N62269.AR.000620
NAWC WARMINSTER
5090.3a

TETRA TECH NUS, INC.
600 Clark Avenue, Suite 3 ▪ King of Prussia, PA 19406-1433
(610) 491-9688 ▪ FAX (610) 491-9645 ▪ www.tetratech.com

PHIL-13553

November 8, 1999

Project Number 7603

Mr. Lonnie Monaco
Naval Facilities Engineering Command (NAVFACENGCOM)
Northern Division
Environmental Contracts Branch, Mailstop #82
10 Industrial Highway
Lester, Pennsylvania 19113

Reference: CLEAN Contract No. N642472-90-D-1298
Contract Task Order (CTO) No. 290

Subject: Investigation Results from Former Base Commander's Property
Phase III Remedial Investigation/Feasibility Study (RI/FS)
Former Naval Air Warfare Center (NAWC) Warminster, Pennsylvania

Dear Mr. Monaco:

As requested, the analytical results (Enclosure 1) for the subsurface soil samples collected from the base commander's residence have been evaluated by Tetra Tech NUS (TtNUS). The unvalidated analytical results for these samples were compared to results presented in the draft Phase III RI Report (B&R Environmental, 1996), Pennsylvania Department of Environmental Protection (PADEP) Act 2 standards, and EPA Region III risk-based screening concentrations (RBCs). Sample locations are displayed in Figure 1. Boring logs are included as Enclosure 2.

Analytical Results

Nine soil boring samples were collected on October 28, 1999 in the vicinity of the soil gas anomalies detected in early October 1999. The soil gas survey results were previously provided under separate cover. All samples were analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs).

There was one positive VOC result among the sample set. Boring sample SB-BC-05 contained PCE at 1J ug/kg. This sample was collected from a depth of 11 to 14 feet below the ground surface in boring SB-BC-04. There was no evidence of potential contamination observed in this boring.

Among the SVOC results, two positive detections were noted for bis(2-ethylhexyl)phthalate in samples SB-BC-09 (1,500 ug/kg) and SB-BC-12 (310J ug/kg). Bis(2-ethylhexyl)phthalate is commonly found in plastic products.

None of the VOC or SVOC results exceeded PADEP Act 2 or EPA Region III RBCs under both residential and industrial land use scenarios.

Conclusions and Recommendations

Based on our review of the supplemental subsurface soil data from the commander's property, TtNUS recommends the following courses of action:

- No additional soil investigations are necessary in the vicinity of the property to determine a potential source of groundwater-related VOC contamination.
- The results should be used to support any finding of suitability to transfer (FOST) documentation for this general area.
- The more recent soil investigation results should be included in the final environmental investigation report for the base commander's residence. Portions of the draft Phase III RI report for NAWC Warminster (B&R Environmental, November 1996) should be revised accordingly.

Please contact me if you have any questions or comments.

Sincerely,

Neil Teamerson

Neil Teamerson
Project Coordinator

ANT/nfs

Enclosures

c: Thomas Ames (NAVFACENGCOM)
Michael Fohner (NAVCFACENGCOM)
Darius Ostrauskas (EPA Region III)
April Flipse (PADEP)
Jeffrey Orient (TtNUS)
Garth Glenn (TtNUS) (without enclosures)

SHEET No. ____ OF ____
CLIENT ____ JOB NO. ____
SUBJECT ____
BASED ON ____ DRAWING NO. ____
COMPUTER ____ CHK'D BY ____ APP'D BY ____ DATE ____ 19 ____

