

Summary Report

Former Temporary Accumulation Area (TAA) 779
Solid Waste Management Unit (SWMU) 227
Former Marine Corps Air Station, El Toro, California

25 March 2002

Prepared by:
Southwest Division, Naval Facilities Engineering Command
BRAC Programs Office
San Diego, CA 92101-2404

Transmittal

Date: 25 March 2002

From: Lynn Marie Hornecker *AMA*

To: Triss Chesney
State of California Environmental Protection Agency
Department of Toxic Substances Control (DTSC), Region 4
Site Mitigation Branch, Base Closure Unit
5796 Corporate Avenue
Cypress, CA 90630

Subj: Former Temporary Accumulation Area (TAA) 779
Solid Waste Management Unit (SWMU) 227
Former Marine Corps Air Station, El Toro

Provided for your review as the attachment is the Summary Report for Former Temporary Accumulation Area (TAA) 779 at the Former Marine Corps Air Station, El Toro. Former TAA 779 is located in the northeastern section of the Station near Former Tank Farm 6.

TAA 779, a twelve-foot by seventeen-foot storage area, was identified as Solid Waste Management Unit (SWMU) 227 during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA). Visual inspections and a sampling visit have been conducted during the RFA.

We reviewed historical RFA documentation and other historical records, calculated screening risk levels based upon the RFA soil data, and conducted visual inspections of the former TAA 779 during March 2002. The concrete slab and concrete curb are in excellent condition and no stains or significant cracks were observed. Additionally, no stains were observed on the unpaved areas immediately adjacent to TAA 779. RFA field sampling activities did not identify significant releases at the site. The hazard index (HI) calculations for both the residential and industrial scenarios resulted in HI values that were significantly less than 1. Based upon our evaluation of the historical documentation, the screening risk calculations, and our observations from recent visual inspections, we are recommending that no further action status be designated for TAA 779 in the next BRAC Business Plan update.

SOUTHWESTNAVFACENGCOM
BRAC Operations
Code 06CC.LMH
1220 Pacific Highway
San Diego, California 92132-5190

File: ettaa779ltr.doc

If we do not receive comments from your office within sixty (60) days of receipt of this transmittal, then we will assume that you concur with our recommendation to designate no further action status for TAA 779.

Please do not hesitate to call me at (619) 532-0783 if you have questions on the attachment. Thank you very much.

Attachment

Summary Report (SWDIV March 2002)

CF:

Dean Gould (MCAS El Toro BEC)

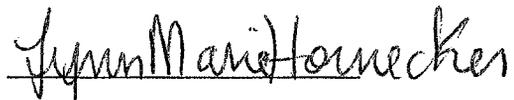
Project File (MCAS El Toro)

Summary Report

Former Temporary Accumulation Area (TAA) 779
Solid Waste Management Unit (SWMU) 227
Former Marine Corps Air Station, El Toro, California

25 March 2002

Prepared by:



Lynn Marie Hornecker
Project Manager

Southwest Division, Naval Facilities Engineering Command
BRAC Programs Office
San Diego, CA 92101-2404

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Section 1

Introduction

The purpose of this Summary Report is to present information pertaining to the former Temporary Accumulation Area (TAA) 779 at the Former Marine Corps Air Station (MCAS), El Toro. TAA 779 was identified near Tank Farm 6 in the northeastern section of the Station during the Resource Conservation and Recovery Act Facility Assessment (RFA). TAA 779 was designated as Solid Waste Management Unit (SWMU) 227. TAA 779 is located northeast of the former Tank Farm 6 and southeast of Building 698, as shown on Figure 1.

The Former Marine Corps Air Station, El Toro, also known as the Station, comprises approximately 4,700 acres in eastern Orange County approximately 45 miles southeast of Los Angeles, California. The Station closed on 2 July 1999 in accordance with the Base Realignment and Closure Act of 1993 (BRAC III). TAA 779 is located within a parcel, that prior to 5 March 2002, had been tentatively designated for future use as an aviation support area as shown on Figure 2. Evaluation of other reuse alternatives is in progress as of March 2002.

Historical facility records and documentation from the environmental compliance program were acquired and reviewed, and the vicinity of TAA 779 was visually inspected. TAA 779 was in use for hazardous waste storage from approximately 1983 through 1999 based upon historical documentation. During the visual inspection of 1993, the TAA had a placard identifying Maytag Aircraft Corporation as the operator of the TAA and several drums were stored on pallets within the TAA. No stains were observed during the visual inspections of December 1994, November 1995, and March 2002. Soil samples were collected adjacent to TAA 779 in 1992 and no significant releases were identified. Based upon the review of historical information and the results of the visual inspections, it is recommended that no further action status be designated for TAA 779 (SWMU 227) in the next BRAC Business Plan update.

Section 2

Field Inspections and Historical Records

2.1 Field Inspections and Sampling Activities at nearby Locations of Concern.

TAA 779 was identified during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) as Solid Waste Management Unit (SWMU) 227. TAA 779 consists of a concrete pad, approximately 12 feet wide by 17 feet long, enclosed within a chain-link fence. The pad is covered with a canopy. A six-inch concrete curb surrounds the concrete pad. The pad is located on an unpaved area northeast of the former Tank Farm 6.

A visual inspection was conducted on 1 May 1991 and the TAA was described as inactive.

A sampling visit was conducted in October 1992, and a sixty-foot angle boring was advanced adjacent to the southwest side of the TAA. Samples were collected at approximate intervals of ten feet. Soil data from the angle boring is summarized in Table 1 and extracts from the RFA documentation are included in the Appendix.

Visual inspections of TAA 779 were conducted during December 1994 and November 1995 during the preparation of the Final Addendum to the Resource Conservation and Recovery Act Facility Assessment (Bechtel 1996). Drums were observed in storage at TAA 779 during the inspections of 1994 and 1995 and the concrete pad was described as clean. During the 1995 inspection, JP-5 and synthetic oils were in storage at the TAA. The TAA was secure, the drums were stored on pallets within the TAA, drums had labels, and spill kits and an eye wash facility were observed.

Table 1. RFA Sampling Visit Data for TAA 779 (SWMU 227).

