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NAS JACKSONVILLE
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MINUTES FROM THE 17 AND 18 SEPTEMBER 2013 PARTNERING TEAM MEETING NAS
JACKSONVILLE FL
9/18/2013
TETRA TECH

NAS JACKSONVILLE PARTNERING TEAM MEETING MINUTES

September 17-18, 2013

Jacksonville, Florida

Attendees: Jennifer Conklin, FDEP, Timekeeper
 Tim Curtin, NAS Jacksonville
 Pete Dao, USEPA
 Eric Davis, CH2M HILL

Todd Haverkost, Resolution Consultants
 Mark Peterson, Tetra Tech
 Adrienne Wilson, NAVFAC SE, Chair

Sarah Reed, NAVFAC SE, Tier II (Day 1)
 Tim Flood, TME, Facilitator
 Mike Maughon, Tetra Tech
 Bob Fisher, NAVFAC Training (Day 1)

Mike Singletary, NAVFAC SE
 Julie Johnson, Tetra Tech, Scribe
 James Wang (Geosyntec) call in

1.0 Team Meeting and Introduction

1.1 Team member greeting, introductions, and check in – Done

Assignment of Team Roles: Chair – Adrienne Wilson, Gate/Timekeeper – Jennifer Conklin, Scribe – Julie Johnson

1.2 Read Team Ground Rules – Ground rules were read by Team members and attendees.

2.0 Initial Agenda Items

2.1 Review, submit revisions to, and reach consensus on previous meeting minutes. Done

Consensus: Team members approved the minutes from the July 2013 meeting.

2.2 Report on Assigned Action Items and Parking Lot Items. Done

2.3 NAVFAC presents current budget execution plan. Adrienne sent out a spreadsheet with FY 14 funded target dates. See below.

SITE	PHASE	RISK	RC	DESCRIPTION	CONTRACT #	CTO	RIP_RC	Target Date	SOW to AQ
SITE 00011	6	High	IR	FY14 NAS JACKSONVILLE SITE 11 (AREA A) LTM (SITES 11/26/51) OU1, OU3A, OU5	N69450-11-D-0100			2/15/2014	12/15/2013
SITE 00026	6	High	IR	FY14 NAS JACKSONVILLE SITE 26 IDW	N62470-14-WR-SXXXX	BASIC	12/1/2003	10/31/2013	8/31/2013
SITE 00026	6	High	IR	FY14 NAS JACKSONVILLE SITE 26 (OU1) CAP MAINTENANCE MOWING (C/W SITE 51 WELL MAINT)	RBOS		12/1/2003	10/31/2013	8/31/2013
SITE 00026	6	High	IR	FY14 NAS JACKSONVILLE SITE 11 (AREA A) LTM (SITES 11/26/51) OU1, OU3A, OU5	N69450-11-D-0100			2/15/2014	12/15/2013
SITE 00038	3	Low	IR	FY14 NAS JACKSONVILLE SITE 38 TORPEDO REWORK FACILITY REMEDIAL DESIGN	N62470-11-D-8013		9/30/2014	3/15/2014	1/15/2014
SITE 00038	4	Low	IR	FY14 NAS JACKSONVILLE SITE 38 TORPEDO REWORK FACILITY RA-C	N62470-12-D-7004		9/30/2014	6/30/2014	4/30/2014
SITE 00038	6	Low	IR	FY14 NAS JACKSONVILLE SITE 38 TORPEDO REWORK FACILITY LTO	N62470-12-D-7004		9/30/2014	6/30/2014	4/30/2014
SITE 00046	7	High	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide, OU3, Hangar 1000	N69450-11-D-0100		3/30/2005	3/30/2014	1/30/2014
SITE 00047	7	High	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide, OU3, Hangar 1000	N69450-11-D-0100		7/1/2007	3/30/2014	1/30/2014
SITE 00048	6	High	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide, OU3, Hangar 1000	N69450-11-D-0100		12/30/2001	3/30/2014	1/30/2014
SITE 00051	6	High	IR	FY14 NAS JACKSONVILLE SITE 51 WELL MAINTENANCE MOWING (C/W SITE 26 CAP MAINT)	RBOS		7/1/2002	10/31/2013	8/31/2013
SITE 00051	6	High	IR	FY14 NAS JACKSONVILLE SITE 11 (AREA A) LTM (SITES 11/26/51) OU1, OU3A, OU5	N69450-11-D-0100			2/15/2014	12/15/2013
SITE 00052	6	Med	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide, OU3, Hangar 1000	N69450-11-D-0100		8/30/2007	3/30/2014	1/30/2014
SITE 00057	3	Low	CC	FY14 NAS JACKSONVILLE SITE 57 HIGH POWER TURNUP PAD REMEDIAL DESIGN	N62470-11-D-8013	JM49	6/30/2017	6/30/2014	4/30/2014
SWMU 00002	7	Med	IR	FY14 NAS JACKSONVILLE SWMU 2 BLDG 101S SAMPLING/LTM	N69450-11-D-0100	0009	5/24/2002	11/30/2013	9/30/2013
SWMU 00002	7	Med	IR	FY14 NAS JACKSONVILLE SWMU 2 POLISHING POND MONITORING	N69450-11-D-0100			8/31/2014	6/31/14
UST 000004	6	High	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FTFHawkins, PCA 25	N69450-11-D-0100	0010	1/1/2003	3/30/2014	1/15/2013
UST 000015	6	High	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FTFHawkins, PCA 25	N69450-11-D-0100	0010	3/30/2003	3/30/2014	1/15/2013
UST 000016	6	Med	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FTFHawkins, PCA 25	N69450-11-D-0100	0010	12/16/1998	3/30/2014	1/15/2013
UST 000119	6	High	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FTFHawkins, PCA 25	N69450-11-D-0100	0010	6/30/2007	3/30/2014	1/15/2013

3.0 Agenda

3.1 Schedules/SCAP/Exit Strategy/FDEP Document Tracker/FFA SMP/ Petroleum SMP: The Tier II Exit Strategy revision is still in the process. Jennifer provided the team a copy of the FDEP document tracker. The LUC RDs for OU 3, OU 4, and OU 7 are with legal. Mark discussed his schedule of documents with regard to deadlines. PSC 38 is coming due for regulatory comment;

however, Tetra Tech is in the field taking additional samples due to TCE hits from an unknown origin. Mark is not sure if this will become a revised RI for PSC 38 or a new site. Adrienne said that she will write an extension letter asking for an extension to the FFA deadline. Adrienne and Pete discussed a 4-month extension. Mark discussed the PSC 45 EE/CA and is looking for regulatory approval letters.

Eric Davis discussed prospect of MNA approval order for Gas Hill with Jennifer and David Grabka and it was determined that the site doesn't meet the department's requirements (concentrations, time to attenuate [10 to 60 years] and several other factors). Jennifer said that it could meet, but she cannot give an approval order at this time. Eric said there was conversation regarding a LUCIP. Solutions-IES is currently monitoring the site.

Sarah Reed said the Tier II team needs additional time for the new Exit Strategy.

3.1.1 Team Development – Bob Fisher, NAVFAC SE – NIRIS Public Website introduction and training. Bob briefly reviewed how to use the public website. He also demonstrated the GDIX functions in NIRIS and showed the team how to use the different functions. He said there will be a day long, hands on training program soon. Bob said the team needs to decide how much information they want on their base's page and provide plenty of time for the public affairs people to review site descriptions. He suggested getting all of the documents uploaded first and then submit the site descriptions, noting that using Fact Finders and Proposed Plans for site descriptions could possibly expedite the review process with the public affairs people (being certain that reference to those documents is included with the reviewed material).

3.2 OU 1

3.2.1 LTM Update and Landfill Maintenance – Tim Curtin - Not mowing OU 1, contract expired in August. Tim said a 1 acre lease tern nesting area has been put in OU 1. Tim said there are weeds growing in the nesting area and Christine sprayed herbicide. Terns will start nesting next spring so the herbicide should be gone by that time.

3.3 OU 3

3.3.1 Risk Assessment – Mark said nothing new to update. Working on pulling the RI document together.

Tim said a boundary well at Area G was demolished and it is used in the monitoring program. Mark said that he believed the well has been non-detect for quite some time.

Action Item: Donald/Mark to provide Jennifer with Area G MW JAX-OU3-G5-C3 historical data and flow maps. Jennifer would like to see two to three historical flow maps showing seasonal difference. (*See attachments for data and maps sent to Jennifer Conklin, FDEP*)

3.3.2 Groundwater Model Update – Nothing new to report.

3.3.3 VI discussion – Eric Davis - To close out the old CTO, CH2M Hill finalized the Phase II VI report in August 22, 2013.

On 8/15/13 a conference call was held to address Mike S. comments on the OU 3 VI and Pesticide Shop work plan under CTO JM10. Information below is from the teleconference call minutes.

Mike S. comment to VI approach: "For the VI sampling at OU3. How many times will sub-slab and indoor air samples be collected? We had talked about collecting samples during the cooler months as well as the warmer months to assess seasonal variations."

1. Phase 3 sampling will occur in Dec 2013/January 2014. Indoor and outdoor samples will be collected with passive samplers. Subslab samples will be collected with

SUMMA canisters. HAPSITE will not be used initially, but may be incorporated after results have been evaluated. Buildings 101, 101S and B103.

2. Additional samples will also be collected at B103 where previous indoor air detections were reported above the screening threshold. Two additional 24 hour passive samples will be collected.

Eric sent the team a Rapid Action Fact Sheet September 17, 2013 and it pertains to the comment above (B103).

3. Phase 3 analytes will include TCE, PCE, VC, and trans and cis.
4. Sample AI-01 will not be collected at B101.

Mark said with regard to the Risk Assessment that all indications were pointing to a source coming from VI in Building 103 and now this may change. Mike and Adrienne said that when the risk assessor was updating the team that it was agreed to move forward with the data we have.

Action Item: Mark to check with Brad on VI for Building 103.

- 3.3.4 ESTCP (Geosyntec) – James Wang – Geosyntec sent the work plan to the regulators for review. James said they are hoping to do injections in November. Jennifer said the work plan is with the engineer and a UIC permit will be issued. Baseline sampling will start in October. James wants to know if there are any questions or comments from the reviewers for the sampling portion of the work plan. Jennifer will get comments on the sampling plan as soon as possible and UIC approval in the next few weeks.

Geosyntec received an award for the ESTCP EK bio demonstration project. They want to deliver to a specific target, deep in the clay. They are in the process of developing a work plan and it should be completed by the end of the year. Looking to start the field work at the end of the first quarter of next year.

Mike S. said that the work plans and work are not under the ERN funded projects, but under ESTCP. They are not looking for formal approval on the work plan, just a courtesy review. So with that said, he was hoping the reviews could go a little faster.

- 3.4 OU 6 – PSC 52 Hangar 1000 – Mark Peterson – Waiting for EPA comments on the annual monitoring report. Pete said that the pre comments were his only comments to the annual report. Tetra Tech will issue the final report next week.
- 3.5 OU 7 – PSC 46 Update – DRMO – nothing to report
- 3.6 OU 8 – PSC 47 – Eric Davis – Waiting for approval from FDEP on the annual Groundwater Monitoring Report. Jennifer said the letter is on Kim's desk. She has concerns with MW-10S (northeast corner, boundary well) DO concentration is elevated.

Action Item: Eric to investigate the anomalously high DO concentrations at MW-10S and report back to the team by next meeting.

Under the new contract there will also be soil investigation to investigate metals with regard to MNA in soils. Keith Dobson will be leading the event. Eric will have a presentation at the November meeting.

Jennifer wants filtered samples, Eric agreed, and Jennifer said she would get the letter to them soon. Unfiltered samples would be required to be collected in addition to filtered samples for pesticides at PSC 47 (Pesticide Shop). Jennifer said she could not find in the work plan where it states they were going to be collected concurrently, but Eric stated that they would. Jennifer would like Eric to either point her to the text and/or tables where it does state this, or modify the work plan.

September 26, 2013 email from Eric Davis to Jennifer Conklin: Regarding the work plan "Table 3-2 of the combined WP indicates filtering, shown in the "Required Analysis" column. Table 2 of Appendix B (which is the standing SAP for the GW monitoring program) does not indicate filtering, meaning the default is unfiltered."

Summary from the NAS JAX Pesticide Shop Soil Investigation and Vapor Intrusion Sampling Meeting, conducted via teleconference, on Thursday, 8/15/13.

Purpose: The purpose of the meeting was to address Mike Singletary's comments on the JM10 Work Plan, specifically comments 1, 3, and 4 (attached), and reach consensus on the sampling approaches for the Pesticide Shop soil investigation and OU3 Phase 3 VI investigation.

Attendees: Eric Davis/CH2M HILL, Loren Lund/ CH2M HILL, Keith Dobson/ CH2M HILL, Robert Brown/AGVIQ Adrienne Wilson/NAVFAC SE, Mike Singletary NAVFAC SE, and Tim Curtin/NAS JAX

Handouts: No other handouts besides Mike's comments, provided in the attached email.

Mike S. comments to the JM10 Work Plan re: Pesticide Shop soil investigation.

2. Page 2-7, 1st paragraph – Given that this is an NPL site, I don't think we'll get a monitoring only approval order. This site will likely remain an active MNA site until cleanup objectives (e.g MCLs) are met, according to EPA.
3. For DPT borings 3 and 4, I'm concerned you may be too far downgradient and you'll miss the arsenic contamination (given the non-detect levels of arsenic in MW-15S). Can we take more of a Triad approach since you'll have the DPT rig and the field testing equipment (XRF) to make real time decisions? I don't see any reason you couldn't put in more than 2 borings along the groundwater flow path since you'll be able to do the analysis in the field. Once you have a better idea of the extent of the arsenic presence on the aquifer sediments, then you can collect samples for off-site analysis. I see you having to continuously core and sample the first 2-3 borings to be able to determine the vertical interval where arsenic is highest in the aquifer. This will be the zone we wish to target for further analysis.
4. For the aquifer sediment sampling for arsenic, including the sequential extraction and XRD analysis, are there special preservation requirements for the samples? I was under the impression that these samples could not be exposed to the atmosphere and that the redox conditions needed to be maintained to ensure sample integrity.

Notes from Keith's discussion:

1. Triad approach for locations 2 and 3
2. Dry ice preservation, and use nearby anaerobic aquifer water to saturate soil in sample containers
3. Use field XRF measurements to guide depths of sample collection in the saturated zone

Action Items:

1. Mike to call Keith to discuss triad approach.

- 3.7 OU 9 – PSC 45 – Building 200 – Mark Peterson – The draft-final RI Report has been submitted (June 6, 2013). Tetra Tech is waiting on approval from the Navy and FDEP; the USEPA approved draft Revision 1. The draft EE/CA was sent to the team and waiting for approval. The work has been completed by CH2M Hill.

Eric provided pictures of the remediation completed at PSC 45.

- 3.8 OU 10 – MRP Sites – Mark Traxler – Mark Peterson told Adrienne that the additional sampling could be done under the existing budget for Tetra Tech's portion of the MRP Site RI investigation.

Mark Traxler said under this Contract, Tetra Tech is updating the Community Involvement Plan and is looking for input from the installation, RAB members, and other stakeholders in order to

address community concerns. Finishing a technical memorandum to include data from the Site Investigation that was not finalized in order to get into the administrative record. Planning on field activities to start after approval of the work plan addendum. Mark P. asked about the arsenic with regards to background levels for golf course. Jennifer said in her experience with regards to golf courses that even if pesticides were legally applied there would be a need for institutional controls (this came from Kim Walker, FDEP) if the concentrations exceed state levels. Mark P. said that the goal was to eliminate LUCs so golf course maintenance could be done without restrictions. Mark T. will provide the memo to the team so the sampling plan will be clear. Arsenic in the wooded area is in the top 6 inches of soil. There are a few samples more than 2 feet below land surface with elevated PAH levels. There are some samples with elevated lead that coincides with the elevated arsenic and some samples where there is elevated arsenic and no elevated lead. Mark P. pointed out the SMP date is fast approaching. Mark P. asked Adrienne about how long it would take to get a concurrence memo through. May need to discuss if an extension is warranted. Working toward establishing an arsenic anthropogenic level (base background) for the golf course. The arsenic at the golf course is likely due to pesticide application at the golf course. Adrienne said that it is possible the concentrations of arsenic anthropogenic levels could exceed the state industrial levels. This will all be presented in the work plan for the team.

Action Item: Mark P. and Mark T. to have an offline discussion with Adrienne regarding the concurrence memo and to determine if an extension is warranted.

Mark said it looks as if there will be a need for an extension letter regardless. Adrienne and Mike S. said ERN money is not used to clean up golf courses. Pete said that at Eglin they had to establish LUCs for legally applied pesticides, which included the entire golf course.

3.9 OU 11 – PSC Sites with LUCs and no RODs and PSC 8/55 – Mark Peterson – Tetra Tech is in the field sampling.

Mark was tasked to collect information on PSC 44 drainage ditch west of Ajax Street. The base wanted to know if LUCs were still required. Mark presented slides (attached) and information to the team.

