N65928.AR.003016
NTC ORLANDO
5090.3a

LIMITED CONTAMINATION ASSESSMENT REPORT BUILDING 109 WITH TRANSMITTAL
4/26/2002
NODARSE AND ASSOCIATES, INC.

[illegible] N. Orlando Avenue
S A
Winter Park, FL 32789

P e: 407.740.6110
Fax: 407.740.6112
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NODARSE & ASSOCIATES, INC.

Geotechnical, Environmental Consulting & Materials Engineering

Limited Contamination Assessment Report
Former Naval Training Center - Building 109
Orange County, Florida
FDEP ID No. 488841262

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NODARSE & ASSOCIATES, INC.

Geotechnical, Environmental Consulting & Materials Engineering

April 26, 2002
Project No. W99-E-186

Mr. John Classe
Orlando NTC Partners
1099 Bennett Road
Orlando, Florida 32803

Limited Contamination Assessment Report
Former Naval Training Center - Building 109
Orange County, Florida
FDEP ID No. 488841262

Dear Mr. Classe:

Nodarse & Associates, Inc. (N&A) has completed a Limited Contamination Assessment (LCA) at the above referenced property. Two (2) original copies of the LCA report have been prepared and submitted for your use and distribution.

Should you have any questions concerning the contents of this report, or if we can be of further assistance, please do not hesitate to contact us.

Sincerely,

NODARSE & ASSOCIATES, INC.

David B. Twedell
Vice President/Principal Engineer

Maureen Farrell Nichols, P.E.
Senior Remediation Engineer

DBT/DMB W:\Environmental\1999-Projects-Env\W99E186\final-reports\LCAR-rep.wpd

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1.0 EXECUTIVE SUMMARY

Nodarse & Associates, Inc. (N&A) has conducted Limited Contamination Assessment (LCA) activities at Phase I of the Baldwin Park Development area in Orlando, Orange County, Florida.

The subject site consists of the gasoline service station located at Building 109 on the former Naval Training Center (NTC) facility. Based on our review of available site information, it appears that three (3) 20,000 gallon unleaded gasoline underground storage tanks were utilized by U.S. Navy personnel at the subject site. The underground storage tanks were abandoned in-place in March 2000. A copy of the Tank Closure Report dated April 2000 is provided as **Appendix A**. The subject site is registered under Florida Department of Environmental Protection (FDEP) Facility ID Number 488841262. Currently, the site is vacant and has been re-graded for residential development.

These LCA activities were performed to evaluate the extent of petroleum impacted soil and groundwater at the subject site from previous on-site activities associated with the former gasoline service station.

This LCA included the performance of a total of ten (10) flight augered soil borings for the collection of soil samples to determine the organic vapor content of the on-site soils. The soil borings were conducted at locations in the vicinity of the former underground storage tank location. Based on the results of the field screening, elevated organic vapor responses were obtained for vadose (unsaturated) zone soils collected at one (1) boring location. However, strong petroleum odors and elevated organic vapor responses were noted at three (3) additional boring locations at the groundwater table interface (soil smear zone). Two (2) soil samples were collected for laboratory analysis to determine the concentrations of petroleum constituents. Based on the soil laboratory analytical results, one (1) soil sample indicated the presence of petroleum constituents in excess of the applicable residential and leachability criteria. The approximate area of petroleum impacted vadose (unsaturated) zone soil is estimated to be 4,900 square feet. The extent of the petroleum impacted smear zone is estimated to be an approximate area of 20,700 square feet.

Based on the soil field screening, a total of eleven (11) temporary monitoring wells were installed at the subject site to delineate the area of groundwater impact. Based on the laboratory analytical results, three (3) monitoring wells indicated the presence of petroleum constituents in excess of their respective applicable state criteria. The surrounding wells did not indicate the presence of petroleum constituents in excess of the applicable criteria and, therefore, defines the approximate extent of the groundwater

contamination. The surficial aquifer at the subject site was typically encountered at depths ranging between approximately 10 and 12 feet below land surface. The site specific groundwater flow direction is generally toward the east of the subject site, with flow components toward the north and south.

This LCA has provided sufficient information to conclude that the soil and surficial groundwater aquifer at the subject site exhibit the presence of petroleum hydrocarbon constituents in excess of the applicable state criteria. N&A recommends the development and implementation of remedial actions to address the contaminated soil and groundwater which currently exist at the subject site.

2.0 REMEDIAL ALTERNATIVES

A number of remedial alternatives were evaluated on the basis of implementability, feasibility, environmental impact, cost, operation and maintenance requirements, time to completion, project life and overall effectiveness. Based on this evaluation and the professional judgment and past experience of N&A with similar projects, the following three (3) remedial alternatives are considered feasible for remediation of the soil and groundwater at this site. The remedial objective is to reduce petroleum concentrations in the soil and groundwater to below the target levels set forth in Chapter 62-777 of the Florida Administrative Code (FAC), quickly and cost effectively. The estimated cost range for each alternative is based on the preliminary assessment data collected. Site specific costs will be estimated once additional data is collected.

2.1 Dewatering, Soil Excavation, Enhanced Biodegradation Continued Dewatering

This remedial alternative would consist of dewatering the petroleum impacted area, excavating the petroleum contaminated soils to approximately 1 to 2 feet below the top of the natural groundwater table, applying Oxygen Releasing Compound (ORC) to the excavation to promote enhanced in-situ biodegradation and backfilling the excavation. Well points will be installed around the dissolved contaminant plume. Groundwater will be pumped from the well points until the water table in this area is lowered approximately 3 feet. Recovered groundwater will be pumped into a frac-tank onsite and then discharged into the City's sanitary sewer system. All contaminated soils will be excavated and then separated into two (2) piles. Excessively contaminated soils will be transported off-site for thermal incineration. The remainder of the soil will be spread onsite to promote volatilization of contaminants. Under this alternative, the dewatering system will continue to operate until contaminant concentrations in the influent groundwater stream are reduced to acceptable levels. As the groundwater table returns to its natural elevation, the ORC will promote the degradation of any remaining contaminants by naturally occurring microbes. The average estimated costs for this alternative range from $100,000.00 to $200,000.00. The actual cost for this alternative will depend on the amount of soil that is transported offsite for thermal incineration.

2.2 Dewatering, Soil Excavation, Enhanced Biodegradation, Aeration

This alternative is similar to the previous alternative with the exception that the excavation will be left open. Once the petroleum contaminated soils have been excavated, a simple aeration system will be installed into the bottom of the excavation and ORC will be applied to the area. The groundwater that enters the excavation will

be aerated for a period of time until petroleum contaminant concentrations are reduced to acceptable levels. At that point, the excavation will be backfilled with clean fill. The average estimated costs for this alternative range from $100,000.00 to $200,000.00. The actual cost for this alternative will also depend on the amount of soil transported off-site for thermal incineration.

2.3 In-Situ Chemical Oxidation

Chemical oxidation is an innovative in-situ treatment technology for remediating soil and groundwater contaminated with organic compounds. Remediation occurs by application of a strong chemical oxidizer via injection wells placed throughout the plume area. Upon contact with the chemical oxidizer, the organic compounds are converted to carbon dioxide and water. The average estimated costs for this alternative range from $150,000.00 to $225,000.00.

3.0 ASSESSMENT METHODOLOGY AND RESULTS

3.1 Soil Assessment Methodology

On April 6, 2002, eleven (11) flight augered soil borings (HA-1 through HA-11) were performed at the subject site. The soil borings were performed at locations in the vicinity of the former underground storage tank. The soil boring locations are shown on **Figure 1** in **Appendix B**. The soil borings were performed by extending a decontaminated flight auger to the groundwater table surface, which was encountered at depths ranging between approximately 10 and 12 feet below land surface.

In order to determine the presence of elevated organic vapor concentrations within the on-site soils, soil samples were collected from the soil borings and screened in the field using a calibrated Heath Porta-FID II organic vapor analyzer (OVA) equipped with a flame ionization detector (FID) following guidelines for head space analysis set forth in the FDEP document entitled "Guidelines for Assessment and Source Removal of Petroleum Contaminated Soil," dated May 1998. Glass sample jars were half-filled with soil, covered with aluminum foil, sealed, and set aside to allow the volatiles to equilibrate throughout the head space. The organic vapor response for each soil sample was determined by inserting the probe of the OVA-FID into the head space of the sample container and recording the highest sustained reading. The two-jar method was used to obtain total organic vapor readings and carbon filter readings, to account for the presence of naturally occurring methane in site soils. The resultant total non-methane hydrocarbon level is calculated by subtracting the carbon filtered response from the total response. Organic vapor measurements were recorded on standard field forms. Results of the field organic vapor analysis are summarized in **Table 1** in **Appendix C**.

Based on the field screening results, two (2) soil samples were collected for laboratory analysis. Soil sample SS-174@10' was collected from boring location HA-2 at a depth of approximately 10 feet below grade, which correlates with an OVA response of 2,950 parts per million (ppm). Soil sample SS-175@8' was collected from boring location HA-3 at a depth of approximately 8 feet below grade, which correlates with an OVA response of 250 ppm. Subsequent to sample collection, the sample containers were labeled, placed in a cooler packed with ice and transported under chain of custody to PC&B Environmental Laboratories, Inc. (PC&B). Soil sample was submitted for analysis by U.S. Environmental Protection Agency (EPA) Method 8021 for volatile organic compounds (VOCs), 8310 for polycyclic aromatic hydrocarbons (PAHs), Florida Residual Petroleum Organic method (FL-PRO) for total petroleum hydrocarbons (TPH) and 8 Resource Conservation and Recovery Act (RCRA) metals. A copy of the soil laboratory analytical results and chain of custody documentation are included in **Appendix D**.

3.2 Soil Assessment Results

Based on the results of the field screening, elevated organic vapor responses ranging from 950 ppm to 2,950 ppm were obtained for vadose (unsaturated) zone soils collected at boring location HA-2 at depths from 6 feet below grade to the water table encountered at 12 feet below grade. Elevated organic vapor results and strong petroleum odors were noted in the saturated soil samples collected from boring locations HA-2, HA-3 and HA-4.

The soil laboratory analytical results for soil sample SS-174@10' indicated the presence of 1,2,4-trimethylbenzene at a concentration of 93.39 milligram per kilogram (mg/kg), which exceeds both the Florida Administrative Code (FAC) 62-777 Residential Soil Cleanup Target Level (RSCTL) and Leachability SCTL (LSCTL) of 13 mg/kg and 0.3 mg/kg, respectively. Ethylbenzene, toluene, total xylene, 1,3,5-trimethylbenzene and naphthalene were identified in soil sample SS-174@10', at concentrations which exceed their respective LSCTL criteria, however do not exceed their respective RSCTL criteria.

The soil laboratory analytical results for soil sample SS-175@8' indicated the presence of various hydrocarbon constituents, however, at concentrations which do not exceed their respective RSCTL or LSCTLs criteria.

A summary of the soil laboratory analytical results is provided as **Table 2** in **Appendix C**. The approximate areas of vadose zone and smear zone impact is illustrated on **Figure 1** in **Appendix B**.

3.3 Groundwater Assessment Methodology

3.3.1 Temporary Monitoring Well Installation

In order to determine the horizontal extent of petroleum impacted groundwater at the subject site, N&A utilized temporary monitoring wells to establish the dissolved hydrocarbon plume configuration. On March 29, 2002, temporary monitoring wells (TMW-1 and TMW-2) were installed by N&A personnel in order to collect groundwater samples for laboratory analysis. Additional temporary monitoring wells (TMW-3 through TMW-11) were installed on April 15 and 18, 2002. The temporary monitoring wells were installed at on-site locations which indicated the greatest likelihood of impact based on field observations and available site history and information. The locations of the temporary monitoring wells are shown on **Figure 2** in **Appendix B.** Construction details for temporary monitoring wells TMW-1 through TMW-11 are shown on **Details 1** through **11** in **Appendix B**.

The temporary monitoring wells were installed by N&A personnel by utilizing a trailer-mounted auger rig and 4.25-inch decontaminated flight augers. The temporary monitoring wells were constructed using 10 feet of 1-inch diameter, 0.010-inch factory slotted polyvinyl chloride (PVC) well screen coupled with a solid PVC monitoring well sump (bottom) and topped with a 5 feet section of solid PVC riser. The PVC sump, well screens, and risers were transported to the site in new condition and wrapped in protective plastic. After removing the protective wrap, the assembled monitoring well was lowered into the open borehole, and so that the slotted screen intersects the surface of the groundwater table.

3.3.2 Groundwater Sampling and Analysis

On March 29, 2002, April 15, 2002 and April 18, 2002, groundwater samples were collected from temporary monitoring wells TMW-1 through TMW-11. Prior to sample collection, the monitoring wells were purged of a maximum of five (5) well volumes by utilizing a decontaminated peristaltic pump and dedicated tubing. This methodology assures that the groundwater samples are representative of actual aquifer conditions. Subsequently, the collected groundwater samples were transferred to laboratory supplied sample containers. A copy of the water sampling logs are provided in **Appendix E.**

The sample containers were labeled, placed in a cooler, packed with ice, and transported under chain of custody to PC&B Environmental laboratories, Inc. (PC&B). The samples were submitted for analysis by EPA Methods 602 for volatile organic aromatics (VOAs) and 610 for PAHs. Additionally, the samples collected from TMW-1 and TMW-2 were analyzed by EPA Method 601 for volatile organic halocarbons (VOHs), FL-PRO for TPHs and 8 RCRA metals (dissolved). A copy of the laboratory analytical reports and chain-of-custody documentation is provided in **Appendix D.**

3.4 Groundwater Assessment Results

The laboratory analytical results of the groundwater sample collected from temporary monitoring wells TMW-1 and TMW-4 indicated the presence of benzene at concentrations of 6,280 micrograms per liter (ug/l) and 6 ug/l, respectively, which exceeds the FAC 62-777 Cleanup Target Level (CTL) of 1 ug/l. The groundwater sample collected from TMW-1 exhibited the presence of ethylbenzene (1,580 ug/l), toluene (22,280 ug/l), total xylene (12,330), naphthalene (1,040 ug/l), 1-methyl naphthalene (582 ug/l), 2-methyl naphthalene (190 ug/l) and TPH (11.5 milligram per liter), which exceed their respective CTL criteria. The groundwater sample collected from TMW-4 exhibited the presence of ethylbenzene (535 ug/l), total xylene (2,145), naphthalene (540 ug/l), 1-methyl naphthalene (100 ug/l) and 2-methyl naphthalene (100 ug/l), which exceed their respective CTL criteria. The groundwater sample collected

from TMW-9 exhibited the presence of ethylbenzene (1,020 ug/l), toluene (66.8 ug/l), total xylene (6,600), naphthalene (760 ug/l), 1-methyl naphthalene (475 ug/l) and 2-methyl naphthalene (63 ug/l), which exceed their respective CTL criteria. Temporary monitoring well TMW-1 indicated the presence of tetrachloroethene (PCE) and 1,1-dichloroethane at concentrations of 1.1 ug/l and 1.9 ug/l, which do not exceed their respective CTLs of 3 ug/l and 70 ug/l.

The groundwater samples collected from the remainder of the temporary monitoring wells (TMW-2, TMW-3, TMW-5, TMW-6, TMW-7, TMW-8, TMW-10 and TMW-11) did not indicate the presence of any analyzed parameters in excess of their respective laboratory method detection limits (LMDLs) or CTLs.

A summary of the groundwater laboratory analytical results are provided as **Table 3** in **Appendix C**. An illustration of the dissolved hydrocarbon plume is provided as **Figure 2** in **Appendix B**.

3.5 Groundwater Elevation Survey and Flow Direction

The top of casings for all temporary monitoring wells were surveyed, using an on-site benchmark with a known elevation, in order to obtain relative elevations between the survey points. On April 15 and 18, 2002, the depth to groundwater in each of the monitoring wells were measured from the top of casing to the nearest hundredth of a foot with an electronic water level interface probe. The groundwater depths were subtracted from the top of casing elevations to obtain relative water table elevations. A summary of the calculated groundwater elevations, top of casing elevations and groundwater depths is provided as **Table 4** in **Appendix D**. The graphical presentation of the groundwater elevations for April 15 and April 18, 2002 are provided as **Figures 3** and **4**, respectively in **Appendix B**. The site specific groundwater flow direction is generally towards the east of the subject site, with flow components toward the north and south.

3.6 Quality Assurance/Quality Control

All field sampling activities were performed in general accordance with N&A's Comprehensive Quality Assurance Plan (No. 940009-07), approved by the FDEP on September 13, 1999. All laboratory analytical procedures were performed by PC&B in Oviedo, Florida, in general accordance their FDEP approved Comprehensive Quality Assurance Plan (No. 900134G) and National Environmental Laboratory Accreditation Certification (NELAC).

In order to minimize cross-contamination of the groundwater samples, a disposable bailer or field decontaminated peristaltic pump and dedicated tubing were utilized for the

collection of groundwater samples for analysis. All downhole augering equipment utilized during the field activities was decontaminated prior to and between each soil boring and monitoring well installation. Decontamination of said equipment was accomplished by washing the equipment with a non-phosphate detergent and distilled water solution followed by a distilled water rinse and final distilled water triple rinse. Single-use disposable latex gloves were used for each sampling event in an attempt to eliminate cross-contamination between sampling locations.

4.0 CONCLUSIONS

The approximate area of petroleum impacted vadose (unsaturated) zone soil is estimated to be 4,900 square feet. The extent of the petroleum impacted smear zone is estimated to be an approximate area of 20,700 square feet. The extent of the dissolved hydrocarbon plume in the surficial groundwater is defined by the current well network.

This LCA has provided sufficient information to conclude that the soil and surficial groundwater aquifer at the subject site exhibit the presence of petroleum hydrocarbon constituents in excess of the applicable state criteria. N&A recommends the development and implementation of remedial actions to address the contaminated soil and groundwater which currently exist at the subject site.

APPENDIX A

UNDERGROUND STORAGE TANK CLOSURE REPORT

ORLANDO NAVAL TRAINING CENTER BUILDING 109 UNDERGROUND STORAGE TANK CLOSURE REPORT

Submitted to:
Florida Department of Environmental Protection
Orange County Environmental Protection Division
Bureau of Petroleum Storage Systems

Contract Number:
N00024-99-D-8136
DO 0006
Subcontract Number
00S-0020-DC6

Prepared by:

SOUTH CAROLINA RESEARCH AUTHORITY
ENVIRONMENTAL ENTERPRISE GROUP
1899 NORTH HOBSON AVE.
NORTH CHARLESTON, S.C. 29405-2106

ORLANDO NAVAL TRAINING CENTER BUILDING 109 UNDERGROUND STORAGE TANK CLOSURE REPORT

Program Manager: _____ **Date:** 4/7/00

Prepared By: Charles C Wannamaker **Date:** 4/7/00

Environmental Enterprise Group

REPORT GENERATED BY:
SOUTH CAROLINA RESEARCH AUTHORITY
Environmental Enterprise Group
1899 North Hobson Avenue
North Charleston, SC 29406-2106