Sample Identifier	Analytical Results (JEG 1993) Maximum Concentrations are Shown in Bold Print	Comments and Risk Screening Calculations
227A1 (sample depth: 10 feet)	TRPH: 79 mg/kg TPH-gasoline, TPH-diesel, SVOCs, Pesticides/PCBs, metals: Not detected at or above reporting limits. Methylene chloride and acetone identified as laboratory contaminants.	
227A1 (sample depth: 25 feet)	TRPH: 58 mg/kg TPH-gasoline, TPH-diesel, SVOCs, Pesticides/PCBs, metals: Not detected at or above reporting limits. Methylene chloride identified as laboratory contaminant.	
227A1 (sample depth: 30 feet)	TRPH: 76 mg/kg TPH-gasoline, TPH-diesel, SVOCs, Pesticides/PCBs: Not detected at or above reporting limits. Methylene chloride and acetone identified as laboratory contaminants. Silver: 0.41 "B" mg/kg Butylbenzylphthalate: 310 "J" ug/kg	<i>PRGs (USEPA Region 9 November 2000):</i> Silver PRG res: 390 mg/kg (nc) Silver PRG ind: 10000 mg/kg (nc) Butylbenzylphthalate PRG res: 12,000 mg/kg (nc) Butylbenzylphthalate PRG ind: 100,000 mg/kg (max) Hazard index (HI) = (conc)/PRG HI Res Butylbenzylphthalate: 0.00026 HI Ind. Butylbenzylphthalate: 0.000003
227A1 (sample depth: 40 feet)	TRPH, TPH-gasoline, TPH-diesel, SVOCs, Pesticides/PCBs: Not detected at or above reporting limits. Methylene chloride and acetone identified as laboratory contaminants. Silver: 0.73 "B" mg/kg	HI Res. Silver: 0.001872 HI Ind. Silver: 0.000073
227A1 (sample depth: 50 feet)	TRPH: 39 mg/kg TPH-gasoline, TPH-diesel, SVOCs, Pesticides/PCBs: Not detected at or above reporting limits. Methylene chloride and acetone identified as laboratory contaminants. Silver: 0.59 "B" mg/kg	
227A1 (sample depth: 57 feet)	TRPH: 35 mg/kg TPH-gasoline, TPH-diesel, SVOCs, Pesticides/PCBs: Not detected at or above reporting limits. Methylene chloride and acetone identified as laboratory contaminants. Silver: 0.48 "B" mg/kg	
Hazard Index (based upon maximum concentration of each chemical)		Residential HI: 0.002132 Industrial HI: 0.000076

Table 1 includes a screening risk calculation based upon the maximum concentrations of silver and butylbenzylphthalate with USEPA Region IX Preliminary Remediation Goals (PRGs). Silver and butylbenzylphthalate were detected as estimated values (below reporting limits but above instrument detection limits). The hazard indices for silver and butylbenzylphthalate for the residential and industrial scenarios are each significantly less than 1.

TAA 779 was also identified in the Final Environmental Baseline Survey (EBS) Report (JEG 1995) as a satellite accumulation area (SAA). The EBS identifies no further action status for SAA 779 and extracts from the EBS are included in the Appendix.

Representatives from the Navy conducted visual inspections of the former TAA 779 on 1, 8, 15, and 22 March 2002. On 15 March 2002, the surface of the concrete floor was inspected closely and no stains or significant cracks were observed on the concrete floor or on the curb. The concrete floor and curb appeared to be in excellent condition. Additionally, no stains were observed on the unpaved areas adjacent to former TAA 779. The door to the TAA had been damaged. Photographs from the visual inspections of March 2002 are included in the Appendix.

2.2 Historical Property Records and Environmental Program Records

Property records and information from previously published environmental compliance and environmental restoration program projects were acquired and reviewed. Some of the documents are included in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record. Extracts from selected documents are included in the Appendix.

According to the plant account records, TAA 779 was constructed in 1983 as a hazardous waste collection facility and the TAA encompasses an area of approximately 204 square feet.

The following Summary Table presents historical information pertaining to former TAA 779 and nearby buildings or locations of concern.

Table 2. Former TAA 779 Vicinity, MCAS El Toro.

Building or Feature Identifier	Approximate Date of Construction or Installation	Comments
TAA 779 (SWMU 227)	1983	Former hazardous waste accumulation area. Approximate dimensions: 12 feet by 17 feet. (204 square feet). Maytag Aircraft Corporation is identified as the operator of TAA 779 in the HM/HWMP (SAIC 1994); photographs and other information from the HM/HWMP are included in the Appendix. Nearby TAA 698 was used by the nearby aircraft maintenance hangar.
Building 698	1975	Line Maintenance Shelter
TAA 698 (SWMU 252)	1983 (estimated)	TAA for Building 698
UST T-9 (SWMU 228)	1988	UST T-9 (also known as SWMU 228) was removed on 19 March 1997 and was located within approximately 20 feet of TAA 779.
SWMU 211	1982	SWMU 211 (also known as Former Oil/Water Separator (OWS) 763A) was located approximately west of TAA 779 near the wash rack. OWS 763A was removed on 28 February 2000 and closed by Orange County Health Care Agency (OCHCA) on 26 July 2000.
Tank Farm 6	1943	The four former fuel storage tanks (USTs 204 (SWMU 60), 205 (SWMU 61), 206 (SWMU 62), & 207 (SWMU 63)) have been removed from Tank Farm 6.
USEPA Anomaly 52	1952	Stains observed on 1952 aerial photograph within the former Tank Farm 6 facility (southwest of TAA 779) and at the wash rack facility adjacent to Building 763 (west of TAA 779). The areas northeast and southeast of the wash rack are unpaved, however, during the 1950's, it is possible that a larger unpaved area existed near the wash rack. The area of the stain within the former Tank Farm 6 was excavated during the removal of the four fuel storage tanks. The stain near Building 763 may have been attributable to washing operations at the wash rack adjacent to Building 763. The wash rack has been taken out of service, UST 763B and OWS 763A (the tanks associated with the wash water from the wash rack) have been removed, and the tank sites have been closed by OCHCA.
SAIC Anomaly 56	29 December 1946	Extracts from the description of SAIC Anomaly 56 follow: "Soil stains (ST) can be observed: on the southeast side of Building 125, near S Place and N 9 th Street; at the edge of the aircraft parking apron about 200 feet northwest of Tank Farm 6; and near the present locations of Buildings 697 and 642, near N 8 th Street and S Street." The wash rack facility adjacent to Building 763 is approximately northwest of Tank Farm 6, and water from the washing operations could have caused the appearance of soil stains or wet soil on the historical aerial photograph.

Regional Water Quality Control Board, Santa Ana Region Correspondence

The RWQCB letter dated 23 June 1989 (Administrative Record ID M60050.001130) addresses several solvent storage areas and drum storage areas, however, the letter does not identify TAA 779. A copy of the letter is included in the Appendix.

A list dated 17 April 1989 (AR Identifier M60050.000776) of areas where hazardous substances were used or wastes were generated does not identify Building or TAA 779. The list is included in the Appendix.

