N60200.AR.001593
NAS CECIL FIELD, FL
5090.3a

GROUNDWATER MONITORING PLAN LETTER REPORT FOR TRUCK STAND SITE FACILITY 372 NAS CECIL FIELD FL

12/14/1998

TETRA TECH NUS INC

7895-3.2-10

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TtNUS-JAX-99-0068

December 14, 1998

Project Number 7895

Commanding Officer
Department of the Navy
SOUTHNAVFACENGCOM
ATTN: Mr. Bryan Kizer
2155 Eagle Drive, P.O. Box 10068
North Charleston, South Carolina 29406

Reference: **Clean Contract No. N62467-94-D0888**
Contract Task Order No. 0065

Subject: **Groundwater Monitoring Plan Letter Report**
For Truck Stand Site
Naval Air Station, Cecil Field
Jacksonville, Florida

Dear Mr. Kizer:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit the Groundwater Monitoring Report for the referenced Contract Task Order (CTO). This report was prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command under CTO-065, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888. The objective of this exercise is to monitor the groundwater, on a semi-annual basis, until cleanup levels are achieved.

On October 1, 1998, TtNUS collected groundwater samples from five monitoring wells (CEF-372-01, CEF-372-07, CEF-372-13, CEF-372-14, and CEF-372-20). Well locations are depicted on Figure 1. Sampling was conducted in accordance with TtNUS' FDEP approved comprehensive Quality Assurance Plan (No. 980038).

Prior to the collection of the groundwater samples, water level measurements were recorded from each of the wells. The depth to water ranged from 1.60 to 2.67 feet below land surface. The depth to water measurements, along with top of casing elevations provided by Harding Lawson and Associates (HLA) were used to calculate groundwater elevations. In general, groundwater flow appears to radiate north and east, towards a drainage ditch that parallels Loop Road. Figure 2 depicts the groundwater elevations recorded during the October 1, 1998 sampling event. The groundwater elevation data is provided in Table 1.

Following collection of the groundwater samples, the samples were transported to Accutest Laboratories in Orlando, Florida, for analysis. The samples were analyzed for purgeable aromatics and polynuclear aromatics. Figure 3 depicts the volatile and polynuclear aromatic hydrocarbon constituents detected in samples collected during the October 1998 sampling event. The analytical results are summarized in Table 2. A copy of the laboratory report is provided in Attachment A.

No tested compounds were detected in monitoring wells CEF-372-01, CEF-372-07, CEF-372-14 or CEF-372-20. The groundwater sample from monitoring well CEF-372-13 contained 167 µg/L naphthalene. FDEP's Target Level for naphthalene is 20 µg/L. No other tested constituent was detected in CEF-372-13 above Chapter 62-770 Florida Administrative Code Target Level criteria.

The results of the October 1998 sampling event were reviewed and compared with FDEP Groundwater Cleanup Target Levels and groundwater data provided in HLA's Annual Monitoring Report (July 1998). Groundwater samples from CEF-372-01, CEF-372-07, CEF-372-14, and CEF-372-20 have shown no detections of petroleum constituents since the inception of the monitoring program. Benzene levels in monitoring well CEF-372-13 have declined from 20 µg/L in November 1997 to below detection limits in October 1998. Toluene and total xylene concentrations have also declined to below FDEP Target Levels. Unlike the other tested compounds, naphthalene (and total naphthalene) concentrations increased between March and October 1998, and show no significant change from the levels detected in August 1997.

Since the inception of the monitoring program, no contaminants have been detected in any of the site's periphery wells, indicating little to no groundwater contaminant migration at the Truck Stand site. Although naphthalene remains in CEF-372-13 above the FDEP Target Level, the source of the contamination was removed during a soil excavation program performed by Bechtel Environmental, Inc. in April 1996.

The next semi-annual sampling event is scheduled for March 1999. In accordance with FDEP's monitoring only plan addendum (July 16, 1998) samples will be collected from CEF-372-07, CEF-372-13, CEF-372-14, and CEF-372-20. If you have any questions with regard to this submittal, please contact the undersigned at (904) 281-0400.

