PACC

5349

VARIANCE / FIELD CHANGE NOTICE	Significant? (Yes or No): NO	V/F: 20500-PSP-0004-2
WBS NO.: PROJECT/DOCUMENT/ECDC # 20500-PSP-0004 Rev. 0		Page: 1 of 7
PROJECT TITLE: PSP for Predesign Investigation in Area 7, Phase III		Date: 1/5/04

VARIANCE / FIELD CHANGE NOTICE (Include justification):

This V/FCN documents the collection of samples from 17 borings in the vicinity of the Advanced Wastewater Treatment (AWWT) facility. The boring locations are shown on Figure 1.

The borings to be sampled under this V/FCN are to be collected in accordance with Section 2.0 of the PSP. The soil surface begins where the soil contains less than 50 percent overlying material. The field documentation should indicate the depth of overlying material for each boring. The entire length of the core should be scanned with a beta-gamma frisker. If field screening results of the last interval to be sampled exceed 450 ccpm, it is considered potential above-WAC material, and another sample will be collected 3 feet below that interval. That sample will also be submitted for total uranium analysis (TAL C). This process will be repeated until the deepest interval collected scans less than 450 ccpm.

The borings to be sampled as well as the sample intervals are identified in Attachment 1. Samples will be identified in the same manner as specified in the PSP, where the location identifier will be "AWWT". The Sampling and Analytical Requirements are provided in Attachment 2, and the TALs are on Attachment 3.

- Boring A7P3-AWWT1 will be extended to a depth of 11.5 ft and is being collected to confirm elevated total uranium and thorium results from RI/FS boring 11069, as well as provide vertical bounding.
- Boring A7P3-AWWT2 is being collected to confirm elevated total thorium results from RI/FS boring ZONE 3-42; borings A7P3-AWWT3 through A7P3-AWWT6 are horizontal bounding locations for A7P3-AWWT2. All borings will be extended to a depth of 1 ft.
- Borings A7P3-AWWT7 through A7P3-AWWT10 are horizontal bounding locations for predesign boring A2P2-PP-16, which exhibited elevated total uranium. All borings will be extended to a depth of 4 ft.
- Borings A7P3-AWWT11 through A7P3-AWWT17 will be extended to a depth of 8.5 ft and are being collected to obtain additional characterization data around the AWWT perimeter. Boring A7P3-AWWT17 will also include arsenic and lead analysis because nearby RI/FS borings did not include these analytes.

All samples will be analyzed at an off-site laboratory at ASL B. A 7-day turn around time will be requested. Historical data from boring P34-1 is to be used for shipping purposes, and is as follows:

- Total Uranium: 574 mg/kg
- Th-228: 32 pCi/g
- Th-230: 24 pCi/g
- Th-232: 28 pCi/g

Approximately 86 samples will be collected for this sampling event.
Surveying required: Yes
Field QC samples required: No
Field data validation required: Yes
Data package required: Yes, forms plus QC
Analytical data validation required: Yes, minimum 10%

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PROJECT TITLE: PSP for Predesign Investigation in Area 7, Phase III		Date: 1/5/04

Justification:
Additional predesign data is needed for this area to better determine the depth of excavation that is necessary in the area.