Storm Water Pollution Prevention Plan (SWPPP)

Visual inspections of areas where hazardous materials and hazardous wastes were stored were conducted in 1993 during the development of the SWPPP. The SWPPP

recommended that appropriate spill prevention and response documentation be prepared and that training be provided. The SWPPP also states that a roof and berm be constructed, however, based upon the visual inspections and historical photographs of TAA 779, these features have always existed. The SWPPP also includes a spill history table in Section 5, and this table does not identify historic spills near at or near TAA 779. Extracts from the SWPPP are included in the Appendix.

Historical Aerial Photograph Anomalies

Science Applications International Corporation (SAIC) evaluated historical aerial photographs of the MCAS El Toro and the results of the evaluation are published in the *Final Report, Aerial Photograph Assessment, MCAS El Toro* (SAIC, 1993). The United States Environmental Protection Agency (USEPA) evaluated historical aerial photographs of MCAS El Toro and the results of the evaluation are published in the *Site Analysis, El Toro MCAS, Orange County, California* (USEPA, 1991). The USEPA and the SAIC reports did not identify anomalies at TAA 779. The anomalies located closest to former TAA 779 are identified and discussed within Table 2.

2.3 Ground Water Conditions

Groundwater conditions in the vicinity of TAA 779 were investigated during the verification of conditions at former Tank Farm 6. Two monitoring wells were constructed adjacent to former Tank Farm 6. The depth to groundwater is approximately 190 feet. The groundwater beneath former Tank Farm 6 is contaminated with petroleum hydrocarbons, including gasoline and benzene, and is being managed under the petroleum corrective action program.

Section 3

Findings and Recommendations

The following findings are based upon information collected during the record search activities and from observations during the visual inspections of the vicinity of Building 779:

- TAA 779, a temporary accumulation area, was identified during Resource Conservation and Recovery Act Facility Assessment (RFA) as Solid Waste Management Unit (SWMU) 227. TAA 779 includes a concrete slab with curb, approximately 12 feet by 17 feet, and a canopy. The TAA was described as inactive during the visual inspection of 1991. During the visual inspections of 1994 and 1995, the TAA was described as clean.
- A sampling visit was conducted in 1992. The results of the inspections and sampling activities indicated that no significant releases had occurred at TAA 779. Silver was detected at a maximum concentration of 0.73 mg/kg "B" (40-foot sample)

and butylbenzylphthalate was detected at a maximum concentration of 0.310 mg/kg "J" (30-foot sample). Total recoverable petroleum hydrocarbons were detected at a maximum concentration of 79 milligrams per kilogram in the 10-foot sample. Screening risk levels were calculated using the maximum silver and butylbenzylphthalate concentrations, and the cumulative hazard indices for residential and industrial scenarios were significantly less than 1.

- The Navy inspected TAA 779 in March 2002. No stains were observed on the concrete surfaces of the floor or on the curb of the TAA. No significant cracks were observed in the concrete surfaces of the floor or on the curb. No stains were observed on the unpaved areas surrounding the TAA.

Based upon the absence of visual evidence of a significant release at or near former TAA 779, the results of the screening risk calculations, and the excellent condition of the concrete floor and curb, it is recommended that no further action status be designated for TAA 779 in the next BRAC Business Plan Update

Section 4

References and/or Sources of Information

County of Orange. 1999. Preferred Land Use Plan, Concept B. August. [prepared by the MCAS El Toro Local Redevelopment Authority]

Jacobs Engineering Group (JEG). 1993. Installation Restoration Program, Final Resource Conservation and Recovery Act Facility Assessment Report for Marine Corps Air Station, El Toro, California. [Navy Contract N68711-89-D-9296, Contract Task Order 193]

Jacobs Engineering Group (JEG). 1995. Marine Corps Air Station El Toro, El Toro, California, Final Environmental Baseline Survey Report. April. [Navy Contract N68711-89-D-9296, Contract Task Order 284]

OHM Remediation Services Corporation. 1997. Technical Memorandum, Groundwater Monitoring Report, Petroleum Storage Facilities at Various Locations, Marine Corps Air Station, El Toro, California. November.

Naval Facilities Engineering Command, Southwest Division. 1997. Plant Account Record for MCAS El Toro.

NBS/Lowry Engineers - Planners. 1988. Oil and Hazardous Substance Spill Prevention, Control and Countermeasure Field Survey Report, SPCC Plan, and Spill Contingency Plan for the U. S. Marine Corps Air Station, El Toro, California. [Administrative Record ID # M60050.000800]

Roy F. Weston. 1984. Hazardous Materials/Hazardous Waste Engineering Study. [Administrative Record ID # M60050.000899]

Science Applications International Corporation (SAIC). 1994. Final, Marine Corps Air Station, El Toro, Hazardous Material/Hazardous Waste Management Plan {with Appendices C and I, Hazardous Waste Accumulation Areas and Photographs of Accumulation Points and Hazardous Material Storage Areas}. August. [Contract N68711-92-D-4658, Delivery Order Number 4].]

Science Applications International Corporation (SAIC). 1993. Final Report, Aerial Photograph Assessment, MCAS El Toro. Contract N68711-91-D-4658, Delivery Order 0002, SAIC Project No. 01-0892-0817.