Sampling event Report (1999)

Scope

- Collection of sediment along the length of the ditch including background location
- Collection of sediment near the outfall at Mulberry Cove
- Analysis of sediment samples for TCL SVOCs, TCL pesticides, and TAL inorganics

Sampling Locations

- 3 sediment samples collected by Brown & Root in 1995
- 3 sediment locations collected in 1997 & 1998 by HLA
 - Two locations in PSC 44 ditch and
 - One background location (400 ft west)

Results from Brown & Root Investigation - 1995

- Detected results of PAHs, pesticides, and several metals exceeded the Florida Sediment Quality Assessment Guidelines
- NAS Jacksonville Partnering Team concurred with recommendation to not collect surface water as part of the sampling program.
- Unclear whether contaminants were the result of tanks at Hangar 1000 or due to storm water runoff from adjacent parking lots/roads.
- NAS Jacksonville Partnering Team recommended further investigation

Results from HLA Investigation – 1997 & 1998

- 11 PAHs in sediment were elevated above EPA Region IV and FDEP PEL sediment screening values.
 - Total PAHs in northern most location (44D001) measured at 139 mg/kg as compared to ND and 12.1 mg/kg at background and downgradient locations.
 - Brown and Root (1995) measured Total PAHs north of 44D001 at 3.7 mg/kg

- Concluded PAHs are likely a result of runoff rather than Hangar 1000.
- 4,4'-DDE, 4,4'-DDT, alpha-Chlordane, and Endrin were measured above respective screening values
 - Presence of pesticides likely due to station wide pesticide use
- With exception of cadmium and lead, all metals were measured below respective sediment screening values.
 - Both cadmium and lead detected during the first round of sampling with maximum concentrations of 6.2 mg/kg and 130 mg/kg, respectively. Both maximum results measured in the northern most sampling location.
 - Lead was not measured during the second round of sampling based on recommendations of the NAS Jax Partnering Team.
 - During second round sampling, cadmium concentrations decreased with the maximum concentrations decreasing from 6.2 mg/kg to 1.6 mg/kg

Human Health Risk Evaluation

- Risk was found to be acceptable at PSC 44 based on current land use and potential future residential land use.
- Most risk based on presence of PAHs in sediment. The most likely source of PAHs is runoff from tarmac, roads, and parking lots that drain into PSC 44.
- If NAS Jacksonville was to close and become residential most sources would be eliminated and the ditch would likely be enclosed in a culvert as a mosquito control measure.

Ecological Risk Evaluation

- Based on distribution of contamination the source is likely storm water runoff.
- Although concentrations of PAHs, pesticides, cadmium and lead exceeded available screening criteria, toxicity testing showed benthic invertebrates are not adversely affected from exposure to sediment in the PSC 44 drainage ditch.
- Risks to aquatic receptors are not predicted

Mark said there has been no impact to the drainage ditch under the Hangar 1000 monitoring program.

Tim said that possibly the LUCs should be changed to maintain the engineering control (fabric lining). This will be included in the sites with LUCs and no RODs and would not require any further investigation. Pete said the Human Health risk conclusion is confusing stating that the risk is acceptable for human health and ecological health risk then why is there a LUC. Mark said the risk assessment is assuming that if the site were ever to go to residential it is anticipated (in the risk assessment) the ditch would be filled in and it would break the pathway. However the document states that the risk is found to be acceptable under current and potential future residential land use.

Action Item: Mark to look into the human health risk conclusions for PSC 44 in order to verify that the conclusions included no risk to human health, yet required additional actions for residential scenarios (LUCs).

In Response to the Action Item - Findings from the PSC44 SER 1999; “The cancer risk for potential future adult and child residents are within the USEPA acceptable range of 10^{-4} to 10^{-6} . The hazard index for both adult and child are well below the pathway-acceptable limit of 1. Even so, it is likely that these risk calculations overestimate the risk at PSC44 if the site were to become residential. Most of the risk at PSC 44 is due to the presence of PAHs in the sediment. The most likely source of PAHs in the sediment are runoff from the tarmac, roads, and parking lots that drain into the drainage ditch. If NAS Jacksonville were to close and the land use converted from industrial to residential, most of these sources would be eliminated or reduced significantly. In addition, if the area were to be converted to residential use, it is likely that the drainage ditch would be enclosed in a culvert as a mosquito control measure. In that case, there would be no exposure to sediment.”

3.10 Petroleum Sites

- 3.10.1 Gas Hill (PCA 4) – Eric Davis – Eric Davis discussed prospect of MNA approval order for Gas Hill with Jennifer and David Grabka and it was determined that the site doesn't meet

the department's requirements (concentrations, time to attenuate [10 to 60 years] and several other factors). Jennifer said that it could meet, but she cannot give an approval order at this time. Eric said there was conversation regarding a LUCIP. Solutions is currently monitoring this site.

Tim said that Solutions was sampling last week at Gas Hill, FFTF, and DRMO.

- 3.10.2 Hawkins' Property – nothing to report.
- 3.10.3 PCA 25 – Boat House Area – nothing to report
- 3.10.4 Kemen Test Cell – There is nothing to report; this site is currently not funded.
- 3.10.5 Firefighter Training Facility (OU 2) – Per Pete: OU 2-Firefighter Training Facility, foam (AFFF/PFOS/PFOA) have health advisories for cleanup numbers. Place in the parking lot. Solutions sampled last week.
- 3.11 PSC 38 – Torpedo Rework Facility – Mark P. said PSC 38 is coming due for regulatory comment; however, Tetra Tech is in the field taking additional samples due to TCE hits from an unknown origin. Mark is not sure if this will become a revised RI for PSC 38 or a new site. Adrienne said that she will write an extension letter to the FFA deadline. Adrienne and Pete discussed offline a 4-month extension to the FFA deadline.
- 3.12 PSC 56 – NEX Gas Station – There is nothing to report.
- 1.13 PSC 57 – S-3 High Power Turn-up Pad – Todd Haverkost – Jennifer to speak with Dave G. regarding his comments on PSC 57 groundwater analyticals in the UFP SAP. Jennifer spoke to Dave and she said -Leave PCBs off; if TRPH has been analyzed with no exceedances, then that can be left off as well.

4.0 Miscellaneous

- 4.1 Proposed Construction Update – Tim Curtin – Tim gave an update of the proposed and current construction projects.
 - Golf course renovation is mostly replacing some of the cart paths from asphalt to concrete.
 - Looking to do all the air field projects – 2015. Postponed due to sequestration. The planes will move to Cecil, helicopters will stay. They plan to repair to runway. There are gigantic voids under the runway. They will be replacing the lighting, too.
 - The SeaBees are building remote restrooms at the golf course, PT area, and antenna farm.
 - The Mulberry Cove/Birmingham Rd work is almost complete.
 - Designing phase III of the water reuse system.
 - Planning to put walls around the welding shop in FRC SE.
 - NAS Jacksonville owns the sliver of land at Yellow Water. There is no LUC in place. Tim said he would like for it to go back to Cecil Field Site 15 and make it part of the transfer to the city. If they don't do that we will have to write LUCs for the site. Tim said that years ago he was asked by BRAC to do inspections at Site 15 (YWWA). Pete said the LUC RD was just completed for Site 15. Pete and Adrienne heard from BRAC that Site 15 may be transferred to the city sometime in December.
 - Tim said to make sure someone is inspecting the rollofts from PSC 45. Eric said that Juan is doing it. He will be involved in the VI and PSC 47 sampling.
- 4.2 Tier II Update – Sarah Reed – Nothing new since last meeting. The subcommittee will meet for the Exit Strategy after this week's Tier II meeting. There were no comments for the NAS Jacksonville Petroleum SMP for FY 14, so NAS Jacksonville is good to go.
- 4.3 Institutional Controls Implementation Plans Update – Tim Curtin – There is nothing new to report.

- 4.4 RCRA Activities – Tim Curtin – The draft permit application is complete and is close to being submitted.
- 4.5 Exit Strategy Review – Waiting on a decision to be made on the Exit Strategy revision from Tier II.
- 4.6 BOA Contracts Update and Schedule – Not much to report. Tim said they were just on station sampling last week. There are a few reports that need regulatory review completed.
- 4.7 CNO Award – There is nothing new to discuss until the November/December timeframe when submittal guidance is sent out.

5 Meeting Closing

- 5.1 Review Meeting Consensus Items – Done
- 5.2 Review Meeting Understandings – None
- 5.3 Review Action Items – Done
- 5.4 Next Meeting Proposed Agenda Changes
- 5.5 Set the future meeting dates in advance

Meeting Date	Meeting Time	Location	Meeting Chairman
11/12/13	1 p.m. to 5:00 p.m.	Jacksonville	Jennifer Conklin
11/13/13	8:00 a.m. to 12:00 noon		
01/14/14	1 p.m. to 5:00 p.m.	Jacksonville	Tim Curtin
01/15/14	8:00 a.m. to 12:00 noon		
03/18/14	1 p.m. to 5:00 p.m.	TBD	Pete Dao
03/19/14	8:00 a.m. to 12:00 noon		
5/13/14	1 p.m. to 5:00 p.m.	TBD	Eric Davis
5/14/14	8:00 a.m. to 12:00 noon		
7/15/14	1 p.m. to 5:00 p.m.	TBD	Todd Haverkost
7/16/14	8:00 a.m. to 12:00 noon		

1.6 Set the next meeting location, duration, and roles

- Location – Jacksonville
- Dates – November 12-13, 2013
- Duration – 2 days
- Chair – Jennifer Conklin
- Gate/Timekeeper – Tim Curtin
- Scribe – Julie Johnson

5.6 Facilitator Plus/Deltas – Done

Plus

Minutes Reviewed
 Finishing Early
 NIRIS update useful

Deltas

No guest WiFi
 Traffic and rain on Day 2

Consensus Item No.	<u>CONSENSUS ITEMS</u>
C-10913	Team approves July 2013 meeting minutes as final.
Agenda Item No.	<u>PARKING LOT</u>
	A potential success story, identifying plume reduction project at OU 3 Area A, which will reduce requirements for HAZWOPER training (CNO award due in December 2013). Team due every other year and the installation done every year.
	Yellow Water Weapons Housing Area – Part of Site 15 (sweeping for MEC) Natural Resource Corridor. Public Safety. Tim said the station is looking at getting rid of that area. Tim said nobody wants the road (causing hold up). Dave said the main concern is the part of yellow water Site 15 extends out to the area between the ball field and the old fence line. Confirm that the LUCs will be acceptable for both sites. LUC = only good for a pass through (hiking, biking, horseback riding; no attractors). Tim checking on status of transfer (November 2012). Tim said it has to be approved by congress. Expecting congressional approval to transfer ownership from the Navy to the PPV contractor (housing company) the middle of April 2013. Dave concerned about the Site 15 encroaching the housing area (Tim said that Site 15 does not encroach the PPV housing area). Tim said that part of the property will not be transferred. Dave said that multiple property owners may have to sign off on the permit. Update 05-2013: With Dave departing the Team, this will transition to Pete.
05/20/2013	Per Tim C., the Team will have to recommend whether keep the slabs at Hangars 113, 114, and 115.
9/18/13-OU 2	Per Pete: OU 2-Firefighter Training Facility, foam (AFFF/PFOS/PFOA) have health advisories for cleanup numbers.
9/18/03 – YWWA-Sliver at Cecil Field	NAS Jacksonville owns the sliver of land at Yellow Water. There is no LUC in place. Research in progress (Eric/Mark)

ACTION ITEMS

Action Item No.	Responsible Party	Status	Due Date	Site	Action Item
May 20-21, 2013					
A-10513	Julie	Working	TBD		Julie is to provide a 1- to 2-page summary of each site to Team members.
A-50513	Mike S.	Working	TBD		Mike S. is to send Team members and Dave Grabka the ESTCP reports.

ACTION ITEMS

Action Item No.	Responsible Party	Status	Due Date	Site	Action Item
July 23-24, 2013					
A-50713	Mark	Done	By the next meeting	PSC 44	Mark is to present historical information on PSC 44 at the next meeting.
A-60713	Adrienne	Done	8/2/2013	Yellow Water Sliver	Adrienne is to determine if there is a LUC RD for the Yellow Water sliver. Update: Adrienne said there is not a LUC RD for that sliver of land.
September 17-18, 2013					
A-10913	Todd	Done	By next meeting	Site summaries	Todd to send Julie a copy of Key West Site booklet
A-20913	Jennifer	Done	By next meeting	PSC 57	Jennifer to speak with Dave G. regarding his comments on PSC 57 groundwater analyticals in the UFP SAP. Update: Leave PCBs off if TRPH has been analyzed with no exceedances then that can be left off as well.
A-30913	Eric	Done	By next meeting	PSC 47	<p>Eric to investigate the anomalously high DO concentrations at MW-10S and report back to the team by next meeting.</p> <p>Email dated 11/8/13 from Eric Davis: <i>The action item is directly related to an FDEP comment from 2012 Pesticide Shop AGMR on the same subject. Here is the original comment and our response:</i></p> <p>3) <i>Provide an explanation as to why DO concentrations were elevated during the November 2011 and April 2012 sampling events at well locations JAX47-MW10S and JAX47-27S.</i></p> <p>Response: <i>The elevated DO concentrations for the two referenced wells were measured in the field using a calibrated water quality meter, as documented on the purge forms and field notes included in Appendix A; therefore, the data appear to be reliable. DO concentrations for well JAX47-MW10S were below 1 mg/L until April 2011; DO concentrations have been above 2 mg/L since that time (the three most recent sampling events). Well JAX47-MW27S was not included in the post-remedial action groundwater monitoring program until November 2011, and therefore has only been sampled twice. DO concentrations in this well were elevated both times (4.00 mg/L and 4.68 mg/L in November 2011 and April 2012, respectively). Monitoring wells JAX47-MW10S and JAX47-MW27S are located outside of the contaminant plume, to the north and northeast side of the site,</i></p>

ACTION ITEMS

Action Item No.	Responsible Party	Status	Due Date	Site	Action Item
					<p><i>respectfully, so depleted DO due to increased microbial activity would not be expected. Both of the wells will continue to be sampled as part of the groundwater monitoring program for further evaluation.</i></p> <p><i>We further reviewed the available data, which is provided in the Section 3 of the 2012 AGMR (attached), and have concluded the following:</i></p> <ul style="list-style-type: none"> <i>• Fluctuating DO measurements in borderline anoxic systems is difficult to explain because various physical, chemical, and microbial processes can be in play.</i> <i>• At -10S, the water level elevation was approximately 2 feet lower in October 2011 and 3 feet lower in April 2012, as compared to April 2011. Because this well is flush mounted and has a 10 foot screen, 2 and 3 feet more of screen were exposed during the relatively higher DO sampling events. The lower water levels during those events is likely the root cause, although we may never be able to define the specific physical, chemical, or microbial interactions the resulted in higher DO levels.</i> <i>• There isn't much data for -27S but approximately one-half of the screen at that well was exposed during the two most recent sampling events.</i> <i>• -10S and -27S are outside the plume</i> <i>• In any event, short term fluctuations in water levels and DO are unlikely to adversely affect fate and transport processes over the long term.</i> <i>• Additional data over the long-term may provide more insight into the cause of the elevated DO</i>
A-40913	Mark T. and Mark P.	Done	9/23/13	OU 10	Mark P. and Mark T. to have an offline discussion with Adrienne regarding the concurrence memo and to determine if an extension is warranted.
A-50913	Donald/Mark	Done	By next meeting	Area G	Provide Jennifer with Area G MW JAX-OU3-G5-C3 historical data and flow maps. Jennifer would like to see two to three historical flow maps showing seasonal difference. <i>(See attachments for data and maps sent to Jennifer Conklin, FDEP)</i>
A-60913	Adrienne	Done		OU 1	Adrienne to check with Solutions to make sure they are still sampling MW-98 at OU 1 per Pete Dao's comment.

ACTION ITEMS

Action Item No.	Responsible Party	Status	Due Date	Site	Action Item
A-70913	Mark P.	Done	9/20/13	OU 3 B103	Mark to check with Brad on VI for Building 103.
A-80913	Mark P.	Done	By next meeting	PSC 44	Mark to look into the human health risk conclusions for PSC 44 in order to verify that the conclusions included no risk to human health, yet required additional actions for residential scenarios. (LUCs). Findings from the PSC44 SER 1999; "The cancer risk for potential future adult and child residents are within the USEPA acceptable range of 10-4 to 10-6. The hazard index for both adult and child are well below the pathway-acceptable limit of 1. Even so, it is likely that these risk calculations overestimate the risk at PSC44 if the site were to become residential. Most of the risk at PSC 44 is due to the presence of PAHs in the sediment. The most likely source of PAHs in the sediment are runoff from the tarmac, roads, and parking lots that drain into the drainage ditch. If NAS Jacksonville were to close and the land use converted from industrial to residential, most of these sources would be eliminated or reduced significantly. In addition, if the area were to be converted to residential use, it is likely that the drainage ditch would be enclosed in a culvert as a mosquito control measure. In that case, there would be no exposure to sediment."
A-90913	Eric/Mark	Done	By next meeting	Yellow Water PSC 15	Eric/Mark to explore the history of the LUC for PSC 15 at Cecil Field as it relates to the Yellow Water Sliver of land.

