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SITE ASSESSMENT REPORT ADDENDUM FOR UNDERGROUND STORAGE TANK 19 (UST 19) WITH TRANSMITTAL LETTER NAS PENSACOLA FL
4/10/2001
TETRA TECH INC

TETRA TECH NUS, INC.
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April 10, 2001

Joe Fugitt, P.G.
Remedial Project Manager
Technical Review/Federal Facilities
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Reference: **Clean Contract No. N62467-94-D-0888**
Contract Task Order No. 0112

Subject: Site Assessment Report Addendum
For Underground Storage Tank Site 19
U.S. Naval Air Station, Pensacola
Pensacola, Florida
FDEP #179203973

Dear Mr. Fugitt:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Site Assessment Report Addendum (SARA) for the referenced Contract Task Order (CTO). This report has been prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command under CTO 112, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

Site Assessment Report Addendum Objectives. The objective of the SARA is to address review comments of the Site Assesment Report (SAR) of Site 19 dated February 1998 by the Florida Department of Environmental Protection (FDEP) in a technical review letter dated March 31, 1998 (Attachment A). The SAR was prepared by the NASP Navy Public Works Center (NPWC) and submitted in February 1998. The FDEP technical review letter detailed ten (10) comments to be addressed in order to meet the requirements of Chapter 62-770 of the Florida Administrative Code (F.A.C.). This letter report summarizes the work performed to address FDEP's comments, and provides the investigation results, including conclusions and recommendations for Site 19 located at the U.S. Naval Air Station, Pensacola (NASP), Florida. All SARA-related sampling activities were conducted in accordance with the TtNUS, Inc., FDEP approved, Comprehensive Quality Assurance Plan (Comp QAP) #980038.

Previous Investigations. Previous site investigations include an Initial Assessment Study (IAS), a Verification Study (VS), a Characterization Study (CS), and the initial SAR investigation. The IAS was performed by the Naval Energy and Environmental Support Activity (NEESA) in 1983. The study included a review of historical records, field inspections, and interviews with associated personnel. NEESA estimated the release to be 360,000 gallons of JP4 fuel and concluded that further investigation was warranted.

In 1984, Geraghty & Miller, Inc. (G&M) conducted a VS at the Site. The purpose of the VS was to determine if a free product layer was present. Work performed included the installation of four shallow groundwater monitoring wells and the completion of 11 soil borings at the site. Free product was not detected in any of the wells or borings, but a fuel odor was noted in soil samples collected in an area of dead vegetation. No laboratory analyses were performed on groundwater or soil samples during the 1984 study. In response to FDEP recommendations, G&M returned to the site in 1986 to conduct a CS. This study involved the collection and laboratory analysis of groundwater samples from the four monitoring wells installed during the VS. Volatile Organic

Compound (VOC) analysis detected elevated concentrations of benzene and xylenes in samples from three of the four wells.

The Site 19 SAR fieldwork was conducted between January and September 1997. SAR field activities included the advancement of 30 hand auger soil borings, a head sapce gas survey to identify "excessively contaminated soil", and the installation and sampling of 20 groundwater monitoring wells.

Response to Comments.

Comment 1. The investigation at this site appears to have been conducted in accordance with an earlier version of Chapter 62-770, F.A.C. This rule was revised effective September 23, 1997. All site assessments are required to be conducted as specified in revised rule. Some changes to the rule include:

Comment 1a. There are now individual groundwater cleanup criteria for BTEX constituents, naphthalene and PAHs. The groundwater cleanup level for lead is now 15 micrograms per liter the groundwater cleanup levels are listed in Table V of Chapter 62-770, F.A.C.

Comment 1b. Soil target cleanup levels have been determined In some cases have been changed from previous values for individual petroleum constituents. Soil cleanup target levels are listed in Table IV of Chapter 62-770, F.A.C.

All current Site Assessment activities are conducted as specified in the most current revision of Chapter 62-770, F.A.C.

Comment 2. The latest groundwater analytical results were from samples collected on May 29, 1997. Most groundwater samples were collected either on March 28, 1997 or April 15, 1997. Because the data is greater than 270 days, representative monitoring wells will need to be sampled and analyzed to generate current data. Wells that had detected contamination, wells located down gradient of the contaminants plume, the deep well and at least one upgradient well should be resampled.

On June 27-28, and July 7, 2000, TtNUS collected groundwater samples from 18 monitoring wells at Site 19 (Figure 1, Attachment B). The monitoring wells sampled include wells MW–1, MW–2, MW–4, MW–6 (including a duplicate groundwater sample), MW–7, MW–8, MW–9, MW–10, MW–11 (including a duplicate groundwater sample), MW–12, MW–13, MW–16, MW–18, MW–19, DMW–20, MW–21, MW–22, and DMW–23. Monitoring well MW–17 was dry at the time of the sampling event and therefore was not sampled. On July 13, 2000, TtNUS returned to the site to resample MW–7, to include the collection of matrix spike and matrix spike duplicate samples. An equipment rinsate blank was collected and analyzed for the same parameters to satisfy quality assurance and quality control requirements. Each sample was analyzed for VOCs (including MTBE), polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbon (TRPH). Groundwater field sampling forms are provided in Attachment C.

Prior to groundwater sampling, TtNUS personnel recorded water levels in each monitoring well. The groundwater level measurements were used to calculate the purge volume for each well to be sampled. Purging and sampling were performed using low flow, or quiescent, sampling techniques employing Teflon™ tubing and a peristaltic pump. Following collection of the groundwater samples, the sample bottles were packed on ice and shipped via overnight transport to a fixed based laboratory.

Comment 3. Three additional monitoring wells should be installed at the following locations and screened depths:

Comment 3a. The water table monitoring well and an intermediate depth monitoring well should be installed approximately 150 feet southwest of monitoring well MW-13. The intermediate depth monitoring well should be screened from 20 to 25 feet below land surface.

Comment 3 b. A vertical extent monitoring well screened from 35 to 40 feet below land surface, should be installed halfway between monitoring well MW-3 and MW-8.

A shallow monitoring well MW–21 was installed to a depth of 14 feet below land surface (bls). An intermediate monitoring well MW–22 was installed to a depth of 25 feet bls. These two monitoring wells are located approximately 160 feet south of well MW–13. Monitoring well DMW–23 is located approximately midway between wells MW–3 and MW–8. A vertical extent monitoring well DMW–23 was installed to a depth of 40 feet bls. Each well is 2 inches in diameter, constructed with a 0.01-inch aperture well screen and appropriate length of blank casing. Filter packs consist of 20-30 graded silica sand and extend a minimum of two feet above the monitring well screen. Surface completions are above grade unless the monitoring well is located on a road. Monitoring well MW–21 has a 10-foot screen section, wells MW–22 and DMW–23 have 5-foot screen sections.

A map showing the Site area, including monitoring well locations, is provided as Figure 1 in Attachment B. Lithologic descriptions (boring logs) recorded by the onsite geologist are provided in Attachment C.

Comment 4. Monitoring wells should be sampled and analyzed for BETX, PAHs and Total Petroleum Hydrocarbons. Because lead was not detected above groundwater cleanup levels and EDB was not detected, it is not necessary to reanalyze for these parameters.

Each sample was analyzed for VOCs (including MTBE), PAHs, and TRPH. Groundwater field sampling forms are provided in Attachment C. A table summarizing the data is presented in Table 4 (Attachment D).

Comment 5. Prior to groundwater sampling, water level elevations should be taken in all monitoring wells, including deep wells. The water level elevations should be used to confirm groundwater flow direction and to determine if there are vertical gradients.

Prior to groundwater sampling, TtNUS personnel recorded water levels in each monitoring well. A potentiometric surface map based on the June 21, 2000 groundwater level measurements is provided on Figure 3 (Appendix B), the groundwater levels and corresponding groundwater elevations are provided in Table 2 (Attachment D). Groundwater flow calculations sheets are presented in Attachment E.

The average estimated horizontal hydraulic gradient of the shallow monitoring wells is 0.0015 feet per foot. Groundwater elevations in intermediate monitoring well MW–22 and deep monitoring wells DMW–20 and DMW–23, are 2.5 feet to 4 feet below those of nearby shallow wells, thereby indicating a downward vertical gradient.

Using data from deep and shallow well pairs MW–6 and DMW–20; MW–3 and DMW–23; and MW–21 and MW–22, the average estimated vertical hydraulic gradient is downward 0.18 feet per foot.

Due to the age (1958) and magnitude (estimated 360,000 gallons of JP-4 fuel) of the release at this Site, it is possible that migrating groundwater contaminants have reached nearby Pensacola Bay (approximately 1,500 feet downgradient).

***Comment* 6. Soil and/or sediment samples should be collected on the northwest side of the pipeline to determine if that area has been impacted by petroleum constituents.**

See below.

***Comment* 7. A minimum of three soil samples must be collected for laboratory analyses from each location where soil screening has identified excessively contaminated soil. The procedures specified in the Department's February 3, 1998 memo titled "Interim Guidance for Laboratory Analyses of Soil Samples for Petroleum Contamination Site Assessments" should be followed.**

Response to Comments 6 and 7 On May 8, 2000, TtNUS personnel initiated SAR Addendum activities with the collection of head space screening samples from 54 locations on both the northwest and southeast sides of the pipeline (Figure 2, Attachment B). The soil borings were advanced from the ground surface to the water table using a stainless steel hand auger. Samples were split, placed in two mason jars, sealed with aluminum foil, and allowed to equilibrate for approximately 5 minutes prior to sampling the head space gas with an FID.

A summary of the soil sample FID concentrations is provided in Table 1 Attachment D. Figure 2 shows the boring locations and corresponding FID concentrations (from the 2.0 foot sample interval) for all samples having detectable VOC in head space gas. In addition, Figure 2 shows the 50 ppm isoconcentration line for soil gas. Based on the JP-5 fuel type 50 ppm soil gas is the criteria for "excessively contaminated" soil.

Because of the high VOC head space concentrations and strong petroleum odor in many of the soil boring samples, a free-product field screening method was conducted. Soil from soil borings HA02, HA04, HA15, and HA20 were tested for the presence of free product. The test was performed by placing approximately 4 ounces of soil in a clear clean 8 ounce soil jar, filling the jar with deionized water to approximately 0.5 inch above the top of the soil, and then adding a small amount (approximately 0.25 ounce) of Oil Red No. 2 dye. After all the components were added, the jar was sealed, agitated vigorously for about 30 seconds, and then the components were allowed to settle.

During the process, petroleum product present in the soil is dyed red by the Oil Red, becoming easily visible. An approximately 1/8 inch layer of product developed in the jars containing soil from borings HA02, HA04, and HA15. The HA20 jar contained only a few small floating globules of red fluid. The results of this test indicates free product to be present in the soil at Site 19. However, free-product has not been detected in any of the onsite monitoring wells.

Nine confirmation soil samples for offsite laboratory analysis (eight samples from selected hand auger borings plus one duplicate sample) were collected at Site 19. These samples were selected for laboratory analysis based on head space gas screening results and field observations. The chosen locations were revisited and the samples collected after the conclusion of the head space survey. Of the eight samples collected, three (NASP19HA0202, NASP19HA2602, and NASP19HA3302) were selected as high concentration samples, three (NASP19HA2003, NASP19HA3802, and NASP19HA4401) were selected as medium concentration samples, and two (NASP19HA0401 and NASP19HA5001) were selected as low concentration samples (Table 1).

Five VOCs: benzene, ethylbenzene, toluene, (total) xylenes, and 1,1,2-trichloroethane were detected in soil samples collected at Site 19 (Figure 2, Attachment B). Benzene was detected in a single soil boring (HA02) at a concentration of 1.85 (estimated) (duplicate sample 4.47) mg/kg, which exceeds the FDEP Soil Cleanup Target Levels (SCTLs) and residential and commercial limits for direct exposure as well as ground water leachability criteria. Ethylbenzene was detected in soil samples from three soil borings at concentrations ranging from 0.125 to 22.4, mg/kg. The detected concentrations in soil boring HA02 exceed the FDEP SCTL for leaching to groundwater. Toluene was detected in soil samples from three soil borings at concentrations ranging from 0.0838 (estimated) to 55.3 mg/kg. The detected concentrations in soil boring HA02 exceed the FDEP SCTL for leaching to groundwater. Total xylenes were detected in soil samples from four soil borings at concentrations ranging from 0.276 (estimated) to 188 mg/kg. All of the detected concentrations of xylene exceed the FDEP SCTL for leaching to groundwater. 1,1,2-Trichloroethane was detected in a single sample (soil sample HA33) at a concentration of 0.583 mg/kg, which exceeds the FDEP SCTL of 0.03 mg/kg for leaching to groundwater.

Three PAHs: 1-methylnaphthalene, and 2-methylnaphthalene, and naphthalene were detected in soil samples collected at Site 19. All three analytes were only detected in the samples (and duplicate samples) from soil boring HA02. 1-Methylnaphthalene detected at a concentration of 3.13 mg/kg (duplicate sample 4.08 mg/kg), was the only PAH analyte to exceed the FDEP SCTL for leaching to groundwater.

TRPH was detected in seven of the eight Site 19 soil borings. All but one had detected concentrations of TRPH that exceeded the FDEP SCTL for residential direct exposure and leaching to groundwater.

Table 3 (Attachment D) summarizes the analytical results for the soil samples. A soil analyte detection map is provided as Figure 4 (see Attachment B). Copies of the laboratory analytical reports are provided in Attachment F.

Comment 8. According to the Results of Previous Investigations section, the Geraghty & Miller 1986 Characterization Study found groundwater contaminants in exceedance of groundwater cleanup target levels in monitoring wells GM-16, GM-18, and GM-19. These wells located well outside the area investigated in the SAR. Was this area of contamination addressed in a separate investigation? If not, these wells should be located and resample if possible. Otherwise, further assessment will be necessary to investigate that area.

An attempt to locate monitoring wells GM–16, GM–18, and GM-19 previously installed by Geraghty & Miller, Inc. was unsuccessful. A well was found in the general location of monitoring well GM–16, but was not marked and was in poor condition. Because the identity of this well was uncertain, and GM–18, and GM-19 were not found, these Geraghty & Miller monitoring wells were not sampled during this field event.

However, groundwater samples were collected from 18 monitoring wells at Site 19 in June 2000. Monitoring well MW–17 was dry during the sampling period. Free product was not detected in any of the monitoring wells. Figure 5 (Attachment B) shows the distribution of detected groundwater analytes. A summary of detected groundwater analytes is provided in Table 4 (Attachment D). Copies of the laboratory analytical reports are provided in Attachment F.

Volatile Organic Compounds

Five VOCs: 1,1-dichloroethene, benzene, ethylbenzene, toluene, and xylenes, were detected in groundwater samples collected at Site 19.

1,1-Dichloroethene was detected in three groundwater samples at concentrations ranging from 0.72 to 1.2 micrograms per liter (µg/l). These detected concentrations were below the FDEP groundwater cleanup target level (GCTL).

Benzene was detected in seven groundwater samples (plus one duplicate sample at concentrations ranging from 0.61 (estimated) to 1,220 µg/l. All but one of the concentrations met or exceeded the FDEP GCTL of 1.0 µg/l.

Ethylenzene was detected in five groundwater samples plus two duplicate samples at concentrations ranging from 75.6 to 1,060 µg/l. Seven of the detected concentrations (five wells and both duplicates) exceed the FDEP GCTL of 30 µg/l.

Toluene was detected in five groundwater samples plus two duplicate samples at concentrations ranging from 0.63 (estimated) to 8,540 µg/l. Four of the detected concentrations (four monitoring wells and one duplicate sample) exceed the FDEP GCTL of 40 µg/l.

Xylenes were detected in seven groundwater samples plus two duplicates at concentrations ranging from 4.8 to 8,070 µg/l. Six of the detected concentrations (four monitoring well samples plus two duplicate samples) exceed the FDEP GCTL of 20 µg/l.

Polycyclic Aromatic Hydrocarbons

Three PAH analytes: 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene, were detected in groundwater samples collected at UST Site 19.

1-Methylnaphthalene was detected in three groundwater samples and one duplicate sample at concentrations ranging from 1.7 (estimated) to 42.4 µg/l. It was also detected in the duplicate sample from monitoring well MW-6, but not in the original sample from the well. Three of the detected concentrations (two monitoring well samples plus one duplicate sample) exceed the FDEP GCTL of 20 µg/l.

2-Methylnaphthalene was detected in four groundwater samples and two duplicate samples at concentrations ranging from 2.1 to 55.6 µg/l. Three of the detected concentrations (two monitoring well samples plus one duplicate) exceed the FDEP GCTL of 20 µg/l.

Naphthalene was detected in five groundwater samples plus two duplicate samples at concentrations ranging from 3.9 to 135 µg/l. Four of the detected concentrations (Three monitoring well samples plus one duplicate sample) exceed the FDEP GCTL of 20 µg/l.

Total Residual Petroleum Hydrocarbons

TRPH was detected in eight groundwater samples plus two duplicate samples at concentrations ranging from 316 to 52,200 µg/l. Four of the detected concentrations (three monitoring well samples plus one duplicate sample) exceed the FDEP GCTL of 5,000 µg/l.

Comment 9. Slug test data used to estimate hydraulic conductivity's and groundwater flow velocities should be site-specific. The slug test data reported in the SAR were from Sites 3810 N and 3221 SW. Three monitoring wells on the site should be selected for slug test, one of which should be screened at a deeper level.

On July 25, 2000, TtNUS conducted aquifer slug tests in monitoring wells MW–2, MW–22, and DMW–23. Falling head (slug introduced to the well or slug-in) and rising head (slug removed from the well or slug-out) tests were performed. Slug test data was recorded using an InSitu Hermit 2000® data logger and down well pressure transducer. Slug test data is provided in Attachment E.

A total of 12 slug tests were performed in three monitoring wells (MW–2, MW–22, DMW–23) on July 25, 2000. Of the 12 tests, seven (three from MW–2 and two each from MW–22 and DMW–23) are considered to be representative and are used in estimating the groundwater seepage velocity. Slug test data, seepage velocity calculations, and hydraulic gradient calculations are provided in Attachment E. Groundwater elevations (Table 2) indicate the presence of a vertical hydraulic gradient at Site 19. This observation is supported by the hydraulic gradient calculations, which estimate the gradient to be 0.18 feet/foot downward. Using this hydraulic gradient, an average hydraulic conductivity of 1.338×10^{-4} feet per second, and an effective porosity of 0.15, the estimated groundwater seepage velocity is 5,065 feet/year. When natural retardation processes are taken into account by using a retardation factor in the velocity equation (Attachment E), the estimated groundwater seepage velocity drops to 3,381 feet per year.

Comment 10. The groundwater flow direction appears to be to the south, not the southwest.

Figure 3 indicates the general groundwater flow direction to be southeast, towards Sherman Cove (Pensacola Bay).

Conclusions. Soil screening identified 26 of 34 locations had concentrations exceeding 500 parts per million. Five VOCs: 1,1,2-trichloroethane, benzene, ethylbenzene, toluene, and total xylenes were detected in confirmation samples at concentrations exceeding Florida Soil Cleanup Criteria. Benzene was detected in one soil boring at concentrations exceeding the FDEP SCTLs for direct exposure - residential and commercial and leaching to groundwater. Ethylbenzene exceeded the leaching to groundwater SCTL of 0.6 mg/kg in two the sample from one soil boring. Toluene exceeded the leaching to groundwater SCTL of 0.5 mg/kg in the samples from one soil boring. Total xylenes exceeded the leaching to groundwater SCTL of 0.2 mg/kg in the samples from four soil borings. 1,1,2-Trichloroethane exceeded the leaching to groundwater SCTL of 0.03 mg/kg in the sample from one soil boring. 1-Methylnaphthalene exceed the leaching to groundwater SCTL of 2.2 mg/kg in the samples from one soil boring. TRPH was detected in samples from six soil borings at concentrations exceeding the FDEP SCTL of 340 mg/kg for direct exposure - residential and leaching to groundwater.

No free-phase petroleum hydrocarbons were detected in any of the monitoring wells, however, a field screening method to identify free product in soils was conducted and identified free product in three of four soil samples tested. Groundwater samples collected at the site four VOCs including benzene, ethylbenzene, toluene, and total xylenes were detected at concentrations exceeding the applicable FDEP GCTL. Three PAHs: 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene, were detected in groundwater samples at concentrations exceeding the applicable FDEP GCTL.

In comparing the SAR Addendum groundwater analytical results with the earlier SAR results, a general decrease in analyte concentrations in wells MW–2, MW–6, MW–8, MW–11, and MW–20 is noted. In contrast, there was an increase in analyte concentrations in well MW–4.

Recommendations. Based on the conclusions of the SAR and SAR Addendum Site 19 is recommended for a Remedial Action Plan (RAP) in accordance with F.A.C. 62-770. Soil and groundwater contamination exceeding FDEP action criteria is present however, it has been adequately characterized for preparation of a RAP.

If you have any questions with regard to this submittal, please contact me at (850) 385 -9899.

Sincerely,

Gerald A Walker

Gerald A. Walker, P.G.
Task Order Manager
Florida License No. PG-0001180

GW/ls

Enclosures

c: B. Glover, Southern Division
Greg Campbell, NAS Pensacola PWC
D. Wroblewski (cover letter only), TtNUS
M. Perry/file, TtNUS
TtNUS Tallahassee file

ATTACHMENT A

FDEP SAR Letter of Review

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

March 31, 1998

Mr. Byas Glover
Code 18410
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: Site Assessment Report, Site 19
Naval Air Station Pensacola, Florida
FDEP #179203973

Dear Mr. Glover:

I have completed the technical review of the above referenced document dated February 1998 (received March 3, 1998), submitted for this Site 19. Please submit a Site Assessment Report Addendum which addresses the comments in the attached memorandum from David Grabka.

If I can be of any further assistance with this matter, please contact me at (904) 921-9989.

Sincerely,

John W. Mitchell
Remedial Project Manager

cc: Dean Spencer, NAS Pensacola
Greg Campbell, NAS Pensacola
Tom Moody, FDEP Northwest District

TJB _____ JJC _____ ESN _____

(b) A vertical extent monitoring well, screened from 35 to 40 feet below land surface, should be installed halfway between monitoring wells MW-3 and MW-8.

(4) Monitoring wells should be sampled and analyzed for BTEX, PAHs and Total Petroleum Hydrocarbons. Because lead was not detected above groundwater cleanup target levels and EDB was not detected, it is not necessary to reanalyze for these parameters.

(5) Prior to groundwater sampling, water level elevations should be taken in all monitoring wells, including deep wells. The water level elevations should be used to confirm groundwater flow direction and to determine if there are vertical gradients.

(6) Soil and/or sediment samples should be collected on the northwest side of the pipeline to determine if that area has been impacted by petroleum constituents.

(7) A minimum of three soil samples must be collected for laboratory analyses from each location where soil screening has identified excessively contaminated soil. The procedures specified in the Department's February 3, 1998 memo titled "Interim Guidance for Laboratory Analyses of Soil Samples for Petroleum Contamination Site Assessments" should be followed.

(8) According to the Results of Previous Investigations section, the Geraghty & Miller 1986 Characterization Study found groundwater contaminants in exceedance of groundwater cleanup target levels in monitoring wells GM-16, GM-18 and GM-19. These wells are located well outside of the area investigated in the SAR. Was this area of contamination addressed in a separate investigation? If not, these wells should be located and resampled if possible. Otherwise, further assessment will be necessary to investigate that area.

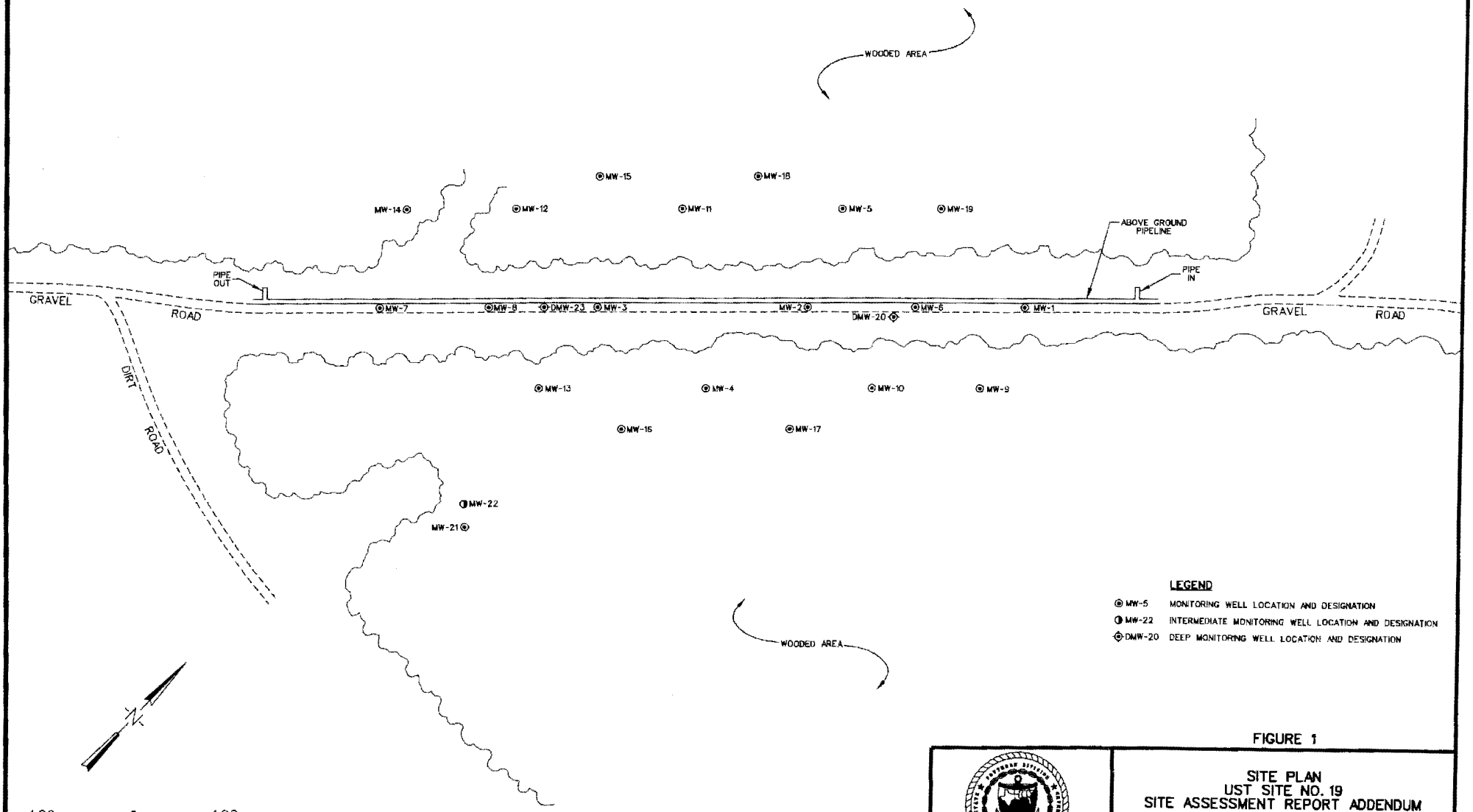
(9) Slug test data used to estimate hydraulic conductivities and groundwater flow velocities should be site specific. The slug test data reported in the SAR were from Sites 3810 N and 3221 SW. Three monitoring wells on the site should be selected for slug tests, one of which should be screened at a deeper level.

(10) The groundwater flow direction appears to be to the south, not the southwest.

ATTACHMENT B

Figures

SOURCE:
LOCATIONS OF ROADS AND PIPELINE ARE TAKEN FROM SITE ASSESSMENT REPORT, NAS PENSACOLA PUBLIC WORKS ENVIRONMENTAL OFFICE, FEBRUARY 1998 AND FROM FIELD OBSERVATIONS. WELL AND BORING LOCATIONS ARE APPROXIMATE.



LEGEND

MW-5	MONITORING WELL LOCATION AND DESIGNATION
MW-22	INTERMEDIATE MONITORING WELL LOCATION AND DESIGNATION
DMW-20	DEEP MONITORING WELL LOCATION AND DESIGNATION

FIGURE 1

SITE PLAN
UST SITE NO. 19
SITE ASSESSMENT REPORT ADDENDUM

NAS PENSACOLA
PENSACOLA, FLORIDA

CAD FILE NO./DATE: 0401J009.dgn/3-8-01

SOURCE:
LOCATIONS OF ROADS AND PIPELINE ARE TAKEN FROM SITE ASSESSMENT REPORT, NAS PENSACOLA PUBLIC WORKS ENVIRONMENTAL OFFICE, FEBRUARY 1998 AND FROM FIELD OBSERVATIONS. WELL AND BORING LOCATIONS ARE APPROXIMATE.