Attachment A

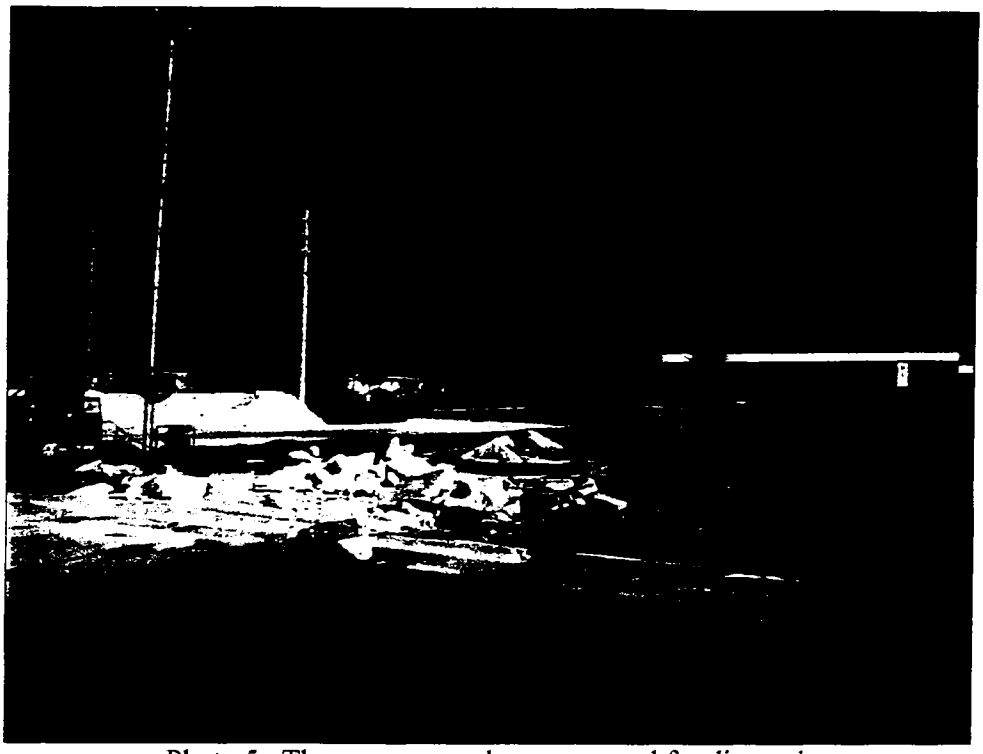


Photo 5: The concrete pad was removed for disposal

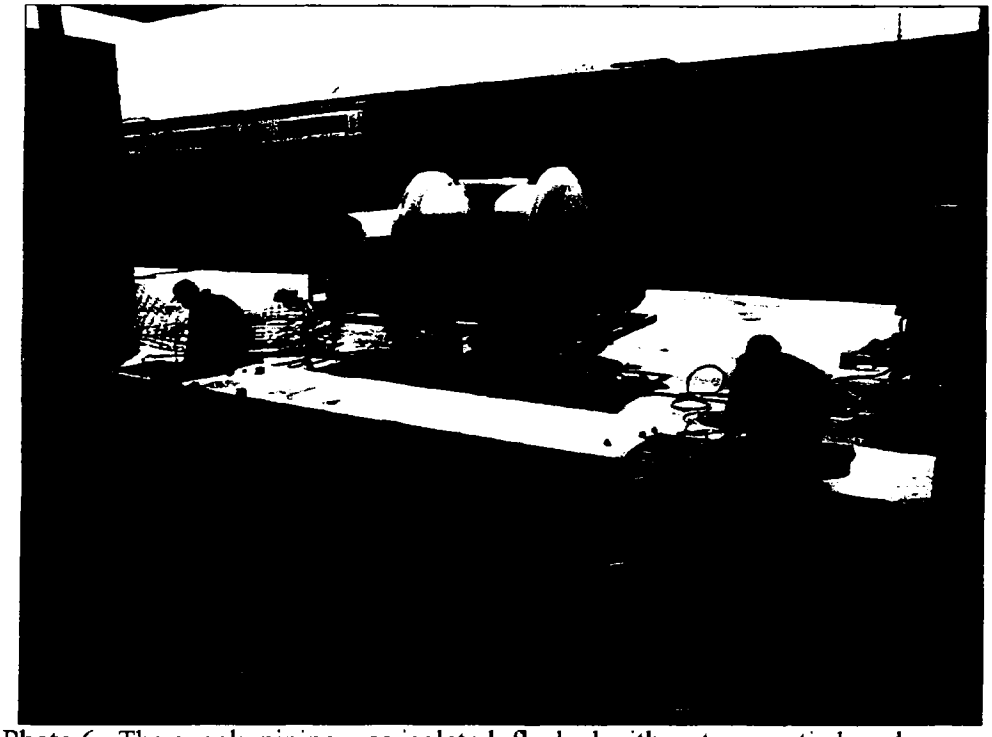


Photo 6: The supply piping was isolated, flushed with water, emptied, and capped

Attachment A

Photo 7: The supply piping was cut and capped at the east edge of the UST excavation

Photo 8: The top of the USTs were unearthed

Attachment A

Photo 9: The east UST was prepared to be cut open

Photo 10: The USTs were opened, cleaned and emptied

Attachment A

Photo 11: The USTs were backfilled with coarse sand

Photo 12: The tank site was covered with sand after the USTs were capped

Attachment A

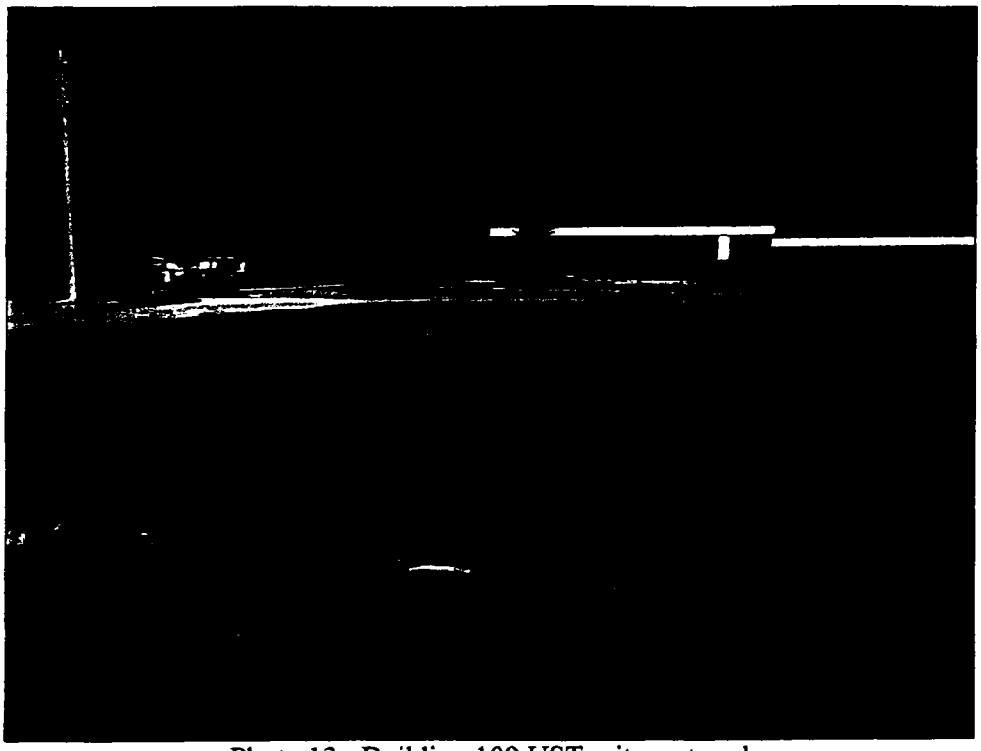


Photo 13: Building 109 USTs site restored

Attachment B

Summary of OVA Readings
Underground Storage Tanks Building 109
Naval Training Center Orlando, Florida

Sample #	Depth *(feet)*	Unfiltered *(ppm)*	Filtered *(ppm)*	Total Hydrocarbon readings *(ppm)*
SS-1	1	<1	<1	0
SS-2	2	<1	<1	0
SS-3	2	<1	<1	0
SS-4	3	<1	<1	0
SS-5	4	<1	<1	0
SS-6	4	<1	<1	0
SS-7	3	<1	<1	0
SS-8	2	<1	<1	0
SS-9	2	<1	<1	0
SS-10	3	<1	<1	0
SS-11	3	<1	<1	0

Notes: Readings for unfiltered samples are total hydrocarbon readings including methane; readings for filtered samples are methane only.
ppm = parts per million

Attachment C

Underground Storage System Installation and Removal Form for Certified Contractors

Florida Department of Environmental Protection
Twin Towers Office Bldg.•2600 Blair Stone Road•Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(5)
Form Title: UST Contractor Form
Effective Date: July 13, 1998

Underground Storage System Installation and Removal Form for Certified Contractors

Pollutant Storage Systems Contractor as defined in Section 489.113, Florida Statutes (certified contractors as defined in Section 62-761.200, Florida Administrative Code) shall use this form to certify that the installation, replacement or removal of the underground storage tank system(s) located at the address listed below was performed in accordance with Department Reference Standards. This includes system components such as dispenser liners, piping sumps, and overfill protection devices.

General Facility Information

Facility Name: Naval Training Center	DEP Facility Identification No.: 488513237 R1, R2, R3
Street Address (physical location): Building 109 Auto Service Center	
County: Orange County	Telephone #: (407) 895-9442
Owner Name: Caretaker Site Office	Telephone #: (407) 895-9442
Owner Address: Naval Training Center, 2850 Seabee Street, Orlando, Fl. 32813	

Storage Tank System Information

Number of Tanks Installed: N/A	Number of Tanks Removed: 3
Date Work Initiated: March 2, 2000	Date Work Completed: March 8, 2000
Tank(s) Manufactured by: Owens Corning	
Description of work Completed: Three each 20,000 gallon fiberglass underground storage tanks and associated piping	
were emptied, cleaned, the USTs filled with sand, capped and closed-in-place.	

Certification

I hereby certify and attest that I am familiar with the facility that is registered with the Florida Department of Environmental Protection; that to the best of my knowledge and belief, the storage tank system installation, replacement or removal at this facility was conducted in accordance with Chapter 489, Florida Statutes, Section 376.303, Florida Statutes, and Chapter 62-761, Florida Administrative Code, and its adopted reference standards and documents for underground storage tank systems.

NA per FDEP Steve Cottrell April 25,2000
(Type or Print)
Certified Pollutant Tank Contractor Name

NA per FDEP Steve Cottrell April 25,2000
PSSC Number
Pollutant Storage Systems
Contractor License Number

NA per FDEP Steve Cottrell April 25, 2000
Certified Tank Contractor Signature

Date

Charles C. Wannamaker
Field Supervisor Name

4/7/00
Date

The owner or operator of the facility must register the tanks with the Department upon completion of the installation. The installer must submit this form to the County no more than 30 days after the completion of installation, replacement, or removal of a storage tank

Attachment D

Disposal Manifests

Scotty's Oil Co. Inc.
407-859-7281

Date 3-2 2000

Sold to PUMPED 243 GALLONS OF

Address 93 UNLEADED FROM 20,000 GAL UNDERGROUND TANK

Phone No.

TRUCK NO #6 | PAID | CHARGE

PRODUCT	GALLONS	PRICE	AMOUNT
93 UNLEADED	243		

IDENTIFICATION: AA 9 3 2 / AA 9 3 –

GALLON READING FINISH: 1 C 2 4 3 1 / U 0 0 0 0 0

GALLON READING - START

GALLONS DELIVERED

Received Payment $

TANK TRUCK SALESMAN

Delivery Received in Good Condition

CUSTOMER

12205

Scotty's Oil Co. Inc.
407-859-7281

Date 3-2 2000

Sold to PUMPED 904 GAL 89 UNLEADED FROM

Address 20,000 GAL. UNDERGROUND TANK

Phone No.

TRUCK NO #6 | PAID | CHARGE

PRODUCT	GALLONS	PRICE	AMOUNT
89 UNLEADED	904		

IDENTIFICATION: AA 9 3 1 / AA 9 3 –

GALLON READING FINISH: 1 C 9 0 4 1 / U 0 0 0 0 0

GALLON READING - START

GALLONS DELIVERED

Received Payment $

TANK TRUCK SALESMAN

Delivery Received in Good Condition

CUSTOMER

11774

PETROTECH SOUTHEAST, INC.

409 Franklin Street
Ocoee, Florida 34761
FLD 982108136
Phone (407) 656-8114 • 656-1616

44795

CERTIFIED MANIFEST

NAME OF GENERATOR CNI DATE

ADDRESS NAVAL TRAING CTR. (MAGUIRE Rd GATE)

CITY ORLANDO STATE/ZIP 941/ PHONE 384-3550

CONTACT PERSON CORES TYPE WASTE "DIESEL"

TRANSPORTER/DISPOSER INFORMATION

CERTIFICATION: THIS IS TO CERTIFY THE ABOVE AND BELOW DESCRIBED MATERIALS HAVE BEEN PICKED UP AND WILL BE TRANSPORTED, TREATED AND DISPOSED OF IN A MANNER PURSUANT TO ALL FEDERAL, STATE AND LOCAL LAWS AND GUIDELINES.

DRIVERS SIGNATURE

	TOTAL AMOUNT	UNIT PRICE	TOTAL PRICE
USED OIL	225	.50	112.50
WASTE WATER	450	.39	175.50
OIL FILTER			
ABSORBENTS			
ANTI FREEZE			
SERVICE CHARGE			
TRUCK TIME			
			288.00

CASH	C.O.D.	CHARGE	ON/ACCT.	RETURNED	PD. OUT	CUSTOMER P.O. NUMBER

I CERTIFY THE MATERIALS DESCRIBED ABOVE ARE NOT SUBJECT TO FEDERAL REGULATIONS FOR REPORTING PROPER DISPOSAL OF HAZARDOUS WASTE. BY MY SIGNATURE I ACKNOWLEDGE AND AGREE.

C A Warren

SIGNATURE DATE

INFORMATION:

House of Printing form no. 2133-91 Rev. 11/89

PETROTECH SOUTHEAST, INC.

409 Franklin Street
Ocoee, Florida 34761
FLD 982108136
Phone (407) 656-8114 • 656-1616

44506

CERTIFIED MANIFEST

NAME OF GENERATOR CNT DATE 03/8/00

ADDRESS NAVAL TRAINING CTR ORLANDO

CITY ORLANDO STATE/ZIP PHONE 407/244-0555

CONTACT PERSON TYPE WASTE OILY

TRANSPORTER/DISPOSER INFORMATION

CERTIFICATION: THIS IS TO CERTIFY THE ABOVE AND BELOW DESCRIBED MATERIALS HAVE BEEN PICKED UP AND WILL BE TRANSPORTED, TREATED AND DISPOSED OF IN A MANNER PURSUANT TO ALL FEDERAL, STATE AND LOCAL LAWS AND GUIDELINES.

L + L
DRIVERS SIGNATURE

	TOTAL AMOUNT	UNIT PRICE	TOTAL PRICE
USED OIL			
WASTE WATER	100		32.00
OIL FILTER			
ABSORBENTS			
ANTI FREEZE			
SERVICE CHARGE			
TRUCK TIME	1 Hr.	37.50	37.50
			69.50

CASH	C.O.D.	CHARGE	ON/ACCT.	RETURNED	PD. OUT	CUSTOMER P.O. NUMBER

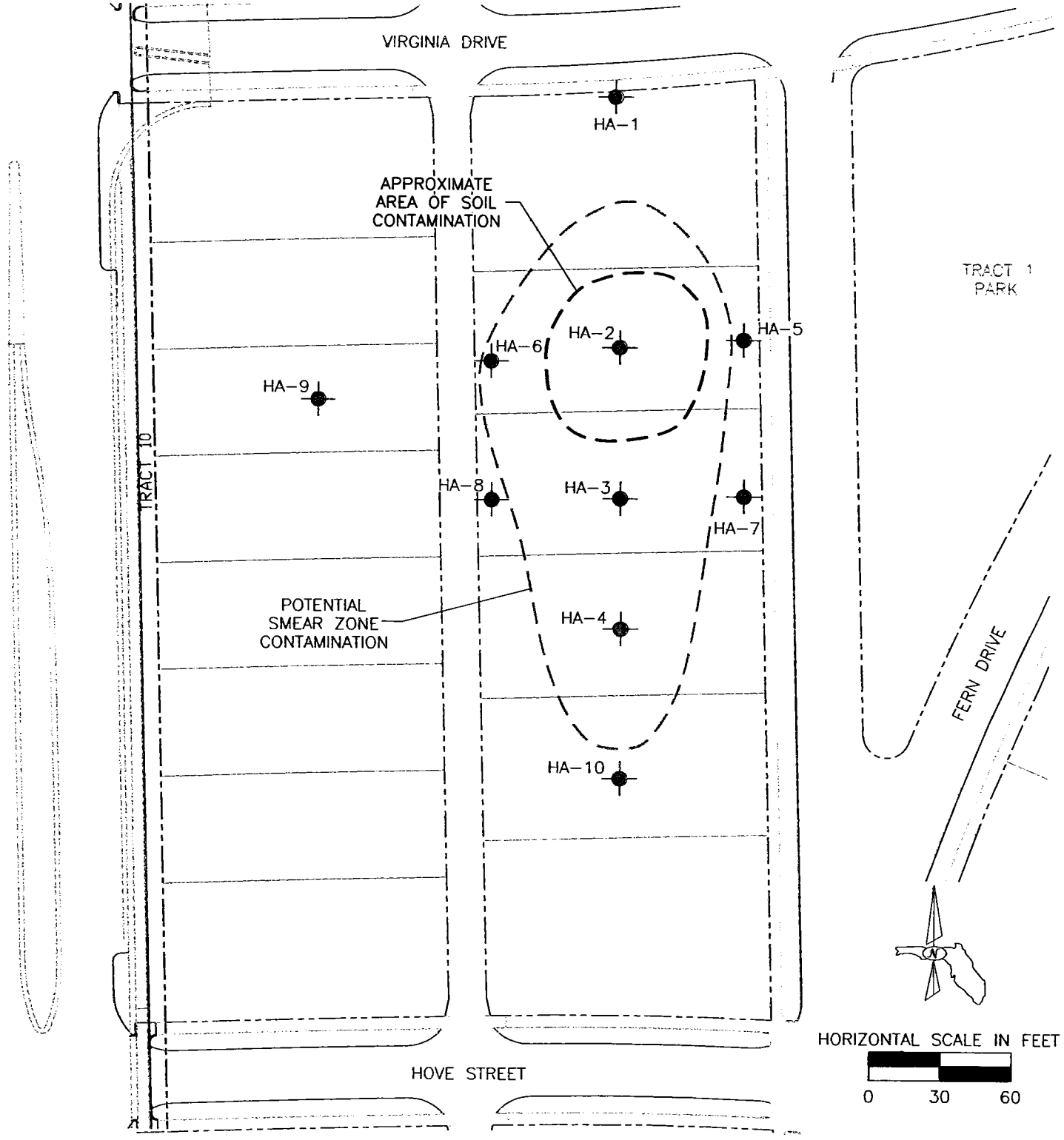
I CERTIFY THE MATERIALS DESCRIBED ABOVE ARE NOT SUBJECT TO FEDERAL REGULATIONS FOR REPORTING PROPER DISPOSAL OF HAZARDOUS WASTE. BY MY SIGNATURE I ACKNOWLEDGE AND AGREE.

[signature] 3/8/00
SIGNATURE DATE

INFORMATION:

APPENDIX B

FIGURES/DETAILS



SOIL BORING LOCATION MAP

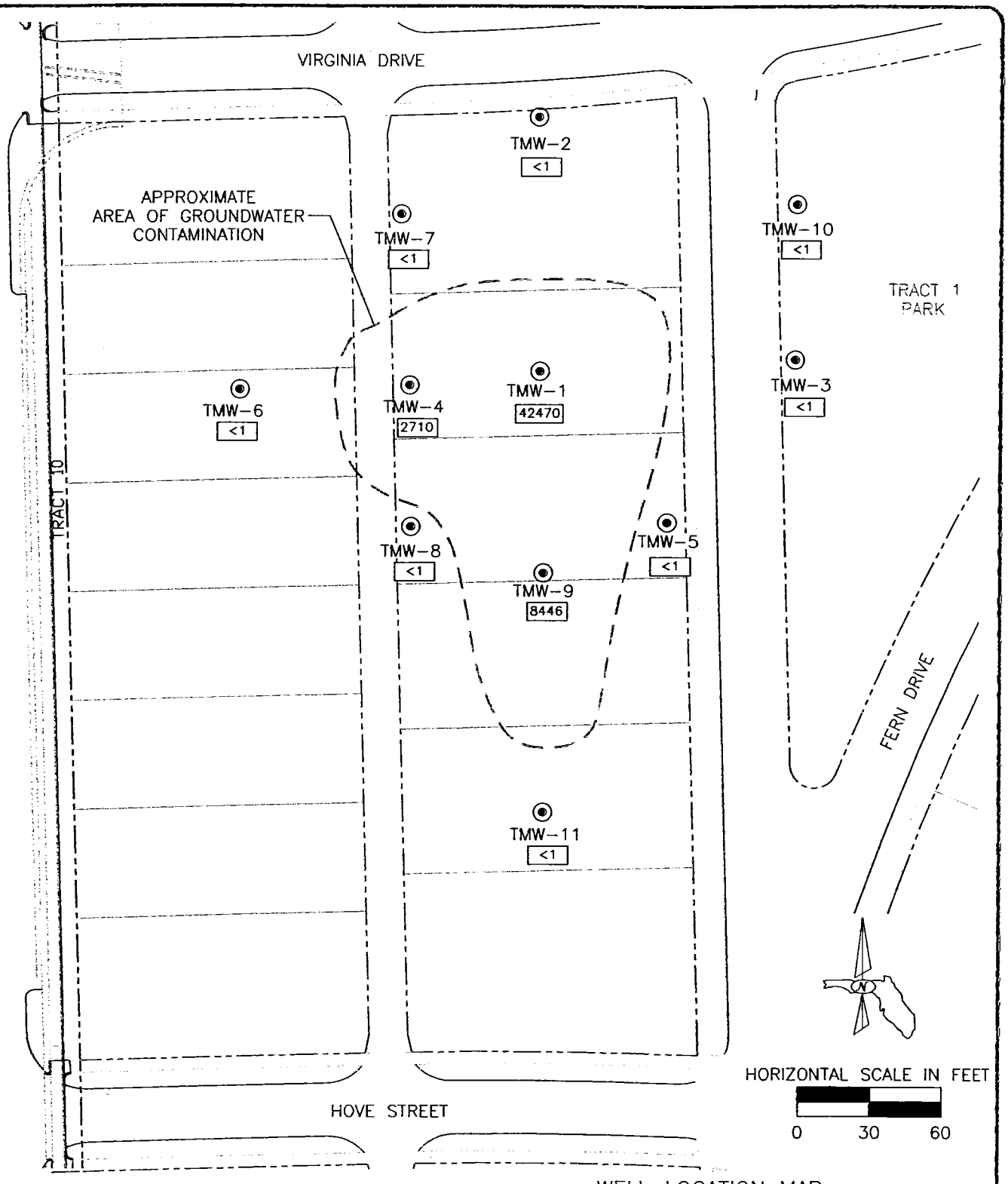
PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