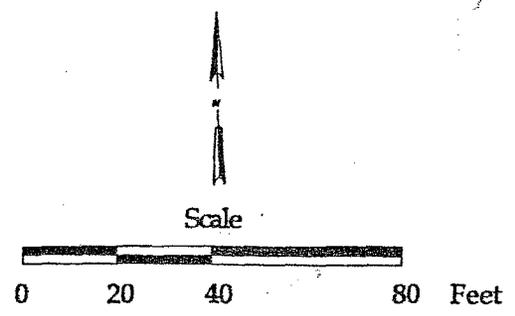
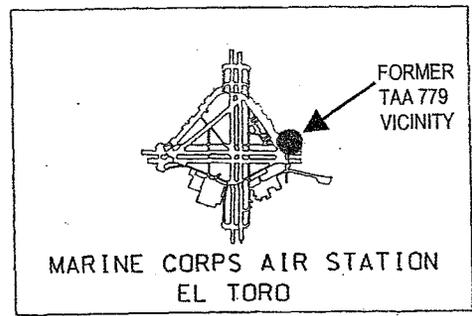
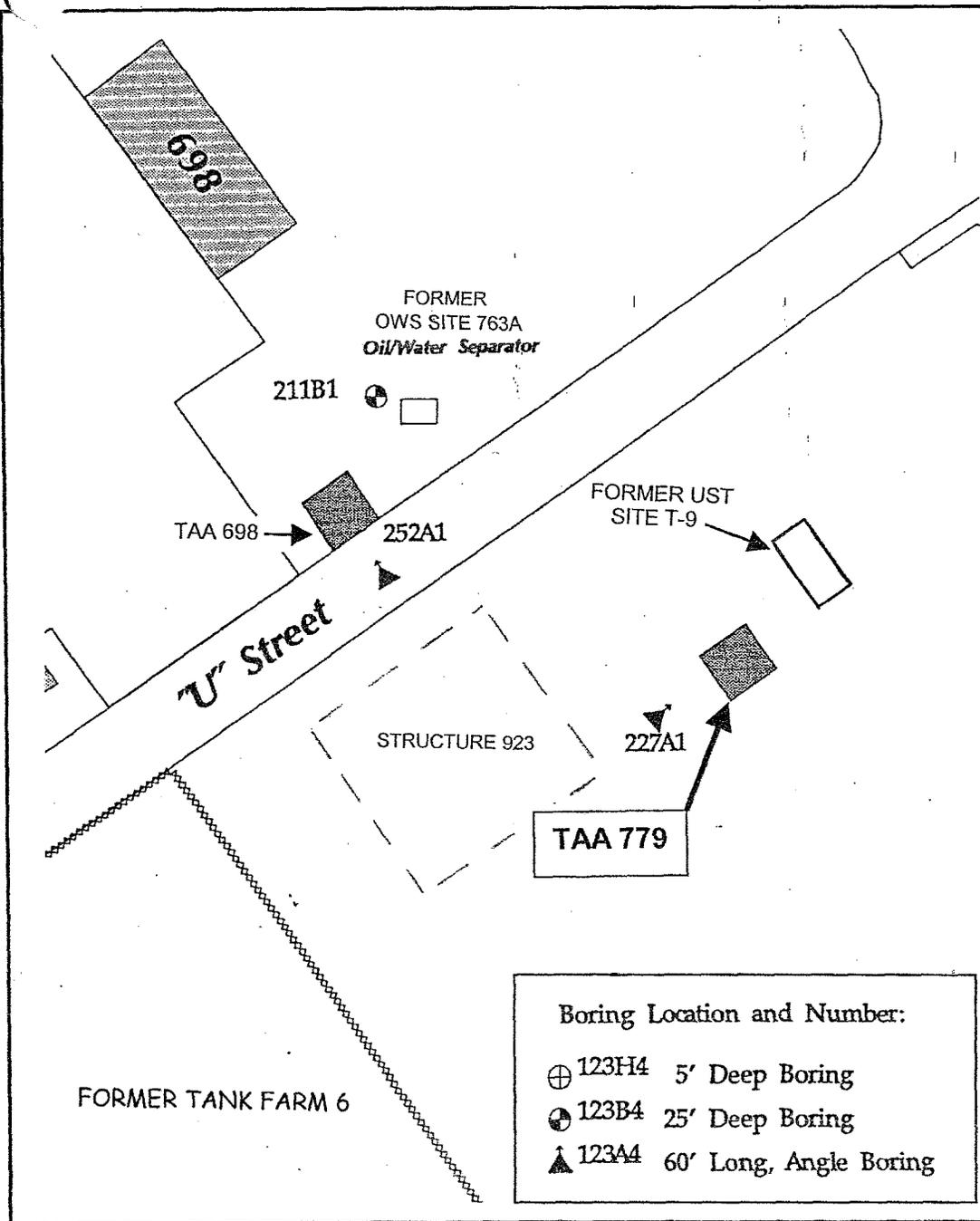
SCS Engineers. 1979. Oil and Hazardous Substance Spill Prevention, Control, and Countermeasure Field Survey Report and SPCC Plan (Administrative Record Identifier M60050.000808).

United States Environmental Protection Agency. 1991. Site Analysis, El Toro MCAS, Orange County, California.

United States Marine Corps Air Station, El Toro. 2001. Base Realignment and Closure (BRAC) Business Plan.

United States Marine Corps Air Station, El Toro. Circa 1946-1999. Station Property Records, Utility Maps, Construction Drawings, Facility Maps, Aerial Photographs, and Building Guides.

NOTE: Map information was extracted from the Final RFA Report (JEG 1993) and annotations for features near TAA 779 (SWMU 227) were made by the writer of the Summary Report.



- Boring Location and Number:**
- ⊕ 123H4 5' Deep Boring
 - ⊗ 123B4 25' Deep Boring
 - ▲ 123A4 60' Long, Angle Boring

Figure 1.
 FORMER TEMPORARY ACCUMULATION AREA (TAA) 779
VICINITY MAP
 FORMER MARINE CORPS AIR STATION, EL TORO

ANNOTATIONS MADE BY THE WRITER OF THE SUMMARY REPORT ARE IDENTIFIED WITH A STAR SYMBOL OR AN ARROW.

★ THE APPROXIMATE LOCATION OF FORMER TAA 779 IS IDENTIFIED WITH A STAR SYMBOL.



- | | | | |
|---|---------------------------|----|-------------------------|
| 1 | Agriculture | 10 | Transportation Facility |
| 2 | Park Uses | 11 | Cargo |
| 3 | Golf | 12 | Aviation Support |
| 4 | Open Space | 13 | Public Facilities |
| 5 | Habitat Reserve | 14 | Business Park |
| 6 | Restricted Open Space | 15 | Wildlife Habitat Area |
| 7 | Marshburn Retarding Basin | 16 | Cultural/Institutional |
| 8 | Airfield | | Circulation/Easements |
| 9 | Terminal and Parking | 1- | Planning Area |

Figure 2.
 FORMER TEMPORARY ACCUMULATION AREA (TAA) 779
TENTATIVE REUSE PARCEL LOCATIONS
 FORMER MARINE CORPS AIR STATION, EL TORO

NOTE:
 PARCEL IDENTIFIERS ARE PROVIDED FOR THE PURPOSE OF ILLUSTRATION AND ARE SUBJECT TO FINAL DESIGN AND PHASING.