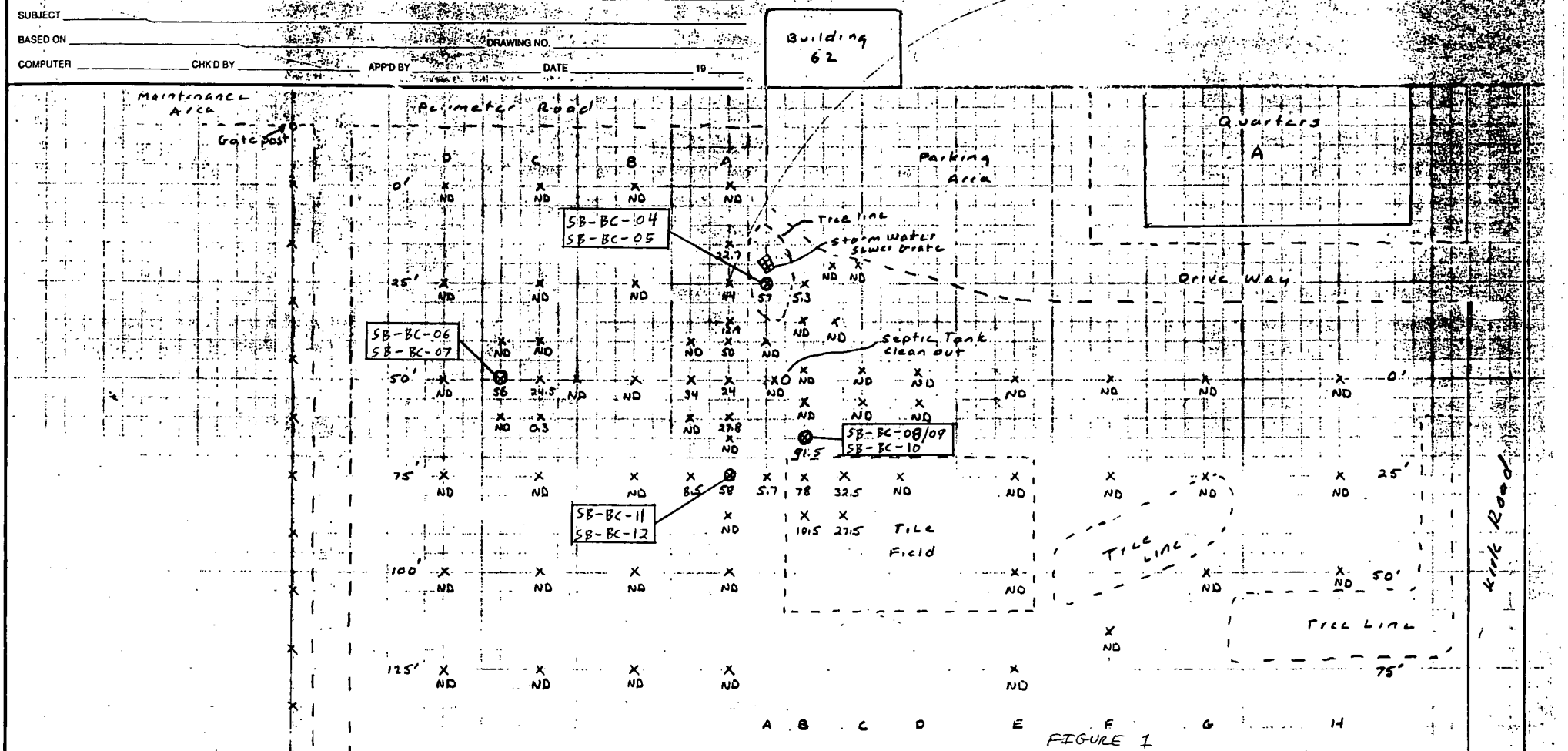

FIGURE 1
SUPPLEMENTAL SOIL INVESTIGATION
FORMER BASE COMMANDER'S RESIDENCE
(X) SOIL BORING LOCATIONS
N. Tramelson 8 Nov 99

Order No. 19182 (05-91)

ENCLOSURE 1

RAW ANALYTICAL DATA RESULTS

SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-BC-04

Lab Name: Laucks Testing Labs

SDG No.: WM001

Matrix: (soil/water) SOIL

Lab Sample ID: 9910704-01

Sample wt/vol: 5.5 (g/ml) G

Lab File ID: O1029014.D

Level: (low/med) LOW

Date Received: 10/29/99

% Moisture: not dec. 7

Date Analyzed: 10/29/99

GC Column: DB-624 ID: 0.45 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	3	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-05

SDG No.: WM001

Lab Name: Laucks Testing Labs

Matrix: (soil/water) SOIL

Sample wt/vol: 6.0 (g/ml) G

Level: (low/med) LOW

% Moisture: not dec. 7

GC Column: DB-624 ID: 0.45 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 9910704-02

Lab File ID: O1029015.D

Date Received: 10/29/99

Date Analyzed: 10/29/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	3	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	1	J
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-06