LEGEND

APPROXIMATE LOCATION OF BORING AND SOIL SAMPLE LOCATION FOR LABORATORY ANALYSIS

DRAWN: MG	NODARSE & ASSOCIATES, INC.
CHKD: LW	
SCALE: NOTED	
DATE: 4-17-02	PROJ. NO: W99-E-186-4
	FIGURE: 1

Apr19, 2002-10:5?am



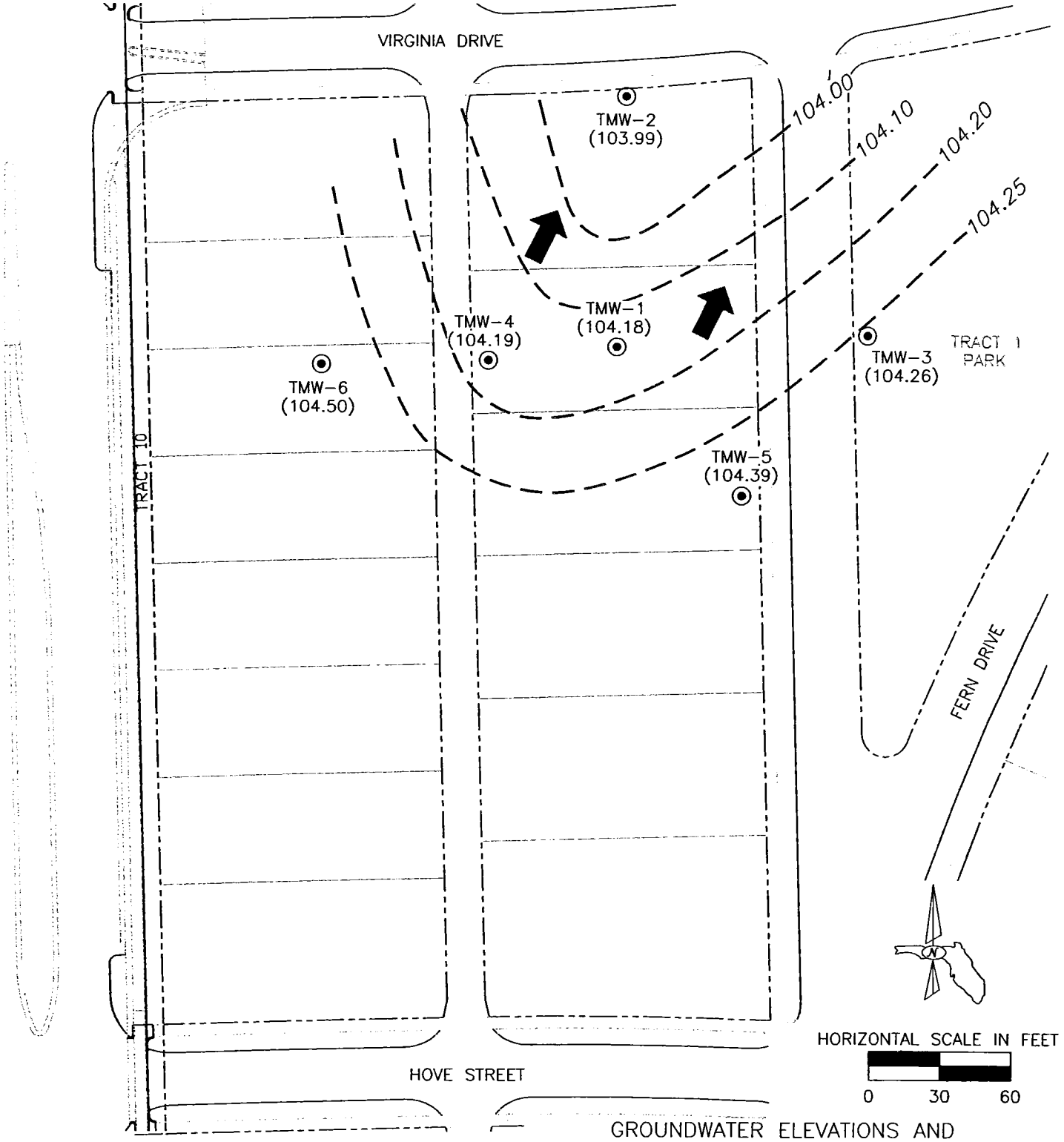
WELL LOCATION MAP

LEGEND

- ⊙ APPROXIMATE LOCATION OF TEMPORARY MONITORING WELL
- 6280 SUM OF BTEX (BENZENE, TOLUENE, ETHYLBENZENE AND XYLENES) CONCENTRATION IN MICROGRAMS/L

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	FIGURE: 2



GROUNDWATER ELEVATIONS AND CONTOUR MAP 4-15-02

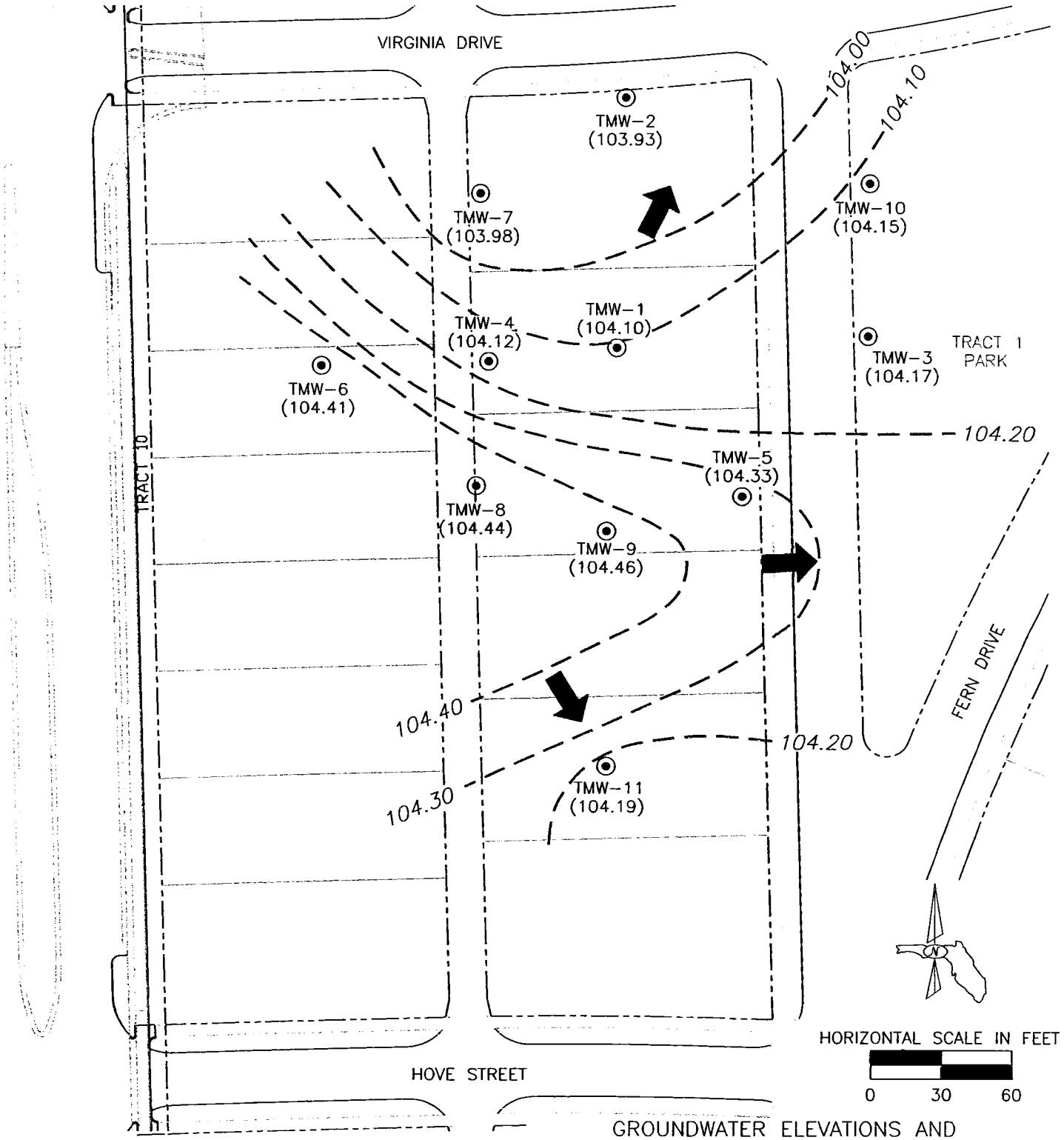
LEGEND

- ⊙ APPROXIMATE LOCATION OF TEMPORARY MONITORING WELL
- (114.6) GROUNDWATER TABLE ELEVATION IN FEET
- *114.0* GROUNDWATER ELEVATION CONTOUR IN FEET
- GROUNDWATER FLOW DIRECTION

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.		
CHKD: LW			
SCALE: NOTED			
DATE: 4-25-02	PROJ. NO: W99-E-186-4	FIGURE: 3	

Apr25, 2002 - 3:32pm



GROUNDWATER ELEVATIONS AND CONTOUR MAP 4-18-02

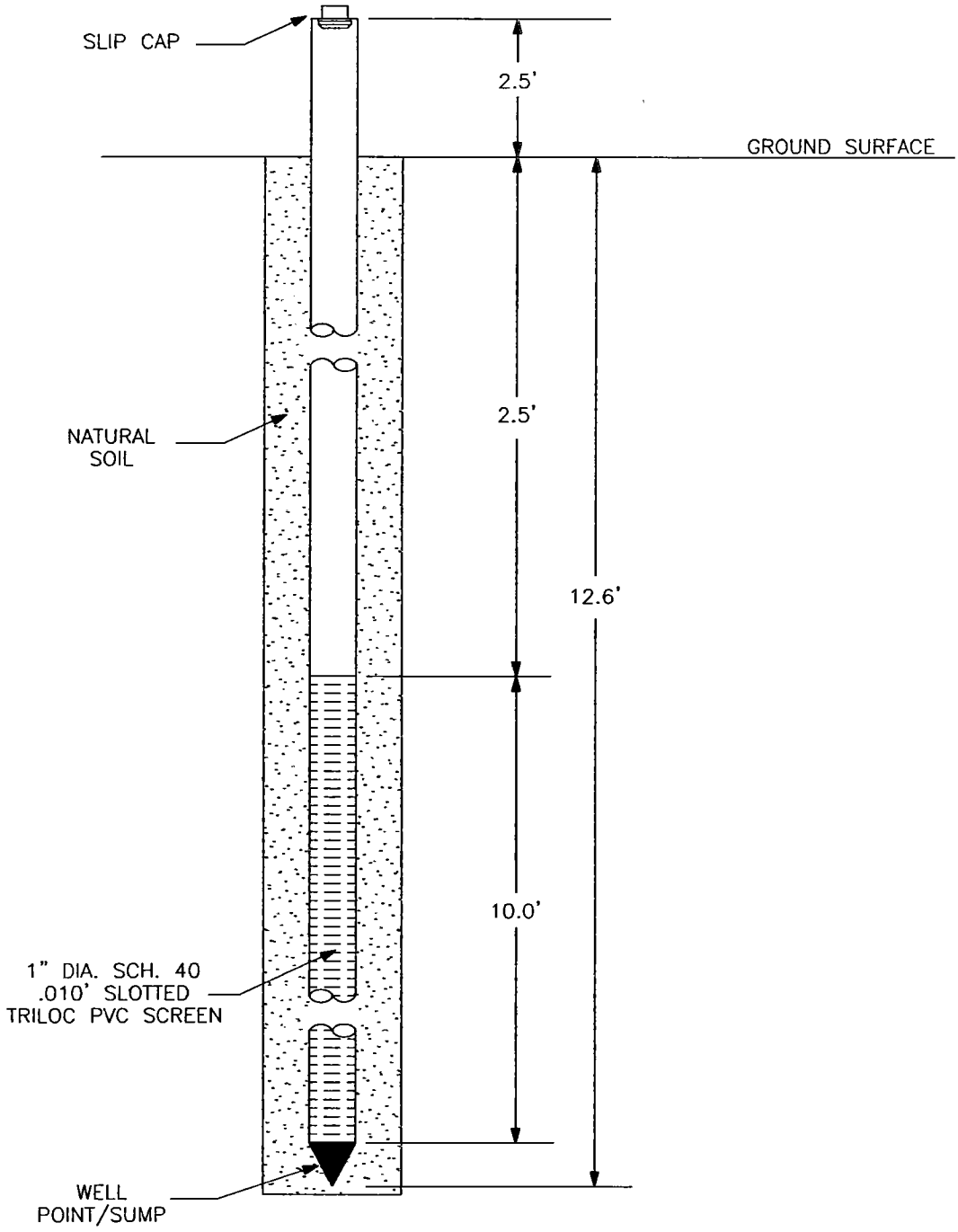
LEGEND

- ⊙ APPROXIMATE LOCATION OF TEMPORARY MONITORING WELL
- (104.19) GROUNDWATER TABLE ELEVATION IN FEET
- 104.30 GROUNDWATER ELEVATION CONTOUR IN FEET
- GROUNDWATER FLOW DIRECTION

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	FIGURE: 4

Apr 25, 2002 - 3:23pm



WELL No. TMW-1

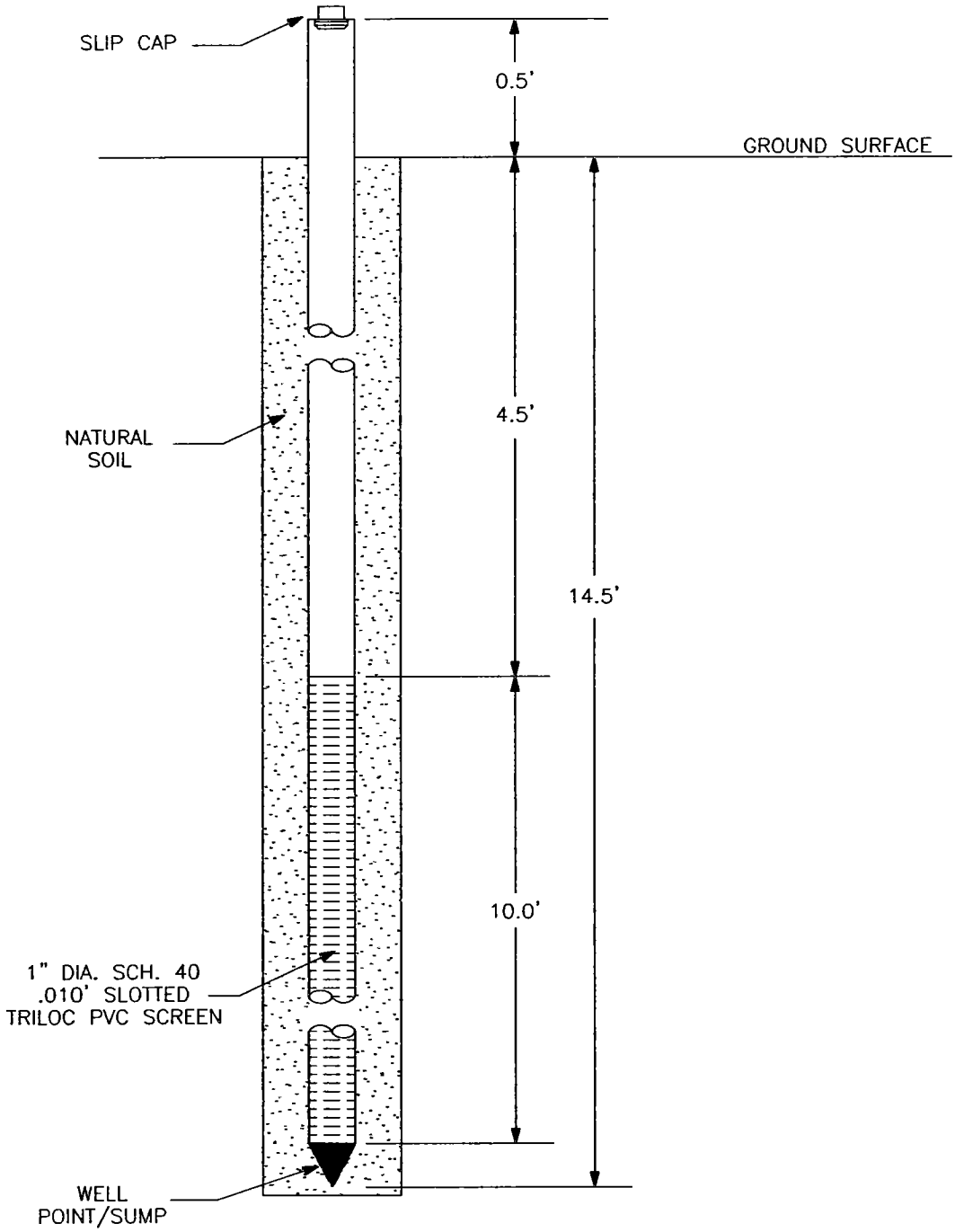
INSTALLATION REPORT

INSTALLATION DATE: 3-29-02
INSTALLED BY: NODARSE & ASSOCIATES, INC.
DEPTH TO GROUNDWATER: 11.0' BLS
INSTALLATION METHOD: FLIGHT AUGER RIG

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.		
CHKD: LW			
SCALE: NOTED			
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 1	

Apr25, 2002 - 3:37 pm



WELL No. TMW-2

INSTALLATION REPORT

INSTALLATION DATE: 3-29-02

INSTALLED BY: NODARSE & ASSOCIATES, INC.