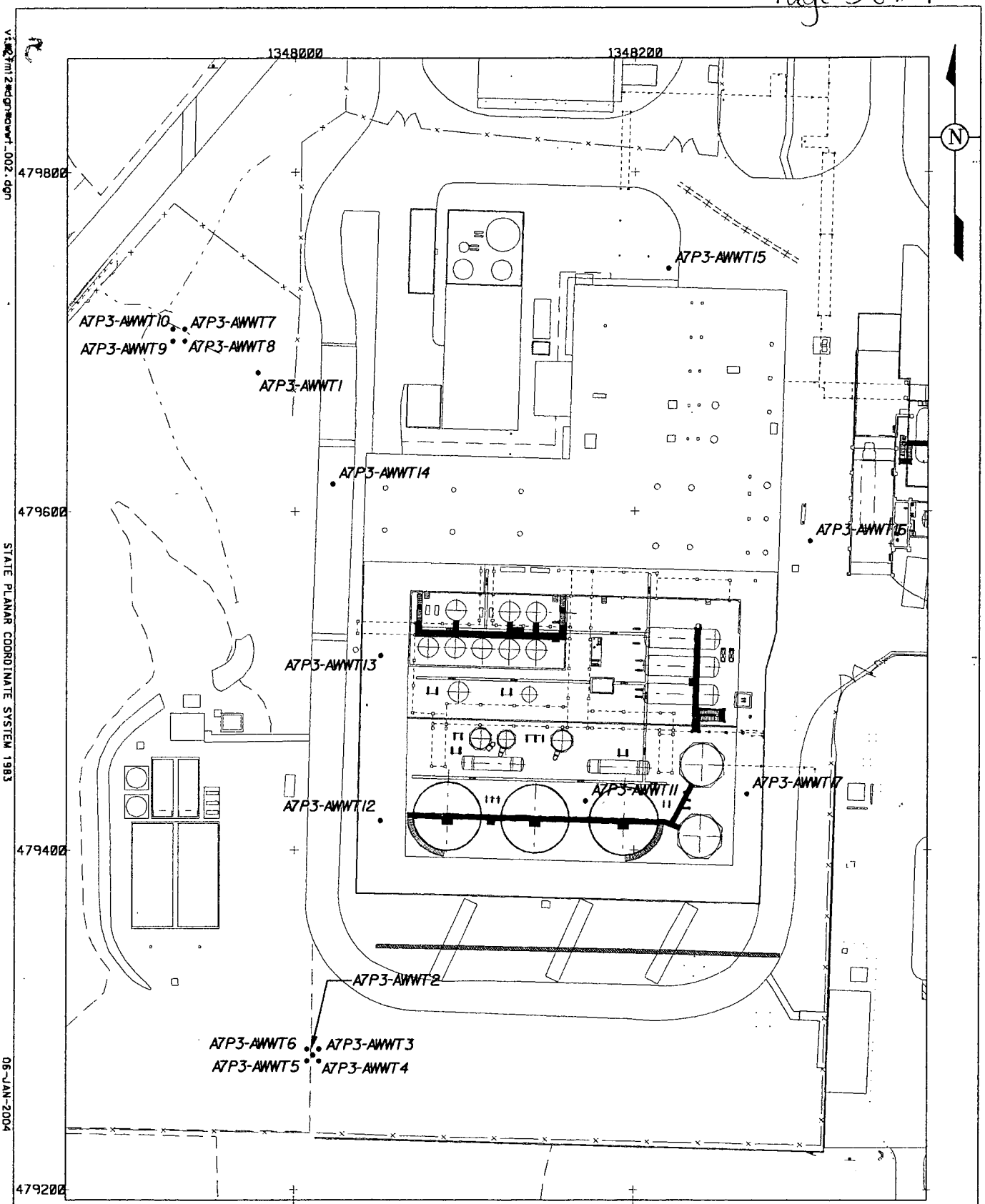
REQUESTED BY: Denise Arico Date: 1/5/04

X IF REQD	VARIANCE/FCN APPROVAL	DATE	X IF REQD	VARIANCE/FCN APPROVAL	DATE
X	QUALITY ASSURANCE: R. Friske	1-14-04	X	PROJECT MANAGER: T.D. Chiou	1/13/04
	DATA QUALITY MANAGEMENT		X	CHARACTERIZATION MANAGER: F. Miller	1/12/04
X	ANALYTICAL CUSTOMER SUPPORT: Heather Medley	1/13/04		RTIMP Manager	
X	WAO	1/16/04	X	Sampling Manager: T. Buhlage	1/12/04

VARIANCE/FCN APPROVED [X]YES [ ]NO REVISION REQUIRED: [ ]YES [x]NO

DISTRIBUTION

PROJECT MANAGER:	DOCUMENT CONTROL: Jeannie Rosser	OTHER:
QUALITY ASSURANCE:	CHARACTERIZATION MANAGER: Frank Miller	OTHER:
FIELD MANAGER:	OTHER:	OTHER:



LEGEND:

· Boring to be sampled

DRAFT

SCALE

80 40 0 80 FEET

FIGURE 1.