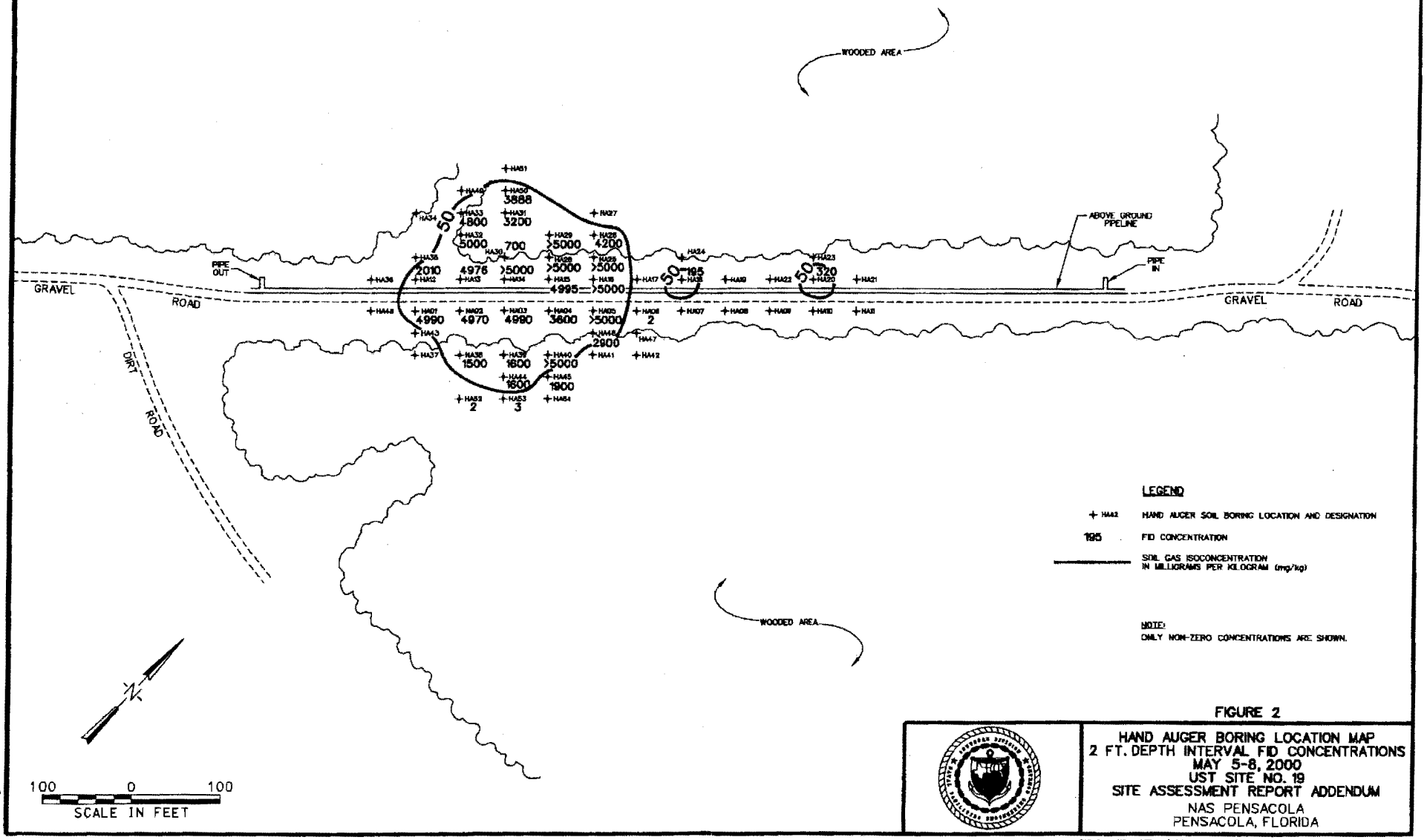


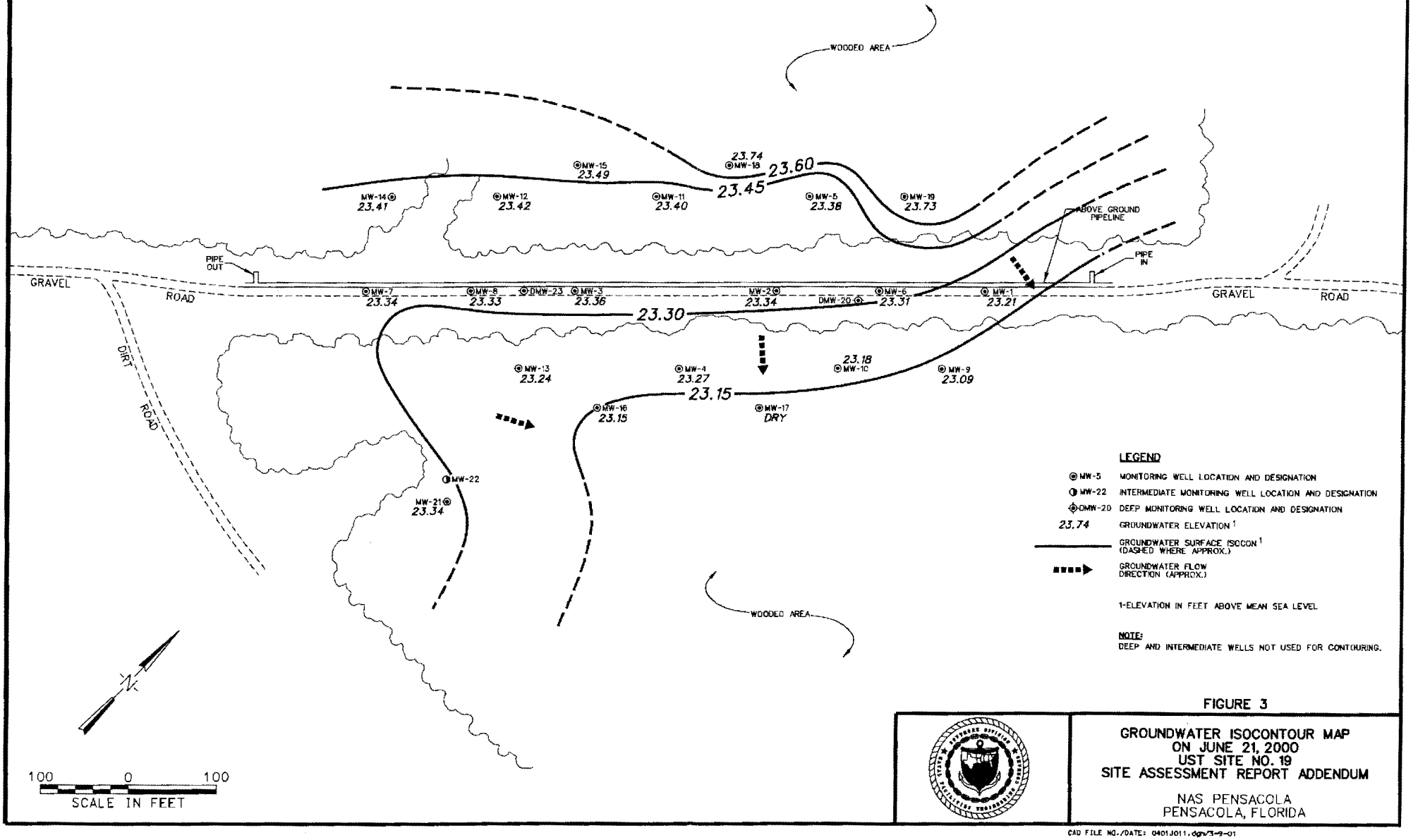
FIGURE 2

HAND AUGER BORING LOCATION MAP
2 FT. DEPTH INTERVAL FID CONCENTRATIONS
MAY 5-8, 2000
UST SITE NO. 19
SITE ASSESSMENT REPORT ADDENDUM
NAS PENSACOLA
PENSACOLA, FLORIDA

CAD FILE NO./DATE: 0401J012.dgn/3-14-01

n1ts17b.dgn

SOURCE:
LOCATIONS OF ROADS AND PIPELINE ARE TAKEN FROM SITE ASSESSMENT REPORT, NAS PENSACOLA PUBLIC WORKS ENVIRONMENTAL OFFICE, FEBRUARY 1989 AND FROM FIELD OBSERVATIONS. WELL AND BORING LOCATIONS ARE APPROXIMATE.



LEGEND

MW-5	MONITORING WELL LOCATION AND DESIGNATION
MW-22	INTERMEDIATE MONITORING WELL LOCATION AND DESIGNATION
DMW-20	DEEP MONITORING WELL LOCATION AND DESIGNATION
23.74	GROUNDWATER ELEVATION [1]
	GROUNDWATER SURFACE ISOCON [1] (DASHED WHERE APPROX.)
	GROUNDWATER FLOW DIRECTION (APPROX.)

1-ELEVATION IN FEET ABOVE MEAN SEA LEVEL

NOTE:
DEEP AND INTERMEDIATE WELLS NOT USED FOR CONTOURING.

FIGURE 3

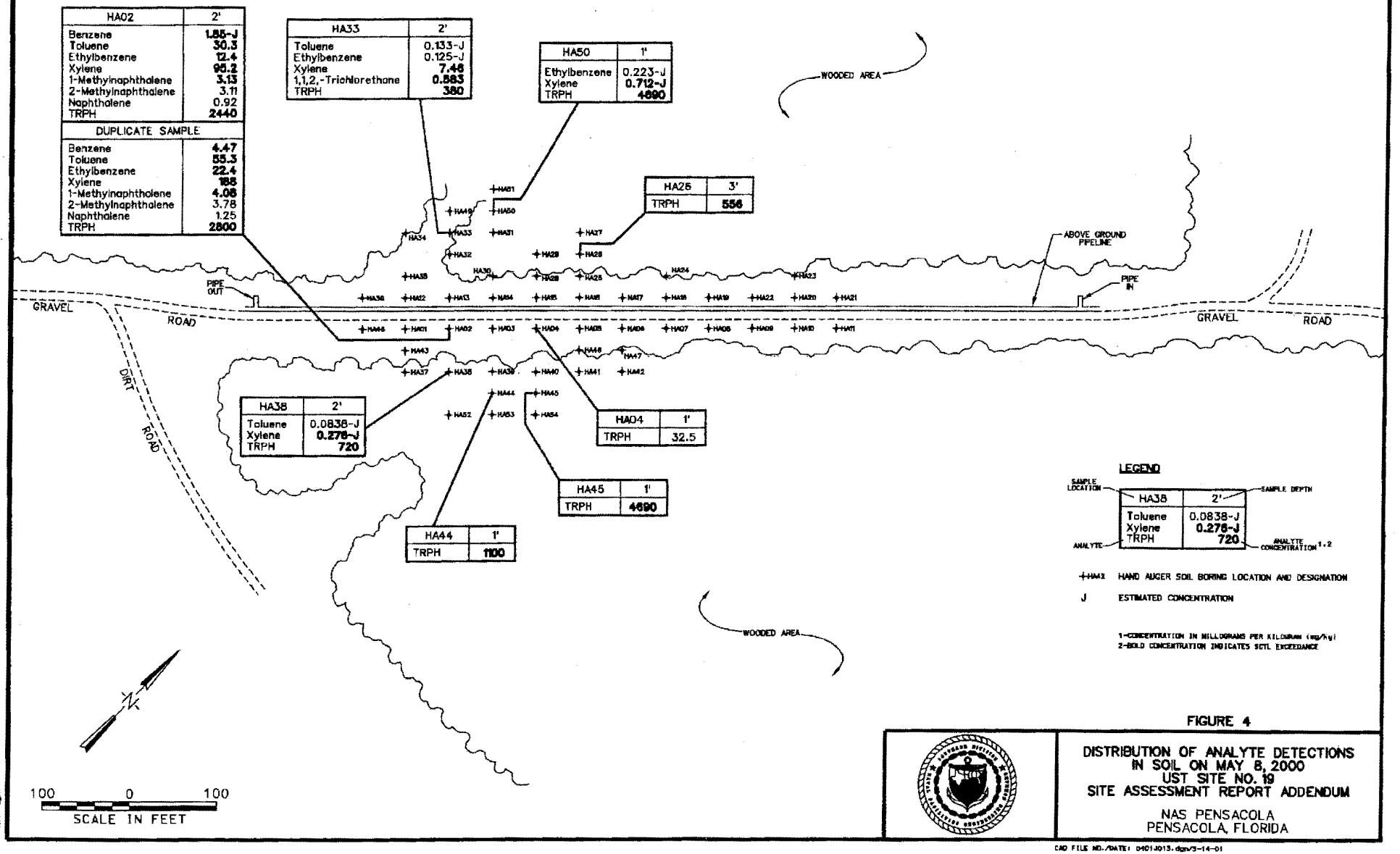
GROUNDWATER ISOCONTOUR MAP
ON JUNE 21, 2000
UST SITE NO. 19
SITE ASSESSMENT REPORT ADDENDUM

NAS PENSACOLA
PENSACOLA, FLORIDA

CAD FILE NO./DATE: 0401J011.dgn/3-9-01

m11x17b.dgn

SOURCE:
LOCATIONS OF ROADS AND PIPELINE ARE TAKEN FROM SITE ASSESSMENT REPORT, NAS PENSACOLA PUBLIC WORKS ENVIRONMENTAL OFFICE, FEBRUARY 1998 AND FROM FIELD OBSERVATIONS. WELL AND BORING LOCATIONS ARE APPROXIMATE.



HA02	2'
Benzene	**1.85-J**
Toluene	**30.3**
Ethylbenzene	**12.4**
Xylene	**95.2**
1-Methylnaphthalene	**3.13**
2-Methylnaphthalene	3.11
Naphthalene	0.92
TRPH	**2440**
DUPLICATE SAMPLE	
Benzene	**4.47**
Toluene	**55.3**
Ethylbenzene	**22.4**
Xylene	**185**
1-Methylnaphthalene	**4.06**
2-Methylnaphthalene	3.78
Naphthalene	1.25
TRPH	**2800**

HA33	2'
Toluene	0.133-J
Ethylbenzene	0.125-J
Xylene	**7.46**
1,1,2,-Trichlorethane	**0.583**
TRPH	**380**

HA50	1'
Ethylbenzene	0.223-J
Xylene	**0.712-J**
TRPH	**4690**

HA26	3'
TRPH	**556**

HA38	2'
Toluene	0.0838-J
Xylene	**0.276-J**
TRPH	**720**

HA04	1'
TRPH	32.5

HA45	1'
TRPH	**4690**

HA44	1'
TRPH	**1100**

LEGEND

HA38	2'
Toluene	0.0838-J
Xylene	**0.276-J**
TRPH	**720**

SAMPLE LOCATION — SAMPLE DEPTH — ANALYTE — ANALYTE CONCENTRATION[1,2]

+HA# HAND AUGER SOIL BORING LOCATION AND DESIGNATION

J ESTIMATED CONCENTRATION

1-CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)
2-BOLD CONCENTRATION INDICATES SCTL EXCEEDANCE

FIGURE 4

DISTRIBUTION OF ANALYTE DETECTIONS IN SOIL ON MAY 8, 2000
UST SITE NO. 19
SITE ASSESSMENT REPORT ADDENDUM

NAS PENSACOLA
PENSACOLA, FLORIDA

CAD FILE NO./DATE: 04012013.dgn/3-14-01

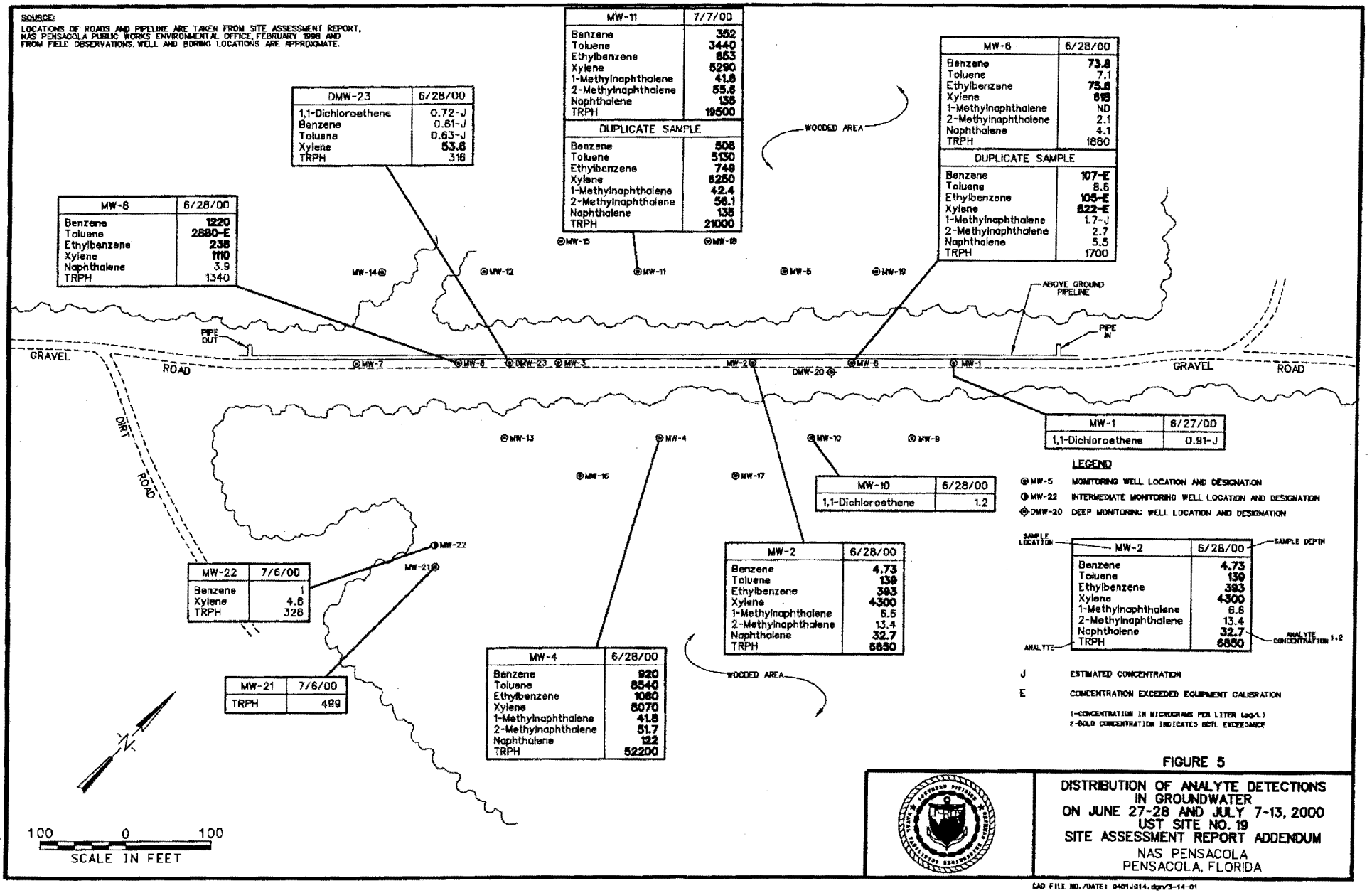


FIGURE 5

DISTRIBUTION OF ANALYTE DETECTIONS IN GROUNDWATER ON JUNE 27-28 AND JULY 7-13, 2000
UST SITE NO. 19
SITE ASSESSMENT REPORT ADDENDUM
NAS PENSACOLA
PENSACOLA, FLORIDA

CAD FILE NO./DATE: 0401J014.dgn/3-14-01

ATTACHMENT C

Soil Boring Logs

Well Construction Logs

Soil Sampling Logs

Groundwater Sampling Logs

BORING LOG

PROJECT NAME: NAS Pensacola
PROJECT NUMBER: # 0401
DRILLING COMPANY: Groundwater Protection Inc.
DRILLING RIG: Diedrich 120

BORING NUMBER: NASP19SBMW21
DATE: 20-May-00
GEOLOGIST: Skip Barton
DRILLER: Jeff Ziegler

Sample No. and Type or RQD	Depth (FL) or Run No.	Blows/ 6" or RQD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/FL) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1-ss	0		6 / 6	1026		mod.	drk.	silty SAND, fine- to medium-		moist	NA	8		30
↓	2		6 / 3			loose	gray/	grained, w/ humus and decayed						
	3						blk	organic material						
2-ss			6 / 6	1029							0	10	0	30
↓	5		5											
	8													
3-ss			6 / 6	1033				same as above		very wet	0	10	0	30
↓	10		6 / 2											
										saturated cuttings				
	13													
cuts				1038				same as above			NA		0	31
	15													
								BORING TERMINATED @ 15 FEET BGS						

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is read.

Remarks:

Drilling Area Background (ppm): 28

Converted to Well? Yes No

Well I.D. #: MW-21

BORING LOG

PROJECT NAME: NAS Pensacola
PROJECT NUMBER: # 0401
DRILLING COMPANY: Groundwater Protection Inc.
DRILLING RIG: Diedrich 120
BORING NUMBER: NASP19SBMW22
DATE: 20-May-00
GEOLOGIST: Skip Barton
DRILLER: Jeff Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or RQD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/Ft.) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1-ss	0		6 / 6	1216		mod.	drk.	silty SAND, fine- to medium-		moist				
↓	2		6 / 4			loose	gray/	grained, w/ humus and decayed						
	3						blk	organic material						
2-ss			6 / 6	1218							6	5	0	29
↓	5		6											
	8													
3-ss			6 / 6	1221				same as above		very wet	13	7	0	29
↓	10		5											
	13													
4-ss			6 / 6	1225				same as above		saturated	NA		0	31
↓	15		6 / 1			soft	brwn	sandy PEAT		95% organic				
					?									
	18													
cuts				1228		mod.	red/	SAND, silty, fine-grained			NA		0	31
	20					loose	bwrn							
	23													
cuts				1231				same as above			NA		0	31
	25													

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is read.

Remarks:

Drilling Area Background (ppm): 27

Converted to Well? Yes No

Well I.D. #: MW-22

BORING LOG

PROJECT NAME:	NAS Pensacola	BORING NUMBER:	NASP19SBDMW23
PROJECT NUMBER:	# 0401	DATE:	20-May-00
DRILLING COMPANY:	Groundwater Protection Inc.	GEOLOGIST:	Skip Barton
DRILLING RIG:	Diedrich 120	DRILLER:	Jeff Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or ROD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/Ft.) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	28													
cuts				1310		trace	org/	SAND, trace silt, medium-grained,			NA		0	15
	30					dense	buff	some coarse grains						
	33													
cuts				1312				same as above			NA		0	13
	35													
	39													
cuts				1315				same as above			NA		0	15
	40													
								BORING TERMINATED @ 40 FEET BGS						

* When rock coring, enter rock brokeness.

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

Remarks:

Drilling Area Background (ppm): 12

Converted to Well? Yes No

Well I.D. #: DMW-23

BORING LOG

PROJECT NAME: NAS Pensacola
PROJECT NUMBER: # 0401
DRILLING COMPANY: Groundwater Protection Inc.
DRILLING RIG: Diedrich 120

BORING NUMBER: NASP19SBDMW23
DATE: 20-May-00
GEOLOGIST: Skip Barton
DRILLER: Jeff Ziegler

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or RQD (%)	Sample Recovery/ Sample Length	Time	Lithology Change (Depth/Ft.) or Screened Level	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1-ss	0		6 / 6	1251		v. loose	lt.	SAND, fine- grained, with shell		dry, no odor	NA			
	2		6 / 1				brn	frags, Fill						
	3													
2-ss			6 / 6	1254		mod.	drk.	silty SAND, fine- to medium-		moist, faint petro	60	0	0	13
	5		6			loose	gray/	grained, w/ humus and decayed		odor,				
							blk	organic material						
	8													
3-ss			6 / 6	1259						very wet w/ faint	12	0	0	12
	10		4							odor				
	13													
4-ss			6 / 6	1304				same as above		saturated	NA		0	12
	15		6 / 2			soft	brn	sandy PEAT		95% organic				
	18													
cuts				1306		mod.	red/	SAND, silty, fine-grained			NA		0	15
	20					loose	brn							
	23													
cuts				1308				same as above			NA		0	15
	25													

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response is read.

Remarks:

Drilling Area Background (ppm): 12

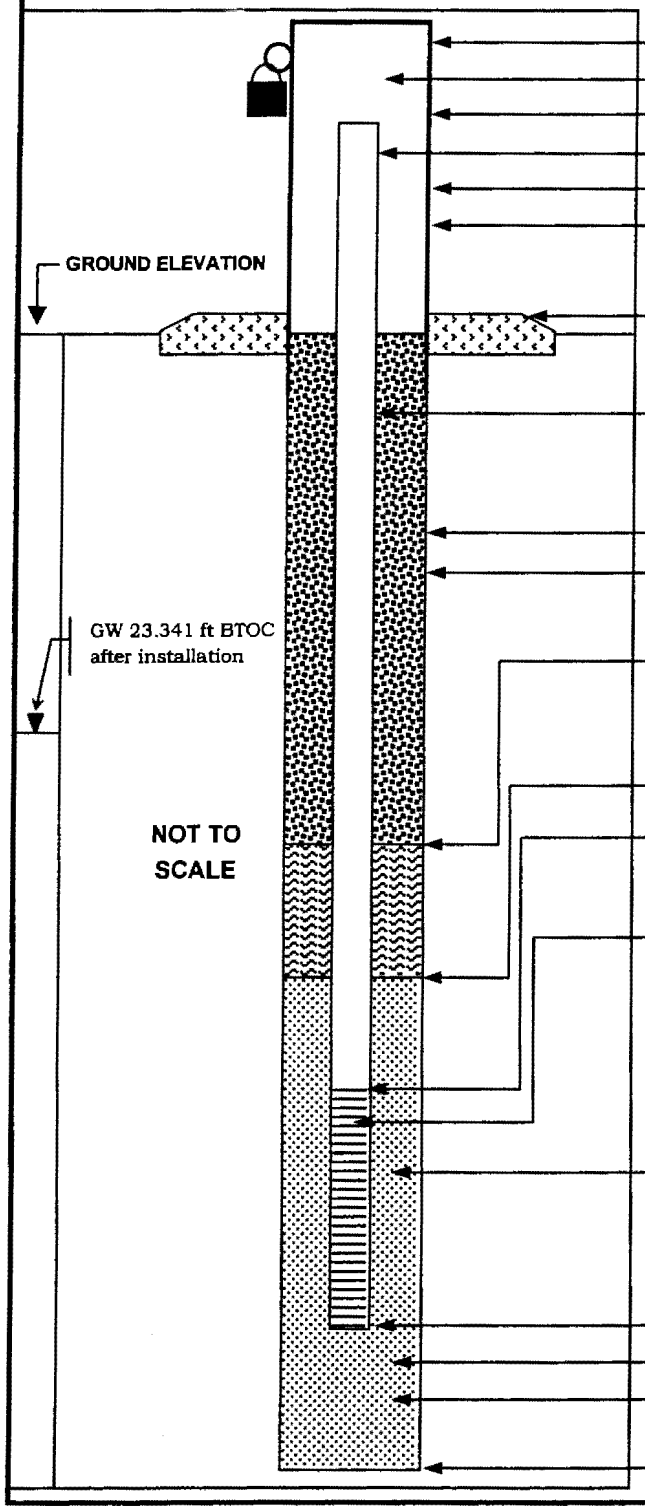
Converted to Well? Yes No

Well I.D. #: DMW-23

WELL NO.: MW-21

OVERBURDEN MONITORING WELL SHEET

PROJECT	NAS Pensacola	LOCATION	UST Site 19	DRILLER	Jeff Ziegler-GPI
PROJECT NO.	# 0401	BORING	NASP19SBMW21	METHOD:	
ELEVATION	32.45	DATE	20-May-00	DRILLING	HSA
FIELD GEOLOGIST	Skip Barton			DEVELOPMENT	sub pump

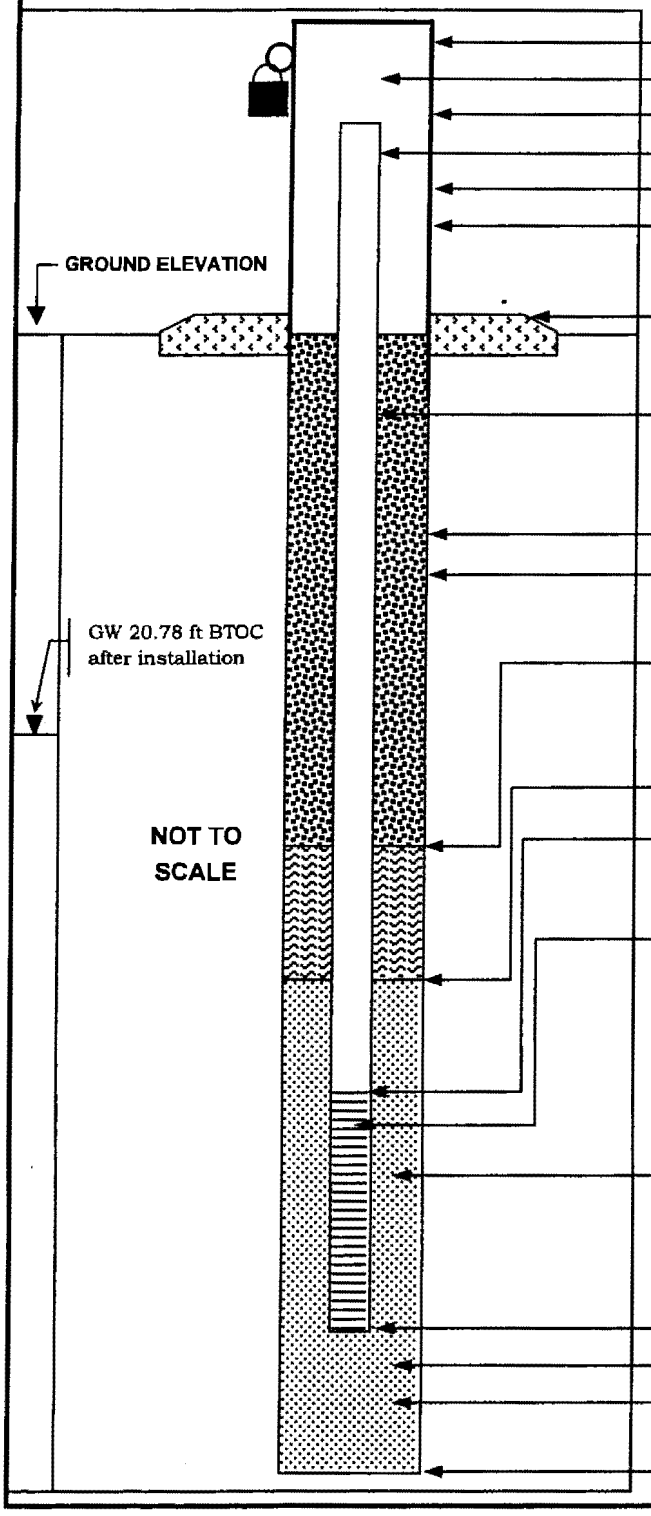


ELEVATION OF TOP OF SURFACE CASING:	
ELEVATION OF TOP OF RISER PIPE:	32.45 ft
STICK-UP TOP OF SURFACE CASING:	3 ft
STICK-UP OF RISER PIPE:	2.5 ft
I.D. OF SURFACE CASING:	4-in. square
TYPE OF SURFACE CASING:	stainless steel
TYPE OF SURFACE SEAL:	concrete
RISER PIPE I.D.:	2 in.
TYPE OF RISER PIPE:	SCH 40 PVC
BOREHOLE DIAMETER:	8.25 in.
TYPE OF SEAL:	Type I portland cement w/ powdered bentonite
ELEVATION / DEPTH OF SEAL:	0.5 ft
TYPE OF SEAL:	30/65 fine sand
DEPTH - TOP OF SAND PACK:	20/30=2 ft
ELEVATION / DEPTH - TOP OF SCREEN:	4 ft
TYPE OF SCREEN:	SCH 40 PVC
SLOT SIZE X LENGTH:	0.01 in. X 10 ft
I.D. OF SCREEN:	2 in.
TYPE OF SAND PACK:	20/30
ELEVATION / DEPTH TO BOTTOM OF SCREEN:	14 ft
ELEVATION / DEPTH TO BOTTOM OF SAND PACK:	14 ft
TYPE OF BACKFILL BELOW MONITORING WELL:	fine sand
ELEVATION / DEPTH TO BOTTOM OF BOREHOLE:	15 ft