Lab Name: Laucks Testing Labs

Matrix: (soil/water) SOIL

Sample wt/vol: 5.1 (g/ml) G

Level: (low/med) LOW

% Moisture: not dec. 14

GC Column: DB-624 ID: 0.45 (mm)

Soil Extract Volume: (uL)

SDG No.: WM001

Lab Sample ID: 9910704-03

Lab File ID: O1029016.D

Date Received: 10/29/99

Date Analyzed: 10/29/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	5	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-BC-07

Lab Name: Laucks Testing Labs

SDG No.: WM001

Matrix: (soil/water) SOIL

Lab Sample ID: 9910704-04

Sample wt/vol: 5.3 (g/ml) G

Lab File ID: O1029017.D

Lev I: (low/med) LOW

Date Received: 10/29/99

% Moisture: not dec. 15

Date Analyzed: 10/29/99

GC Column: DB-624 ID: 0.45 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	4	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-08

SDG No.: WM001

Lab Name: Laucks Testing Labs

Matrix: (soil/water) SOIL

Sample wt/vol: 5.5 (g/ml) G

Level: (low/med) LOW

% Moisture: not dec. 13

GC Column: DB-624 ID: 0.45 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 9910704-05

Lab File ID: O1029020.D

Date Received: 10/29/99

Date Analyzed: 10/29/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	3	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-09

Lab Name: Laucks Testing Labs

SDG No.: WM001

Matrix: (soil/water) SOIL

Lab Sample ID: 9910704-06

Sample wt/vol: 5.5 (g/ml) G

Lab File ID: O1029021.D

Level: (low/med) LOW

Date Received: 10/29/99

% Moisture: not dec. 14

Date Analyzed: 10/29/99

GC Column: DB-624 ID: 0.45 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	4	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-BC-10

Lab Name: Laucks Testing Labs

SDG No.: WM001

Matrix: (soil/water) SOIL

Lab Sample ID: 9910704-07

Sample wt/vol: 5.3 (g/ml) G

Lab File ID: O1029022.D

Level: (low/med) LOW

Date Received: 10/29/99

% Moisture: not dec. 9

Date Analyzed: 10/29/99

GC Column: DB-624 ID: 0.45 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	3	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-11

Lab Nam : Laucks Testing Labs

Matrix: (soil/water) SOIL

Sample wt/vol: 5.7 (g/ml) G

Level: (low/med) LOW

% Moisture: not dec. 17

GC Column: DB-624 ID: 0.45 (mm)

Soil Extract Volume: (uL)

SDG No.: WM001

Lab Sample ID: 9910704-08

Lab File ID: O1029023.D

Date Received: 10/29/99

Date Analyzed: 10/29/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	3	U
75-01-4	Vinyl chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
75-09-2	Methylene chloride	4	B
75-34-3	1,1-Dichloroethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon tetrachloride	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	3	U
78-87-5	1,2-Dichloropropane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
124-48-1	Dibromochloromethane	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
108-90-7	Chlorobenzene	3	U
75-25-2	Bromoform	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-12

Lab Name: Laucks Testing Labs

Matrix: (soil/water) SOIL

Sample wt/vol: 4.8 (g/ml) G

Level: (low/med) LOW

% Moisture: not dec. 12

GC Column: DB-624 ID: 0.45 (mm)

Soil Extract Volume: (uL)

SDG No.: WM001

Lab Sample ID: 9910704-09

Lab File ID: O1029024.D

Date Received: 10/29/99

Date Analyzed: 10/29/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	4	U
75-01-4	Vinyl chloride	4	U
74-83-9	Bromomethane	4	U
75-00-3	Chloroethane	4	U
75-35-4	1,1-Dichloroethene	4	U
75-15-0	Carbon disulfide	4	U
75-09-2	Methylene chloride	2	JB
75-34-3	1,1-Dichloroethane	4	U
67-66-3	Chloroform	4	U
71-55-6	1,1,1-Trichloroethane	4	U
56-23-5	Carbon tetrachloride	4	U
107-06-2	1,2-Dichloroethane	4	U
79-01-6	Trichloroethene	4	U
78-87-5	1,2-Dichloropropane	4	U
75-27-4	Bromodichloromethane	4	U
10061-01-5	cis-1,3-Dichloropropene	4	U
10061-02-6	trans-1,3-Dichloropropene	4	U
79-00-5	1,1,2-Trichloroethane	4	U
127-18-4	Tetrachloroethene	4	U
124-48-1	Dibromochloromethane	4	U
540-59-0	1,2-Dichloroethene (total)	4	U
108-90-7	Chlorobenzene	4	U
75-25-2	Bromoform	4	U
79-34-5	1,1,2,2-Tetrachloroethane	4	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-04