Very truly yours,

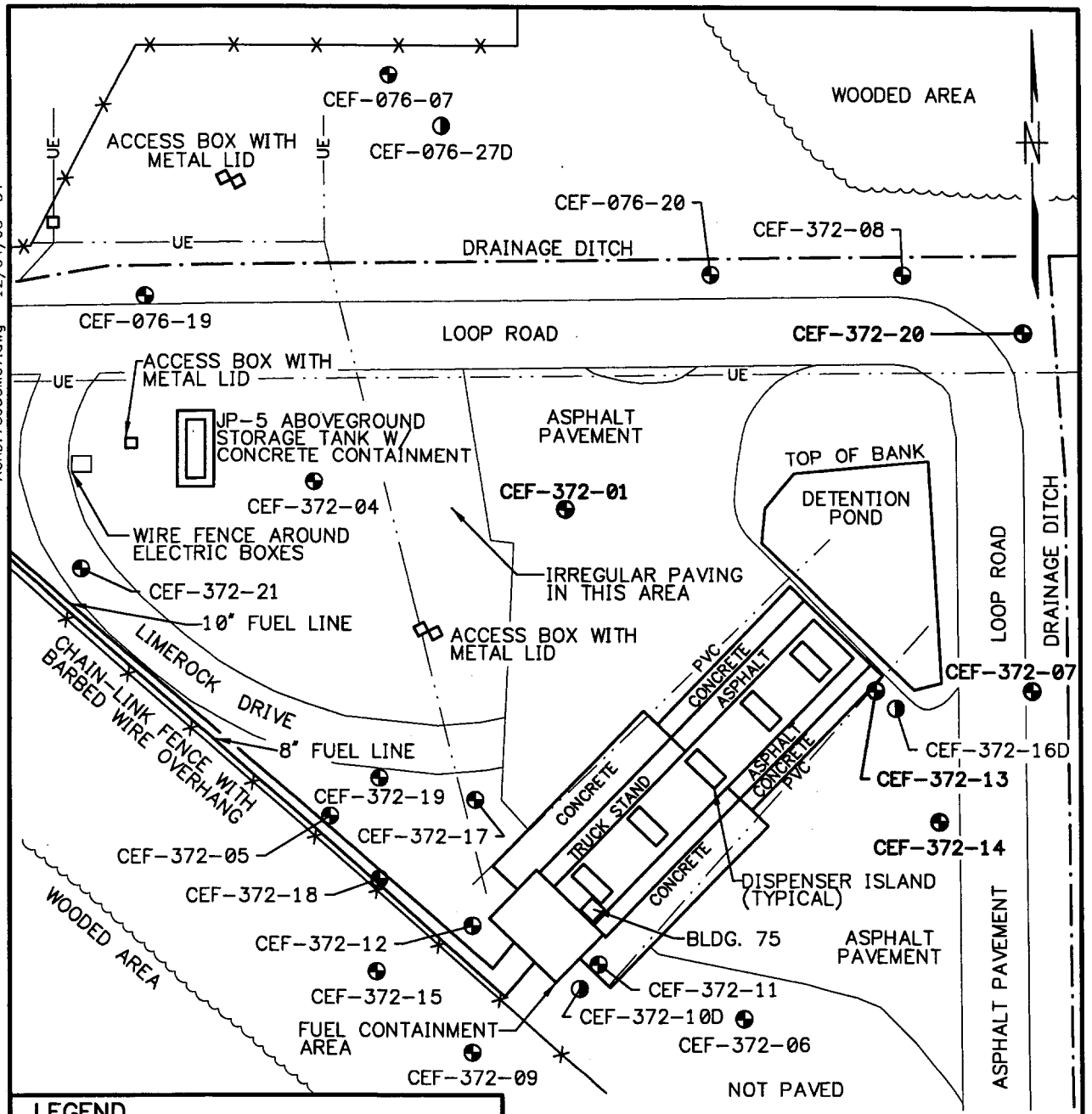
12/14/98

Samuel P. Pratt P.G. #1724
Task Order Manager

Debbie Wroblewski
Program Manager

Enclosures

cc: D. Evans-Ripley, SOUTHDIV
D. Vaughn Wright, US EPA (2 copies)
M. Deliz, FDEP
D. Kruzicki, NAS Cecil Field (2 copies)
R. Angara, HLA
M. Speranza, TtNUS
M. Perry, TtNUS
File CTO-65



