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NWS YORKTOWN  
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PARTNERING TEAM MEETING MINUTES NUMBER 45 AND NASO PARTNERING NUMBER  
21 23-25 APRIL 2002 NWS YORKTOWN VA  
4/23/2002  
PARTNERING TEAM

**WPNSTA/CAX YORKTOWN PARTNERING MEETING NUMBER 45  
& NASO PARTNERING MEETING NUMBER 21**

**FINAL APRIL AGENDA**

<b>Date</b>	<b>Agenda Item</b>	<b>Leader</b>	<b>Purpose/Goal</b>	<b>Time</b>
<b>APRIL 25</b> 0800 hrs	Welcome	Team	Warm-up and settle in.	15 min.
0815 hrs	Check In	Team	<b>Standard Meeting Format - More Efficient Meeting</b>	15 min.
0830 hrs	Review Agenda	Team	Focus on what needs to be accomplished on Day 2	15 min.
0845 hrs	Joint Team Presentation	Joint Team Day	Dry Run	1 hr
9:30 - 0945 hrs	Break	Team	Renewal	15 min
1000 hrs.	Joint Team Presentation - continued	Joint Team Day	Dry Run	1 hr
1100 hrs	Tier II Joint Meeting	Team	Logistics for Bolger Center (888-227-3664 or 301-983-7006, Block Code 0205ch2)	30 min
1130 hrs	Entrance Procedure	Team/ Valarie Walker	Welcome Valarie Walker	30 min
1200 hrs	Lunch	Team	Chow	1.25 hrs
1315 hrs	Decision Document Review 2B, 2C, 2E	NASO Team	On-line document review	1 hr.
1415 hrs	Agenda Building	Team	For next meeting	10 min
1425 hrs	Facilitator Feedback	Laurel	Critical analysis of meeting progress and self facilitation skills	10 min.
1435 hrs	+/-	Team	Review Meeting day	10 min
1545 hrs	End day			

**DATE:** April 23-25, 2002

**LOCATION:** Cacapon, WV

**MEETING MANAGER:** Mr. J. Harlow/T.Reisch

**RECORDER:** Ms. M. Mullen/Mr. T. Tomlin

**MEETING HOST:** Mr. J. Harlow

**TIMEKEEPER:** Ms. J. Davis/Mr. T. Reisch

**FACILITATOR:** Mr. B. Stroud

4/25/02

## Overview

- 5 ■ Technology - Don
- 2 ■ Trust
- 1 ~~1~~ ■ Team Building
- 4 ■ Transition - Tim -
- 3 ■ Team Work - Jennifer
- Summary - Steve

Bob

## Technology

- Innovative Technologies
  - MNA
  - SIMPLOT Biocell
  - DARAMEND Biocell
- Resolving Challenging Technical Issues
  - Biopile
  - Groundwater Operable Unit Approach
  -

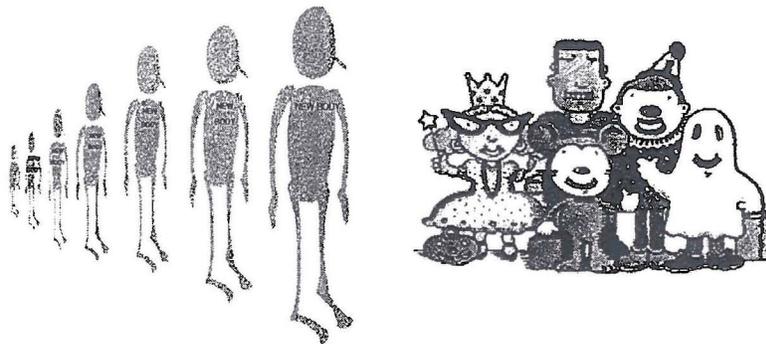
- Communications

## Trust

- No Uniforms
- SWMU 25 Hot Spot Excavation
- Open Communication
- “Team Ownership”
- Streamlining-Elimination of Interim Reviews
- Use of Consensus

