

N60200.AR.003932
NAS CECIL FIELD, FL
5090.3a

DIG AND HAUL PACKAGE FOR FORMER DAY TANK 1 RETENTION POND NAS CECIL
FIELD FL
7/16/2004
TETRA TECH NUS INC

DIG AND HAUL PACKAGE

Former Day Tank 1 Retention Pond

SITE BACKGROUND

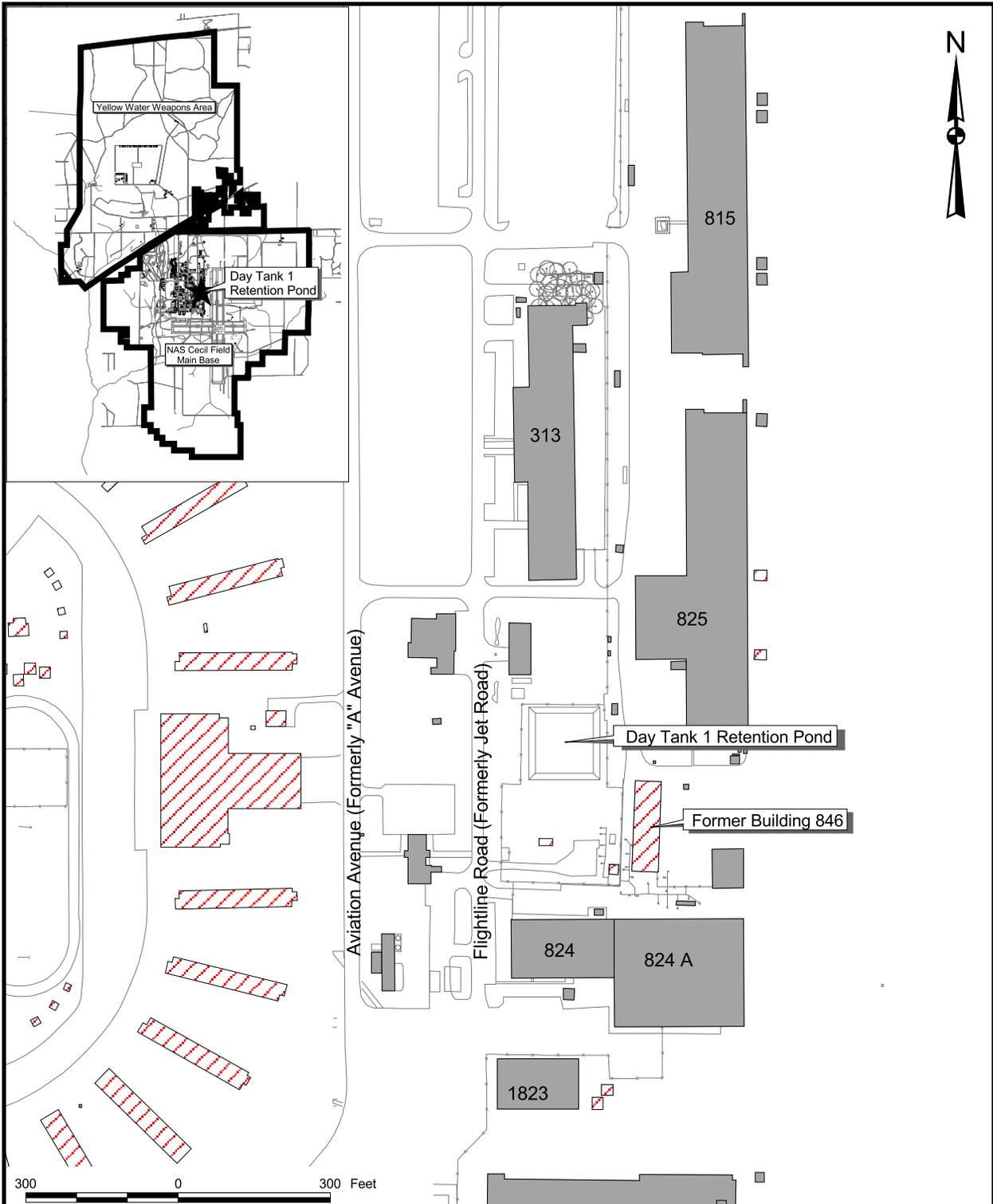
Day Tank 1 Retention Pond was a lined, spill containment basin located east of Jet Road, north of Buildings 824 and 824A, and west of former Building 846 (see Figure 1-1). Total recoverable petroleum hydrocarbons (TRPH) were detected at concentrations in excess of industrial and leachability soil cleanup target levels (SCTLs) and ethylbenzene, xylenes, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected at concentrations in excess of leachability SCTLs in surface and subsurface soil samples collected in the former Day Tank 1 Retention Pond area. Delineation / verification sampling was conducted in April and May 2004. The results of this field effort are shown on Attachment 1. Further detailed information may be obtained through reference to the Day Tank 1 Retention Pond proposed Sampling Plan (Tetra Tech NUS, Inc. [TtNUS], March 4, 2004).