NAS Jacksonville Team Agenda
Jacksonville, Florida
November 12-13, 2013

Chair – Jennifer Conklin
Gate/Timekeeper – Tim Curtin
Scribe – Julie Johnson

Item	Description	Presenter	Time	Objective
1.0	TEAM MEETING AND INTRODUCTIONS	Team		
1.1	Team member Greeting, Introductions, and Check-in; Guest Introductions	Team		
1.2	Assignment of Team Meeting Organization: Chair, Gate/Time Keeper, Scribe, and Prioritize Agenda.	Chair		
1.3	Read Team Ground Rules	Team		
2.0	INITIAL AGENDA ITEMS FOR EACH MEETING			
2.1	Review, submit revisions to, and reach consensus on previous meeting minutes	Team		
2.2	Reports on assigned action items and parking lot items	Team		
2.3	NAVFAC presents current budget execution plan	Adrienne		
3.0	AGENDA			
3.1	Schedules/SCAP/Exit Strategy/FDEP Document Tracker/FFA SMP/Petroleum SMP, FFA Review	Team		
	3.1.1 Team Development –Training	Tim Flood		
3.2	OU 1 – LTM Update and Landfill Maintenance			
3.3	OU 3			
	3.3.1 Groundwater Model Update	Donald		
	3.3.2 Vapor Intrusion Update	Eric		
	3.3.3 ESTCP Update	Geosyntec		
3.4	OU 6 – PSC 52 – Hangar 1000	Donald		
3.5	OU 7 – PSC 46 DRMO update	Eric		
3.6	OU 8 – PSC 47 – Pesticide Shop	Eric		
3.7	OU 9 – PSC 45-Building 200 Wash Rack (groundwater only)			
3.8	OU 10 - MRP Sites	Todd/Mark T.		
3.9	OU 11 - PSC Sites with LUCs and no RODs and PSC 8/55 –			
3.10	Petroleum Sites			
	Gas Hill	Eric		
	Hawkins			
	PCA 25			
	Kemen Test Cell			
	Firefighter Training Facility (OU 2)			
3.11	PSC 38 – Torpedo Rework Facility	Alan		
3.12	PSC 56 – NEX Gas Station			
3.13	PSC 57 – S-3 High Power Turn-up Pad	Todd		
4.0	MISCELLANEOUS			
4.1	Proposed Construction Update	Tim		
4.2	Tier II Update	Sarah		
4.3	Institutional Controls Implementation Update	Tim		
4.4	RCRA Activities			
4.5	Exit Strategy Review	Mark		

Item	Description	Presenter	Time	Objective
4.6	BOA Contracts Update	Tim/Adrienne		
4.7	CNO Award			
5.0	MEETING CLOSING			
5.1	Review Meeting Consensus Items			
5.2	Review Meeting Understandings			
5.3	Review Action Items			
5.4	Next Meeting Proposed Agenda			
5.5	Set Dates for Future Meetings			
5.6	Set the Next Meeting Location, Duration, and Roles			
5.7	Facilitator Plus/Deltas			

SITE	PHASE	RISK	RC	DESCRIPTION	CONTRACT #	CTO	RIP_RC	Target Date	SOW to AQ
SITE 00011	6	High	IR	FY14 NAS JACKSONVILLE SITE 11 (AREA A) LTM (SITES 11/26/51) OU1, OU3A, OU5	N69450-11-D-0100			2/15/2014	12/15/2013
SITE 00026	6	High	IR	FY14 NAS JACKSONVILLE SITE 26 IDW	N62470-14-WR-SXXXX	BASIC	12/1/2003	10/31/2013	8/31/2013
SITE 00026	6	High	IR	FY14 NAS JACKSONVILLE SITE 26 (OU1) CAP MAINTENANCE MOWING (C/W SITE 51 WELL MAINT)	RBOS		12/1/2003	10/31/2013	8/31/2013
SITE 00026	6	High	IR	FY14 NAS JACKSONVILLE SITE 11 (AREA A) LTM (SITES 11/26/51) OU1, OU3A, OU5	N69450-11-D-0100			2/15/2014	12/15/2013
SITE 00038	3	Low	IR	FY14 NAS JACKSONVILLE SITE 38 TORPEDO REWORK FACILITY REMEDIAL DESIGN	N62470-11-D-8013		9/30/2014	3/15/2014	1/15/2014
SITE 00038	4	Low	IR	FY14 NAS JACKSONVILLE SITE 38 TORPEDO REWORK FACILITY RA-C	N62470-12-D-7004		9/30/2014	6/30/2014	4/30/2014
SITE 00038	6	Low	IR	FY14 NAS JACKSONVILLE SITE 38 TORPEDO REWORK FACILITY LTO	N62470-12-D-7004		9/30/2014	6/30/2014	4/30/2014
SITE 00046	7	High	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide. OU3, Hangar 1000	N69450-11-D-0100		3/30/2005	3/30/2014	1/30/2014
SITE 00047	7	High	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide. OU3, Hangar 1000	N69450-11-D-0100		7/1/2007	3/30/2014	1/30/2014
SITE 00048	6	High	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide. OU3, Hangar 1000	N69450-11-D-0100		12/30/2001	3/30/2014	1/30/2014
SITE 00051	6	High	IR	FY14 NAS JACKSONVILLE SITE 51 WELL MAINTENANCE MOWING (C/W SITE 26 CAP MAINT)	RBOS		7/1/2002	10/31/2013	8/31/2013
SITE 00051	6	High	IR	FY14 NAS JACKSONVILLE SITE 11 (AREA A) LTM (SITES 11/26/51) OU1, OU3A, OU5	N69450-11-D-0100			2/15/2014	12/15/2013
SITE 00052	6	Med	IR	FY14 NAS JACKSONVILLE SITE 46 LTM(46,47,48,52) DRMO, Pesticide. OU3, Hangar 1000	N69450-11-D-0100		8/30/2007	3/30/2014	1/30/2014
SITE 00057	3	Low	CC	FY14 NAS JACKSONVILLE SITE 57 HIGH POWER TURNUP PAD REMEDIAL DESIGN	N62470-11-D-8013	JM49	6/30/2017	6/30/2014	4/30/2014
SWMU 00002	7	Med	IR	FY14 NAS JACKSONVILLE SWMU 2 BLDG 101S SAMPLING/LTM	N69450-11-D-0100	0009	5/24/2002	11/30/2013	9/30/2013
SWMU 00002	7	Med	IR	FY14 NAS JACKSONVILLE SWMU 2 POLISHING POND MONITORING	N69450-11-D-0100			8/31/2014	6/31/14
UST 000004	6	High	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FFTF,Hawkins, PCA 25	N69450-11-D-0100	0010	1/1/2003	3/30/2014	1/15/2013
UST 000015	6	High	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FFTF,Hawkins, PCA 25	N69450-11-D-0100	0010	3/30/2003	3/30/2014	1/15/2013
UST 000016	6	Med	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FFTF,Hawkins, PCA 25	N69450-11-D-0100	0010	12/16/1998	3/30/2014	1/15/2013
UST 000119	6	High	IR	FY14 NAS JACKSONVILLE UST 4 LTM (UST 4/15/16/119) Gas Hill, FFTF,Hawkins, PCA 25	N69450-11-D-0100	0010	6/30/2007	3/30/2014	1/15/2013

NAS Jacksonville Partnering Team Document Review Status

Date of Status: 17-Sep-2013

No.	Document Name	Distribution (email or hardcopy)	Date Submitted (or to be submitted)	Deadline for Comments of draft (45 days to comment)	FFA Deadline for Comments of draft (90 days to comment)	Navy Deadline for Redline & RTC& draft final (45 days)	Navy Deadline for draft final submittal (60 days)	Navy Deadline for Extension Letter (10 days prior to deadline for Final or 20 days after DF submittal)	Deadline for Final letter of approval (30 days) **	Comments Received from				
										FDEP	EPA	NAVFAC SE RPM	NAVFAC SE Chemist	NAS JAX
Tetra Tech Documents														
1	Draft OU 4 LUC RD (email to Pete Dao) Sent hardcopy 2/2/12 CTO 19 AND 154	email 12/30/11 hard copy (2/2/12)	30-Dec-2011								X	X	NA	X
2	Draft OU 3 LUC RD CTO 19 AND CTO 154	hard copy	30-Jan-2012								X	X	NA	X
3	Final Annual Monitoring Report - Hangar 1000 - RTC from team CTO 152A	hard copy	10-Oct-2011									X	NA	X
4	Final Site Assessment Report for PCA 25 CTO 0003	hard copy	10-Sep-2012											
5	Draft Redline Rev. 1 Potential Source of Contamination (PSC) 55 SI Report and Response to Comments CTO JM19	hard copy	24-Apr-2013								X		NA	
6	Draft-Final Rev. 2 Potential Source of Contamination (PSC) 45 RI Report CTO 112	hard copy	6-Jun-2013	4-Feb-2013	21-Mar-2013	5-May-2013	20-May-2013	9-Jun-2013	9-Jul-2013		X	X	NA	X
7	Draft Annual Monitored Natural Attenuation Evaluation Report for Hangar 1000 CTO JM66	hard copy	3/11/13 (Navy only) 3/28/2013 (team)							X		X	NA	X
8	Draft Potential Source of Contamination (PSC) 38 RI/FS Report CTO JM19	hard copy	27-Jun-2013	30-Jul-2013	26-Sep-2013	10-Nov-2013	25-Nov-2013	15-Dec-2013	25-Dec-2013		X		NA	
9	Draft EE/CA for PSC 45 CTO 112	hard copy	21-Aug-2013	5-Oct-2013	19-Nov-2013	3-Jan-2014	18-Jan-2014	7-Feb-2014	17-Feb-2014				NA	
CH2MHILL Documents														
1	Draft Final Building 106 AS/SVE System Decommissioning Work Plan	email	5-Jul-2011	NA	NA	NA	NA	NA	NA			X	X	X
2	Draft Final VI Work Plan	NIRIS and HC replacement pages	24-May-2012		N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A
3	Draft Final VI UFP-SAP	NIRIS and HC replacement pages	24-May-2012		N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A
4	Draft Final LUC RD - DRMO	hard copy	30-Jan-2012	NA	NA	NA	NA	NA	NA			X	X	X
5	DRMO Letter to EPD Stating Start Date of Remedy	email	March? Letter Prepared by HILL, to be submitted by Navy	NA	NA	NA	NA	NA	NA	NA		X	X	X
6	Draft Final Pesticide Shop Work Plan Revision XX (JM40)	email	18-Dec-2012	NA	NA	NA	NA	NA	NA			X	X	X
7	Draft Final Building 106 AS/SVE System Decommissioning Construction Completion Report	hard copy	30-Sep-2012	N/A	N/A	N/A	N/A	N/A	N/A					
8	Draft 2012 Gas Hill Annual Groundwater Monitoring Report	hard copy	5-Nov-2012	N/A	N/A	N/A	N/A	N/A	N/A			X	N/A	X
9	Draft 2012 Pesticide Shop Annual Groundwater Monitoring Report	hard copy	18-Dec-2012	N/A	N/A	N/A	N/A	N/A	N/A			X	N/A	X
10	Draft OU3 Vapor Intrusion Evaluation Report	hard copy	16-Nov-2012	N/A	N/A	N/A	N/A	N/A	N/A			X	N/A	X
11	Draft DRMO RACR	hard copy	19-Apr-2012	N/A	N/A	N/A	N/A	N/A	N/A	X	X	X	N/A	X
12	Draft DRMO Project Completion Report	hard copy	9-Jan-2012	N/A	N/A	N/A	N/A	N/A	N/A	X	X	X	N/A	X
13	Draft DRMO After Action Report	hard copy	9-Jan-2012	N/A	N/A	N/A	N/A	N/A	N/A	X	X	X	N/A	X
14	Draft, Rev 1 2012 Gas Hill Annual Groundwater Monitoring Report	hard copy	7-Feb-2013	N/A	N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A
15	Final 1 2012 Gas Hill Annual Groundwater Monitoring Report	email	1-Jul-2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16	Draft, Rev 1 2012 Pesticide Shop Annual Groundwater Monitoring Report	hard copy	21-Feb-2013	N/A	N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A
17	Final 2012 Pesticide Shop Annual Groundwater Monitoring Report	email	23-Aug-2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18	Draft, Rev 1 OU3 Vapor Intrusion Evaluation Report	hard copy	7-Mar-2013	N/A	N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A
19	Final OU3 Vapor Intrusion Evaluation Report	email	22-Aug-2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Draft JM10 Combined Work Plan	hard copy	18-Jun-2013	NA	NA	NA	NA	NA	NA		X	X	NA	X
20	Final DRMO Remedial Action Completion Report	hard copy	8-Mar-2013	N/A	N/A	N/A	N/A	N/A	N/A				N/A	
21	Final DRMO Project Completion Report	hard copy	22-Mar-2013	N/A	N/A	N/A	N/A	N/A	N/A				N/A	

Resolution Consultants Documents

1	Draft PSC 57 SI UFP-SAP CTO JM19	hard copy	5-Feb-2013	22-Mar-2013	6-May-2013	20-Jun-2013	5-Jul-2013	26-Jul-2013	4-Aug-2013	X	X	X	X	X
2	Draft UXO 2, 4, & 6 RI UFP-SAP CTO JM08	hard copy	15-Mar-2013	29-Apr-2013	13-Jun-2013	28-Jul-2013	12-Aug-2013	1-Sep-2013	11-Sep-2013		X	X	X	X

X = Comments have been received from this reviewer
 Blank = No comments have been received from this reviewer
 Shaded - Documents to be submitted in the next 30 days.
 NA = no review required by this reviewer.

** The regulators will issue a letter approving the draft-final as final if no dispute resolution.

FFA Review time restrictions:

- The draft = 90 days to comment,
- Within 60 days the Navy shall submit red line document and the response to comments, then submit the draft final by the end of the 60 days,
- There are 30 days to final or dispute resolution from issuance of draft final.
- The regulators will issue a letter approving the draft-final as final if no dispute resolution.
- Adrienne will include dates in her transmittal letters.

Source: NAS Jacksonville Partnering Minutes March 2012.



Document Reviews Underway

FEDERAL FACILITIES DATABASE

List of document reviews within the Federal Facilities database that have no value in the "Date Out" column and no explanation indicated in the "Explanation" column.

JACKSONVILLE NAVAL AIR STATION (NAS JAX)

56 Document Reviews Underway

Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Draft Rev 2, SAP, FSP&QAPP, September 2013 - Semi-Annual Monitoring, OU 7, PSC 46 - Former Defense Reutilization & Marketing Office, September 4, 2013	9/9/2013			JRC	w/CD
Draft EECA for PSC 45, August 20, 2013	8/22/2013			JRC	
Draft Rev 2 Enhanced In Situ Bioremediation Pilot Test Work Plan, OU 3, July 26, 2013	7/29/2013			JRC	w/CD
Response to Comments - Technical Memorandum, February 2013, Groundwater Sampling & Analysis, OU 7, PSC 46-Former Defense Reutilization & Marketing Office (DRMO), July 15, 2013	7/22/2013			JRC	
Updated Technical Memorandum, February 2013, Groundwater Sampling & Analysis, OU 7, PSC 46-Former Defense Reutilization & Marketing Office (DRMO), July 15, 2013, Rev 01	7/22/2013			JRC	w/CD
Draft Sampling & Analysis Plan, Site Inspection, PSC 57-S-3 High Power Turn-Up Pad, Version 1, June 2013 (Redlined)	7/21/2013			JRC	Rec By E-Mail
Responses to Comments - Draft Tier I Sampling & Analysis Plan, Site Inspection, PSC 57-S-3 High Power Turn-Up Pad, Version 1, June 2013 (Redlined)	7/21/2013			JRC	Rec By E-Mail
Draft Rev 2, November 2012 Quarterly Groundwater Monitoring Report, PCA 25, UST Site 119, July 12, 2013	7/16/2013			JRC	w/CD
Draft Remedial Investigation PSC 38-Torpedo Rework Area, June 27, 2013	6/28/2013			JRC	w/CD
Proposed Well Locations and Construction Information for NAS JAX Bioremediation Pilot Study, June 3, 2013	6/7/2013			JRC	E-Mail & E-Mail Attachment Sent Separately
Draft PSC 55 - Response to Comments & Site Investigation Redlined Report, April 24, 2013	4/25/2013			DPG/JC	
Site Investigation Report, PSC 55, April 24, 2013	4/25/2013			DPG/JC	w/CD
Draft Interim Remedial Action Completion Report, Munitions Removal Actions, April 18, 2013	4/19/2013			DPG	w/CD

JACKSONVILLE NAVAL AIR STATION (NAS JAX)

56 Document Reviews Underway

Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Long Term Groundwater Monitoring Report - Hangar 1000, OU 6, March 27, 2013	4/1/2013			DPG	Ltrs w/CD
Draft UFP SAP, Groundwater Monitoring, PCA 4-Gas Hill Fuel Farm, Rev 2, January 10, 2013	1/15/2013			DPG	w/CD
Draft Annual Groundwater Monitoring Rpt, OU 1, PSCs 26&27, Revision 2, January 9, 2013	1/11/2013			DPG	w/CD
Final FFA Site Management Plan CY2013 & Response to Comments, December 3, 2012	12/5/2012			DPG	w/CD
Draft 2002 Annual Groundwater Monitoring Report, OU 5, PSC 51, October 23, 2012	10/26/2012			DPG	w/CD
Land Use Control Remedial Design, OU 7-DRMO, Revision 1, October 19, 2012	10/24/2012			DPG	w/CD
Draft Sampling & Analysis Plan, FSP&QAPP, Annual Monitoring, OU 5, PSC 51, OU 1, PSCs 26 & 27, and OU 3 - Area A, Rev 2, October 3, 2012	10/9/2012			DPG	
Response to Comments - Draft Site Assessment Report, PCA 25, UST Site 119 Fuel Transfer Sump, September 12, 2012	9/12/2012			DPG	
Final 2013 Federal Facilities Agreement Site Management Plan Amendment, August 28, 2012	9/11/2012			DPG	
B101S Groundwater Monitoring Results, June 2012, (July 13, 2012)	7/27/2012			DPG	w/CD
Draft Final Sampling & Analysis Plan (FSP & QAPP), April 2012, Groundwater Monitoring - Petroleum Contaminated Area (PCA) 15, Fire Fighting Training Facility, (April 25, 2012)	4/27/2012			DPG	w/CD
Draft Land Use Control Remedial Design OU 3, (January 30, 2012)	2/3/2012			DPG	w/CD
Draft Land Use Control Remedial Design OU 4 - Casa Linda Lake, (January 30, 2012)	2/3/2012			DPG	w/CD
Draft Land Use Control Remedial Design OU 7, (January 30, 2012)	2/3/2012			DPG	w/CD
Final Land Use Control Remedial Design OU 1, (January 19, 2012)	2/1/2012			DPG	
Final Annual Monitored Natural Attenuation Evaluation Report, OU 6-Hangar 1000, (October 2011)	10/11/2011			DPG	w/CD
Final 2011 Annual Groundwater Monitoring Report - Potential Source of Contamination 47, Revision 01, (October 2011)	10/6/2011			DPG	w/CD