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-01
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103006.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 7 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	360	U
108-95-2	Phenol	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
108-60-1	2,2'-oxybis(1-chloropropane)	360	U
95-48-7	2-Methylphenol	360	U
67-72-1	Hexachloroethane	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
106-44-5	4-Methylphenol	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	360	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	360	U
208-96-8	Acenaphthylene	360	U
131-11-3	Dimethylphthalate	360	U
606-20-2	2,6-Dinitrotoluene	360	U
83-32-9	Acenaphthene	360	U
99-09-2	3-Nitroaniline	360	U
51-28-5	2,4-Dinitrophenol	720	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
100-02-7	4-Nitrophenol	720	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-04

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-01
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103006.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 7 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
84-66-2	Diethylphthalate	360	U
100-01-6	4-Nitroaniline	360	U
534-52-1	4,6-Dinitro-2-methylphenol	720	U
86-30-6	n-Nitrosodiphenylamine	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	720	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo[a]anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	Bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octylphthalate	360	U
205-99-2	Benzo[b]fluoranthene	360	U
207-08-9	Benzo[k]fluoranthene	360	U
50-32-8	Benzo[a]pyrene	360	U
193-39-5	Indeno[1,2,3-cd]pyrene	360	U
53-70-3	Dibenz[a,h]anthracene	360	U
191-24-2	Benzo[g,h,i]perylene	360	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-05

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-02
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103007.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 7 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	360	U
108-95-2	Phenol	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
108-60-1	2,2'-oxybis(1-chloropropane)	360	U
95-48-7	2-Methylphenol	360	U
67-72-1	Hexachloroethane	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
106-44-5	4-Methylphenol	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	360	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	360	U
208-96-8	Acenaphthylene	360	U
131-11-3	Dimethylphthalate	360	U
606-20-2	2,6-Dinitrotoluene	360	U
83-32-9	Acenaphthene	360	U
99-09-2	3-Nitroaniline	360	U
51-28-5	2,4-Dinitrophenol	720	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
100-02-7	4-Nitrophenol	720	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-05

Lab Name: Laucks Testing labs
Contract:
Lab Code:
Case No.:
SAS No.:
SDG No.: WM001
Matrix: (soil/water) SOIL
Lab Sample ID: 9910704-02
Sample wt/vol: 15 (g/ml) G
Lab File ID: Z1103007.D
Level: (low/med) LOW
Date Received: 10/29/99
% Moisture: 7 decanted:(Y/N) N
Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL)
Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL)
Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
84-66-2	Diethylphthalate	360	U
100-01-6	4-Nitroaniline	360	U
534-52-1	4,6-Dinitro-2-methylphenol	720	U
86-30-6	n-Nitrosodiphenylamine	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	720	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo[a]anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	Bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octylphthalate	360	U
205-99-2	Benzo[b]fluoranthene	360	U
207-08-9	Benzo[k]fluoranthene	360	U
50-32-8	Benzo[a]pyrene	360	U
193-39-5	Indeno[1,2,3-cd]pyrene	360	U
53-70-3	Dibenz[a,h]anthracene	360	U
191-24-2	Benzo[g,h,i]perylene	360	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-06

Lab Name: Laucks Testing labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-03

Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103008.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 14 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	390	U
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
108-60-1	2,2'-oxybis(1-chloropropane)	390	U
95-48-7	2-Methylphenol	390	U
67-72-1	Hexachloroethane	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
106-44-5	4-Methylphenol	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	390	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	390	U
208-96-8	Acenaphthylene	390	U
131-11-3	Dimethylphthalate	390	U
606-20-2	2,6-Dinitrotoluene	390	U
83-32-9	Acenaphthene	390	U
99-09-2	3-Nitroaniline	390	U
51-28-5	2,4-Dinitrophenol	780	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
100-02-7	4-Nitrophenol	780	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-06

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-03
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103008.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 14 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
84-66-2	Diethylphthalate	390	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	780	U
86-30-6	n-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	780	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	Bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-07

Lab Name: Laucks Testing labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-04

Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103009.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 15 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	390	U
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
108-60-1	2,2'-oxybis(1-chloropropane)	390	U
95-48-7	2-Methylphenol	390	U
67-72-1	Hexachloroethane	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
106-44-5	4-Methylphenol	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	390	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	390	U
208-96-8	Acenaphthylene	390	U
131-11-3	Dimethylphthalate	390	U
606-20-2	2,6-Dinitrotoluene	390	U
83-32-9	Acenaphthene	390	U
99-09-2	3-Nitroaniline	390	U
51-28-5	2,4-Dinitrophenol	780	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
100-02-7	4-Nitrophenol	780	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-07

Lab Name: Laucks Testing labs
Contract:
Lab Code:
Case No.:
SAS No.:
SDG No.: WM001
Matrix: (soil/water) SOIL
Lab Sample ID: 9910704-04
Sample wt/vol: 15 (g/ml) G
Lab File ID: Z1103009.D
Level: (low/med) LOW
Date Received: 10/29/99
% Moisture: 15 decanted:(Y/N) N
Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL)
Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL)
Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
84-66-2	Diethylphthalate	390	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	780	U
86-30-6	n-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	780	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	Bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BS-08

Lab Name: Laucks Testing labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-05

Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103012.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 13 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	380	U
108-95-2	Phenol	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
108-60-1	2,2'-oxybis(1-chloropropane)	380	U
95-48-7	2-Methylphenol	380	U
67-72-1	Hexachloroethane	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
106-44-5	4-Methylphenol	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	380	U
208-96-8	Acenaphthylene	380	U
131-11-3	Dimethylphthalate	380	U
606-20-2	2,6-Dinitrotoluene	380	U
83-32-9	Acenaphthene	380	U
99-09-2	3-Nitroaniline	380	U
51-28-5	2,4-Dinitrophenol	770	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
100-02-7	4-Nitrophenol	770	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BS-08

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-05
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103012.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 13 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
84-66-2	Diethylphthalate	380	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-methylphenol	770	U
86-30-6	n-Nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	770	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo[a]anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	Bis(2-Ethylhexyl)phthalate	380	U
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo[b]fluoranthene	380	U
207-08-9	Benzo[k]fluoranthene	380	U
50-32-8	Benzo[a]pyrene	380	U
193-39-5	Indeno[1,2,3-cd]pyrene	380	U
53-70-3	Dibenz[a,h]anthracene	380	U
191-24-2	Benzo[g,h,i]perylene	380	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-09

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-06
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103013.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 14 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	390	U
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
108-60-1	2,2'-oxybis(1-chloropropane)	390	U
95-48-7	2-Methylphenol	390	U
67-72-1	Hexachloroethane	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
106-44-5	4-Methylphenol	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	390	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	390	U
208-96-8	Acenaphthylene	390	U
131-11-3	Dimethylphthalate	390	U
606-20-2	2,6-Dinitrotoluene	390	U
83-32-9	Acenaphthene	390	U
99-09-2	3-Nitroaniline	390	U
51-28-5	2,4-Dinitrophenol	780	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
100-02-7	4-Nitrophenol	780	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-09

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-06
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103013.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 14 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
84-66-2	Diethylphthalate	390	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	780	U
86-30-6	n-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	780	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	Bis(2-Ethylhexyl)phthalate	1500	
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-10

Lab Name: Laucks Testing labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-07

Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103014.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 9 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	370	U
108-95-2	Phenol	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
108-60-1	2,2'-oxybis(1-chloropropane)	370	U
95-48-7	2-Methylphenol	370	U
67-72-1	Hexachloroethane	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
106-44-5	4-Methylphenol	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	370	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	370	U
208-96-8	Acenaphthylene	370	U
131-11-3	Dimethylphthalate	370	U
606-20-2	2,6-Dinitrotoluene	370	U
83-32-9	Acenaphthene	370	U
99-09-2	3-Nitroaniline	730	U
51-28-5	2,4-Dinitrophenol	370	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	730	U
100-02-7	4-Nitrophenol		