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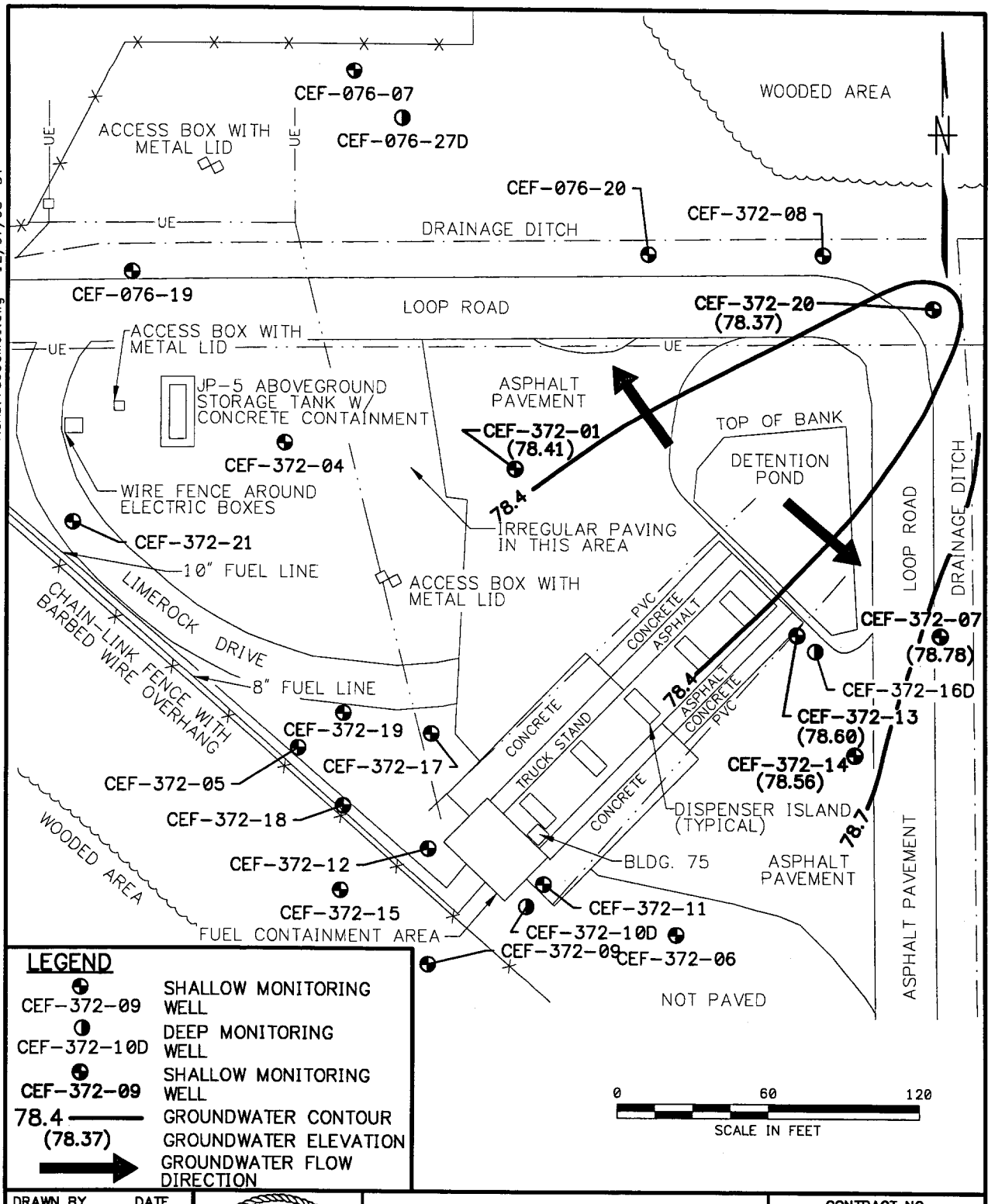
CHECKED BY DATE		APPROVED BY DATE
COST/SCHED-AREA		APPROVED BY DATE
SCALE AS NOTED		DRAWING NO. FIGURE 1 REV. 0