JACKSONVILLE NAVAL AIR STATION (NAS JAX)
56 Document Reviews Underway

Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Annual Sampling Report - Long-Term Monitoring Program, OU 3, Area A, (May 31, 2011)	7/12/2011			DPG	w/CD
Work Plan MR for Soil/Sediment Remediation at OU 7, PSC 46 - Defense Reutilization & Marketing Office, Revision 01, (May 2011)	5/19/2011			DPG	
Annual Monitoring Report - Long-Term Monitoring Program Potential Source of Contamination 51, (October 2010)	5/9/2011			DPG	Received By E-Mail
January 2011 Biannual Monitoring Report OU 3, Site 11 Area B & Site 15 Area G	4/26/2011			DPG	w/CD
Munitions Response Site Prioritization Protocol Work Sheets for Munitions Response Program Sites	10/1/2010			DPG	
Site Inspection Report MRP Site Inspection at Former Machine Gun Range Complex, (September 2010)	10/1/2010			DPG	w/2 CDs
Annual Groundwater Monitoring Report - Potential Source of Contamination 47, Revision 00, (June 2010)	6/8/2010			DPG	w/CD
Monitored Natural Attenuation Plan Petroleum Contaminated Area 4-- Gas Hill Fuel Farm, Revision 02	4/29/2010			DPG	w/CD
Sampling Event Report for OU 1 (November 2008)	11/25/2008			DPG	CD w/HASP, SAP, SERs for Additional Assess. @ OU 1 & 3
Final Sampling & Analysis Plan for Groundwater Assessment Upgradient of Building 106 & Area C & Soil Assessment at Building 106, OU 3	11/3/2008			DPG	w/CD
Smoke and Dye Tracer Testing and Sampling of the Eastern Storm Sewer at OU 3, Areas F & G	7/24/2008			DPG	Received by E-mail
PSC 47 Interim Remedial Action-Concrete Placement, Contract N62467-01-D-0331, CTO #0064, Revision No. 03	3/25/2008			DPG	E-Mail
2007 Annual Monitoring Report Storm Sever Sampling OU#3 Areas F & G, Rev. 0	12/4/2007			DG	report with cd
Remedial Action Work Plan Soil/Sediment Remediation and Groundwater Sampling OU#7 PSC 46 Defense Reutilization and Marketing office, Rev.0	10/17/2007			DG	rec. by email
Final Land Use Control Remedial Design for Hangar 1000	10/15/2007			DG	report no cd
Remedial Action Work Plan Soil/Sediment Remediation and Groundwater Sampling at OU#7 and Maintenance office naval air Station Jacksonville, Rev. 0	10/12/2007			DG	report with cd

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56 Document Reviews Underway

Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Final Treatability Study Report for Petroleum Contaminated Area (PCA) 16 (hawkins 103rd. Street Property)	8/20/2007			DG	report with cd
Final Report Annual Long Term monitoring (LTM) Report, Jan. 5-6, 2007 Sampling Event for Area B (PSC 11) and Area G (PSC 15) OU#3	3/5/2007			JHC	report with cd
Final Land Use Control Remedial Design for OU#3 Area A	2/8/2007			JHC	report with cd
Draft Land Use Control Remedial Design OU#3 Area A, Rev. 0	12/27/2006			JHC	report no cd
Final Removal Action Completion Report Gas Hill Fuel Farm Tanks Demolition and Disposal	12/18/2006			JHC	report with cd
Remedial Investigation/Feasibility Study Sampling and Analysis Plan Addendum for Potential Source of Contamination 47	11/30/2006			JHC	report no cd
Final Land Use Control Remedial Design at OU#5 PSC 51	11/27/2006			JHC	report with cd
Final Removal Action Completion Report Gas Hill	10/16/2006			JHC	Report with cd
Closure Assessment report for underground storage tanks 880-6 and 7 at bldg. 429	7/19/2006			JHC	report no cd
SWMU Report for the kemenTest Cell	8/26/2004			JHC	no Cd



Facility Document Reviews

FEDERAL FACILITIES DATABASE

List of document reviews within the Federal Facilities database that were previously tracked in the DODTRS.xls spreadsheet. The documents are grouped by Facility and sorted with the most recent documents first.

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1047 Document Reviews

Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Draft Rev 2, SAP, FSP&QAPP, September 2013 - Semi-Annual Monitoring, OU 7, PSC 46 - Former Defense Reutilization & Marketing Office, September 4, 2013	9/9/2013			JRC	w/CD
Draft EECA for PSC 45, August 20, 2013	8/22/2013			JRC	
Response to Comments - Draft Sampling & Analysis Plan Amendment, MRP, Remedial Investigation - Former Machine Gun Range Complex, August 7, 2013	8/7/2013	9/12/2013		JRC	Rec By E-Mail
Draft Rev 2 Enhanced In Situ Bioremediation Pilot Test Work Plan, OU 3, July 26, 2013	7/29/2013			JRC	w/CD
Response to Comments - Technical Memorandum, February 2013, Groundwater Sampling & Analysis, OU 7, PSC 46-Former Defense Reutilization & Marketing Office (DRMO), July 15, 2013	7/22/2013			JRC	
Updated Technical Memorandum, February 2013, Groundwater Sampling & Analysis, OU 7, PSC 46-Former Defense Reutilization & Marketing Office (DRMO), July 15, 2013, Rev 01	7/22/2013			JRC	w/CD
Draft Sampling & Analysis Plan, Site Inspection, PSC 57-S-3 High Power Turn-Up Pad, Version 1, June 2013 (Redlined)	7/21/2013			JRC	Rec By E-Mail
Responses to Comments - Draft Tier I Sampling & Analysis Plan, Site Inspection, PSC 57-S-3 High Power Turn-Up Pad, Version 1, June 2013 (Redlined)	7/21/2013			JRC	Rec By E-Mail
Draft Rev 2, March 2013 Quarterly Groundwater Monitoring Report, PCA 25, UST Site 119, July 12, 2013	7/16/2013	9/9/2013		JRC	w/CD
Draft Rev 2, November 2012 Quarterly Groundwater Monitoring Report, PCA 25, UST Site 119, July 12, 2013	7/16/2013			JRC	w/CD
Draft Remedial Investigation PSC 38-Torpedo Rework Area, June 27, 2013	6/28/2013			JRC	w/CD

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Phase 3 Vapor Intrusion Investigation, OU 3, MNA Investigation & Annual Groundwater Sampling, PSC 47, PSC 45 Soil Excavation Base Wide Well Abandonment & Various Systems Decommissioning/Removal Actions, June 14, 2013	6/17/2013	7/11/2013		JRC	
Proposed Well Locations and Construction Information for NAS JAX Bioremediation Pilot Study, June 3, 2013	6/7/2013			JRC	E-Mail & E-Mail Attachment Sent Separately
Draft Revision 2, Sampling & Analysis Plan, FSP & QAPP, May 2013, Annual Monitoring, OU 2-PSC 48, May 30, 2013	5/31/2013	7/8/2013		JRC	w/CD (Changed OU3 & 5/30/2013)
Draft Remedial Investigation Report, PSC 45, Rev 1, May 2, 2013	5/6/2013	6/4/2013		DG/JRC	w/CD
PSC 45 RI, Rev 1, Redline & Response to Comments, April 24, 2013	5/6/2013	6/4/2013		DG/JRC	
Draft PSC 55 - Response to Comments & Site Investigation Redlined Report, April 24, 2013	4/25/2013			DPG/JC	
Site Investigation Report, PSC 55, April 24, 2013	4/25/2013			DPG/JC	w/CD
Draft Interim Remedial Action Completion Report, Munitions Removal Actions, April 18, 2013	4/19/2013			DPG	w/CD
Tech Memo-Groundwater Sampling & Analysis, OU 7, PSC 46-Former Defense Reutilization & Marketing Office (DRMO), April 4, 2013	4/15/2013	6/24/2013		DPG	Received By E-Mail
Draft Annual Monitored Natural Attenuation Evaluation Report, OU 6-Hangar 1000 (Year 3-April 16-17, 2012 & October 16-17, 2012, March 27, 2013	4/1/2013	9/11/2013		DPG	w/CD
Final Semiannual Monitored Natural Attenuation Evaluation Report, April 2012, OU 6-Hangar 1000, March 28, 2013	4/1/2013	4/4/2013		DPG	
Long Term Groundwater Monitoring Report - Hangar 1000, OU 6, March 27, 2013	4/1/2013			DPG	Ltrs w/CD
Draft Revision 2 Groundwater Monitoring Report, PCA 16-Hawkins 103rd Street Property, March 21, 2013	3/26/2013	8/19/2013		DPG	w/CD
Draft Revision 2 Groundwater Monitoring Report, PCA 16-Hawkins 103rd Street Property, March 21, 2013	3/26/2013	8/22/2013		DPG	w/CD
Final Project Completion Report, Soil/Sediment Remediation & Groundwater Sampling, OU 7, PSC 46-Defense Reutilization & Marketing Office, March 18, 2013	3/19/2013	4/4/2013		DPG	
Draft UFP Sampling & Analysis Plan Amendment, MRP, RI - OU 10, UXO's 2, 4 & 6, March 18, 2013	3/18/2013	7/10/2013		DPG	w/CD

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Final Remedial Action Completion Report, Soil/Sediment Remediation & Groundwater Sampling - OU 7, PSC 46-Defense Reutilization & Marketing Office, March 8, 2013	3/12/2013	4/4/2013		DPG	w/CD
Phase II Vapor Intrusion Investigation Report, OU 3, Revision 01, March 2013, March 8, 2013	3/11/2013	6/17/2013		DPG	w/CD
Polishing Pond Groundwater Monitoring Results, January 2013, February 8, 2013	3/1/2013		NRR	DPG	w/CD, RCRA
2012 Annual Groundwater Monitoring Report, PSC 47-Pesticide Shop, February 20, 2013	2/22/2013	6/12/2013		DPG	w/CD
2012 Annual Groundwater Monitoring Report, PCA 4-Gas Hill Fuel Farm, Rev 01, February 7, 2013	2/8/2013	6/25/2013		DPG	w/CD
Draft SAP, Site Inspection, PSC 57, S-3 High Power Turn-Up Pad, February 4, 2013	2/6/2013	3/25/2013		DPG	w/CD - Ltr has Rec Date 2/3/2013
Final SAP, FSP & QAPP, November 2012, Groundwater Monitoring - Former Wastewater Polishing Pond, January 16, 2012	1/24/2013		NRR	DPG	w/CD, RCRA
Draft 2012 Annual Groundwater Monitoring Report, OU 3, Area A, Rev 2, January 8, 2013	1/15/2013	3/11/2013		DPG	w/CD
Draft September 2012 Semi-Annual Groundwater Monitoring Report, PCA 15-Fire Fighter Training Facility, Rev 2, January 10, 2013	1/15/2013	3/12/2013		DPG	w/CD
Draft UFP SAP, Groundwater Monitoring, PCA 4-Gas Hill Fuel Farm, Rev 2, January 10, 2013	1/15/2013			DPG	w/CD
Draft August 2012 Quarterly Groundwater Monitoring Report, Rev 2 - Petroleum Contaminated Area 25 UST Site 119, January 8, 2013	1/14/2013	3/11/2013		DPG	w/CD
Draft September 2012 Semi-Annual Groundwater Monitoring Report, Rev 2 - Petroleum Contaminated Area 4 Gas Hill Fuel Frm, January 8, 2013	1/14/2013	3/11/2013		DPG	w/CD
Draft Annual Groundwater Monitoring Rpt, OU 1, PSCs 26&27, Revision 2, January 9, 2013	1/11/2013			DPG	w/CD
Draft Remedial Investigation Report, PSC 45, OU 9, Building 200 Washrack, December 19, 2012	12/27/2012	3/11/2013		DPG	w/CD
FL6170024412, Operating/Postclosure/Corrective Action Permit 0072437-HO-010, RCRA Notification of the Discovery of a New SWMU	12/27/2012	1/18/2013		DPG	E-Mail Dated 12/27/2012
Final Remedial Investigation UFP SAP OU 10 MRP Sites, December 3, 2012	12/6/2012		NRR	DPG	Ltrs/Signature Pg w/CD

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Final FFA Site Management Plan CY2013 & Response to Comments, December 3, 2012	12/5/2012			DPG	w/CD
Draft Final Tier II Sampling & Analysis Plan, MRP, Remedial Investigation, Former Machine Gun Range Complex, November 2012,	11/9/2012	11/16/2012		DPG	
Final Tier II SAP for Hangar 1000 (Replacement Pages & Living CD for CTO JM66 w/Final Version & Other Documents Submitted Under this CTO	10/29/2012		NRR	DPG	Transmittal, 3 Maps & 2 CDs
Draft 2002 Annual Groundwater Monitoring Report, OU 5, PSC 51, October 23, 2012	10/26/2012			DPG	w/CD
Land Use Control Remedial Design, OU 7-DRMO, Revision 1, October 19, 2012	10/24/2012			DPG	w/CD
Revised Redline/Strikeout Versor. & Revised Responses to David Grabka's Original Comments	10/15/2012	11/5/2012		DPG	
Draft Sampling & Analysis Plan, FSP&QAPP, Annual Monitoring, OU 5, PSC 51, OU 1, PSCs 26 & 27, and OU 3 - Area A, Rev 2, October 3, 2012	10/9/2012			DPG	
Final UFP SAP, Groundwater Monitoring PCA 25, UST Site 119-Fuel Transfer Sump	9/27/2012	11/1/2012		DPG	
Response to Comments - Draft Site Assessment Report, PCA 25, UST Site 119 Fuel Transfer Sump, September 12, 2012	9/12/2012			DPG	
Site Assessment Report, PCA 25. UST Site 119 Fuel Transfer Sump, September 10, 2012	9/12/2012	11/1/2012		DPG	w/CD
Final 2013 Federal Facilities Agreement Site Management Plan Amendment, August 28, 2012	9/11/2012			DPG	
Draft Tier II Sampling & Analysis Plan, Munitions Response Program, Remedial Investigation of Former Machine Gun Range Complex, April 2012	9/9/2012	11/5/2012		DPG	
Draft Tier II Sampling & Analysis Plan (FSP & QAPP), August 2012, MRP - Remedial Investigation of Former Machine Gun Range Complex	9/6/2012	11/5/2012		DPG	
Response to Comments from Partnering Team on Draft Draft Tier II Sampling & Analysis Plan (FSP & QAPP), August 2012, MRP - Remedial Investigation of Former Machine Gun Range Compl	9/6/2012	11/5/2012		DPG	
Draft Site Investigation Report PSC 55, August 2012	9/4/2012	10/11/2012		DPG	
B101S Groundwater Monitoring Results, June 2012, (July 13, 2012)	7/27/2012			DPG	w/CD

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Draft Aite Assessment Report for Petroleum Contaminated Area 25, UST Site 119 Fuel Transfer Sump, July 2, 2012	7/19/2012	7/30/2012		DPG	
Draft Rev 2, Sampling & Analysis Plan, FSP&QAPP, July 2012, Groundwater Monitoring-PCA 25, UST Site 119 Fuel Transfer Sump	7/10/2012	7/16/2012		DPG	w/CD
Draft Semiannual Monitored Natural Attenuation Evaluation Report OU 6, Hangar 1000, July 3, 2012	7/5/2012	3/11/2013		DPG	
Draft Work Plan & Draft UFPSAP, OU 3 Phase II - Vapor Intrusion Evaluation, Response to Comments, May 2012 (May 23, 2012)	5/25/2012	7/19/2012		DPG	w/CD
Draft After Action Report (AAR), MR for Soil/Sediment Remediation, OU7, PSC 46 - Defense Reutilization & Marketing Office, Revision 00, January 2012, (May 2, 2012)	5/8/2012	3/11/2013		DPG	w/CD
Draft Final Sampling & Analysis Plan (FSP & QAPP), April 2012, Groundwater Monitoring - Petroleum Contaminated Area (PCA) 15, Fire Fighting Training Facility, (April 25, 2012)	4/27/2012			DPG	w/CD
Draft Remedial Action Completion Report, Soil/Sediment Remediation & Groundwater Sampling OU 7, PSC 46 - Defense Reutilization & Marketing Office, Rev 01, April 2012, (April 19, 2012)	4/24/2012	3/11/2013		DPG	w/CD
Draft Tier II Sampling & Analysis Plan MRP, Remedial Investigation - Former Machine Gun Range Complex, April 2012, (April 12, 2012)	4/12/2012	7/9/2012		DPG	w/CD
January 2012 RCRA Groundwater Sampling Report - Polishing Pond, March 2012, (April 9, 2012)	4/11/2012		NRR	DPG	w/CD -- RCRA
Semi-Annual Groundwater Monitoring Report - Hangar 101S, December 2011 Sampling Event, (March 27, 2012)	3/30/2012		NRR	DPG	w/CD -- RCRA
OU 2 - Petroleum Contaminated Area 15, Former Fire Fighter Training Area, January 2012 Sampling Event Letter Report, March 23, 2012	3/26/2012	8/22/2012		DPG	w/CD
Draft OU 3, Phase II Vapor Intrusion, Evaluation Work Plan, Revision 02, March 2012, (March 22, 2012)	3/23/2012	4/12/2012		DPG	w/CD
Final Tier II SAP - (PSC 52) Hangar 1000, Monitored Natural Attenuation Sampling, OU 6, March 2012, (March 7, 2012)	3/9/2012	3/8/2012		DPG	w/CD
Draft Land Use Control Remedial Design OU 3, (January 30, 2012)	2/3/2012			DPG	w/CD
Draft Land Use Control Remedial Design OU 4 - Casa Linda Lake, (January 30, 2012)	2/3/2012			DPG	w/CD
Draft Land Use Control Remedial Design OU 7, (January 30, 2012)	2/3/2012			DPG	w/CD
Final Land Use Control Remedial Design OU 1, (January 19, 2012)	2/1/2012			DPG	