## Transition

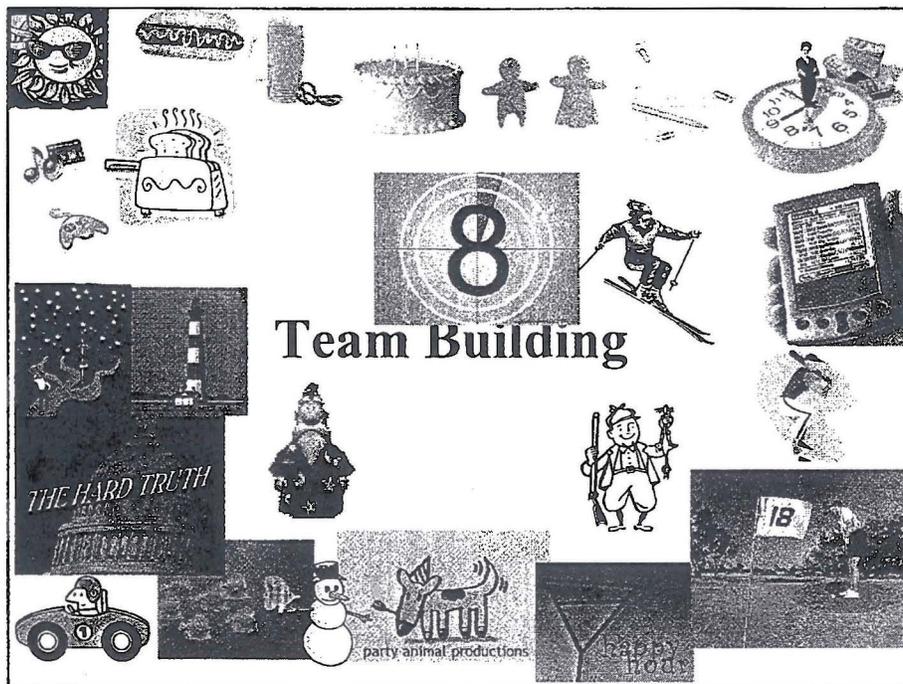
**New Members Added**      =      **A New Team**



PARTNERING SUPPORTED SUSTAINED PERFORMANCE

## Team Work

- Conflict Resolution
  - Honest vs. Honset
- Joint Team
  - Three Facilities
- Decision Documents
  - 10 NASO Sites closed in 2001 and one accelerated schedule by 2 years
  - 6 NWSY Sites closed in 2001
- Ecological Issues
  - Working with BTAG to resolve issues



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## Tying the “Ts” Together

- Through Team Building we:
  - Used Innovative Technologies
  - Established Trust Among Team Members
  - Met the Challenge of Team Transitions
  - Worked as a Team

**"Coming together is a beginning.  
Keeping together is progress.  
Working together is success."**

*Henry Ford*

YORKTOWN PARTNERING  
4/24/02

Yorktown Site Clean Up Goals

Site 1:

Excavate soil containing arsenic concentrations exceeding 63 mg/kg.  
Depth of excavation ~ 2 ft  
Human Health  
(Data from ROD)

Site 2:

Debris removal only.  
(Data from Close-Out Report by OHM/IT)

Site 4:

Excavate soil containing mercury concentrations exceeding 0.05 mg/kg.  
Depth of excavation ~ 2 ft  
Human Health and Ecological  
Lead is not an issue since the excavation of soil containing mercury will take care of most of the soil containing lead, thereby bringing the overall lead concentration to an acceptable level.

Site 11:

Excavate soil containing copper concentrations exceeding 100 mg/kg.  
Excavate soil containing mercury concentrations exceeding 0.3 mg/kg.  
Depth of excavation ~ 2 ft (45 cubic yards of soil)  
Ecological  
(Data from ROD)

Site 21:

Excavate soil containing mercury concentrations exceeding 0.05 mg/kg.  
Depth of excavation ~ 2 ft  
Human Health and Ecological

Site 22:

Excavate soil containing lead concentrations exceeding 48.7 mg/kg.  
Depth of excavation ~ 2 ft  
Ecological

TABLE 3-31

SUMMARY OF FINAL REMEDIATION GOALS AND CONTAMINANTS OF CONCERN  
 SITE 2  
 NAVAL WEAPONS STATION YORKTOWN  
 YORKTOWN, VIRGINIA

Contaminant of Concerns	Surface Soil		Surface Water		Sediment	
	FRG (mg/kg)	Basis	FRG (mg/L)	Basis	FRG (mg/kg)	Basis
<b>Organics</b>						
Total Carcinogenic PAHs	3.33	Human Health $1 \times 10^{-5}$	--	--	--	--
Total PAHs	44	Ecological ER-M	--	--	--	--
<b>PCBs</b>						
Aroclor-1254	1	TCSA Residential Action Level	--	--	--	--
<b>Inorganics</b>						
Cobalt	6.3	Ecological Robin Model	--	--	--	--
Mercury	0.1U - 5.9B	Ecological Robin Model	--	--	--	--
Silver	--	--	--	--	3.7	Ecological Shrew Model

Notes:

FRG - Final Remediation Goal

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

PAHs - Polynuclear Aromatic Hydrocarbons

TSCA - Toxic Substances Control Act

ER-M - Effects Range-Median

TABLE 3-32

SUMMARY OF FINAL REMEDIATION GOALS  
SITE 8  
NAVAL WEAPONS STATION YORKTOWN  
YORKTOWN, VIRGINIA

Contaminant of Concern	Surface Soil		Groundwater	
	FRG (mg/kg)	Basis	FRG (mg/L)	Basis
<b>Organics</b>				
Total Carcinogenic PAHs	2.2	Human Health $1 \times 10^{-5}$	--	--
1,1-Dichloroethene	--	--	10	Human Health $1 \times 10^{-6}$
<b>PCBs</b>				
Aroclor-1260	1	TCSA Residential Action Level	--	--
<b>Explosives</b>				
4-Amino-2,6-Dinitrotoluene	--	--	160	Human Health HI
RDX	5.5	Human Health $1 \times 10^{-6}$	90	Human Health $1 \times 10^{-6}$
<b>Inorganics</b>				
Lead	16.7	Anthropogenic Background	--	--
Mercury	0.05UL - 0.07	Detection Limit	--	--
Zinc	88	Ecological Robin Model	--	--