FORM CADD NO. SDIV_AV.DWG - REV 0 - 1/20/98



LEGEND

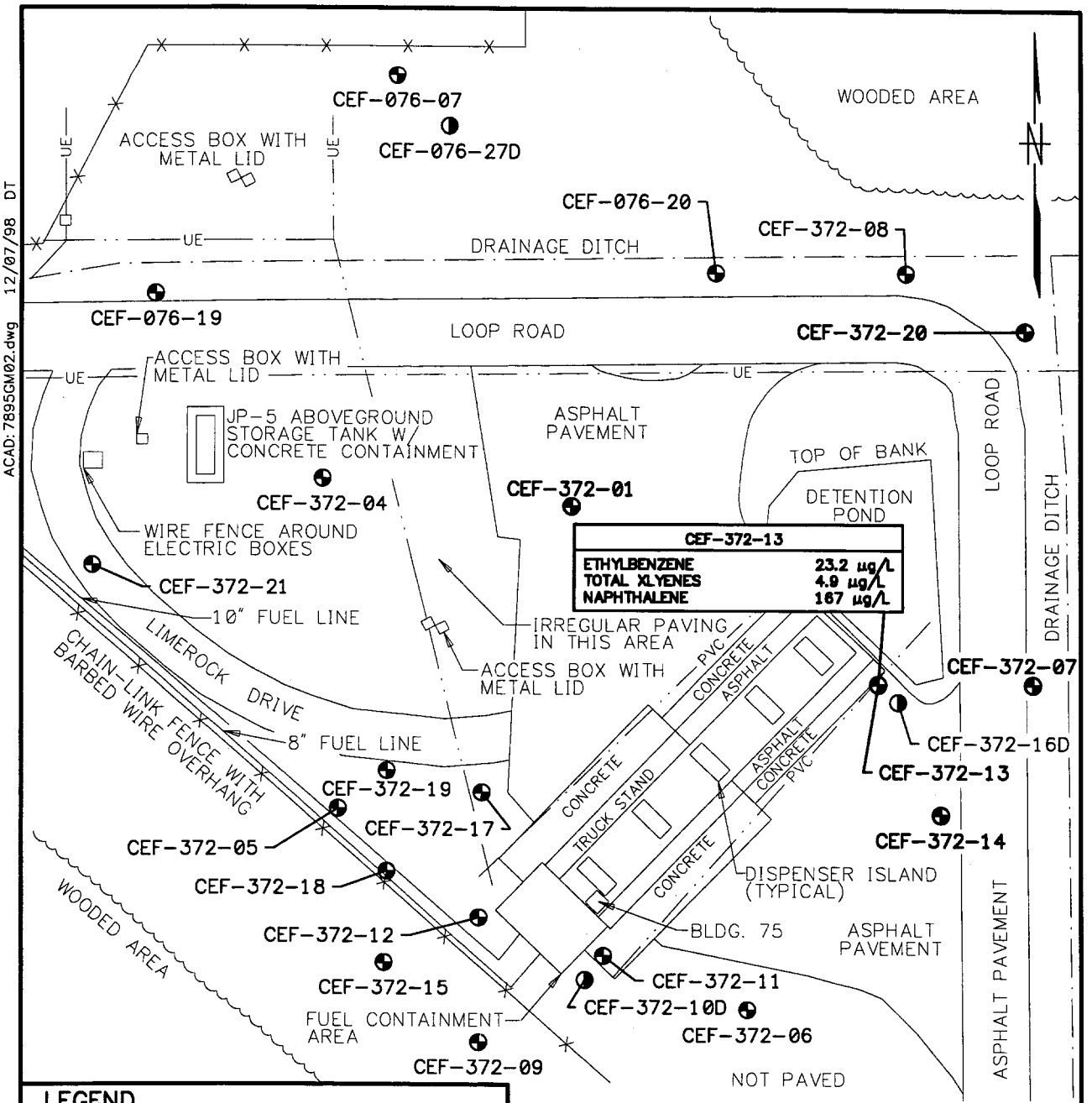
- CEF-372-09 — SHALLOW MONITORING WELL
- CEF-372-10D — DEEP MONITORING WELL
- CEF-372-09 — SHALLOW MONITORING WELL
- 78.4 — GROUNDWATER CONTOUR
- (78.37) — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

