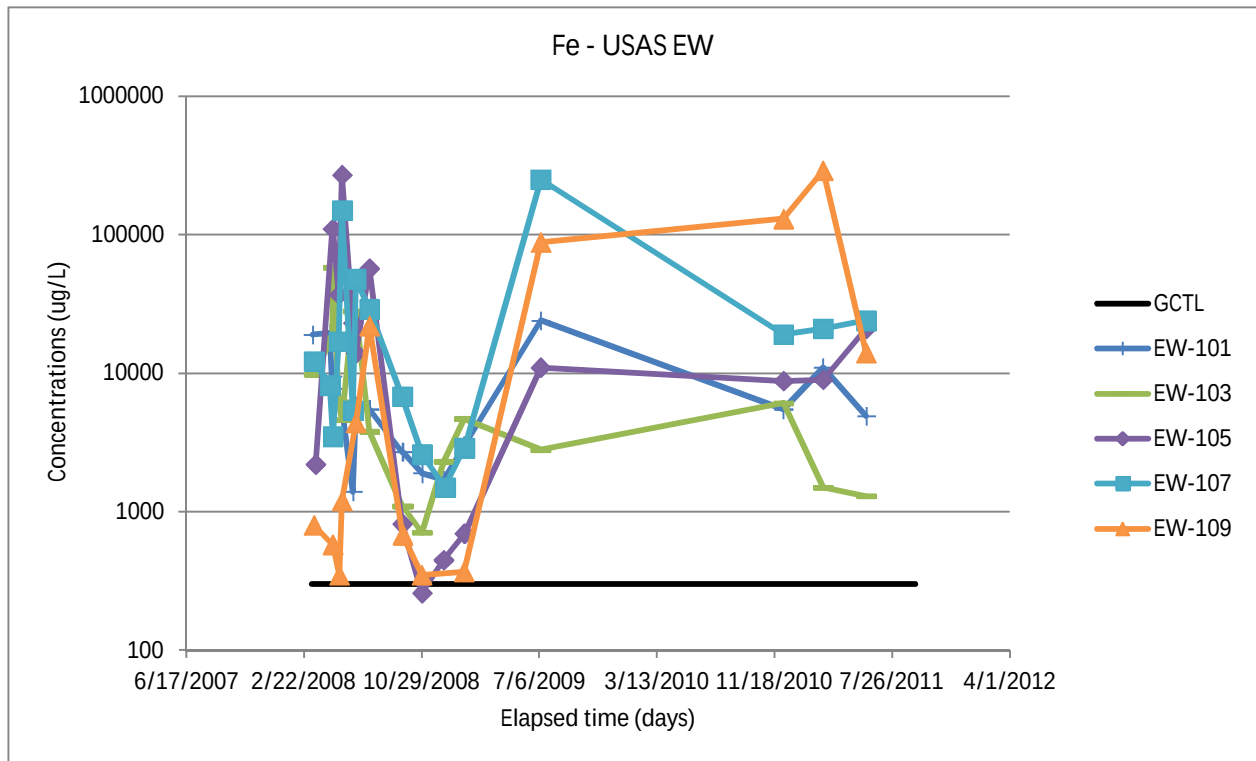


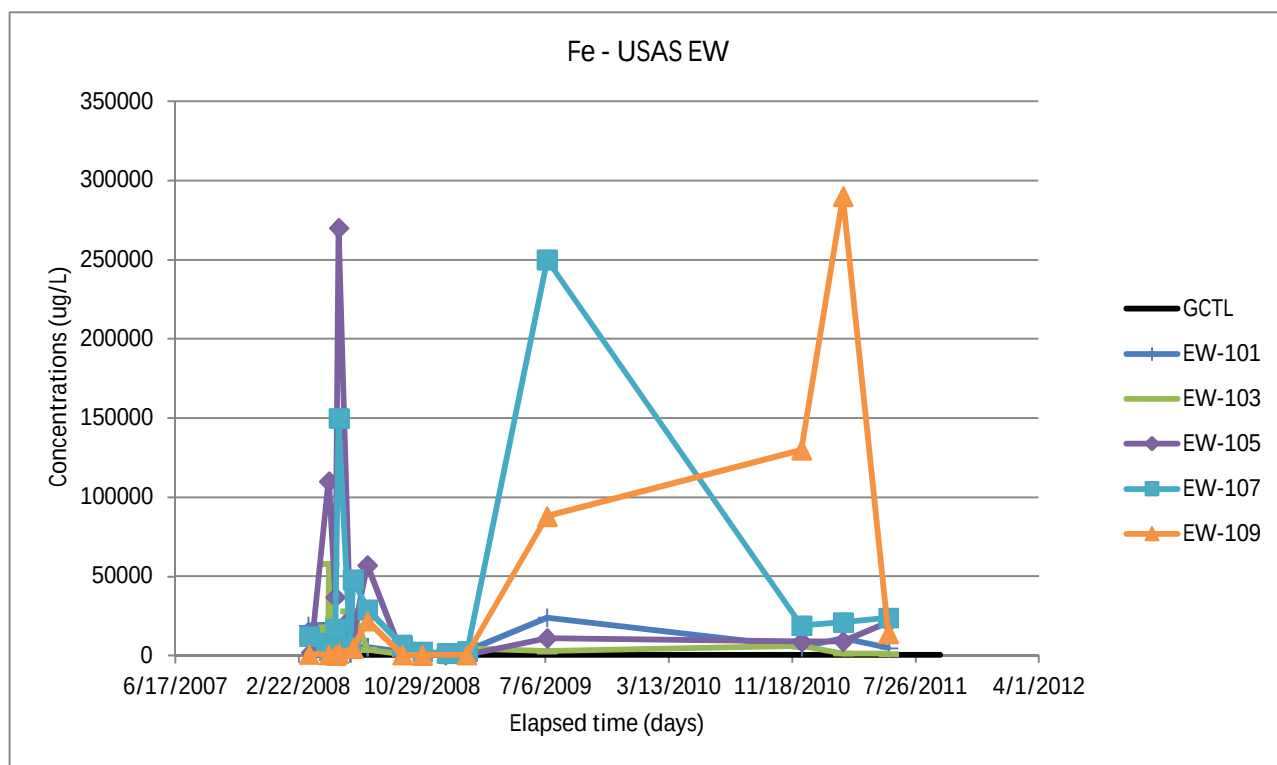












**ATTACHMENT 3 — PERSULFATE PILOT STUDY PARAMETERS
MONITORING LABORATORY ANALYTICAL DATA PACKAGES**

(See CD on Front Cover of Report)