Notes:

FRG - Final Remediation Goal

PAHs - Polynuclear Aromatic Hydrocarbons

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

TSCA - Toxic Substances Control Act

**TABLE 3-34**  
**SUMMARY OF FINAL REMEDIATION GOALS**  
**AND CONTAMINANTS OF CONCERN**  
**SSA 14**  
**NAVAL WEAPONS STATION YORKTOWN**  
**YORKTOWN, VIRGINIA**

Contaminant of Concern	Surface Soil	
	FRG (mg/kg)	Basis
<b>Explosives</b>		
HMX	8.6	Ecological Fox Model
<b>Inorganics</b>		
Copper	7.3	Anthropogenic Background
Lead	16.7	Anthropogenic Background
Mercury	0.06U - 0.09UL	Detection Limit
Zinc	88	Ecological Robin Model

Notes:

FRG - Final Remediation Goal  
mg/kg - milligrams per kilogram

TABLE 3-33

SUMMARY OF FINAL REMEDIATION GOALS AND CONTAMINANTS OF CONCERN  
 SITE 18  
 NAVAL WEAPONS STATION YORKTOWN  
 YORKTOWN, VIRGINIA

Contaminant of Concern	Surface Water		Sediment	
	FRG (mg/L)	Basis	FRG (mg/kg)	Basis
<b>Inorganics</b>				
Copper	--	--	--	--
Iron	--	--	--	--

Notes:

FRG - Final Remediation Goal

mg/L - milligrams per liter

mg/kg - milligrams per kilogram

BTAG - Biological Technical Assistance Groups

TABLE 3-6

Selection of Final Remediation Goals for Surface Soil  
Sites 4, 21, and 22  
Naval Weapons Station, Yorktown

Contaminant	Station-Wide Background (mg/kg)	Human Health PRG (mg/kg)	Ecological Uptake Goal (mg/kg)	Flora Toxicity Benchmark (mg/kg)	Fauna Toxicity Benchmark (mg/kg)	Final Remediation Goal (mg/kg)
<b>Site 4</b>						
Total cPAHs	NA	10	--	--	--	10
Total PAHs	NA	--	44	NE	25	44
2,4,6-TNT	NA	14	68	30	100	14
Aluminum	24,100	--	1.4	50	600	24,100
Antimony	11	--	0.09	0.5	NE	11
Arsenic	63.9	3.11	0.09	48	60	63.9
Chromium	33.5	--	0.6	1	0.15	33.5
Copper	24.4	--	20	100	50	100
Lead	43.1	--	200 <sup>(1)</sup>	50	500	200
Manganese	491	--	117	50	10	491
Mercury	0.05	--	0.3	0.03	0.05	0.3
Zinc	48.4	--	410 <sup>(1)</sup>	50	100	410
<b>Site 21</b>						
Aluminum	24,100	--	1.4	50	600	24,100
Cadmium	1.5	--	0.9	4	20	4
Copper	24.4	--	20	100	50	100
Manganese	491	--	117	50	10	491
Mercury	0.05	--	0.3	0.03	0.05	0.3
Tallium	NA	--	0.01	0.1	NE	0.1
Zinc	48.4	--	410 <sup>(1)</sup>	50	100	410
<b>Site 22</b>						
HMX	NA	--	5.7 <sup>(2)</sup>	NE	50	5.7
Cadmium	1.5	--	0.9	4	20	4

TABLE 3-6 (Continued)

Selection of Final Remediation Goals for Surface Soil  
 Sites 4, 21, and 22  
 Naval Weapons Station, Yorktown

Contaminant	Station-Wide Background (mg/kg)	Human Health PRG (mg/kg)	Ecological Uptake Goal (mg/kg)	Flora Toxicity Benchmark (mg/kg)	Fauna Toxicity Benchmark (mg/kg)	Final Remediation Goal (mg/kg)
<u>Site 22 (Cont.)</u>						
Copper	24.4	--	20	100	50	100
Lead	43.1	--	200 <sup>(1)</sup>	50	500	200
Mercury	0.05	--	0.3	0.03	0.05	0.3
Silver	2.1	--	NA	0.2	50	50
Zinc	48.4	--	410 <sup>(1)</sup>	50	100	410

Notes:

- (1) Effects range - medium sediment value applied to soil
- (2) From station toxicity study work at Site 6