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Final Sampling & Analysis Plan (FSP & QAPP) - Phase I Remedial Investigation, PSC 38 & Responses to Additional Comments, Revision 3, (January 24, 2012)	2/1/2012		NRR	DPG	w/2 CDs
Final Sampling & Analysis Plan (FSP & QAPP), Phase I Remedial Investigation, PSC 38, Revision 3, (January 2012)	1/23/2012	1/23/2012		DPG	Received By E-Mail
Draft Project Completion Report-Soil/Sediment Remediation & Groundwater Sampling OU 7 - PSC 46-Defense Reutilization & Marketing Office, Revision 00, (January 2012)	1/11/2012	3/11/2013		DPG	w/CD
Final Sampling & Analysis Plan (Field Sampling Plan & Quality Assurance Project Plan) - Phase I Remedial Investigation - Potential Source of Contamination 38--Torpedo Rework Facility, (December 2011)	12/14/2011	1/13/2012		DPG	w/CD
Final Summary Form for Final Five-Year Review - OUs 1, 2, 3, 4, 5, 6, 7 & 8, Revision 2, (December 12, 2011)	12/14/2011		NRR	DPG	w/CD
OU 2 - Petroleum Contaminated Area 15 - Former Fire Fighter Training Area, July 2011 Sampling Event Letter Report, (December 2, 2011)	12/5/2011	3/30/2012		DPG	
Site Assessment Report - NEX Gas Station - Former Underground Storage Tanks 880-6 & 880-7, (December 2011)	12/2/2011	2/28/2012		DPG	w/CD
Draft Tier II Sampling & Analysis Plan - Monitored Natural Attenuation Sampling OU 6 (Potential Source of Contamination 52, Hangar 1000), (October 2011)	10/26/2011	2/20/2012		DPG	
Health & Safety Plan for Monitored Natural Attenuation Sampling - Hangar 1000, (October 2011)	10/13/2011		NRR	DPG	
Final Annual Monitored Natural Attenuation Evaluation Report, OU 6- Hangar 1000, (October 2011)	10/11/2011			DPG	w/CD
Final 2011 Annual Groundwater Monitoring Report - Potential Source of Contamination 47, Revision 01, (October 2011)	10/6/2011			DPG	w/CD
Response to Comments - Draft Land Use Control Remedial Design, OU 1, (September 22, 2011)	9/23/2011		NRR	DPG	EPA Comments
Hangar 101S June 2011 Sampling Event, (August 24, 2011)	9/22/2011		NRR	DPG	w/CD -- RCRA
Errata Pages for Final Five-Year Review for Ous 1, 2, 3, 4, 5, 6, 7 & 8, Revision 2, (September 6, 2011)	9/7/2011		NRR	DPG	w/CD
Work Plan Revision, Revision No 3, Monitored Natural Attenuation Plan, Petroleum Contaminated Area 4 - Gas Hill Fuel Farm, (June 5, 2011)	9/6/2011	10/5/2011		DPG	Received By E-Mail
Final Federal Facilities Agreement Site Management Plan Amendment, Calendar Year 2012	8/16/2011	10/14/2011		DPG	Received By E-Mail

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
2011 Annual Groundwater Monitoring Report - PSC 47, Revision 01, (August 2011)	8/15/2011	9/13/2011		DPG	w/CD
Draft-Final Sampling & Analysis Plan (SAP) (Field Sampling Plan & Quality Assurance Project Plan) - Phase I Remedial Investigation, PSC 38-Torpedo Rework Facility, Revision 1, (August 2011)	8/11/2011		OBE	DPG	w/CD
Final Explosive Safety Submission (ESS) Including Amendment 2, (Munitions Response for Soil/Sediment Remediation OU 7, PSC46) - DLA SE (Formerly DRMO), (July 28, 2011)	8/2/2011		NRR	DPG	Letter w/CD
Draft Site Assessment Report, NEX Gas Station - Former Underground Storage Tanks 880-6 & 880-7, (July 2011)	8/1/2011	10/7/2011		DPG	w/CD
Draft Site Assessment Report - Petroleum Contaminated Area 25 - UST Site 119 Fuel Transfer Sump, Rev 0, (July 2011)	7/19/2011	7/30/2012		DPG	w/CD
Final Site Investigation Report, Potential Source of Contamination 45 - Building 200 Wash Rack, (July 2011)	7/19/2011	8/31/2011		DPG	w/CD
Annual Sampling Report - Long-Term Monitoring Program, OU 3, Area A, (May 31, 2011)	7/12/2011			DPG	w/CD
Explosives Safety Submission for MR for Soil/Sediment Remediation, OU 7, Potential Source of Contamination 46 - Defense Reutilization & Marketing Office (Amendment No. 01), (June 2011)	7/11/2011		NRR	DPG	Letter w/CD
Final Sampling & Analysis Plan (Field Sampling Plan & Quality Assurance Project Plan) - Site Investigation - PSC 55, Rev 1, (June 2011)	7/1/2011		NRR	DPG	w/CD
Draft-Final Sampling & Analysis Plan (Field Sampling Plan & Quality Assurance Project Plan) - Site Investigation for PSC 55, (June 2011)	6/22/2011	6/23/2011		DPG	w/CD
Work Sheet 1 Additional Page - Final SAP (FSP & QAPP) for Extended SI for PSC 5, 8, 9, 29, 31, 32, & 50, Revision 3, (June 10, 2011)	6/14/2011		NRR	DPG	
Health & Safety Plan for PSCs 38, 45, & 55, (June 7, 2011)	6/10/2011		NRR	DPG	
Health & Safety Plan for PSCs 5, 8, 9, 29, 31, 32, & 50, (June 7, 2011)	6/10/2011		NRR	DPG	
Sampling & Analysis Plan (FSP & QAPP) - Remedial Investigation - PSC 45-Former Building 200 Wash Rack Disposal Pit, Rev 1, (May 2011)	6/10/2011		NRR	DPG	
Final Five-Year Review for OUs 1, 2, 3, 4, 5, 6, 7, & 8, Revision 2, (May 26, 2011)	6/1/2011	7/12/2011		DPG	
Response to Comments for Draft-Final Five-Year Review for OUs 1, 2, 3, 4, 5, 6, 7, & 8, (May 2011)	6/1/2011	7/12/2011		DPG	

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Sampling & Analysis Plan (Field Sampling Plan & Quality Assurance Project Plan), Extended Site Investigation for PSC Sites 5, 8, 9, 29, 31, 32, & 50, Revision 3, (May 2011)	5/27/2011		NRR	DPG	
Work Plan MR for Soil/Sediment Remediation at OU 7, PSC 46 - Defense Reutilization & Marketing Office, Revision 01, (May 2011)	5/19/2011			DPG	
Ocala National Forest Property Near Salt Springs, FL - Project Completion Report, AV-8 Harrier Crash Site Remediation - Excavation of Aircraft Debris & Petroleum-Contaminated Soil, Revision 01, (March 2011) -- "Mishap July 18, 2010"	5/18/2011	8/11/2011		DPG	
Annual Monitoring Report - Long-Term Monitoring Program Potential Source of Contamination 51, (October 2010)	5/9/2011			DPG	Received By E-Mail
Operating/Corrective Action/Post-Closure Permit 72437-HO-009 - Field Investigation of off Station Migration of Chlorinated solvent Constituents, (April 21, 2011)	4/27/2011		NRR	DPG	RCRA
January 2011 Biannual Monitoring Report OU 3, Site 11 Area B & Site 15 Area G	4/26/2011			DPG	w/CD
January 2011 Semiannual Monitoring Report OU 2 - Fire Fighter Training Facility, (April 2011)	4/26/2011	3/30/2012		DPG	w/CD
Explosives Safety Submission, Munitions Response - Soil/Sediment Remediation OU 7, Potential Source of Contamination 46 - Defense Reutilization & Marketing Office, (January 2011)	4/15/2011		NRR	DPG	w/CD
Interim Explosives Safety Submission Approval, Munitions Response - Soil/Sediment Remediation OU 7, Potential Source of Contamination 46 - Defense Reutilization & Marketing Office, (March 17, 2011)	4/15/2011		NRR	DPG	
Draft Sampling & Analysis Plan (Field Sampling Plan & Quality Assurance Project Plan), April 2011 - Remedial Investigation - Potential Source of Contamination (PSC) 45 -- Former Building 200 Wash Rack Disposal Pit	4/7/2011		OBR	DPG	w/CD
RCRA Groundwater Sampling Report January 2011, (March 2011)	3/31/2011		NRR	DPG	w/CD, RCRA
Draft Letter Report OU 11, Terrestrial February-March 2010 Ground-Water Monitoring & Follow-Up Soil Assessment, (March 2011)	3/25/2011	10/5/2011		DPG	Received By E-Mail
Response to Comments & Annual Groundwater Monitoring Report Replacement Pages for PSC 47, Revision 01, (March 2010)	3/22/2011	6/10/2011		DPG	w/2 CDs
Hangar 101S December 2010 Sampling Event, (February 24, 2011)	3/3/2011		NRR	DPG	w/CD, RCRA

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Document Title	Date In	Date Out	Explanation	BC/RPM	Comments
Five Year Review--OUs 1, 2, 3, 4, 5, 6, 7, & 8, Revision 1, (February 2011) and Response to Comments for Draft Five Year Review--OUs 1, 2, 3, 4, 5, 6, 7, & 8, (February 24, 2011)	2/28/2011	3/21/2011		DPG	w/CD
2010 Annual Groundwater Monitoring Report - Petroleum Contaminated Area 4-Gas Hill Fuel Farm, Revision 01, (February 2011)	2/4/2011	4/8/2011		DPG	w/CD
Site Library Documents Through July 2010 (DVD 1 - 1980-1999, DVD 2 - 2000-2006, & DVD 3 - 2007-2010)	1/21/2011		NRR	DPG	
Draft Annual Monitored Natural Attenuation Evaluation Report OU 6 - Hangar 1000, (December 2010)	12/23/2010	1/7/2011		DPG	w/CD
Draft Sampling & Analysis Plan (SAP) (Field Sampling Plan & Quality Assurance Project Plan) - Site Investigation for Potential Sources of Contamination 55, (December 2010)	12/23/2010	1/10/2011		DPG	w/CD
Draft Semi-annual Monitored Natural Attenuation Evaluation Report OU 6 - Hangar 1000, (December 21, 2010)	12/22/2010	1/7/2011		DPG	
OU 3 Vapor Intrusion Screening Evaluation Report, Revision 01, (December 2010)	12/16/2010	3/28/2011		DPG	w/CD
Remedial Action Completion Report - Areas B & G at OU 3, (December 13, 2010)	12/15/2010	5/3/2011		DPG	w/CD
Administrative Record & Site Library Updates (AR Documents Prepared Through July 2010)	11/18/2010		NRR	DPG	Letter w/CD
Draft Five-Year Review - OUs 1, 2,3, 4, 5, 6, 7 & 8, Rev 0, (November 2010)	11/12/2010		OBR	DPG	w/CD
Annual Monitoring Report, Year 6, May & June 2010 - Long-Term Monitoring Program - Potential Source of Contamination 51, (October 2010)	11/2/2010	1/7/2011		DPG	w/CD
Final Sampling & Analysis Plan (SAP) (Field Sampling Plan & Quality Assurance Project Plan) for Extended Site Investigation for Potential Sources of contamination 5, 8, 9, 29, 31, 32 & 50, (October 2010)	11/2/2010	12/17/2010		DPG	w/CD
Draft Site Investigation Report for Potential Source of Contamination 45-Building 200 Wash Rack, (October 2010)	11/1/2010	1/10/2011		DPG	w/CD
Munitions Response Site Prioritization Protocol Work Sheets for Munitions Response Program Sites	10/1/2010			DPG	
Site Inspection Report MRP Site Inspection at Former Machine Gun Range Complex, (September 2010)	10/1/2010			DPG	w/2 CDs

Appendix A - Historical Analytical Results at Naval Air Station Jacksonville - OU3 Site 15 Area G (continued)

NAS Jacksonville Area G Analytical Results 2002 - 2011		Analytes	PCE	TCE	cis-1,2-	trans-	1,1-DCE	Vinyl	Methylene	1,1,1-	1,1-DCA
		GCTL	3	3	70	100	7	1	5	200	70
		NADCS	300	300	700	1000	70	100	500	2000	700
Well ID	Date	Sample ID	Concentration (µg/L)								
JAX-OU3-G5	07/02/2002	JAX-OU3-G5	<5	<5	<5	<5	<5	<5	-	<5	<5
	12/04/2002	JAX-OU3-G5	<5	<5	<5	<5	<5	<5	-	<5	<5
	09/26/2003	JAX-OU3-G5	<3	<1	<1	<1	<1	<1	-	<1	<1
	01/09/2004	JAX-OU3-G5	<2	<1	<1	<1	<1	<1	-	<1	<1
	07/29/2004	JAX-OU3-G5	<2	<1	<1	<1	<1	<1	-	<1	<1
	01/06/2005	JAX-OU3-G5	<2	<1	<1	<1	<1	<1	-	<1	<1
	08/12/2005	JAX-OU3-G5	<2	<1	<1	<1	<1	<1	-	<1	<1
	02/02/2006	JAX-OU3-G5	<1	<1	<1	<1	<1	<1	-	<1	<1
	08/11/2006	JAX-OU3-G5	<1	<1	<1	<1	<1	<1	-	<1	<1
	01/05/2007	JAX-OU3-G5	<1	<1	<1	<1	<1	<1	-	<1	<1
	01/28/2009	F63059-7	<0.22	7.80	<0.20	<0.45	<0.54	<0.30	<1.0	<0.33	<0.24
01/31/2011	F79853-4	<0.25	<0.26	<0.26	<0.36	<0.23	<0.22	<2.0	<0.25	<0.25	
JAX-OU3-G6	07/02/2002	JAX-OU3-G6	<5	<5	<5	<5	<5	<5	-	<5	<5
	12/04/2002	JAX-OU3-G6	<5	<5	<5	<5	<5	<5	-	<5	<5
	09/26/2003	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	01/09/2004	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	07/29/2004	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	01/06/2005	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	08/12/2005	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	02/02/2006	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	08/11/2006	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	01/05/2007	JAX-OU3-G6	<1	<1	<1	<1	<1	<1	-	<1	<1
	01/28/2009	F63059-8	<0.22	<0.32	<0.20	<0.45	0.55	<0.30	<1.0	<0.33	<0.24
01/31/2011	F79853-5	<0.25	0.31 I	<0.26	<0.36	0.75 I	<0.22	<2.0	<0.25	<0.25	

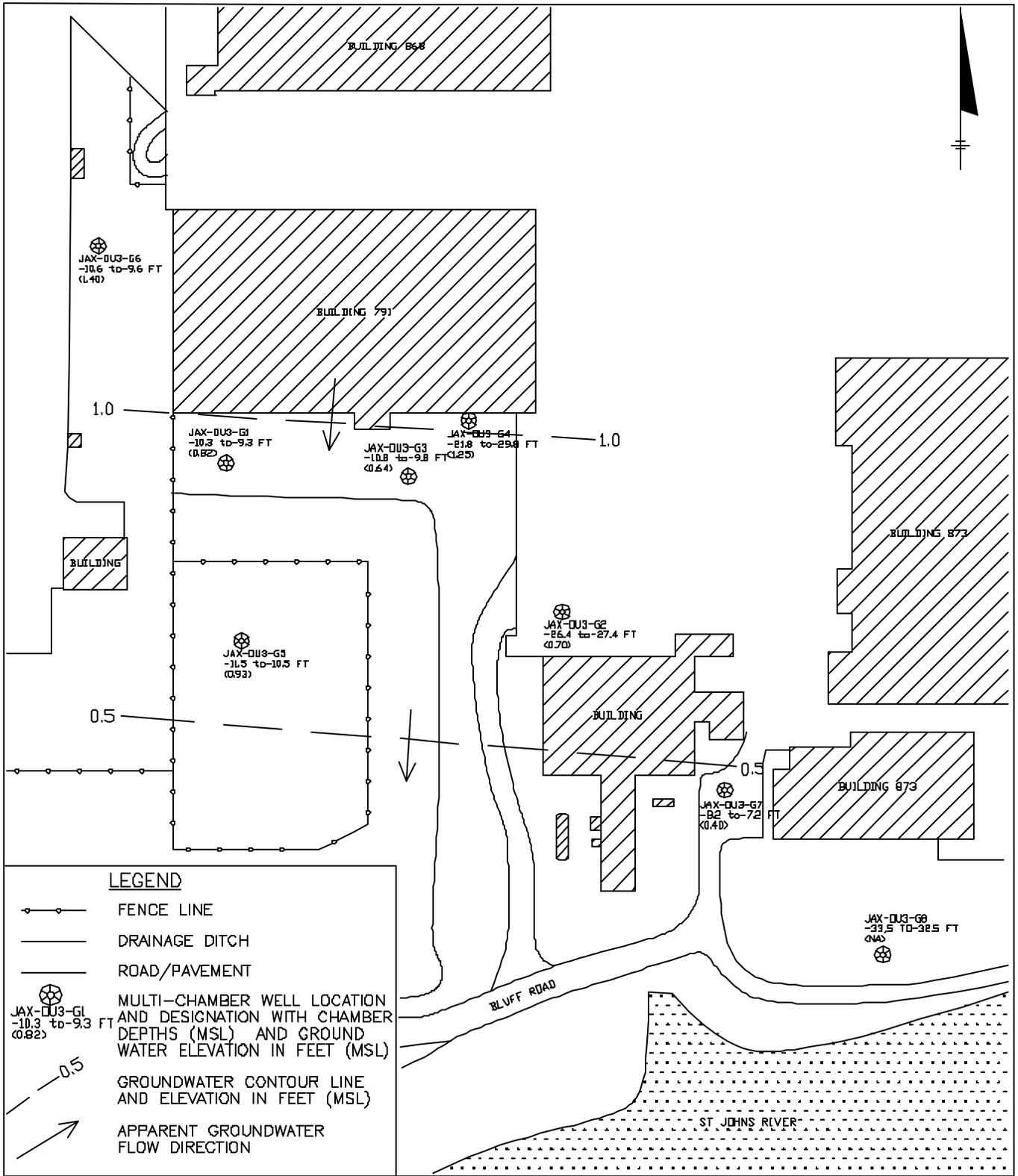
methods (peristaltic pump) as described in the Work Plan. In accordance with the Work Plan, purge waters are collected in a 125-gallon tank mounted on one of the BFA sampling trucks. The purge water is containerized in drums until analyses results are received. The purge water is then disposed of appropriately by a hazardous waste handler. The purging of wells consists of removing groundwater at a flow rate less than or equal to the groundwater recharge rate until field parameters (temperature, pH, conductivity, turbidity, Dissolved Oxygen [DO], and Oxidation-Reduction Potential [ORP]) have stabilized. Water levels in the wells are continuously monitored to maintain drawdown at less than 0.3 feet. The default pumping rate used is 0.1 GPM. Depth to water measurements were not obtainable from the CMT wells during sampling to record drawdown due to the small diameter of the channel.