DRAWN BY DT	DATE 12/4/98	GROUNDWATER CONTOURS SEMI-ANNUAL MONITORING REPORT TRUCK STAND, FACILITY 372 NAVAL AIR STATION, CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NO. 7895
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 2 / REV. 0

DEPARTMENT OF THE NAVY ★ SOUTHERN DIV FACILITIES ENGINEERING COMMAND ★

FORM CADD NO. SDIV_AV.DWG - REV 0 - 1/20/98

ACAD: 7895GM01.dwg 12/07/98 DT



ACAD: 7895GM02.dwg 12/07/98 DT

DRAWN BY DLT 12/7/98	DISSOLVED HYDROCARBONS OCTOBER 1, 1998 SEMI-ANNUAL MONITORING REPORT TRUCK STAND, FACILITY 372 NAVAL AIR STATION, CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NO. 7895	
CHECKED BY DATE		APPROVED BY DATE	
COST/SCHED-AREA		APPROVED BY DATE	
SCALE AS NOTED		DRAWING NO. FIGURE 3	REV. 0

FORM CADD NO. SDIV_AV.DWG - REV 0 - 1/20/98

Table 1
Water Table Elevation and Monitoring Well Construction Data

Semi-annual Monitoring Report
Truck Stand Facility 372
Naval Air Station Cecil Field
Jacksonville, Florida

Well CEF-372	Total Depth (feet, bls)	Top-of Casing Elevation[1] (feet, msl)	August 4, 1997		November 19, 1997		March 25, 1998		October 1, 1998	
			Depth to Water Below Top of Casing (feet)	Water Elevation (feet, msl)	Depth to Water Below Top of Casing (feet)	Water Elevation (feet, msl)	Depth to Water Below Top of Casing (feet)	Water Elevation (feet, msl)	Depth to Water Below Top of Casing (feet)	Water Elevation (feet, msl)
1	12.2	81.08	3.34	77.74	4.57	76.51	3.10	77.98	2.67	78.41
7	11.7	80.60	2.87	77.73	4.17	76.43	2.62	77.98	1.82	78.78
13	11.0	81.25	3.51	77.74	4.83	76.42	3.28	77.97	2.65	78.60
14	11.5	80.68	2.96	77.72	4.25	76.43	2.65	78.03	2.12	78.56
20	11.6	79.97	2.60	77.37	3.67	76.30	2.58	77.39	1.60	78.37

[1] Benchmark elevation of 79.48 feet is located in a concrete box cut in the center top headwall at the northeast corner of Loop Road and "A" Avenue intersection.

Notes: bls= below land surface.
msl = mean sea level.
NC = not collected
NA = not available.

Table 2
Summary of Groundwater Sample Analytical Results

Semi-Annual Monitoring Plan Letter Report
Truck Stand Site
Naval Air Station Cecil Field
Jacksonville, Florida

Compound Detected	State Target Level[1] (µg/L)	CEF-372-01				CEF-372-07			
		8/4/97	11/19/97	3/25/98	10/1/98	8/4/97	11/19/97	3/25/98	10/1/98
Volatile Organic Compounds (µg/L)									
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	30	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	40	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	20	ND	ND	ND	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (µg/L)									
Naphthalene	20	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	none	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	none	ND	ND	ND	ND	ND	ND	ND	ND