NA- not applicable

NE - not established

- - not a contaminant of concern for this receptor

**DRAFT ATTACHMENT C**  
**SUBTASK CUMULATIVE BUDGET SUMMARY TABLE**  
**CTO 035**

WORK PLANS, FIELD WORK AND RI/FS,PRAP & ROD

Period Ending: 03/29/02

Pm: D. Martin

Task	Description	Funded Budget	Current Month	Actual to date	Cost to Complete	Final Cost	Actual/Projected Variance
05200	AR.RA RISK ASSESSMENT	\$90,797	\$1,124	\$77,273	\$0	\$77,273	\$13,524
05300	AR.RA SSP RISK ASSESSMENT	\$0	\$0	\$26,040	\$0	\$26,040	(\$26,040)
06400	CR.CS FACT SHEET	\$499	\$0	\$0	\$499	\$499	\$0
05100	DE.DE DATA REVIEW/EVALUATION	\$9,511	\$0	\$12,892	\$0	\$12,892	(\$3,381)
03000	FI.FM SITE SURVEY	\$885	\$0	\$389	\$0	\$389	\$496
05000	FI.ZZ FIELD INVESTIGATION	\$202,056	\$0	\$213,847	\$0	\$213,847	(\$11,791)
06100	FS.FS FS REPORT FS.FS	\$31,641	\$20,279	\$27,615	\$6,000	\$33,615	(\$1,974)
01001	OH OVERHEAD ADJUSTMENT	\$0	\$0	(\$3,416)	\$0	(\$3,416)	\$3,416
09000	PP.MG MEETINGS	\$27,189	\$0	\$21,582	\$1,000	\$22,582	\$4,607
02100	PP.PM SENIOR REVIEW	\$6,485	\$0	\$9,329	\$0	\$9,329	(\$2,844)
02000	PP.PM PROJECT MANAGEMENT	\$102,752	\$2,002	\$192,937	\$500	\$193,437	(\$90,685)
04000	PP.PM PROJECT PLAN PREP.	\$17,231	\$0	\$22,897	\$0	\$22,897	(\$5,666)
06300	PS.PN PUBLIC NOTICE	\$749	\$0	\$0	\$749	\$749	\$0
06200	PS.PS PRAP	\$12,905	\$0	\$5	\$10,000	\$10,005	\$2,900
06500	PS.RD ROD	\$16,008	\$0	\$316	\$15,000	\$15,316	\$692
06000	RI.RI RI REPORT	\$42,144	\$1,028	\$105,668	\$500	\$106,168	(\$64,024)
06600	RI.RI SSP REPORT	\$35,063	\$0	\$51,087	\$1,908	\$52,995	(\$17,932)

**DRAFT ATTACHMENT C**  
**SUBTASK CUMULATIVE BUDGET SUMMARY TABLE**  
**CTO 035**

WORK PLANS, FIELD WORK AND RI/FS, PRAP & ROD

Period Ending: 03/29/02

Pm: D. Martin

Task	Description	Funded Budget	Current Month	Actual to date	Cost to Complete	Final Cost	Actual/Projected Variance
01000	AWARD FEE	\$72,384.00	\$0	\$50,379	\$22,005	\$72,384	\$0
	<b>TOTAL (1)</b>	\$595,915	\$24,433	\$758,463	\$36,156	\$794,619	(\$198,704)

Estimated Completing Date: 30-Nov-00

(\*) Indicates Variance plus or minus 15%

(1) Totals do not include Award Fee figures.

**YORKTOWN/CAX ACTIVITY STATUS MEETING  
SEPTEMBER 27-28, 2001**

**SUMMARY**

A status meeting was held on September 27, 2001 at Baker's Virginia Beach office to review Yorktown and CAX projects. On September 28, 2001 Scott Park and Don Joiner met to discuss follow-up items.

**ATTENDEES**

- Jeff Harlow, Yorktown/CAX Environmental Manager
- Scott Park, LANTDIV RPM
- Marlene Ivester, Baker
- Don Joiner, Baker
- John Malinowski, Baker (by telephone)
- Dave Martin, Baker (by telephone)
- Letty Savage, Baker (by telephone)
- Mary Mullen (by telephone)

CAX Background Data  
When to submit

**AGENDA**

The following agenda items were discussed

1. Mod for CTO-349 received on 9/26/01 – funding for PRAP/ROD revisions for Sites 4, 21, 22.
2. Negotiated mod for CTO-385 on 9/26/01 for surveying locations of land restriction areas for LUCAP sites.
3. Partnering Action Items and Parking Lot Items (attached) – review and update
4. Yorktown/CAX Site update (attached)
5. Yorktown GIS needs assessment – schedule
6. CTO-394 – Sites 27 thru 30 – may need to go to ECO Risk Step 3B
7. CTO-363 – how to handle additional data for Sites 8 and SSA 14
8. Partnering costs (Baker)
9. Site 18 PRAP

A summary of these agenda items and other project information is summarized below.