GUIDANCE NOTES

This information is provided for general guidance purposes only. The horizontal and vertical extent of contamination that must be addressed has been delineated and is shown on Attachment 1. The actual extent of excavation will be defined in the field by TtNUS with white spray-down paint (or equivalent) prior to the start of construction activities, however the contractor will verify the accuracy of site conditions

The Environmental Multiple Award Contractor (EMAC) shall be responsible for the following:

- The schedule and methods of excavation.
- All aspects of work-site health and safety.
- Identification and avoidance of all aboveground and underground utilities or other manmade structures. Attachment 1 shows known utilities in the vicinity of the site. The EMAC shall review all Utility and as-built drawings that are relevant to the site. Drawings are available for review at Cecil Field.
- Waste characterization, transport (both on and off site), and proper disposal of all excavated soil.
- Notification of TtNUS and the Navy if observations indicate contaminants may extend beyond the planned lateral or vertical limits of the excavation. TtNUS will provide oversight during excavation activities. EMAC will be required to schedule oversight for excavation.
- Depth of excavations range from ground surface to 3 feet below the base of the pond and / or to the water table (assumed to be approximately 7 feet). Except where necessary for avoidance of structures or utilities, or where otherwise specified by TtNUS, the excavations should extend to the depths presented in Attachment 1.
- Excavated soil shall be stockpiled on, and covered with, heavy-duty polyethylene sheeting at the site. This shall be done in a manner to avoid the potential for contaminating surrounding soil or surface water. Alternately, soils may be stockpiled in properly covered roll-off containers.
- Stockpiling and combining of materials from different sites is permitted with prior approval of the BCT, if similar types and concentrations of contaminants are involved and were generated by similar processes.
- Materials used to backfill the excavation shall be from a certified uncontaminated source and be capable of supporting the same type of vegetation as the soil removed. The ground surface shall be restored to a similar or better condition than existed prior to excavation.