See Notes at end of table

Table 2
Summary of Groundwater Sample Analytical Results

Semi-Annual Monitoring Plan Letter Report
Truck Stand Site
Naval Air Station Cecil Field
Jacksonville, Florida

Compound Detected	State Target Level[1] (µg/L)	CEF-372-13				CEF-372-14			
		8/4/97	11/19/97	3/25/98	10/1/98	8/4/97	11/19/97	3/25/98	10/1/98
Volatile Organic Compounds (µg/L)									
Benzene	1	19	20	4	ND	ND	ND	ND	ND
Ethylbenzene	30	76	70	15	23.2	ND	ND	ND	ND
Toluene	40	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	20	120	100	7	4.9	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (µg/L)									
Naphthalene	20	160	360	64	167	ND	ND	ND	ND
1-Methylnaphthalene	none	13	130	43	105	ND	ND	ND	ND
2-Methylnaphthalene	none	120	260	60	119	ND	ND	ND	ND

See Notes at end of table

Table 2
Summary of Groundwater Sample Analytical Results

Semi-Annual Monitoring Plan Letter Report
Truck Stand Site
Naval Air Station Cecil Field
Jacksonville, Florida

Compound Detected	State Target Level[1] (µg/L)	CEF-372-20			
		8/4/97	11/19/97	3/25/98	10/1/98
Volatile Organic Compounds (µg/L)					
Benzene	1	ND	ND	ND	ND
Ethylbenzene	30	ND	ND	ND	ND
Toluene	40	ND	ND	ND	ND
Total Xylenes	20	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (µg/L)					
Naphthalene	20	ND	ND	ND	ND
1-Methylnaphthalene	none	ND	ND	ND	ND
2-Methylnaphthalene	none	ND	ND	ND	ND

[1] Chapter 62-770, Florida Administrative Code (September 23, 1997).

Notes: µg/L = Micrograms Per Liter
ND = none detected.

ATTACHMENT A

GROUNDWATER ANALTICAL REPORT

ACCUTEST

10/13/98

Technical Report for

Tetra-Tech,NUS

NAS Cecil Field- Truck Stand

N7895-0000-

Accutest Job Number: F2998

Report to:

Tetra-Tech,NUS
7018 A.C. Skinner Parkway
Suite 250
Jacksonville, FL 32256

ATTN: Sam Pratt

Total number of pages in report: 13

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST

Sample Summary

Tetra-Tech,NUS

Date: 10/13/98
Job No: F2998

NAS Cecil Field- Truck Stand
Project No: N7895-0000-

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F2998-1	10/01/98	11:56	MD	10/02/98	AQ	Ground Water	7895/CEF37201
F2998-2	10/01/98	11:28	MD	10/02/98	AQ	Ground Water	7895/CEF37207
F2998-3	10/01/98	12:29	MD	10/02/98	AQ	Ground Water	7895/CEF37213
F2998-4	10/01/98	11:34	MD	10/02/98	AQ	Ground Water	7895/CEF37214
F2998-5	10/01/98	12:12	MD	10/02/98	AQ	Ground Water	7895/CEF37220
F2998-6	10/01/98	12:12	MD	10/02/98	AQ	Ground Water	7895/CEF37220

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37201		
Lab Sample ID:	F2998-1	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 610	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I06901.D	1	10/05/98	NF	10/05/98	OP535	GIJ304
Run #2							

BN PAH List

CAS No.	Compound	Result	RDL	Units	Q
83-32-9	Acenaphthene	ND	10	ug/l	
208-96-8	Acenaphthylene	ND	10	ug/l	
120-12-7	Anthracene	ND	10	ug/l	
56-55-3	Benzo(a)anthracene	ND	10	ug/l	
50-32-8	Benzo(a)pyrene	ND	10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/l	
218-01-9	Chrysene	ND	10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/l	
206-44-0	Fluoranthene	ND	10	ug/l	
86-73-7	Fluorene	ND	10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/l	
91-20-3	Naphthalene	ND	10	ug/l	
90-12-0	1-Methylnaphthalene	ND	10	ug/l	
91-57-6	2-Methylnaphthalene	ND	10	ug/l	
85-01-8	Phenanthrene	ND	10	ug/l	
129-00-0	Pyrene	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	90%		40-125%
84-15-1	o-Terphenyl	95%		45-130%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37201		
Lab Sample ID:	F2998-1	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 601/602	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD007221.D	1	10/05/98	JG	n/a	n/a	GEF173
Run #2							