WELL NO.: MW-22

OVERBURDEN MONITORING WELL SHEET

PROJECT	NAS Pensacola	LOCATION	UST Site 19	DRILLER	Jeff Ziegler-GPI
PROJECT NO.	# 0401	BORING	NASP19SBMW22	METHOD:	
ELEVATION	32.44	DATE	20-May-00	DRILLING	HSA
FIELD GEOLOGIST	Skip Barton			DEVELOPMENT	sub pump

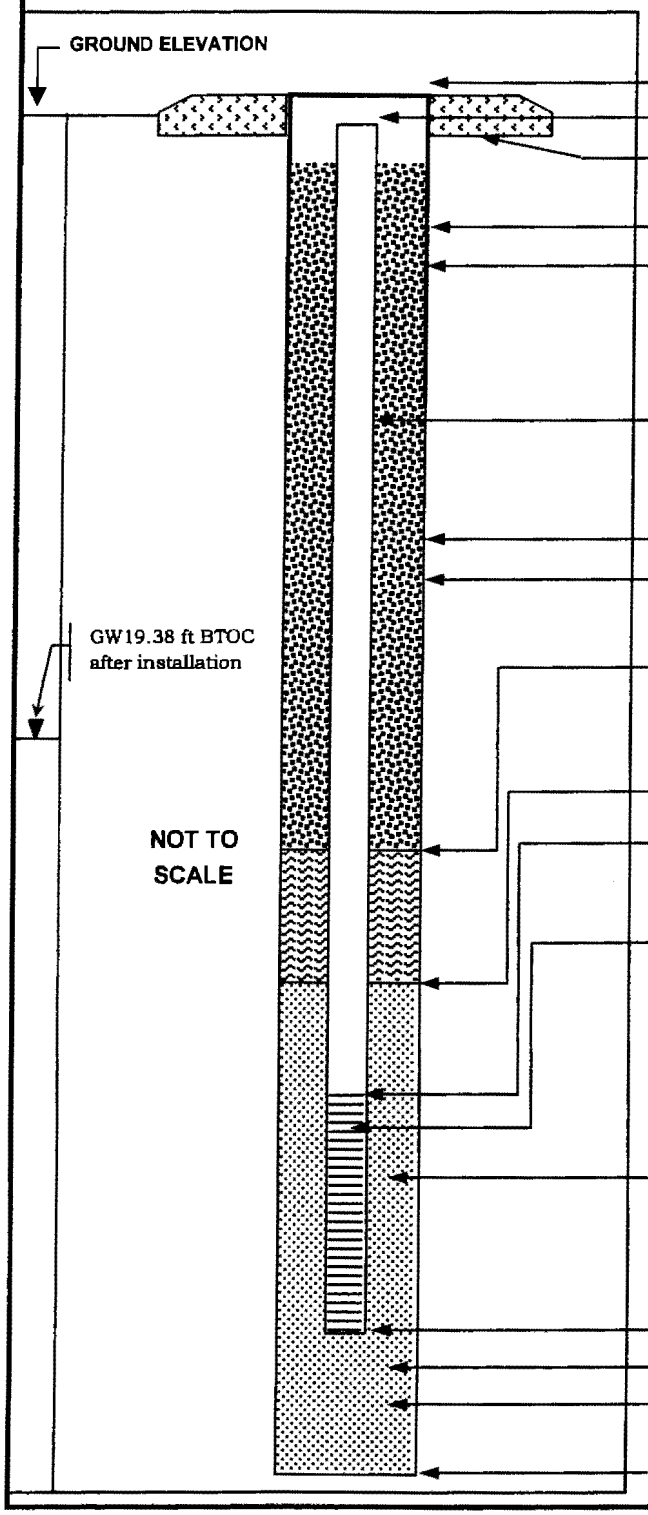


ELEVATION OF TOP OF SURFACE CASING:	
ELEVATION OF TOP OF RISER PIPE:	32.44 ft
STICK-UP TOP OF SURFACE CASING:	3 ft
STICK-UP OF RISER PIPE:	2.5 ft
I.D. OF SURFACE CASING:	4-in. square
TYPE OF SURFACE CASING:	stainless steel
TYPE OF SURFACE SEAL:	concrete
RISER PIPE I.D.:	2 in.
TYPE OF RISER PIPE:	SCH 40 PVC
BOREHOLE DIAMETER:	8.25 in.
TYPE OF SEAL:	Type I portland cement w/ powdered bentonite
ELEVATION / DEPTH OF SEAL:	13 ft
TYPE OF SEAL:	3/8 in bentonite chips
DEPTH - TOP OF SAND PACK:	20/30=17 ft; 30/65=15 ft
ELEVATION / DEPTH - TOP OF SCREEN:	20 ft
TYPE OF SCREEN:	SCH 40 PVC
SLOT SIZE X LENGTH:	0.01 in. X 5 ft
I.D. OF SCREEN:	2 in.
TYPE OF SAND PACK:	20/30, with 2 ft of 30/65 on top of the 20/30
ELEVATION / DEPTH TO BOTTOM OF SCREEN:	25 ft
ELEVATION / DEPTH TO BOTTOM OF SAND PACK:	25 ft
TYPE OF BACKFILL BELOW MONITORING WELL:	fine sand
ELEVATION / DEPTH TO BOTTOM OF BOREHOLE:	25 ft

WELL NO.: DMW-23

OVERBURDEN MONITORING WELL SHEET

PROJECT	NAS Pensacola	LOCATION	UST Site 19	DRILLER	Jeff Ziegler-GPI
PROJECT NO.	# 0401	BORING	NASP19SBDMW23	METHOD:	
ELEVATION	30.36	DATE	20-May-00	DRILLING	HSA
FIELD GEOLOGIST	Skip Barton			DEVELOPMENT	sub pump



ELEVATION OF TOP OF FLUSH MOUNT:	30.52 ft
ELEVATION OF TOP OF RISER PIPE:	30.36 ft
TYPE OF SURFACE SEAL:	concrete
I.D. OF FLUSH MOUNT:	8-in. round
TYPE OF SURFACE CASING:	bolt-down man hole cover
RISER PIPE I.D.:	2 in.
TYPE OF RISER PIPE:	SCH 40 PVC
BOREHOLE DIAMETER:	8.25 in.
TYPE OF SEAL:	Type I portland cement w/ powdered bentonite
ELEVATION / DEPTH OF SEAL:	28.5 ft
TYPE OF SEAL:	3/8 in bentonite chips
DEPTH - TOP OF SAND PACK:	20/30=32.5 ft; 30/65=30.5 ft
ELEVATION / DEPTH - TOP OF SCREEN:	34.5 ft
TYPE OF SCREEN:	SCH 40 PVC
SLOT SIZE X LENGTH:	0.01 in. X 5 ft
I.D. OF SCREEN:	2 in.
TYPE OF SAND PACK:	20/30, with 2 ft of 30/65 on top of the 20/30
ELEVATION / DEPTH TO BOTTOM OF SCREEN:	39.5 ft
ELEVATION / DEPTH TO BOTTOM OF SAND PACK:	40 ft
TYPE OF BACKFILL BELOW MONITORING WELL:	fine sand
ELEVATION / DEPTH TO BOTTOM OF BOREHOLE:	41 ft

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Site 19 - NAS Pensacola
Project No.: 0401

Sample ID No.: NASP19HAØ2Ø2
Sample Location: HAØ2
Sampled By: SBarton
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-00 Time: 0815 Method: HA Monitor Reading (ppm):	2 ft	dark gray	silty sand w/ organics, moist, strong petro odor

COMPOSITE SAMPLE DATA:

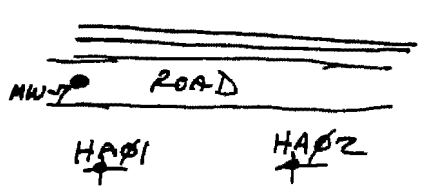
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	3 5g encore	3	
EPA 8310 - PAH	1 4oz jar	1	
FL-PRO - TRPH	combined w/ PAH	–	

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.: NASP19HADØ1

Signature(s): S. Barton

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Site 19 - NAS Pensacola
Project No.: 0401

Sample ID No.: NASP19HA04Ø1
Sample Location: HA04
Sampled By: S. Barton
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-00 Time: 0905 Method: HA Monitor Reading (ppm):	1 ft	dark gray to black	silty sand w/ lots of organic material, moist

COMPOSITE SAMPLE DATA:

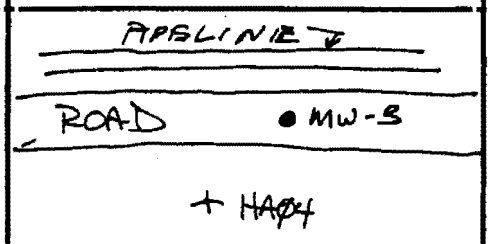
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	3 5g encore	5	
EPA 8310 - PAH	1 4oz jar	1	
FL-PRO - TRPH	combined w/ PAH		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S. Barton

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASPensacola
Project No.: 0401

Sample ID No.: NASP19 HA20003
Sample Location: HA 20
Sampled By: S. Barton
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-00 Time: 1050 Method: NA Monitor Reading (ppm):	3ft	dark gray to black	silty sand w/ lots of organic material, v. moist

COMPOSITE SAMPLE DATA:

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

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	3 5g encore	3	
EPA 8310 - PAH	1 4oz jar	1	
FL-PRO - TRPH	combined w/PAH	-	

OBSERVATIONS / NOTES:

MAP:

PIPELINE + HA20

● MWR ROAD

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Shep Barton

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

Sample ID No.: NAS019HA26Ø3
Sample Location:
Sampled By:
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

Date: 5-8-00	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1035	3ft	dark gray to black	silty sand w/ lots of organic material, v. moist, st. odor
Method: HA			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

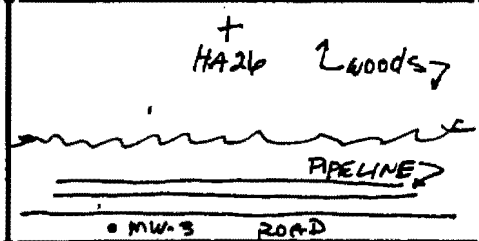
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	3 5g encore	3	
EPA 8310 - PAH	1 4oz jar	1	
FL-PRO - TRPH	combined w/ PAH	-	

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Shaf Banton

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

Sample ID No.: NASP19 HA33 02
Sample Location: HA33
Sampled By: S. Barton
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-00 Time: 0955 Method: HA Monitor Reading (ppm):	2 ft	dark gray	silty sand w/ organic material, moist, strong odor

COMPOSITE SAMPLE DATA:

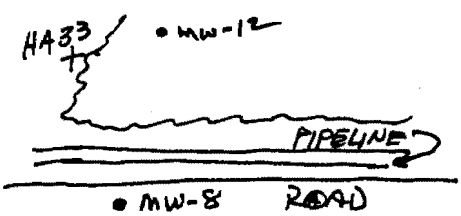
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	5g encore	3	
EPA 8310 - PAH	4 oz jar	1	
EL-PRO - TRPH	combined w/ PAH	-	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S. Barton

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

Sample ID No.: NAS19HA38Ø2
Sample Location: HA38
Sampled By: S. Barton
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-00 Time: 0848 Method: Monitor Reading (ppm):	2ft	black	silty sand with abundant organic material, moist

COMPOSITE SAMPLE DATA:

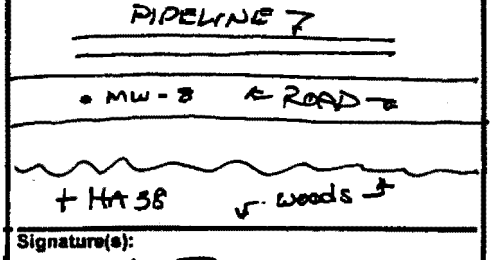
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	5g encore	3	
EPA 8310 - PAH	4oz jar	1	
FL-PRO - TRPH	combined w/ PAH	–	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Shyla Barton

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

Sample ID No.: NASP19 HA 44 Ø1
Sample Location: HA44
Sampled By: SBartol
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-00 Time: 0930 Method: HA Monitor Reading (ppm):	1 ft	dark gray	silty sand with abundant organic material, odor

COMPOSITE SAMPLE DATA:

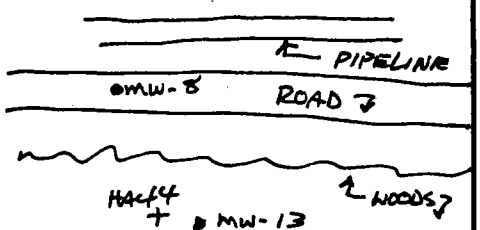
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	5g encore	3	
EPA 8310 - PAH	4oz jar	1	
FL-PRO - TRPH	combined w/ PAH	-	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

Sample ID No.: NASPHA5001
Sample Location: HA 50
Sampled By: S Barton
C.O.C. No.:

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

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

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-8-06 Time: 1015 Method: HA Monitor Reading (ppm):	1 ft	drk. gray	silty sand with abundant organic material, paint odor

COMPOSITE SAMPLE DATA:

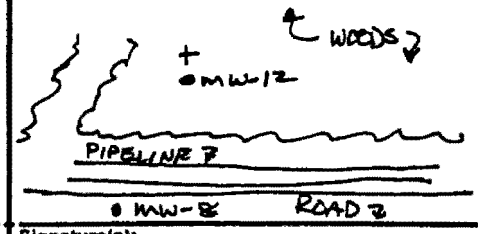
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
EPA 8021 - VOCs	5g encore	3	
EPA 8310 - PAH	4oz. jar	1	
FL-PRO - TRPH	combined w/ PAH	—	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S Barton

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW01GW
Sample Location: Site 19-MW-1
Sampled By: S. Barton
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP (mV)
Date: 6-27-00								
Time: 1718								
Method: Peristaltic	Clear	5.15	.114	24.7	3.6	0.36	Ø	-84.6

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~ ORP mV
Date: 6-27-00								
Method: peristaltic	initial	5.75	.161	24.3	384	1.20	Ø	-112.8
Monitor Reading (ppm):	1644	5.54	.133	24.8	353/13	1.73	Ø	-123.4
Well Casing Diameter & Material	1649	5.31	.121	24.8	54/5.1	0.32	Ø	-26.1
Type: 2 in. PVC	1654	5.28	.119	24.8	4.0	0.41	Ø	-59.3
Total Well Depth (TD): 11.48	1700	5.19	.117	24.7	2.6	0.31	Ø	-72.9
Static Water Level (WL): 6.18	1705	5.16	.115	24.7	3.1	0.41	Ø	-79.3
One Casing Volume (gal/L): 0.9	1709	5.16	.115	24.7	3.5	0.42	Ø	-82.8
Start Purge (hrs): 1636	1714	5.13	.114	24.7	3.6	0.31	Ø	-84.5
End Purge (hrs): 1716								
Total Purge Time (min): 40								
Total Vol. Purged (gal/L): 5.3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8021)	HCL	2	2
PAH (8310)	None	2	2
TRPH (FL-PRO)	H_2SO_4	2	2

OBSERVATIONS / NOTES:

- @ 1044 w/ Lamotte Turb = 13 Turbidity using Lamotte @ 1649
- Pump rate ≈ 500 mL/min
- Sampled @ 5 volumes

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S. Barton

0.23 mg/L Fe^{2+} } Hach Accuvac
1.7 mg/L O_2 }

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

NASP19MW08GW

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Project Site Name: NAS Pensacola Site 19
Project No.: 0410

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW08GW
Sample Location: Site 19 MW-8
Sampled By: JB, JA, DH
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

#8

SAMPLING DATA:

Date: 6 28 00	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1450								
Method: peristaltic	clear	5.78	.188	24.4	28/16.9	0.30	0.00	

PURGE DATA:

Date: 6 28 00	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic		5.76	.247	24.7	279	1.22	0.00	
Monitor Reading (ppm): —	1st	5.82	.213	24.8	106	1.33	0.00	
Well Casing Diameter & Material	2nd	5.84	.199	24.4	74	0.66	0.00	
Type: 2" PVC	3rd	5.76	.193	24.4	43	0.73	0.00	
Total Well Depth (TD): ~~7.46~~ 11.98		5.79	.199	24.5	42/20.6	0.73	0.00	Horiba/LaMotte
Static Water Level ~~7.67~~ 6.80		5.78	.188	24.4	28/16.9	0.30	0.00	
One Casing Volume(gal/L): .83								
Start Purge (hrs): 1415								
End Purge (hrs): 1450								
Total Purge Time (min): 35								
Total Vol. Purged (gal/L): ~3g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	none	2 x 40ml glass	yes
PAH	none	2 x 1 l amber	✓
TRPH	H_2SO_4	2 x 1 l amber	

OBSERVATIONS / NOTES:

11.98
6.80
5.18

5.18
.16

DO = 3.4 mg/L ORP = 120.0 mV
Fe = 0.59 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0-01

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW07GW
Sample Location:
Sampled By: DH JM JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28								
Time: 1525								
Method: Peristaltic	Clear	5.34	.218	25.0	5.5	1.45	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/00								
Method: Peristaltic	Initial	5.29	.236	26.0	183	1.69	0.00	
Monitor Reading (ppm):	1	5.32	.249	25.0	43.6	1.65	0.00	
Well Casing Diameter & Material	2	5.27	.227	25.0	21.6	1.49	0.00	
Type: 2" PVC	3	5.36	.218	25.0	16.34	1.45	0.00	
Total Well Depth (TD): 12.52	4	5.34	.218	25.0	5.5	1.45	0.00	
Static Water Level (WL): 6.84								
One Casing Volume(gal/L): .91								
Start Purge (hrs): 1445								
End Purge (hrs): 1524								
Total Purge Time (min): 39								
Total Vol. Purged (gal/L): 3								

12.52
6.84
5.68
.16
3408
568
.9088

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	3 - 40ml	✓
TRPH	H_2SO_4	2 - 1 liter	✓
PAHs	None	2 - 1 liter	✓

OBSERVATIONS / NOTES:

DO = 3.0 mg/L ORP = -130.5 mV
Fe = 0.89 mg/L HS = 0.50 mg/L

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Dan Hartnett

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

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Project Site Name: NAS Pensacola
Project No.: 0201

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW13G
Sample Location: Site 19
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/00								
Time: 1150								
Method: Peristaltic	Clear	4.08	.254	27.2	5.3	1.54	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/00								
Method: Peristaltic	Initial	4.09	.249	21.1	2.80	1.33	0.00	
Monitor Reading (ppm):	1	4.10	.252	24	160	1.71	0.00	
Well Casing Diameter & Material	2	4.02	.251	23.7	33	1.57	0.00	
Type: 2" PVC	3	3.93	.255	23.1	18	1.69	0.00	
Total Well Depth (TD): 8.01	4	4.08	.256	23.2	5.3	1.54	0.00	
Static Water Level (WL): 7.32								
One Casing Volume (gal/L): .11								
Start Purge (hrs): 1120								
End Purge (hrs): 1149								
Total Purge Time (min): 29								
Total Vol. Purged (gal/L): .6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	3 - 40 ml	✓
TRPH	H2SO4	2 - 1 liter	✓
PAHs	None	2 - 1 liter	✓

4
.68
.16
408
60
.1088

OBSERVATIONS / NOTES:

DO = 3.9 mg/L ORP = 136.7 mV
Fe = 0.22 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Dan Hartnett

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

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Project Site Name: NAS Pensacola
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW09
Sample Location: [illegible] MW09
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/00								
Time: [illegible]								
Method: Peristaltic	Clear	4.37	.072	26.7	50.03	6.30	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/00								
Method: peristaltic	initial	4.36	.073	27.1	74.5	6.21	0.00	
Monitor Reading (ppm):	1 +	4.33	.072	27.0	41.4	6.29	0.00	
Well Casing Diameter & Material	2 +	4.36	.072	27.0	58.0	6.20	0.00	
Type: 2" PVC	3 +	4.37	.072	26.7	50.0X	6.30	0.00	
Total Well Depth (TD): 8.20								
Static Water Level (WL): 8.04								
One Casing Volume (gal/L): .026								
Start Purge (hrs): 0912								
End Purge (hrs): 0939								
Total Purge Time (min): 27								
Total Vol. Purged (gal/L): 5+Vol	☆ 3 liters Purged							

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	2 - 40ml	
TRPH	H_2SO_4	2 - 1liter	
PAHs	None	2 - 1liter	
This Well Replaces MW-17 on the Sample plan.			
MW-17 Was Dry.			

OBSERVATIONS / NOTES:

DO = ~~2.8~~ mg/L ORP = ~~-81.3~~ mV
Fe = ~~1.4~~ mg/L HS = ~~0.02~~ mg/L
5.1 22.3.7
0.23 0.00

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

☆ Unable to stay ≤ 5 Volumes & complete purge data

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS Pensacola Site 19
Project No.: 0410

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW16GW
Sample Location: 19 MW16
Sampled By: JA, JB, DH
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6 28 00								
Time: 1130								
Method: peristaltic	clear	3.80	.205	23.3	7	4.47	0.00	—

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6 28 00								
Method: peristaltic		3.82	.198	23.9	605	3.04	0.00	
Monitor Reading (ppm): —	1st	3.80	.205	23.6	164	5.15	0.00	
Well Casing Diameter & Material	2nd	3.75	.205	23.4	14	4.90	0.00	
Type: 2" PVC	3rd	3.80	.205	23.3	7	4.47	0.00	
Total Well Depth (TD): 8.42								
Static Water Level (WL): 8.40								
One Casing Volume(gal/L): .03								
Start Purge (hrs): 1116								
End Purge (hrs): 1130								
Total Purge Time (min): 14								
Total Vol. Purged (gal/L): ~19								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2 x 40ml glass	
PAH	none	2 x 1l amber	
TRPH	H_2SO_4	2 x 1l amber	

OBSERVATIONS / NOTES:

DO = 7.2 mg/L
Fe = 0.14 mg/L

.02
.16
8

ORP = 143.8 mV
HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS P Site 19
Project No.: 0410

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW04-00
Sample Location: Site 19 MW4
Sampled By: JA, JB, DH
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-28-00	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 2018								
Method: peristaltic	clear	4.31	.086	25.0	9	0.71	0.00	

PURGE DATA:

Date: 6-28-00	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic		4.53	.091	25.6	54	0.58	0.00	
Monitor Reading (ppm): —	1st	4.44	.089	25.2	29	0.62	0.00	
Well Casing Diameter & Material	2nd	4.38	.087	25.3	17	0.74	0.00	
Type: 2" PVC	3rd	4.31	.086	25.0	9	0.71	0.00	
Total Well Depth (TD): 9.44								
Static Water Level (WL): 7.76								
One Casing Volume(gal/L): 0.275								
Start Purge (hrs): 0950								
End Purge (hrs): 1018								
Total Purge Time (min): 28								
Total Vol. Purged (gal/L): ~1 g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	2 x 40ml glass	✓
PAH	—	2 x 1l amber	✓
TRPH	H_2SO_4	2 x 1l amber	✓

OBSERVATIONS / NOTES:

* water from this well has petroleum odor.
DO = 2.8 mg/L ORP = -81.3 mV
Fe = 1.41 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS Pensacola
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW02GW
Sample Location: Site 19 MW02
Sampled By: DH, JA, JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/00								
Time: 0852								
Method: peristaltic	Clear	5.35	.128	25.0	1	1.17	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/00								
Method: peristaltic	Initial	4.84	.200	23.3	45	1.54	0.00	
Monitor Reading (ppm): —	1st	5.19	.135	25.0	9	1.70	0.00	
Well Casing Diameter & Material	2nd	5.27	.131	24.9	5	1.04	0.00	
Type: 2" PVC	3rd	5.35	.128	25.0	1	1.17	0.00	
Total Well Depth (TD): 11.42								
Static Water Level (WL): 6.66								
One Casing Volume(gal/L): .76								
Start Purge (hrs): 0815								
End Purge (hrs): 0849								
Total Purge Time (min): 34								
Total Vol. Purged (gal/L): 2.3								

11.42
6.66
4.76
.16
326
76
586
2
.76
3
2.31

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	2 - 40ml Vials	✓
TRPH	H2SO4	2 - 1 liter	✓
PAHs	None	2 - 1 liter	✓

OBSERVATIONS / NOTES:

11.42
-6.66
4.86

4.86
x .16
2916
486
.7776 = .78 g

DO = 2.7 mg/L ORP = -186.4 mg/L
Fe = 0.64 mg/L HS = 2.25+ mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Dan Hartnett

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NASP site 19
Project No.: 0410

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW06GW
Sample Location: 19 MW6
Sampled By: JB DH JA
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-28-00	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 0845								
Method: peristaltic	clear	6.27	.256	25.2	5	0.77	0.00	

PURGE DATA:

Date: 6-28-00	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peristaltic		6.05	.389	24.6	17	0.29	0.00	
Monitor Reading (ppm): —	1st	6.13	.312	24.8	2.8	0.33	0.00	LaMotte (turb)
Well Casing Diameter & Material	2nd	6.26	.274	25.0	6	0.47	0.00	
Type: 2" PVC	3rd	6.07	.256	25.2	5	0.77	0.00	
Total Well Depth (TD): 11.90								
Static Water Level (WL): 6.44								
One Casing Volume(gal/L): 187								
Start Purge (hrs): 0813								
End Purge (hrs): 0845								
Total Purge Time (min): 32								
Total Vol. Purged (gal/L): ~3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2 x 40ml glass	✓
PAH	—	2 x 1 l amber	—
TRPH	H_2SO_4	2 x 1 l amber	✓
		+	
		dup	

OBSERVATIONS / NOTES:

DO = 2.5 mg/L ORP = -204.0 mV
Fe = 0.22 mg/L H/S = 2.25+ mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.: NASP19D001	Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS Pensacola
Project No.: 0401

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NAS19mw1ccw
Sample Location: Site 19
Sampled By: DH
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/00								
Time: 0820								
Method: Peristaltic	Clear	3.92	.234	24.4	1.79	4.21	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/00								
Method: Peristaltic	Initial	3.97	.301	23.5	212	4.68	0.00	
Monitor Reading (ppm):	1 +	3.88	.245	23.5	27	4.48	0.00	
Well Casing Diameter & Material	2 +	3.90	.234	22.8	5.19	4.48	0.00	
Type: 2" PVC	3 +	3.92	.239	24.4	1.79	4.21	0.00	
Total Well Depth (TD): 8.76								
Static Water Level (WL): 8.61								
One Casing Volume(gal/L): .024								
Start Purge (hrs): 0810								
End Purge (hrs): 0819								
Total Purge Time (min): 9								
Total Vol. Purged (gal/L): 1/2	*							

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected

OBSERVATIONS / NOTES:

DO = 5.9 mg/L ORP = 152.9 mV
Fe = 0.07 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Dan Hartnett

* Unable to purge ≤ 5 Volumns + Complete purge Data + Achieve stabalization

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS Oceana
Project No.: 04-01

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW23GW
Sample Location: Site 19 MW23
Sampled By: DH, SA, TG
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/00								
Time: 1549								
Method: peristaltic	~~Clear~~	5.88	.319	23.7	999	3.33	0.00	

PURGE DATA: Dark Brown

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/00								
Method: peristaltic	Initial	5.90	.184	26.1	393	4.96	0.00	
Monitor Reading (ppm): —	1st	6.49	.328	23.9	999	1.54	0.01	
Well Casing Diameter & Material	2nd	6.92	.332	24.8	999	0.55	0.01	
Type: 2" PVC	3rd	6.54	.155	24.0	635	2.56	0.00	
Total Well Depth (TD): 37.68	4th	6.73	.302	23.3	999	3.18	0.00	
Static Water Level (WL): ~~27.08~~ 26.80	5th	6.38	.319	23.7	999	3.33	0.00	
One Casing Volume(gal/L): ~~10.79~~ 4.59								
Start Purge (hrs): 1409								
End Purge (hrs): 1548								
Total Purge Time (min): 99								
Total Vol. Purged (gal/L): 17								

10.88

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	2 - 40ml	✓
TRPH	H2SO4	2 - 1 liter	✓
PAHs	None	2 - 1 liter	✓

OBSERVATIONS / NOTES:

DO = — mg/L ~~ORP = — mV~~ ORP = -223.7 mV
Fe = — mg/L HS = — mg/L

Turbidity too high to collect N.A.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Dan Hartnett

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS PENSACOLA
Project No.: N040

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP/19/MW07/GW
Sample Location: SITE 119
Sampled By: DDS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/13/00 Time: 1440 Method: LOW FLOW/STRAW	NONE	4.61	.199	25.0	9.78	0.03	—	—

PURGE DATA:

Date: 7/13/00	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: LOW FLOW	INITIAL	5.16	.190	25.5	98.5	0.47	—	CLOUDY
Monitor Reading (ppm): —	1350	4.70	.197	25.0	97.3	0.11	—	CLOUDY
Well Casing Diameter & Material Type: 2" PVC	1355	4.63	.198	25.0	69.0	0.05	—	CLOUDY
	1400	4.61	.198	25.0	51.6	0.08	—	CLOUDY
Total Well Depth (TD): 12.52	1405	4.59	.198	24.9	41.3	0.09	—	CLEAR
Static Water Level (WL): 6.84	1410	4.59	.198	24.9	32.8	0.07	—	CLEAR
One Casing Volume(gal/L): 1.0	1415	4.59	.198	24.9	21.2	0.08	—	CLEAR
Start Purge (hrs): 1340	1420	4.60	.198	25.0	13.2	0.12	—	CLEAR
End Purge (hrs): 1435	1425	4.61	.198	25.1	13.2	0.04	—	CLEAR
Total Purge Time (min): 55	1430	4.61	.198	25.1	10.0	0.03	—	CLEAR
Total Vol. Purged (gal/L): 4.5	1435	4.61	.199	25.0	9.78	0.03	—	CLEAR

OK SD 7/21

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	2x 40 mL VIAL	6
TRPH	H_2SO_4	2x 1000 mL AMBER	6
PAH	ICE	2x 1000 mL AMBER	6

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE
NASP/19/MS001/GW
NASP/19/MSD001/GW

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS Pensacola
Project No.: 0901