ATTACHMENT 1
SAMPLE LOCATION AND IDENTIFIERS

Location ID (Boring)	Northing	Easting	Depth (feet)	Sample ID	Analyte
A7P3-AWWT1	479681.9	1347978.35	0 - 0.5	A7P3-AWWT1^1-R	TAL C & D
			2 - 2.5	A7P3-AWWT1^5-R	TAL C & D
			5 - 5.5	A7P3-AWWT1^11-R	TAL C & D
			10.5 - 11	A7P3-AWWT1^22-R	TAL C & D
			11 - 11.5	A7P3-AWWT1^23-R	TAL C & D
A7P3-AWWT2	479279.365	1348011.004	0 - 0.5	A7P3-AWWT2^1-R	TAL D
			0.5 - 1	A7P3-AWWT2^2-R	TAL D
A7P3-AWWT3	479282.9	1348014.54	0 - 0.5	A7P3-AWWT3^1-R	TAL D
			0.5 - 1	A7P3-AWWT3^2-R	TAL D
A7P3-AWWT4	479275.83	1348014.54	0 - 0.5	A7P3-AWWT4^1-R	TAL D
			0.5 - 1	A7P3-AWWT4^2-R	TAL D
A7P3-AWWT5	479275.83	1348007.47	0 - 0.5	A7P3-AWWT5^1-R	TAL D
			0.5 - 1	A7P3-AWWT5^2-R	TAL D
A7P3-AWWT6	479282.9	1348007.47	0 - 0.5	A7P3-AWWT6^1-R	TAL D
			0.5 - 1	A7P3-AWWT6^2-R	TAL D
A7P3-AWWT7	479707.57	1347935.01	1.5 - 2	A7P3-AWWT7^4-R	TAL C
			3.5 - 4	A7P3-AWWT7^8-R	TAL C
A7P3-AWWT8	479700.49	1347935.01	1.5 - 2	A7P3-AWWT8^4-R	TAL C
			3.5 - 4	A7P3-AWWT8^8-R	TAL C
A7P3-AWWT9	479700.49	1347927.93	1.5 - 2	A7P3-AWWT9^4-R	TAL C
			3.5 - 4	A7P3-AWWT9^8-R	TAL C
A7P3-AWWT10	479707.57	1347927.93	1.5 - 2	A7P3-AWWT10^4-R	TAL C
			3.5 - 4	A7P3-AWWT10^8-R	TAL C
A7P3-AWWT11	479428.73	1348171.54	0 - 0.5	A7P3-AWWT11^1-RMP	TAL E
			1 - 1.5	A7P3-AWWT11^3-RMP	TAL E
			2 - 2.5	A7P3-AWWT11^5-RMP	TAL E
			3 - 3.5	A7P3-AWWT11^7-RMP	TAL E
			4 - 4.5	A7P3-AWWT11^9-RMP	TAL E
			5 - 5.5	A7P3-AWWT11^11-RMP	TAL E
			6 - 6.5	A7P3-AWWT11^13-RMP	TAL E
			7 - 7.5	A7P3-AWWT11^15-RMP	TAL E
			8 - 8.5	A7P3-AWWT11^17-RMP	TAL E
A7P3-AWWT12	479417.29	1348050.21	0 - 0.5	A7P3-AWWT12^1-RMP	TAL E
			1 - 1.5	A7P3-AWWT12^3-RMP	TAL E
			2 - 2.5	A7P3-AWWT12^5-RMP	TAL E
			3 - 3.5	A7P3-AWWT12^7-RMP	TAL E
			4 - 4.5	A7P3-AWWT12^9-RMP	TAL E
			5 - 5.5	A7P3-AWWT12^11-RMP	TAL E
			6 - 6.5	A7P3-AWWT12^13-RMP	TAL E
			7 - 7.5	A7P3-AWWT12^15-RMP	TAL E
			8 - 8.5	A7P3-AWWT12^17-RMP	TAL E