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RDL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		75-125%
98-08-8	aaa-Trifluorotoluene	97%		75-125%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37207		
Lab Sample ID:	F2998-2	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 610	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I06903.D	1	10/05/98	NF	10/05/98	OP535	GIJ304
Run #2							

BN PAH List

CAS No.	Compound	Result	RDL	Units	Q
83-32-9	Acenaphthene	ND	10	ug/l	
208-96-8	Acenaphthylene	ND	10	ug/l	
120-12-7	Anthracene	ND	10	ug/l	
56-55-3	Benzo(a)anthracene	ND	10	ug/l	
50-32-8	Benzo(a)pyrene	ND	10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/l	
218-01-9	Chrysene	ND	10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/l	
206-44-0	Fluoranthene	ND	10	ug/l	
86-73-7	Fluorene	ND	10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/l	
91-20-3	Naphthalene	ND	10	ug/l	
90-12-0	1-Methylnaphthalene	ND	10	ug/l	
91-57-6	2-Methylnaphthalene	ND	10	ug/l	
85-01-8	Phenanthrene	ND	10	ug/l	
129-00-0	Pyrene	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	85%		40-125%
84-15-1	o-Terphenyl	85%		45-130%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37207		
Lab Sample ID:	F2998-2	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 601/602	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD007222.D	1	10/05/98	JG	n/a	n/a	GEF173
Run #2							

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RDL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%		75-125%
98-08-8	aaa-Trifluorotoluene	99%		75-125%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37213		
Lab Sample ID:	F2998-3	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 610	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	I06915.D	2	10/06/98	NF	10/05/98	OP535	GIJ305
Run #2							

BN PAH List

CAS No.	Compound	Result	RDL	Units	Q
83-32-9	Acenaphthene	ND	20	ug/l	
208-96-8	Acenaphthylene	ND	20	ug/l	
120-12-7	Anthracene	ND	20	ug/l	
56-55-3	Benzo(a)anthracene	ND	20	ug/l	
50-32-8	Benzo(a)pyrene	ND	20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	20	ug/l	
218-01-9	Chrysene	ND	20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	20	ug/l	
206-44-0	Fluoranthene	ND	20	ug/l	
86-73-7	Fluorene	ND	20	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	20	ug/l	
91-20-3	Naphthalene	167	20	ug/l	
90-12-0	1-Methylnaphthalene	105	20	ug/l	
91-57-6	2-Methylnaphthalene	119	20	ug/l	
85-01-8	Phenanthrene	ND	20	ug/l	
129-00-0	Pyrene	ND	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	66%		40-125%
84-15-1	o-Terphenyl	90%		45-130%

(a) All hits confirmed by dual column analysis.

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37213		
Lab Sample ID:	F2998-3	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 601/602	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	EF007387.D	1	10/09/98	JG	n/a	n/a	GEF173
Run #2							

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RDL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	23.2	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	4.9	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
625-98-9	1-Chloro-3-fluorobenzene	111%		75-125%
462-06-6	Fluorobenzene	102%		75-125%
98-08-8	aaa-Trifluorotoluene	109%		75-125%

(a) Confirmed by GC/MS

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37214		
Lab Sample ID:	F2998-4	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 610	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I06905.D	1	10/05/98	NF	10/05/98	OP535	GIJ304
Run #2							