**PROJECT STATUS**

**RI/FS, PRAP, ROD for Sites 4, 21, 22 (CLEAN I CTO-349)**

DF PRAP submitted

Public meeting held September 5, 2001

EPA had ROD for review

Sites 4 and 22 ROD may be delayed pending LUCAP issues

Site 21 ROD – no land use restrictions – EPA (Frank Fritz) has for review

Modification 05 received on September 26, 2001 for completing PRAP/ROD - \$12,333.

*Dawn - sent site 4, 21, 22 coord. to Wan Warkenton -*

**RI/FS, PRAP, ROD for Sites 2, 8, 18, SSA 14 (CLEAN I CTO-363) Letti**

Preparing draft NFA PRAP for Site 18 – draft to be e-mailed on 9/27 to Scott and Jeff

Draft ROD for Site 18 is due out by Oct 1<sup>st</sup> – Scott (2 copies)

*Beth / Karen  
need to coord.  
risk assessment*

Site 18 RI – final RI – Oct 2001 - Letty noted concerns about HHRA numbers for iron and arsenic. Letty noted that Beth Dutton has talked to Dawn Ioven at Region III about the iron issues. **Baker to contact EPA to discuss iron issues.** Jeff noted that the geology at Site 18 (high iron) may account for this.

*Beth - last day is 10/12.*

Partnering Team has agreed to schedule for completing Site 18 PRAP & ROD at the September 19, 2001 meeting.

Need to finalize RI/FS for Sites 2, 8, 18, and SSA 14 – Rich Hoff did not want to include additional surface water data in RI. Scott and Jeff agreed to include additional data. Scott, Don and Letty discussed schedule for this on 9/28/01. Letty to **check on comments received on Draft FS.** (*GIS for all 4 sites*)

Site 2 – can we make a case for NFA? May need to address limited removal action; **Jeff asked for John Malinowski to look at discussing NFA since source may be under 2 foot of soil.**

Site 2 - Scott has funding for Remedial Action - scope by 15 Feb 02, award by 15 April 02.

Site 2, 8 and SSA 14 – Mod needed to adjust schedule based on revised risk assessment and Partnering Goals

9-27-01 meeting

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**Site Management Plan 1999/2000 (CLEAN I CTO-385)**

Includes Weapons Station Photo Album, Web Site, and Partnering

Less than \$600 remaining prior to Mod 03 received September 28, 2001 for surveying various land use restriction sites - \$ 3,568.

Need to set-up on-line photo album and update web site

Jeff would still like a hard copy of photo album

Agreed to add photos to GIS

Web site – Jeff thought that as long as it is a call up site - we're ok

Site 12 LTM (CLEAN I CTO-386) <sup>Dave</sup> ~~3~~ 3 <sup>baseline → 2 annuals -</sup> ER rounds

2000 LTM report in progress – plan to submit in Oct 2001 – Mardene  
Dave thinks MW-7 / 7A

TCE detected in 2 wells industrial area (MW-15 and 16) in summer 2001 should be samples.

Discussed going to semi-annual sampling for VOCs. ~~stop~~ stop sampling ~~18/18a~~

Jeff mentioned mercury from SSA 15 WWTP – we have sampled from old WWTP outfall – “Beaver Pond”. Jeff would like to look at this data and try to get resolution

Schedule Modification required

**RI/FS, PRAP, ROD Sites 27, 28, 29, 30 (CLEAN I CTO-394)**

Draft RI to be submitted in October 2001. HHRA and ECO completed

Dave –  
mardene  
going to help –  
(look @ Nor)

Site 30 – hot spot removal – based on vanadium and lead (human health based risk). Discussed need for delineating hot spot. May need to remove more soil to meet eco screening. Does this site lend itself to toxicity testing?

Site 29 – Lee Pond – will have to go to baseline HHRA – Jeff thought that source may be Site 9 discharge into branch of Lee Pond. Source removal? Tox based clean-up goal.

Site 28 – silver has been found in tributary to Falgates Creek - and also in soil along stream banks. Eco screen would suggest that this site move on to next level of ERA. Jeff mentioned report that Steve Mihalko had regarding the valence of silver - we need to try to find this - see if it is may apply to this site (eco vs human health).

Site 27 – John M thinks that we have eco data gaps – limited numbers of sediment and surface water samples from stream that receives runoff from septic system. John recommends that additional samples be collected. In RI - do step 1 eco – note that we need additional eco data.

Site 27 & 28 – since eco risk was started a while ago, John M would like to re-screen with BTAG eco values. Wants to talk to Ed Coral at LANTDIV. (John mentioned site 4 and 9 used revised screening values) John Malinowski/Peter Knight do not like CH2 eco screening values – would like to use BTAG eco screening values.

John M. thinks we may want to consider spitting sites into separate sites.