DEPTH TO GROUNDWATER: 11.0' BLS

INSTALLATION METHOD: FLIGHT AUGER RIG

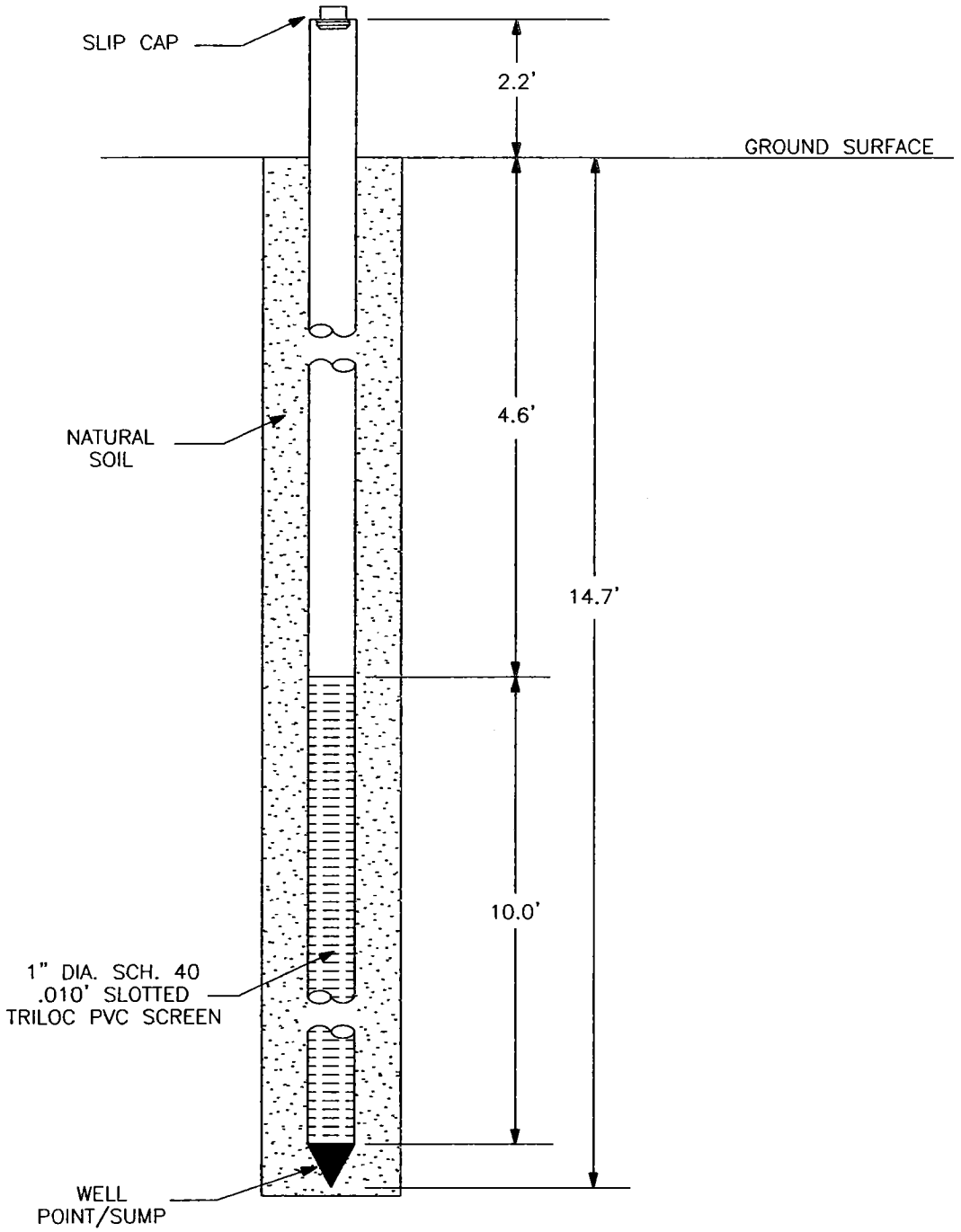
PETROLEUM CONTAMINATION ASSESSMENT

BALDWIN PARK DEVELOPMENT

ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 2

Apr25, 2002 - 3:36pm



WELL No. TMW-3

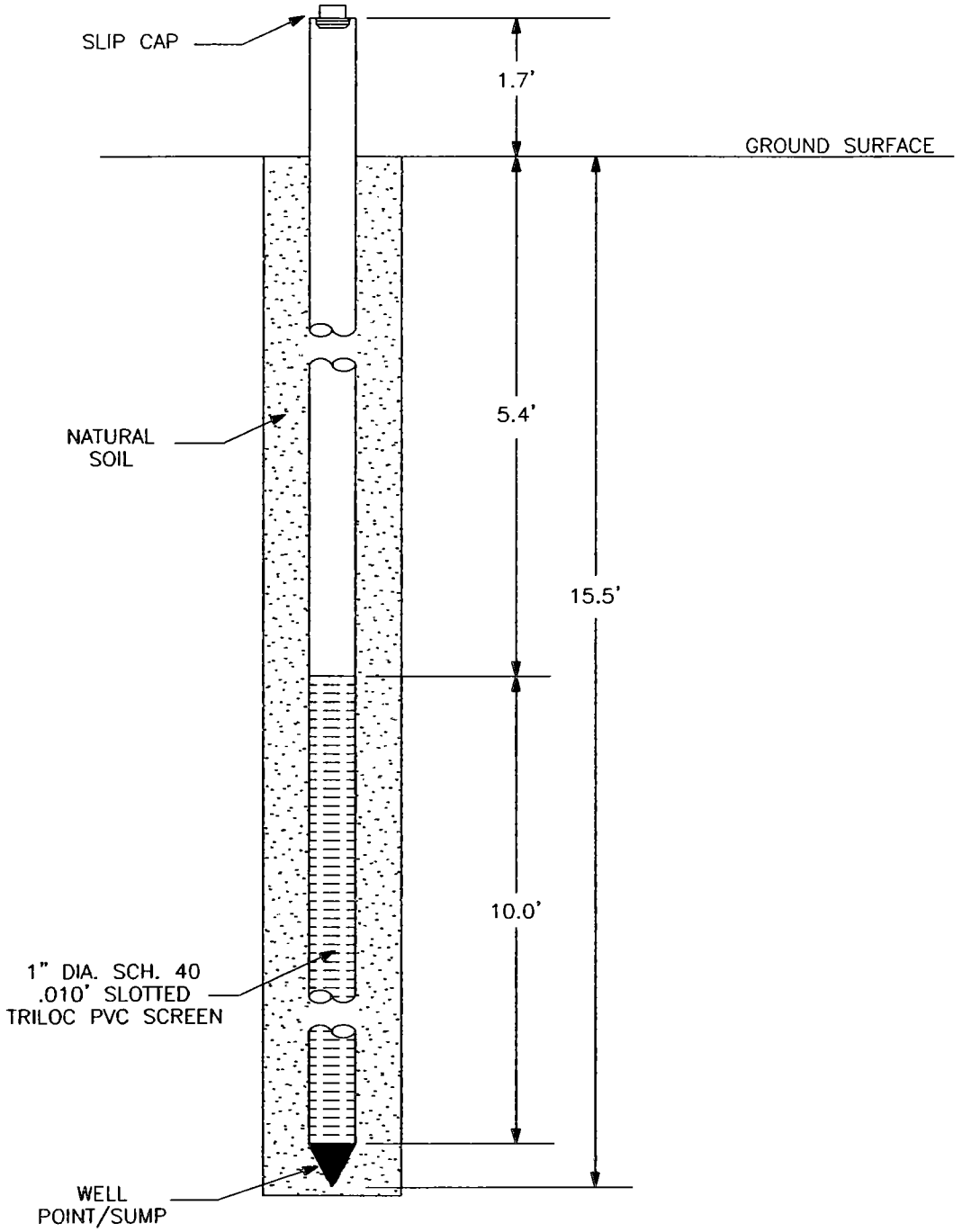
INSTALLATION REPORT

INSTALLATION DATE: 4-15-02
INSTALLED BY: NODARSE & ASSOCIATES, INC.
DEPTH TO GROUNDWATER: 10.0' BLS
INSTALLATION METHOD: FLIGHT AUGER RIG

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 3

Apr 25, 2002 - 3:39pm



WELL No. TMW-5

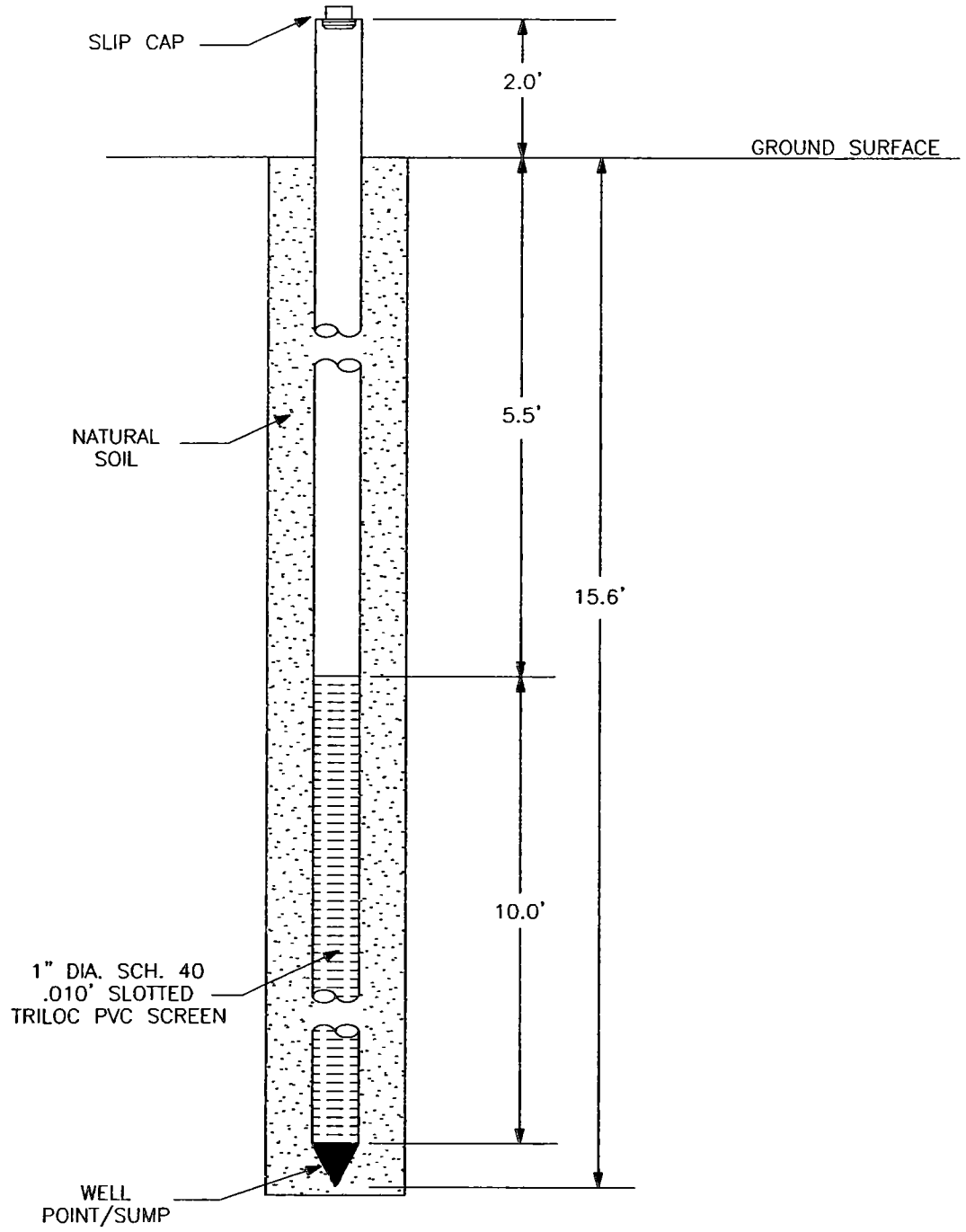
INSTALLATION REPORT

INSTALLATION DATE: 4-15-02
INSTALLED BY: NODARSE & ASSOCIATES, INC.
DEPTH TO GROUNDWATER: 11.0' BLS
INSTALLATION METHOD: FLIGHT AUGER RIG

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 5

Apr25, 2002 - 3:41pm



WELL No. TMW-6

INSTALLATION REPORT

INSTALLATION DATE: 4-15-02

INSTALLED BY: NODARSE & ASSOCIATES, INC.

DEPTH TO GROUNDWATER: 11.0' BLS

INSTALLATION METHOD: FLIGHT AUGER RIG

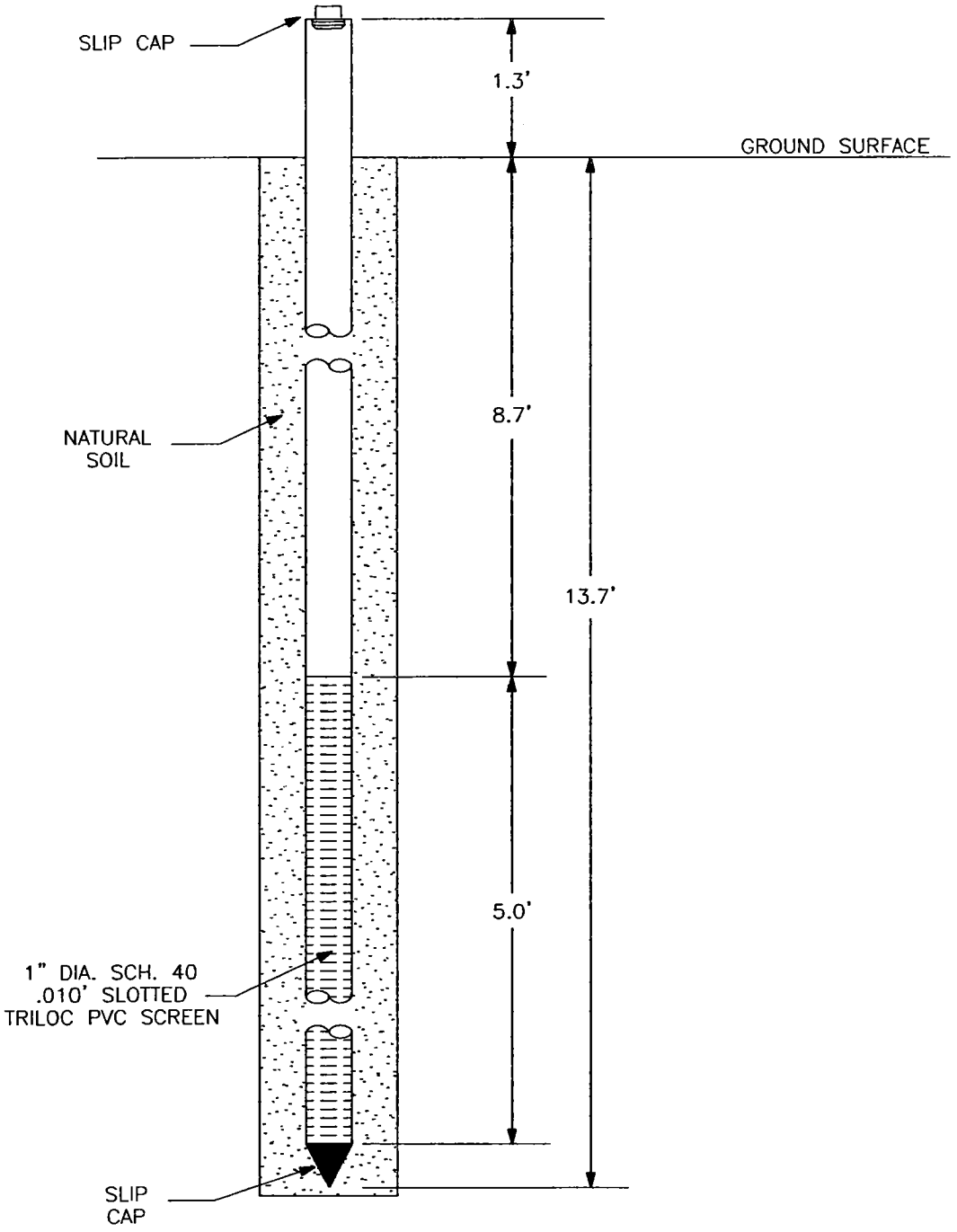
PETROLEUM CONTAMINATION ASSESSMENT

BALDWIN PARK DEVELOPMENT

ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 6

Apr 25, 2002 - 3:41pm



WELL No. TMW-7

INSTALLATION REPORT

INSTALLATION DATE: 4-18-02

INSTALLED BY: NODARSE & ASSOCIATES, INC.

DEPTH TO GROUNDWATER: 12.91' BTOC

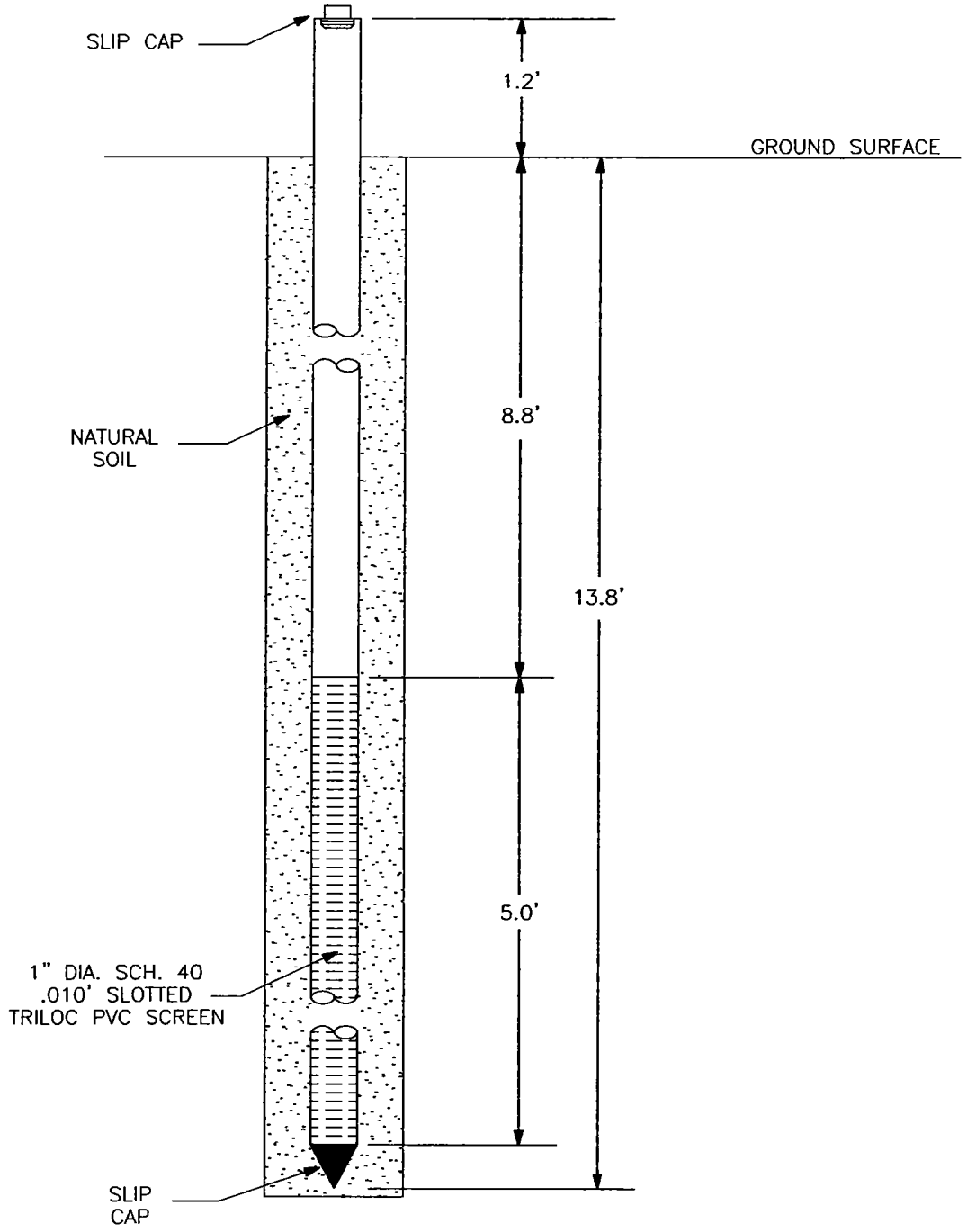
INSTALLATION METHOD: AUGER RIG

PETROLEUM CONTAMINATION ASSESSMENT

BALDWIN PARK DEVELOPMENT

ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.		
CHKD: LW			
SCALE: NOTED			
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 7	



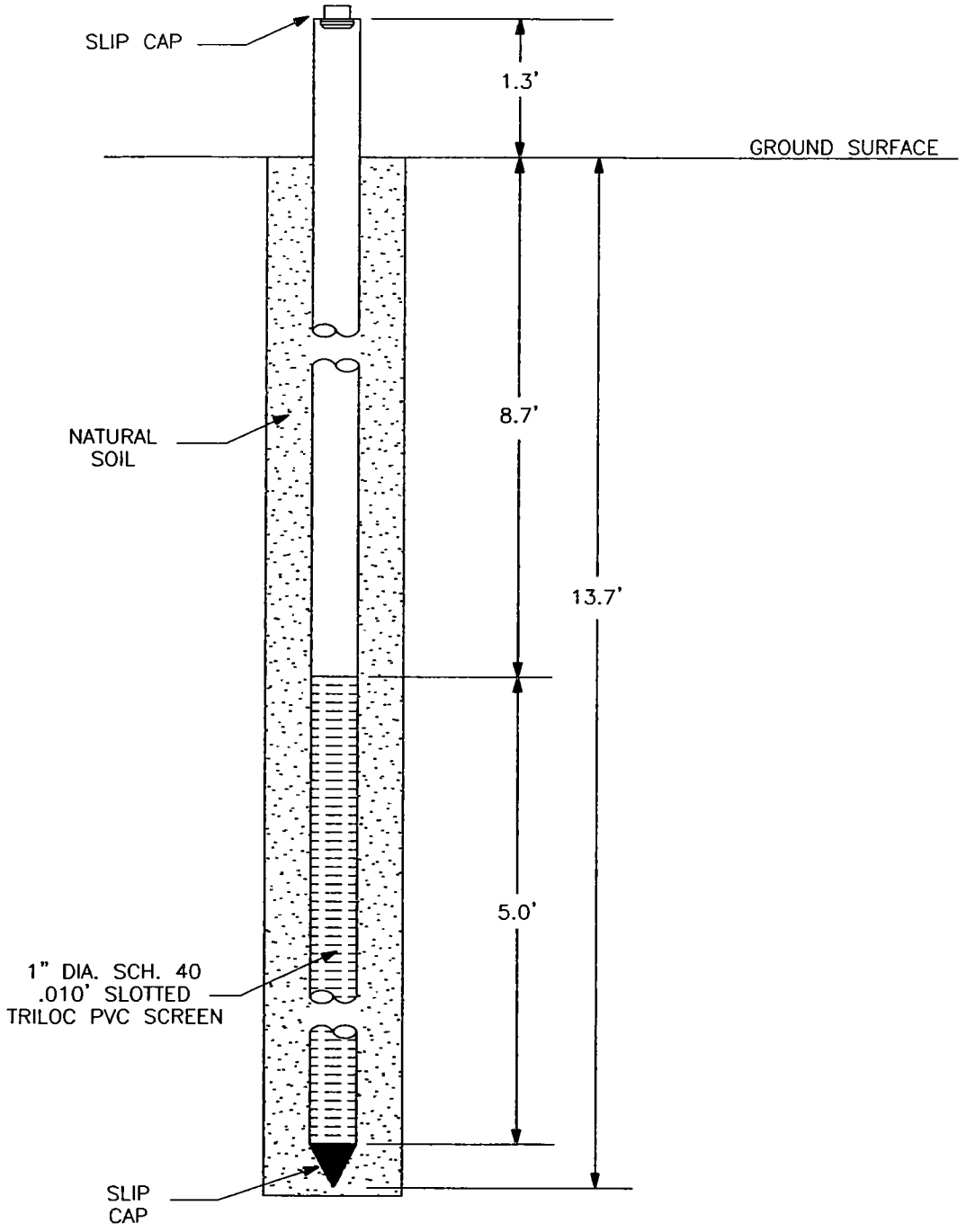
WELL No. TMW-10

INSTALLATION REPORT

INSTALLATION DATE:	4-18-02
INSTALLED BY:	NODARSE & ASSOCIATES, INC.
DEPTH TO GROUNDWATER:	11.22' BTOC
INSTALLATION METHOD:	AUGER RIG

