



## **Navy Environmental Restoration Program Update National Aeronautics and Space Administration (NASA) Crows Landing Flight Facility [Former Naval Auxiliary Landing Field, Crows Landing]**

The purpose of this fact sheet is to provide an update on the status of the Navy's environmental restoration program projects at the NASA Crows Landing Flight Facility (the Facility), formerly known as the Naval Auxiliary Landing Field (NALF), Crows Landing in Stanislaus County, California. This fact sheet describes the work that was accomplished during the summer of 2001.

### **Underground Storage Tank (UST) Program:**

Seventeen (17) Underground Storage Tanks (USTs) were located at the Facility and all USTs were removed by 1994. Corrective actions were conducted or were in the process of being planned at the following nine (9) UST sites during summer 2001: Tanks CL-1, CL-2, and CL-3 (known as UST Cluster 1); Tanks CL-7, CL-8, and CL-9 (known as UST Cluster 2); UST 109; UST 117; and UST CL-40. The Regional Water Quality Control Board, Central Valley Region – the oversight agency for the UST Program – has determined that no further response actions are required at eight (8) of the seventeen sites.

As of September 2001, portable soil vapor extraction (SVE) treatment units have removed more than 19,900 pounds of petroleum from the soil at UST Cluster 1, the former location of three aviation gasoline storage tanks, near the east-central section of the Facility. During the summer of 2001, a portable SVE unit extracted petroleum from a group of ten (10) vapor extraction wells. Petroleum vapor concentrations have decreased from significantly during the period from January through August 2001. Photograph 1 shows a portable SVE treatment unit at UST Cluster 1 and Chart 1 shows the vapor concentrations for the combined flow from ten wells.

The groundwater beneath UST Cluster 1 and UST 117 is impacted with petroleum hydrocarbons and solvents, and the groundwater plume is being managed as the Administration Area Plume (the Plume) under the Installation Restoration Program (IRP) for Site 17.

A portable SVE unit has been utilized for testing activities at four (4) vapor extraction wells at UST Cluster 2 which is located in the northern section of the Facility. During the summer 2001, more than 1,400 pounds of petroleum hydrocarbons were removed. Petroleum vapor concentrations (for the combined flow from four wells) decreased significantly as shown on Chart 2. SVE testing activities were conducted at UST Site 109, and remediation strategies were evaluated for UST Sites 117 and CL-40 during the summer 2001.

### **Installation Restoration Program:**

Site 11 (former disposal pits) is located near the center of the Facility, between the two runways. The former disposal pits were believed to have been used from the 1960's through the 1980's for the disposal of facility household and industrial refuse and ordnance materials from the practice ranges located west of the facility. Geophysical surveys and exploratory trenching activities were conducted during late 2000 and early 2001 in order to better define the boundaries of the former disposal pits. A revised draft feasibility study that includes an evaluation of remedial alternatives was in development during summer 2001.

The Site 11A (sewer systems) includes two former sewage treatment plants - one located near the east-central section of the Facility that was constructed in approximately 1943 (original plant) and one located near the northern boundary of the Facility that was constructed in the early 1950's (most currently used plant). Geophysical surveys and exploratory trenching activities at the original plant location resulted in the identification of buried debris and waste in one or more of the oxidation ponds.

Site 17 includes the demolished hangar area, where former aircraft maintenance hangars were located, and the underlying groundwater plume that is also known as the Administration Area Plume (the Plume), a commingled plume consisting of petroleum hydrocarbons and solvents. The primary sources of petroleum hydrocarbons in groundwater are former petroleum storage tanks. Carbon tetrachloride, chloroform, 1,2-dichloroethane (1,2-DCA

(an additive in gasoline)), and gasoline have been identified in the Plume.

Time-critical removal actions were initiated in December 2000 to remove contamination from a source area near a former dry well at the southern section of the Plume. Acetone, ethylene dibromide (EDB), tert butyl alcohol (TBA), methyl ethyl ketone (MEK), other solvents, and aviation gasoline were identified in this area. Groundwater was extracted from four monitoring wells and one extraction well, and more than 100 pounds of contaminants (primarily acetone and gasoline) were extracted during the period from December 2000 through early July 2001. Extracted groundwater was transported to an off-site facility for treatment. Groundwater extraction activities continued near the former dry well through summer 2001.

The Navy has conducted routine groundwater monitoring activities on a quarterly basis during the period from November 2000 through August 2001. Approximately 20 wells have been sampled during each monitoring event, and samples were collected from IRP Site 11, IRP Site 17, UST Cluster 1, UST Cluster 2, and UST Site 109. The next sampling event is scheduled for November 2001.

Groundwater samples were collected from more than twenty (20) locations in June 2001 in order to better define the extent of the Plume. Additional monitoring wells were constructed in the eastern section of the facility in August 2001. Photograph 2 shows the construction of a new monitoring well.

Following the June 2001 sampling activities, the Navy prepared an Action Memorandum for time-critical removal actions to remediate areas where 1,2-dichloroethane (1,2-DCA) and carbon tetrachloride have impacted groundwater. The availability of the Action Memorandum at the local information repository in Patterson was announced in notices in the local newspapers in August 2001, and groundwater extraction activities began in September 2001.

A draft revised feasibility study for IRP Site 17 (Demolished Hangar Area and Administration Area Plume) was submitted for regulatory review in June 2001. The Navy is in the process of addressing review comments on the study.