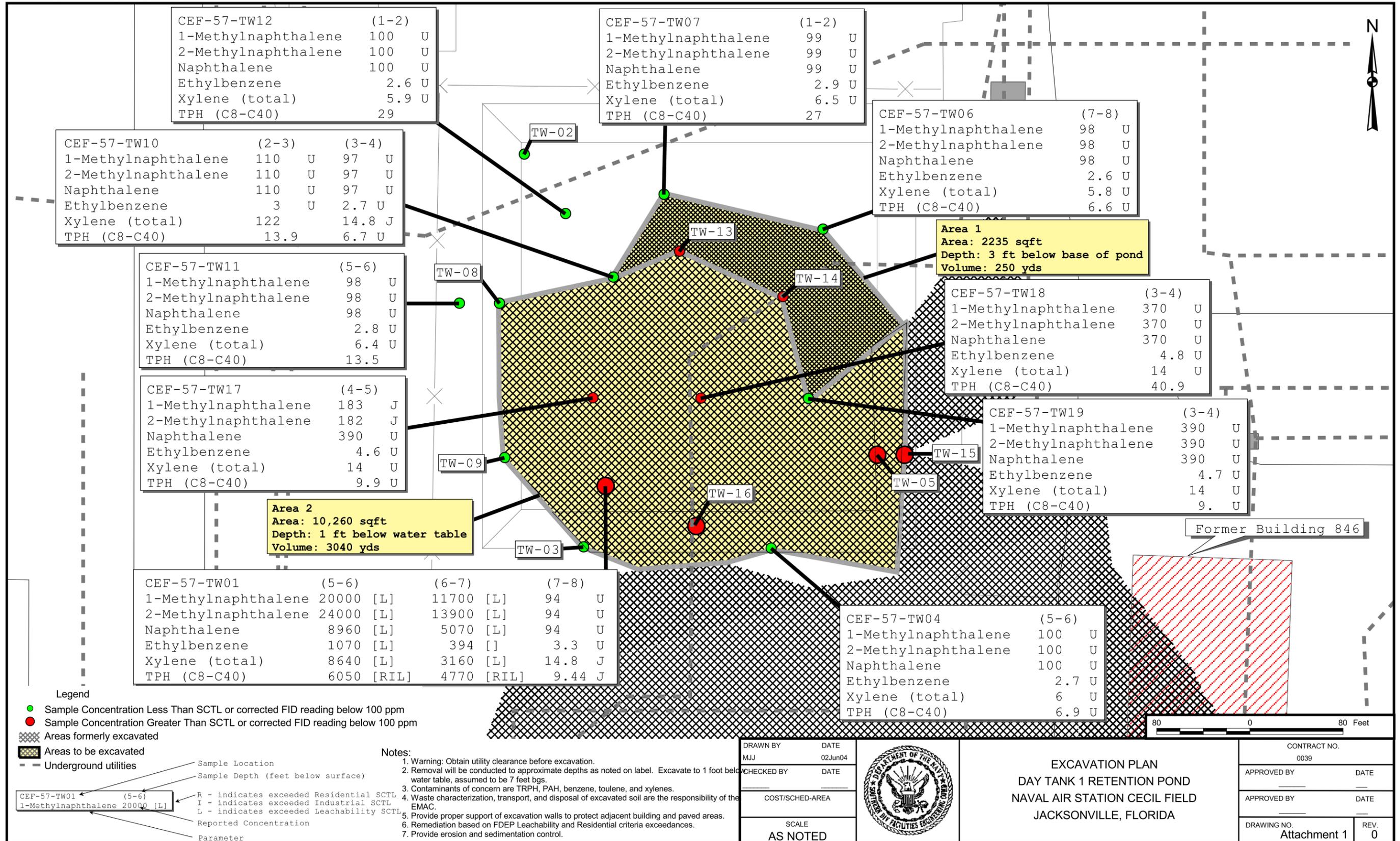


DRAWN BY MJJ	DATE 15Jan03
CHECKED BY	DATE
COST/SCHEDULE-AREA	
SCALE AS NOTED	



SITE LOCATION MAP
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA

CONTRACT NUMBER 0039	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 1-1	REV 0



Legend

- Sample Concentration Less Than SCTL or corrected FID reading below 100 ppm
- Sample Concentration Greater Than SCTL or corrected FID reading below 100 ppm
- ▨ Areas formerly excavated
- ▨ Areas to be excavated
- - - Underground utilities
- Sample Location
- Sample Depth (feet below surface)

Notes:

- Warning: Obtain utility clearance before excavation.
- Removal will be conducted to approximate depths as noted on label. Excavate to 1 foot below water table, assumed to be 7 feet bgs.
- Contaminants of concern are TRPH, PAH, benzene, toluene, and xylenes.
- Waste characterization, transport, and disposal of excavated soil are the responsibility of the EMAC.
- Provide proper support of excavation walls to protect adjacent building and paved areas.
- Remediation based on FDEP Leachability and Residential criteria exceedances.
- Provide erosion and sedimentation control.

Parameter Legend:

- R - indicates exceeded Residential SCTL
- I - indicates exceeded Industrial SCTL
- L - indicates exceeded Leachability SCTL

Example: CEF-57-TW01 (5-6) 1-Methylnaphthalene 20000 [L]

DRAWN BY MJJ	DATE 02Jun04		EXCAVATION PLAN DAY TANK 1 RETENTION POND NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NO. 0039	
CHECKED BY	DATE			APPROVED BY	DATE
COST/SCHED-AREA				APPROVED BY	DATE
SCALE AS NOTED				DRAWING NO. Attachment 1	REV. 0

Jonnet, Mark

From: Grabka, David [David.Grabka@dep.state.fl.us]
Sent: Wednesday, June 23, 2004 4:19 PM
To: Jonnet, Mark
Cc: Speranza, Mark; SouthDiv Davidson, Mark E; SouthDiv Magwood, Gabriel
Subject: RE: Day Tank 1 Draft Retention Pond Dig and Haul Package, NAS Cecil Field
Importance: Low

Mark,

This looks okay to me. I agree we can attach it to the final dig and haul package for DT 1. That way, we will at least have the OVA FID readings and the rationale behind the dig in writing and explained in the dig package.