Table 3-2 - Area G Historical Groundwater Elevation Summary

WELL NO.	JAX-OU3-G1			JAX-OU3-G2			JAX-OU3-G3		
Diameter	CMT	1/4 Inch		CMT	1/4 Inch		CMT	1/4 Inch	
Screen Depth (ft)	Int. 3	18.6-19.6		Int. 5	37.8-38.8		Int. 3	18.7-19.7	
TOC Elev.		10.76			9.16			10.57	
Date	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
01/11/2004	0.70	10.06	0.00	0.37	8.79	0.00	0.42	10.15	0.00
07/28/2004	1.75	9.01	0.00	1.02	8.14	0.00	1.31	9.26	0.00
01/06/2005	0.82	9.94	0.00	-0.77	9.93	0.00	0.82	9.75	0.00
8/13/2005	2.15	8.61	0.00	1.62	7.54	0.00	1.95	8.62	0.00
2/3/2006	2.53	8.23	0.00	0.81	8.35	0.00	0.63	9.94	0.00
8/11/2006	0.51	10.25	0.00	0.21	8.95	0.00	0.43	10.14	0.00
1/6/2007	1.33	9.43	0.00	0.80	8.36	0.00	1.25	9.32	0.00
1/31/2011	-0.08	10.84	0.00	0.14	9.02	0.00	-0.21	10.78	0.00
WELL NO.	JAX-OU3-G4			JAX-OU3-G5			JAX-OU3-G6		
Diameter	CMT	1/4 Inch		CMT	1/4 Inch		CMT	1/4 Inch	
Screen Depth (ft)	Int. 4	30.5-31.5		Int. 3	25.8-26.8		Int. 3	18.3-19.3	
TOC Elev.		11.00			16.73			7.45	
Date	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
01/11/2004	0.49	10.51	0.00	0.42	16.31	0.00	0.69	6.76	0.00
07/28/2004	1.27	9.73	0.00	1.60	15.13	0.00	1.95	5.50	0.00
01/06/2005	2.54	8.46	0.00	0.93	15.80	0.00	1.40	6.05	0.00
08/13/2005	1.79	9.21	0.00	2.02	14.71	0.00	2.56	4.89	0.00
02/03/2006	0.90	10.10	0.00	1.31	15.42	0.00	1.70	5.75	0.00
08/11/2006	0.32	10.68	0.00	0.31	16.42	0.00	0.91	6.54	0.00
01/06/2007	0.95	10.05	0.00	1.14	15.59	0.00	1.56	5.89	0.00
01/27/2009	NM	NM	NM	NM	NM	NM	NM	NM	NM
01/31/2011	0.09	10.91	0.00	0.33	16.40	0.00	0.76	6.69	0.00

FIGURE 1-3

C:\APEX\PROJECTS\JAXNAS\FIGURES\AREA G BASEMAP.DWG 01/06/05



LEGEND

- FENCE LINE
- DRAINAGE DITCH
- ROAD/PAVEMENT
- MULTI-CHAMBER WELL LOCATION AND DESIGNATION WITH CHAMBER DEPTHS (MSL) AND GROUND WATER ELEVATION IN FEET (MSL)
- GROUNDWATER CONTOUR LINE AND ELEVATION IN FEET (MSL)
- APPARENT GROUNDWATER FLOW DIRECTION

JACKSONVILLE NAVAL AIR STATION
JACKSONVILLE, FLORIDA

AREA G OPERABLE UNIT 3 SITE MAP
AND GROUNDWATER ELEVATIONS (01/06/05)

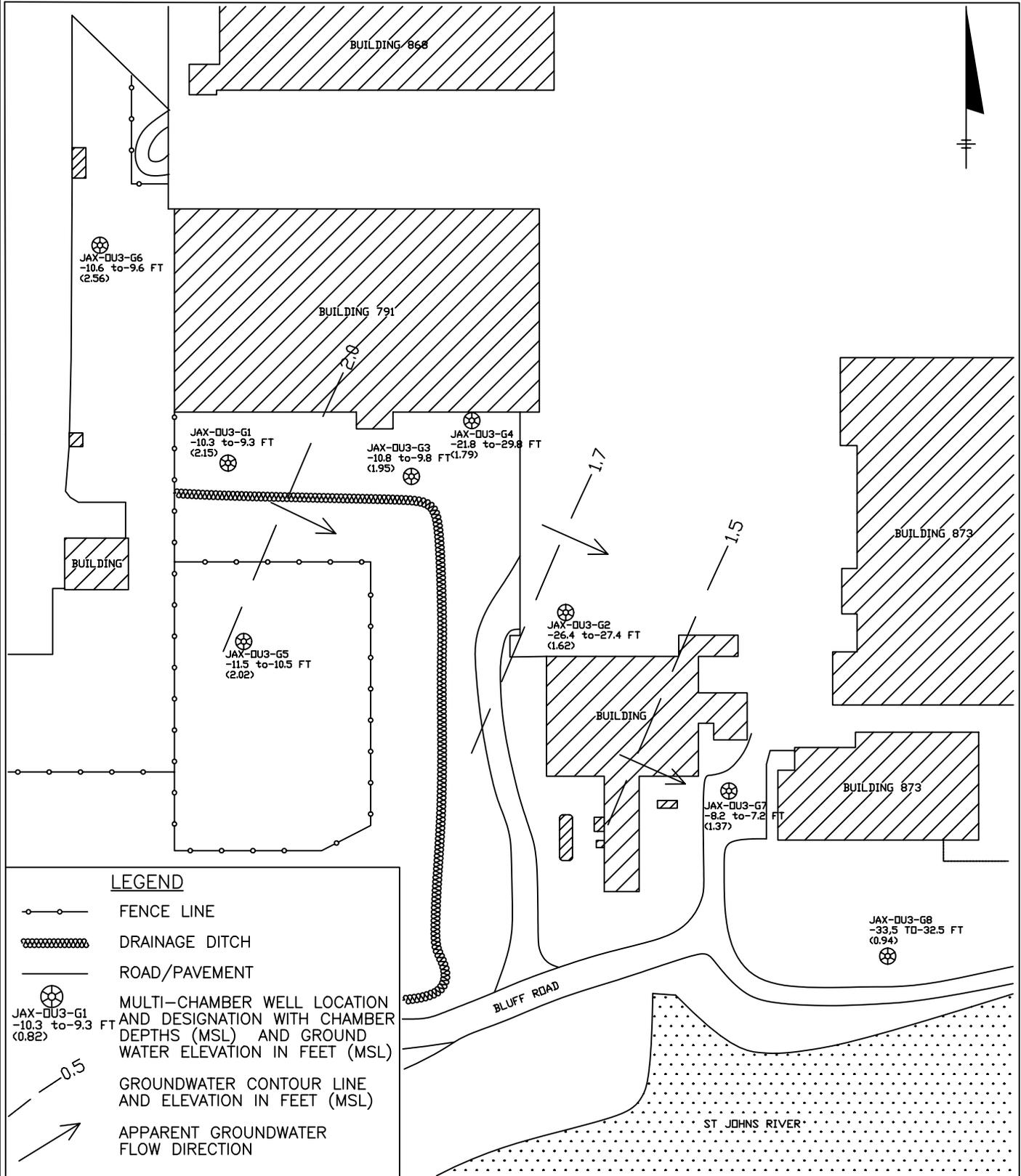


MARCH 2005



PLOT DATE:03/18/05 J. SEAVY

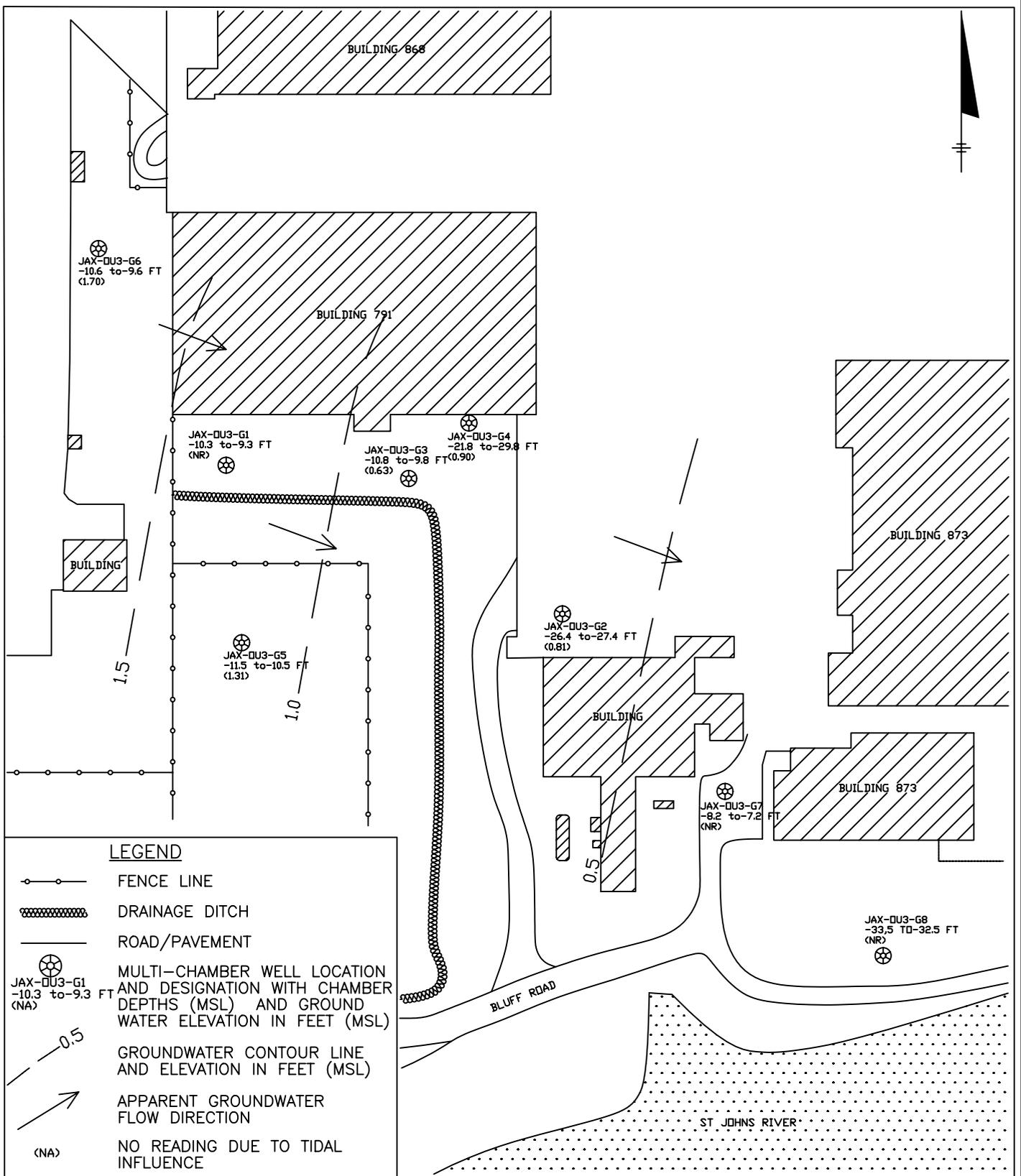
FIGURE 1-3



JACKSONVILLE NAVAL AIR STATION
 JACKSONVILLE, FLORIDA
 AREA G OPERABLE UNIT 3 SITE MAP
 AND GROUNDWATER ELEVATIONS (08/12/05)

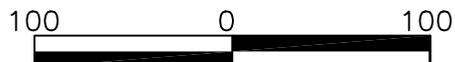


AUGUST 2005



JACKSONVILLE NAVAL AIR STATION
JACKSONVILLE, FLORIDA

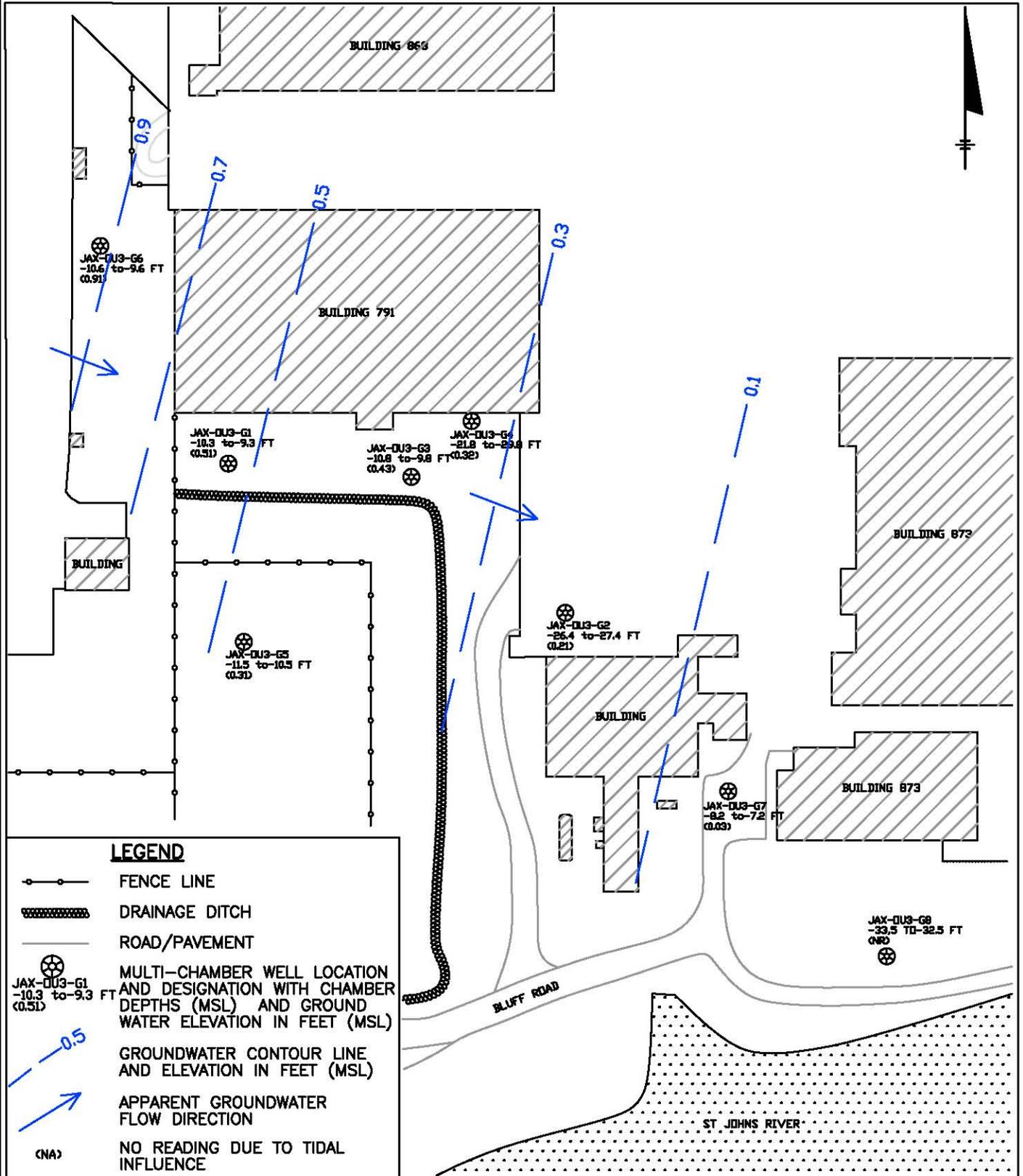
AREA G OPERABLE UNIT 3 SITE MAP
AND GROUNDWATER ELEVATIONS (02/2/06)



APPROXIMATE SCALE 1"=100'