### *Historical Background*

The former NALF Crows Landing was commissioned in May 1943 and has served primarily as an auxiliary airfield for operations from Naval Air Station, Moffett Field. The Navy closed the Facility in 1994 in accordance with the Base Realignment and Closure (BRAC) Act. The Facility was transferred to NASA on July 1, 1994. In October 1999, NASA was authorized by legislative act of the 106<sup>th</sup>

Congress of the United States of America to transfer the facility to Stanislaus County. California Environmental Quality Act (CEQA) documentation, including a reuse strategy, was released by Stanislaus County for public review in January 2001.

The Navy is responsible for the restoration of contaminated sites that were the result of historical Navy operations at the Facility. The Navy is the lead agency for the implementation of the environmental restoration program, and regulatory oversight is provided by the California Regional Water Quality Control Board, Central Valley Region and the California Department of Toxic Substances Control.

### **OPPORTUNITIES FOR COMMUNITY INVOLVEMENT**

The Navy will provide periodic updates to the community in fact sheets, and the most current project correspondence, plans, reports, and other documents are available at the local information repository at the Patterson Branch Library for inspection by the public. If you have comments or questions, please send them to Ms. Marianna Potacka, Southwest Division, Naval Facilities Engineering Command, 1220 Pacific Highway, San Diego, CA 92132-5190.

### **Environmental Restoration Program Mailing List Update Form**

To better serve the community regarding the Navy's Environmental Restoration Program projects at the NASA Crows Landing Flight Facility, we are continuing to update our mailing list. If you would like to receive copies of fact sheets and proposed plans, please complete the form and return to the following address:

Southwest Division, Naval Facilities Engineering Command  
BRAC Programs  
Code 06CC.LMH (Lynn Marie Hornecker)  
1220 Pacific Highway  
San Diego, California 92132-5190

Or Fax the form to Southwest Division, Naval Facilities Engineering Command at (619) 532-0780.

#### **Mailing Box – Please provide all information:**

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_

State and Zip Code: \_\_\_\_\_

-----

Telephone (optional): \_\_\_\_\_

E-mail (optional): \_\_\_\_\_

**Photograph 1.**

Portable Soil Vapor Extraction (SVE) Treatment Unit at UST Cluster 1. NASA Crows Landing Flight Facility. Date of Photograph: August 2001.



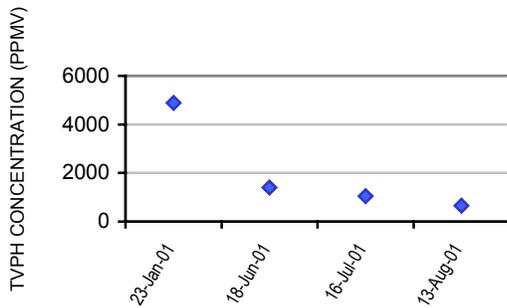
**Photograph 2.**

Construction of Monitoring Well at Eastern Section of Facility. NASA Crows Landing Flight Facility. Date of Photograph: August 2001.



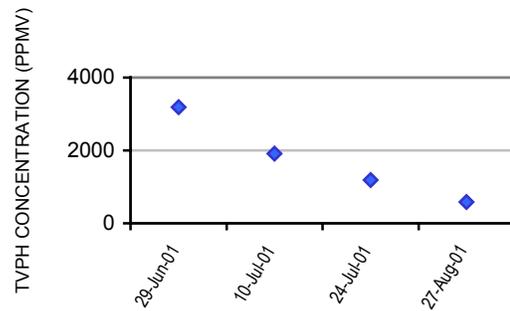
**Chart 1.**

Total Volatile Petroleum Hydrocarbon (TVPH) concentrations in Parts Per Million by Volume (PPMV) at UST Cluster 1 (January - August 2001)



**Chart 2.**

Total Volatile Petroleum Hydrocarbon (TVPH) concentrations in Parts Per Million by Volume (PPMV) at UST Cluster 2 (June - August 2001)



Southwest Division  
Naval Facilities Engineering Command  
1220 Pacific Highway  
San Diego, California 92132-5190

MAILING LABEL

**FOR MORE INFORMATION**

For more information pertaining to specific projects, please contact

Ms. Marianna Potacka  
BRAC Environmental Coordinator  
Southwest Division, Naval Facilities Engineering Command  
1220 Pacific Highway  
San Diego, California 92132-5190  
Telephone: (619) 532-0941  
E-mail: [Potackamk@efdswnavfac.navy.mil](mailto:Potackamk@efdswnavfac.navy.mil)

Or

Ms. Lynn Marie Hornecker  
Project Manager  
Southwest Division, Naval Facilities Engineering Command  
1220 Pacific Highway  
San Diego, California 92132-5190  
Telephone: (619) 532-0783; Fax: (619) 532-0780  
E-mail: [Horneckerlm@efdswnavfac.navy.mil](mailto:Horneckerlm@efdswnavfac.navy.mil)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record documents are available at the Information Repository at the Stanislaus County Library, Patterson Branch in Patterson. The Information Repository also includes an index of all documents contained within the CERCLA Administrative Record. Remedial investigation reports, underground storage tank reports, and other documentation pertaining to the Navy's environmental restoration program are maintained in the CERCLA Administrative Record at Southwest Division, Naval Facilities Engineering Command in San Diego. For assistance with the CERCLA Administrative Record or requests for copies of documents contained within the CERCLA Administrative Record, please contact the records manager, Ms. Diane Silva, at (619) 532-3676.