BN PAH List

CAS No.	Compound	Result	RDL	Units	Q
83-32-9	Acenaphthene	ND	10	ug/l	
208-96-8	Acenaphthylene	ND	10	ug/l	
120-12-7	Anthracene	ND	10	ug/l	
56-55-3	Benzo(a)anthracene	ND	10	ug/l	
50-32-8	Benzo(a)pyrene	ND	10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/l	
218-01-9	Chrysene	ND	10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/l	
206-44-0	Fluoranthene	ND	10	ug/l	
86-73-7	Fluorene	ND	10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/l	
91-20-3	Naphthalene	ND	10	ug/l	
90-12-0	1-Methylnaphthalene	ND	10	ug/l	
91-57-6	2-Methylnaphthalene	ND	10	ug/l	
85-01-8	Phenanthrene	ND	10	ug/l	
129-00-0	Pyrene	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	97%		40-125%
84-15-1	o-Terphenyl	100%		45-130%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37214		
Lab Sample ID:	F2998-4	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 601/602	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD007224.D	1	10/05/98	JG	n/a	n/a	GEF173
Run #2							

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RDL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		75-125%
98-08-8	aaa-Trifluorotoluene	100%		75-125%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37220		
Lab Sample ID:	F2998-5	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 610	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I06906.D	1	10/06/98	NF	10/05/98	OP535	GIJ304
Run #2							

BN PAH List

CAS No.	Compound	Result	RDL	Units	Q
83-32-9	Acenaphthene	ND	10	ug/l	
208-96-8	Acenaphthylene	ND	10	ug/l	
120-12-7	Anthracene	ND	10	ug/l	
56-55-3	Benzo(a)anthracene	ND	10	ug/l	
50-32-8	Benzo(a)pyrene	ND	10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/l	
218-01-9	Chrysene	ND	10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/l	
206-44-0	Fluoranthene	ND	10	ug/l	
86-73-7	Fluorene	ND	10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/l	
91-20-3	Naphthalene	ND	10	ug/l	
90-12-0	1-Methylnaphthalene	ND	10	ug/l	
91-57-6	2-Methylnaphthalene	ND	10	ug/l	
85-01-8	Phenanthrene	ND	10	ug/l	
129-00-0	Pyrene	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	88%		40-125%
84-15-1	o-Terphenyl	93%		45-130%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	7895/CEF37220		
Lab Sample ID:	F2998-5	**Date Sampled:**	10/01/98
Matrix:	AQ - Ground Water	**Date Received:**	10/02/98
Method:	EPA 601/602	**Percent Solids:**	n/a
Project:	NAS Cecil Field- Truck Stand		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD007225.D	1	10/05/98	JG	n/a	n/a	GEF173
Run #2							

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RDL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%		75-125%
98-08-8	aaa-Trifluorotoluene	98%		75-125%

ND = Not detected
RDL = Reported Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

CHAIN OF CUSTODY

ACCUTEST

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

QUOTE #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Tetra Tech NUS
ADDRESS: 7018 A.C. SKINNER PKWY Suite 250
CITY: JACKSONVILLE STATE: FL ZIP: 32256
SEND REPORT TO: SAM PRATT
PHONE #: 904 281 0400

FACILITY INFORMATION

PROJECT NAME: NAS CECIL FIELD - TRUCK STAND
LOCATION: NAS CECIL FIELD - FACILITY 372
PROJECT NO.: N7895-0000-
FAX #: 904-281-0070

ANALYTICAL INFORMATION

EPA 602
EPA 610

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

LAB USE ONLY

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE
F24077-1	7895/CEF37201	10/1/98	1156	MD	GW	3	✓				✓
-2	7895/CEF 37207	10/1/98	1128	MA	GW	3	✓				✓
-3	7895/CEF 372 13	10/1/98	1229	MA	GW	3	✓				✓
-4	7895/CEF 372 14	10/1/98	1134	MA	GW	3	✓				✓
-5	7895/CEF 372 20	10/1/98	1212	MA	GW	3	✓				✓

DATA TURNAROUND INFORMATION

- ☑ STANDARD
- ☐ 48 HOUR RUSH
- ☐ 24 HOUR EMERGENCY
- ☐ OTHER _____

APPROVED BY: _____

EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☒ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) _____

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. [signature]	10/1/98 1430	1. [signature] 10/2 0918	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
3.		3.	4.		4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	SEAL #	PRESERVE WHERE APPLICABLE ☑	ON ICE ☑ TEMPERATURE _____ C
		5.			