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 10



WELL No. TMW-11

INSTALLATION REPORT

INSTALLATION DATE:	4-18-02
INSTALLED BY:	NODARSE & ASSOCIATES, INC.
DEPTH TO GROUNDWATER:	13.08' BTOC
INSTALLATION METHOD:	AUGER RIG

PETROLEUM CONTAMINATION ASSESSMENT
BALDWIN PARK DEVELOPMENT
ORANGE COUNTY, FLORIDA

DRAWN: MG	NODARSE & ASSOCIATES, INC.	
CHKD: LW		
SCALE: NOTED		
DATE: 4-25-02	PROJ. NO: W99-E-186-4	DETAIL: 11

Apr25, 2002 - 3:46p

APPENDIX C

TABLES

TABLE 2

SUMMARY OF SOIL LABORATORY ANALYTICAL RESULTS
(Detected Parameters Only)
BALDWIN PARK PHASE I
ORLANDO, ORANGE COUNTY, FLORIDA
N&A PROJECT NO. W02-E-041

Sample ID Number	SS-174@10'	SS-175@8'	FAC 62-777	
Sample Date Parameter	4/6/02 EPA Method 8021, 8310, FL-PRO, 8 RCRA	4/6/02 EPA Method 8021, 8310, FL-PRO, 8 RCRA	RSCTL	LSCTL
n-butylbenzene (mg/kg)	12.49	<(0.005)u	NC	NC
Ethylbenzene (mg/kg)	**3.9**	<(0.005)u	1,100	0.6
Toluene (mg/kg)	**6.79**	<(0.005)u	380	0.5
Total Xylene (mg/kg)	**84.63**	0.02	5,900	0.2
1,2,4-trimethylbenzene (mg/kg)	**93.39**	0.029	13	0.3
1,3,5-trimethylbenzene (mg/kg)	**20.84**	0.009	1300	0.3
Chromium	0.6	2.4	210	38
Naphthalene (mg/kg)	**15.14**	0.014	40	1.7
1-methyl naphthalene (mg/kg)	0.485	<(0.1)u	68	2.2
2-methyl naphthalene (mg/kg)	0.400	<(0.1)u	80	6.1
TPH (mg/kg)	69.7	<(4.2)u	340	340

Note:
1. SS-175@8' - Collected from HA-3 at 8 feet
2. SS-174@10' - Collected from HA-2 at 10 feet
3. EPA - U.S. Environmental Protection Agency
4. FL-PRO - Florida Residual Petroleum Organics
5. RCRA - Resource Conservation and Recovery Act
6. FAC - Florida Administrative Code
7. RSCTL - Soil Cleanup Target Level for residential land use.
8. LSCTL - Soil Cleanup Target Level for leachability based on groundwater criteria.
9. mg/kg - milligrams per kilogram
10. TPH - Total petroleum hydrocarbon
11. <(0.005)u - Parameter not detected at the laboratory method detection limit shown in parentheses.
12. NC - no criteria

TABLE 3

SUMMARY OF GROUNDWATER LABORATORY ANALYTICAL RESULTS
(Detected Parameters Only)
BALDWIN PARK PHASE I
ORLANDO, ORANGE COUNTY, FLORIDA
N&A PROJECT NO. W02-E-041

Sample ID Number	TMW-1*	TMW-2	TMW-3	TMW-4	TMW-5	TMW-6	
Sample Date Parameter	3/29/02 EPA Method 601, 602, 610, 8 RCRA, FL-PRO	3/29/02 EPA Method 601, 602, 610, 8 RCRA, FL-PRO	4/15/02 EPA Method 602, 610	4/15/02 EPA Method 602, 610	4/15/02 EPA Method 602, 610	4/15/02 EPA Method 602, 610	FAC 62-777 CTL
Benzene (ug/l)	**6280**	(<1)u	(<1)u	**6**	(<1)u	(<1)u	1
Ethylbenzene (ug/l)	**1580**	(<1)u	(<1)u	**535**	(<1)u	(<1)u	30
Toluene (ug/l)	**22,280**	(<1)u	(<1)u	24	(<1)u	(<1)u	40
Total Xylene (ug/l)	**12,330**	(<1)u	(<1)u	**2145**	(<1)u	(<1)u	20
Naphthalene (ug/l)	**1040**	(<5)u	(<5)u	**540**	(<5)u	(<5)u	20
1-methyl naphthalene (ug/l)	**582**	(<5)u	(<5)u	**100**	(<5)u	(<5)u	20
2-methyl naphthalene (ug/l)	**190**	(<5)u	(<5)u	**100**	(<5)u	(<5)u	20
TPH (mg/l)	**11.5**	(<0.1)u	NA	NA	NA	NA	5

Sample ID Number	TMW-7	TMW-8	TMW-9	TMW-10	TMW-11	
Sample Date Parameter	4/18/02 EPA Method 602, 610	4/18/02 EPA Method 602, 610	4/18/02 EPA Method 602, 610	4/18/02 EPA Method 602, 610	4/18/02 EPA Method 602, 610	FAC 62-777 CTL
Benzene (ug/l)	(<1)u	(<1)u	(<1)u	(<1)u	(<1)u	1
Ethylbenzene (ug/l)	(<1)u	(<1)u	**1020**	(<1)u	(<1)u	30
Toluene (ug/l)	(<1)u	(<1)u	**66.8**	(<1)u	(<1)u	40
Total Xylene (ug/l)	(<1)u	(<1)u	**6600**	(<1)u	(<1)u	20
Naphthalene (ug/l)	(<5)u	(<5)u	**760**	(<5)u	(<5)u	20
1-methyl naphthalene (ug/l)	(<5)u	(<5)u	**475**	(<5)u	(<5)u	20
2-methyl naphthalene (ug/l)	(<5)u	(<5)u	**63**	(<5)u	(<5)u	20
TPH (mg/l)	NA	NA	NA	NA	NA	5

NOTES:

1. EPA - U.S. Environmental Protection Agency (EPA)
2. RCRA - Resource Conservation and Recovery Act
3. FL-PRO - Florida Residual Petroleum Organics
4. TPH - Total Petroleum Hydrocarbons
5. ug/l - microgram per liter
6. mg/l - milligram per liter
7. FAC - Florida Administrative Code
8. CTL - Cleanup Target Level
9. * EPA Method 601 analysis for TMW-1 collected on April 18, 2002 indicated 1,1-Dichloroethane (1.9 ug/l) and tetrachloroethene (1.1 ug/l) which do not exceed their respective FAC 62-777 CTL.
10. NA - Not analyzed

TABLE 4

SUMMARY OF GROUNDWATER DEPTHS AND ELEVATIONS
BALDWIN PARK PHASE I
ORLANDO, ORANGE COUNTY, FLORIDA
N&A PROJECT NO. W02-E-041

4/12/02		4/12/02		4/18/02	
Well Number	Top of Casing Elevation	Depth to Water Table	Groundwater Elevation	Depth to Water Table	Groundwater Elevation
TMW-1	117.95	13.77	104.18	13.85	104.1
TMW-2	114.93	10.94	103.99	11.00	103.93
TMW-3	116.20	11.94	104.26	12.03	104.17
TMW-4	117.73	13.54	104.19	13.61	104.12
TMW-5	117.26	12.87	104.39	12.93	104.33
TMW-6	117.96	13.46	104.50	13.55	104.41
TMW-7	116.89	-	-	12.91	103.98
TMW-8	117.69	-	-	13.25	104.44
TMW-9	117.56	-	-	13.10	104.46
TMW-10	115.37	-	-	11.22	104.15
TMW-11	117.99	-	-	13.8	104.19

NOTE: 1. Top of casing elevations surveyed by N&A personnel and referenced to the closest benchmark established by others at the site.
2. All measurements in feet (relative).
3. Fluid measurements taken with an electronic water interface meter.

APPENDIX D

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY DOCUMENTATION

PC&B Environmental Laboratories, Inc.

210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

Client : Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

Contact : Dave Twedell
Phone (407) 740-6110

Laboratory Reference Number : 202040002

Project Name : NTC Baldwin
Project Number : W01EXXX

Chain of Custody : 25581

Laboratory ID	Matrix	Client ID	Status	Date/Time Sampled
202040002-1	Water	TW-1A	RUN	03/29/2002 11:30

Number	Parameter	Description
1	Group Test	Filtered RCRA Metals by ICP in Water
1	EPA 8021	Aromatic Volatile Organics
1	EPA 8021	Halogenated Volatile Organics
1	FL-PRO	Petroleum Hydrocarbons
1	EPA 610/8100	Polynuclear Aromatic Hydrocarbons

PC&B Environmental Laboratories, Inc.

210 Park Road
Oviedo, FL 32765-8801
407-359-7194 - (FAX) 407-359-7197

Case Narrative

Dave Twedell
Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

CASE NARRATIVE for Work Order: 202040002
Project Number: W01EXXX
Project Name: NTC Baldwin

This Case Narrative is a summary of events and/or problems encountered with this Work Order.

For samples requesting EPA 601/602/8021 analysis, the GCMS method EPA 624/8260 was substituted in order to generate the highest quality data possible at no additional cost.

Definition of Flags

DL	=	No surrogate result due to dilution or matrix interference.
J	=	Estimated Value, value not accurate.
L	=	Off-scale high. Actual value is greater than value given.
Q	=	Sample analyzed beyond the accepted holding time.
T	=	Value reported is less than the laboratory method detection limit.
V	=	Analyte was both detected in the method blank and sample.

Report of Analysis

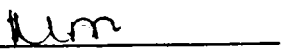
PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Aromatic Volatile Organics

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC Baldwin
PROJECT NUMBER: W01EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: EPA 8021

Lab Reference Number	202040002-1	
Client Sample ID	TW-1A	
Date/Time Sampled	03/29/2002 11:30	
Date/Time Extracted	04/01/2002	
Date/Time Analyzed	04/02/2002 11:03	
Sample Matrix (as Received)	Water	
Analysis Confirmed	GCMS	
Dilution Factor	250	
Result Units	ug/l	
Benzene	6280	
Chlorobenzene	250	U
1,2-Dichlorobenzene	250	U
1,3-Dichlorobenzene	250	U
1,4-Dichlorobenzene	250	U
Ethylbenzene	1580	
MTBE	1250	U
Toluene	22280	
m & p-Xylenes	8280	
o-Xylene	4050	
(Surr) 1,2-Dichloroethane-d4 (%)	71	
(Surr) Toluene-d8 (%)	84	
(Surr) 4-Bromofluorobenzene (%)	91	

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

Reviewed by: 

Quality Control Report for Spike/Spike Duplicate Analysis

Aromatic Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS1005
Spike Units: ug/l

Analysis Date: 04/02/2002
Preparation Date: 04/02/2002
Method: EPA 8021
Analyst: TT

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50.0	0.0	45.0	90	43.0	86	5
Ethylbenzene	50.0	0.0	48.0	96	45.0	90	6
MTBE	50.0	0.0	47.0	94	46.0	92	2
Toluene	50.0	0.0	47.0	94	44.0	88	7
m & p-Xylenes	100.0	0.0	98.0	98	90.0	90	9
o-Xylene	50.0	0.0	47.0	94	43.0	86	9

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	63	140	13
Ethylbenzene	70	131	10
MTBE	60	155	13
Toluene	67	130	12
m & p-Xylenes	68	128	15
o-Xylene	69	130	10

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Halogenated Volatile Organics

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC Baldwin
PROJECT NUMBER: W01EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: EPA 8021

Lab Reference Number	202040002-1
Client Sample ID	TW-1A
Date/Time Sampled	03/29/2002 11:30
Date/Time Extracted	04/01/2002
Date/Time Analyzed	04/01/2002 18:24
Sample Matrix (as Received)	Water
Analysis Confirmed	GCMS
Dilution Factor	50
Result Units	ug/l
Bromobenzene	50.0 U
Bromodichloromethane	50.0 U
Bromoform	50.0 U
Bromomethane	50.0 U
Carbon tetrachloride	50.0 U
Chlorobenzene	50.0 U
Chloroethane	50.0 U
2-Chloroethyl vinyl ether	50.0 U
Chloroform	50.0 U
Chloromethane	50.0 U
Dibromochloromethane	50.0 U
Dibromomethane	50.0 U
1,2-Dichlorobenzene	50.0 U
1,3-Dichlorobenzene	50.0 U
1,4-Dichlorobenzene	50.0 U
1,1-Dichloroethane	50.0 U
Dichlorodifluoromethane	50.0 U
1,2-Dichloroethane	50.0 U
1,1-Dichloroethene	50.0 U
trans-1,2-Dichloroethene	50.0 U
1,2-Dichloropropane	50.0 U
cis-1,3-Dichloropropene	50.0 U
trans-1,3-Dichloropropene	50.0 U
Methylene chloride	50.0 U
1,1,2,2-Tetrachloroethane	50.0 U
1,1,1,2-Tetrachloroethane	50.0 U
Tetrachloroethene	50.0 U
1,1,1-Trichloroethane	50.0 U
1,1,2-Trichloroethane	50.0 U
Trichloroethene	50.0 U
Trichlorofluoromethane	50.0 U
1,2,3-Trichloropropane	50.0 U
Vinyl chloride	50.0 U
cis-1,2-Dichloroethene	50.0 U
(Surr) 1,2-Dichloroethane-d4 (%)	105
(Surr) Toluene-d8 (%)	88
(Surr) 4-Bromofluorobenzene (%)	89

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

Reviewed by: 

Quality Control Report for Spike/Spike Duplicate Analysis

Halogenated Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS1001
Spike Units: ug/l

Analysis Date: 04/01/2002
Preparation Date: 04/01/2002
Method: EPA 8021
Analyst: TT

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Carbon tetrachloride	50.0	0.0	46.0	92	46.0	92	0
Chlorobenzene	50.0	0.0	43.0	86	46.0	92	7
1,4-Dichlorobenzene	50.0	0.0	44.0	88	47.0	94	7
1,1-Dichloroethene	50.0	0.0	39.0	78	41.0	82	5
Trichloroethene	50.0	0.0	44.0	88	41.0	82	7

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Carbon tetrachloride	63	134	12
Chlorobenzene	69	128	15
1,4-Dichlorobenzene	72	130	13
1,1-Dichloroethene	68	131	11
Trichloroethene	68	129	18

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

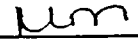
Polynuclear Aromatic Hydrocarb

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC Baldwin
PROJECT NUMBER: W01EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: EPA 610/8100

Lab Reference Number	202040002-1	
Client Sample ID	TW-1A	
Date/Time Sampled	03/29/2002 11:30	
Date/Time Extracted	04/01/2002	
Date/Time Analyzed	04/03/2002 04:51	
Sample Matrix (as Received)	Water	
Analysis Confirmed	No	
Dilution Factor	10	
Result Units	ug/l	
Acenaphthene	50	U
Acenaphthylene	50	U
Anthracene	50	U
Benzo(a)anthracene	50	U
Benzo(a)pyrene	50	U
Benzo(b)fluoranthene	50	U
Benzo(ghi)perylene	50	U
Benzo(k)fluoranthene	50	U
Chrysene	50	U
Dibenzo(ah)anthracene	50	U
Fluoranthene	50	U
Fluorene	50	U
Indeno(123-cd)pyrene	50	U
Naphthalene	1040	
1-Methyl naphthalene	585	
2-Methyl naphthalene	190	
Phenanthrene	50	U
Pyrene	50	U
(Surr) 2-Fluorobiphenyl (%)	0	DL

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : 

Quality Control Report for Spike/Spike Duplicate Analysis

Polynuclear Aromatic Hydrocarbons

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204PAH003
Spike Units: ug/l

Analysis Date: 04/02/2002
Preparation Date: 04/01/2002
Method: EPA 610
Analyst: RM

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
(Surr) 2-Fluorobiphenyl	100	0	50	50	55	55	10
Acenaphthene	50	0	58	116	60	120	3
Acenaphthylene	50	0	50	100	50	100	0
Anthracene	50	0	53	106	53	106	0
Benzo(a)anthracene	50	0	53	106	47	94	12
Benzo(a)pyrene	50	0	53	106	54	108	2
Benzo(b)fluoranthene	50	0	50	100	48	96	4
Benzo(ghi)perylene	50	0	46	92	46	92	0
Benzo(k)fluoranthene	50	0	43	86	47	94	9
Chrysene	50	0	34	68	35	70	3
Dibenzo(ah)anthracene	50	0	45	90	47	94	4
Fluoranthene	50	0	50	100	50	100	0
Fluorene	50	0	35	70	37	74	6
Indeno(123-cd)pyrene	50	0	45	90	47	94	4
Naphthalene	50	0	41	82	46	92	11
Phenanthrene	50	0	46	92	48	96	4
Pyrene	50	0	50	100	55	110	10

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
SS_2-Fluorobiphenyl	47	115	10
Acenaphthene	56	123	13
Acenaphthylene	46	101	16
Anthracene	60	126	11
Benzo(a)anthracene	43	121	18
Benzo(a)pyrene	49	113	18
Benzo(b)fluoranthene	46	120	15
Benzo(ghi)perylene	37	113	24
Benzo(k)fluoranthene	47	125	15
Chrysene	47	114	23
Dibenzo(ah)anthracene	40	118	17
Fluoranthene	52	111	15
Fluorene	46	108	16
Indeno(123-cd)pyrene	39	117	20
Naphthalene	40	115	14
Phenanthrene	47	125	14
Pyrene	54	111	15

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Petroleum Hydrocarbons

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC Baldwin
PROJECT NUMBER: W01EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: FL-PRO

Lab Reference Number	202040002-1	
Client Sample ID	TW-1A	
Date/Time Sampled	03/29/2002 11:30	
Date/Time Extracted	04/01/2002	
Date/Time Analyzed	04/02/2002 13:32	
Sample Matrix (as Received)	Water	
Analysis Confirmed	No	
Dilution Factor	5	
Result Units	mg/l	
Total PHS	11.5	
(Surr) C-39 (%)	0	DL
(Surr) OTP (%)	0	DL

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : _____

Quality Control Report for Spike/Spike Duplicate Analysis

Petroleum Hydrocarbons

Matrix: Water
Lab Sample ID: MW MS
QC Batch ID: 200204FLRO001
Spike Units: mg/l

Analysis Date: 04/02/2002
Preparation Date: 04/01/2002
Method: FL-PRO
Analyst: EM

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
(Surr) C-39	100.0	0.0	75.0	75	77.0	77	3
(Surr) OTP	50.0	0.0	55.0	110	49.0	98	12
Total PHS	50.0	0.0	40.0	80	39.0	78	3

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
SS_C-39	40	193	30
SS_OTP	30	193	30
Total PHS	58	142	20

PC&B Environmental Laboratories, Inc.
210 Park Road
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PHONE: 407-359-7194

Report of Analysis

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC Baldwin
PROJECT NUMBER: W01EXXX
DATE RECEIVED: 04/01/2002

Lab Reference Number			202040002-1
Client Sample ID			TW-1A
Date/Time Sampled			03/29/2002 11:30
Sample Matrix (as Received)			Water
EPA 6010/200.7	Arsenic, Filtered	ug/l	5 U
EPA 6010/200.7	Barium, Filtered	ug/l	20 U
EPA 6010/200.7	Cadmium, Filtered	ug/l	0.5 U
EPA 6010/200.7	Chromium, Filtered	ug/l	1 U
EPA 6010/200.7	Lead, Filtered	ug/l	3 U
EPA 245.1	Mercury, Filtered	ug/l	0.2 U
EPA 6010/200.7	Selenium, Filtered	ug/l	5 U
EPA 6010/200.7	Silver, Filtered	ug/l	5 U

U = Undetected. The value preceeding the 'U' is the RL for the analyte. Results reported on a Wet Weight basis.