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW216W
Sample Location: Site 19 MW21
Sampled By: PH, JD
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/6/00								
Time: 1322								
Method: peristaltic	clear	5.35	.182	24.8	3.71	2.83	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/6/00								
Method: peristaltic	Initial	4.87	.222	25.7	96	2.67	0.00	Horiba
Monitor Reading (ppm): —	1st	5.21	.190	24.5	4.72	2.82	0.00	Lamotte
Well Casing Diameter & Material	2nd	5.34	.185	24.5	5.00	2.84	0.00	"
Type: 2" PVC	3rd	5.35	.182	24.8	3.71	2.83	0.00	"
Total Well Depth (TD): 17.80								
Static Water Level (WL): 9.11								
One Casing Volume(gal/L): .22								
Start Purge (hrs): 1248								
End Purge (hrs): 1320								
Total Purge Time (min): 32 min								
Total Vol. Purged (gal/L): ~1.56 g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2 x 40 ml	
PAH	—	2 x 1 liter Amber	
TRPH	H_2SO_4	2 x 1 liter Amber	

OBSERVATIONS / NOTES:

8.69
× .06
.5214

DO = 1.1 mg/L ORP = -187.2 mV
Fe = 0.81 mg/L HS = 2.25 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NAS PENSACOLA
Project No.: 0401

Sample ID No.: NAS19/19/MW22/GW
Sample Location: SITE 19 MW22
Sampled By: PB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/6/00								
Time: 1418								
Method: STAGN/LOW FLOW	LIGHT RUST	5.79	.142	21.4	16.2	-.14	0.0	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/6/00								
Method: LOW FLOW	INIT.	5.79	.123	22.6	16.34	-1.56	0.0	RUST
Monitor Reading (ppm): 0.0	3.0	5.55	.128	22.1	39.8	-.23	0.0	RUST/DARKER
Well Casing Diameter & Material	6.0	5.82	.140	21.3	41.6	-.12	0.0	RUST
Type: 2"	9.0	5.82	.141	21.3	22.1	-.12	0.0	RUST
Total Well Depth (TD): 28.62	12.0	5.82	.142	21.4	16.6	-.12	0.0	LIGHT RUST
Static Water Level (WL): 11.66	15.0	5.88	.142	21.7	16.2	-.14	0.0	" "
One Casing Volume(gal/L): 2.72								
Start Purge (hrs): 1250								
End Purge (hrs): 1415								
Total Purge Time (min): 85								
Total Vol. Purged (gal/L): 15.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40 ml	
PAH	Ø	2 AMBER LITER	
TRPH	H_2SO_4	2 AMBER LITER	

OBSERVATIONS / NOTES:

LAMOTTE TURBIDIMETER 2020 - CAL. AT FIELD OFFICE.
DO = 6.5 mg/L ORP = -172.4 mV
Fe = 0.53 mg/L HS = color interference

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
		[signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: NASP19MW11GW
Sample Location: SITE 19
Sampled By: RCM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/7/00								
Time: 0901								
Method: LOW FLOW / TRPW	CLEAR	4.24	.080	24.2	13	.36	—	—

PURGE DATA:

	TIME ~~Volume~~	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/7/00								
Method: LOW FLOW	INITIAL	4.20	.087	24.4	65	.46	—	CLEAR
Monitor Reading (ppm): —	0850	4.21	.085	24.2	20	.36	—	CLEAR
Well Casing Diameter & Material	0855	4.22	.082	24.2	12	.36	—	CLEAR
Type: 2" PVC	0900	4.24	.080	24.2	13	.36	—	CLEAR
Total Well Depth (TD): 9.38	~~0905~~							
Static Water Level (WL): 7.60	~~0910~~							
One Casing Volume(gal/L): .119								
Start Purge (hrs): 0840								
End Purge (hrs): 0900								
Total Purge Time (min) 20								
Total Vol. Purged (gal/L): 0.55								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL	40 mL	3
TRPH	H_2SO_4	1 Liter Amber	2
PAH	0	1 Liter Amber	2

OBSERVATIONS / NOTES:

G.W. HAS A STRONG ODOR
ALL SAMPLES PLACED ON ICE IMMEDIATELY.
DO = 2.2 mg/L ORP = 247.2 mV
Fe = 0.10 mg/L HS = 0.0 mg/L

Circle if Applicable:

MS/MSD | Duplicate ID No.: NASP19D002

Signature(s): RCM

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASPAMW18GW
Sample Location: Site 19 MW18
Sampled By: S. Barton
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP
Date: 07-07-00								
Time: 0909								
Method: peristaltic	clear	3.93	.204	25.3	37	5.45	Ø	205.1

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~ ORP	
Date: 07-07-00									
Method: peristaltic pmp	initial	4.03	.269	25.4	>999	4.98	Ø	183.7	
Monitor Reading (ppm): —	825 ml	3.95	.192	25.3	64	5.48	Ø	176.9	0856
Well Casing Diameter & Material	1585 ml	3.92	.206	25.2	39	5.41	Ø	204.7	0906
Type: 2" PVC	= 0.42 gal.								
Total Well Depth (TD): 7.56									
Static Water Level (WL): 7.31									
One Casing Volume(gal/L): .02 g									
Start Purge (hrs): 0845									
End Purge (hrs): 0906									
Total Purge Time (min): 21									
Total Vol. Purged (gal/L): 0.42									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8021)	HCL	2 40 ml VOA	2
PAH (8310)	-	2 1L amber	2
TRPH (FI-PRO)	H_2SO_4	2 1L amber	2

OBSERVATIONS / NOTES:

pump rate = 75 ml/min 0.02 g = 76 ml

DO = 7.1 mg/L ORP = 123.3 mV
HS = 0.00 mg/L
Fe^{2+} = 0.21 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Steve Barton

825
760/1585

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: NASP19MW19GW
Sample Location: Site 19 MW19
Sampled By: JB
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/7/00								
Time: 0937								
Method: peristaltic	Clear	4.13	.193	26.5	2.34	—	0.00	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/7/00								
Method: peristaltic	Initial	3.99	.259	26.1	702	—	0.00	
Monitor Reading (ppm): —	1st	4.00	.199	26.3	8.82	—	0.00	
Well Casing Diameter & Material	2nd	4.14	.194	26.0	2.72	—	0.00	
Type: 2" PVC	3rd	4.13	.193	26.5	2.34	—	0.00	
Total Well Depth (TD): 7.76								
Static Water Level (WL): 7.48								
One Casing Volume(gal/L): .02g								
Start Purge (hrs): 0851								
End Purge (hrs): 0935								
Total Purge Time (min): 44 min								
Total Vol. Purged (gal/L): ~.06g								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL	2
PAH	—	1 Liter Amber	2
TRPH	H_2SO_4	1 Liter Amber	2

OBSERVATIONS / NOTES:

First turbidity reading taken w/ Horiba. All other reading taken w/ LaMotte.
- DO sensor reported an error during calibration.

DO = 6.8 mg/L ORP = 254.7 mV
Fe = 0.38 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NASP
Project No.: 0401

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: NASP/19/MW12/GW
Sample Location: SITE 19
Sampled By: PA
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/7/00								
Time: 1145								
Method: LOW FLOW / STRAW	Clear	4.11	.151	23.0	4.2	.54	—	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/7/00								
Method: LOW FLOW	INITIAL	4.15	.150	23.5	17	.36	—	CLEAR
Monitor Reading (ppm): —	1130	4.14	.150	23.2	7.9	.50	—	CLEAR
Well Casing Diameter & Material	1135	4.12	.151	23.1	8.3	.63	—	CLEAR
Type: 2" PVC	1140	4.11	.151	23.0	4.2	.54	—	CLEAR
Total Well Depth (TD): 9.62	~~HS 0.00~~							
Static Water Level (WL): 8.22	~~HS 0.00~~							
One Casing Volume(gal/L): .22								
Start Purge (hrs): 1125								
End Purge (hrs): 1140								
Total Purge Time (min): 15								
Total Vol. Purged (gal/L): .66								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCL / ICE	2 40 mL	2
TRPH	H_2SO_4 / ICE	2 1 LITER AMBER	2
PAH	ICE	2 1 LITER AMBER	2

OBSERVATIONS / NOTES:

SAMPLES PLACED ON ICE.
DO = 3.3 mg/L ORP = 248.3 mV
Fe = 0.20 mg/L HS = 0.00 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: 0401

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: NASP19MW20/G-W
Sample Location: Site 19-DMW20
Sampled By: S. Barton
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 7-7-00								
Time: 1205								
Method: peristaltic pump	lt. cloudy	7.85	.286	22.4	26.0	0.06	.01	-268.4

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP	
Date: 7-7-00									
Method: peristaltic pump	initial	5.98	.229	25.1	43	1.71	0	-123.4	
Monitor Reading (ppm):	0.7 gal	6.83	.250	23.2	377	1.19	0	-216.1	1050
Well Casing Diameter & Material	2.1 gal	6.93	.285	22.6	526	1.06	.01	-260.4	1100
Type: 2-in. PVC	3.5 "	7.05	.289	22.4	154	0.48	.01	-266.1	1110
Total Well Depth (TD): 23.78	4.9 "	7.23	.290	22.5	107	.02	.01	-263.3	1120
Static Water Level (WL): 10.09	6.3 "	7.39	.289	22.5	91	.03	.01	-253.7	1130
One Casing Volume (gal/L): 2.2	7.7 "	7.65	.289	22.4	109	.07	.01	-260.9	1140
Start Purge (hrs): 1045	8.8 "	7.74	.287	22.3	27.6	0.03	.01	-262.3	1148
End Purge (hrs): 1204	11.0 "	7.85	.286	22.4	26.0	0.06	.01	-268.4	
Total Purge Time (min): 79									
Total Vol. Purged (gal/L): 11.0									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs (8021)	HCL	2 40mL VOA	2
PAH (8310)	-	2 1L amber	2
TRPH (FLORO)	H_2SO_4	2 1L amber	2

OBSERVATIONS / NOTES:

rate = 500 mL/min = 0.14 gal/min
Turb @ 1140 using La Motte = 40.3 NTU - will continue to use for remainder of purge.
ORP = -192.8 mV
DO = 1.3 mg/L HS = 0.00 mg/L Fe^{2+} = 0.36 mg/L

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S. Barton

ATTACHMENT D

Tables

TABLE 1

SOIL SCREENING FID CONCENTRATIONS FOR MAY 2000 - SITE 19
U.S. NAVAL AIR STATION
PENSACOLA, PENSACOLA, FLORIDA

Sample ID	Sample Depth (feet)	Unfiltered Concentration (PPM)	Filtered Concentration (PPM)	Net VOC Concentration (PPM)
HA01	1.0	40	0	40
	2.0	>5000	10	4990
HA02	1.0	2400	12	2388
	2.0	>5000	30	4970
HA03	1.0	62	0	62
	2.0	>5000	10	4990
HA04	1.0	100	0	100
	2.0	3600	0	3600
	3.0	>5000	110	4890
HA05	1.0	4875	0	4875
	2.0	>5000	0	>5000
	3.0	>5000	7	4993
HA06	1.0	0	0	0
	2.0	3	1	2
	3.0	30	1	29
HA07	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA08	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA09	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA10	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA11	1.0	0	NF	NA
	2.0	0	NF	NA

All Concentration in Parts Per Million
NA - Not Applicable
NF - Not Filtered

TABLE 1

SOIL SCREENING FID CONCENTRATIONS FOR MAY 2000 - SITE 19
U.S. NAVAL AIR STATION
PENSACOLA, PENSACOLA, FLORIDA

Sample ID	Sample Depth (feet)	Unfiltered Concentration (PPM)	Filtered Concentration (PPM)	Net VOC Concentration (PPM)
HA12	2.0	2010	0	2010
	3.0	50	0	50
HA13	1.0	360	0	360
	2.0	>5000	24	4976
	3.0	saturated	NF	NA
HA14	1.0	3400	0	3400
	2.0	>5000	0	>5000
	3.0	>5000	3	4997
HA15	1.0	2000	0	2000
	2.0	5000	5	4995
	3.0	>5000	17	4983
HA16	1.0	3250	0	3250
	2.0	>5000	0	>5000
	3.0	saturated	NF	NA
HA17	1.0	0	NF	NA
	2.0	0	NF	NA
HA18	1.0	2	0	2
	2.0	195	0	195
HA19	1.0	0	NF	NA
	2.0	0	NF	NA
	2.5	0	NF	NA
HA20	1.0	0	NF	NA
	2.0	320	0	320
	3.0	1300	8	1292
HA21	1.0	1	0	1
	2.0	1	0	1
	3.0	0	NF	NA
HA22	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA

All Concentration in Parts Per Million
NA - Not Applicable
NF - Not Filtered

TABLE 1

SOIL SCREENING FID CONCENTRATIONS FOR MAY 2000 - SITE 19
U.S. NAVAL AIR STATION
PENSACOLA, PENSACOLA, FLORIDA

Sample ID	Sample Depth (feet)	Unfiltered Concentration (PPM)	Filtered Concentration (PPM)	Net VOC Concentration (PPM)
HA23	2.0	0	NF	NA
	4.0	0	NF	NA
HA24	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA25	1.0	43	0	43
	2.0	>5000	0	>5000
	3.0	>5000	0	>5000
HA26	1.0	320	0	320
	2.0	4200	0	4200
	3.0	>5000	0	>5000
HA27	1.0	5	0	5
	2.0	0	NA	0
	3.0	0	NA	0
HA28	1.0	210	0	210
	2.0	>5000	0	>5000
	3.0	>5000	0	>5000
HA29	1.0	430	0	430
	2.0	>5000	0	>5000
	3.0	>5000	0	>5000
HA30	1.0	60	0	60
	2.0	700	0	700
	3.0	>5000	0	>5000
HA31	1.0	320	1	319
	2.0	3200	0	3200
	3.0	>5000	20	4980
HA32	1.0	1500	0	1500
	2.0	5000	0	5000
	3.0	>5000	8	4992
HA33	1.0	3000	0	3000
	2.0	4800	0	4800
	3.5	saturated	NF	NA

All Concentration in Parts Per Million
NA - Not Applicable
NF - Not Filtered

TABLE 1

SOIL SCREENING FID CONCENTRATIONS FOR MAY 2000 - SITE 19
U.S. NAVAL AIR STATION
PENSACOLA, PENSACOLA, FLORIDA

Sample ID	Sample Depth (feet)	Unfiltered Concentration (PPM)	Filtered Concentration (PPM)	Net VOC Concentration (PPM)
HA34	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA35	1.0	0	NF	NA
	2.0	0	NF	NA
HA36	1.0	0	NF	NA
	2.0	0	NF	NA
HA37	1.0	3	0	3
	2.0	0	NF	NA
	3.0	0	NF	NA
HA38	1.0	17	0	17
	2.0	1500	0	1500
HA39	1.0	2	0	2
	2.0	1600	0	1600
	2.5	>5000	0	>5000
HA40	1.0	75	0	75
	2.0	>5000	0	>5000
	2.5	>5000	0	>5000
HA41	1.0	0	NF	NA
	2.0	0	NF	NA
	2.5	0	NF	NA
HA42	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA43	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA44	1.0	2600	0	2600
	2.0	1600	1	1599

All Concentration in Parts Per Million
NA - Not Applicable
NF - Not Filtered

TABLE 1

SOIL SCREENING FID CONCENTRATIONS FOR MAY 2000 - SITE 19
U.S. NAVAL AIR STATION
PENSACOLA, PENSACOLA, FLORIDA

Sample ID	Sample Depth (feet)	Unfiltered Concentration (PPM)	Filtered Concentration (PPM)	Net VOC Concentration (PPM)
HA45	1.0	11	0	11
	2.0	1900	0	1900
	2.5	>5000	0	>5000
HA46	1.0	43	0	43
	2.0	2900	0	2900
	3.0	5000	0	5000
HA47	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA48	1.0	0	NF	NA
	2.0	0	NF	NA
HA49	1.0	1	0	1
	2.0	0	NF	NA
HA50	1.0	90	1	89
	1.5	3900	12	3888
HA51	1.0	0	NF	NA
	2.0	0	NF	NA
	3.0	0	NF	NA
HA52	1.0	2	0	2
	2.0	2	0	2
	3.0	1	0	1
HA53	1.0	1	0	1
	2.0	3	0	3
	3.0	1	0	1
HA54	1.0	1	0	1
	2.0	0	NF	NA
	3.0	0	NF	NA

All Concentration in Parts Per Million
NA - Not Applicable
NF - Not Filtered

TABLE 2
GROUNDWATER LEVEL DATA - SITE 19
U.S. NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA

Well Number	Total Depth of Well (ft)	Top of Casing Elevation [1] (ft)	Depth to Water BTOC (ft)	Groundwater Elevation [1] (ft)
MW-1	11.48	29.39	6.18	23.21
MW-2	11.42	30.00	6.66	23.34
MW-3	11.76	30.38	7.02	23.36
MW-4	9.44	31.03	7.76	23.27
MW-5	7.80	31.02	7.64	23.38
MW-6	11.90	29.75	6.44	23.31
MW-7	12.52	30.18	6.84	23.34
MW-8	11.98	30.13	6.8	23.33
MW-9	8.20	31.13	8.04	23.09
MW-10	8.76	31.79	8.61	23.18
MW-11	9.38	31.00	7.6	23.40
MW-12	9.62	31.64	8.22	23.42
MW-13	8.01	30.56	7.32	23.24
MW-14	8.32	30.34	6.93	23.41
MW-15	7.38	30.49	7.00	23.49
MW-16	8.42	31.55	8.40	23.15
MW-17	8.06	31.86	DRY	NA
MW-18	7.56	31.05	7.31	23.74
MW-19	14.90	31.21	7.48	23.73
DMW-20	23.78	29.73	10.09	19.64
MW-21	17.80	32.45	9.11	23.34
MW-22	25.00	32.44	11.66	20.78
DMW-23	39.68	30.36	10.98	19.38

BTOC - Below Top of Casing
MSL - Mean Sea Level Datum
[1] Elevations based upon arbitrary TOC elevation of 30 ft. above MSL assigned to MW-2. (see Figure 1).

TABLE 3
SUMMARY OF DETECTED ANALYTES IN SOILS-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA
PAGE 1 OF 2

Sample No.		NASP19HA0202	NASP19HAD01	NASP19HA0401	NASP19HA2003	NASP19HA2603
Sample Location		HA02	HA02 Duplicate	HA04	HA20	HA26
Collect Date		5/8/00	5/8/00	5/8/00	5/8/00	5/8/00
Sample Depth (bls)		2 feet	2 feet	1 foot	3 feet	3 feet
	DE1[1]/DE2[2]/LE[3] (mg/kg)					
Volatile[4] (mg/kg)						
Benzene	1.1/1.6/0.007	**1.85** [J]	**4.47**	--	--	--
Ethylbenzene	1100/8400/0.6	**12.4**	**22.4**	--	--	--
Toluene	380/2600/0.5	**30.3**	**55.3**	--	--	--
Total Xylenes	5900/40000/0.2	**95.2**	**188**	--	--	--
1,1,2-Trichloroethane	1.3/1.8/0.03	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons[5] (mg/kg)						
1-methylnaphthalene	68/470/2.2	**3.13**	**4.08**	--	--	--
2-methylnaphthalene	80/560/6.1	3.11	3.78	--	--	--
Naphthalene	40/270/1.7	0.92	1.25	--	--	--
Total Petroleum Hydrocarbons[6] (mg/kg)	340/2500/340	**2440**	**2800**	32.5	--	**556**

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.
[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.
[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.
[4] SW-846 8260B, [5] SW-846 8310, [6] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration.
Bold indicates an exceedance of regulatory limits.

TABLE 3
SUMMARY OF DETECTED ANALYTES IN SOILS-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA

Sample No.		NASP19HA3302	NASP19HA3802	NASP19HA4401	NASP19HA5001
Sample Location		HA33	HA38	HA44	HA50
Collect Date		5/8/00	5/8/00	5/8/00	5/8/00
Sample Depth (bls)		2 feet	2 feet	1 foot	1 foot
	DE1[1]/DE2[2]/LE[3] (mg/kg)				
Volatile[4] (mg/kg)					
Benzene	1.1/1.6/0.007	--	--	--	--
Ethylbenzene	1100/8400/0.6	0.125 [J]	--	--	0.223 [J]
Toluene	380/2600/0.5	0.133 [J]	0.0838 [J]	--	--
Total Xylenes	5900/40000/0.2	**7.46**	**0.276** [J]	--	**0.712** [J]
1,1,2-Trichloroethane	1.3/1.8/0.03	**0.583**	--	--	--
Polycyclic Aromatic Hydrocarbons[5] (mg/kg)					
1-methylnaphthalene	68/470/2.2	--	--	--	0.514
2-methylnaphthalene	80/560/6.1	--	--	--	--
Naphthalene	40/270/1.7	--	--	--	--
Total Petroleum Hydrocarbons[6] (mg/kg)	340/2500/340	**380**	**720**	**1100**	**4690**

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.
[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.
[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.
[4] SW-846 8260B, [5] SW-846 8310, [6] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration.
Bold indicates an exceedance of regulatory limits.

TABLE 4
SUMMARY OF DETECTED ANALYTES IN GROUNDWATER-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA
PAGE 1 OF 5

Sample No.		NASP19MW01GW	NASP19MW02GW	NASP19MW04GW	NASP19MW06GW	NASP19D001
Sample Location		MW-1	MW-2	MW-4	MW-6	MW-6 Duplicate
Collect Date		6/27/00	6/28/00	6/28/00	6/28/00	6/28/00
	Groundwater Clean-up Criteria [1] (µg/L)					
Volatile [2] (µg/L)						
1-Dichloroethene	7	0.91[J]	--	--	--	--
Benzene	1	--	**47.3**	**920**	**73.8**	**107[E]**
Ethylbenzene	30	--	**393**	**1060**	**75.6**	**105[E]**
Toluene	40	--	**139**	**8540**	7.1	8.6
Xylenes	20	--	**4300**	**8070**	**618**	**822[E]**
Polycyclic Aromatic Hydrocarbons [3] (µg/L)						
1-Methylnaphthalene	20	--	6.6	**41.8**	--	1.7[J]
2-Methylnaphthalene	20	--	13.4	**51.7**	2.1	2.7
Naphthalene	20	--	**32.7**	**122**	4.1	5.5
Total Residual Petroleum Hydrocarbons [4] (µg/L)	5000	--	**6850**	**52200**	1880	1700

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration
[E] Indicates the value exceeds the instrument calibration range
Bold indicates an exceedance of clean-up criteria
NA = not analyzed

TABLE 4
SUMMARY OF DETECTED ANALYTES IN GROUNDWATER-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA

Sample No.		NASP19MW07GW	NASP19MW07GW	NASP19MW08GW	NASP19MW09GW	NASP19MW10GW
Sample Location		MW-7	MS/MSD Resample	MW-8	MW-9	MW-10
Collect Date		6/28/00	7/13/00	6/28/00	6/28/00	6/28/00
	Groundwater Clean-up Criteria [1] (µg/L)					
Volatile [2] (µg/L)						
1-Dichloroethene	7	--	NA	--	--	1.2
Benzene	1	--	--	**1200**	--	--
Ethylbenzene	30	--	--	**238**	--	--
Toluene	40	--	--	**2880[E]**	--	--
Xylenes	20	--	--	**1110**	--	--
Polycyclic Aromatic Hydrocarbons [3] (µg/L)						
1-Methylnaphthalene	20	--	--	--	--	--
2-Methylnaphthalene	20	--	--	--	--	--
Naphthalene	20	--	--	3.9	--	--
Total Residual Petroleum Hydrocarbons [4] (µg/L)	5000	--	--	1340	--	--

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration
[E] Indicates the value exceeds the instrument calibration range
Bold indicates an exceedance of clean-up criteria
NA = not analyzed

TABLE 4
SUMMARY OF DETECTED ANALYTES IN GROUNDWATER-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA

Sample No.		NASP19MW11GW	NASP19D002	NASP19MW12GW	NASP19MW13GW	NASP19MW16GW
Sample Location		MW-11	MW-11 Duplicate	MW-12	MW-13	MW-16
Collect Date		7/7/00	7/7/00	7/7/00	6/28/00	6/28/00
	Groundwater Clean-up Criteria [1] (µg/L)					
Volatile [2] (µg/L)						
1-Dichloroethene	7	--	--	--	--	--
Benzene	1	**352**	**508**	--	--	--
Ethylbenzene	30	**653**	**749**	--	--	--
Toluene	40	**3440**	**5130**	--	--	--
Xylenes	20	**5290**	**6250**	--	--	--
Polycyclic Aromatic Hydrocarbons [3] (µg/L)						
1-Methylnaphthalene	20	**41.8**	**42.4**	--	--	--
2-Methylnaphthalene	20	**55.6**	**56.1**	--	--	--
Naphthalene	20	**135**	**135**	--	--	--
Total Residual Petroleum Hydrocarbons [4] (µg/L)	5000	**19500**	**21000**	--	--	--

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration
[E] Indicates the value exceeds the instrument calibration range
Bold indicates an exceedance of clean-up criteria
NA = not analyzed

TABLE 4
SUMMARY OF DETECTED ANALYTES IN GROUNDWATER-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA

Sample No.		NASP19MW18GW	NASP19MW19GW	NASP19MW20GW	NASP19MW21GW	NASP19MW22GW
Sample Location		MW-18	MW-19	MW-20	MW-21	MW-22
Collect Date		7-700	7/7/00	7/7/00	7/6/00	7/6/00
	Groundwater Clean-up Criteria [1] (µg/L)					
Volatile [2] (µg/L)						
1-Dichloroethene	7	--	--	--	--	--
Benzene	1	--	--	--	--	1
Ethylbenzene	30	--	--	--	--	--
Toluene	40	--	--	--	--	--
Xylenes	20	--	--	--	--	4.8
Polycyclic Aromatic Hydrocarbons [3] (µg/L)						
1-Methylnaphthalene	20	--	--	--	--	--
2-Methylnaphthalene	20	--	--	--	--	--
Naphthalene	20	--	--	--	--	--
Total Residual Petroleum Hydrocarbons [4] (µg/L)	5000	--	--	--	499	328

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration
[E] Indicates the value exceeds the instrument calibration range
Bold indicates an exceedance of clean-up criteria
NA = not analyzed

TABLE 4
SUMMARY OF DETECTED ANALYTES IN GROUNDWATER-SITE 19
NAVAL AIR STATION PENSACOLA, PENSACOLA, FLORIDA

Sample No.		NASP19MW23GW
Sample Location		MW-23
Collect Date		6/28/00
	Groundwater Clean-up Criteria [1] (µg/L)	
Volatile [2] (µg/L)		
1-Dichloroethene	7	0.72[J]
Benzene	1	0.61[J]
Ethylbenzene	30	--
Toluene	40	0.63[J]
Xylenes	20	**53.8**
Polycyclic Aromatic Hydrocarbons [3] (µg/L)		
1-Methylnaphthalene	20	--
2-Methylnaphthalene	20	--
Naphthalene	20	--
Total Residual Petroleum Hydrocarbons [4] (µg/L)	5000	316

[1] Groundwater Clean-up Criteria as provided in Chapter 62-777, F.A.C.
[2] SW-846 8260B, [3] SW-846 8310, [4] FL-PRO
[J] Indicates the presence of a chemical at an estimated concentration
[E] Indicates the value exceeds the instrument calibration range
Bold indicates an exceedance of clean-up criteria
NA = not analyzed

ATTACHMENT E

Slug Test Data

Groundwater Seepage Velocity Calculations

CALCULATION OF HORIZONTAL HYDRAULIC GRADIENT

Based On: Darcy Flow Equation

Reference: *Groundwater*, by Freeze and Cherry, pages 17, 71, and 72

Note: See Figures 5 and 6 for dh and dl values.

EQUATION: $i = \Delta H / \Delta L = dh/dl$

WHERE:

i = the hydraulic gradient

dh = the difference in hydraulic head

dl = the linear distance over which the change in head is observed

CALCULATIONS - JULY 2000 DATA:

Note: See Groundwater Isocontour Map, this Attachment

$$i_{MW-19/MW-9} = \frac{23.73 - 23.09}{200} = \frac{0.64}{200} = \mathbf{0.0032}$$

$$i_{MW-5/MW-10} = \frac{23.38 - 23.18}{198} = \frac{0.20}{198} = \mathbf{0.001}$$

$$i_{MW-11/MW-4} = \frac{233.40 - 23.27}{200} = \frac{0.13}{200} = \mathbf{0.00065}$$

$$i_{MW-15/MW-16} = \frac{233.49 - 23.15}{278} = \frac{0.34}{278} = \mathbf{0.0012}$$

CALCULATION OF THE AVERAGE (ARITHMETIC MEAN) GRADIENT:

$$i_{av} = \frac{.0032 + .001 + .00065 + .0012}{4} = \underline{0.0015125} = \underline{\mathbf{0.0015}}$$

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

CALCULATION OF VERTICAL HYDRAULIC GRADIENT

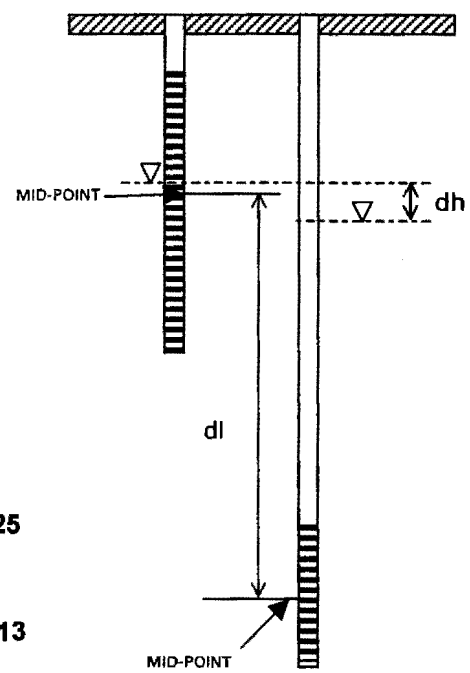
Based On: Darcy Flow Equation

Reference: *Groundwater,* by Freeze and Cherry, pages 17, 71, and 72

Note: See Figures 5 and 6 for dh and dl values.

EQUATION: $i = \Delta H / \Delta L = dh/dl$

NOT TO SCALE



WHERE:

i = **the hydraulic gradient**

dh = the difference in hydraulic head

dl = the linear distance over which the change in head is observed, in this this case the distance between mid-points of the well screens.