John also recommends to report steps 1 and 2 only on this RI for all sites – then make recommendation on if this needed to go further. This would lend itself to splitting sites into separate documents for Baseline ECO with step 3a with 3b later.

**Site Screening Area Report for SSA 3, 4, 5, 9, 10, 20, 21, 22, 23, 24 & RI/FS, PRAP, ROD for Sites 23, 24, 25, and 26 (CLEAN II CTO-0035)**

Dave

Working on Final Site Screening Process Report and Final RI

Jeff recommends that we try to get this through reviews while we still have current Partnering Team

NFA – SAAs 3, 4, 5

SSA 9 now Site 27

SSA 10 now Site 28

SSA 20 now Site 29 (Lee Pond)

soil actions - closed — SSA 22 and 23 - partnering consensus for removal actions – NFA – <sup>SSA 22</sup> looking @ GW as a separate OU

SSA 24 now Site 30

SSA 21 – Roosevelt Pond – Chuck RA. – would like to see data from

Site 23 – additional removal action needed

Site 24 – aviation field area- removal action based on SSP mapping?

Site 25 – Rocket Plant – LTM (CTO-214)

Site 26 – Mark 48 Waste Auto Fuel Tank - LTM (CTO-214)

Site 25 and 26 LTM – Called Steve M – he wants quarterly sampling for first 5 quarters. Baker will revise work plans.

Jeff hopes that Sites 25 and 26 will go away after 5 yr review.

**Baker to present brief to Team with findings and recommendations on agenda for Oct '01 meeting. – Dave has the lead –**

Schedule Modification required to move money from Hill to Baker.

9-27-01 meeting

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**LTM Sites 1, 3, 6, 7 (CLEAN II CTO-102)**

Draft LTM Report to be submitted in Oct 2001 (1<sup>st</sup> Round)

Issues with coordinating Site 6 data with OHM/IT – Jeff told Baker to contact OHM – start with Scott Hendershot or Paul Kavanaugh 887-5971

*Lat Tpailee -*

Lift 1 – Paul Kavanaugh, OHM/IT Site Superintendent

Lift 2 – John Dormi

Lift 3 – Paul Kavanaugh

OHM thinks that there is about 2400 cy of soil in impoundment (Site 6) remaining.

Schedule and scope modification required to use approx. \$11,000 in subcontractor funds to compile Site 6 impoundment excavation confirmation sampling data.

All these sites are on annual sampling schedule – Jeff thinks that this needs to be quarterly.

**CAX Sites 1, 4, 7, 9, 10, 11, AOC 1 and AOC 2 (CLEAN II CTO-104)**

Joiner to talk to Karen Wood about providing an update for CAX at Oct meeting including Pennimum Sites (Weston Report)

Jeff would like to provide documentation to remove sites from IR program

Site 1 RI Report

Site 1 Focused FS – will include additional data from trenching task to be completed via CTO-172.

Draft Final SI Report for Site 4, Site 11, AOC 1 submitted 9/8/00 *FINAL SI Report (2001)*

Draft Final SI Report for Site 7, AOC 2 submitted 10/19/00 *FINAL Field Invest. Report for AOC 2 - (2001)*

Draft Site 11 Removal Close-Out Report submitted 4/20/00

Draft Pond Sampling Report submitted 7/31/00

Jeff suggested Youth Pond ~~becomes~~ *is considered along w/* Site 4

Pennimum pond attached to Site 11

*Site 4 & 9 Eco Risk Report - submitted in July*

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**CAX Site 1 FS, PRAP & ROD, GIS Needs Assessment, Ecological Risk Assessment, Site Management Plan (CLEAN II CTO-172)**

Eco assessment

Site 1 - John M noted that Peter K suggested that we eco sample along the north end of site (terrestrial) – near access road to landfill. Rich did not want to do this – John agrees with Peter and thinks that 6 to 8 samples should be collected. Scott and Jeff agreed to this.

Dave M – suggested Baker prepare map to show trenching locations / ECO sampling locations. Jeff – keep this at the subgroup level – Peter, John McCloskey , John M., Ed Coral.

Also talked about taking additional samples during landfill trenching.

Site 1 – John M also mentioned that Peter wanted to sample in York River – possibly to COCs only.

Baker preparing Scope Modification letter

**Site Management Plan 2002/2003 (CLEAN II CTO-195)**

Draft 2002/2003 SMP submitted June 14, 2001, review comments requested by August 15, 2001.

Draft Screening Level ERA for Sites 4 and 9 submitted June 29, 2001. Baker has received comments from LANTDIV.

Draft Update Final Community Relations Plan submitted June 29, 2001

*Letty -*  
Letty - Submit CRP to ATSDR - *Submitted to Sue Neureth -*  
*No comments received*

Jeff – Table 3-1 - need to revise table to reflect updated Partnering Team Goals.

Ghant charts needs corrected to show dates beyond 2002.

**CAX Background Study (CLEAN II CTO-196)**

Background sampling completed in August 2001.