David P. Grabka, P.G.
 Florida Department of Environmental Protection
 Division of Waste Management
 Bureau of Waste Cleanup
 Federal Programs Section
 phone: (850) 245-8997

-----Original Message-----

From: Jonnet, Mark [mailto:JonnetM@ttnus.com]
Sent: Wednesday, June 23, 2004 2:48 PM
To: Grabka, David
Cc: Speranza, Mark; SouthDiv Davidson, Mark E; SouthDiv Magwood, Gabriel
Subject: Day Tank 1 Draft Retention Pond Dig and Haul Package, NAS Cecil Field

Dave, attached is your comment letter for Day Tank 1 Retention Pond Dig and Haul. In response to your comments I've attached two spreadsheets the contents are described below. I propose we use this email as the response to comments and attach it and the tables to the existing Dig and Haul plan as the final version.

FDEP comment #1: Please add a spreadsheet with OVA data collected at each soil sample locations.

TtNUS response #1: 20040623_FID-Readings.xls contains Table 1 (FID measurements) and Table 2 (Corrected FID measurements using water table as the datum)

FDEP comment #2: Please provide rationale and calculation for determining OVA concentrations that correlate or that indicate soil contamination greater than residential or leachability SCTLs.

TtNUS response #2: 20040623_LabResults.xls contains Table 3 (Positively Detected Parameter with the correct FID measurements). The maximum Correct FID measurement co-located with a sample that was sent to a fixed based laboratory for analysis that had concentrations below SCTLs is CEF-57-TW01-7. This Correct FID reading is not being proposed as the elevated clean value because this sample was located beneath an area that had fixed-base results that exceeded SCTLs. TW-10 has positive detections of Xylenes and TRPH that are below SCTLs and a corrected FID reading of 103.2 ppm. I proposed that we elevate the clean value from 50 ppm to 100 ppm based on these readings.

FDEP comment #3: Please provide the rationale for why one area is to be excavated three feet below the base of the retention pond and the other area is to be excavated to one foot below the water table.

TtNUS response #3: Based on the FID measurements and the fix-based laboratory results from TW-01 it appears that SCTLs are exceeded to the water table. Typical practices conducted during excavations at Cecil Field when soil contamination is identified to the water table is to excavate to one foot below the water table. Corrected FID readings at locations TW-05, TW-15, TW-16, TW-17, and TW-18 indicate contamination to the water table, while there are several measurements below 100 ppm at these locations the contaminated area above and below these situations override these measurements. Corrected FID measurements below 100 ppm from locations TW-03, -09, -08, -10, -13, -14, -19, -04, and

7/15/2004

previously excavated areas bound this area that is being proposed to be excavated to the water table. The second area that is being proposed for excavation to a depth of 3 feet below the base of the retention pond (bbrp) is based on the correct FID readings from locations TW-13, -14, & -19. These locations have corrected FID measurements that exceed the proposed value of 100 ppm to a depth of 3 feet bbrp. Correct FID measurements from locations TW-10, -07, -06, -19, -14, -13, and previously excavated areas to the east bound this area both horizontally and vertically.