Reviewed by : KLM

Quality Control Report for Spike Analysis

INORGANICS

Analyte		Spike Amount	Sample Result	Spike Result	Percent Recovery	Lower Control Limit	Upper Control Limit
Method: EPA 245.1 Mercury, Filtered	QC Batch: 200204HG008	Sample ID: 202040001-2 1.0 ug/l	Date Prep: 04/02/2002 0.0	1.0	Date Anal: 04/02/2002 105	Analyst: LS 79	134
Method: EPA 6010/200.7 Arsenic, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 200 ug/l	Date Prep: 04/02/2002 0	192	Date Anal: 04/02/2002 96	Analyst: GG 77	124
Method: EPA 6010/200.7 Barium, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 500 ug/l	Date Prep: 04/02/2002 0	456	Date Anal: 04/02/2002 91	Analyst: GG 79	123
Method: EPA 6010/200.7 Cadmium, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 100 ug/l	Date Prep: 04/02/2002 0	91	Date Anal: 04/02/2002 91	Analyst: GG 72	120
Method: EPA 6010/200.7 Chromium, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 100 ug/l	Date Prep: 04/02/2002 0	88	Date Anal: 04/02/2002 88	Analyst: GG 70	121
Method: EPA 6010/200.7 Lead, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 100 ug/l	Date Prep: 04/02/2002 0	96	Date Anal: 04/02/2002 96	Analyst: GG 76	120
Method: EPA 6010/200.7 Selenium, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 100 ug/l	Date Prep: 04/02/2002 0	99	Date Anal: 04/02/2002 99	Analyst: GG 78	117
Method: EPA 6010/200.7 Silver, Filtered	QC Batch: 200204RC005	Sample ID: 202040001-1 100 ug/l	Date Prep: 04/02/2002 0	91	Date Anal: 04/02/2002 91	Analyst: GG 74	118

PC&B Environmental
210 Park Road, Oviedo, FL 32765
407-359-7194 (FAX) 407-359-7197

55

Chain of Custody

Work Order: 20204000(2)

Date: 3/29/02 Page 1 of 1

COMPANY: Nodarse

ADDRESS:

SAMPLED BY: SIGN:

PHONE: FAX:

ANALYSIS REQUESTED: 601/602, 610, 8260 Filter, TRPH

#	SAMPLE ID	DATE/TIME	AIR	WATER	SLUDGE	SOIL/SOLID	ORG. LIQUID	601/602	610	8260 Filter	TRPH													Number of Containers
								PRESERVATION																
1	TW-1A	3/29/02 1130		X				X	X	X	X													5
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Mitch Burns	4/1/02 0940	1: [signature]	4-1-02 0940
2:		2:	
3:		3:	

PROJECT INFORMATION
PROJECT NAME: NTC Baldwin
PROJECT #: WO0EXXY
SITE ADDRESS: NTC
PROJECT MANAGER: Dave Tweedell

SAMPLE RECEIPT
Total # of Containers
Chain of Custody Seals
Recv'd in Good Condition
PO #:

SPECIAL INSTRUCTIONS/COMMENTS: Rush Rush Rush

INVOICE TO: (IF DIFFERENT FROM ABOVE) WEA

QUOTE/CONTRACT #:

WHITE: Project File YELLOW: Laboratory PINK: Sampler

PC&B Environmental Laboratories, Inc.

210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

Client : Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

Contact : Dave Twedell
Phone : (407) 740-6110

Laboratory Reference Number : 202040001

Project Name : David Weekly Homes
Project Number : WO2EXXX

Chain of Custody : 20023

Laboratory ID	Matrix	Client ID	Status	Date/Time Sampled
202040001-1	Water	TW-1 THRU 4 ON COC	RUN	03/29/2002 12:15
202040001-2	Water	~~TW-2~~	~~RUN~~	~~03/29/2002 14:00~~
202040001-3	Water	~~TW-3~~	~~RUN~~	~~03/29/2002 14:45~~
202040001-4	Water	~~TW-4~~	~~RUN~~	~~03/29/2002 15:30~~

Number	Parameter	Description
4	Group Test	Filtered RCRA Metals by ICP in Water
4	EPA 8021	Aromatic Volatile Organics
4	EPA 8021	Halogenated Volatile Organics
4	FL-PRO	Petroleum Hydrocarbons
4	EPA 610/8100	Polynuclear Aromatic Hydrocarbons

PC&B Environmental Laboratories, Inc.

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Case Narrative

Dave Twedell
Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

CASE NARRATIVE for Work Order: 202040001
Project Number: WO2EXXX
Project Name: David Weekly Homes

This Case Narrative is a summary of events and/or problems encountered with this Work Order.

For samples requesting EPA 601/602/8021 analysis, the GCMS method EPA 624/8260 was substituted in order to generate the highest quality data possible at no additional cost.

Definition of Flags

DL	=	No surrogate result due to dilution or matrix interference.
J	=	Estimated Value, value not accurate.
L	=	Off-scale high. Actual value is greater than value given.
Q	=	Sample analyzed beyond the accepted holding time.
T	=	Value reported is less than the laboratory method detection limit.
V	=	Analyte was both detected in the method blank and sample.

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Aromatic Volatile Organics

TMW2

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: David Weekly Homes
PROJECT NUMBER: WO2EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: EPA 8021

Lab Reference Number	202040001-1	202040001-2	202040001-3	202040001-4
Client Sample ID	~~PW-1~~	~~TW-2~~	TW-3	~~TW-4~~
Date/Time Sampled	03/29/2002 12:15	03/29/2002 14:00	03/29/2002 14:45	03/29/2002 15:30
Date/Time Extracted	04/01/2002	04/01/2002	04/01/2002	04/01/2002
Date/Time Analyzed	04/01/2002 16:18	04/01/2002 16:55	04/01/2002 17:36	04/01/2002 18:16
Sample Matrix (as Received)	Water	Water	Water	Water
Analysis Confirmed	GCMS	GCMS	GCMS	GCMS
Dilution Factor	1	1	1	1
Result Units	ug/l	ug/l	ug/l	ug/l
Benzene	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
MTBE	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U
m & p-Xylenes	1.0 U	1.7	1.0 U	1.5
o-Xylene	1.0 U	1.0 U	1.0 U	1.2
(Surr) 1,2-Dichloroethane-d4 (%)	70	83	78	74
(Surr) Toluene-d8 (%)	101	102	98	97
(Surr) 4-Bromofluorobenzene (%)	98	94	96	100

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : lum

Quality Control Report for Spike/Spike Duplicate Analysis

Aromatic Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS2002
Spike Units: ug/l

Analysis Date: 04/01/2002
Preparation Date: 04/01/2002
Method: EPA 8021
Analyst: TT

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50.0	0.0	53.0	106	55.0	110	4
Ethylbenzene	50.0	0.0	48.0	96	47.0	94	2
MTBE	50.0	0.0	59.0	118	58.0	116	2
Toluene	50.0	0.0	50.0	100	52.0	104	4
m & p-Xylenes	100.0	0.0	96.0	96	95.0	95	1
o-Xylene	50.0	0.0	49.0	98	47.0	94	4

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	63	140	13
Ethylbenzene	70	131	10
MTBE	60	155	13
Toluene	67	130	12
m & p-Xylenes	68	128	15
o-Xylene	69	130	10

Quality Control Report for Spike/Spike Duplicate Analysis

Halogenated Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS2002
Spike Units: ug/l

Analysis Date: 04/01/2002
Preparation Date: 04/01/2002
Method: EPA 8021
Analyst: TT

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Carbon tetrachloride	50.0	0.0	50.0	100	50.0	100	0
Chlorobenzene	50.0	0.0	51.0	102	51.0	102	0
1,4-Dichlorobenzene	50.0	0.0	49.0	98	45.0	90	9
1,1-Dichloroethene	50.0	0.0	50.0	100	48.0	96	4
Trichloroethene	50.0	0.0	55.0	110	54.0	108	2

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Carbon tetrachloride	63	134	12
Chlorobenzene	69	128	15
1,4-Dichlorobenzene	72	130	13
1,1-Dichloroethene	68	131	11
Trichloroethene	68	129	18

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Polynuclear Aromatic Hydrocarb

TMW-2

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: David Weekly Homes
PROJECT NUMBER: WO2EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: EPA 610/8100

Lab Reference Number	202040001-1	202040001-2	202040001-3	202040001-4
Client Sample ID	TW-1	TW-2	TW-3	TW-4
Date/Time Sampled	03/29/2002 12:15	03/29/2002 14:00	03/29/2002 14:45	03/29/2002 15:30
Date/Time Extracted	04/01/2002	04/01/2002	04/01/2002	04/01/2002
Date/Time Analyzed	04/02/2002 13:06	04/02/2002 14:19	04/02/2002 15:02	04/02/2002 16:33
Sample Matrix (as Received)	Water	Water	Water	Water
Analysis Confirmed	No	No	No	No
Dilution Factor	1	1	1	1
Result Units	ug/l	ug/l	ug/l	ug/l
Acenaphthene	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U
Benzo(ghi)perylene	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U
Dibenzo(ah)anthracene	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U
Indeno(123-cd)pyrene	5 U	5 U	5 U	5 U
Napnthalene	5 U	5 U	5 U	14
1-Methyl naphthalene	5 U	5 U	5 U	5 U
2-Methyl naphthalene	5 U	5 U	5 U	8
Phenanthrene	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U
(Surr) 2-Fluorobiphenyl (%)	37	39	31	42

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by: LLM

Quality Control Report for Spike/Spike Duplicate Analysis

Polynuclear Aromatic Hydrocarbons

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204PAH003
Spike Units: ug/l

Analysis Date: 04/02/2002
Preparation Date: 04/01/2002
Method: EPA 610
Analyst: RM

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
(Surr) 2-Fluorobiphenyl	100	0	50	50	55	55	10
Acenaphthene	50	0	58	116	60	120	3
Acenaphthylene	50	0	50	100	50	100	0
Anthracene	50	0	53	106	53	106	0
Benzo(a)anthracene	50	0	53	106	47	94	12
Benzo(a)pyrene	50	0	53	106	54	108	2
Benzo(b)fluoranthene	50	0	50	100	48	96	4
Benzo(ghi)perylene	50	0	46	92	46	92	0
Benzo(k)fluoranthene	50	0	43	86	47	94	9
Chrysene	50	0	34	68	35	70	3
Dibenzo(ah)anthracene	50	0	45	90	47	94	4
Fluoranthene	50	0	50	100	50	100	0
Fluorene	50	0	35	70	37	74	6
Indeno(123-cd)pyrene	50	0	45	90	47	94	4
Naphthalene	50	0	41	82	46	92	11
Phenanthrene	50	0	46	92	48	96	4
Pyrene	50	0	50	100	55	110	10

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
SS_2-Fluorobiphenyl	47	115	10
Acenaphthene	56	123	13
Acenaphthylene	46	101	16
Anthracene	60	126	11
Benzo(a)anthracene	43	121	18
Benzo(a)pyrene	49	113	18
Benzo(b)fluoranthene	46	120	15
Benzo(ghi)perylene	37	113	24
Benzo(k)fluoranthene	47	125	15
Chrysene	47	114	23
Dibenzo(ah)anthracene	40	118	17
Fluoranthene	52	111	15
Fluorene	46	108	16
Indeno(123-cd)pyrene	39	117	20
Naphthalene	40	115	14
Phenanthrene	47	125	14
Pyrene	54	111	15

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Petroleum Hydrocarbons

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: David Weekly Homes
PROJECT NUMBER: WO2EXXX
DATE RECEIVED: 04/01/2002
ANALYTICAL PROTOCOL: FL-PRO

Lab Reference Number	202040001-1	202040001-2	202040001-3	202040001-4
Client Sample ID	TW-1	TW-2	TW-3	TW-4
Date/Time Sampled	03/29/2002 12:15	03/29/2002 14:00	03/29/2002 14:45	03/29/2002 15:30
Date/Time Extracted	04/01/2002	04/01/2002	04/01/2002	04/01/2002
Date/Time Analyzed	04/02/2002 10:20	04/02/2002 11:08	04/02/2002 11:56	04/01/2002 21:50
Sample Matrix (as Received)	Water	Water	Water	Water
Analysis Confirmed	No	No	No	No
Dilution Factor	1	1	1	1
Result Units	mg/l	mg/l	mg/l	mg/l
Total PHS	0.1 U	0.1 U	0.1 U	0.4
(Surr) C-39 (%)	65	57	63	44
(Surr) OTP (%)	97	75	90	97

U = Undetected. The value preceeding the 'U' is the RL for the analyte. based on dilution. Results reported on a Wet Weight basis.

Reviewed by : NLM

Quality Control Report for Spike/Spike Duplicate Analysis

Petroleum Hydrocarbons

Matrix: Water
Lab Sample ID: MW MS
QC Batch ID: 200204FLRO001
Spike Units: mg/l

Analysis Date: 04/02/2002
Preparation Date: 04/01/2002
Method: FL-PRO
Analyst: EM

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
(Surr) C-39	100.0	0.0	75.0	75	77.0	77	3
(Surr) OTP	50.0	0.0	55.0	110	49.0	98	12
Total PHS	50.0	0.0	40.0	80	39.0	78	3

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
SS_C-39	40	193	30
SS_OTP	30	193	30
Total PHS	58	142	20

Quality Control Report for Spike Analysis

INORGANICS

Analyte		Spike Amount	Sample Result	Spike Result	Percent Recovery	Lower Control Limit	Upper Control Limit
Method: EPA 245.1	QC Batch: 200204HG006	Sample ID: 202040001-2	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: LS	
Mercury, Filtered		1.0 ug/l	0.0	1.0	105	79	134
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Arsenic, Filtered		200 ug/l	0	192	96	77	124
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Barium, Filtered		500 ug/l	0	456	91	79	123
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Cadmium, Filtered		100 ug/l	0	91	91	72	120
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Chromium, Filtered		100 ug/l	0	88	88	70	121
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Lead, Filtered		100 ug/l	0	96	96	76	120
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Selenium, Filtered		100 ug/l	0	99	99	78	117
Method: EPA 6010/200.7	QC Batch: 200204RC005	Sample ID: 202040001-1	Date Prep: 04/02/2002	Date Anal: 04/02/2002		Analyst: GG	
Silver, Filtered		100 ug/l	0	91	91	74	118

ental
765
59-7197

20023

Chain of Custody

Work Order: 2020 4000 1

Date: 3/29/02 Page 1 of 1

SIGN:

FAX:

	PLE ID	DATE/TIME	MATRIX: AIR	WATER	SLUDGE	SOIL, SOLID	ORG. LIQUID	PRESERVATION	Number of Containers
	~~X~~ TWW-2	~~3/29/02 1355~~ 3/29/02 1215		X				X X X X	5
	~~TW-3~~	3/29/02 1400		X				X X X X	5
	~~TW-5~~	3/29/02 1445		X				X X X X	5
	TW-4	3/29/02 1320		X				X X X X	5
8									
9									
10									
11									
12									
13									

ANALYSIS REQUESTED: 601/602 | 610 | TPH | Filtered for SVOCs

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:		1:	3/27/02
2:	4/1/02 0910	2:	4-1-02 0940
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

Rush Rush

QUOTE/CONTRACT #:

PROJECT INFORMATION

PROJECT NAME: David Weekly Homes

PROJECT #: 0025XXX

SITE ADDRESS: Baldwin Park Phase I

PROJECT MANAGER: Dave Tuerkell

INVOICE TO: (IF DIFFERENT FROM ABOVE) N&A

SAMPLE RECEIPT

Total # of Containers	
Chain of Custody Seals	
Recv'd in Good Condition	
PO #:	

WHITE: Project File YELLOW: Laboratory PINK: Sampler

Quality Control Report for Spike/Spike Duplicate Analysis

Volatile Organics

Matrix: Soil
Lab Sample ID: 202040060-7
QC Batch ID: 200204MS3026
Spike Units: ug/kg

Analysis Date: 04/08/2002
Preparation Date: 04/08/2002
Method: EPA 8021
Analyst: KN

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50	0	55	110	53	106	4
Carbon tetrachloride	50	0	57	114	56	112	2
Chlorobenzene	50	0	50	100	48	96	4
1,4-Dichlorobenzene	50	0	54	108	53	106	2
1,1-Dichloroethene	50	0	49	98	48	96	2
Ethylbenzene	50	0	47	94	46	92	2
Toluene	50	0	49	98	46	92	6
Trichloroethene	50	0	54	108	55	110	2
m&p-Xylenes	100	0	92	92	87	87	6
o-Xylene	50	0	49	98	48	96	2

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	71	132	10
Carbon tetrachloride	65	136	12
Chlorobenzene	76	125	8
1,4-Dichlorobenzene	76	125	8
1,1-Dichloroethene	62	142	13
Ethylbenzene	75	125	8
Toluene	67	132	11
Trichloroethene	74	127	9
m&p-Xylenes	70	127	10
o-Xylene	73	125	9

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

PAH's by HPLC

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC
PROJECT NUMBER: W01 E 186
DATE RECEIVED: 04/08/2002
ANALYTICAL PROTOCOL: EPA 8310

Lab Reference Number	202040068-1	202040068-2
Client Sample ID	174@10'	175@8'
Date/Time Sampled	04/06/2002 15:00	04/06/2002 15:30
Date/Time Extracted	04/08/2002	04/08/2002
Date/Time Analyzed	04/09/2002 08:37	04/08/2002 19:02
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	GCMS	No
Dilution Factor	1	1
Result Units	ug/kg	ug/kg
Acenaphthene	25 U	25 U
Acenaphthylene	50 U	50 U
Anthracene	1 U	1 U
Benzo(a)anthracene	3 U	3 U
Benzo(a)pyrene	6 U	6 U
Benzo(b)fluoranthene	10 U	10 U
Benzo(ghi)perylene	10 U	10 U
Benzo(k)fluoranthene	6 U	6 U
Chrysene	3 U	3 U
Dibenzo(ah)anthracene	20 U	20 U
Fluoranthene	5 U	5 U
Fluorene	5 U	5 U
Indeno(123cd)pyrene	3 U	3 U
Naphthalene	875	60 U
1-Methyl naphthalene	485	100 U
2-Methyl naphthalene	400	100 U
Phenanthrene	3 U	3 U
Pyrene	25 U	25 U
(Surr) Decafluorobipheynl (%)	99	38

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by: NLM

Quality Control Report for LCS Analysis

PAH's by HPLC

Matrix: Soil
Lab Sample ID: LCS
QC Batch ID: 200203PAH051C
LCS Units: ug/kg

Analysis Date: 04/08/2002
Preparation Date: 04/08/2002
Method: EPA 8310
Analyst: RM

Analyte	LCS Conc	LCS Result	Percent Recovery	Lower Control Limit	Upper Control Limit
Acenaphthene	50.0	34.6	69	60	120
Acenaphthylene	25.0	20.9	83	60	120
Anthracene	1.0	0.8	79	60	120
Benzo(a)anthracene	2.5	1.7	68	60	120
Benzo(a)pyrene	2.5	2.3	90	60	120
Benzo(b)fluoranthene	1.0	0.8	80	60	120
Benzo(ghi)perylene	4.0	3.0	75	60	120
Benzo(k)fluoranthene	1.0	0.8	75	60	120
Chrysene	2.5	1.9	76	60	120
Dibenzo(ah)anthracene	10.0	10.7	107	60	120
Fluoranthene	2.5	2.0	78	60	120
Fluorene	5.0	4.9	99	60	120
Indeno(123cd)pyrene	2.5	1.7	69	60	120
Naphthalene	25.0	20.2	81	60	120
Phenanthrene	2.5	1.9	75	60	120
Pyrene	5.0	3.6	72	60	120

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Petroleum Hydrocarbons

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC
PROJECT NUMBER: W01 E 186
DATE RECEIVED: 04/08/2002
ANALYTICAL PROTOCOL: FL-PRO

Lab Reference Number	202040068-1	202040068-2
Client Sample ID	174@10'	175@8'
Date/Time Sampled	04/06/2002 15:00	04/06/2002 15:30
Date/Time Extracted	04/08/2002	04/08/2002
Date/Time Analyzed	04/09/2002 00:37	04/09/2002 01:26
Sample Matrix (as Received)	Soil	Soil
Analysis Confirmed	No	No
Dilution Factor	1	1
Percent Moisture	3.9	4.0
Result Units	mg/kg	mg/kg
Total PHS	69.7	4.2 U
(Surr) C-39 (%)	30	8
(Surr) OTP (%)	58	45

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Dry Weight basis.

Reviewed by : MM

Quality Control Report for Spike/Spike Duplicate Analysis

Petroleum Hydrocarbons

Matrix: Soil
Lab Sample ID: 202030183-2
QC Batch ID: 200204FLRO012
Spike Units: mg/kg

Analysis Date: 04/09/2002
Preparation Date: 04/08/2002
Method: FL-PRO
Analyst: EM

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
(Surr) C-39	100.0	0.0	72.0	72	55.0	55	27
(Surr) OTP	50.0	0.0	52.0	104	46.0	92	12
Total PHS	50.0	0.0	52.0	104	48.0	96	8

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
SS_C-39	30	160	33
SS_OTP	30	160	33
Total PHS	62	110	30

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194

Report of Analysis

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC
PROJECT NUMBER: W01 E 186
DATE RECEIVED: 04/08/2002

Lab Reference Number			202040068-1	202040068-2
Client Sample ID			174@10'	175@8'
Date/Time Sampled			04/06/2002 15:00	04/06/2002 15:30
Percent Moisture			3.9	4.0
Sample Matrix (as Received)			Soil	Soil
EPA 6010	Arsenic, Total	mg/kg	0.5 U	0.5 U
EPA 6010	Barium, Total	mg/kg	2 U	2 U
EPA 6010	Cadmium, Total	mg/kg	0.1 U	0.1 U
EPA 6010	Chromium, Total	mg/kg	0.6	2.4
EPA 6010	Lead, Total	mg/kg	0.3 U	0.3 U
EPA 7471	Mercury, Total	mg/kg	0.1 U	0.1 U
EPA 6010	Selenium, Total	mg/kg	0.5 U	0.5 U
EPA 6010	Silver, Total	mg/kg	0.5 U	0.5 U

U = Undetected. The value preceeding the 'U' is the RL for the analyte. Results reported on a Dry Weight basis (where applicable).

