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INSPECTION AND REPAIR REPORT OF UNDERGROUND STORAGE TANKS AT SIGSBEE
NEX NAS KEY WEST FL
06/13/2006
AUSTIN BROCKENBROUGH & ASSOCIATES, L.L.P.



INSPECTION AND REPAIR OF USTS AT SIGSBEE NEX

Key West Naval Air Station
Key West, Florida
Contract No. N62467-03-D-0160
Delivery Order No. 22



13 June 2006

Submitted to:

Naval Facilities Engineering Command
Southern Division
P.O. Box 190010
North Charleston, SC 29419-9010

Submitted by:

Austin Brockenbrough & Associates, L.L.P.
Consulting Engineers
P.O. Box 4800, 4800 West Hundred Road
Chester, Virginia 23831
Phone: 804-748-8746 Fax: 804-748-7849
www.brockenbrough.com
AB&A Job No. 06-046



INSPECTION AND REPAIR OF USTS AT SIGSBEE NEX

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**SIGSBEE NEX KEY WEST NAVAL AIR STATION
INSPECTION AND REPAIR OF USTS**

A/E Contract No.: N62467-03-D-0160

Prepared For:

Austin Brockenbrough & Associates, LLP.

Post Office Box 4800

4800 West Hundred Road

Chester, Virginia 23831

Phone: 804-748-8746

Prepared by:

Hauber Incorporated

13967 150 Court North

Jupiter, Florida 33478

HAUBER INC

13967 150th Court North
Jupiter, Florida 33478

Tel: 305-522-1644
Fax: 305-853-5610

June 2, 2006

Austin Brockenbrough & Associates, LLP
P.O. Box 4800
Chester, VA 23831
Tel: 804-748-8746
Fax: 804-748-7849

**RE: Inspection and repair of USTs at Sigsbee NEX, Key West Naval Air Station,
Key West, Florida; A&E Contract No. N62467-03-D-0160**

Hauber Incorporated was contracted by Austin Brockenbrough & Associates, LLP to perform an inspection of the Premium and Regular unleaded gasoline underground storage tanks at the NEX gas station on Sigsbee Island and perform any necessary repairs. See attached map showing location.

On Tuesday May 23, 2006, Hauber Inc (HI) arrived at the Sigsbee NEX Key West site. HI set up a safety perimeter using orange expandable safety fencing, traffic cones and caution tape around the fuel system and temporarily blocked off the entrance to the gas station. HI then discussed safety procedures prior to commencement of work. HI transferred the balance of the fuel from the premium tank to the regular tank. HI disconnected all the electrical from the 6,000 gallon premium storage tank and then removed the check valve and function element from the pump motor. HI blew the fuel from the dispensers back into the premium tank with nitrogen. HI jackhammered and removed the concrete from around the premium tank. Safety Coordinator, Todd Desimore was on site to set up an LEL meter and continuously monitored the O₂ and LELs during the excavation of the pea rock. During this time, JK Environmental Consulting tested the excavated soil from around the tank manway using an Organic Vapor Analyzer and determined there was no contaminated soil. The report is attached for your review. HI removed all mechanical equipment, electrical tank sump, and manway cover from the tank. HI secured the area prior to departure.

On Wednesday May 24, 2006, HI prepared the site for cleaning of the premium tank. After meeting with the Fire Marshall and the Base Safety Personnel, EMC began purging and cleaning the premium tank from aboveground. After thoroughly cleaning the tank, it was determined that we needed to ventilate the tank to remove the remaining vapors. After two hours of ventilation, the tank was determined to have zero LELs. EMC was attached to a tripod safety harness and entered the tank with a Class A suit. EMC then completed the cleaning of the premium tank. During this time, the O₂ and LELs were continuously monitored and deemed to be safe. HI secured the area prior to departure.

HAUBER INC

13967 150th Court North
Jupiter, Florida 33478

Tel: 305-522-1644
Fax: 305-853-5610

On Thursday, May 25, 2006, the safety equipment harness and tripod was again assembled. The O₂ and LELs were monitored from the manway. AB&A performed Helium Leak Testing and Soap Bubble Testing, and determined that the primary tank was not leaking into the secondary containment. HI secured the area prior to departure.