CALCULATIONS - June 2000 DATA:

Note: See diagram and Table 2

$$i_{MW\text{-}6/DMW\text{-}20} = \frac{23.31 - 19.64}{15} = \frac{3.67}{15} = \mathbf{0.2447 \approx 0.25}$$

$$i_{MW\text{-}3/DMW\text{-}23} = \frac{23.36 - 19.38}{30.5} = \frac{3.98}{30.5} = \mathbf{0.1305 \approx 0.13}$$

$$i_{MW\text{-}21/MW\text{-}22} = \frac{23.34 - 20.78}{15} = \frac{2.56}{15} = \mathbf{0.1707 \approx 0.17}$$

CALCULATION OF THE AVERAGE (ARITHMETIC MEAN) GRADIENT:

$$i_{av} = \frac{.25 + .13 + .17}{3} = \underline{0.1833} = \underline{\mathbf{0.18}}$$

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

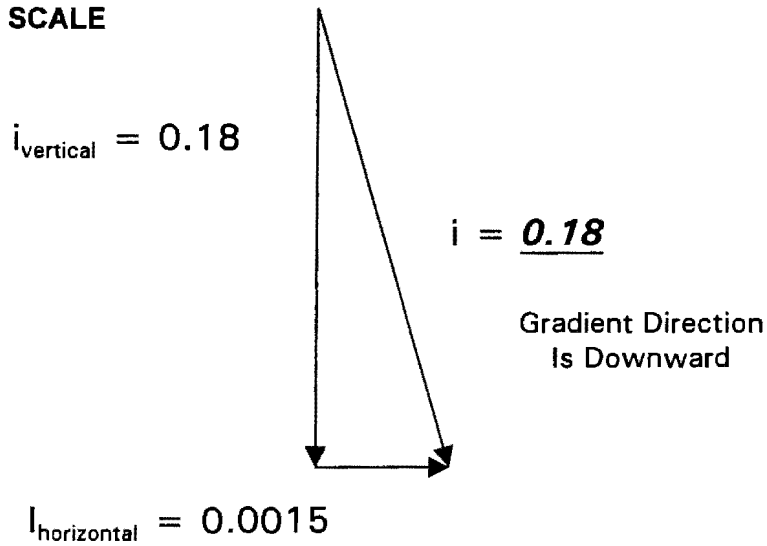
CALCULATION OF HYDRAULIC GRADIENT

i_{av} HORIZONTAL = ***0.0015***

i_{av} VERTICAL = ***0.18***

Note that the vertical hydraulic gradient is two orders of magnitude greater than the horizontal gradient, and is the driving force for groundwater movement. This can be shown by representing the different gradient components as vectors which form the sides of a right triangle and then solving for the length of the hypotenuse using the Pythagorean theorem. The length of the hypotenuse equals i, the hydraulic gradient, and shows the direction of potential flow

NOT TO SCALE



EQUATION: $A^2 + B^2 = C^2$ or $i\,vertical^2 + i\,horizontal^2 = i^2$

Rewritten: $i = \sqrt{i\,vertical^2 + i\,horizontal^2}$

$$\sqrt{0.18^2 + 0.0015^2} = \sqrt{0.0324 + 0.00000225} = \sqrt{0.03240225} = 0.18000625 =$$

$$\mathbf{i = \underline{0.18}}$$

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

CALCULATION OF GROUNDWATER SEEPAGE VELOCITY

Based On: Darcy Flow Equation

References: *GROUNDWATER*, by Freeze and Cherry and *APPLIED HYDROGEOLOGY* by C. W. Fetter

Note: See accompanying Aqtesolv® data sheets in this Attachment for K values.

EQUATION: $V = K_{av}\, i/\eta_e$

WHERE:

V= the groundwater seepage velocity (average linear velocity)

K_{av} = the average hydraulic conductivity

i= the hydraulic gradient

η_e = the effective porosity

CALCULATION A: Average (Arithmetic Mean) Hydraulic Conductivity,

Well MW–2

$K_{MW-2\#1} = 5.864 \times 10^{-5}$ ft/sec (1.787×10^{-3} cm/sec)

$K_{MW-2\#2} = 5.768 \times 10^{-5}$ ft/sec (1.758×10^{-3} cm/sec)

$K_{MW-2\#3} = 4.284 \times 10^{-5}$ ft/sec (1.306×10^{-3} cm/sec)

$$K_{av} = \frac{K_{MW-2\#1} + K_{MW-2\#2} + K_{MW-2\#3}}{3} = \underline{5.305 \times 10^{-5}\ ft/sec}\ (1.617 \times 10^{-3} cm/sec)$$

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

CALCULATION OF GROUNDWATER SEEPAGE VELOCITY (CONTINUED)

CALCULATION B: Average (Arithmetic Mean) Hydraulic Conductivity,

Well MW–22

$K_{MW-22\#1}$ = 2.412 X 10^{-4} ft/sec (7.352 X 10^{-3} cm/sec)

$K_{MW-22\#2}$ = 1.805 X 10^{-4} ft/sec (5.502 X 10^{-3} cm/sec)

$$K_{av} = \frac{K_{MW-22\#1} + K_{MW-22\#2}}{2} = \underline{2.109 \times 10^{-4}\ ft/sec}\ (6.428 \times 10^{-3}\ cm/sec)$$

CALCULATION C: Average (Arithmetic Mean) Hydraulic Conductivity,

Well DMW–23

$K_{DMW-23\#1}$ = 1.447 X 10^{-4} ft/sec (4.411 X 10^{-3}cm/sec)

$K_{DMW-23\#2}$ = 1.298 X 10^{-4} ft/sec (3.956 X 10^{-3}cm/sec)

$$K_{av} = \frac{K_{DMW-23\#1} + K_{DMW-23\#2}}{2} = \underline{1.373 \times 10^{-4}\ ft/sec}\ (4.185 \times 10^{-3}\ cm/sec)$$

CALCULATION D: Average (Arithmetic Mean) Hydraulic Conductivity, All Estimates

$$K_{av} = \frac{K_{AV\,MW-2} + K_{AV\,MW-22} + K_{AV\,DMW-23}}{3} = \underline{1.338 \times 10^{-4}\ ft/sec}\ (4.078 \times 10^{-3}\ cm/sec)$$

1.338 X 10^{-4} ft/sec (4.078 X 10^{-3} cm/sec)

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

CALCULATION OF GROUNDWATER SEEPAGE VELOCITY (CONTINUED)

EQUATION: $V = K_{av}\, i/\eta_e$

K_{av} = **1.338 X 10^{-4} ft/sec**

i = 0.18

η_e **= 0.15 – for silty sand/sandy silt (from Fetter, page 69)**

CALCULATION D: Groundwater Seepage (Average Linear) Velocity

$$V = (1.338 \times 10^{-4}\ \text{ft/sec})(0.18)/0.15 = 1.6056 \times 10^{-}\ \text{ft/sec} = 1.606 \times 10^{-4}\ \text{ft/sec}$$

V= *1.606 X 10^{-4} ft/sec* *(4.895 X 10^{-3} cm/sec)*

Converting to feet per year (ft/yr):

1.606 X 10^{-4} ft/sec X 31,536,000 sec/yr = 5,064.6816 ft/yr

V= *5,065 ft/yr*

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

CALCULATION OF SEEPAGE VELOCITY CONSIDERING RETARDATION

Reference: ASTM Standard Guide for Risk-Based Corrective Action at Petroleum Release Sites

EQUATION: $V_R = K_{av}\ i/\eta_e \times 1/R$

WHERE:

R = the retardation factor = $\left[1+\frac{k_s \rho_s}{\theta_s}\right]$

k_s **= sorption coefficient = 0.13363 cm³/g**

ρ_s **= soil bulk density = 1.21 g/cm³**

θ_s **= volumetric water content of saturated zone = 0.2**

$$R = 1+\frac{0.13363 \times 1.21}{0.2} = \underline{1.80846}$$

CALCULATION E: Average Retarded Velocity

$$V_R = \frac{(4.895 \times 10^{-3}\ \text{cm/sec})(0.18)}{(0.15)(1.80846)} = 3.248 \times 10^{-3}\ \text{cm/sec}$$

$$V_R = \underline{3.248 \times 10^{-3}\ \text{cm/sec}}$$

Converting to feet per second (ft/sec):

3.248×10^{-3} cm/sec X 0.033 ft/cm = 1.072×10^{-4} ft/sec

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____

CALCULATION OF SEEPAGE VELOCITY CONSIDERING RETARDATION (CONTINUED)

Converting to feet per year (ft/yr):

1.072×10^{-4} ft/sec X 31,536,000 sec/yr = 3,380.6592 ft/yr

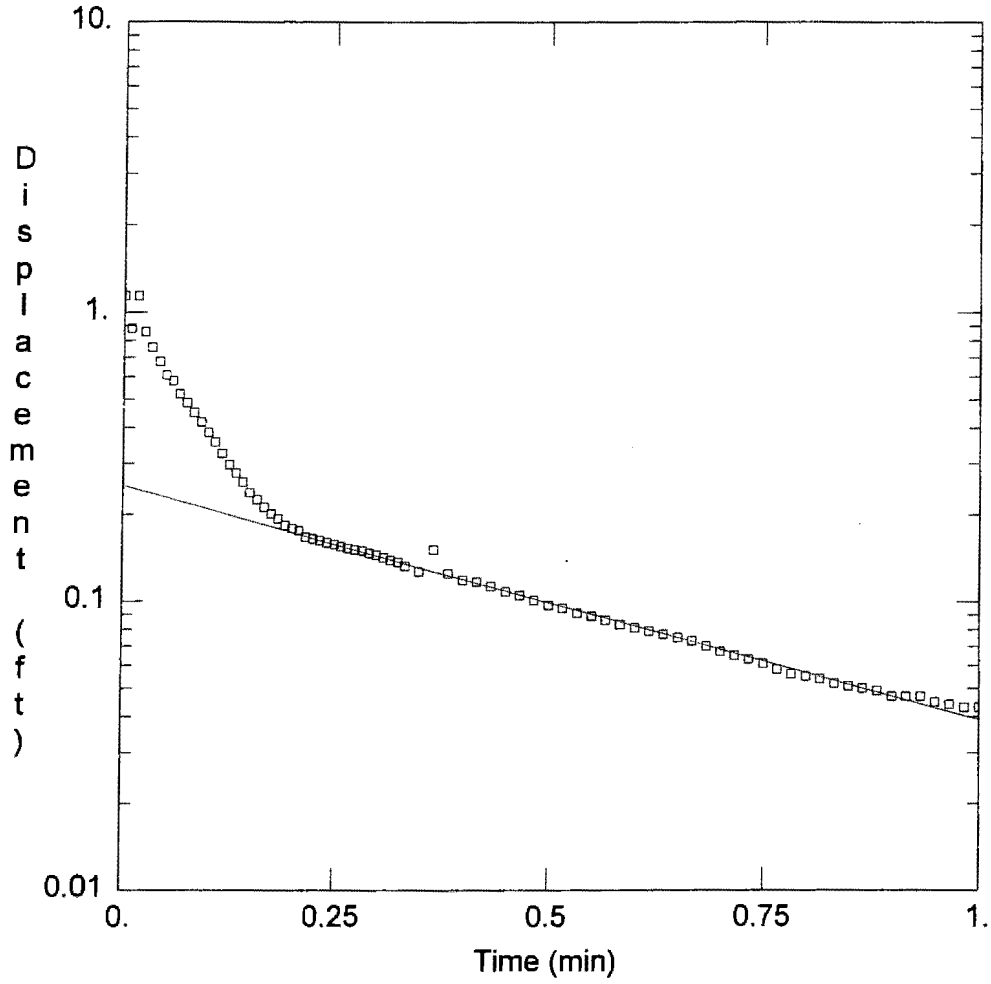
V_R = ***3,381 ft/yr***

Prepared By: SB

Date: 12/10/00

Checked By: _____

Date: _____



SLUG-OUT TEST, SITE 19, WELL MW-22

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW22_1.AQT
Date: 12/10/00 Time: 11:22:22

PROJECT INFORMATION

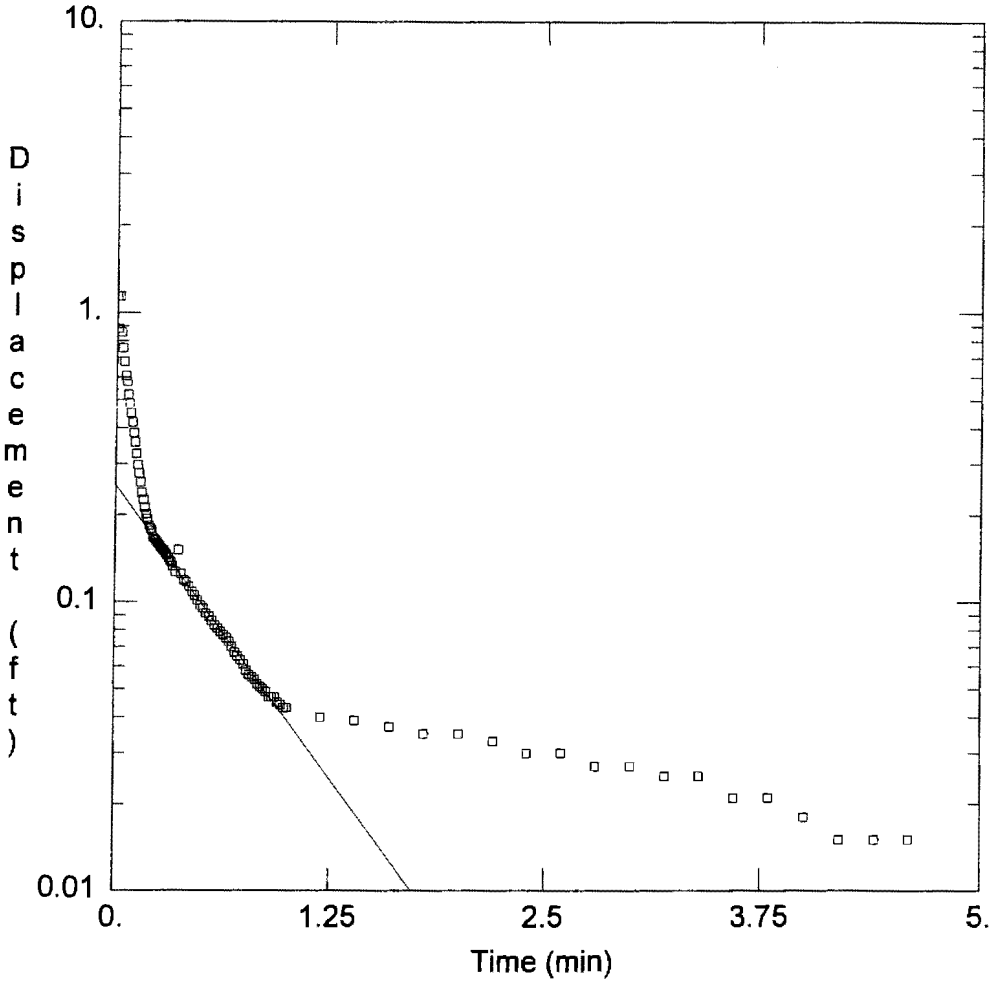
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-22
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.137 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 16.96 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002412 ft/sec
y0 = 0.2518 ft



SLUG-OUT TEST, SITE 19, WELL MW-22

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW22_1.AQT
Date: 12/10/00 Time: 11:22:49

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-22
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.137 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 16.96 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0002412 ft/sec
y0 = 0.2518 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW22_1.AQT
Title: Slug-out Test, Site 19, Well MW-22
Date: 12/10/00
Time: 11:22:58

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: MW-22

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-22

X Location: 0. ft
Y Location: 0. ft

No. of observations: 98

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	0.881	0.2833	0.15	0.7833	0.056
0.0166	1.137	0.2916	0.147	0.8	0.055
0.025	0.857	0.3	0.145	0.8166	0.054
0.0333	0.756	0.3083	0.142	0.8333	0.052
0.0416	0.677	0.3166	0.139	0.85	0.051
0.05	0.607	0.325	0.137	0.8666	0.05
0.0583	0.581	0.3333	0.133	0.8833	0.049
0.0666	0.523	0.35	0.127	0.9	0.047
0.075	0.487	0.3666	0.151	0.9166	0.047
0.0833	0.451	0.3833	0.125	0.9333	0.047
0.0916	0.419	0.4	0.119	0.95	0.045
0.1	0.385	0.4166	0.117	0.9666	0.044
0.1083	0.356	0.4333	0.113	0.9833	0.043
0.1166	0.325	0.45	0.108	1.	0.043
0.125	0.297	0.4666	0.105	1.2	0.04
0.1333	0.278	0.4833	0.101	1.4	0.039
0.1416	0.259	0.5	0.097	1.6	0.037

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.238	0.5166	0.095	1.8	0.035
0.1583	0.225	0.5333	0.091	2.	0.035
0.1666	0.212	0.55	0.089	2.2	0.033
0.175	0.201	0.5666	0.086	2.4	0.03
0.1833	0.193	0.5833	0.083	2.6	0.03
0.1916	0.183	0.6	0.081	2.8	0.027
0.2	0.179	0.6166	0.079	3.	0.027
0.2083	0.176	0.6333	0.077	3.2	0.025
0.2166	0.167	0.65	0.075	3.4	0.025
0.225	0.165	0.6666	0.073	3.6	0.021
0.2333	0.163	0.6833	0.07	3.8	0.021
0.2416	0.16	0.7	0.067	4.	0.018
0.25	0.158	0.7166	0.065	4.2	0.015
0.2583	0.155	0.7333	0.063	4.4	0.015
0.2666	0.153	0.75	0.061	4.6	0.015
0.275	0.151	0.7666	0.058		

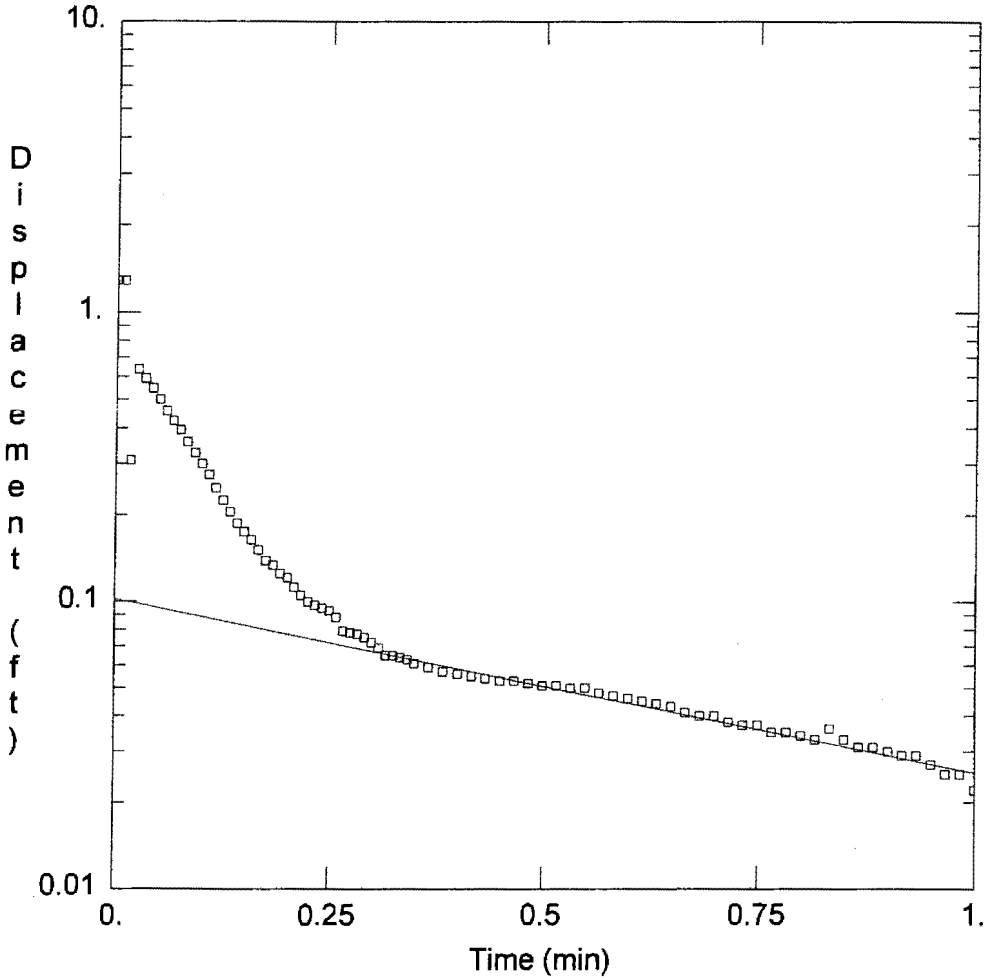
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0002412	ft/sec
y0	0.2518	ft



SLUG-OUT TEST, SITE 19, WELL MW-22

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW22_1.AQT
Date: 12/10/00 Time: 12:46:58

PROJECT INFORMATION

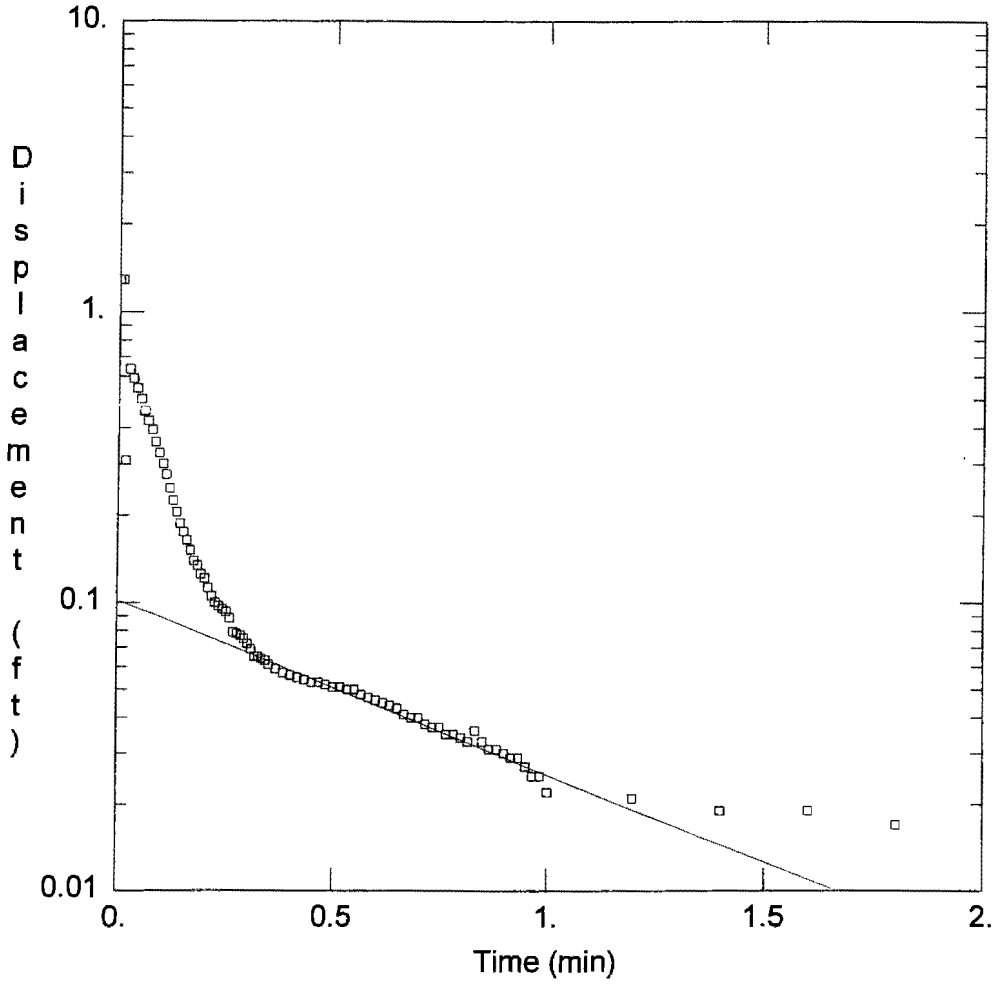
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-22
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.287 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 16.96 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001805 ft/sec
y0 = 0.102 ft



SLUG-OUT TEST, SITE 19, WELL MW-22

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW22_1.AQT
Date: 12/10/00 Time: 12:47:17

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-22
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.287 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 16.96 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001805 ft/sec
y0 = 0.102 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW22_1.AQT
Title: Slug-Out Test, Site 19, Well MW-22
Date: 12/10/00
Time: 12:46:26

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: MW-22

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-22

X Location: 0. ft
Y Location: 0. ft

No. of observations: 85

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.287	0.25	0.093	0.6333	0.044
0.0166	0.309	0.2583	0.088	0.65	0.043
0.025	0.637	0.2666	0.079	0.6666	0.041
0.0333	0.591	0.275	0.078	0.6833	0.04
0.0416	0.547	0.2833	0.077	0.7	0.04
0.05	0.502	0.2916	0.075	0.7166	0.038
0.0583	0.458	0.3	0.072	0.7333	0.037
0.0666	0.423	0.3083	0.069	0.75	0.037
0.075	0.394	0.3166	0.065	0.7666	0.035
0.0833	0.357	0.325	0.065	0.7833	0.035
0.0916	0.327	0.3333	0.064	0.8	0.034
0.1	0.3	0.3416	0.063	0.8166	0.033
0.1083	0.276	0.35	0.061	0.8333	0.036
0.1166	0.247	0.3666	0.059	0.85	0.033
0.125	0.224	0.3833	0.057	0.8666	0.031
0.1333	0.205	0.4	0.056	0.8833	0.031
0.1416	0.187	0.4166	0.055	0.9	0.03

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.175	0.4333	0.054	0.9166	0.029
0.1583	0.164	0.45	0.053	0.9333	0.029
0.1666	0.151	0.4666	0.053	0.95	0.027
0.175	0.139	0.4833	0.052	0.9666	0.025
0.1833	0.134	0.5	0.051	0.9833	0.025
0.1916	0.125	0.5166	0.051	1.	0.022
0.2	0.121	0.5333	0.05	1.2	0.021
0.2083	0.112	0.55	0.05	1.4	0.019
0.2166	0.105	0.5666	0.048	1.6	0.019
0.225	0.1	0.5833	0.047	1.8	0.017
0.2333	0.097	0.6	0.046		
0.2416	0.095	0.6166	0.045		

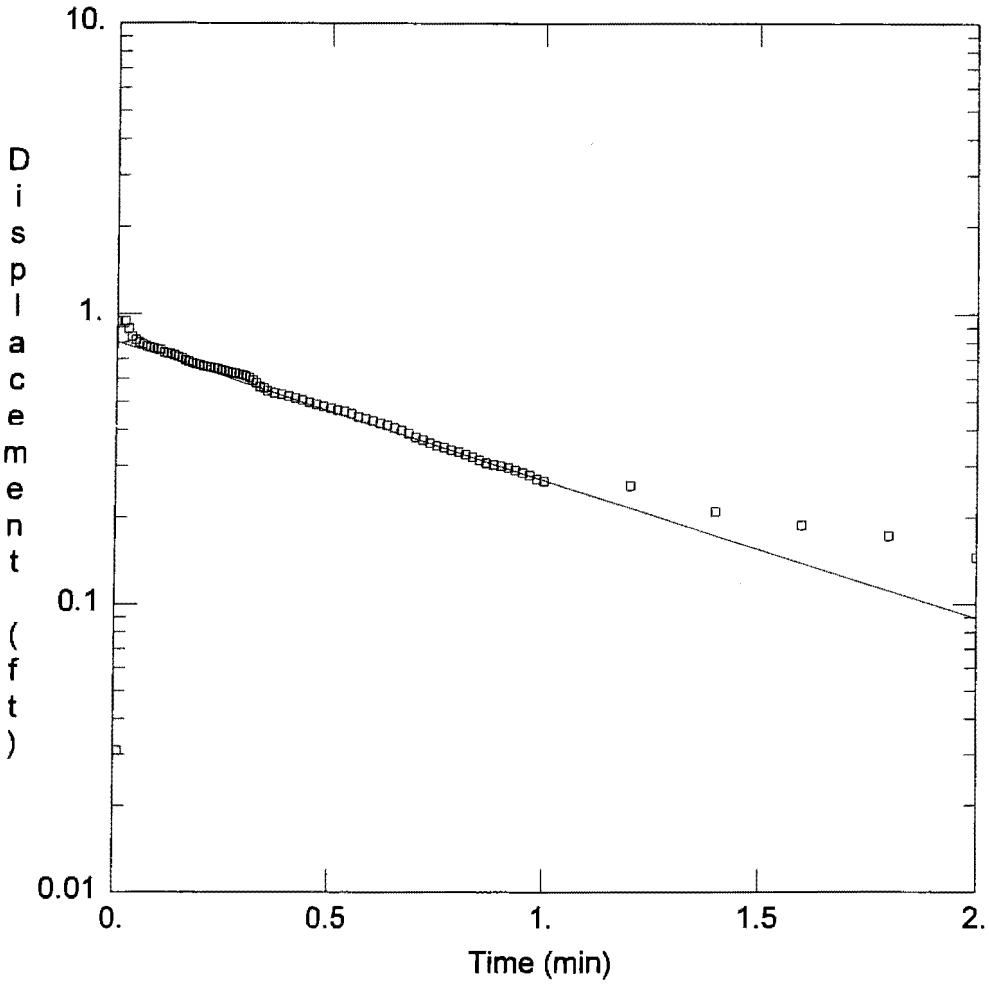
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0001805	ft/sec
y0	0.102	ft



SLUG-OUT TEST, SITE 19, WELL DMW-23

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW23_2.AQT
Date: 12/09/00 Time: 17:38:33