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : WLM

21155

PC&B Environmental

210 Park Road, Oviedo, FL 32765
407-359-7194 (FAX) 407-359-7197

Chain of Custody

Work Order: 202040068

Date: 4/6/02 Page 1 of 1

COMPANY: Nodarse

ADDRESS:

SAMPLED BY: SIGN:

PHONE: FAX:

#	SAMPLE ID	DATE/TIME	MATRIX: AIR	WATER	SLUDGE	SOIL/SOLID	ORG. LIQUID	ANALYSIS REQUESTED: 8021	8310	418.1	SW846	PRESERVATION	Number of Containers
1	174@10'	4/6/02 300				X		X	X	X	X		
2	175@8'	330				X		X	X	X	X		
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1	4/6/02	1	4/6/02
2	715 4/8/02	2	715 4/8/02
3		3	

SPECIAL INSTRUCTIONS/COMMENTS:

Rush Please!

QUOTE/CONTRACT #:

PROJECT INFORMATION

PROJECT NAME: NTC

PROJECT #: WO1E186

SITE ADDRESS:

PROJECT MANAGER: Dave Tweden

INVOICE TO: (IF DIFFERENT FROM ABOVE) N&H

SAMPLE RECEIPT

Total # of Containers	
Chain of Custody Seals	
Recv'd in Good Condition	
PO #:	

WHITE: Project File YELLOW: Laboratory PINK: Sampler

PC&B Environmental Laboratories, Inc.

210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

Client : Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

Contact : Lydia Wing
Phone : (407) 740-6110

Laboratory Reference Number : 202040148

Project Name : NTC/Baldwin
Project Number : W01-E-

Chain of Custody : 26769

Laboratory ID	Matrix	Client ID	Status	Date/Time Sampled
202040148-1	Water	TMW-3	RUN	04/12/2002 14:05
202040148-2	Water	TMW-6	RUN	04/12/2002 15:17
202040148-3	Water	TMW-5	RUN	04/12/2002 15:47
202040148-4	Water	TMW-4	RUN	04/12/2002 16:17
202040148-5	Water	TRIP	RUN	04/11/2002

Number	Parameter	Description
5	EPA 8021	Aromatic Volatile Organics
4	EPA 610/8100	Polynuclear Aromatic Hydrocarbons

PC&B Environmental Laboratories, Inc.
210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

INVOICE

INVOICE NUMBER: 202040148 **INVOICE DATE: 04-19-2002**
PURCHASE ORDER NUMBER :

INVOICE TO : Accounts Payable
Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

Project Manager: Lydia Wing
Phone: (407) 740-6110

Laboratory Reference Number: 202040148

Date Received: 04/12/2002

Project Name: NTC/Baldwin
Project Number: W01-E-

Chain of Custody: 26769

#	Method	Matrix	Description	Unit Price	Extended Price
4	EPA 8021	Water	Aromatic Volatile Organics	55.00	220.00
4	EPA 610/8100	Water	Polynuclear Aromatic Hydrocarbons	95.00	380.00

Terms: 2% 10/ NET 30 Days **PLEASE PAY THIS AMOUNT: $600.00**

THANK YOU

A Service Charge of 1.5% per month will be added after 90 Days to the unpaid balance.

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Aromatic Volatile Organics

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC/Baldwin
PROJECT NUMBER: W01-E-
DATE RECEIVED: 04/12/2002
ANALYTICAL PROTOCOL: EPA 8021

Lab Reference Number	202040148-1	202040148-2	202040148-3	202040148-4	202040148-5
Client Sample ID	TMW-3	TMW-6	TMW-5	TMW-4	TRIP
Date/Time Sampled	04/12/2002 14:05	04/12/2002 15:17	04/12/2002 15:47	04/12/2002 16:17	04/11/2002
Date/Time Extracted	04/15/2002	04/15/2002	04/15/2002	04/15/2002	04/15/2002
Date/Time Analyzed	04/15/2002 13:46	04/15/2002 14:30	04/15/2002 13:36	04/15/2002 15:33	04/15/2002 15:07
Sample Matrix (as Received)	Water	Water	Water	Water	Water
Analysis Confirmed	GCMS	GCMS	GCMS	GCMS	GCMS
Dilution Factor	1	1	1	5	1
Result Units	ug/l	ug/l	ug/l	ug/l	ug/l
Benzene	1.0 U	1.0 U	1.0 U	6.0	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	535	1.0 U
MTBE	5.0 U	5.0 U	5.0 U	25.0 U	5.0 U
Toluene	1.0 U	1.0 U	1.0 U	24.0	1.0 U
m & p-Xylenes	1.0 U	1.0 U	1.0 U	2030 *	1.0 U
o-Xylene	1.0 U	1.0 U	1.0 U	115	1.0 U
(Surr) 1,2-Dichloroethane-d4 (%)	111	114	94	89	113
(Surr) Toluene-d8 (%)	93	93	99	99	97
(Surr) 4-Bromofluorobenzene (%)	96	93	99	98	95

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by: lum

Quality Control Report for Spike/Spike Duplicate Analysis

Aromatic Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS2043
Spike Units: ug/l

Analysis Date: 04/15/2002
Preparation Date: 04/15/2002
Method: EPA 8021
Analyst: KN

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50.0	0.0	48.0	96	47.0	94	2
Ethylbenzene	50.0	0.0	50.0	100	50.0	100	0
MTBE	50.0	0.0	46.0	92	44.0	88	4
Toluene	50.0	0.0	49.0	98	49.0	98	0
m & p-Xylenes	100.0	0.0	98.0	98	96.0	96	2
o-Xylene	50.0	0.0	48.0	96	47.0	94	2

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	63	140	13
Ethylbenzene	70	131	10
MTBE	60	155	13
Toluene	67	130	12
m & p-Xylenes	68	128	15
o-Xylene	69	130	10

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Polynuclear Aromatic Hydrocarb

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC/Baldwin
PROJECT NUMBER: W01-E-
DATE RECEIVED: 04/12/2002
ANALYTICAL PROTOCOL: EPA 610/8100

Lab Reference Number	202040148-1	202040148-2	202040148-3	202040148-4
Client Sample ID	TMW-3	TMW-6	TMW-5	TMW-4
Date/Time Sampled	04/12/2002 14:05	04/12/2002 15:17	04/12/2002 15:47	04/12/2002 16:17
Date/Time Extracted	04/15/2002	04/15/2002	04/15/2002	04/15/2002
Date/Time Analyzed	04/16/2002 08:14	04/16/2002 09:49	04/16/2002 10:29	04/16/2002 11:39
Sample Matrix (as Received)	Water	Water	Water	Water
Analysis Confirmed	No	No	No	No
Dilution Factor	1	1	1	5
Result Units	ug/l	ug/l	ug/l	ug/l
Acenaphthene	5 U	5 U	5 U	25 U
Acenaphthylene	5 U	5 U	5 U	25 U
Anthracene	5 U	5 U	5 U	25 U
Benzo(a)anthracene	5 U	5 U	5 U	25 U
Benzo(a)pyrene	5 U	5 U	5 U	25 U
Benzo(b)fluoranthene	5 U	5 U	5 U	25 U
Benzo(ghi)perylene	5 U	5 U	5 U	25 U
Benzo(k)fluoranthene	5 U	5 U	5 U	25 U
Chrysene	5 U	5 U	5 U	25 U
Dibenzo(ah)anthracene	5 U	5 U	5 U	25 U
Fluoranthene	5 U	5 U	5 U	25 U
Fluorene	5 U	5 U	5 U	25 U
Indeno(123-cd)pyrene	5 U	5 U	5 U	25 U
Naphthalene	5 U	5 U	5 U	540
1-Methyl naphthalene	5 U	5 U	5 U	100
2-Methyl naphthalene	5 U	5 U	5 U	100
Phenanthrene	5 U	5 U	5 U	25 U
Pyrene	5 U	5 U	5 U	25 U
(Surr) 2-Fluorobiphenyl (%)	43	28	33	0 DL

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.

FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : KLM

Quality Control Report for LCS Analysis

Polynuclear Aromatic Hydrocarbons

Matrix: Water
Lab Sample ID: LCS
QC Batch ID: 200204PAH019A
LCS Units: ug/l

Analysis Date: 04/16/2002
Preparation Date: 04/15/2002
Method: EPA 610
Analyst: EM

Analyte	LCS Conc	LCS Result	Percent Recovery	Lower Control Limit	Upper Control Limit
(Surr) 2-Fluorobiphenyl	100	50	50	**50**	**102**
Acenaphthene	50	45	90	**49**	**126**
Acenaphthylene	50	46	92	**49**	**109**
Anthracene	50	50	100	**62**	**133**
Benzo(a)anthracene	50	50	100	**42**	**125**
Benzo(a)pyrene	50	48	96	**47**	**130**
Benzo(b)fluoranthene	50	50	100	**30**	**148**
Benzo(ghi)perylene	50	41	82	**34**	**131**
Benzo(k)fluoranthene	50	49	98	**32**	**152**
Chrysene	50	47	94	**41**	**126**
Dibenzo(ah)anthracene	50	42	84	**40**	**135**
Fluoranthene	50	47	94	**49**	**126**
Fluorene	50	47	94	**50**	**117**
Indeno(123-cd)pyrene	50	42	84	**40**	**133**
Naphthalene	50	43	86	**39**	**105**
Phenanthrene	50	43	86	**46**	**122**
Pyrene	50	48	96	**51**	**126**

26169

PC&B Environmental

210 Park Road, Oviedo, FL 32765
407-359-7194 (FAX) 407-359-7197

Chain of Custody

Work Order: [illegible]

Date: 04/12/02 Page 1 of 1

COMPANY: L J Nedrow's
ADDRESS: 1030 N. Orlando Ave. Suite A
Winter Park, FL 32789
SAMPLED BY: David McCaffery SIGN:
PHONE: 407-740-6110 FAX: 407-740-6112

#	SAMPLE ID	DATE/TIME	MATRIX: AIR	WATER	SLUDGE	SOIL/SOLID	ORG. LIQUID	PRESERVATION: HCl	4°C	ANALYSIS REQUESTED: 602	610	Number of Containers
1	TMW-3	4/12/02-1405		X				2	1			3
2	TMW-6	-1517		X				2	1			3
3	TMW-5	-1547		X				2	1			3
4	TMW-4	-1617		X				2	1			3
5	Trip											1
6												
7												
8												
9												
10												
11												
12												
13												

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1	16:30	1	1630
2	4/11/02	2	4/11/02
3	4/11/02	3	4/12/02

SPECIAL INSTRUCTIONS/COMMENTS:

QUOTE/CONTRACT #:

PROJECT INFORMATION
PROJECT NAME: NTC/Baldwin
PROJECT #: W01-E-
SITE ADDRESS:
PROJECT MANAGER: Lydia Wiwa

SAMPLE RECEIPT
Total # of Containers
Chain of Custody Seals
Recv'd in Good Condition
PO #:

INVOICE TO: (IF DIFFERENT FROM ABOVE) LJN

WHITE: Project File YELLOW: Laboratory PINK: Sampler

PC&B Environmental Laboratories, Inc.

210 Park Road; Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

Client : Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

Contact : Dave Twedell
Phone : (407) 740-6110

Laboratory Reference Number : 202040203

Project Name : NTC/Baldwin
Project Number : W99-E1-86

Chain of Custody : 20043

Laboratory ID	Matrix	Client ID	Status	Date/Time Sampled
202040203-1	Water	TMW-1	RUN	04/18/2002 15:20

Number	Parameter	Description
1	EPA 8021	Halogenated Volatile Organics

PC&B Environmental Laboratories, Inc.

210 Park Road
Oviedo, FL 32765-8801
407-359-7194 - (FAX) 407-359-7197

Case Narrative

Dave Twedell
Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

CASE NARRATIVE for Work Order: 202040203
Project Number: W99-E1-86
Project Name: NTC/Baldwin

This Case Narrative is a summary of events and/or problems encountered with this Work Order.

For samples requesting EPA 601/602/8021 analysis, the GCMS method EPA 624/8260 was substituted in order to generate the highest quality data possible at no additional cost.

Definition of Flags

DL	=	No surrogate result due to dilution or matrix interference.
J	=	Estimated Value, value not accurate.
L	=	Off-scale high. Actual value is greater than value given.
Q	=	Sample analyzed beyond the accepted holding time.
T	=	Value reported is less than the laboratory method detection limit.
V	=	Analyte was both detected in the method blank and sample.

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Halogenated Volatile Organics

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC/Baldwin
PROJECT NUMBER: W99-E1-86
DATE RECEIVED: 04/18/2002
ANALYTICAL PROTOCOL: EPA 8021

Lab Reference Number	202040203-1
Client Sample ID	TMW-1
Date/Time Sampled	04/18/2002 15:20
Date/Time Extracted	04/18/2002
Date/Time Analyzed	04/19/2002 04:00
Sample Matrix (as Received)	Water
Analysis Confirmed	GCMS
Dilution Factor	1
Result Units	ug/l
Bromobenzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane	1.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	1.0 U
2-Chloroethyl vinyl ether	1.0 U
Chloroform	1.0 U
Chloromethane	1.0 U
Dibromochloromethane	1.0 U
Dibromomethane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
1,1-Dichloroethane	1.9
Dichlorodifluoromethane	1.0 U
1,2-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
trans-1,2-Dichloroethene	1.0 U
1,2-Dichloropropane	1.0 U
cis-1,3-Dichloropropene	1.0 U
trans-1,3-Dichloropropene	1.0 U
Methylene chloride	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,1,2-Tetrachloroethane	1.0 U
Tetrachloroethene	1.1
1,1,1-Trichloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane	1.0 U
1,2,3-Trichloropropane	1.0 U
Vinyl chloride	1.0 U
cis-1,2-Dichloroethene	1.0 U
(Surr) 1,2-Dichloroethane-d4 (%)	109
(Surr) Toluene-d8 (%)	60
(Surr) 4-Bromofluorobenzene (%)	116

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.
FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : _____

Quality Control Report for Spike/Spike Duplicate Analysis

Halogenated Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS2056
Spike Units: ug/l

Analysis Date: 04/18/2002
Preparation Date: 04/18/2002
Method: EPA 8021
Analyst: KN

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
1,1-Dichloroethene	50.0	0.0	47.0	94	45.0	90	4
Trichloroethene	50.0	0.0	52.0	104	55.0	110	6
Carbon tetrachloride	50.0	0.0	49.0	98	47.0	94	4
Chlorobenzene	50.0	0.0	53.0	106	53.0	106	0
1,4-Dichlorobenzene	50.0	0.0	47.0	94	48.0	96	2

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
1,1-Dichloroethene	68	131	11
Trichloroethene	68	129	18
Carbon tetrachloride	63	134	12
Chlorobenzene	69	128	15
1,4-Dichlorobenzene	72	130	13

PC&B Environmental
210 Park Road, Oviedo, FL 32765
407-359-7194 (FAX) 407-359-7197

20043

Chain of Custody

Work Order: 202040203

Date: 4/18/02 Page ____ of ____

COMPANY: Nodarse
ADDRESS:

SAMPLED BY: TF SIGN:
PHONE: FAX:

#	SAMPLE ID	DATE/TIME	MATRIX: AIR	WATER	SLUDGE	SOIL/SOLID	ORG. LIQUID	ANALYSIS REQUESTED: 601 (PRESERVATION: HCl)	Number of Containers
1	TAIN-1	4/18/02 3:00		X				X	
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4-18-02 1630	1: [signature]	4-18-02 1630
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: NTC/Baldwin
PROJECT #: W99E186
SITE ADDRESS:
PROJECT MANAGER: Dave Tardell

SAMPLE RECEIPT

Total # of Containers
Chain of Custody Seals
Recv'd in Good Condition
PO #:

SPECIAL INSTRUCTIONS/COMMENTS:
601 — immediately Results Please!

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE/CONTRACT #:

WHITE: Project File YELLOW: Laboratory PINK: Sampler

PC&B Environmental Laboratories, Inc.

210 Park Road, Oviedo, Florida 32765
Phone: 407-359-7194 Fax: 407-359-7197

Client : Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

Contact : Dave Twedell
Phone : (407) 740-6110

Laboratory Reference Number : 202040205

Project Name : NTC/Baldwin
Project Number : W99-E-186

Chain of Custody : 20042

Laboratory ID	Matrix	Client ID	Status	Date/Time Sampled
202040205-1	Water	TMW-7	RUN	04/18/2002 10:16
202040205-2	Water	TMW-8	RUN	04/18/2002 11:27
202040205-3	Water	TMW-9	RUN	04/18/2002 12:20
202040205-4	Water	TMW-10	RUN	04/18/2002 13:07
202040205-5	Water	TMW-11	RUN	04/18/2002 14:44

Number	Parameter	Description
5	EPA 8021	Aromatic Volatile Organics
5	EPA 610/8100	Polynuclear Aromatic Hydrocarbons

PC&B Environmental Laboratories, Inc.

210 Park Road
Oviedo, FL 32765-8801
407-359-7194 - (FAX) 407-359-7197

Case Narrative

Dave Twedell
Nodarse & Assoc., Inc.
1030 North Orlando Avenue, Suite A
Winter Park, FL 32789-

CASE NARRATIVE for Work Order: 202040205
Project Number: W99-E-186
Project Name: NTC/Baldwin

This Case Narrative is a summary of events and/or problems encountered with this Work Order.

* denotes value reported from 1:20 dilution.
For samples requesting EPA 601/602/8021 analysis, the GCMS method EPA 624/8260 was substituted in order to generate the highest quality data possible at no additional cost.

Definition of Flags

DL	=	No surrogate result due to dilution or matrix interference.
J	=	Estimated Value, value not accurate.
L	=	Off-scale high. Actual value is greater than value given.
Q	=	Sample analyzed beyond the accepted holding time.
T	=	Value reported is less than the laboratory method detection limit.
V	=	Analyte was both detected in the method blank and sample.

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Aromatic Volatile Organics

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC/Baldwin
PROJECT NUMBER: W99-E-186
DATE RECEIVED: 04/18/2002
ANALYTICAL PROTOCOL: EPA 8021

Lab Reference Number	202040205-1	202040205-2	202040205-3	202040205-4	202040205-5
Client Sample ID	TMW-7	TMW-8	TMW-9	TMW-10	TMW-11
Date/Time Sampled	04/18/2002 10:16	04/18/2002 11:27	04/18/2002 12:20	04/18/2002 13:07	04/18/2002 14:44
Date/Time Extracted	04/18/2002	04/18/2002	04/18/2002	04/18/2002	04/18/2002
Date/Time Analyzed	04/18/2002 21:18	04/18/2002 22:39	04/18/2002 02:39	04/18/2002 23:59	04/18/2002 01:19
Sample Matrix (as Received)	Water	Water	Water	Water	Water
Analysis Confirmed	GCMS	GCMS	GCMS	GCMS	GCMS
Dilution Factor	1	1	1	1	1
Result Units	ug/l	ug/l	ug/l	ug/l	ug/l
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1020 *	1.0 U	1.0 U
MTBE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	1.0 U	1.0 U	66.8	1.0 U	1.0 U
m & p-Xylenes	1.0 U	1.0 U	4630 *	1.0 U	1.0 U
o-Xylene	1.0 U	1.0 U	1970 *	1.0 U	1.0 U
(Surr) 1,2-Dichloroethane-d4 (%)	117	128	118	113	127
(Surr) Toluene-d8 (%)	105	96	109	97	99
(Surr) 4-Bromofluorobenzene (%)	94	95	121	95	93

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.
FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : um

Quality Control Report for Spike/Spike Duplicate Analysis

Aromatic Volatile Organics

Matrix: Water
Lab Sample ID: MW-MS
QC Batch ID: 200204MS2056
Spike Units: ug/l

Analysis Date: 04/18/2002
Preparation Date: 04/18/2002
Method: EPA 8021
Analyst: KN

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
Benzene	50.0	0.0	49.0	98	50.0	100	2
Ethylbenzene	50.0	0.0	51.0	102	50.0	100	2
MTBE	50.0	0.0	48.0	96	46.0	92	4
Toluene	50.0	0.0	52.0	104	52.0	104	0
m & p-Xylenes	100.0	0.0	98.0	98	94.0	94	4
o-Xylene	50.0	0.0	48.0	96	45.0	90	6

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
Benzene	63	140	13
Ethylbenzene	70	131	10
MTBE	60	155	13
Toluene	67	130	12
m & p-Xylenes	68	128	15
o-Xylene	69	130	10

Report of Analysis

PC&B Environmental Laboratories, Inc.
210 Park Road
Oviedo, FL 32765-8801
PHONE: 407-359-7194
FAX: 407-359-7197

Polynuclear Aromatic Hydrocarb

CLIENT NAME: Nodarse & Assoc., Inc.
PROJECT NAME: NTC/Baldwin
PROJECT NUMBER: W99-E-186
DATE RECEIVED: 04/18/2002
ANALYTICAL PROTOCOL: EPA 610/8100