Submittal date for Background Report?

Schedule modification required.

9-27-01 meeting

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RI/FS, PRAP, ROD for Groundwater OU 1 - NWSY (CLEAN II CTO-213)

M. Mullen -  
drafted w/p  
Linda reviewed  
and sent comments  
on 10/2/01

Draft Work Plan to be submitted in Oct 2001

Schedule modification required.

Site 25 and 26 LTM (CLEAN II CTO-214) Marlene - Figures taken from RI -

HASP - use site 12 -

Draft Work Plan to be submitted in Oct 2001

Note that some sources have been removed from Site 25.

Revise to quarterly sampling for first 5 quarters.

Cost impacts - evaluate @ 50% ←

Mary had call w/ Scott/Jeff  
today (10/9)

Yorktown GIS Needs Assessment (CLEAN II CTO-221) add 1) Luke Jackson ROICC

2) David Nelans - VIMS

3) Peter Knight

Baker submitted draft interview questionnaire on July 13, 2001

Comments received from Scott on Oct 5.

Scott asked if RAC or RAB  
members.

Baker will schedule telephone interviews (for October)

On September 28, 2001 Scott and Don reviewed the following planned new work for  
FY 2002:

FY 2002 Yorktown

Baker

Additional RI/FS for GW Op units

CTO-213 Mod 1

2/28/02 - Append. A

Work in 4<sup>th</sup> QTR 02

GW RI/FS for Sites 8, 22, SSA 14

CTO-363 Mod 05

3/30/02 - Append. A

Work in 4<sup>th</sup> QTR 02

4  
OU -  
Includes 4, 21, 22

Add LTM

CTO-214 Mod 1

Site 12

3/30/02 - Append. A

9-27-01 meeting

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APril  
Award

May  
Award

**RAC**

RA Site 2  
New DO  
2/15/02 - Append A

RA site 8 and SSA 14  
New DO  
2/15/02 - Append. A

RA Site 20 <sup>30?</sup>  
New DO  
2/28/02 - Append A

RA Site 23  
New DO  
4/30/02 - Append A

Interim RA site 24  
New DO  
4/30/02 - Append A

**FY 2002 CAX**

**Baker**

✓ RI/FS for Site 5 and 11  
New CTO  
10/15/01 - Append A

AWARDED  
236

✓ GIS Implementation  
New CTO (or mod to CTO 221?)  
10/15/01 - Append A

Mod to 172 Awarded 12/01

✓ Verification Sampling and NFRAP at various sites  
New CTO  
11/30/01 - Append A

Develop  
done 12/01  
~~AWARDED~~  
238

**RAC**

IRA Site 1 - Debris Removal  
1/30/02 (SOUTH SHIP to 3/4 gtr 02)  
\$250K

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**PLANNED SCHEDULE FOR OCTOBER 2001 NWSY/CAX – NASO JOINT  
PARTNERING MEETING**

Day 1 – NWSY

Day 2 – AM - NWSY

PM – 4 hours - Partnering Deliverables w/ Laurel

Day 3 – AM – 2 hrs Partnering Exercise w/ Laurel

NASO – 4 hrs technical

AGENDA ITEMS

28 SEPT 01 MEETING @ BAKER

DON + SCOTT

- ✓ 1. QTRLY / FY  $\phi$  2 GOALS
- ✓ 2. FY  $\phi$  2 1<sup>ST</sup> QTR SPENDING PLAN
- ✓ 3. PARTNERING ACTION ITEMS AND PARKING LOT ITEMS
- ✓ 4. SITE 18 PRAP REVIEW - ATTORNEY <sup>(3)</sup> + ME
- ✓ 5. SITE 18 DRAFT ROD TO TEAM - MON OCT 1
- ✓ 6. PROVIDE OCT PARTNERING ADDITIONS TO STEVE
- DPJ ✓  
w/ Scott ✓  
7. Where to Fund Baker for Partnering - DPJ check 195 budget
- 8. CAX site into package -
9. Setup call w/ Jeff to discuss Team Core members. (Action Item 20) + Agenda Review
10. TALK to Karen Wood about Item 8  $\frac{1}{2}$  CAX site I
11. Calendar

RESPONSES TO COMMENTS ON THE  
FISCAL YEAR 2001 SITE MANAGEMENT PLAN FOR  
NAVAL WEAPONS STATION YORKTOWN, CHEATHAM ANNEX SITE

COMMENTS PROVIDED BY THE USEPA

The following comments were provided by Mr. Robert Thomson, P.E. via letter dated July 12, 2000.

1. Site 8

Can the Navy confirm the "inert" nature of the materials disposed of at Site 8? Is there sampling data that can be "screened"? EPA recommends that the landfill undergo the Site Screening Process.

