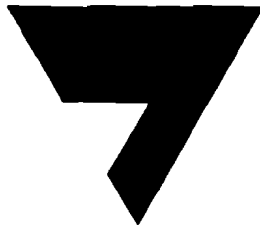


**PROPOSAL FOR INITIAL REMEDIAL ACTION IN  
FORMER WASTE OIL TANK AREA  
NASSAU COUNTY TRANSPORTATION DEPARTMENT  
BAILEY ROAD CAMP  
END OF BAILEY ROAD  
FERNANDINA BEACH, FLORIDA  
LAW PROPOSAL NO. 94-3966E**

**LAW ENGINEERING**





**LAW**

ENGINEERING AND ENVIRONMENTAL SERVICES

February 25, 1993

Board of County Commissioners  
c/o T. J. Greeson  
Ex-Officio Clerk  
Nassau County Courthouse  
416 Centre Street, Room 9  
Fernandina Beach, Florida 32034

Subject: **Proposal for Initial Remedial Action at Former Waste Oil Tank Area**  
Nassau County Transportation Department  
Bailey Road Camp  
End of Bailey Road  
Fernandina Beach, Florida  
FDEP Facility No. 458521115  
LAW Proposal No. 94-3966E

Dear Mr. Greeson:

Law Engineering, Inc. (LAW) is pleased to submit this proposal to conduct an Initial Remedial Action (IRA) at the subject site located at the end of Bailey Road in Fernandina Beach, Florida. This proposal was requested by Mr. William P. Lecher, Nassau County Engineer, on February 21, 1994 and includes our understanding of the background information and requirements as well as our proposed scope of services and schedule of activities, our estimated fee for performing these services, and our Unit Fee Schedule, which applies to our services.

#### **BACKGROUND INFORMATION**

LAW conducted the Contamination Assessment for the Bailey Road Camp and prepared the Contamination Assessment Report (CAR) for the camp in September 1992 under LAW Project No. 444-06710.02. LAW later conducted a CAR Addendum and the Initial Remedial Action (IRA) report (around the maintenance shop) for the Bailey Camp in September and August 1993 under LAW Project No. 444-06710.04 and 444-06710.06.

After review of the CAR Addendum for the Bailey Road Camp the Florida Department of Environmental Protection (FDEP) requested additional environmental services be conducted at this camp in their letter dated November 11, 1993. These additional services are currently being conducted by LAW under our Project No. 444-06710.09. One of the comments (Comment No. 6) in the November 11, 1993 FDEP letter requested that soil assessment details in the area of the former waste oil tank be provided. Mr. Lecher informed LAW that a soil assessment and cleanup were not conducted in the vicinity of the waste oil tank area when it was removed. Our previous scope of services at the Bailey Road Camp addressed the underground storage tanks only. The area of the former above ground waste oil tank was observed by LAW on February 2, 1994 and surficially stained soils in its vicinity were identified.

#### **LAW ENGINEERING, INC.**

3901 CARMICHAEL AVENUE • P. O. BOX 5728  
JACKSONVILLE, FLORIDA 32207  
(904) 396-5173 • FAX (904) 396-5703

ONE OF THE LAW COMPANIES 

Based on conversations with Mr. Lecher on February 21, 1994, LAV is submitting this proposal for excavation, transportation and disposal (IRA) of the stained soils in the former above ground waste oil tank area. The IRA will include two proposals, one for excavation, stockpiling and preburn analysis of the soil and the other for disposal of the stockpiled soil. This proposal includes a fee estimate for excavation, stockpiling and preburn analysis of the soil. A second proposal for disposal of the stockpiled soil will be submitted at a later date.

As requested by Mr. Lecher the additional environmental services for the camp are to be presented as an extension to the existing contract with the Nassau County Board of Commissioners. The balance of the proposal contains our scope of services and a fee estimate.

## SCOPE OF SERVICES

This proposal includes a fee estimate for excavation, stockpiling and preburn analysis of the stained soils at the former waste oil AST area.

### Task 1: Soil Excavation

Excavation of the excessively contaminated soil shall be performed in accordance with the Florida Administrative Code (FAC) Section 17-770.300 for Initial Remedial Action (IRA) at petroleum sites where free product or excess soil contamination is present.

Waste oil cannot be detected using the Organic Vapor Analyzer (OVA), therefore, the stained soils shall be excavated using visual means, and the excavated soils shall be stockpiled approximately 15 feet north of the excavation. The exact amount of soil to be excavated cannot be determined at this time, but is based on the degree of stained soils observed at the site. Excavated soil shall be placed on plastic sheeting, and covered with plastic sheeting after the excavation is complete. We understand Nassau County shall provide the backhoe, but LAV will provide a hazardous material OSHA trained person to operate the backhoe for excavating the stained soils. LAV will also provide an on-site professional throughout the excavation process to direct the removal of the excessively contaminated soils.

Non-contaminated soils will be used as backfill, but we understand that Nassau County personnel will backfill the excavation area with the soil.