PROJECT INFORMATION

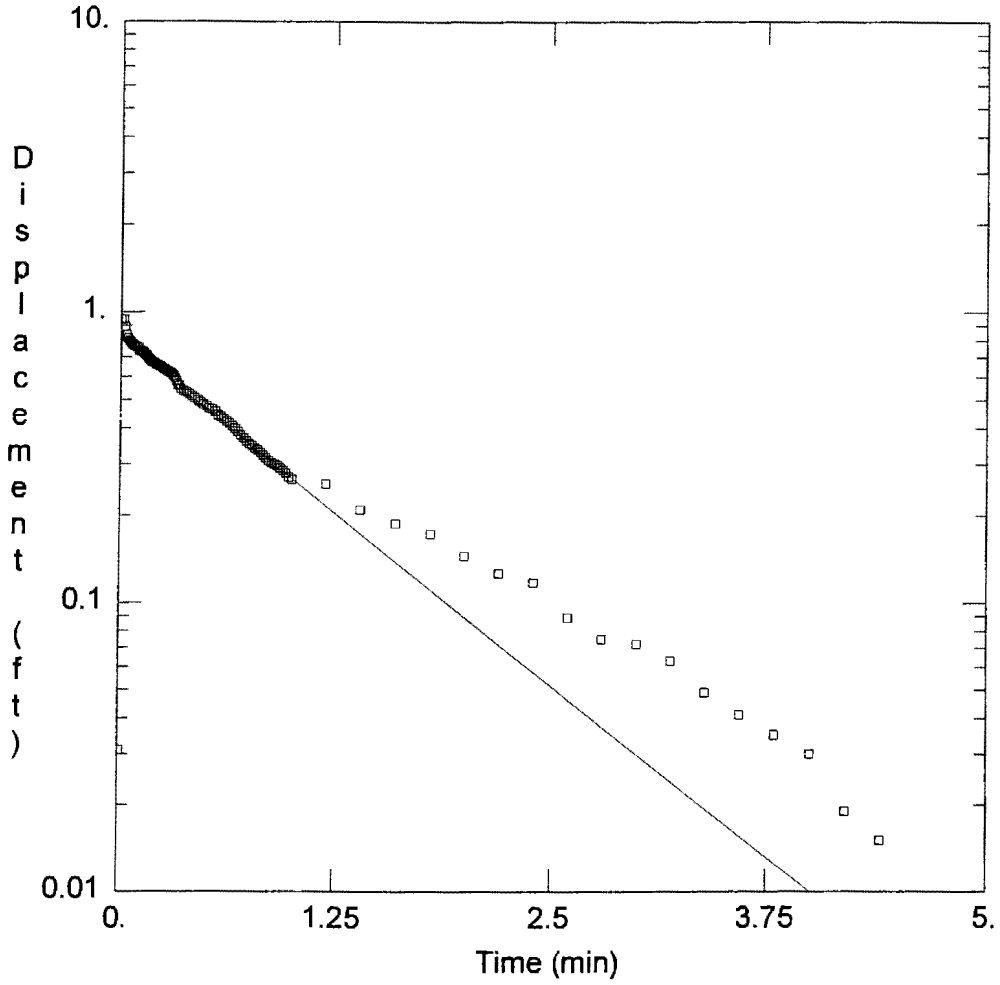
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: DMW-23
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 0.945 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 19.38 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001447 ft/sec
y0 = 0.8012 ft



SLUG-OUT TEST, SITE 19, WELL DMW-23

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW23_2.AQT
Date: 12/09/00 Time: 17:38:55

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: DMW-23
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 0.945 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 19.38 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001447 ft/sec
y0 = 0.8012 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW23_2.AQT
Title: Slug-out Test, Site 19, Well DMW-23
Date: 12/09/00
Time: 17:39:02

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: DMW-23

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: DMW-23

X Location: 0. ft
Y Location: 0. ft

No. of observations: 98

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	0.031	0.2833	0.621	0.7666	0.348
0.0166	0.945	0.2916	0.617	0.7833	0.341
0.025	0.889	0.3	0.612	0.8	0.336
0.0333	0.838	0.3083	0.605	0.8166	0.329
0.0416	0.813	0.3166	0.592	0.8333	0.322
0.05	0.797	0.325	0.579	0.85	0.315
0.0583	0.787	0.3333	0.563	0.8666	0.308
0.0666	0.775	0.3416	0.557	0.8833	0.303
0.075	0.767	0.35	0.545	0.9	0.3
0.0833	0.763	0.3666	0.537	0.9166	0.296
0.0916	0.758	0.3833	0.531	0.9333	0.291
0.1	0.753	0.4	0.523	0.95	0.285
0.1083	0.737	0.4166	0.515	0.9666	0.279
0.1166	0.733	0.4333	0.507	0.9833	0.271
0.125	0.729	0.45	0.498	1.	0.266
0.1333	0.721	0.4666	0.491	1.2	0.257
0.1416	0.713	0.4833	0.482	1.4	0.209

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.705	0.5	0.475	1.6	0.188
0.1583	0.693	0.5166	0.467	1.8	0.173
0.1666	0.685	0.5333	0.463	2.	0.145
0.175	0.677	0.55	0.455	2.2	0.127
0.1833	0.671	0.5666	0.443	2.4	0.118
0.1916	0.668	0.5833	0.437	2.6	0.089
0.2	0.661	0.6	0.429	2.8	0.075
0.2083	0.658	0.6166	0.422	3.	0.072
0.2166	0.655	0.6333	0.415	3.2	0.063
0.225	0.651	0.65	0.406	3.4	0.049
0.2333	0.648	0.6666	0.398	3.6	0.041
0.2416	0.641	0.6833	0.389	3.8	0.035
0.25	0.637	0.7	0.378	4.	0.03
0.2583	0.633	0.7166	0.369	4.2	0.019
0.2666	0.629	0.7333	0.361	4.4	0.015
0.275	0.625	0.75	0.353		

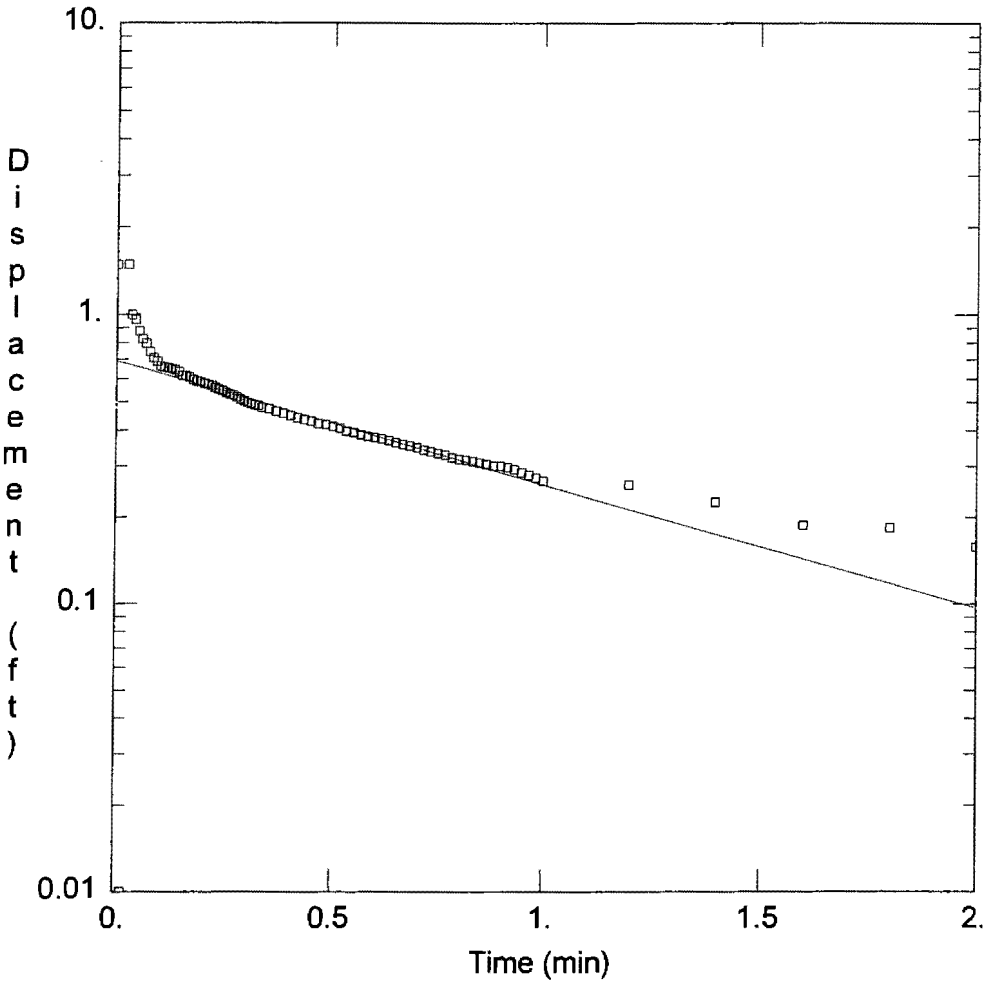
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0001447	ft/sec
y0	0.8012	ft



SLUG-OUT TEST, SITE 19, WELL DMW-23

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW23_1.AQT
Date: 12/09/00 Time: 16:28:22

PROJECT INFORMATION

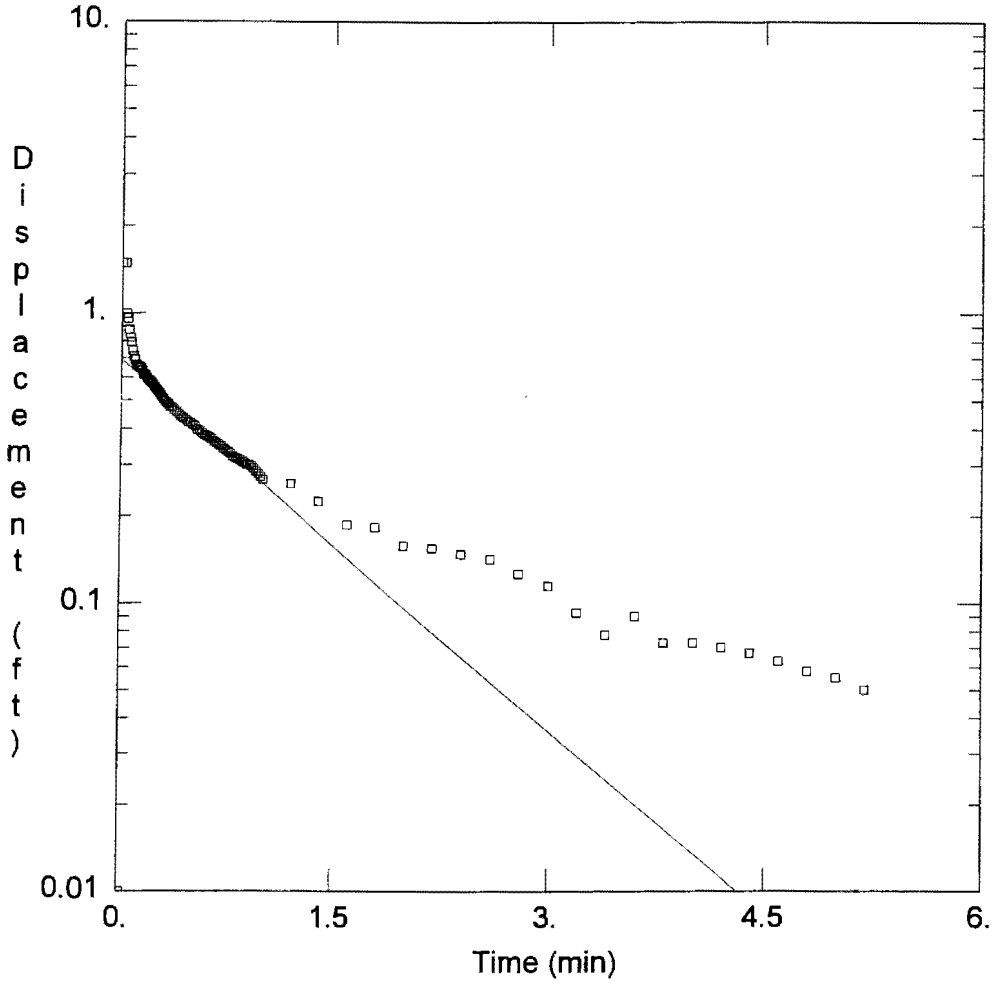
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: DMW-23
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.484 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 19.38 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001298 ft/sec
y0 = 0.6907 ft



SLUG-OUT TEST, SITE 19, WELL DMW-23

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW23_1.AQT
Date: 12/09/00 Time: 16:28:35

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: DMW-23
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.484 ft
Casing Radius: 0.083 ft
Screen Length: 5. ft
Water Column Height: 19.38 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0001298 ft/sec
y0 = 0.6907 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW23_1.AQT
Title: Slug-out Test, Site 19, Well DMW-23
Date: 12/09/00
Time: 16:28:44

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: DMW-23

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: DMW-23

X Location: 0. ft
Y Location: 0. ft

No. of observations: 100

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0166	0.01	0.3	0.498	0.8333	0.312
0.025	1.484	0.3083	0.493	0.85	0.308
0.0333	0.997	0.3166	0.488	0.8666	0.305
0.0416	0.959	0.325	0.485	0.8833	0.301
0.05	0.877	0.3333	0.478	0.9	0.3
0.0583	0.822	0.35	0.473	0.9166	0.297
0.0666	0.793	0.3666	0.465	0.9333	0.292
0.075	0.741	0.3833	0.457	0.95	0.285
0.0833	0.707	0.4	0.448	0.9666	0.279
0.0916	0.687	0.4166	0.441	0.9833	0.273
0.1	0.661	0.4333	0.435	1.	0.267
0.1083	0.657	0.45	0.429	1.2	0.259
0.1166	0.653	0.4666	0.422	1.4	0.225
0.125	0.648	0.4833	0.418	1.6	0.187
0.1333	0.643	0.5	0.412	1.8	0.183
0.1416	0.633	0.5166	0.407	2.	0.158
0.15	0.615	0.5333	0.397	2.2	0.155

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.1583	0.612	0.55	0.393	2.4	0.148
0.1666	0.607	0.5666	0.387	2.6	0.142
0.175	0.595	0.5833	0.381	2.8	0.127
0.1833	0.588	0.6	0.377	3.	0.115
0.1916	0.583	0.6166	0.373	3.2	0.093
0.2	0.577	0.6333	0.368	3.4	0.078
0.2083	0.573	0.65	0.362	3.6	0.09
0.2166	0.567	0.6666	0.357	3.8	0.073
0.225	0.559	0.6833	0.353	4.	0.073
0.2333	0.551	0.7	0.348	4.2	0.07
0.2416	0.545	0.7166	0.341	4.4	0.067
0.25	0.538	0.7333	0.337	4.6	0.063
0.2583	0.531	0.75	0.332	4.8	0.058
0.2666	0.527	0.7666	0.328	5.	0.055
0.275	0.519	0.7833	0.321	5.2	0.05
0.2833	0.511	0.8	0.317		
0.2916	0.505	0.8166	0.315		

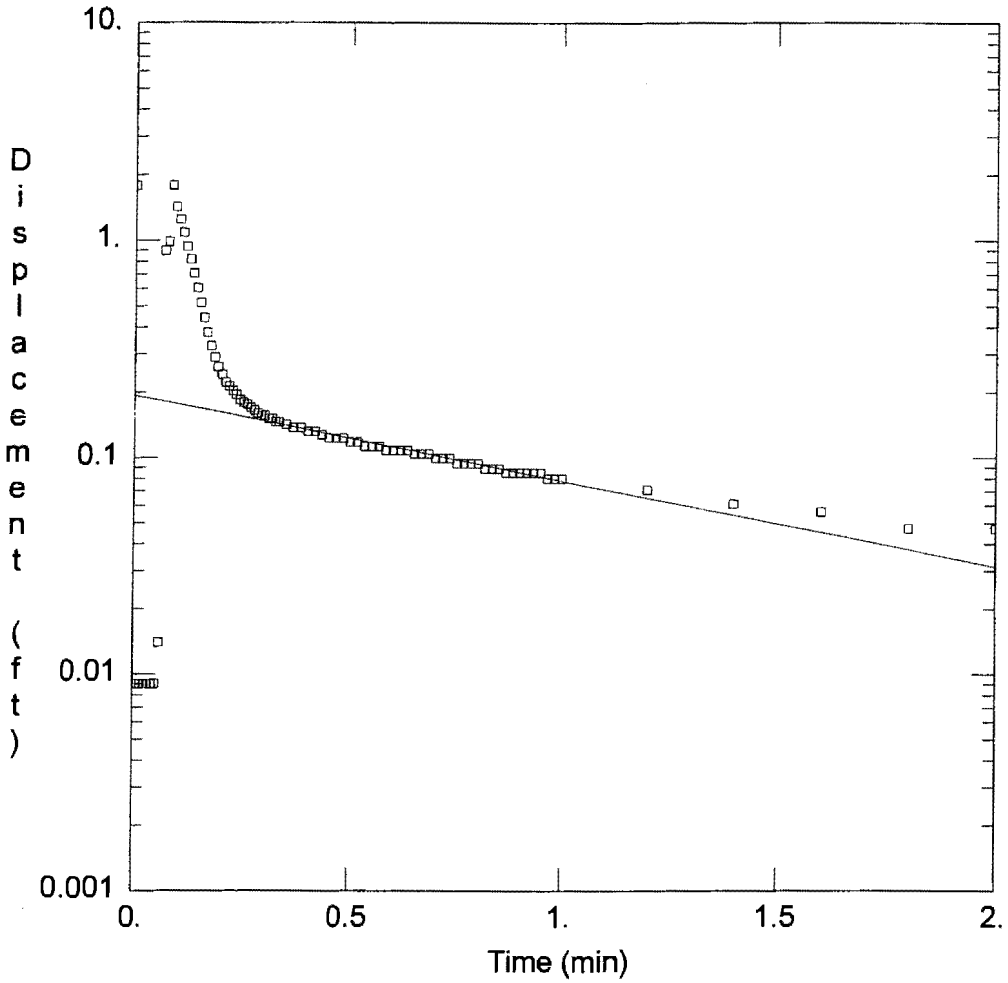
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0001298	ft/sec
y0	0.6907	ft



SLUG-OUT TEST, SITE 19, WELL MW-02

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_1.AQT
Date: 12/06/00 Time: 15:11:54

PROJECT INFORMATION

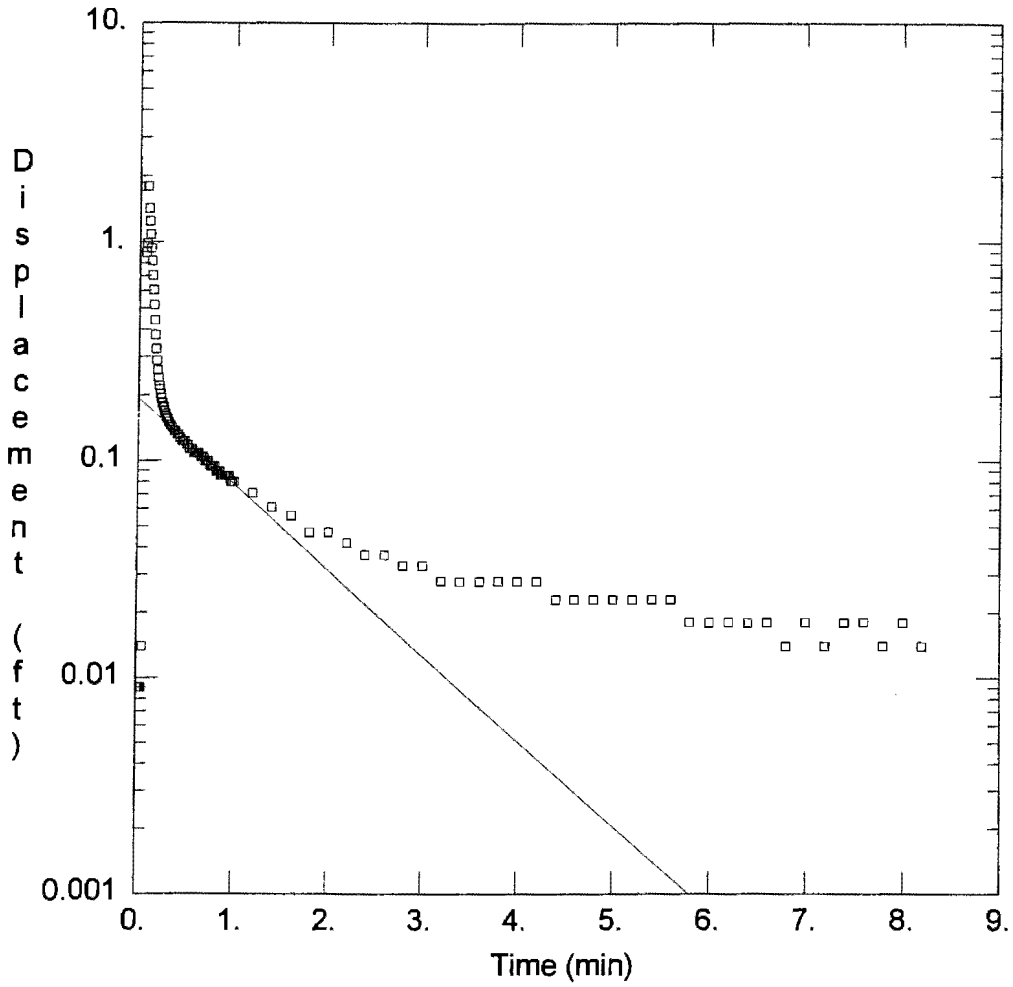
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-02
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.789 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 6.76 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.864E-05 ft/sec
y0 = 0.1934 ft



SLUG-OUT TEST, SITE 19, WELL MW-02

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_1.AQT
Date: 12/06/00 Time: 15:11:14

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-02
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.789 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 6.76 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.864E-05 ft/sec
y0 = 0.1934 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_1.AQT
Title: Slug-Out Test, Site 19, Well MW-02
Date: 12/09/00
Time: 14:10:23

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: MW-02

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-02

X Location: 0. ft
Y Location: 0. ft

No. of observations: 116

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	0.009	0.3333	0.146	0.9833	0.08
0.0166	0.009	0.35	0.142	1.	0.08
0.025	0.009	0.3666	0.137	1.2	0.071
0.0333	0.009	0.3833	0.137	1.4	0.061
0.0416	0.009	0.4	0.132	1.6	0.056
0.05	0.009	0.4166	0.132	1.8	0.047
0.0583	0.014	0.4333	0.127	2.	0.047
0.0666	0.894	0.45	0.123	2.2	0.042
0.075	0.984	0.4666	0.123	2.4	0.037
0.0833	1.789	0.4833	0.123	2.6	0.037
0.0916	1.424	0.5	0.118	2.8	0.033
0.1	1.244	0.5166	0.118	3.	0.033
0.1083	1.084	0.5333	0.113	3.2	0.028
0.1166	0.937	0.55	0.113	3.4	0.028
0.125	0.818	0.5666	0.113	3.6	0.028
0.1333	0.705	0.5833	0.108	3.8	0.028
0.1416	0.605	0.6	0.108	4.	0.028

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.516	0.6166	0.108	4.2	0.028
0.1583	0.44	0.6333	0.108	4.4	0.023
0.1666	0.378	0.65	0.104	4.6	0.023
0.175	0.326	0.6666	0.104	4.8	0.023
0.1833	0.288	0.6833	0.104	5.	0.023
0.1916	0.26	0.7	0.099	5.2	0.023
0.2	0.241	0.7166	0.099	5.4	0.023
0.2083	0.222	0.7333	0.099	5.6	0.023
0.2166	0.213	0.75	0.094	5.8	0.018
0.225	0.203	0.7666	0.094	6.	0.018
0.2333	0.194	0.7833	0.094	6.2	0.018
0.2416	0.184	0.8	0.094	6.4	0.018
0.25	0.179	0.8166	0.089	6.6	0.018
0.2583	0.175	0.8333	0.089	6.8	0.014
0.2666	0.17	0.85	0.089	7.	0.018
0.275	0.165	0.8666	0.085	7.2	0.014
0.2833	0.16	0.8833	0.085	7.4	0.018
0.2916	0.156	0.9	0.085	7.6	0.018
0.3	0.156	0.9166	0.085	7.8	0.014
0.3083	0.151	0.9333	0.085	8.	0.018
0.3166	0.151	0.95	0.085	8.2	0.014
0.325	0.146	0.9666	0.08		

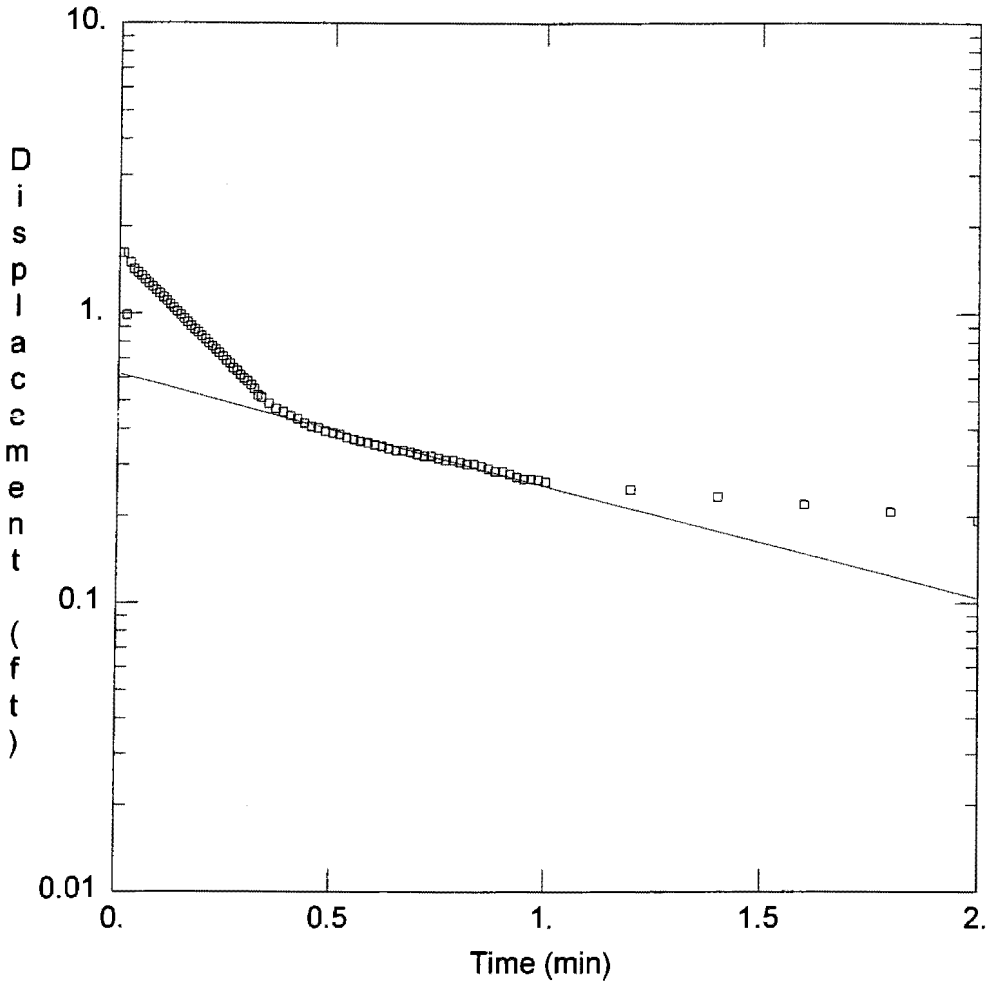
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	5.864E-05	ft/sec
y0	0.1934	ft



SLUG-IN TEST, SITE 19, WELL MW-02

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_4.AQT
Date: 12/09/00 Time: 14:03:22

PROJECT INFORMATION

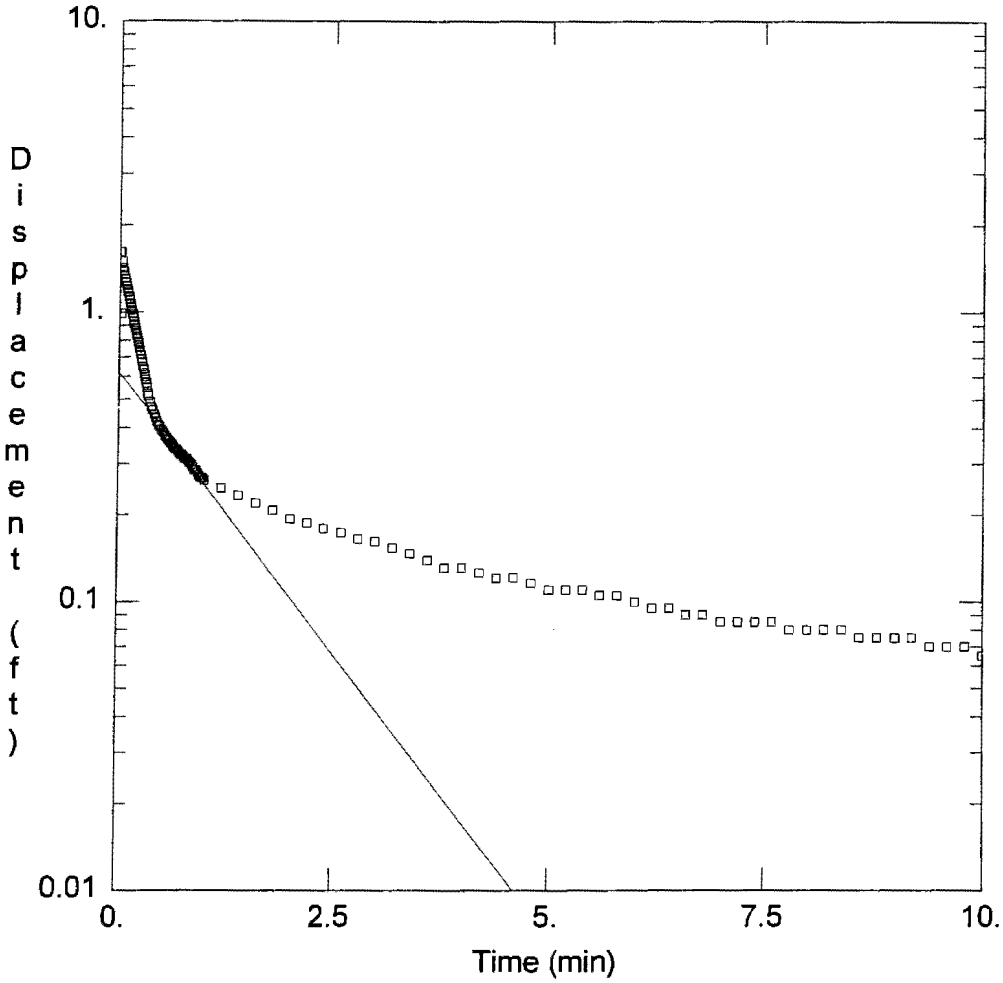
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-02
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.614 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 6.76 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.768E-05 ft/sec
y0 = 0.6191 ft