*Response: There is no sampling data available to confirm the inert nature of the materials disposed at the site. If available, the Navy will provide documentation/certification that only food and other inert materials were disposed at the site. At this time, Site 8 is not scheduled or funded to undergo the Site Screening Process.*

2. Site 10

The groundwater at Site 10 needs to be further investigated. The source of the dichloropropane and dissolved mercury in the groundwater needs to be ascertained. What are the breakdown products of DS-2?

More importantly, the Region noted that the site description of Site 10 included mention of finding small bottles on-site, approximately 3 inches in height, containing a dry-yellow material. Given that the site was used to bury DS-2, a chemical warfare decontamination agent, could it be possible the site was also used as an area to decontaminate chemical warfare materials? The small bottles described in the text of the SMP could be part of a Navy M1 gas identification kit, or M72 chemical agent identification kit. Are these bottles still in the woods? If so, is there any discernable etching or labeling on these bottles?

It is also interesting to note that the Navy M1 and M72 gas identification kits were stored in non-metallic containers, usually wooden or plastic boxes. Therefore, the performance of EM may or may not have detected the presence of such buried kits. Is there any TIC data available for this site?

*Response: Filtered (dissolved) groundwater samples collected during the 1992 SI contained dissolved mercury. Samples collected from the three monitoring wells and the duplicate sample each contained 0.15J micrograms per liter ( $\mu\text{g/L}$ ). Mercury was not detected in the unfiltered (total) samples. The mercury detections are highly suspect because the filtered concentrations are higher than the unfiltered concentrations. Neither total nor dissolved mercury was detected in the groundwater samples that were collected from the Site 10 monitoring wells in 1997 (under the SSP Investigation) to confirm the 1992 results.*

*During the 1992 SI, the volatile 1,2 dichloropropane was not detected in any of the environmental groundwater samples collected from the Site 10 monitoring wells. The compound was detected in the duplicate sample that was collected for the site. The compound was not detected in the groundwater samples collected from the Site 10 monitoring wells during the 1997 SSP Investigation.*

**RESPONSES TO COMMENTS ON THE  
FISCAL YEAR 2001 SITE MANAGEMENT PLAN FOR  
NAVAL WEAPONS STATION YORKTOWN, CHEATHAM ANNEX SITE (continued)**

*As the presence of mercury and 1,2 dichloropropane was not confirmed in the most recent sampling, it appears that there is no source of these contaminants at the site and that additional groundwater investigation is not warranted at this time.*

*The decontamination agent DS-2 is a semi-viscous golden oily liquid with an ammoniacal odor. It has the formula 70± 1% diethylene triamine, 28± 1% ethylene glycol monomethyl ether, 2± 0.1% sodium hydroxide. Likely breakdown products for DS-2 include water, ammonia, ethanol, methane or methanol, and salts.*

*As the primary function of CAX is and has been storage and distribution, it is highly unlikely that any chemical warfare operations or training occurred at Site 10. The chemical warfare respirator cartridges that were found at AOC 2 are typical of a more plausible scenario where unused items that were no longer needed were buried. At AOC 2 the respirator cartridges that were buried were stacked on wooden crates, intact in the original protective casing.*

*It appears that the bottles have been removed from the site.*

*No TIC data for the site could be located.*

3. AOC 1 – metal dump

EPA recommends conducting a non-time critical removal action at AOC 1 to remove all buried debris, followed by confirmation sampling of post-removal soils. Data obtained from the post-removal confirmation sampling event can be utilized in the Site Screening Process.

*Response: LANTDIV recognizes that sources of contamination may be present at the site, and removal of the sources of contamination is recommended. However, actions to be taken concerning this effort are pending the completion of the Site Inspection Report.*

4. Former Penniman Ordnance Plant areas

Five areas associated with the former Penniman Ordnance Plant were scored for inclusion on the NPL. These five areas include:

- former TNT graining house sump
- former TNT catch box ruins
- underground mixing tanks and associated piping system
- metallic slag located at the south/southeastern part of Cheatham Annex
- 1918 Drum Storage Area

As mentioned in EPA's January 4, 2000 letter to the Navy, a RI investigation is required for areas included in the scoring of a facility on the NPL. Therefore, EPA is recommending that a RI be performed at these five Penniman areas, including geophysics, comprehensive sampling, and risk assessment evaluation. The draft final SMP outlines a "field investigation," which is not sufficient.

EPA also recommends that a comprehensive Site Screening Process be accomplished for the remaining former Penniman Ordnance Plant area, to include a historical aerial photography review, geophysics, comprehensive sampling, and risk screening.

**RESPONSES TO COMMENTS ON THE  
FISCAL YEAR 2001 SITE MANAGEMENT PLAN FOR  
NAVAL WEAPONS STATION YORKTOWN, CHEATHAM ANNEX SITE (continued)**

*Response: The comment is noted. In addition to the field investigation that is planned for the Penniman AOC, a Site Investigation (SI) Report, including figures and site photographs, summarizing results and conclusions of the field investigation will be completed. Based on the results of the SI, further investigation and reporting may be proposed.*