Lab Reference Number	202040205-1	202040205-2	202040205-3	202040205-4	202040205-5
Client Sample ID	TMW-7	TMW-8	TMW-9	TMW-10	TMW-11
Date/Time Sampled	04/18/2002 10:16	04/18/2002 11:27	04/18/2002 12:20	04/18/2002 13:07	04/18/2002 14:44
Date/Time Extracted	04/19/2002	04/19/2002	04/19/2002	04/19/2002	04/19/2002
Date/Time Analyzed	04/19/2002 12:30	04/19/2002 13:13	04/19/2002 16:29	04/19/2002 14:39	04/19/2002 15:22
Sample Matrix (as Received)	Water	Water	Water	Water	Water
Analysis Confirmed	No	No	No	No	No
Dilution Factor	1	1	5	1	1
Result Units	ug/l	ug/l	ug/l	ug/l	ug/l
Acenaphthene	5 U	5 U	25 U	5 U	5 U
Acenaphthylene	5 U	5 U	25 U	5 U	5 U
Anthracene	5 U	5 U	25 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	25 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	25 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	25 U	5 U	5 U
Benzo(ghi)perylene	5 U	5 U	25 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	25 U	5 U	5 U
Chrysene	5 U	5 U	25 U	5 U	5 U
Dibenzo(ah)anthracene	5 U	5 U	25 U	5 U	5 U
Fluoranthene	5 U	5 U	25 U	5 U	5 U
Fluorene	5 U	5 U	25 U	5 U	5 U
Indeno(123-cd)pyrene	5 U	5 U	25 U	5 U	5 U
Naphthalene	5 U	5 U	25 U	5 U	5 U
1-Methyl naphthalene	5 U	5 U	760	5 U	5 U
2-Methyl naphthalene	5 U	5 U	475	5 U	5 U
Phenanthrene	5 U	5 U	63	5 U	5 U
Pyrene	5 U	5 U	25 U	5 U	5 U
(Surr) 2-Fluorobiphenyl (%)	30	30	45	31	30

U = Undetected. The value preceeding the 'U' is the RL for the analyte, based on dilution. Results reported on a Wet Weight basis.
FDEP CompQAPP # 900134G - FDOH Certification # E83239

Reviewed by : lm

Quality Control Report for Spike/Spike Duplicate Analysis

Polynuclear Aromatic Hydrocarbons

Matrix: Water
Lab Sample ID: MW MS
QC Batch ID: 200204PAH031
Spike Units: ug/l

Analysis Date: 04/19/2002
Preparation Date: 04/19/2002
Method: EPA 610
Analyst: EM

Analyte	Spike Amount	Sample Result	Spike Result	Spike Percent Recovery	MSD Result	MSD Percent Recovery	RPD
(Surr) 2-Fluorobiphenyl	100	0	62	62	68	68	9
Acenaphthene	50	0	42	84	41	82	2
Acenaphthylene	50	0	45	90	44	88	2
Anthracene	50	0	42	84	45	90	7
Benzo(a)anthracene	50	0	33	66	32	64	3
Benzo(a)pyrene	50	0	35	70	32	64	9
Benzo(b)fluoranthene	50	0	36	72	33	66	9
Benzo(ghi)perylene	50	0	36	72	34	68	6
Benzo(k)fluoranthene	50	0	36	72	37	74	3
Chrysene	50	0	43	86	43	86	0
Dibenzo(ah)anthracene	50	0	32	64	30	60	6
Fluoranthene	50	0	37	74	36	72	3
Fluorene	50	0	35	70	38	76	8
Indeno(123-cd)pyrene	50	0	32	64	30	60	6
Naphthalene	50	0	35	70	31	62	12
Phenanthrene	50	0	32	64	34	68	6
Pyrene	50	0	39	78	38	76	3

Quality Control Limits

Analyte	Lower Limit	Upper Limit	RPD
SS_2-Fluorobiphenyl	47	115	10
Acenaphthene	56	123	13
Acenaphthylene	46	101	16
Anthracene	60	126	11
Benzo(a)anthracene	43	121	18
Benzo(a)pyrene	49	113	18
Benzo(b)fluoranthene	46	120	15
Benzo(ghi)perylene	37	113	24
Benzo(k)fluoranthene	47	125	15
Chrysene	47	114	23
Dibenzo(ah)anthracene	40	118	17
Fluoranthene	52	111	15
Fluorene	46	108	16
Indeno(123-cd)pyrene	39	117	20
Naphthalene	40	115	14
Phenanthrene	47	125	14
Pyrene	54	111	15

PC&B Environmental

210 Park Road, Oviedo, FL 32765
407-359-7194 (FAX) 407-359-7197

20042

Chain of Custody

Work Order: 2020402O5

Date: 4/18/02 Page 1 of 1

COMPANY: Nodarse

ADDRESS:

SAMPLED BY: SIGN:

PHONE: FAX:

#	SAMPLE ID	DATE/TIME	MATRIX: AIR	WATER	SLUDGE	SOIL/SOLID	ORG. LIQUID	ANALYSIS REQUESTED: 610	602	Number of Containers
			PRESERVATION:					None	HCl	
1	TMW-7	4/18/02 1016		X				1	1	2
2	TMW-8	1127		X				1	1	2
3	TMW-9	1220		X				1	1	2
4	TMW-10	1307		X				1	1	2
5	TMW-11	1444		X				1	1	2
6										
7										
8										
9										
10										
11										
12										
13										

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	4.18.02 1220	1:	4-18-02 1630
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: NTC/Baldwin

PROJECT #: W99-E-186

SITE ADDRESS:

PROJECT MANAGER: Dave Twedell

SAMPLE RECEIPT

Total # of Containers	15
Chain of Custody Seals	
Recv'd in Good Condition	
PO #:	

SPECIAL INSTRUCTIONS/COMMENTS:

602's Imedediate RUSH

610's RUSH

QUOTE/CONTRACT #:

INVOICE TO: (IF DIFFERENT FROM ABOVE) Nodarse

WHITE: Project File YELLOW: Laboratory PINK: Sampler

APPENDIX E

WATER SAMPLING LOGS

DEP Form # [illegible]

Form Title: Groundwater Site Water Sampling Log

Effective Date: [illegible] 1998

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

FDEP SITE NO.: [illegible]	WELL NO.: TW-1	SAMPLE ID: TW-1	DATE: 3-29-02
SITE NAME:		SITE LOCATION:	

PURGE DATA

WELL DIAMETER (in): 1 | TOTAL WELL DEPTH (ft): 14.80 | DEPTH TO WATER (ft): 10.5 | WELL CAPACITY (gal/ft):

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH − DEPTH TO WATER) x WELL CAPACITY = [illegible]

= (−) x = 0.23 gal [illegible]

PURGE METHOD: Peristaltic | PURGING INITIATED AT: 12:00 | PURGING ENDED AT: 1215

TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (umhos)	COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
Initial			6.26	23.9	267	[illegible]	NO	Slightly [illegible]	—	—
1	0.7									
2	0.5									
3	1.15		6.41	23.0	330	Lt Brn	NO	Sl. Cloudy		

SAMPLING DATA

SAMPLED BY / AFFILIATION: CW / RCS | SAMPLER(S) SIGNATURE(S): [illegible]

SAMPLING METHOD(S): Peristaltic | SAMPLING INITIATED AT: 1215 | SAMPLING ENDED AT: 1215

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
2	CG	40ml	HCL			601/602
1	AG	1L	—			8100
1	AG	1L	HCL			FL-PRO
1	HDPE	250ml	~~HCL~~ HNO3			8RCRA

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

FLORIDA

DEP Form # [illegible]
Form Title: Brownfield Site Water Sampling Log
Effective Date: [illegible]

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

FDEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE:
Directionally [illegible]	TW-2	TW-2	12-29-03
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):
2"	32.51	[illegible]	[illegible]

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY = [illegible]

= [illegible] - [illegible] x [illegible] = [illegible] = [illegible]

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
Peristaltic		

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	TOTAL VOLUME PURGED (gal): COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
initial			6.22	23.3	329	Clear	None	Clear	—	—
3	2		6.28	28.5	292	"	"	"	—	—
5	3		6.25	29.3	359	"	"	"	—	—

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)
CC RLS	[illegible]

SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Peristaltic	1350	1400

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
2	CG	20ml	HCl			601/602
1	AG	1L	—			SVOC
1	PE	1L	HCl			FL PRO
1	HDPE	28ml	None			SPLP

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 10" = 3.38 gal/ft

FLORIDA

FDEP Form # [illegible]
Form Title: Brownfield Site Water Sampling Log
Effective Date: [illegible]

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

FDEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE:
Duplicate of (Item)	TW-3	TW-3	1/3/2012
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):
2"	12.29	7.25	0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY = 3 wellvol = 3 Liter

= (12.29 - 7.25) x 0.16 = 0.80 3 wellvol = 1.0 Gallon

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
Peristaltic	1420	1440

TOTAL VOLUME PURGED (gal): 2.40 Gal.

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
1/2 HCl			6.02	27.1	1232	Brown	None	Turbid	—	—
2 1.6			5.54	26.1	147.6	[illegible]	ND	Lt Brown		
3 2.4			6.03	26.5	1690	Lt Brn	↓	Lt Brown		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
Cardno/ERS	[signature]	
SAMPLING METHOD(S): Peristaltic	SAMPLING INITIATED AT: 1440	SAMPLING ENDED AT: 1445

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
2	CG	20ml	HCL			Cardno
1	HDPE	1L	—			SIEC
1	HDPE	1L	HCL			FLDEP
1	HDPE	250ml	—			SILKT

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 10" = 5.38 gal/ft

FLORIDA

DEP Form # [illegible]
Form Title: Brownfield Site Water Sampling Log
Effective Date: [illegible]

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

DEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE:
Brownfield Site	TW-L	TW-L	1/31/08
SITE NAME:	SITE LOCATION:		

PURGE DATA

1035

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):
2"	16.14	10.86	0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY = 3 wellvols = 2.5 gallons

= (16.14 - 10.86) x 0.16 = 0.84 3 wellvols = 4.2 gallons

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gal):
Peristaltic	1502	1525	2.5

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (mmhos)	COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
	initial		7.78	25.7	36.9	tan	none	cloudy	—	—
1	.84		8.2	7.59	36.5	"	"	"	—	—
2	1.68		7.94	7.22	37.9	"	"	"	—	—
3	2.5		8.24	26.8	34.1	↓	Slight	↓	—	—

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	SAMPLING ENDED AT:
RLS / LCW	[signature]	1535
SAMPLING METHOD(S): Peristaltic	SAMPLING INITIATED AT:	DUPLICATE: Y (N)

FIELD DECONTAMINATION: (Y) N FIELD-FILTERED: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
2	CG	250ml	HCl			601/602
1	AG	1L	—			5030C
1	AG	1L	HCl			Fe, Mn
1	HDPE	250ml				Silica

REMARKS:

MATERIAL CODES (SPECIFY): AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER

WELL CAPACITY = 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 10" = 3.38 gal/ft

FLORIDA

DEP Form # 62-735.900(3)
Form Title: Brownfield Site Water Sampling Log
Effective Date: July 6, 1998

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

W49-E-186

FDEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE: / /
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY =

3well vol = gal

5well vol = gal

= (15.0 -) x 0.041 =

PURGE METHOD:	PURGING INITIATED AT: 0934	PURGING ENDED AT:

TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
Int	Int		7.35			Brown	none	turbid		
2			6.90	77.3	0.45					
3			6.72							
			6.62	77.3	0.45					

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT: 1011	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y (N) | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
1	AG	1L	none			610
2	CG	40ml	HCl			602

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.38 gal/ft

FLORIDA

DEP Form # 62-735.900(3)
Form Title: Brownfield Site Water Sampling Log
Effective Date: July 6, 1998

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

FDEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE:

SITE NAME: | SITE LOCATION:

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY =

PURGE METHOD: | PURGING INITIATED AT: | PURGING ENDED AT:

TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.38 gal/ft

FLORIDA

DEP Form # 62-735.900(3)
Form Title: Brownfield Site Water Sampling Log
Effective Date: July 6, 1998

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER SAMPLING LOG

FDEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE: / /
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY =

= (-) x =

PURGE METHOD: Peristaltic Pump	PURGING INITIATED AT:	PURGING ENDED AT:

TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY

SAMPLING DATA

SAMPLED BY / AFFILIATION: Nodarse	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Pump	SAMPLING INITIATED AT: 1218	SAMPLING ENDED AT: 1230

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.38 gal/ft

FLORIDA

DEP Form # 62-735-900(3)
Form Title: Brownfield Site Water Sampling Log
Effective Date: July 6, 1998

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

1.15 ft

WATER SAMPLING LOG

WG9-E-186

FDEP SITE NO.:	WELL NO.:	SAMPLE ID:	DATE: / /
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY =

= ( ) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	TOTAL VOLUME PURGED (gal): COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
			6.98	82	0.3					
			6.70							
				85.0	0.27					
			6.98	83.1	0.27			Clear		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT: 1305	SAMPLING ENDED AT: 1307

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

FLORIDA

DEP Form # 62-770.900(3)
Form Title: Brownfield Site Water Sampling Log
Effective Date: July 6, 1998

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

1.3 nser

WATER SAMPLING LOG

FDEP SITE NO.:	WELL NO.: TMW-11	SAMPLE ID:	DATE: 1 4 18 02
SITE NAME: NTC / Baldwin	SITE LOCATION: Orlando Florida		

PURGE DATA

WELL DIAMETER (in): 1"	TOTAL WELL DEPTH (ft): 15'	DEPTH TO WATER (ft): 13.08	WELL CAPACITY (gal/ft): 0.041

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY =

= (15' - 13.08) x 0.041 = 0.079

PURGE METHOD: Peristaltic Pump	PURGING INITIATED AT: 1429	PURGING ENDED AT: 1439

WELL VOLS. PURGED	CUMUL VOLUME PURGED (gal)	PURGE RATE (gpm)	pH	TEMP. (°C)	COND. (µmhos)	TOTAL VOLUME PURGED (gal): COLOR	ODOR	APPEARANCE	DISSOLVED OXYGEN	TURBIDITY
Int	Int		7.42	81.4	0.33	Brown	None	Turbid		
1			6.90	79.8	0.35	Lt Brown				
2			6.68	79.1	0.35	Clearing				
3			6.51	79.4	0.36	Clear		clear		

SAMPLING DATA

SAMPLED BY / AFFILIATION: Nodarse	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Peristaltic Pump	SAMPLING INITIATED AT: 1441	SAMPLING ENDED AT: 1444

FIELD DECONTAMINATION: (Y) N | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.38 gal/ft

WELL PURGING AND SAMPLING DATA

WELL/SAMPLE NO: TMW-3

DATE: 04/12/02 | PROJECT NAME: Former NTC/Bakken | PROJECT NO: 001-E-

WEATHER CONDITIONS: overcast / drizzle / cool

WELL DIAMETER (IN.) ☒ 1 ☐ 2 ☐ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 16.95 FT. | WATER LEVEL (TOC) 11.94 FT.

LENGTH OF WATER 5.01 FT. | CALCULATED ONE WELL VOLUME: 0.25 GAL

PURGING DEVICE: Peristaltic Pump ☐ DEDICATED ☒ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☐ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☒ ISOPROPANOL ☒ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☒ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☒ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☒ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

ANALYTICAL PARAMETERS: 602, 610

LABORATORY PERFORMING ANALYSIS: PC+B

WATER ANALYZER MODEL: In-Situ Multiline P3 | SERIAL NO: 01553054

ACTUAL TIME	VOLUME PURGED (GAL)	TEMP (DEG C)	SPEC. COND. us/cm	pH	DISS. OXYGEN	TURBIDITY (NTUs)	REMARKS
							VP3 = .75g VP5 = 1.25g
1343	Init	—	—	—	—	—	CO/TU Display
1402	1.25	22.5	155	4.33	—	—	SL. cloudy brn - No odor

COMMENTS ON WELL RECOVERY/OTHER:

SAMPLE COLLECTION TIME: 1405

DUPLICATE ☐ TIME: ID#: —

EQUIP. BLANK: ☐ TIME: ID#: —

PREPARED BY: David M. Caffrey

CALCULATION OF GALLONS OF WATER IN A LENGTH OF PIPE = [3.14 X (PIPE RADIUS IN FEET)^2 X LENGTH OF WATER X 7.48]
A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA. PIPE

WELL PURGING AND SAMPLING DATA

WELL/SAMPLE NO: TMW-4

DATE: 4/12/02 | PROJECT NAME: NTC/Baldwin | PROJECT NO: W01-E-

WEATHER CONDITIONS: overcast

WELL DIAMETER (IN.) ☒ 1 ☐ 2 ☐ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 17.33 FT. | WATER LEVEL (TOC) 13.54 FT.

LENGTH OF WATER 3.79 FT. | CALCULATED ONE WELL VOLUME: 0.19 GAL

PURGING DEVICE: Peristaltic Pump ☐ DEDICATED ☒ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: Pump/Tubing - Grundfos ☐ DEDICATED ☒ DISPOSABLE ☐ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☒ ISOPROPANOL ☒ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☒ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☒ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☒ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

ANALYTICAL PARAMETERS: 602, 610

LABORATORY PERFORMING ANALYSIS: PCTB

WATER ANALYZER MODEL: WTW Multiline P3 | SERIAL NO: 81552059

ACTUAL TIME	VOLUME PURGED (GAL)	TEMP (DEG C)	SPEC. COND. uS/cm	pH	DISS. OXYGEN	TURBIDITY (NTUs)	REMARKS
							VP3=.57g VP5=.95g
1600	Init	—			—	—	co/tu DK Brn
1615	.95	23.7	714	6.4	—	—	clear - end Purge
							petro odor

COMMENTS ON WELL RECOVERY/OTHER:

SAMPLE COLLECTION TIME: 1617

DUPLICATE ☐ TIME: ID#: —

EQUIP. BLANK: ☐ TIME: ID#: —

PREPARED BY: David A Cotton

CALCULATION OF GALLONS OF WATER IN A LENGTH OF PIPE = [3.14 X (PIPE RADIUS IN FEET)^2 X LENGTH OF WATER X 7.48]
A 1 FOOT LENGTH OF WATER =0.05 GAL IN 1" DIA PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA. PIPE

WELL PURGING AND SAMPLING DATA

DATE: 4/12/02	PROJECT NAME: N C/Baldwin	WELL/SAMPLE NO: TMW-5
		PROJECT NO: 001-E

WEATHER CONDITIONS: overcast

WELL DIAMETER (IN.) ☒ 1 ☐ 2 ☐ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC)	17.20 FT.	WATER LEVEL (TOC)	12.87 FT.
LENGTH OF WATER	4.33 FT.	CALCULATED ONE WELL VOLUME:	0.22 GAL

PURGING DEVICE: Peristaltic Pump ☐ DEDICATED ☒ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: Peristaltic tubing - Grab Flow ☐ DEDICATED ☒ DISPOSABLE ☐ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☒ ISOPROPANOL ☒ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☒ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☒ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

ANALYTICAL PARAMETERS: 602, 610

LABORATORY PERFORMING ANALYSIS: PC+B

WATER ANALYZER MODEL: YSI Multi-line P3 SERIAL NO: 01552057

ACTUAL TIME	VOLUME PURGED (GAL)	TEMP (DEG C)	SPEC. COND. 45	pH	DISS. OXYGEN	TURBIDITY (NTUs)	VP3 = 1.65 VP5 = 1.15 REMARKS
1530	Start	—	—	—	—	—	EC/TU Dk Brn
1545	1.1	22.1	327	4.83	—	—	clear - end Purge

COMMENTS ON WELL RECOVERY/OTHER:

SAMPLE COLLECTION TIME: 1547

DUPLICATE ☐ TIME: ID#: —

EQUIP. BLANK: ☐ TIME: ID#: —

PREPARED BY: David A. Cattaneo

CALCULATION OF GALLONS OF WATER IN A LENGTH OF PIPE = [3.14 X (PIPE RADIUS IN FEET)^2 X LENGTH OF WATER X 7.48]
A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA. PIPE

WELL PURGING AND SAMPLING DATA

DATE: 4/12/02	PROJECT NAME: NTC/Baldwin	WELL/SAMPLE NO: TMW-6
WEATHER CONDITIONS:	Overcast / drizzly / cool	PROJECT NO:

WELL DIAMETER (IN.) ☒ 1 ☐ 2 ☐ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC)	17.65 FT.	WATER LEVEL (TOC)	13.46 FT.
LENGTH OF WATER	4.19 FT.	CALCULATED ONE WELL VOLUME:	0.20 GAL

PURGING DEVICE: Peristaltic Pump ☐ DEDICATED ☒ DISPOSABLE tubing ☐ DECONTAMINATED

SAMPLING DEVICE: Pump / Tubing - Grab Flow ☐ DEDICATED ☒ DISPOSABLE ☐ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

ANALYTICAL PARAMETERS: 602, 610

LABORATORY PERFORMING ANALYSIS: PC+B

WATER ANALYZER MODEL: WTW Multiline P3 SERIAL NO: 81553054

ACTUAL TIME	VOLUME PURGED (GAL)	TEMP (DEG C)	SPEC. COND. uS/cm	pH	DISS. OXYGEN	TURBIDITY (NTUs)	REMARKS
							VPS = .63g LPS = 1g
1500	Init.	—	—	—	—	—	color: DK brn
1505	1	22.5	341	5.90	—	—	clear - end purge

COMMENTS ON WELL RECOVERY/OTHER:

SAMPLE COLLECTION TIME: 1507

DUPLICATE ☐ TIME: ID#: —

EQUIP. BLANK: ☐ TIME: ID#: —

PREPARED BY: David M. Heer

CALCULATION OF GALLONS OF WATER IN A LENGTH OF PIPE = [3.14 X (PIPE RADIUS IN FEET)^2 X LENGTH OF WATER X 7.48]
A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA. PIPE