### Task 2: Preburn Analysis

Prior to disposal (typically by incineration) it is necessary to collect a certain number of samples based on volume for laboratory analysis. This analysis dictates the disposal techniques and these samples are typically termed preburn samples. The number of preburn samples to be collected is based on the amount of soil to be removed. Because of the cost of preburn analysis, some cost savings on the analysis can be realized if the excavation of the excessively contaminated soils is performed first, to

determine the exact amount of soil to be disposed. In this case the soil excavated shall be stockpiled on and covered by plastic sheeting and disposed after the preburn analysis results are obtained. The stockpiled soils will need to remain on the site for three weeks.

An optional method of decontamination called bioaugmentation may also be considered. Preburn analysis shall not be conducted if it is determined bioaugmentation will work on the to be stockpiled soils. Bioaugmentation is a process of remediating petroleum or waste oil contaminated soils using biological bacteria.

For the purposes of this proposal, we have assumed three samples will be taken for preburn analysis. The three preburn samples will be analyzed in the laboratory for EPA Method 8010, EPA Method 8020, Total Recoverable Petroleum Hydrocarbons (TRPH) by EPA Method 9073, PCB's by EPA Method 8080, Total Halogens and Total RCRA Metals. Our estimates for the laboratory analysis are provided based on a one week laboratory turnaround time.

Groundwater samples will be placed in appropriate containers supplied by the testing laboratory. The samples will then be packed in ice and shipped by over-night courier to Law Environmental National Laboratories in Pensacola, Florida.

### **Task 3: Monitoring Well Installation**

A permanent well (MW-1) was located in the vicinity of the former waste oil tank area. This well, however, was apparently recently destroyed during your operations at the Bailey Road Camp. LAW recommends this well be reinstalled and sampled, to avoid further comments from the FDEP. Therefore, LAW shall reinstall this well in the area with the highest visually stained soil area. For the purposes of our fee estimate, this well shall be a Type II flush-mount well installed to a depth of approximately 15 feet. We understand, Nassau County shall provide access to the desired well location for our drilling equipment as necessary.

The well will be constructed of 2-inch I.D., Schedule 40 PVC. The lower ten-foot long screened section of the well will have a 0.010-inch wide slotted openings. This well will be installed by hollow stem augering method. A 20/30 gradation of silica sand will be used as a filter pack and this will be filled between the outside of the well screen and the inside of the 10-inch diameter borehole annulus. This filter sand will fill the borehole annulus to a level approximately one foot above the screened interval. The remaining annular space will be filled with approximately a one-half foot of bentonite clay pellets and then cement-grouted to the surface. The well will be flush-mount with a permanent cover at the surface.

Drilling equipment will be steam-cleaned prior to the commencement of drilling and construction of the monitoring well. Upon completion of the installation, the well will be developed by surface pumping until the discharge water becomes relatively clear. Since the surface material is soil, the drill cuttings and development water from the well will be placed beside the well on the ground surface.

#### **Task 4: Groundwater Sampling and Laboratory Analysis**

Following installation and development of the groundwater monitoring well, a groundwater sample from the well will be collected for analyses by EPA 602 and 610. Our fee estimate for this testing is based on a standard three week laboratory turnaround.

Groundwater sampling activities will be performed in general accordance with the provisions of the United States Environmental Protection Agency (USEPA) - Region IV Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual and the guidelines set forth in the Florida Administrative Code (FAC) Chapter 17-160 - Quality Assurance Rule. Groundwater samples will be obtained using disposable teflon bailers. Prior to obtaining the groundwater sample for laboratory analysis, three to five well volumes of groundwater will be removed from each well. Groundwater samples will be placed in appropriate containers supplied by the testing laboratory. The samples will then be packed in ice and shipped by over-night courier to Law Environmental National Laboratories in Pensacola, Florida.

#### **Task 5: IRA Report**

A report shall be prepared for these IRA services. This report shall be included in the Additional Environmental Services Report being prepared for the Bailey Road Camp under LAW Project No. 444-06710.09. The LAW Project No. 444-06710.09 was authorized by Nassau County Board of Commissioners on January 18, 1994 and is currently being conducted.

Throughout the project, LAW will act as a technical resource and to the extent requested and assist with regulatory compliance. Our fee allows for one meeting and telephone conversations (approximately five hours of time) with the regulatory agencies (in Jacksonville) or Nassau County, but no additional addendum or services.

|                       |
|-----------------------|
| <b>ESTIMATED FEES</b> |
|-----------------------|

|  |                  |
|--|------------------|
| Task 1: Soil Excavation .....                              | \$1400.00        |
| Task 2: Preburn Analysis .....                             | \$2000.00        |
| Task 3: Monitoring Well Installation .....                 | \$1250.00        |
| Task 4: Groundwater Sampling and Laboratory Analysis ..... | \$450.00         |
| Task 5: IRA Report .....                                   | <u>\$2400.00</u> |
| <b>TOTAL ESTIMATED FEE .....</b>                           | <b>\$7500.00</b> |

The actual fee for our services will be determined by the services expended in general accordance with the attached Unit Fee Schedule. We will monitor the services so as to reduce the scope from that noted above where warranted. To keep you informed of services performed, an invoice for completed services

will be issued every four weeks. Invoices are due upon receipt. We will not exceed an amount of \$7500.00 for these services without written authorization from your office.