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-10

Lab Name: Laucks Testing labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-07
Sample wt/vol: 15 (g/ml) G Lab File ID: Z1103014.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 9 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/03/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
84-66-2	Diethylphthalate	370	U
100-01-6	4-Nitroaniline	370	U
534-52-1	4,6-Dinitro-2-methylphenol	730	U
86-30-6	n-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	730	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	730	U
56-55-3	Benzo[a]anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	Bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo[b]fluoranthene	370	U
207-08-9	Benzo[k]fluoranthene	370	U
50-32-8	Benzo[a]pyrene	370	U
193-39-5	Indeno[1,2,3-cd]pyrene	370	U
53-70-3	Dibenz[a,h]anthracene	370	U
191-24-2	Benzo[g,h,i]perylene	370	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-11

Lab Name: Laucks Testing Labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-08

Sample wt/vol: 15 (g/ml) G Lab File ID: D1104011.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 17 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/04/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	400	U
108-95-2	Phenol	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
108-60-1	2,2'-oxybis(1-chloropropane)	400	U
95-48-7	2-Methylphenol	400	U
67-72-1	Hexachloroethane	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
106-44-5	4-Methylphenol	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	400	U
208-96-8	Acenaphthylene	400	U
131-11-3	Dimethylphthalate	400	U
606-20-2	2,6-Dinitrotoluene	400	U
83-32-9	Acenaphthene	400	U
99-09-2	3-Nitroaniline	400	U
51-28-5	2,4-Dinitrophenol	800	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
100-02-7	4-Nitrophenol	800	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
SB-BC-11

Lab Name: Laucks Testing Labs Contract:
Lab Code: Case No.: SAS No.: SDG No.: WM001
Matrix: (soil/water) SOIL Lab Sample ID: 9910704-08
Sample wt/vol: 15 (g/ml) G Lab File ID: D1104011.D
Level: (low/med) LOW Date Received: 10/29/99
% Moisture: 17 decanted:(Y/N) N Date Extracted: 10/29/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/04/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
84-66-2	Diethylphthalate	400	U
100-01-6	4-Nitroaniline	400	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	n-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo[a]anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	Bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo[b]fluoranthene	400	U
207-08-9	Benzo[k]fluoranthene	400	U
50-32-8	Benzo[a]pyrene	400	U
193-39-5	Indeno[1,2,3-cd]pyrene	400	U
53-70-3	Dibenz[a,h]anthracene	400	U
191-24-2	Benzo[g,h,i]perylene	400	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-12

Lab Name: Laucks Testing labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-09

Sample wt/vol: 15 (g/ml) G Lab File ID: Z1105005.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 12 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/05/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	380	U
108-95-2	Phenol	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
108-60-1	2,2'-oxybis(1-chloropropane)	380	U
95-48-7	2-Methylphenol	380	U
67-72-1	Hexachloroethane	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
106-44-5	4-Methylphenol	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	380	U
208-96-8	Acenaphthylene	380	U
131-11-3	Dimethylphthalate	380	U
606-20-2	2,6-Dinitrotoluene	380	U
83-32-9	Acenaphthene	380	U
99-09-2	3-Nitroaniline	380	U
51-28-5	2,4-Dinitrophenol	760	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
100-02-7	4-Nitrophenol	760	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SB-BC-12

Lab Name: Laucks Testing labs Contract:

Lab Code: Case No.: SAS No.: SDG No.: WM001

Matrix: (soil/water) SOIL Lab Sample ID: 9910704-09

Sample wt/vol: 15 (g/ml) G Lab File ID: Z1105005.D

Level: (low/med) LOW Date Received: 10/29/99

% Moisture: 12 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 11/05/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
84-66-2	Diethylphthalate	380	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-methylphenol	760	U
86-30-6	n-Nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	760	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	760	U
56-55-3	Benzo[a]anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	Bis(2-Ethylhexyl)phthalate	310	J
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo[b]fluoranthene	380	U
207-08-9	Benzo[k]fluoranthene	380	U
50-32-8	Benzo[a]pyrene	380	U
193-39-5	Indeno[1,2,3-cd]pyrene	380	U
53-70-3	Dibenz[a,h]anthracene	380	U
191-24-2	Benzo[g,h,i]perylene	380	U

ENCLOSURE 2

TEST PIT AND/OR SOIL BORING LOGS

Tetra Tech NUS, Inc.