On Friday, May 26, 2006, HI arrived on site and began reassembling all the equipment back onto the premium tank. NEX delivered 2500 gallons of regular fuel and dropped the fuel in the premium tank. HI then performed a tank test on the regular tank and determined the tank to be tight. HI then performed a test on the annual space of the premium tank which tested tight. At this time, we attempt to perform a test on the primary premium tank and discovered there was a leak in the riser pipe at the opposite end of the manway. After attempting numerous times to pin point the location of the leak, HI came to the conclusion that the leak was from the riser pipe on the vapor riser or fill riser. HI purged the premium system and then pumped all remaining fuel back into the regular tank. HI secured the area prior to departure.

On Tuesday May 30, 2006, HI arrived on site and backfilled the area with pea rock, installed form boards and then poured concrete over the affected areas.

On Thursday June 1, 2006, HI arrived on site and removed the form boards, all safety equipment, and departed the job site.

RECOMMENDATIONS

HI recommends that the riser pipes be replaced on the premium tank as soon as possible. A Certified Tightness Test should be performed after these repairs. Please be advised an Incident Notification Form should be filed with the Health Department (HRS) explaining when and how the repairs should be completed.



Picture 1 shows the tank sump after removing the manhole cover.



Picture 2 shows the ventilation of the premium tank.



Picture 3 shows the set up of the tripod along with the safety equipment.

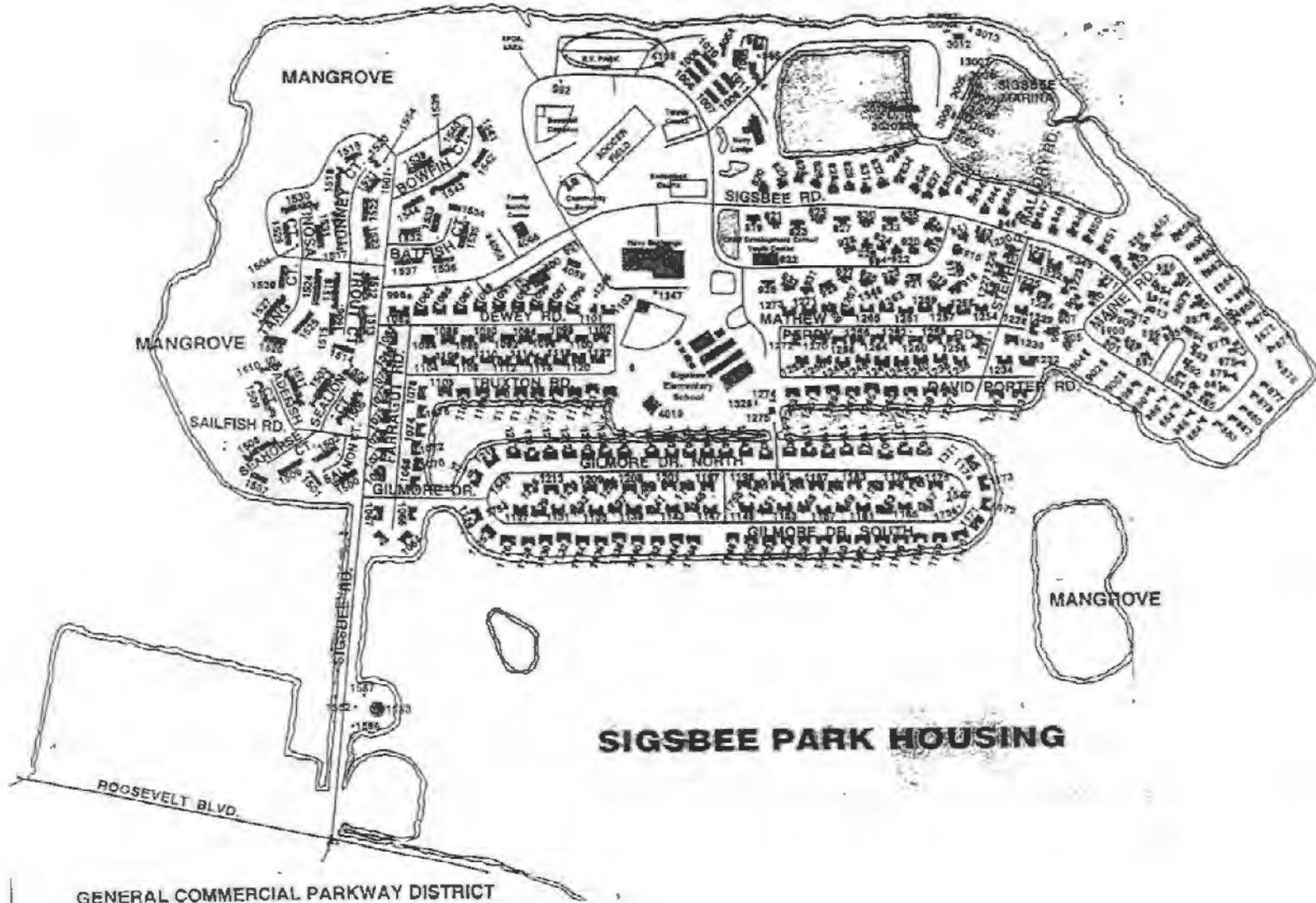


Picture 4 shows the inside of the premium tank after the equipment has been removed from the top of the tank.