SLUG-IN TEST, SITE 19, WELL MW-02

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_4.AQT
Date: 12/09/00 Time: 14:03:35

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-02
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.614 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 6.76 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.768E-05 ft/sec
y0 = 0.6191 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_4.AQT
Title: Slug-In Test, Site 19, Well MW-02
Date: 12/09/00
Time: 14:09:31

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: MW-02

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-02

X Location: 0. ft
Y Location: 0. ft

No. of observations: 125

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.614	0.3833	0.458	2.	0.193
0.0166	0.989	0.4	0.443	2.2	0.187
0.025	1.498	0.4166	0.433	2.4	0.179
0.0333	1.422	0.4333	0.418	2.6	0.173
0.0416	1.382	0.45	0.408	2.8	0.165
0.05	1.346	0.4666	0.403	3.	0.161
0.0583	1.306	0.4833	0.393	3.2	0.153
0.0666	1.271	0.5	0.388	3.4	0.147
0.075	1.235	0.5166	0.383	3.6	0.139
0.0833	1.2	0.5333	0.373	3.8	0.131
0.0916	1.17	0.55	0.368	4.	0.131
0.1	1.134	0.5666	0.363	4.2	0.126
0.1083	1.104	0.5833	0.358	4.4	0.121
0.1166	1.074	0.6	0.353	4.6	0.121
0.125	1.044	0.6166	0.348	4.8	0.116
0.1333	1.013	0.6333	0.342	5.	0.11
0.1416	0.988	0.65	0.337	5.2	0.11

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.15	0.958	0.6666	0.337	5.4	0.11
0.1583	0.933	0.6833	0.332	5.6	0.105
0.1666	0.907	0.7	0.327	5.8	0.105
0.175	0.882	0.7166	0.322	6.	0.1
0.1833	0.862	0.7333	0.322	6.2	0.095
0.1916	0.837	0.75	0.317	6.4	0.095
0.2	0.817	0.7666	0.312	6.6	0.09
0.2083	0.791	0.7833	0.312	6.8	0.09
0.2166	0.771	0.8	0.307	7.	0.085
0.225	0.751	0.8166	0.302	7.2	0.085
0.2333	0.731	0.8333	0.302	7.4	0.085
0.2416	0.711	0.85	0.297	7.6	0.085
0.25	0.687	0.8666	0.292	7.8	0.08
0.2583	0.671	0.8833	0.285	8.	0.08
0.2666	0.647	0.9	0.285	8.2	0.08
0.275	0.634	0.9166	0.279	8.4	0.08
0.2833	0.612	0.9333	0.273	8.6	0.075
0.2916	0.597	0.95	0.269	8.8	0.075
0.3	0.583	0.9666	0.269	9.	0.075
0.3083	0.567	0.9833	0.267	9.2	0.075
0.3166	0.549	1.	0.263	9.4	0.07
0.325	0.523	1.2	0.247	9.6	0.07
0.3333	0.513	1.4	0.233	9.8	0.07
0.35	0.489	1.6	0.219	10.	0.065
0.3666	0.469	1.8	0.207		

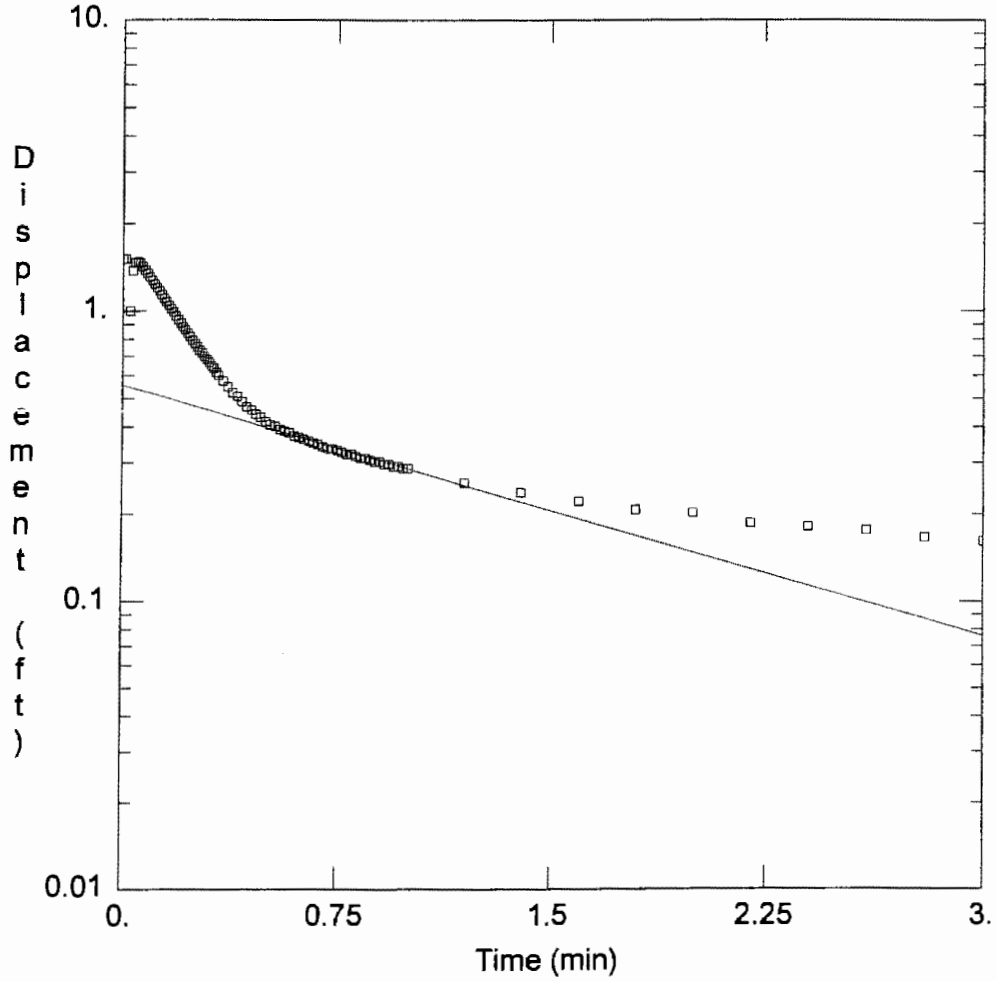
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	5.768E-05	ft/sec
y0	0.6191	ft



SLUG-OUT TEST, SITE 19, WELL MW-02

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_3.AQT
Date: 12/09/00 Time: 14:09:13

PROJECT INFORMATION

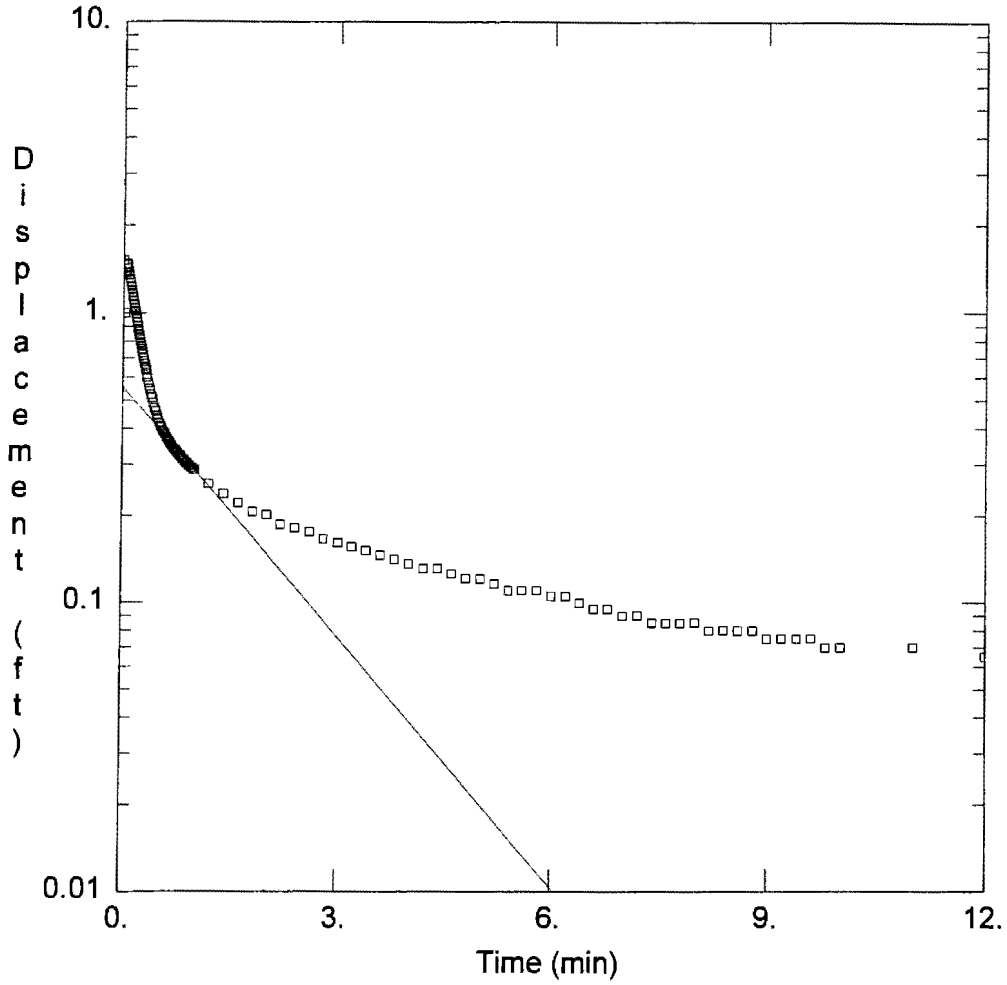
Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-02
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.513 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 6.76 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.284E-05 ft/sec
y0 = 0.5566 ft



SLUG-OUT TEST, SITE 19, WELL MW-02

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_3.AQT
Date: 12/09/00 Time: 14:09:00

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Test Location: UST Site 19 - NAS Pensacola
Test Well: MW-02
Test Date: July 25, 2000

WELL DATA

Initial Displacement: 1.513 ft
Casing Radius: 0.083 ft
Screen Length: 10. ft
Water Column Height: 6.76 ft
Wellbore Radius: 0.344 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.284E-05 ft/sec
y0 = 0.5566 ft

Data Set: C:\NASPEN~1\REPORT~1\19\SLUGTE~1\MW02_3.AQT
Title: Slug-Out Test, Site 19, Well MW-02
Date: 12/09/00
Time: 14:08:23

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
Client: U.S. Navy
Project: 0401
Location: UST Site 19 - NAS Pensacola
Test Date: July 25, 2000
Test Well: MW-02

AQUIFER DATA

Saturated Thickness: 60. ft
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-02

X Location: 0. ft
Y Location: 0. ft

No. of observations: 126

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.0083	1.513	0.4	0.509	2.2	0.186
0.025	0.998	0.4166	0.489	2.4	0.181
0.0333	1.376	0.4333	0.469	2.6	0.176
0.0416	1.467	0.45	0.458	2.8	0.166
0.05	1.477	0.4666	0.443	3.	0.161
0.0583	1.457	0.4833	0.433	3.2	0.156
0.0666	1.422	0.5	0.418	3.4	0.151
0.075	1.382	0.5166	0.408	3.6	0.146
0.0833	1.346	0.5333	0.403	3.8	0.141
0.0916	1.306	0.55	0.393	4.	0.136
0.1	1.271	0.5666	0.388	4.2	0.131
0.1083	1.235	0.5833	0.383	4.4	0.131
0.1166	1.2	0.6	0.373	4.6	0.126
0.125	1.17	0.6166	0.368	4.8	0.121
0.1333	1.134	0.6333	0.363	5.	0.121
0.1416	1.104	0.65	0.358	5.2	0.116
0.15	1.074	0.6666	0.353	5.4	0.11

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.1583	1.044	0.6833	0.348	5.6	0.11
0.1666	1.013	0.7	0.342	5.8	0.11
0.175	0.988	0.7166	0.337	6.	0.105
0.1833	0.958	0.7333	0.337	6.2	0.105
0.1916	0.933	0.75	0.332	6.4	0.1
0.2	0.907	0.7666	0.327	6.6	0.095
0.2083	0.882	0.7833	0.322	6.8	0.095
0.2166	0.862	0.8	0.322	7.	0.09
0.225	0.837	0.8166	0.317	7.2	0.09
0.2333	0.817	0.8333	0.312	7.4	0.085
0.2416	0.791	0.85	0.312	7.6	0.085
0.25	0.771	0.8666	0.307	7.8	0.085
0.2583	0.751	0.8833	0.302	8.	0.085
0.2666	0.731	0.9	0.302	8.2	0.08
0.275	0.716	0.9166	0.297	8.4	0.08
0.2833	0.696	0.9333	0.297	8.6	0.08
0.2916	0.68	0.95	0.292	8.8	0.08
0.3	0.665	0.9666	0.292	9.	0.075
0.3083	0.645	0.9833	0.287	9.2	0.075
0.3166	0.635	1.	0.287	9.4	0.075
0.325	0.615	1.2	0.257	9.6	0.075
0.3333	0.6	1.4	0.237	9.8	0.07
0.35	0.574	1.6	0.221	10.	0.07
0.3666	0.549	1.8	0.206	11.	0.07
0.3833	0.524	2.	0.201	12.	0.065

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	4.284E-05	ft/sec
y0	0.5566	ft

ATTACHMENT F

Laboratory Analytical Reports

SOIL ANALYSES

ACCUTEST

Report of Analysis

Client Sample ID:	NASP19HA 0202		
Lab Sample ID:	F6464-1	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	86.1
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007409.D	500	05/15/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1850	2700	ug/kg	J
75-27-4	Bromodichloromethane	ND	2700	ug/kg	
75-25-2	Bromoform	ND	2700	ug/kg	
108-90-7	Chlorobenzene	ND	2700	ug/kg	
75-00-3	Chloroethane	ND	2700	ug/kg	
67-66-3	Chloroform	ND	2700	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5500	ug/kg	
56-23-5	Carbon tetrachloride	ND	2700	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2700	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	2700	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2700	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2700	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2700	ug/kg	
124-48-1	Dibromochloromethane	ND	2700	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2700	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	2700	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2700	ug/kg	
541-73-1	m-Dichlorobenzene	ND	2700	ug/kg	
95-50-1	o-Dichlorobenzene	ND	2700	ug/kg	
106-46-7	p-Dichlorobenzene	ND	2700	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	2700	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2700	ug/kg	
100-41-4	Ethylbenzene	12400	2700	ug/kg	
74-83-9	Methyl bromide	ND	2700	ug/kg	
74-87-3	Methyl chloride	ND	2700	ug/kg	
75-09-2	Methylene chloride	ND	5500	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2700	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2700	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2700	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2700	ug/kg	
127-18-4	Tetrachloroethylene	ND	2700	ug/kg	
108-88-3	Toluene	30300	2700	ug/kg	
79-01-6	Trichloroethylene	ND	2700	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2700	ug/kg	
75-01-4	Vinyl chloride	ND	2700	ug/kg	
1330-20-7	Xylene (total)	95200	8200	ug/kg	

ND = Not detected
RL = Reporting 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:	NASP19HA 0202		
Lab Sample ID:	F6464-1	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	86.1
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		71-122%
2037-26-5	Toluene-D8	107%		73-128%
460-00-4	4-Bromofluorobenzene	106%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		71-122%

ND = Not detected
RL = Reporting 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:	NASP19HA 0202		
Lab Sample ID:	F6464-1	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	86.1
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001257.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	770	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	77	ug/kg	
50-32-8	Benzo(a)pyrene	ND	77	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	77	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	77	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	77	ug/kg	
218-01-9	Chrysene	ND	77	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	77	ug/kg	
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	77	ug/kg	
91-20-3	Naphthalene	920	380	ug/kg	
90-12-0	1-Methylnaphthalene	3130	380	ug/kg	
91-57-6	2-Methylnaphthalene	3110	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	115%		35-135%
92-94-4	p-Terphenyl	99%		50-150%

ND = Not detected
RL = Reporting 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

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ACCUTEST

Report of Analysis

Client Sample ID:	NASP19HA 0202		
Lab Sample ID:	F6464-1	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	86.1
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08223.D	50	05/15/00	ME	05/12/00	OP1548	GOP375
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2440	480	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		40-140%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA D01		
Lab Sample ID:	F6464-9	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	84.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007410.D	500	05/15/00	CJP	n/a	n/a	VH78
Run #2	H007434.D	1000	05/16/00	CJP	n/a	n/a	VH78

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	4470	2800	ug/kg	
75-27-4	Bromodichloromethane	ND	2800	ug/kg	
75-25-2	Bromoform	ND	2800	ug/kg	
108-90-7	Chlorobenzene	ND	2800	ug/kg	
75-00-3	Chloroethane	ND	2800	ug/kg	
67-66-3	Chloroform	ND	2800	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	5500	ug/kg	
56-23-5	Carbon tetrachloride	ND	2800	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2800	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	2800	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2800	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2800	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2800	ug/kg	
124-48-1	Dibromochloromethane	ND	2800	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2800	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	2800	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2800	ug/kg	
541-73-1	m-Dichlorobenzene	ND	2800	ug/kg	
95-50-1	o-Dichlorobenzene	ND	2800	ug/kg	
106-46-7	p-Dichlorobenzene	ND	2800	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	2800	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2800	ug/kg	
100-41-4	Ethylbenzene	22400	2800	ug/kg	
74-83-9	Methyl bromide	ND	2800	ug/kg	
74-87-3	Methyl chloride	ND	2800	ug/kg	
75-09-2	Methylene chloride	ND	5500	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2800	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2800	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2800	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2800	ug/kg	
127-18-4	Tetrachloroethylene	ND	2800	ug/kg	
108-88-3	Toluene	55300	2800	ug/kg	
79-01-6	Trichloroethylene	ND	2800	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2800	ug/kg	
75-01-4	Vinyl chloride	ND	2800	ug/kg	
1330-20-7	Xylene (total)	188000 [a]	17000	ug/kg	

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA D01		
Lab Sample ID:	F6464-9	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	84.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	92%	71-122%
2037-26-5	Toluene-D8	111%	106%	73-128%
460-00-4	4-Bromofluorobenzene	108%	109%	53-158%
17060-07-0	1,2-Dichloroethane-D4	100%	92%	71-122%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA D01		
Lab Sample ID:	F6464-9	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	84.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001265.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	390	ug/kg	
208-96-8	Acenaphthylene	ND	780	ug/kg	
120-12-7	Anthracene	ND	390	ug/kg	
56-55-3	Benzo(a)anthracene	ND	78	ug/kg	
50-32-8	Benzo(a)pyrene	ND	78	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	78	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	78	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	78	ug/kg	
218-01-9	Chrysene	ND	78	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	78	ug/kg	
206-44-0	Fluoranthene	ND	390	ug/kg	
86-73-7	Fluorene	ND	390	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	78	ug/kg	
91-20-3	Naphthalene	1250	390	ug/kg	
90-12-0	1-Methylnaphthalene	4080	390	ug/kg	
91-57-6	2-Methylnaphthalene	3780	390	ug/kg	
85-01-8	Phenanthrene	ND	390	ug/kg	
129-00-0	Pyrene	ND	390	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	117%		35-135%
92-94-4	p-Terphenyl	94%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA D01		
Lab Sample ID:	F6464-9	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	84.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08205.D	50	05/13/00	ME	05/12/00	OP1548	GOP374
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	2800	490	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		40-140%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 0401		
Lab Sample ID:	F6464-2	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	90.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007412.D	1	05/15/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	ug/kg	
75-25-2	Bromoform	ND	5.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	5.8	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.8	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.8	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	ug/kg	
74-83-9	Methyl bromide	ND	5.8	ug/kg	
74-87-3	Methyl chloride	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
79-01-6	Trichloroethylene	ND	5.8	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 0401		
Lab Sample ID:	F6464-2	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	90.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		71-122%
2037-26-5	Toluene-D8	104%		73-128%
460-00-4	4-Bromofluorobenzene	111%		53-158%
17060-07-0	1,2-Dichloroethane-D4	91%		71-122%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 0401		
Lab Sample ID:	F6464-2	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	90.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001258.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	370	ug/kg	
208-96-8	Acenaphthylene	ND	740	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	74	ug/kg	
50-32-8	Benzo(a)pyrene	ND	74	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	74	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	74	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	74	ug/kg	
218-01-9	Chrysene	ND	74	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	74	ug/kg	
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	74	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		35-135%
92-94-4	p-Terphenyl	82%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 0401		
Lab Sample ID:	F6464-2	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	90.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08197.D	1	05/13/00	ME	05/12/00	OP1548	GOP374
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	32.5	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		40-140%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2003		
Lab Sample ID:	F6464-3	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	95.0
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007413.D	1	05/15/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	ug/kg	
75-25-2	Bromoform	ND	5.9	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	ug/kg	
75-00-3	Chloroethane	ND	5.9	ug/kg	
67-66-3	Chloroform	ND	5.9	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.9	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.9	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.9	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.9	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	ug/kg	
100-41-4	Ethylbenzene	ND	5.9	ug/kg	
74-83-9	Methyl bromide	ND	5.9	ug/kg	
74-87-3	Methyl chloride	ND	5.9	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.9	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.9	ug/kg	
108-88-3	Toluene	ND	5.9	ug/kg	
79-01-6	Trichloroethylene	ND	5.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.9	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2003		
Lab Sample ID:	F6464-3	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	95.0
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	103%		53-158%
17060-07-0	1,2-Dichloroethane-D4	88%		71-122%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2003		
Lab Sample ID:	F6464-3	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	95.0
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001259.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	70	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg	
218-01-9	Chrysene	ND	70	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		35-135%
92-94-4	p-Terphenyl	97%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2003		
Lab Sample ID:	F6464-3	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	95.0
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08198.D	1	05/13/00	ME	05/12/00	OP1548	GOP374
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		40-140%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2603		
Lab Sample ID:	F6464-4	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	93.8
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007432.D	1	05/16/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	ug/kg	
75-25-2	Bromoform	ND	5.9	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	ug/kg	
75-00-3	Chloroethane	ND	5.9	ug/kg	
67-66-3	Chloroform	ND	5.9	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.9	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.9	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.9	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.9	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	ug/kg	
100-41-4	Ethylbenzene	ND	5.9	ug/kg	
74-83-9	Methyl bromide	ND	5.9	ug/kg	
74-87-3	Methyl chloride	ND	5.9	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.9	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.9	ug/kg	
108-88-3	Toluene	ND	5.9	ug/kg	
79-01-6	Trichloroethylene	ND	5.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.9	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	ug/kg	
1330-20-7	Xylene (total)	ND	18	ug/kg	

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2603		
Lab Sample ID:	F6464-4	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	93.8
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	105%		71-122%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2603		
Lab Sample ID:	F6464-4	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	93.8
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001260.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	710	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	71	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	71	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	71	ug/kg	
218-01-9	Chrysene	ND	71	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		35-135%
92-94-4	p-Terphenyl	94%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 2603		
Lab Sample ID:	F6464-4	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	93.8
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08224.D	20	05/15/00	ME	05/12/00	OP1548	GOP375
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	556	180	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	109%		40-140%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3302		
Lab Sample ID:	F6464-5	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	95.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007393.D	50	05/13/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	280	ug/kg	
75-27-4	Bromodichloromethane	ND	280	ug/kg	
75-25-2	Bromoform	ND	280	ug/kg	
108-90-7	Chlorobenzene	ND	280	ug/kg	
75-00-3	Chloroethane	ND	280	ug/kg	
67-66-3	Chloroform	ND	280	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	570	ug/kg	
56-23-5	Carbon tetrachloride	ND	280	ug/kg	
75-34-3	1,1-Dichloroethane	ND	280	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	280	ug/kg	
106-93-4	1,2-Dibromoethane	ND	280	ug/kg	
107-06-2	1,2-Dichloroethane	ND	280	ug/kg	
78-87-5	1,2-Dichloropropane	ND	280	ug/kg	
124-48-1	Dibromochloromethane	ND	280	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	280	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	280	ug/kg	
541-73-1	m-Dichlorobenzene	ND	280	ug/kg	
95-50-1	o-Dichlorobenzene	ND	280	ug/kg	
106-46-7	p-Dichlorobenzene	ND	280	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	280	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	280	ug/kg	
100-41-4	Ethylbenzene	125	280	ug/kg	J
74-83-9	Methyl bromide	ND	280	ug/kg	
74-87-3	Methyl chloride	ND	280	ug/kg	
75-09-2	Methylene chloride [a]	729	570	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	280	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	280	ug/kg	
79-00-5	1,1,2-Trichloroethane	583	280	ug/kg	
127-18-4	Tetrachloroethylene	ND	280	ug/kg	
108-88-3	Toluene	133	280	ug/kg	J
79-01-6	Trichloroethylene	ND	280	ug/kg	
75-69-4	Trichlorofluoromethane	ND	280	ug/kg	
75-01-4	Vinyl chloride	ND	280	ug/kg	
1330-20-7	Xylene (total)	7460	850	ug/kg	

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3302		
Lab Sample ID:	F6464-5	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	95.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		71-122%
2037-26-5	Toluene-D8	116%		73-128%
460-00-4	4-Bromofluorobenzene	131%		53-158%
17060-07-0	1,2-Dichloroethane-D4	84%		71-122%

(a) Analyte was detected in the associated method blank. Suspected laboratory contaminant.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3302		
Lab Sample ID:	F6464-5	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	95.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001261.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	70	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg	
218-01-9	Chrysene	ND	70	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		35-135%
92-94-4	p-Terphenyl	100%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3302		
Lab Sample ID:	F6464-5	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	95.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #i	OP08225.D	10	05/15/00	ME	05/12/00	OP1548	GOP375
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	380	87	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		40-140%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3802		
Lab Sample ID:	F6464-6	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	91.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	H007394.D	50	05/13/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	290	ug/kg	
75-27-4	Bromodichloromethane	ND	290	ug/kg	
75-25-2	Bromoform	ND	290	ug/kg	
108-90-7	Chlorobenzene	ND	290	ug/kg	
75-00-3	Chloroethane	ND	290	ug/kg	
67-66-3	Chloroform	ND	290	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	580	ug/kg	
56-23-5	Carbon tetrachloride	ND	290	ug/kg	
75-34-3	1,1-Dichloroethane	ND	290	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	290	ug/kg	
106-93-4	1,2-Dibromoethane	ND	290	ug/kg	
107-06-2	1,2-Dichloroethane	ND	290	ug/kg	
78-87-5	1,2-Dichloropropane	ND	290	ug/kg	
124-48-1	Dibromochloromethane	ND	290	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	290	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	290	ug/kg	
541-73-1	m-Dichlorobenzene	ND	290	ug/kg	
95-50-1	o-Dichlorobenzene	ND	290	ug/kg	
106-46-7	p-Dichlorobenzene	ND	290	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	290	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	290	ug/kg	
100-41-4	Ethylbenzene	ND	290	ug/kg	
74-83-9	Methyl bromide	ND	290	ug/kg	
74-87-3	Methyl chloride	ND	290	ug/kg	
75-09-2	Methylene chloride [b]	926	580	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	290	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	290	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	290	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	290	ug/kg	
127-18-4	Tetrachloroethylene	ND	290	ug/kg	
108-88-3	Toluene	83.8	290	ug/kg	J
79-01-6	Trichloroethylene	ND	290	ug/kg	
75-69-4	Trichlorofluoromethane	ND	290	ug/kg	
75-01-4	Vinyl chloride	ND	290	ug/kg	
1330-20-7	Xylene (total)	276	880	ug/kg	J

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3802		
Lab Sample ID:	F6464-6	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	91.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		71-122%
2037-26-5	Toluene-D8	112%		73-128%
460-00-4	4-Bromofluorobenzene	138%		53-158%
17060-07-0	1,2-Dichloroethane-D4	83%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range).
(b) Analyte was detected in the associated method blank. Suspected laboratory contaminant.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3802		
Lab Sample ID:	F6464-6	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	91.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001262.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	360	ug/kg	
208-96-8	Acenaphthylene	ND	730	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	73	ug/kg	
50-32-8	Benzo(a)pyrene	ND	73	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	73	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	73	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	73	ug/kg	
218-01-9	Chrysene	ND	73	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	73	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	73	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		35-135%
92-94-4	p-Terphenyl	99%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 3802		
Lab Sample ID:	F6464-6	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	91.3
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08226.D	20	05/15/00	ME	05/12/00	OP1548	GOP375
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	720	180	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	103%		40-140%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 4401		
Lab Sample ID:	F6464-7	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	81.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H007414.D	1	05/15/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.6	ug/kg	
75-27-4	Bromodichloromethane	ND	5.6	ug/kg	
75-25-2	Bromoform	ND	5.6	ug/kg	
108-90-7	Chlorobenzene	ND	5.6	ug/kg	
75-00-3	Chloroethane	ND	5.6	ug/kg	
67-66-3	Chloroform	ND	5.6	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.6	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.6	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.6	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.6	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.6	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.6	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	ug/kg	
74-83-9	Methyl bromide	ND	5.6	ug/kg	
74-87-3	Methyl chloride	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.6	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.6	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
79-01-6	Trichloroethylene	ND	5.6	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	5.6	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 4401		
Lab Sample ID:	F6464-7	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	81.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	124%		73-128%
460-00-4	4-Bromofluorobenzene	121%		53-158%
17060-07-0	1,2-Dichloroethane-D4	94%		71-122%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 4401		
Lab Sample ID:	F6464-7	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	81.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001263.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	410	ug/kg	
208-96-8	Acenaphthylene	ND	820	ug/kg	
120-12-7	Anthracene	ND	410	ug/kg	
56-55-3	Benzo(a)anthracene	ND	82	ug/kg	
50-32-8	Benzo(a)pyrene	ND	82	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	82	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	82	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	82	ug/kg	
218-01-9	Chrysene	ND	82	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	82	ug/kg	
206-44-0	Fluoranthene	ND	410	ug/kg	
86-73-7	Fluorene	ND	410	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	82	ug/kg	
91-20-3	Naphthalene	ND	410	ug/kg	
90-12-0	1-Methylnaphthalene	ND	410	ug/kg	
91-57-6	2-Methylnaphthalene	ND	410	ug/kg	
85-01-8	Phenanthrene	ND	410	ug/kg	
129-00-0	Pyrene	ND	410	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		35-135%
92-94-4	p-Terphenyl	94%		50-150%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 4401		
Lab Sample ID:	F6464-7	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	81.6
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08227.D	25	05/15/00	ME	05/12/00	OP1548	GOP375
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1100	260	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		40-140%