Source of Reuse Information: County of Orange (1999)

18292602.dwg
 5/18/00 11:17 AM
 Jane Witzel—Yanez, Witzel—Yanez Design

Appendix

Site Photographs and Other Documentation

Site Photographs

Extracts From RFA And EBS Documentation

Extracts from MCAS El Toro Property Records, Building Guides, and
Historical Facility Maps

Extracts from historical hazardous waste management documents

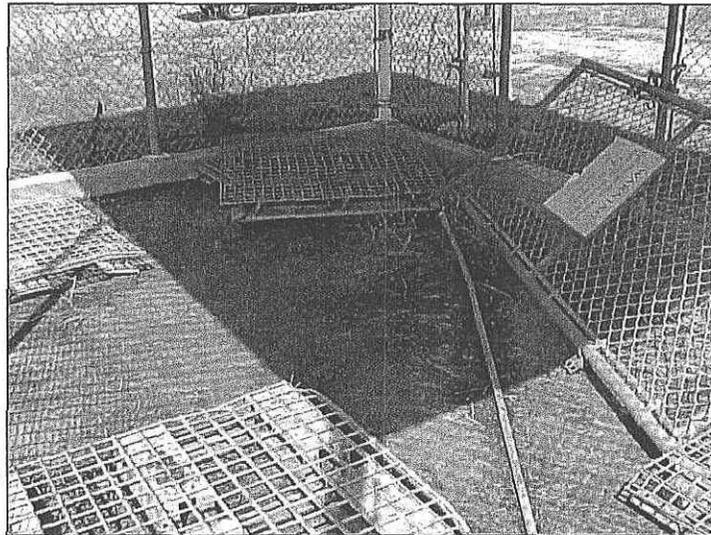
No Further Action Decision Documents for Nearby Locations of Concern

Photograph 1. Former Temporary Accumulation Area (TAA) 779
Solid Waste Management Unit (SWMU) 227
(structure is approximately 12 feet wide by 17 feet long)
Marine Corps Air Station, El Toro
Date of Photograph: 15 March 2002

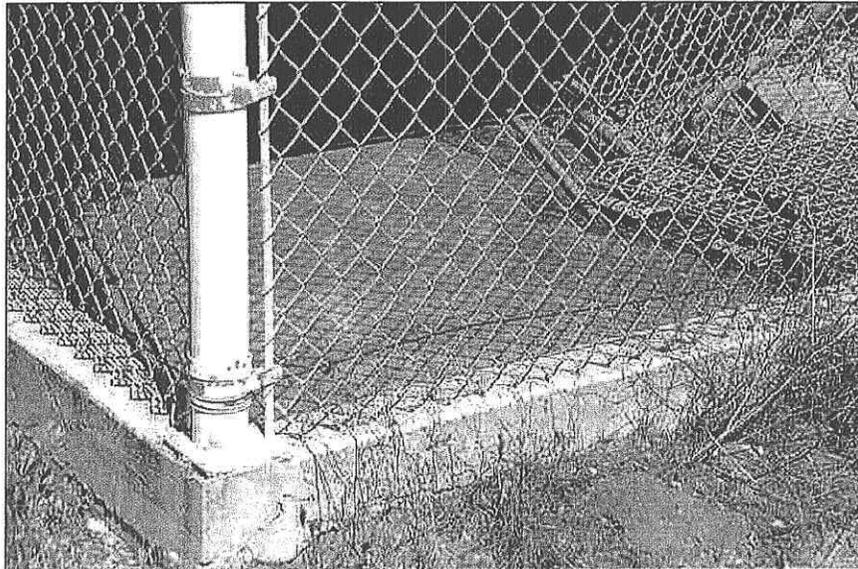


Vicinity of Former
UST T-9

Photograph 2. Former Temporary Accumulation Area (TAA) 779
Marine Corps Air Station, El Toro
Date of Photograph: 1 March 2002



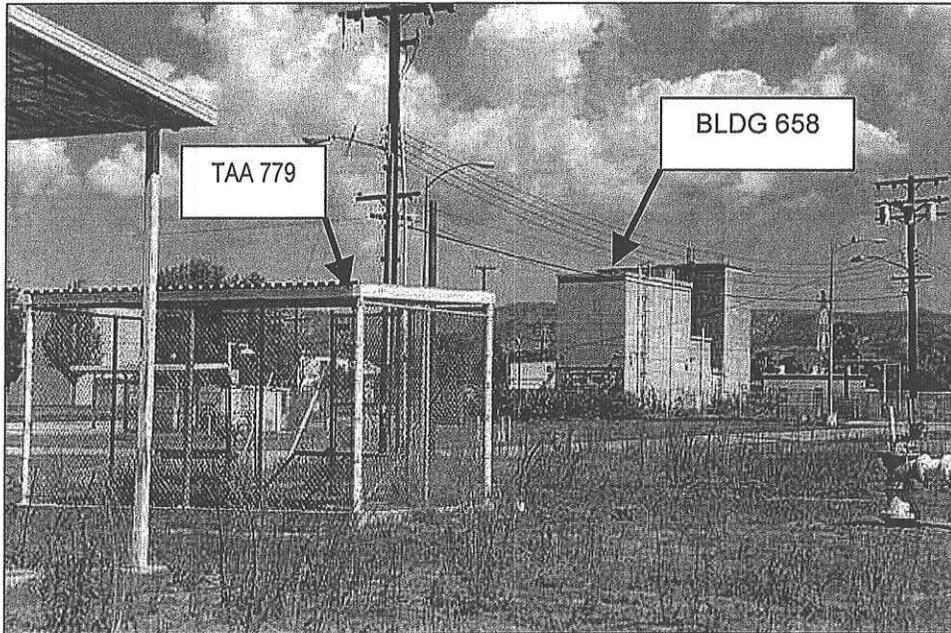
Photograph 3. Former Temporary Accumulation Area (TAA) 779
Resident Snake near Former TAA 779
Marine Corps Air Station, El Toro
Date of Photograph: 15 March 2002



Photograph 4. Former Temporary Accumulation Area (TAA) 779
Resident Snake near Former TAA 779
Marine Corps Air Station, El Toro
Date of Photograph: 1 March 2002

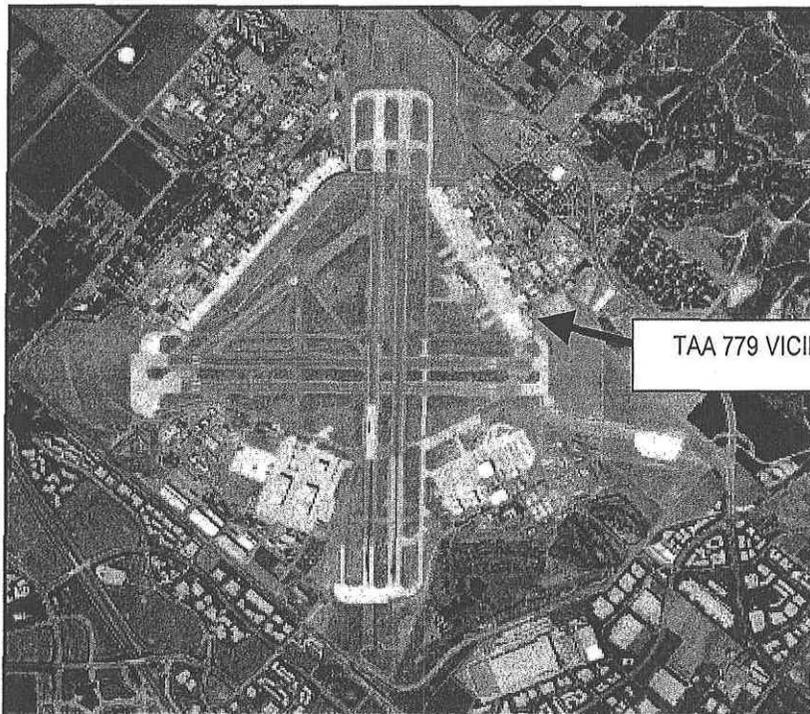


Photograph 5. Former Temporary Accumulation Area (TAA) 779
Looking approximately northeast
Marine Corps Air Station, El Toro
Date of Photograph: March 2002