Picture 5 shows the removal of the fuel from the premium tank.

GULF OF MEXICO



GENERAL COMMERCIAL PARKWAY DISTRICT

J. K. Environmental Services

ENVIRONMENTAL CONSULTING
8503 SW 149 Terrace, Miami Fl. 33158



305-772-3695

email: jkenvironmhet@aol.com

May 23, 2008

Mr. Bob Hauber
4781 North Congress Avenue
PMB 245
Boynton Beach, FL. 33426

Dear Mr. Hauber:

Enclosed please find our Storage Tank System Closure Assessment Report for the submersible pump sump assembly replacement at the NEXCOM Facility, Building 4085, Sigsbee Road, Naval Air Station, Key West, Florida. FDEP ID#9400056.

Based on the results of this investigation, JK Environmental Services does not believe additional assessment of this portion of the UST system is warranted.

If you have any questions regarding this matter please contact me at your convenience.

Respectfully,

A handwritten signature in black ink, appearing to read "James N. Krakoski". The signature is fluid and cursive.

James N. Krakoski
Senior Consultant
JK Environmental Services

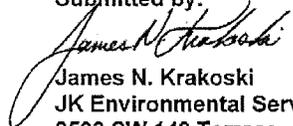
JK ENVIRONMENTAL SERVICES

STORAGE TANK SYSTEM CLOSURE ASSESSMENT REPORT
SUBMERSIBLE PUMP SUMP RETROFIT

FOR

THE NEXCOM FACILITY
FDEP ID# 9400056
BUILDING 4085, SIGSBEE ROAD
NAVAL AIR STATION
KEY WEST, FLORIDA

Submitted by:


James N. Krakoski
JK Environmental Services
8503 SW 149 Terrace
Miami, Florida 33158

Submitted to:

Mr. Bob Hauber
4781 North Congress Avenue
PMB 245
Boynton Beach, FL. 33426

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J. K. Environmental Services

ENVIRONMENTAL CONSULTING
8503 SW 149 Terrace
Miami, Florida 33158



DADE: 305-772-3895

jkenvironment@aol.com

May 23, 2006

**SITE: THE NEXCOM FACILITY
BUILDING 4085, SIGSBEE ROAD
NAVAL AIR STATION
KEY WEST, FLORIDA**

ORGANIC VAPOR ANALYSES

ANALYSES DATE: 05/23/06

**UST COMPONENT REPLACEMENT
CLOSURE ASSESSMENT
FDEP ID # 9400056**

Samples were obtained directly from the excavations and placed in wide mouth glass jars under foil, allowed to equilibrate to ambient temperature (84° F) and analyzed.

Organic Vapor Analyses were performed using a Heath Consultants "Porta FID II" equipped with a flame ionization detector. This instrument was calibrated with 100 ppm methane supplied by the manufacturer and zeroed to ambient air on the 0-50 ppm scale per the manufacturers instructions. A methane filter was used. Each sample was analyzed for 30 seconds or until a stable reading was obtained. The instrument was allowed to stabilize at zero between analyses. Positive results are reported as "net" concentrations calculated by subtracting the filtered result from the unfiltered result.

LOCATION	DEPTH (ft.)	TOTAL RESULT(ppm)	NET RESULT (ppm)
STP# 1			
1	3.0	<10	<10
2	3.0	<10	<10
3	3.0	<10	<10
4	3.0	<10	<10
5	3.0	<10	<10
6	3.0	<10	<10
7	3.0	<10	<10
8	3.0	<10	<10
9	3.0	<10	<10
10	3.0	<10	<10
11	3.0	<10	<10
12	3.0	<10	<10
13	3.0	<10	<10
14	3.0	<10	<10
15	3.0	<10	<10
16	3.0	<10	<10

INTRODUCTION

Scope and Purpose

This Storage Tank System Closure Assessment Report addresses the results of a Florida Department of Environmental Protection (FDEP) required subsurface investigation of potential currently regulated petroleum contamination in the underground storage tank area of this site. This investigation followed the procedures as described in the Storage Tank System Closure Assessment Requirements (FDEP 4/98). No other information should be inferred. All permitting (if applicable), system component removal and/or replacement was performed by Hauber, Inc, PCC 56780.