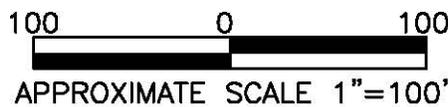
June 2006





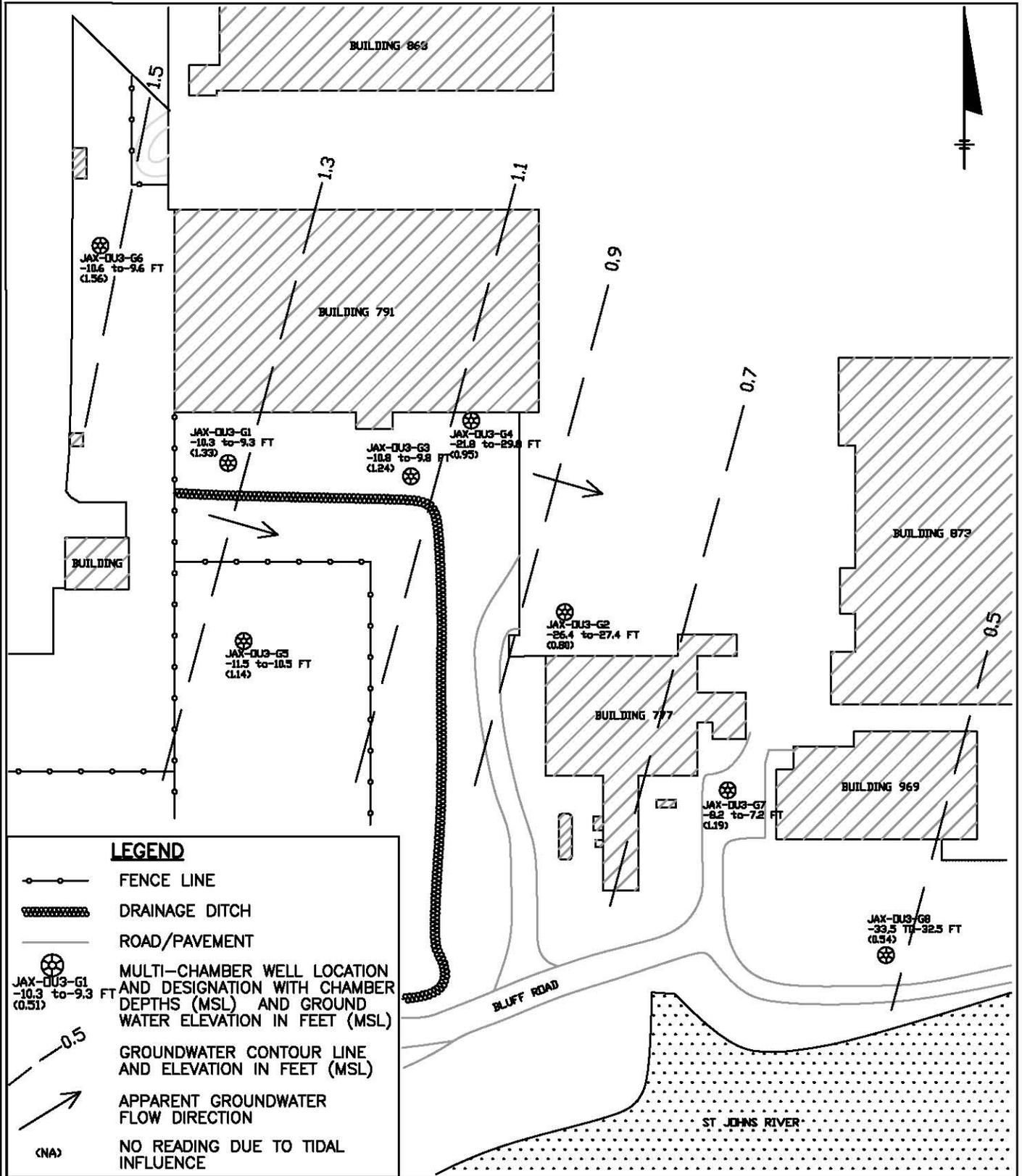
JACKSONVILLE NAVAL AIR STATION
 JACKSONVILLE, FLORIDA

AREA G OPERABLE UNIT 3 SITE MAP
 AND GROUNDWATER ELEVATIONS (08/11/06)

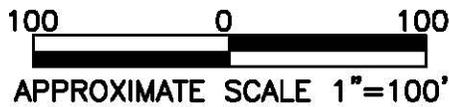


November 2006



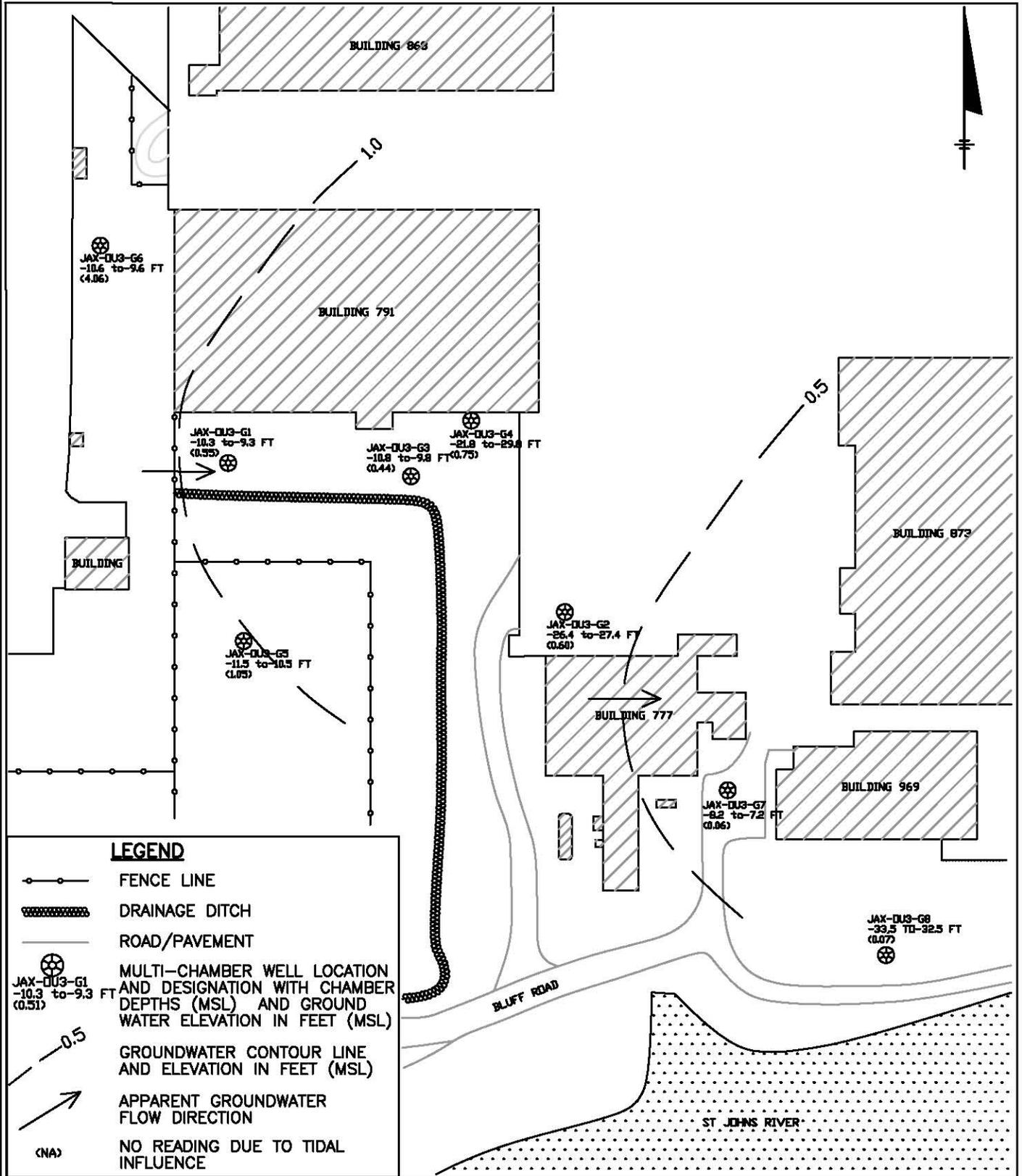


JACKSONVILLE NAVAL AIR STATION
 JACKSONVILLE, FLORIDA
 AREA G OPERABLE UNIT 3 SITE MAP
 AND GROUNDWATER ELEVATIONS (01/05/07)

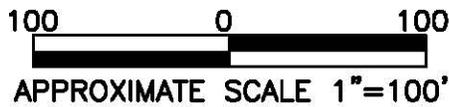


MAY 2007



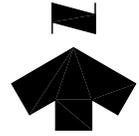


JACKSONVILLE NAVAL AIR STATION
 JACKSONVILLE, FLORIDA
 AREA G OPERABLE UNIT 3 SITE MAP
 AND GROUNDWATER ELEVATIONS (04/01/08)

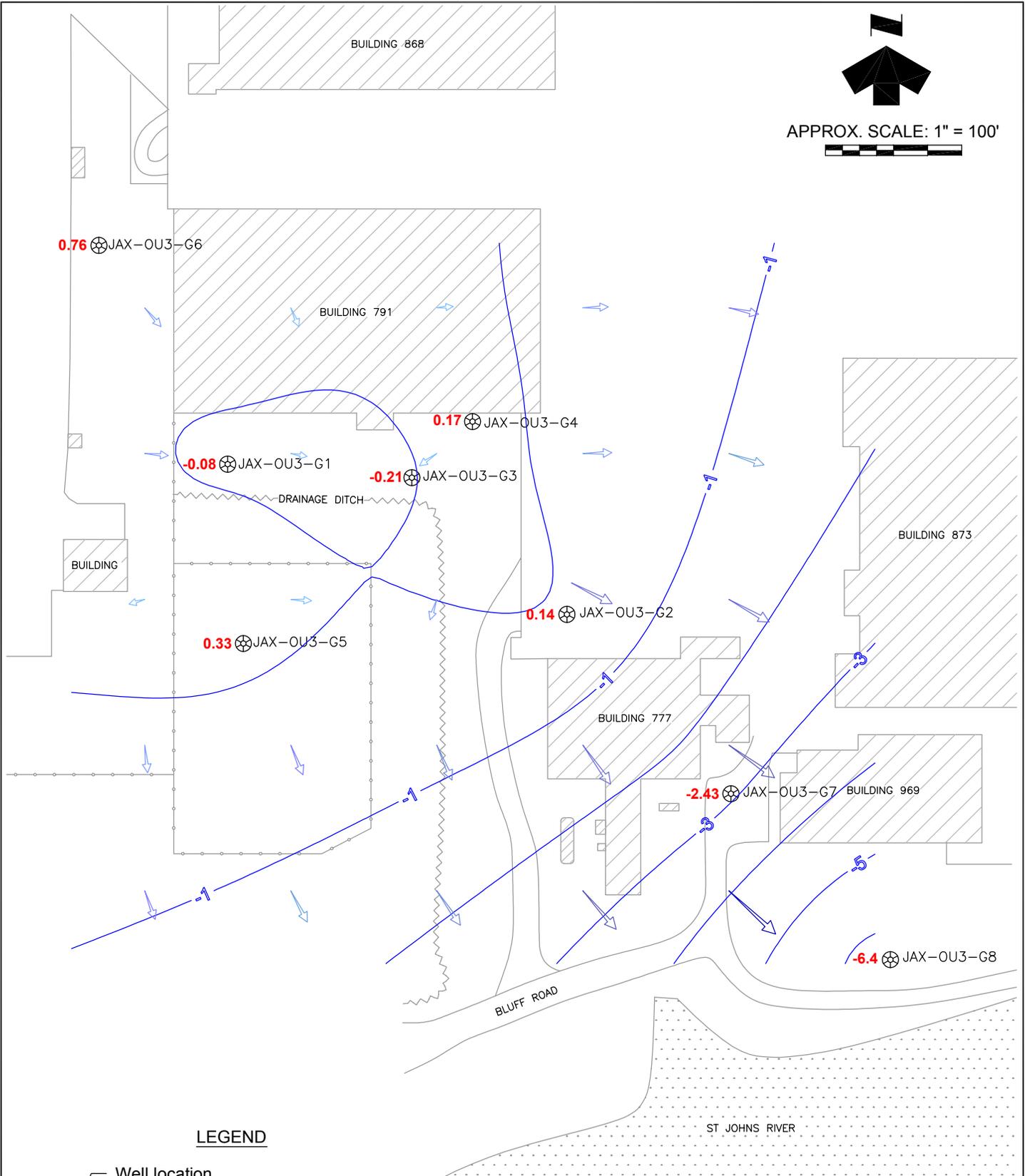


October 2008





APPROX. SCALE: 1" = 100'



LEGEND

- Well location
- Well ID number
- Groundwater Gradient
- Contour Interval 1 foot
- ### ##
- JAX-##-##
- groundwater elev.
- 0.00007
- 0.02346

F:\HYDRO\PROJECTS\2008\2008-67 NAVFAC Natural Attenuation Monitoring-Jax\Drawings\2008-67 Jacksonville NAS Area G Figure 3-1.dwg
Friday, April 08, 2011 2:26:46 PM

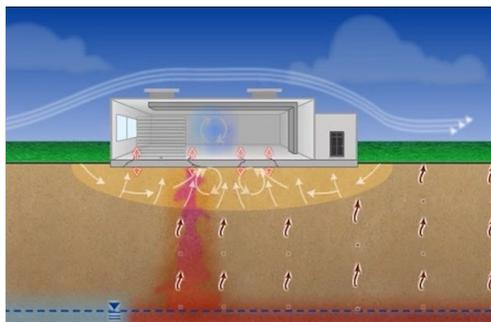


BFA Environmental Consultants
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 1230 Hillcrest Street, Orlando, Florida 32803
 407-896-8608 phone 407-896-1822 fax
 Engineering Business No. 6899

January 31, 2011 Annual Monitoring Report
 Jacksonville Naval Air Station - Area G Operable Unit 3

Potentiometric Surface Map

FIGURE 3-1



An ever-increasing number of regulatory agencies have developed provisional short-term action levels for trichloroethylene (TCE) in indoor air in buildings affected by subsurface vapor intrusion (VI). These action levels are based on the potential occurrence of developmental health effects (fetal cardiac malformations) related to exposures to pregnant women during a critical window of time in the first trimester of pregnancy.

Trichloroethylene

TCE is often found at environmental restoration and VI sites, and it is critical that planning for VI projects take these provisional short-term action levels into consideration by:

- Agreeing upon project-specific action levels and response options;
 - Developing an investigation strategy to assess short-term vapor intrusion (VI) risks; and
 - Utilizing an effective risk communication strategy.
- The implications of these values for VI site decision making are as follows:**
- Agencies may consider indoor air exposures to low levels of TCE over a period of only a day to a few weeks to pose a human health risk.
 - These provisional short-term action levels can have a significant impact on decision-making at VI sites by potentially triggering high-priority, time-critical, or rapid actions (e.g., temporary re-location, engineering controls, or VI mitigation).
 - Short-term TCE indoor air concentrations can be more likely to exceed these action levels since: 1) long-term screening levels and the provisional short-term action levels are similar; and 2) measured short-term concentrations in air are higher than long-term averages.
 - Exceedances may be more difficult to detect with sampling, because of the short-term variability in indoor air associated with VI, which could increase investigation costs.
 - The short-term action levels are orders of magnitude lower than occupational exposure limits, which creates conflicts between environmental cleanup and worker health and safety programs.
 - The uncertainties in the science underlying the provisional short-term action levels create challenges for consensus-driven decisions (e.g., triggers and actions) and risk communication.

Background

One of the conclusions in the 2011 Toxicological Assessment published by the U.S. Environmental Protection Agency (EPA) was that TCE posed a potential human health hazard to a developing embryo/fetus. The developmental toxic effect of fetal cardiac malformations, detected in laboratory animals, was one of three studies used by EPA in developing the long-term non-cancer Reference Concentration (RfC) in air for lifetime (i.e., chronic) exposure. Shortly after, some EPA Regions developed ad-hoc removal action levels (RALs) in air based on short-term exposure to TCE (see Table 1). These RALs have been used to determine the need to implement time-critical removal actions at VI sites. For example, workers were evacuated in March 2012 from three buildings at an EPA Region 3 site after detection of indoor air concentrations higher than the EPA Region 3 provisional RAL of 26 $\mu\text{g}/\text{m}^3$.

Considerable controversy and uncertainties exist about the scientific evidence for fetal cardiac malformations from TCE inhalation exposures. Although many have encouraged implementing a formal scientific consensus and peer review process, regulatory agencies have started developing and using the provisional action levels listed in Table 1 at VI sites. Guidance for how these short-term limits should be used in VI investigations and subsequent remedial/mitigation responses is extremely limited at this time. This makes it difficult for risk managers to determine how much confidence to place in these provisional short-term action levels, while still needing to make decisions.



Further Reading

EPA Region III. 2012. *Vapor Intrusion Investigation, Barracks Road Industrial Area, Naval Weapons Station, Yorktown, Virginia*. February 29, 2012 (available documentation of EPA Region III's RAL).

Strauss, P. 2012. *Removal Action Levels (RALs) for TCE*. May 16, 2012 (available documentation of EPA Region 9's RAL).

EPA Region X. 2012. *OEA Recommendations Regarding Trichloroethylene Toxicity in Human Health Risk Assessments*. December 13, 2012.

NHDES. 2013. *Revised Vapor Intrusion Screening Levels and TCE Update*. February 7 Memorandum from H. Keith DuBois, P.G., Assistant Director, Waste Management Division. http://des.nh.gov/organization/divisions/waste/hwrb/documents/vapor_intrusion.pdf

NJDEP. 2013. *Update to the New Jersey Department of Environmental Protection Vapor Intrusion Screening Levels*. January 2013.

MADEP. 2013. *New EPA TCE Toxicity Information: Implications for Chronic and Shorter-Term Exposure and Status of MassDEP Review*. January 23, 2013. Massachusetts Department of Environmental Protection.

Dawson, H. and R. Kapuschinski. 2013. *OSWER's Development of Final Vapor Intrusion Guidance. An Overview for the AEHS Vapor Intrusion Workshop*. Presented at the Association of Environmental Health Science Conference, March 19, 2013, San Diego, California.

Contact Us

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Shelley Idaho, 83274
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Recommendations

The following recommendations have been developed to assist project managers and risk managers in addressing the potential for short-term risks from TCE at VI sites. Information continues to emerge, and updates to these recommendations will be provided as further information becomes available.