BORING LOG

Page ___ of ___

PROJECT NAME: NAWC Warminster
PROJECT NUMBER: CTO 290
DRILLING COMPANY: Raab
DRILLING RIG:

BORING NUMBER: SB-BC-04
DATE: 10/28/99
GEOLOGIST: D. Whalen
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S-1		4/7	20/			BRN	Sandy silt topsoil sandy silt		DAMP	0	0		0
@ 1035	2.0	15/17	/24			↓	↓		tree root - 30ppm	0			
S-2		3/7	8/			Gray-Brn to Purple	Sandstone fragments (gravel to cobble size) in silty sand			0			
@ 1042	4.0	10/10	/24							0			
S-3		7/4	7/						tree roots - 30ppm	0	0		0
@ 1047	6.0	4/6	/24							0			
S-4		5/4	8/							0			
@ 1055	8.0	3/5	/24						tree root - 3 ppm	0			
S-5		4/8	8/							0			
@ 1101	10.0	8/5	/24						tree root - 15ppm	0	0		0
S-6		7/7	14/							0			
@ 1110	12.0	5/8	/24						tree roots - 15ppm	0			
S-7		4/8	7/						↓	0			
@ 1121	14.0	8/5	/24			↓	↓		WET	0	0		0
				EOB									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 2" x 24" split spoon / 140 lb. hammer
1050 collect sample SB-BC-04
1125 collect sample SB-BC-05

Drilling Area Background (ppm): 0

Tetra Tech NUS, Inc.

BORING LOG

Page ___ of ___

PROJECT NAME: NAWC Warminster
PROJECT NUMBER: CTC 290
DRILLING COMPANY: Raab
DRILLING RIG:

BORING NUMBER: SB-BC-06
DATE: 10/28/99
GEOLOGIST: D. Whalen
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S-1		5 / 7	21/			Brn	silt topsoil w/plant roots		Fill Damp	0	0		0
@ 1132	2.0	6 / 5	/24			Lt BRN Brn	silty FGR sand clayey silt			0			
S-2		4 / 8	24/						Damp/moist	0			
@ 1135	4.0	10 / 12	/24			BRN	sandy silt		Damp	0			
S-3		7 / 10								0	0		0
@ 1143	6.0	11 / 11								0			
S-4		13 / 19								0			
@ 1155	8.0	30 / 42				Brn Gray	weathered FGR sand			0	0		0
				EOB									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 2" x 24" split spoon / 140 lb. hammer ; no auger
1145 collect sample SB-BC-06
1210 collect sample SB-BC-07

Drilling Area Background (ppm): 0

Tetra Tech NUS, Inc.

BORING LOG

Page ___ of ___

PROJECT NAME: NAWC Warminster
PROJECT NUMBER: CTO 240
DRILLING COMPANY: Raab
DRILLING RIG:

BORING NUMBER: SB-BC-08
DATE: 10/28/99
GEOLOGIST: D. Whalen
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
S-1 @		4 / 3	14/			BRN	silt topsoil, grass roots		Damp	0			
1215	2.0	3 / 3	/24			↓	sandy silt		↓	0			
S-2 @		5 / 24	14/			GRAY	concrete fragments, piece of iron			0			
1220	4.0	15 / 20	/24			BRN	sandy silt			0			
S-3 @		10 / 13	24/			↓	silty FGR sand			0	0		0
1226	6.0	15 / 16	/24			↓	↓			0			
S-4 @		10 / 11	24/			↓				0			
1230	8.0	12 / 13	/24			Dark BRN	↓			0			
S-5 @	9.0	12 / 25				Gray-BRN	silty sand and sandstone fragments		↓	0	0		0
1240		50		EOB			weathered FGR sandstone						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 2"x24" split spoon / 140 lb. hammer; no auger
1230 collect soil sample SB-BC-08 and Dup. SB-BC-09 (1245)
1250 collect SB-BC-10

Tetra Tech NUS, Inc.