Mark Jonnet

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TABLE 1

FID HEADSPACE MEASUREMENTS
DAY TANK 1 RETENTION POND
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
PAGE 1 OF 4

SAMPLE				OVA SCREENING RESULTS			
BORING NO.	DATE COLLECTED	DEPTH TO WATER (feet bgs)	SAMPLE INTERVAL (feet bgs)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TW-01	3/17/2004	9.0	0-1	348	96	252	
			1-2	755	318	437	
			2-3	1222	824	398	
			3-4	330	162	168	
			4-5	518	130	388	
			5-6	517	12	505	
			6-7	557	2	555	
			7-8	419	3	416	
TW-02	3/15/2004	9.0	0-1	0	0	0	
			1-2	34.8	30.3	4.5	
			2-3	41.3	24	17.3	
			3-4	0	0	0	
			4-5	1	0	1	
			5-6	5.2	0	5.2	
			6-7	4.9	0	4.9	
			7-8	2.5	0	2.5	
TW-03	3/17/2004	9.0	0-1	0	0	0	
			1-2	0	0	0	
			2-3	12.1	0.8	11.3	
			3-4	42.6	0.5	42.1	
			4-5	82.3	0.2	82.1	
			5-6	19.5	0.1	19.4	
			6-7	23.1	9.2	13.9	
			7-8	22	22.9	-0.9	
TW-04	3/16/2004	11.5	0-1	0	0	0	
			1-2	0	0	0	
			2-3	0	0	0	
			3-4	0	0	0	
			4-5	0	0	0	
			5-6	0	0	0	
			6-7	0	0	0	
			7-8	0	0	0	
			8-9	0	0	0	
			9-10	0	0	0	
			10-11	0	0	0	
			11-12	0	0	0	
TW-05	3/16/2004	9.0	0-1	0	0	0	
			1-2	47.3	1.1	46.2	
			2-3	346	4.1	341.9	
			3-4	393	14.4	378.6	
			4-5	498	15.4	482.6	
			5-6	530	0	530	
			6-7	524	0	524	
7-8	547	0	547				

TABLE 1

FID HEADSPACE MEASUREMENTS
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 2 OF 4

SAMPLE				OVA SCREENING RESULTS			
BORING NO.	DATE COLLECTED	DEPTH TO WATER (feet bgs)	SAMPLE INTERVAL (feet bgs)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TW-06	3/15/2004	9.0	0-1	0	0	0	
			1-2	0	0	0	
			2-3	0	0	0	
			3-4	0	0	0	
			4-5	0	0	0	
			5-6	0	0	0	
			6-7	7.2	0	7.2	
			7-8	19.4	8.9	10.5	
TW-07	3/15/2004	9.0	0-1	8.5	3.8	4.7	
			1-2	41.3	21.8	19.5	
			2-3	0	0	0	
			3-4	0	0	0	
			4-5	0	0	0	
			5-6	0	0	0	
			6-7	0	0	0	
			7-8	0	0	0	
TW-08	3/15/2004	9.0	0-1	78.1	0	78.1	
			1-2	98.8	0	98.8	
			2-3	17	0	17	
			3-4	73.1	52.5	20.6	
			4-5	4.8	0	4.8	
			5-6	0	0	0	
			6-7	0	0	0	
			7-8	0	0	0	
TW-09	3/15/2004	9.0	0-1	0	0	0	
			1-2	0	0	0	
			2-3	0	0	0	
			3-4	0	0	0	
			4-5	0	0	0	
			5-6	0	0	0	
			6-7	0	0	0	
			7-8	0	0	0	
TW-10	3/16/2004	9.0	0-1	97.1	6	91.1	
			1-2	57.1	24.1	33	
			2-3	150.7	47.5	103.2	
			3-4	63.4	22.5	40.9	
			4-5	5.8	0	5.8	
			5-6	2.9	0	2.9	
			6-7	0	0	0	
			7-8	45.1	17.9	27.2	
TW-11	3/17/2004	9.0	0-1	0	0	0	
			1-2	0	0	0	
			2-3	0	0	0	
			3-4	0	0	0	
			4-5	0	0	0	
			5-6	0	0	0	
			6-7	1.3	0.9	0.4	
			7-8	1.2	1.2	0	

TABLE 1

FID HEADSPACE MEASUREMENTS
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 3 OF 4