Aerial Photograph. Vicinity of TAA 779 (SWMU 227)
Marine Corps Air Station, El Toro

Date of Aerial Photograph: 1994

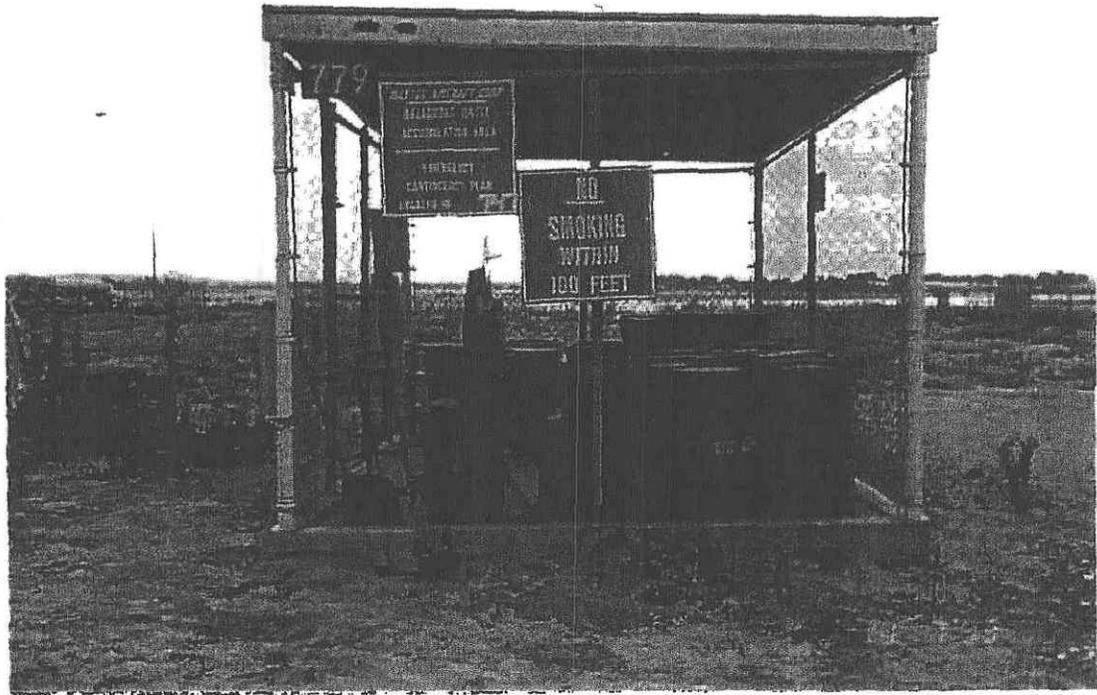


TAA 779 VICINITY

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

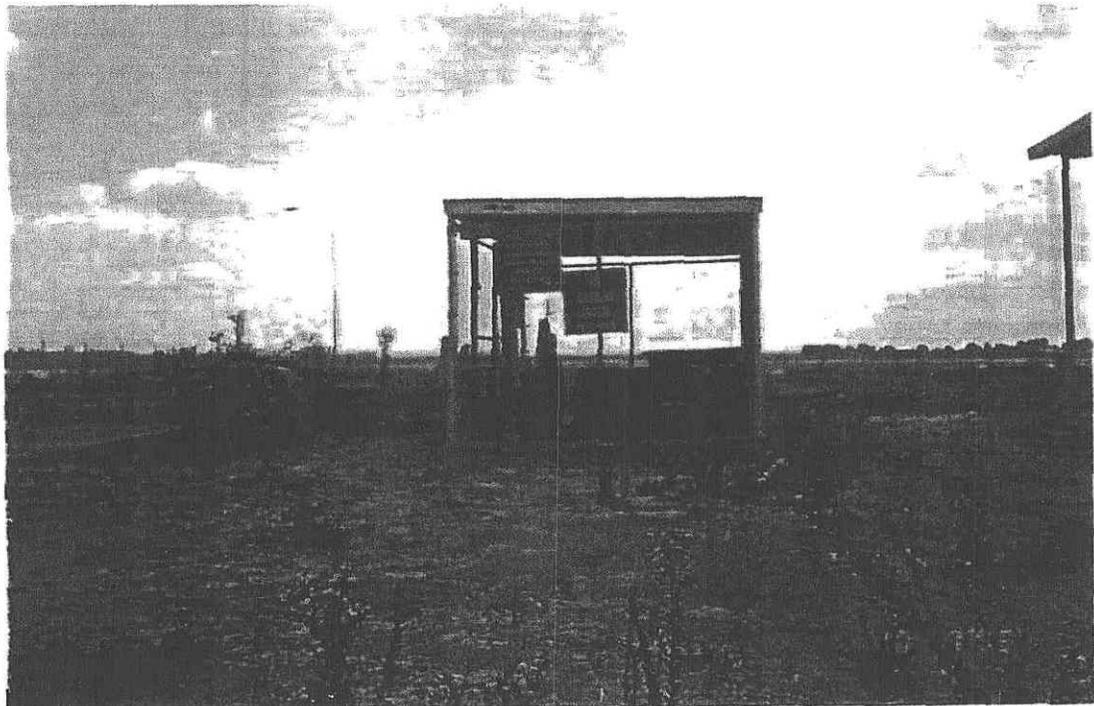
PHOTOGRAPHS FROM HAZARDOUS MATERIALS/HAZARDOUS WASTE
MANAGEMENT PLAN (SAIC 1994)

PHOTOGRAPHS OF TAA 779 TAKEN ON 7 OCTOBER 1993



Maytag Aircraft Corporation

Bldg 779



Maytag Aircraft Corporation

Bldg 779

EXTRACTS

MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA
INSTALLATION RESTORATION PROGRAM
FINAL RESOURCE CONSERVATION
AND RECOVERY ACT (RCRA)
FACILITY ASSESSMENT REPORT

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

THROUGH:
CONTRACT #N66711-88-D-9296
CTO #193
DOCUMENT CONTROL NO:
CLE-C01-01F193-S2-0001

WITH:
Jacobs Engineering Group, Inc.
3655 Nobel Drive, Suite 200
San Diego, California 92122

In association with:
International Technology Corporation
CH2M HILL



Mike Arends, P.E.
CLEAN Project Manager
CH2M HILL, Inc.