BORING LOG

Page ___ of ___

PROJECT NAME: NAWC Warminster
PROJECT NUMBER: CTO 290
DRILLING COMPANY: Raab
DRILLING RIG:

BORING NUMBER: SB-BC-11
DATE: 10/28/99
GEOLOGIST: D. Whalen
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
S-1 @		1 / 2	18/			Brn Lt. Brn	silt topsoil, grass roots silty F-MGR sand		Damp	0			
1254	2.0	4 / 5	/24			Red-BRN	clayey silt fill			0			
S-2		5 / 5	24/							0			
@ 1258	4.0	6 / 8	/24							0			
S-3		9 / 11	24/			Lt. Brn	silt, some sand			0	0		0
@ 1306	6.0	11 / 13	/24			Dark Gray Brn	silty FGR sand			0			
S-4		12 / 12	17/							0			
@ 1311	8.0	14 / 16	/24							0			
S-5 @		12 / 18	15/							0			
1321	10.0	12 / 14	/24				some weathered FGR S.S. fragments			0	0		0
S-6		32 / 24	18/				weathered sandstone fragments and silty sand		wet	0			
@ 1331	12.0	33 / 42	/24							0			
				EOB									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 2"x24" split spoon / 140 lb. hammer
1305 collect sample SB-BC-11
1335 collect sample SB-BC-12

Drilling Area Background (ppm): 0

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-04
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1050 Method: split spoon Monitor Reading (ppm): 0	2'-4'	Gray-Brown	silty sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):			NA	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated solvents	3x 5g Encore		
SVOC	1x 8 oz. Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-04

[soil gas grid location: W-FB-
soil gas reading = 5 ppm]

Borehole PID reading upon completion = 13 ppm

There were no PID rdgs. > 0 from the soil, however, readings upto 30 ppm were detected from severed tree roots within the split spoons.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Donald W. Baker

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-05
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1125 Method: split spoon Monitor Reading (ppm):	11' to 14'	Gray-Brown	Silty sand

COMPOSITE SAMPLE DATA:

	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):			NA	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated solvents	3 x 5g Encore		
SVOC	1 x 8 oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-04

[Soil gas grid location: W-FB-
Soil gas reading = 5 ppm]

Bore hole PID reading upon completion of boring = 13 ppm
No PID rdgs. > 0 from soil, however, rdgs. up to 30 ppm from severed tree roots.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Donald Whalen

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ f___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-06
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1145 Method: split spoon Monitor Reading (ppm): 0	2'-4'	Brown	Sandy silt

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):			NA	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated Solvents	3 x 5g Encore		
SVOC	1 x 8 oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-06

[Soil gas location: W-FB-C 50
Soil gas rdg. = 58]

Borehole PID reading upon completion of boring = 0ppm

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Donald Wilson

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ f___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-07
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1200 Method: split spoon Monitor Reading (ppm): 0	6'-8'	Brown	sandy silt

COMPOSITE SAMPLE DATA:

	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):			NA	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated Solvents	2 x 5g Encore		
SVOC	2 x 8 oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-06
[Soil gas grid location: W-FB-C 50
soil gas rdg. = 58]
Borehole reading upon completion of boring = 0 ppm

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Donald Whaley

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-08
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1230 Method: split spoon Monitor Reading (ppm): 0	3'-4'	Brown	Sandy silt

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated Solvents	6 X 5g Encore		
SVOC	2 X 8oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-08

[Soil gas grid location: W-TF-B15
soil gas rdg = 91 ppm]

Borehole reading upon completion of boring = 22 ppm

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	SB-BC-09

Signature(s): Donald Whalen

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-10
Sample Location: Area C, Quarters A
Sampled By: PW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 10/28/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 12	8'-9'	Brown	silty sand, damp
Method: split spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated solvents	3X 5g Encore		
SVOC	8 oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-08

[soil gas grid location: W-TF-B15
soil gas reading = 91 ppm]

Borehole reading upon completion of boring = 22 ppm

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Donald Wlaba

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-11
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1305 Method: split spoon Monitor Reading (ppm): 0	2'-4'	red-Brown	clayey silt

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated solvents	3 x 5g Encore		
SVOC	8 oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-11

[soil gas grid location: W-FB-A75
soil gas rdg. = 56 ppm]

Borehole reading upon completion of boring = 1.9 ppm

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Donald W Kabn

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAWC Warminster
Project No.: CTO 290

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SB-BC-12
Sample Location: Area C, Quarters A
Sampled By: DW
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/28/99 Time: 1305 Method: split spoon Monitor Reading (ppm): 0	8'-10'	Dark grayish Brown	silty FGR sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Halogenated solvents	3 x 5g Encore		
SVOC	8 oz Jar		

OBSERVATIONS / NOTES:

Boring SB-BC-11

soil gas grid location: W-FB-A75
soil gas rdg. = 56 ppm

Borehole reading upon completion of boring = 19 ppm

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Donald Whalen