ATTACHMENT 1
SAMPLE LOCATION AND IDENTIFIERS

Location ID (Boring)	Northing	Easting	Depth (feet)	Sample ID	Analyte
A7P3-AWWT13	479514.6	1348050.21	0 - 0.5	A7P3-AWWT13^1-RMP	TAL E
			1 - 1.5	A7P3-AWWT13^3-RMP	TAL E
			2 - 2.5	A7P3-AWWT13^5-RMP	TAL E
			3 - 3.5	A7P3-AWWT13^7-RMP	TAL E
			4 - 4.5	A7P3-AWWT13^9-RMP	TAL E
			5 - 5.5	A7P3-AWWT13^11-RMP	TAL E
			6 - 6.5	A7P3-AWWT13^13-RMP	TAL E
			7 - 7.5	A7P3-AWWT13^15-RMP	TAL E
			8 - 8.5	A7P3-AWWT13^17-RMP	TAL E
A7P3-AWWT14	479616.19	1348022.06	0 - 0.5	A7P3-AWWT14^1-RMP	TAL E
			1 - 1.5	A7P3-AWWT14^3-RMP	TAL E
			2 - 2.5	A7P3-AWWT14^5-RMP	TAL E
			3 - 3.5	A7P3-AWWT14^7-RMP	TAL E
			4 - 4.5	A7P3-AWWT14^9-RMP	TAL E
			5 - 5.5	A7P3-AWWT14^11-RMP	TAL E
			6 - 6.5	A7P3-AWWT14^13-RMP	TAL E
			7 - 7.5	A7P3-AWWT14^15-RMP	TAL E
			8 - 8.5	A7P3-AWWT14^17-RMP	TAL E
A7P3-AWWT15	479743.13	1348219.79	0 - 0.5	A7P3-AWWT15^1-RMP	TAL E
			1 - 1.5	A7P3-AWWT15^3-RMP	TAL E
			2 - 2.5	A7P3-AWWT15^5-RMP	TAL E
			3 - 3.5	A7P3-AWWT15^7-RMP	TAL E
			4 - 4.5	A7P3-AWWT15^9-RMP	TAL E
			5 - 5.5	A7P3-AWWT15^11-RMP	TAL E
			6 - 6.5	A7P3-AWWT15^13-RMP	TAL E
			7 - 7.5	A7P3-AWWT15^15-RMP	TAL E
			8 - 8.5	A7P3-AWWT15^17-RMP	TAL E
A7P3-AWWT16	479582.22	1348303.19	0 - 0.5	A7P3-AWWT16^1-RMP	TAL E
			1 - 1.5	A7P3-AWWT16^3-RMP	TAL E
			2 - 2.5	A7P3-AWWT16^5-RMP	TAL E
			3 - 3.5	A7P3-AWWT16^7-RMP	TAL E
			4 - 4.5	A7P3-AWWT16^9-RMP	TAL E
			5 - 5.5	A7P3-AWWT16^11-RMP	TAL E
			6 - 6.5	A7P3-AWWT16^13-RMP	TAL E
			7 - 7.5	A7P3-AWWT16^15-RMP	TAL E
			8 - 8.5	A7P3-AWWT16^17-RMP	TAL E
A7P3-AWWT17	479432.97	1348266.4	0 - 0.5	A7P3-AWWT17^1-RMP	TAL E & F
			1 - 1.5	A7P3-AWWT17^3-RMP	TAL E & F
			2 - 2.5	A7P3-AWWT17^5-RMP	TAL E & F
			3 - 3.5	A7P3-AWWT17^7-RMP	TAL E & F
			4 - 4.5	A7P3-AWWT17^9-RMP	TAL E & F
			5 - 5.5	A7P3-AWWT17^11-RMP	TAL E & F
			6 - 6.5	A7P3-AWWT17^13-RMP	TAL E & F
			7 - 7.5	A7P3-AWWT17^15-RMP	TAL E & F
			8 - 8.5	A7P3-AWWT17^17-RMP	TAL E & F

ATTACHMENT 2

SAMPLING AND ANALYTICAL REQUIREMENTS

Analytes	Lab	Sample Matrix	ASL	TAT	Preservative	Holding Time	Container	Sample Mass
TAL C	Off-Site	Solid	B	7 day	None	12 months	Glass or Plastic	400 g
TAL D	Off-Site	Solid	B	7 day	None	12 months	Glass or Plastic	400 g
TAL C & D	Off-Site	Solid	B	7 day	None	12 months	Glass or Plastic	400 g
TAL E	Off-Site	Solid	B	7 day	Cool 4 degrees C	12 months (rads) 6 months (metals) 14 days (PCBs)	Glass w/ Teflon-lined Lid	500 g
TAL E & F	Off-Site	Solid	B	7 day	Cool 4 degrees C	12 months (rads) 6 months (metals) 14 days (PCBs)	Glass w/ Teflon-lined Lid	500 g

ATTACHMENT 3

TAL 20500-PSP-0004-C
Soil Analysis, Off-Site (ASL B)

Analyte	FRL	Requested Minimum Detection Limit
Total Uranium	82 mg/kg	8.2 mg/kg

TAL 20500-PSP-0004-D
Soil Analysis, Off-Site (ASL B)

Analyte	FRL	Requested Minimum Detection Limit
Thorium-232	1.5 pCi/g	0.15 pCi/g

TAL 20500-PSP-0004-E
Soil Analysis, Off-Site (ASL B)

Analyte	FRL	Requested Minimum Detection Limit
Total Uranium	82 mg/kg	8.2 mg/kg
Thorium-228	1.7 pCi/g	0.17 pCi/g
Thorium-232	1.5 pCi/g	0.15 pCi/g
Radium-228	1.8 pCi/g	0.18 pCi/g
Technetium-99	29.1 pCi/g	2.91 pCi/g
Beryllium	1.5 mg/kg	0.15 mg/kg
Aroclor-1254	0.13 mg/kg	0.013 mg/kg
Aroclor-1260	0.13 mg/kg	0.013 mg/kg

TAL 20500-PSP-0004-F
Soil Analysis, Off-Site (ASL B)

Analyte	FRL	Requested Minimum Detection Limit
Arsenic	12 mg/kg	1.2 mg/kg
Lead	400 mg/kg	4 mg/kg