A separate proposal shall be provided to Nassau County for transportation and disposal of the be stockpiled soil after completion of these services.

#### SCHEDULE

We understand that it is necessary to complete this action as soon as possible. Based on our present schedule and laboratory time requirements, a written report of our findings will be submitted in approximately eight weeks from the date of our authorization to proceed. If this schedule does not meet your approval, please notify our office so that a mutually agreeable schedule can be arranged to meet your requirements.

#### AUTHORIZATION

We assume these additional environmental services will be authorized by an extension of our existing contract with the Nassau County Board of Commissioners. Therefore, we have included below notation similar to that used in the past.

If you have any questions, please contact us.

Sincerely,

LAW ENGINEERING, INC.

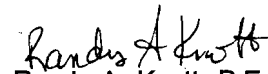
  
Srinivas Kuchibotla, E.I.

Project Environmental Engineer

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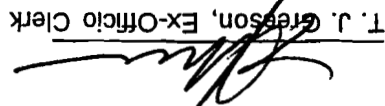
BY ko WITH PERMISSION

  
Randy A. Knott, P.E.  
Chief Engineer

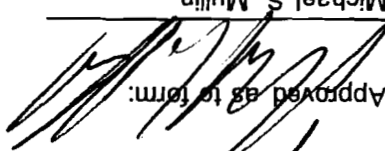
FOR NASSAU COUNTY USE ONLY:

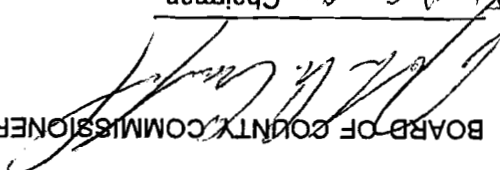
Approved this 28<sup>th</sup> day of February, 1994 by the Board of County Commissioners, Nassau County, Florida.

ATTEST:

  
T. J. Gresson, Ex-Officio Clerk

Approved as to form:

  
Michael S. Mullin  
County Attorney

  
BOARD OF COUNTY COMMISSIONERS  
Edwin H. Crawford, Chairman

**LAW ENGINEERING, INC.**  
**SCHEDULE OF FEES**

Bailey Road Camp  
End of Bailey Road  
Fernandina Beach, Florida

LAW Proposal No. 94-3966E

**ENGINEERING SERVICES**

|  |    |        |
|--|----|--------|
| Environmental Technician, per hour                             | \$ | 45.00  |
| Staff Environmental Scientist/Geologist/Engineer, per hour     | \$ | 75.00  |
| Project Environmental Scientist/Geologist/Engineer, per hour   | \$ | 80.00  |
| Senior Environmental Scientist/Geologist/Engineer, per hour    | \$ | 85.00  |
| Principal Environmental Scientist/Geologist/Engineer, per hour | \$ | 95.00  |
| Chief Engineer, P.E., per hour                                 | \$ | 105.00 |
| Corporate Environmental Consultant, per hour                   | \$ | 110.00 |
| Clerical Support, per hour                                     | \$ | 30.00  |
| Draftsman, per hour  | \$ | 30.00  |
| CADD Operator, per hour  | \$ | 40.00  |
| Mileage, per mile  | \$ | 0.40   |
| Reimbursable Expenses, Cost divided by 0.8                     |    |        |
| Subcontract Services, Cost divided by 0.8                      |    |        |

**FIELD EQUIPMENT CHARGES**

|  |    |        |
|--|----|--------|
| Organic Vapor Analyzer (OVA), rental per day | \$ | 150.00 |
| Mileage, per mile                            | \$ | 0.40   |
| Reimbursable Expenses, Cost divided by 0.8   |    |        |
| Subcontract Services, Cost divided by 0.8    |    |        |



**FEE SCHEDULE**  
**PAGE - TWO -**

**DRILLING SERVICES**

|  |           |
|--|-----------|
| Mobilization and Transportation of Drilling Equipment, lump sum .....  | \$ 475.00 |
| Drill and Install Monitor Wells (10-foot screen)                       |           |
| 2-inch PVC, per foot .....   | \$ 22.00  |
| 4-inch PVC, per foot .....   | \$ 26.00  |
| Split-Spoon Samples, in conjunction with well installation, each ..... | \$ 22.00  |
| Decontamination of Drilling Equipment, per hour .....                  | \$ 140.00 |
| Well Cover (Steel)   |           |
| Above Ground, each .....   | \$ 175.00 |
| Flush Mount, each .....  | \$ 225.00 |
| Well Development, per hour .....                                       | \$ 135.00 |
| 55-Gallon Drums, each .....  | \$ 65.00  |
| Time Rate, per hour .....  | \$ 130.00 |
| Stand-by, per hour .....   | \$ 100.00 |
| Grouting of Borings or Wells, per foot .....                           | \$ 5.00   |
| Piezometer Installation, per foot .....                                | \$ 12.00  |