SAMPLE				OVA SCREENING RESULTS			
BORING NO.	DATE COLLECTED	DEPTH TO WATER (feet bgs)	SAMPLE INTERVAL (feet bgs)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TW-12	3/17/2004	NR	0-1	0	0	0	
			1-2	3	0	3	
			2-3	1.5	0	1.5	
			3-4	2	0	2	
			4-5	0	0	0	
			5-6	0	0	0	
			6-7	1.3	0	1.3	
			7-8	1.2	0	1.2	
TW-13	3/17/2004	NR	0-1	0	0	0	
			1-2	249	150.9	98.1	
			2-3	552	402	150	
			3-4	142	109	33	
			4-5	86.1	61	25.1	
			5-6	19.4	12.4	7	
			6-7	23.5	22.6	0.9	
			7-8	61.9	58.4	3.5	
TW-14	3/17/2004	NR	0-1	117	77	40	
			1-2	73	72	1	
			2-3	180	70	110	
			3-4	128	67	61	
			4-5	35	29	6	
			5-6	22	23	-1	
			6-7	82	40	42	
			7-8	112	70	42	
TW-15	3/17/2004	8.0	0-1	0	0	0	
			1-2	0	0	0	
			2-3	3.5	0	3.5	
			3-4	1.2	0	1.2	
			4-5	0	0	0	
			5-6	106	0	106	
			6-7	10.7	0	10.7	
			7-8	778	0	778	
			8-9	920	0	920	
			9-10	1005	0	1005	
			10-11	1132	0	1132	
			11-12	956	0	956	
TW-16	3/17/2004	NR	0-1	146	0	146	
			1-2	239	0	239	
			2-3	102	0	102	
			3-4	158	22	136	
			4-5	186	34	152	
			5-6	32	0	32	
			6-7	29	0	29	
			7-8	209	0	209	

TABLE 1

FID HEADSPACE MEASUREMENTS
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 4 OF 4

SAMPLE				OVA SCREENING RESULTS			
BORING NO.	DATE COLLECTED	DEPTH TO WATER (feet bgs)	SAMPLE INTERVAL (feet bgs)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
TW-17	5/10/2004	7.0	0-1	-	-	-	
			1-2	-	-	-	
			2-3	-	-	-	
			3-4	648.0	10.5	637.5	Damp
			4-5	260.0	76.0	184	Dry
			5-6	200.1	86.6	113.5	Damp
			6-7	652.8	39.7	613.1	Damp
			7-8	777.9	33.3	744.6	Damp
TW-18	5/10/2004	7.0	0-1	529.0	70.5	458.5	Damp
			1-2	1596.0	936.7	659.3	Damp
			2-3	2210.0	1106.0	1104	Damp
			3-4	295.0	237.2	57.8	Damp
			4-5	90.2	32.7	57.5	Damp
			5-6	198.2	75.5	122.7	Damp
			6-7	850.1	359.3	490.8	Wet
			7-8	850.1	359.3	490.8	Wet
TW-19	5/10/2004	7.0	0-1	632.5	74.8	557.7	
			1-2	352.6	197.4	155.2	
			2-3	393.1	202.6	190.5	
			3-4	328.7	279.9	48.8	
			4-5	24.6	21.5	3.1	
			5-6	86.0	49.0	37	
			6-7	139.9	58.5	81.4	Moist
			7-8	603.1	320.2	282.9	Wet/Saturated
			8-9	22.5	27.1	-4.6	Wet/Saturated
			9-10	69.8	35.1	34.7	Wet/Saturated

NOTES:

Shading indicates results greater than 50 ppm.

bgs = Below ground surface.

ppm = Parts per million.

NS = Not sampled.

NR = Not recorded.

- = No measurement taken.

TABLE 2

CORRECTED FID HEADSPACE MEASUREMENTS SORTED BY DEPTH
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 1 OF 1

Delta	TW01	TW02	TW03	TW04	TW05	TW06	TW07	TW08	TW09	TW10	TW11	TW12	TW13	TW14	TW15	TW16	TW17	TW18	TW19
plus 11'				0											0				
plus 10'				0											0				
plus 9'			0	0											3.5				
plus 8'			0	0											1.2				
plus 7'	252	0	11.3	0	0	0	4.7	78.1	0	91.1	0	0	0	40	0	146	NR	458.5	557.7
plus 6'	437	4.5	42.1	0	46.2	0	19.5	98.8	0	33	0	3	98.1	1	106	239	NR	659.3	155.2
plus 5'	398	17.3	82.1	0	341.9	0	0	17	0	103.2	0	1.5	150	110	10.7	102	NR	1104	190.5
plus 4'	168	0	19.4	0	378.6	0	0	20.6	0	40.9	0	2	33	61	778	136	637.5	58	48.8
plus 3'	388	1	13.9	0	482.6	0	0	4.8	0	5.8	0	0	25.1	6	920	152	184	57.5	3.1
plus 2'	505	5.2	-0.9	0	530	0	0	0	0	2.9	0	0	7	-1	1005	32	113.5	122.7	37
plus 1'	555	4.9	86.2	0	524	7.2	0	0	0	0	0.4	1.3	0.9	42	1132	29	613.1	490.8	81.4
Water Table	416	2.5	64.4	0	547	10.5	0	0	0	27.2	0	1.2	3.5	42	956	209	744.6		282.9