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 5001		
Lab Sample ID:	F6464-8	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	88.2
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	H007395.D	50	05/13/00	CJP	n/a	n/a	VH78
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	260	ug/kg	
75-27-4	Bromodichloromethane	ND	260	ug/kg	
75-25-2	Bromoform	ND	260	ug/kg	
108-90-7	Chlorobenzene	ND	260	ug/kg	
75-00-3	Chloroethane	ND	260	ug/kg	
67-66-3	Chloroform	ND	260	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	520	ug/kg	
56-23-5	Carbon tetrachloride	ND	260	ug/kg	
75-34-3	1,1-Dichloroethane	ND	260	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	260	ug/kg	
106-93-4	1,2-Dibromoethane	ND	260	ug/kg	
107-06-2	1,2-Dichloroethane	ND	260	ug/kg	
78-87-5	1,2-Dichloropropane	ND	260	ug/kg	
124-48-1	Dibromochloromethane	ND	260	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	260	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	260	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	260	ug/kg	
541-73-1	m-Dichlorobenzene	ND	260	ug/kg	
95-50-1	o-Dichlorobenzene	ND	260	ug/kg	
106-46-7	p-Dichlorobenzene	ND	260	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	260	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	260	ug/kg	
100-41-4	Ethylbenzene	223	260	ug/kg	J
74-83-9	Methyl bromide	ND	260	ug/kg	
74-87-3	Methyl chloride	ND	260	ug/kg	
75-09-2	Methylene chloride [b]	815	520	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	260	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	260	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	260	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	260	ug/kg	
127-18-4	Tetrachloroethylene	ND	260	ug/kg	
108-88-3	Toluene	ND	260	ug/kg	
79-01-6	Trichloroethylene	ND	260	ug/kg	
75-69-4	Trichlorofluoromethane	ND	260	ug/kg	
75-01-4	Vinyl chloride	ND	260	ug/kg	
1330-20-7	Xylene (total)	712	770	ug/kg	J

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 5001		
Lab Sample ID:	F6464-8	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	SW846 8260B	**Percent Solids:**	88.2
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		71-122%
2037-26-5	Toluene-D8	107%		73-128%
460-00-4	4-Bromofluorobenzene	119%		53-158%
17060-07-0	1,2-Dichloroethane-D4	84%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range).
(b) Analyte was detected in the associated method blank. Suspected laboratory contaminant.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 5001		
Lab Sample ID:	F6464-8	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	EPA 8310	**Percent Solids:**	88.2
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA001264.D	1	05/13/00	CCJ	05/12/00	OP1546	GAA56
Run #2 [a]	AA001283.D	4	05/15/00	CCJ	05/12/00	OP1546	GAA57

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	760	ug/kg	
120-12-7	Anthracene	ND [b]	1500	ug/kg	
56-55-3	Benzo(a)anthracene	ND	76	ug/kg	
50-32-8	Benzo(a)pyrene	ND	76	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	76	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	76	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	76	ug/kg	
218-01-9	Chrysene	ND	76	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	76	ug/kg	
206-44-0	Fluoranthene	ND [b]	1500	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	76	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
90-12-0	1-Methylnaphthalene	514	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND [b]	1500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	133%	142% [c]	35-135%
92-94-4	p-Terphenyl	107%	103%	50-150%

(a) Dilution required due to matrix interference.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19HA 5001		
Lab Sample ID:	F6464-8	**Date Sampled:**	05/08/00
Matrix:	SO - Soil	**Date Received:**	05/09/00
Method:	FLORIDA-PRO	**Percent Solids:**	88.2
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP08229.D	125	05/15/00	ME	05/12/00	OP1548	GOP375
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	4690	1200	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% a		40-140%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting 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

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Report of Analysis

Client Sample ID:	NASP19RB01		
Lab Sample ID:	F6464-10	**Date Sampled:**	05/08/00
Matrix:	AQ - Field Blank Water	**Date Received:**	05/09/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Whiting Field PO#NOO52-MSA0200-014		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR002716.D	1	05/15/00	JG	n/a	n/a	GQR74
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

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CHAIN OF CUSTODY

ACCUTEST

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ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Tt NUS - ~~Howard Engle~~
ADDRESS: 1401 Oven Park Drive Suite 102
CITY, STATE, ZIP: Tallahassee FL 32312
SEND REPORT TO: Howard Engle
PHONE #: 850-385-9899

FACILITY INFORMATION

PROJECT NAME: NAS Pensacola
LOCATION: Pensacola, FL
PROJECT NO.: CTO # 112 Job # 0401
FAX #:

ANALYTICAL INFORMATION

MATRIX CODES

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

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE	8021 (VOCs)	8310 (PAH)	FL-PRO (TRPH)	LAB USE ONLY
F6464-1	NASP19HA0202	5-8-00	0815	SK/DM	SOIL	1/3					0	3	1	→	
-2	NASP19HA0401		0905												
-3	NASP19HA2003		1050												
-4	NASP19HA2603		1035												
-5	NASP19HA3302		0955												
-6	NASP19HA3802		0848												
-7	NASP19HA4401		0930												
-8	NASP19HA5001		1015												
-9	NASP19HAD01		0830												
-10	NASP19RB01		1110		Water	6	2			2	2	2	2	2	
-11	Trip Blank					2	2					✓			

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

Fed Ex Air bill # 815334366231

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. Sue Barton	5/8/00 1800	1. Fed Ex	2.		2.
3.		3. Abby Wilson 5-9-00 1000	4.		4.
5.		5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE 3.2 C

GROUNDWATER ANALYSES

Report of Analysis

Client Sample ID:	NASP19MW01GW		
Lab Sample ID:	F6931-11	**Date Sampled:**	06/27/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003581.D	1	07/10/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	0.91	1.0	ug/l	J
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW01GW		
Lab Sample ID:	F6931-11	**Date Sampled:**	06/27/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	102%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	100%		65-125%
98-08-8	aaa-Trifluorotoluene	99%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW01GW		
Lab Sample ID:	F6931-11	**Date Sampled:**	06/27/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002822.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	52%		29-133%
92-94-4	p-Terphenyl	69%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW01GW		
Lab Sample ID:	F6931-11	**Date Sampled:**	06/27/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09280.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09379.D	1	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%	104%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW02GW		
Lab Sample ID:	F6931-3	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003616.D	1	07/11/00	CAS	n/a	n/a	GQR98
Run #2	QR003645.D	20	07/12/00	CAS	n/a	n/a	GQR98

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	47.3	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	393 [a]	20	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	139 [a]	20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	4300 [a]	60	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW02GW		
Lab Sample ID:	F6931-3	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	75%	86%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	99%	103%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	104%	102%	65-125%
98-08-8	aaa-Trifluorotoluene	508%	126% [b]	72-125%

(a) Result is from Run# 2
(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW02GW		
Lab Sample ID:	F6931-3	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002893.D	1	07/12/00	CCJ	07/04/00	OP1784	GAA96
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	32.7	2.2	ug/l	
90-12-0	1-Methylnaphthalene	6.6	2.2	ug/l	
91-57-6	2-Methylnaphthalene	13.4	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	55%		29-133%
92-94-4	p-Terphenyl	65%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW02GW		
Lab Sample ID:	F6931-3	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09271.D	4	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09371.D	5	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	6.85	1.2	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%	113%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW04GW		
Lab Sample ID:	F6931-5	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	QR003609.D	50	07/11/00	CAS	n/a	n/a	GQR98
Run #2	QR003628.D	200	07/12/00	CAS	n/a	n/a	GQR98

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	920	50	ug/l	
75-27-4	Bromodichloromethane	ND	50	ug/l	
75-25-2	Bromoform	ND	50	ug/l	
74-83-9	Bromomethane	ND	50	ug/l	
56-23-5	Carbon tetrachloride	ND	50	ug/l	
108-90-7	Chlorobenzene	ND	50	ug/l	
124-48-1	Dibromochloromethane	ND	50	ug/l	
75-00-3	Chloroethane	ND	50	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	50	ug/l	
67-66-3	Chloroform	ND	50	ug/l	
74-87-3	Chloromethane	ND	50	ug/l	
106-93-4	1,2-Dibromoethane	ND	50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	50	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	ug/l	
100-41-4	Ethylbenzene	1060	50	ug/l	
75-09-2	Methylene chloride	ND	250	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ug/l	
127-18-4	Tetrachloroethene	ND	50	ug/l	
108-88-3	Toluene	8540 [b]	200	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/l	
79-01-6	Trichloroethene	ND	50	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	ug/l	
75-01-4	Vinyl chloride	ND	50	ug/l	
1330-20-7	Xylenes (total)	8070	150	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW04GW		
Lab Sample ID:	F6931-5	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	97%	101%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%	104%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	100%	101%	65-125%
98-08-8	aaa-Trifluorotoluene	111%	102%	72-125%

(a) Confirmed by GC/MS
(b) Result is from Run# 2

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW04GW		
Lab Sample ID:	F6931-5	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002894.D	4	07/12/00	CCJ	07/04/00	OP1784	GAA96
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	9.0	ug/l	
208-96-8	Acenaphthylene	ND	9.0	ug/l	
120-12-7	Anthracene	ND	9.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.90	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.90	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.90	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.90	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.90	ug/l	
218-01-9	Chrysene	ND	9.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.90	ug/l	
206-44-0	Fluoranthene	ND	9.0	ug/l	
86-73-7	Fluorene	ND	9.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.90	ug/l	
91-20-3	Naphthalene	122	9.0	ug/l	
90-12-0	1-Methylnaphthalene	41.8	9.0	ug/l	
91-57-6	2-Methylnaphthalene	51.7	9.0	ug/l	
85-01-8	Phenanthrene	ND	9.0	ug/l	
129-00-0	Pyrene	ND	9.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		29-133%
92-94-4	p-Terphenyl	78%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW04GW		
Lab Sample ID:	F6931-5	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09291.D	40	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09374.D	40	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	52.2	12	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [b]	0% [b]	40-140%

(a) Confirmed by re-extraction.
(b) Outside control limits due to dilution.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW06GW		
Lab Sample ID:	F6931-2	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003615.D	1	07/11/00	CAS	n/a	n/a	GQR98
Run #2	QR003644.D	10	07/12/00	CAS	n/a	n/a	GQR98

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	73.8 [a]	10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	75.6 [a]	10	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	7.1	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	618 [a]	30	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW06GW		
Lab Sample ID:	F6931-2	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	79%	89%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	101%	104%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	105%	103%	65-125%
98-08-8	aaa-Trifluorotoluene	378% [b]	123%	72-125%

(a) Result is from Run# 2
(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW06GW		
Lab Sample ID:	F6931-2	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002812.D	1	07/10/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	4.1	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	2.1	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		29-133%
92-94-4	p-Terphenyl	80%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW06GW		
Lab Sample ID:	F6931-2	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09290.D	2	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09370.D	2	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.88	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	102%	113%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D001		
Lab Sample ID:	F6931-12	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003614.D	1	07/11/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	107	1.0	ug/l	E
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	105	1.0	ug/l	E
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	8.6	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	822	3.0	ug/l	E

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D001		
Lab Sample ID:	F6931-12	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	76%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	103%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	92%		65-125%
98-08-8	aaa-Trifluorotoluene	409% [a]		72-125%

(a) Outside control limits due to matrix interference.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D001		
Lab Sample ID:	F6931-12	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002823.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	5.5	2.2	ug/l	
90-12-0	1-Methylnaphthalene	1.7	2.2	ug/l	J
91-57-6	2-Methylnaphthalene	2.7	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		29-133%
92-94-4	p-Terphenyl	68%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D001		
Lab Sample ID:	F6931-12	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09281.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2 [b]	OP09423.D	2	07/13/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.70 [c]	0.52	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	106%	108%	40-140%

(a) Extract was cross contaminated with the MSD. Re-extracted out of hold.
(b) Sample extracted beyond hold time; reported results are considered minimum values.
(c) Result is from Run# 2

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F6931-9	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003648.D	1	07/12/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F6931-9	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	98%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	100%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F6931-9	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002820.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	55%		29-133%
92-94-4	p-Terphenyl	70%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F6931-9	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09278.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09377.D	1	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	102%	117%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

SECOND SAMPLE FOR MS/MSD

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F7045-2	**Date Sampled:**	07/13/00
Matrix:	AQ - Ground Water	**Date Received:**	07/14/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD016716.D	1	07/27/00	RA	n/a	n/a	GCD589
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		69-125%
98-08-8	aaa-Trifluorotoluene	98%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F7045-2	**Date Sampled:**	07/13/00
Matrix:	AQ - Ground Water	**Date Received:**	07/14/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA003107.D	1	07/20/00	CCJ	07/19/00	OP1844	GAA102
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.4	ug/l	
208-96-8	Acenaphthylene	ND	2.4	ug/l	
120-12-7	Anthracene	ND	2.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.24	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.24	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.24	ug/l	
218-01-9	Chrysene [a]	ND	4.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.24	ug/l	
206-44-0	Fluoranthene	ND	2.4	ug/l	
86-73-7	Fluorene	ND	2.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.24	ug/l	
91-20-3	Naphthalene	ND	2.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.4	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.4	ug/l	
85-01-8	Phenanthrene	ND	2.4	ug/l	
129-00-0	Pyrene	ND	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		29-133%
92-94-4	p-Terphenyl	80%		33-133%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW07GW		
Lab Sample ID:	F7045-2	**Date Sampled:**	07/13/00
Matrix:	AQ - Ground Water	**Date Received:**	07/14/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09767.D	1	07/26/00	CCJ	07/18/00	OP1843	GOP414
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW08GW		
Lab Sample ID:	F6931-8	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401	PO# PITT-N0401-P99806 dw	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003594.D	1	07/11/00	CAS	n/a	n/a	GQR98
Run #2	QR003610.D	20	07/11/00	CAS	n/a	n/a	GQR98

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1220 [a]	20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	238 [a]	20	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	2880 [a]	20	ug/l	E
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	1110 [a]	60	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW08GW		
Lab Sample ID:	F6931-8	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	57%	82%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	95%	100%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	102%	102%	65-125%
98-08-8	aaa-Trifluorotoluene	1548%	219% [b]	72-125%

(a) Result is from Run# 2
(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW08GW		
Lab Sample ID:	F6931-8	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002818.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	3.9	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		29-133%
92-94-4	p-Terphenyl	131%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW08GW		
Lab Sample ID:	F6931-8	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09292.D	2	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09376.D	2	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	1.34	0.52	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%	114%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW09GW		
Lab Sample ID:	F6931-4	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003590.D	1	07/10/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW09GW		
Lab Sample ID:	F6931-4	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	89%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	103%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW09GW		
Lab Sample ID:	F6931-4	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002814.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	52%		29-133%
92-94-4	p-Terphenyl	78%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW09GW		
Lab Sample ID:	F6931-4	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09272.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09372.D	1	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%	114%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW10GW		
Lab Sample ID:	F6931-1	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003584.D	1	07/10/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	1.2	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW10GW		
Lab Sample ID:	F6931-1	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	111%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	98%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW10GW		
Lab Sample ID:	F6931-1	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002811.D	1	07/10/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		29-133%
92-94-4	p-Terphenyl	86%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW10GW		
Lab Sample ID:	F6931-1	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09269.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09369.D	1	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	104%	117%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW11GW		
Lab Sample ID:	F6994-11	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003790.D	50	07/18/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	352	50	ug/l	
75-27-4	Bromodichloromethane	ND	50	ug/l	
75-25-2	Bromoform	ND	50	ug/l	
74-83-9	Bromomethane	ND	50	ug/l	
56-23-5	Carbon tetrachloride	ND	50	ug/l	
108-90-7	Chlorobenzene	ND	50	ug/l	
124-48-1	Dibromochloromethane	ND	50	ug/l	
75-00-3	Chloroethane	ND	50	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	50	ug/l	
67-66-3	Chloroform	ND	50	ug/l	
74-87-3	Chloromethane	ND	50	ug/l	
106-93-4	1,2-Dibromoethane	ND	50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	50	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	ug/l	
100-41-4	Ethylbenzene	653	50	ug/l	
75-09-2	Methylene chloride	ND	250	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ug/l	
127-18-4	Tetrachloroethene	ND	50	ug/l	
108-88-3	Toluene	3440	50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/l	
79-01-6	Trichloroethene	ND	50	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	ug/l	
75-01-4	Vinyl chloride	ND	50	ug/l	
1330-20-7	Xylenes (total)	5290	150	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW11GW		
Lab Sample ID:	F6994-11	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	118%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	103%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	99%		65-125%
98-08-8	aaa-Trifluorotoluene	113%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW11GW		
Lab Sample ID:	F6994-11	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002955.D	2	07/14/00	CCJ	07/12/00	OP1818	GAA98
Run #2	AA002935.D	8	07/13/00	CCJ	07/12/00	OP1818	GAA97

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	17	ug/l	
208-96-8	Acenaphthylene	ND [a]	17	ug/l	
120-12-7	Anthracene	ND	4.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.44	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.44	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.44	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.44	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.44	ug/l	
218-01-9	Chrysene	ND	4.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.44	ug/l	
206-44-0	Fluoranthene	ND	4.4	ug/l	
86-73-7	Fluorene	ND [a]	17	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.44	ug/l	
91-20-3	Naphthalene	135 [a]	17	ug/l	
90-12-0	1-Methylnaphthalene	41.8 [a]	17	ug/l	
91-57-6	2-Methylnaphthalene	55.6 [a]	17	ug/l	
85-01-8	Phenanthrene	ND [a]	17	ug/l	
129-00-0	Pyrene	ND	4.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%	77%	29-133%
92-94-4	p-Terphenyl	75%	74%	33-133%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW11GW		
Lab Sample ID:	F6994-11	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09435.D	20	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	19.5	5.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D002		
Lab Sample ID:	F6994-16	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	QR003791.D	50	07/18/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	508	50	ug/l	
75-27-4	Bromodichloromethane	ND	50	ug/l	
75-25-2	Bromoform	ND	50	ug/l	
74-83-9	Bromomethane	ND	50	ug/l	
56-23-5	Carbon tetrachloride	ND	50	ug/l	
108-90-7	Chlorobenzene	ND	50	ug/l	
124-48-1	Dibromochloromethane	ND	50	ug/l	
75-00-3	Chloroethane	ND	50	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	50	ug/l	
67-66-3	Chloroform	ND	50	ug/l	
74-87-3	Chloromethane	ND	50	ug/l	
106-93-4	1,2-Dibromoethane	ND	50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	50	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	ug/l	
100-41-4	Ethylbenzene	749	50	ug/l	
75-09-2	Methylene chloride	ND	250	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	ug/l	
127-18-4	Tetrachloroethene	ND	50	ug/l	
108-88-3	Toluene	5130	50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	ug/l	
79-01-6	Trichloroethene	ND	50	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	ug/l	
75-01-4	Vinyl chloride	ND	50	ug/l	
1330-20-7	Xylenes (total)	6250	150	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D002		
Lab Sample ID:	F6994-16	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	122%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	96%		65-125%
98-08-8	aaa-Trifluorotoluene	113%		72-125%

(a) Confirmed by GC/MS

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D002		
Lab Sample ID:	F6994-16	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002956.D	2	07/14/00	CCJ	07/12/00	OP1818	GAA98
Run #2	AA002940.D	8	07/13/00	CCJ	07/12/00	OP1818	GAA97

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND [a]	16	ug/l	
208-96-8	Acenaphthylene	ND [a]	16	ug/l	
120-12-7	Anthracene	ND	4.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.42	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.42	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.42	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.42	ug/l	
218-01-9	Chrysene	ND	4.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.42	ug/l	
206-44-0	Fluoranthene	ND	4.2	ug/l	
86-73-7	Fluorene	ND [a]	16	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.42	ug/l	
91-20-3	Naphthalene	135 [a]	16	ug/l	
90-12-0	1-Methylnaphthalene	42.4 [a]	16	ug/l	
91-57-6	2-Methylnaphthalene	56.1 [a]	16	ug/l	
85-01-8	Phenanthrene	ND [a]	16	ug/l	
129-00-0	Pyrene	ND	4.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%	82%	29-133%
92-94-4	p-Terphenyl	78%	78%	33-133%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19D002		
Lab Sample ID:	F6994-16	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09441.D	20	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	21.0	5.4	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW12GW		
Lab Sample ID:	F6994-14	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003765.D	1	07/18/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW12GW		
Lab Sample ID:	F6994-14	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	120%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	101%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	96%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW12GW		
Lab Sample ID:	F6994-14	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002938.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.4	ug/l	
208-96-8	Acenaphthylene	ND	2.4	ug/l	
120-12-7	Anthracene	ND	2.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.24	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.24	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.24	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.24	ug/l	
218-01-9	Chrysene	ND	2.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.24	ug/l	
206-44-0	Fluoranthene	ND	2.4	ug/l	
86-73-7	Fluorene	ND	2.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.24	ug/l	
91-20-3	Naphthalene	ND	2.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.4	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.4	ug/l	
85-01-8	Phenanthrene	ND	2.4	ug/l	
129-00-0	Pyrene	ND	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		29-133%
92-94-4	p-Terphenyl	90%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW12GW		
Lab Sample ID:	F6994-14	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09439.D	1	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	105%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW13GW		
Lab Sample ID:	F6931-7	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003647.D	1	07/12/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW13GW		
Lab Sample ID:	F6931-7	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	92%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	104%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW13GW		
Lab Sample ID:	F6931-7	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002817.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	59%		29-133%
92-94-4	p-Terphenyl	78%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW13GW		
Lab Sample ID:	F6931-7	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09275.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09375.D	1	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	107%	118%	40-140%

(a) Confirmed by re-extraction.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW16GW		
Lab Sample ID:	F6931-6	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003617.D	1	07/11/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW16GW		
Lab Sample ID:	F6931-6	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	104%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	103%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	102%		65-125%
98-08-8	aaa-Trifluorotoluene	104%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW16GW		
Lab Sample ID:	F6931-6	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002816.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	53%		29-133%
92-94-4	p-Terphenyl	78%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW16GW		
Lab Sample ID:	F6931-6	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09274.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW18GW		
Lab Sample ID:	F6994-12	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003764.D	1	07/18/00	CAS	n/a	n/a	GQR102
Run #2	QR003788.D	1	07/18/00	CAS	n/a	n/a	GQR102

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW18GW		
Lab Sample ID:	F6994-12	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	132% [a]	128%	75-125%
352-33-0	1-Chloro-4-fluorobenzene	100%	100%	65-125%
352-33-0	1-Chloro-4-fluorobenzene	117%	104%	65-125%
98-08-8	aaa-Trifluorotoluene	98%	100%	72-125%

(a) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW18GW		
Lab Sample ID:	F6994-12	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002936.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		29-133%
92-94-4	p-Terphenyl	87%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW18GW		
Lab Sample ID:	F6994-12	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09436.D	1	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.30	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW19GW		
Lab Sample ID:	F6994-13	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003785.D	1	07/18/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW19GW		
Lab Sample ID:	F6994-13	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	127%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	101%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	105%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW19GW		
Lab Sample ID:	F6994-13	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002937.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		29-133%
92-94-4	p-Terphenyl	89%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW19GW		
Lab Sample ID:	F6994-13	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09437.D	1	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW20GW		
Lab Sample ID:	F6994-15	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003766.D	1	07/18/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW20GW		
Lab Sample ID:	F6994-15	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	122%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	99%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	112%		65-125%
98-08-8	aaa-Trifluorotoluene	99%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW20GW		
Lab Sample ID:	F6994-15	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002939.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene [a]	ND	4.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		29-133%
92-94-4	p-Terphenyl	80%		33-133%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW20GW		
Lab Sample ID:	F6994-15	**Date Sampled:**	07/07/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09440.D	1	07/13/00	CCJ	07/12/00	OP1816	GOP409
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW21GW		
Lab Sample ID:	F6994-9	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003731.D	1	07/15/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW21GW		
Lab Sample ID:	F6994-9	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	103%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	97%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	91%		65-125%
98-08-8	aaa-Trifluorotoluene	95%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW21GW		
Lab Sample ID:	F6994-9	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002933.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.2	ug/l	
208-96-8	Acenaphthylene	ND	2.2	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		29-133%
92-94-4	p-Terphenyl	87%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW21GW		
Lab Sample ID:	F6994-9	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09407.D	1	07/12/00	CCJ	07/10/00	OP1808	GOP408
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.499	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW22GW		
Lab Sample ID:	F6994-10	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR003762.D	1	07/17/00	CAS	n/a	n/a	GQR102
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1.0	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	4.8	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW22GW		
Lab Sample ID:	F6994-10	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	114%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	101%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	98%		65-125%
98-08-8	aaa-Trifluorotoluene	100%		72-125%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW22GW		
Lab Sample ID:	F6994-10	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002934.D	1	07/13/00	CCJ	07/12/00	OP1818	GAA97
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene [a]	ND	4.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		29-133%
92-94-4	p-Terphenyl	55%		33-133%

(a) Elevated reporting limits due to matrix interference.

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW22GW		
Lab Sample ID:	F6994-10	**Date Sampled:**	07/06/00
Matrix:	AQ - Ground Water	**Date Received:**	07/08/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP09409.D	1	07/12/00	CCJ	07/10/00	OP1808	GOP408
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.328	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	46%		40-140%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW23GW		
Lab Sample ID:	F6931-10	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401	PO# PITT-N0401-P99806 dw	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	QR003596.D	1	07/11/00	CAS	n/a	n/a	GQR98
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	0.61	1.0	ug/l	J
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	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	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	0.72	1.0	ug/l	J
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	0.63	1.0	ug/l	J
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	53.8	3.0	ug/l	

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW23GW		
Lab Sample ID:	F6931-10	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

VOA 8021 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
75-29-6	2-Chloropropane	90%		75-125%
352-33-0	1-Chloro-4-fluorobenzene	103%		65-125%
352-33-0	1-Chloro-4-fluorobenzene	98%		65-125%
98-08-8	aaa-Trifluorotoluene	107%		72-125%

(a) Confirmed by GC/MS

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW23GW		
Lab Sample ID:	F6931-10	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	EPA 8310	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA002844.D	1	07/11/00	CCJ	07/04/00	OP1784	GAA95
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	36%		29-133%
92-94-4	p-Terphenyl	34%		33-133%

ND = Not detected
RL = Reporting 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

Report of Analysis

Client Sample ID:	NASP19MW23GW		
Lab Sample ID:	F6931-10	**Date Sampled:**	06/28/00
Matrix:	AQ - Ground Water	**Date Received:**	06/29/00
Method:	FLORIDA-PRO	**Percent Solids:**	n/a
Project:	NAS Pensacola CTO # 112, JOB #0401 PO# PITT-N0401-P99806 dw		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	OP09279.D	1	07/07/00	CCJ	07/04/00	OP1783	GOP405
Run #2	OP09378.D	1	07/11/00	CCJ	07/10/00	OP1806	GOP408

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.316	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	32% [b]	14% [b]	40-140%

(a) Surrogates outside of control limits, all values should be considered estimated.
(b) Outside control limits due to matrix interference.

ND = Not detected
RL = Reporting 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

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Tetra Tech NUS, Inc.
ADDRESS: 1401 Oven Park Dr. Suite 102
CITY, STATE, ZIP: Tallahassee, FL 32302
SEND REPORT TO:
PHONE #: 850-385-9899

FACILITY INFORMATION

PROJECT NAME: NAS Pensacola
LOCATION: Pensacola, FL
PROJECT NO.: 0401
FAX #: 850-385-9860

ANALYTICAL INFORMATION

MATRIX CODES

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

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE	VOCs (8021B)	TRPH (8310)	PAH (FL PRO)	LAB USE ONLY
F6931-1	NASP19MW10GW	6/28/00	0820	SB	GW	6	✓			✓	✓	2	2	2	
-2	NASP19MW06GW		0845									2	2	2	
-3	NASP19MW02GW		0852									2	2	2	
-4	NASP19MW09GW		0940									2	2	2	
-5	NASP19MW04GW		1018									2	2	2	
-6	NASP19MW16GW		1130									2	2	2	
-7	NASP19MW13GW		1150									2	2	2	
-8	NASP19MW08GW		1450									2	2	2	
-9	NASP19MW07GW		1525									2	2	2	
-10	NASP19MW23GW		1549									2	2	2	

DATA TURNAROUND INFORMATION

- [x] STANDARD
- [ ] 48 HOUR RUSH
- [ ] 24 HOUR EMERGENCY
- [ ] OTHER

APPROVED BY:

EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- [x] STANDARD
- [ ] COMMERCIAL "B"
- [x] 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]	1700 6/28/00	1. Mike Farrell 0900 6/29/00	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE 2.9 2.0 3.7, 2.3 C

CHAIN OF CUSTODY

ACCUTEST

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

ACCUTEST JOB #: F6994
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Tetra Tech NUS, Inc
ADDRESS: 1401 Oven Park Dr.
CITY, STATE, ZIP: Tallahassee, FL 32312
SEND REPORT TO:
PHONE #: 850-385-9899

FACILITY INFORMATION

PROJECT NAME: NAS Pensacola
LOCATION: Pensacola, FL
PROJECT NO.: 0401
FAX #: 850-385-9860

ANALYTICAL INFORMATION

MATRIX CODES

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

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE	VOC (8021B)	PAH (8310)	TRPH (FL PRO)	LAB USE ONLY
9	NASP19MW21GW	7-6-00	1322	JB	GW	6	✓			✓	✓	2	2	2	
10	NASP19MW22GW	7-6-00	1418	PH			✓			✓	✓	2	2	2	
11	NASP19MW11GW	7-7-00	0901	PH			✓			✓	✓	2	2	2	
12	NASP19MW18GW		0909	SB			✓			✓	✓	2	2	2	
13	NASP19MW19GW		0937	JB			✓			✓	✓	2	2	2	
14	NASP19MW12GW		1145	PH			✓			✓	✓	2	2	2	
15	NASP19MW20GW		1205	SB			✓			✓	✓	2	2	2	
16	NASP19D002		0000	PH			✓			✓	✓	2	2	2	
17	19TB070600											2	(Trip Blank)		

DATA TURNAROUND INFORMATION

- [x] STANDARD
- [ ] 48 HOUR RUSH
- [ ] 24 HOUR EMERGENCY
- [ ] OTHER

APPROVED BY:

EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- [x] STANDARD
- [ ] COMMERCIAL "B"
- [x] 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]	1700 7-7-00	1. [signature] 7/8/00 0900	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE <6 2.4