7/16/93
Date



Raoul Portillo
CLEAN Technical Reviewer
Jacobs Engineering Group Inc.

15 July 1993
Date

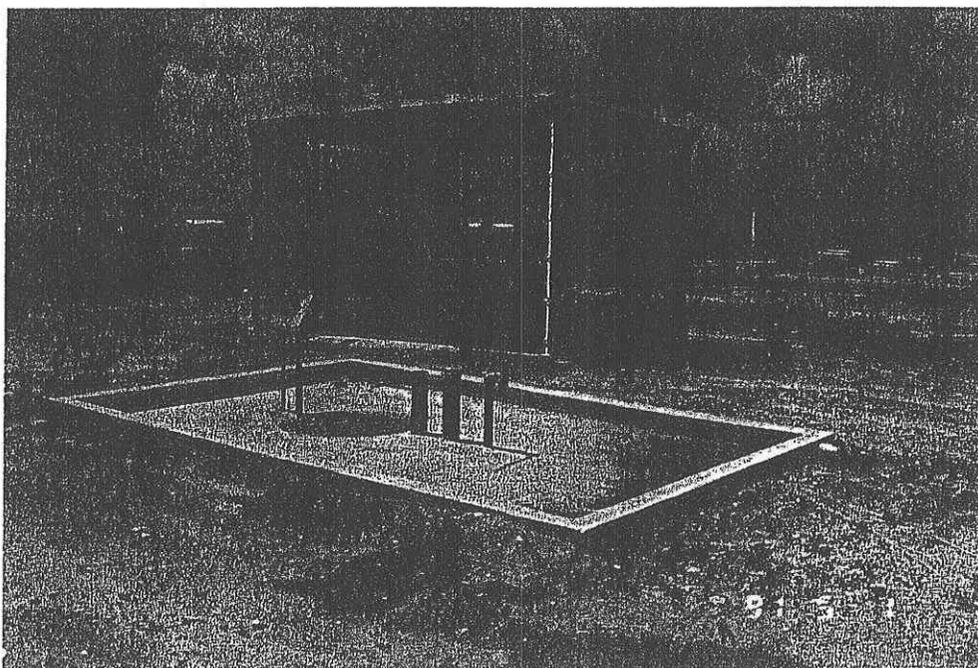
**Evaluation Form
SWMU/Area of Concern
Number 227**

Name: Hazardous Waste Storage Area 779

Location: South of Underground Storage Tank T-09

Size: 204 sq ft

Date of Site Visit: 01 May 1991



Period of Operation

Currently inactive

PRVSI'CTO99

CLE-C01-01F099-B2-0004

**Evaluation Form
SWMU/Area of Concern
Number 227**

Unit Characteristics

This HWSA is one of the six DHS-permitted HWSAs at MCAS El Toro. These six HWSAs (SWMU/AOC Numbers 222 through 227) are not planned for future use. Historically, these six HWSAs have had drums stored outside of the storage area.

This HWSA is approximately 12 x 18 ft in dimension. It consists of a concrete storage surface surrounded by a concrete berm approximately 6 in. high. The HWSA is enclosed by a chain-link fence and covered by an aluminum roof.

The HWSA is intended to be inactive. At the time of the visit, however, several cases of Kodak 55 Developer were placed inside the storage area by a departing squadron without authorization. Some of the photodeveloper had leaked within the HWSA; it was contained completely by the berm.

Waste Characteristics

Photodeveloper
Unknown in past

Migration Pathways

Soil

Evidence of Release

Photodeveloper had leaked inside the storage area

Exposure Potential

Authorized on-Station personnel

Recommendations

Although there was no evidence of a release outside of the storage area, the past and present HWSAs at MCAS El Toro are recommended for a sampling visit.



PROJECT NUMBER LA070032.50.10	BORING NUMBER 227A-1	SHEET 1 OF 2
SOIL BORING LOG		

PROJECT NAVY CLEAN RCRA FACILITY ASSESSMENT LOCATION MCAS-EL TORO
 ELEVATION _____ DRILLING CONTRACTOR BRYLIK DRILLING INC., LA HABRA, CALIFORNIA
 DRILLING METHOD AND EQUIPMENT HSA, 3-1/4" ID, 6 1/2" OD, INGERSOLL-RAND TH-10
 WATER LEVELS _____ START 10/06/92 FINISH 10/06/92 LOGGER A. GIMURTO

DEPTH BELOW SURFACE (FT)	SAMPLE			STANDARD PENETRATION TEST RESULTS 6" - 6" - 6" (N)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
	INTERVAL	TYPE AND NUMBER	RECOVERY (FT)			
5.0						Still drilling at 10.0.
10.0	11.0				SILTY SAND (SM), light brown, dry to moist, fine grained.	
	13.0	1-MC	2.0	32-36-36-40	POORLY GRADED SAND (SP), light brown, dry to moist, dense, fine grained.	Sample attempted at 10 feet. Refusal of spoon, although augering not difficult. Auger advanced to 11 feet to attempt 2nd sample.
15.0						Sample headspace 0 ppm on CVA at 12.0 feet.
20.0	21.0					
	23.0	--	0	20-21-75-75		Sampler attempted at 20.0 feet, after refusal, auger was advanced to 22.0 feet for 2nd attempt.
	25.0					Difficult augering at 23.0 to 24.0 feet.
25.0	27.0	2-MC	1.4	30-60-60-65	POORLY GRADED SAND (SP), reddish brown, dry to moist, very dense, fine to medium grained.	Sample headspace 0 ppm on CVA at 25.5 feet.
30.0	30.0					
	32.0	3-MC	1.3	36-43-60-76	POORLY GRADED SAND (SP), reddish brown, moist, very dense.	Sample headspace 0 ppm on CVA at 31.0 feet.