1. **Agree upon project-specific action levels and response options.** These provisional action levels should be used with caution, and in consultation with a risk assessor or toxicologist. Indoor air results could trigger a high-priority, time-critical, or rapid action response in a building. Careful consideration should be given during project planning to the possible response options (e.g. building mitigation, modification of the air conditioning system, temporary relocation of occupants). Short- or long-term mitigation options should be identified during project planning, so these can be implemented smoothly and rapidly, if needed.
2. **Have an investigation strategy to assess the defensibility of short-term VI risks.** Indoor air sampling results higher than an action level should be followed up with repeat sampling, a few weeks following the initial sampling event, before selecting response options. Additional investigation of background indoor sources should be conducted if elevated TCE concentrations are detected indoors.
3. **Develop a risk communication strategy.** Identification of stakeholders, including health and safety, legal and public involvement staff, building managers and occupants, is a key element of a strategy. The messages that will be provided to building managers and occupants along with indoor air sampling results should be developed as part of project planning.

Table 1. Summary of TCE Provisional Short-Term Action Levels

Agency	Concentration (µg/m ³)	Exposure Period Considered Significant by Agency	Receptor
EPA Region 3	2	24 hours	Residential
	6 (previously 26)	8 hours	Occupational
EPA Region 9	15	One day (10 hours)	Occupational
EPA Region 10	2	21 days	Residential
	8.4	21 days	Occupational
New Hampshire	2	Not stated	Residential
	8.8	Not stated	Occupational
New Jersey	4	One day (24 hours)	Residential
	18	One day (8 hours)	Occupational
Massachusetts	2	Not stated	Women of child-bearing age
	20	Not stated	"All receptors"
EPA RSLs*	2.1	See below*	Residential
	8.8	See below*	Occupational

*RSL – Regional Screening Levels are based on long term exposures – 25 years for occupational exposure and 30 years for residential exposure. In March 2013, EPA suggested that these RSLs based on non-cancer effects are applicable to short-term exposures.

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Johnson, Julie

From: Eric.Davis@CH2M.com
Sent: Tuesday, September 17, 2013 3:26 PM
To: Johnson, Julie
Subject: FW: NAS JAX Pesticide Shop Soil Investigation and Vapor Intrusion Sampling Meeting Summary (8/15/13)
Attachments: UPDATE: NAS JAX Pesticide Shop Soil Investigation and Vapor Intrusion Sampling; Comments on NAS Jax Work Plan

Julie, Mike's comments on the combined work plan and meeting summary below.

Let me know if you have any questions.

Eric

Eric J. Davis, MSc, PG, PMP
678.530.4085

From: Davis, Eric/ATL
Sent: Monday, September 16, 2013 4:11 PM
To: 'Singletary, Michael A CIV NAVFAC SE'; Wilson, Adrienne T CIV NAVFAC SE, JAXS; Curtin, Tim L CIV NAVFAC SE, Environmental
Cc: Davis, Eric/ATL; Lund, Loren/DEN; Dobson, Keith/KNV; Robert Brown
Subject: NAS JAX Pesticide Shop Soil Investigation and Vapor Intrusion Sampling Meeting Summary (8/15/13)

Team, this email provides a summary from the NAS JAX Pesticide Shop Soil Investigation and Vapor Intrusion Sampling Meeting, conducted via teleconference, on Thursday, 8/15/13.

Purpose: The purpose of the meeting was to address Mike Singletary's comments on the JM10 Work Plan, specifically comments 1, 3, and 4 (attached), and reach consensus on the sampling approaches for the Pesticide Shop soil investigation and OU3 Phase 3 VI investigation.

Attendees: Eric Davis/CH2M HILL, Loren Lund/ CH2M HILL, Keith Dobson/ CH2M HILL, Robert Brown/AGVIQ Adrienne Wilson/NAVFAC SE, Mike Singletary NAVFAC SE, and Tim Curtin/NAS JAX

Handouts: No other handouts besides Mike's comments, provided in the attached email.

Meeting Agenda/Topics:

- Welcome/Roll Call
- Loren Lund: Provide recap of Phase II, the Evaluation Report, and address Comment 1

- Keith Dobson: Address Comments 3 and 4
- Discuss Action Items

Notes from Loren's discussion:

1. Phase 3 sampling will occur in Dec 2013/January 2014. Indoor and outdoor samples will be collected with passive samplers. Subslab samples will be collected with SUMMA canisters. HAPSITE will not be used initially, but may be incorporated after results have been evaluated.
2. Additional samples will also be collected at B103 where previous indoor air detections were reported above the screening threshold. Two additional 24 hour passive samples will be collected.
3. Phase 3 analytes will include TCE, PCE, VC, and trans and cis.
4. Sample AI-01 will not be collected at B101.

Notes from Keith's discussion:

1. Triad approach for locations 2 and 3
2. Dry ice preservation, and use nearby anaerobic aquifer water to saturate soil in sample containers
3. Use field XRF measurements to guide depths of sample collection in the saturated zone

Action Items:

1. Mike to call Keith to discuss triad approach. Keith can be reached at 865.582.1050.

Please let me know if you have questions or concerns.

Thank you,
Eric

Eric J. Davis, MSc, PG, PMP

Project Manager | Geoscientist

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www.ch2mhill.com

Johnson, Julie

From: michael.a.singletery@navy.mil
Sent: Thursday, July 18, 2013 1:38 PM
To: Eric.Davis@CH2M.com
Cc: adrienne.wilson@navy.mil
Subject: Comments on NAS Jax Work Plan

Eric:

See specific questions/comments below:

1. For the VI sampling at OU3. How times will sub-slab and indoor air samples be collected? We had talked about collecting samples during the cooler months as well as the warmer months to assess seasonal variations.
2. Page 2-7, 1st paragraph – Given that this is an NPL site, I don't think we'll get a monitoring only approval order. This site will likely remain an active MNA site until cleanup objectives (e.g MCLs) are met, according to EPA.
3. For DPT borings 3 and 4, I'm concerned you may be too far downgradient and you'll miss the arsenic contamination (given the non-detect levels of arsenic in MW-15S). Can we take more of a Triad approach since you'll have the DPT rig and the field testing equipment (XRF) to make real time decisions? I don't see any reason you couldn't put in more than 2 borings along the groundwater flow path since you'll be able to do the analysis in the field. Once you have a better idea of the extent of the arsenic presence on the aquifer sediments, then you can collect samples for off-site analysis. I see you having to continuously core and sample the first 2-3 borings to be able to determine the vertical interval where arsenic is highest in the aquifer. This will be the zone we wish to target for further analysis.
4. For the aquifer sediment sampling for arsenic, including the sequential extraction and XRD analysis, are there special preservation requirements for the samples? I was under the impression that these samples could not be exposed to the atmosphere and that the redox conditions needed to be maintained to ensure sample integrity.

I'd like to have a call with you and your geochemist who'll be working the project to go over my comments and to answer some of my additional questions on how we plan to evaluate this information. The work plan did not really cover how we plan to analyze and evaluate the data in support of our MNA remedy.

Mike

Mike Singletery, P.E.
NAVFAC Southeast
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EV3 Environmental Restoration
Naval Air Station
Jacksonville, FL 32212-0030
904.542.4204
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PSC 44
Drainage Ditch West of Ajax Street

NAS Jacksonville Partnering Team
Jacksonville, FL
September 17, 2013



TETRA TECH, INC.

PSC 44 – SAMPLING EVENT REPORT (1999)

Scope

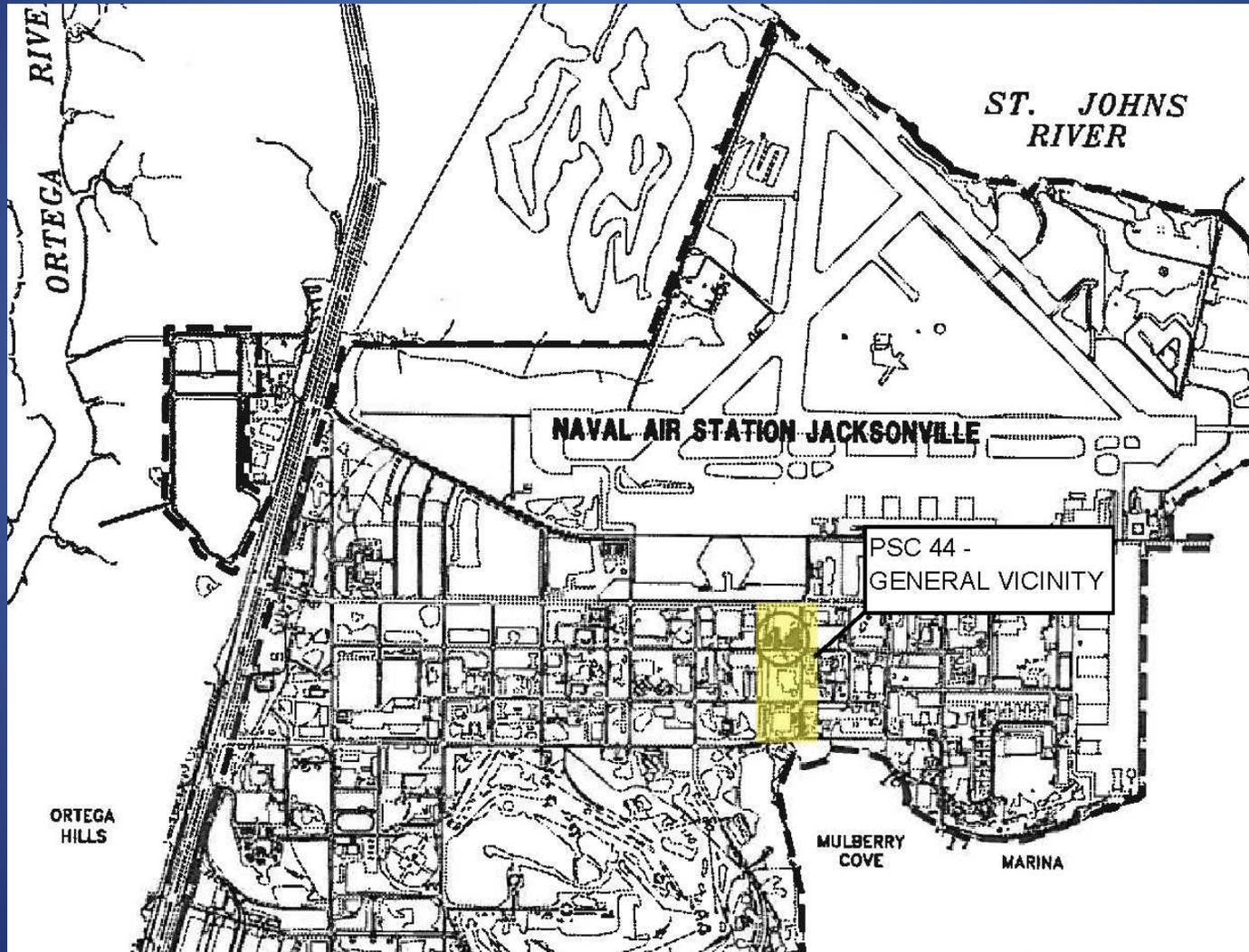
- Collection of sediment along the length of the ditch including background location
- Collection of sediment near the outfall in Mulberry Cove
- Analysis of sediment samples for TCL SVOCs, TCL pesticides, and TAL inorganics



TETRA TECH, INC.

PSC 44

General Vicinity

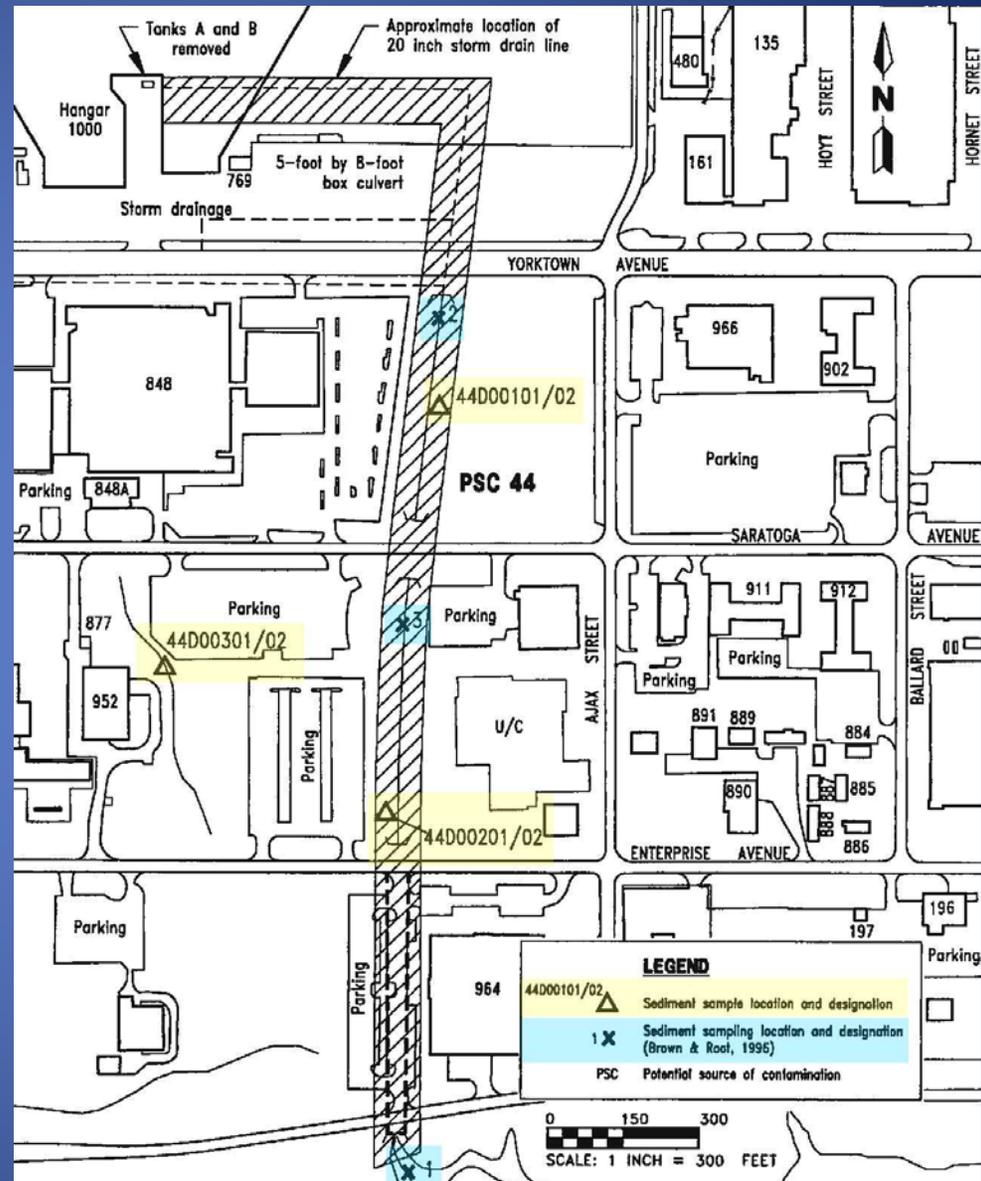


TETRA TECH, INC.

PSC 44

Sampling Locations

- 3 sediment samples collected by Brown & Root in 1995 (blue)
- 3 sediment locations collected in 1997 & 1998 by HLA (yellow)
 - Two locations in PSC 44 ditch and
 - One background location (400 ft west)



PSC 44

Results from Brown & Root Investigation - 1995

- Detected results of PAHs, pesticides, and several metals exceeded the Florida Sediment Quality Assessment Guidelines
- NAS Jax Partnering Team concurred with recommendation to not collect surface water as part of the sampling program.
- Unclear whether contaminants were the result of tanks at Hangar 1000 or due to storm water runoff from adjacent parking lots/roads.
- NAS Jax Partnering Team recommended further investigation



TETRA TECH, INC.

PSC 44

Results from HLA Investigation – 1997 & 1998

- 11 PAHs in sediment were elevated above EPA R4 and FDEP PEL sediment screening values.
 - Total PAHs in northern most location (44D001) measured at 139 mg/kg as compared to ND and 12.1 mg/kg at background and downgradient locations.
 - Brown and Root (1995) measured Total PAHs north of 44D001 at 3.7 mg/kg
 - Concluded PAHs are like a result of runoff rather than Hangar 1000.
- 4,4'-DDE, 4,4'-DDT, alpha-Chlordane, and Endrin were measured above respective screening values
 - Presence of pesticides likely due to station wide pesticide use



PSC 44

Results from HLA Investigation – 1997 & 1998 (con't)

- With exception of cadmium and lead, all metals were measured below respective sediment screening values.
 - Both cadmium and lead detected during the first round of sampling with maximum concentrations of 6.2 mg/kg and 130 mg/kg, respectively. Both maximum results measured in northern most sampling location.
 - Lead was not measured during the second round of sampling based on recommendations of the NAS Jax Partnering Team.
 - During second round cadmium concentrations decreased with the maximum concentrations decreasing from 6.2 mg/kg to 1.6 mg/kg



PSC 44

Human Health Risk Evaluation

- Risk was found to be acceptable at PSC 44 based on current land use and potential future residential land use.
- Most risk based on presence of PAHs in sediment. The most likely source of PAHs is runoff from tarmac, roads, and parking lots that drain into PSC 44.
- If NAS Jax was to close and become residential most sources would be eliminated and the ditch would likely be enclosed in a culvert as a mosquito control measure.



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PSC 44

Ecological Risk Evaluation

- Based on distribution of contamination the source is likely storm water runoff.
- Although concentrations of PAHs, pesticides, cadmium and lead exceeded available screening criteria, toxicity testing showed benthic invertebrates are not adversely affected from exposure to sediment in the PSC 44 drainage ditch.
- Risks to aquatic receptors are not predicted



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