NOTES:

- 1) plus xx' references sample location based on water table, water table assumed to be datum
- 2) readings are in Parts per million.
- 3) empty cells indicate no reading

TABLE 3

SOIL ANALYTICAL RESULTS POSITIVE DETECTIONS
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 1 OF 2

Parameter	FDEP SCTL ⁽¹⁾			TW-01	TW-01	TW-01	TW-04	TW-06	TW-07
	Residential Direct Exposure	Industrial Direct Exposure	Leachability to Groundwater	CEF-57-TW01-6	CEF-57-TW01-7	CEF-57-TW01-8	CEF-57-TW4-6	CEF-57-TW6-8	CEF-57-TW7-2
				5-6'	6-7'	7-8'	5-6'	7-8'	1-2'
Volatile Organic Compounds, ug/kg									
ETHYLBENZENE	1,100,000	8,400,000	600	1070	394	3.3 U	2.7 U	2.6 U	2.9 U
TOTAL XYLENES	5,900,000	40,000,000	200	8640	3160	14.8 J	6 U	5.8 U	6.5 U
Semivolatile Organic Compounds, ug/kg									
1-METHYLNAPHTHALENE	68,000	470,000	2,200	20000	11700	94 U	100 U	98 U	99 U
2-METHYLNAPHTHALENE	83,000	560,000	6,100	24000	13900	94 U	100 U	98 U	99 U
NAPHTHALENE	40,000	270,000	1,700	8960	5070	94 U	100 U	98 U	99 U
Total Petroleum Hydrocarbons, mg/kg									
TRPH	340	2,500	340	6050	4770	9.44 J	6.9 U	6.6 U	27
Field Measurements, ppm									
Corrected FID	NC	NC	NC	505	555	416	0	10.5	19.5

TABLE 3

SOIL ANALYTICAL RESULTS POSITIVE DETECTIONS
 DAY TANK 1 RETENTION POND
 NAVAL AIR STATION CECIL FIELD
 JACKSONVILLE, FLORIDA
 PAGE 2 OF 2

Parameter	FDEP SCTL ⁽¹⁾			TW-10	TW-10	TW-11	TW-12	TW-17	TW-18	TW-19
	Residential Direct Exposure	Industrial Direct Exposure	Leachability to Groundwater	CEF-57-TW10-3	CEF-57-TW10-4	CEF-57-TW11-6	CEF-57-TW12-2	CEF-57-TW17-05	CEF-57-TW18-04	CEF-57-TW19-04
				2-3'	3-4'	5-6'	1-2'	4-5'	3-4'	3-4'
Volatile Organic Compounds, ug/kg										
ETHYLBENZENE	1,100,000	8,400,000	600	3 U	2.7 U	2.8 U	2.6 U	1.8 U	1.9 U	1.9 U
TOTAL XYLENES	5,900,000	40,000,000	200	122	14.8 J	6.4 U	5.9 U	4.1 U	4.3 U	4.2 U
Semivolatile Organic Compounds, ug/kg										
1-METHYLNAPHTHALENE	68,000	470,000	2,200	110 U	97 U	98 U	100 U	183 J	94 U	99 U
2-METHYLNAPHTHALENE	83,000	560,000	6,100	110 U	97 U	98 U	100 U	182 J	94 U	99 U
NAPHTHALENE	40,000	270,000	1,700	110 U	97 U	98 U	100 U	99 U	94 U	99 U
Total Petroleum Hydrocarbons, mg/kg										
TRPH	340	2,500	340	13.9	6.7 U	13.5	29	6.7 U	40.9	6.7 U
Field Measurements, ppm										
Corrected FID	NC	NC	NC	103.2	40.9	0	3	184	57.8	48.8

U = Not detected at or above detection limit (associated value).

J = Estimated concentration.

NC = no criteria

Bolded values exceed detection limit.

Shaded values exceed less stringent of residential and leachability criteria.

1 Florida Department of Environmental Protection Soil Cleanup Target Levels, FAC Chapter 62-777 (FDEP, 1999).