The NEXCOM facility is a military operated retail gas station providing gasoline from three USTs. One submersible pump sump assembly was replaced. No petroleum contaminated soils were discovered. The site is not in a municipal well field.

SUBSURFACE INVESTIGATION

Soil samples for field OVA screening were obtained at representative areas of the excavation resulting from the removal of the above referenced component. The total depth of the excavations was approximately 3.0 feet below land surface (BLS). Please see Site Plan.

Groundwater was not encountered.

RESULTS/DISCUSSION

Positive OVA field screening results were not obtained. Visible staining was not observed. All areas yielded OVA field screening results of <10 ppm. The complete OVA results are appended.

Based on the results of the implemented closure assessment of this portion of the UST system component areas, JK Environmental Services does not believe that further investigation of this portion of the UST system is warranted.

JK ENVIRONMENTAL SERVICES

The Storage Tank System Closure Assessment Requirements (FDEP 4/98) require that soils yielding OVA results in excess of 10 ppm for pollutant storage systems containing gasoline be subject to additional assessment and remediation.

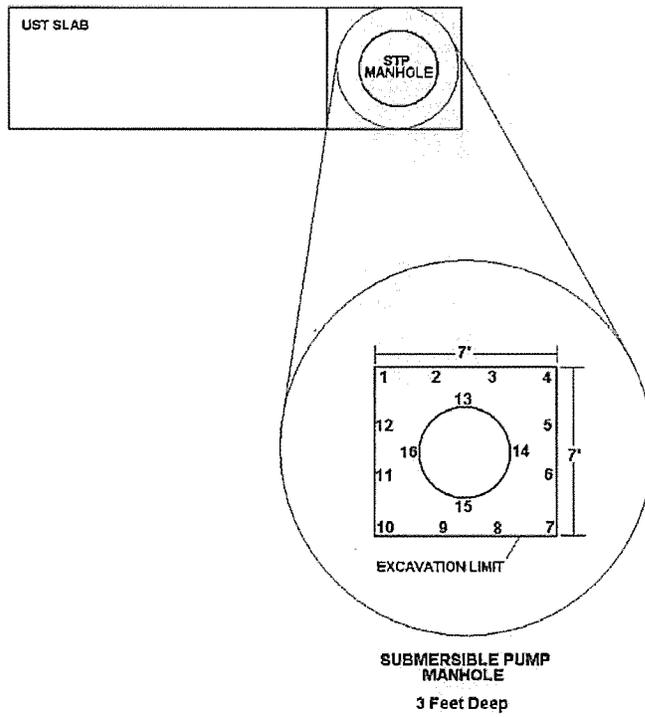
Groundwater was not encountered.

If you have any questions regarding this matter, please contact me at your convenience.

Respectfully;


James N. Krakoski
Senior Consultant
JK Environmental Services

**NEXCOM FACILITY
BUILDING 4085 SIGSBEE ROAD
NAVAL AIR STATION
KEY WEST, FLORIDA**
Not to Scale



3 = OVA SAMPLE POINT

DISCOVERY TANK TESTING, INC.

P.O. Box 14207

North Palm Beach, FL 33408

Phone (561) 840-1666 Fax (561) 840-9399

www.discoverytanktesting.com

email info@discoverytanktesting.com

Date of test: 5/26/06

Site Location: NAVAL AIR BASE (CITGO)

Invoice # G95216

815 SIGSBEE RD.

Operator Cert: R00066478

KEY WEST, FL.

Operator Sign: [Signature]

TEI 5000 Final Report

Tank # 1 REG/UNLD 16,000 GAL Prod Vol. 3434 Ullage Vol. 6593

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:

- TIGHT TANK
THIS UNDERGROUND STORAGE TANK PASSES THE CRITERIA SET FORTH BY THE US EPA
 - ULLAGE (DRY) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
 - BELOW PRODUCT LEVEL (WET) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
- NO WATER INTRUSION WATER INTRUSION

Comments: 1 HOUR TEST. T.D. IS 96". DOUBLE WALL STEEL (DRY INNERSTICIAL) 14PSI VACUUM.

Tank # 2 PREMIUM 6,000 GAL Prod Vol. 2452 Ullage Vol. 3548

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:

- TIGHT TANK
THIS UNDERGROUND STORAGE TANK PASSES THE CRITERIA SET FORTH BY THE US EPA.
 - ULLAGE (DRY) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
 - BELOW PRODUCT LEVEL (WET) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
- NO WATER INTRUSION WATER INTRUSION

Comments: 1 HOUR TEST. T.D. IS 96". DOUBLE WALL STEEL (DRY INNERSTICIAL) 1.6PSI VACUUM

Tank # 3 Prod Vol. Ullage Vol.

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:

- TIGHT TANK
THIS UNDERGROUND STORAGE TANK PASSES THE CRITERIA SET FORTH BY THE US EPA
 - ULLAGE (DRY) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
 - BELOW PRODUCT LEVEL (WET) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
- NO WATER INTRUSION WATER INTRUSION

Comments

Tank # 4 Prod Vol. Ullage Vol.

THE ACOUSTIC CHARACTERISTIC OF A LEAK REVEALS:

- TIGHT TANK
THIS UNDERGROUND STORAGE TANK PASSES THE CRITERIA SET FORTH BY THE US EPA
 - ULLAGE (DRY) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
 - BELOW PRODUCT LEVEL (WET) PORTION LEAK
THIS UNDERGROUND STORAGE TANK DOES NOT PASS THE CRITERIA SET BY THE US EPA
- NO WATER INTRUSION WATER INTRUSION

Comments



Trip Report

May 28, 2006

Mike O'Connor
Austin Brockenbrough & Associates
P.O. Box 4800
4800 W. Hundred Road
Chester, VA 23831

Re: Field trip report for helium leak test inspection

On May 25, 2006, Jurva Leak Testing, Inc. performed a helium leak test on one 6,000 gallon underground storage tank located at the Sigsbee NEX gas station in Key West, FL.

Equipment

The test was performed with a portable helium mass spectrometer. We used a sniffer probe attachment and a special tool that holds the sniffer probe approximately 1/8" above the floor to leak test all floor weld seams. Prior to starting the test, the helium mass spectrometer was calibrated with a 1.4×10^{-7} std. cc/sec. certified calibrated leak (serial #GGK3264301). Following is an overview of the testing procedure performed on the tank floor:

Tank Conditions

Tank conditions were good as the tank was clean and mostly dry (some water was found on bottom of tank due to recent rains). Three separate tests were performed on the tank.

Test #1

After reviewing the findings of the previous test performed on the tank (in which tank was determined to have a leak) it appeared the leak may be quite large. To prevent contamination of the tank the initial test was performed with no pressure on the interstitial space. A small diameter hose was inserted into the pipe used for detecting leaks and helium was purged for several minutes in order to purge helium throughout the space. The pipe was then plugged and after several minutes the initial test commenced.

During the test all internal weld seams were inspected, including all patch plates located on the bottom of the tank, with particular attention being paid to the where the three pipes were welded to the upper portion of the tank. In addition, all suspect areas of the tank wall were similarly inspected (all coating defects/rust spots). Finally, a the sniffer probe was fastened to a metal rod and inserted fully into the three pipes on the top of the tank. No leaks were found.



JURVA LEAK TESTING, INC.
The Helium Experts

9404 Overlook Court North, Champlin, MN 55316
Office: (763) 576-8183 Fax: (763) 712-0494
Web: www.jurvaleaktesting.com

Test #2

After the initial test the interstitial space was pressurized to approximately 1.5 psi and allowed to dwell for approximately 30 minutes. A second test, identical to the first test, was then performed. Again, no leaks were found.

Test #3

Prior to the third and final test all exposed metal was to be heated with a torch--as water can potentially plug small leaks by preventing the flow of helium. Because no torch was on hand, we broke for lunch and left the tank pressurized. After lunch additional helium was purged into the interstitial space, elevating the pressure to 3 psi. We were informed this was the maximum pressure the tank was rated for. The areas primarily heated were at base of the three pipes at the top of the tank (all corrosion was removed with a wire brush and heated). After the heating was complete the final test was performed (identical to the two previous tests). Again, no leaks were found.

Conclusion

The series of helium tests performed did not locate the presence of any leaks. All possible steps were taken in order to achieve best test conditions (maximizing the pressure and heating suspect areas). While under normal conditions we would have suggested heating all weld seams inside the tank (in order to eliminate the possibility of water and/or product temporarily plugging a leak) this was not possible given the tank was coated. As such testing was concluded.

Inspection completed by Mark Bystrom, President.