PROJECT NUMBER LA070022.S0.10	BORING NUMBER 027A-1
SOIL BORING LOG	

PROJECT NAVY CLEAN BCRA FACILITY ASSESSMENT LOCATION MCAS-EL TORO
 ELEVATION _____ DRILLING CONTRACTOR BEYLIK DRILLING, INC., LA HABRA, CALIFORNIA
 DRILLING METHOD AND EQUIPMENT HSA, 3-1/4" ID, 6-1/2" DD, INGERSOLL-RAND TH-10
 WATER LEVELS _____ START 10/06/92 FINISH 10/06/92 LOGGER A. GIMBERTO

DEPTH BELOW SURFACE (FT)	SAMPLE			STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS TESTS AND INSTRUMENTATION
	INTERVAL	TYPE AND NUMBER	RECOVERY (FT)	6" - 6" - 6" (N)		
40.0	40.0 - 42.0	4-MC	1.7	40-45-30-45	SANDY SILT (ML), brown, moist, hard, fine sand, trace clay, distinctive remnant soil structure.	Extremely difficult augering at 35.0 feet.
45.0						Extremely difficult augering from 35.0 to 57.0 feet. Sample headspace 0 ppm on DVA at 41.0 feet.
50.0	50.0 - 52.0	5-MC	1.1	32-21-50-50	Similar to 4-MC.	Sample headspace 0 ppm on DVA at 51.0 feet.
55.0	57.0 - 59.0	6-MC	2.0	86-61-106-50	Similar to 5-MC.	Sample headspace 0 ppm on DVA at 58.0 feet.
60.0					Total Depth at 59.0 Feet.	
65.0						

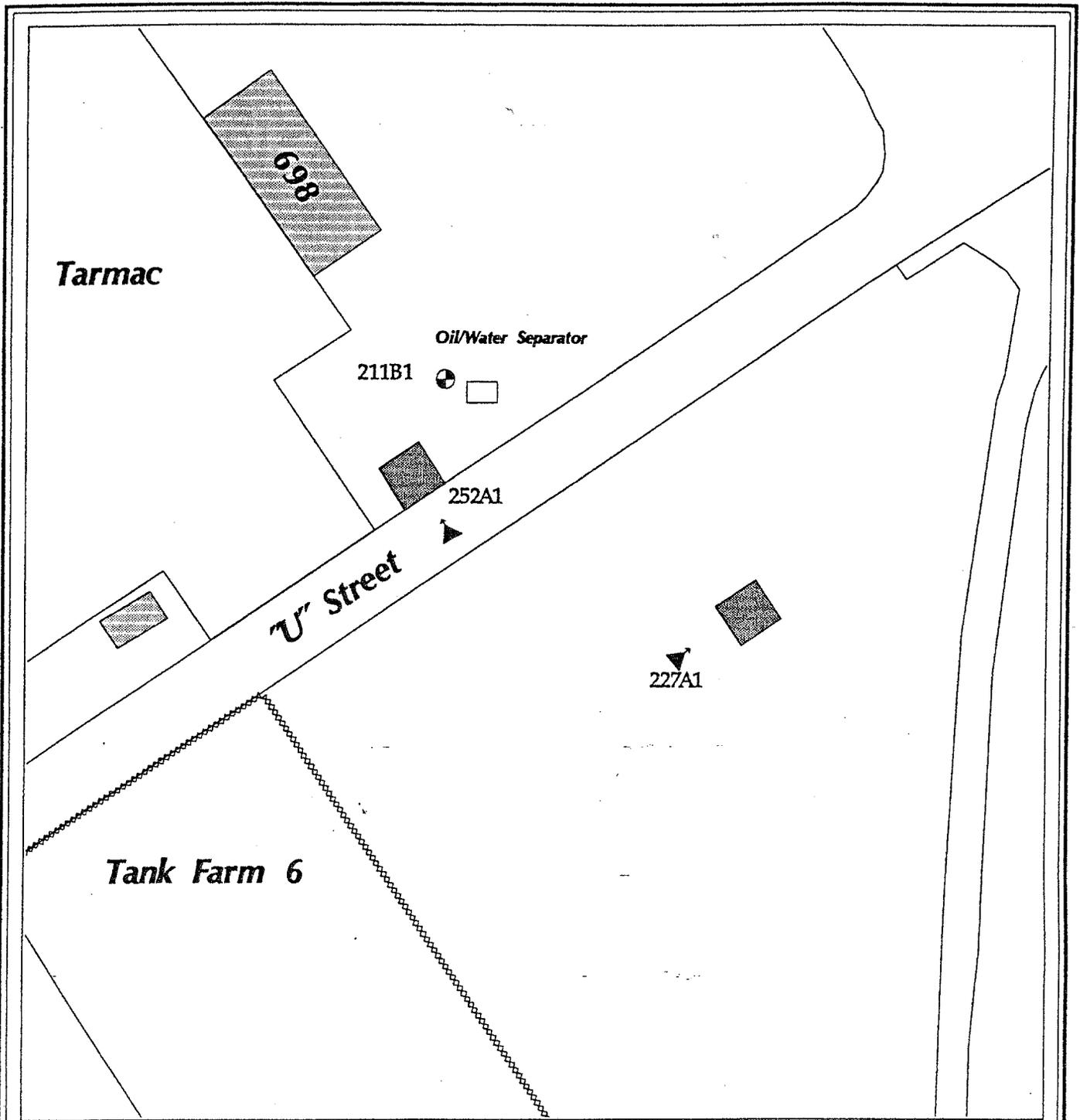


Figure 64 Sample Location Map

Boring Location and Number:

- ⊕ 123H4 5' Deep Boring
- ⊕ 123B4 25' Deep Boring
- ▲ 123A4 60' Long, Angle Boring

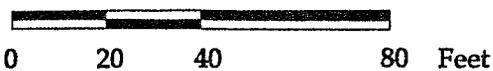
Features:

-  Building
-  Concrete
-  Fence
-  Railroad

SWMU/AOC Number and Type:

- 211 - Oil/Water Separator
- 227 - Hazardous Water Storage Area
- 252 - Hazardous Waste Storage Area

Scale



MCAS El Toro
RCRA Facility Assessment

MCAS EL TORO RCRA FACILITY ASSESSMENT -- SAMPLING VISIT RESULTS

SWMU/AOC NUMBER	SWMU/AOC TYPE (FIGURE)	BORING NUMBER	SAMPLE DEPTH (FEET)	ANALYTICAL TEST RESULTS							RECOMMENDATIONS	
				TPH (mg/kg)	TFH (mg/kg)		VOCs (ug/kg)	SVOCs (ug/kg)	PESTICIDES/PCBs (ug/kg)	METALS (mg/kg)	Action	Rationale
					Gasoline	Diesel						
227	Hazardous Waste Storage Area (64)	A1	10	79	ND	ND	Methylene Chloride-7 BJ * Acetone-13 B *	ND	ND	Silver-ND	NFA TPH/TFH < 100 ppm VOCs < CRDL SVOCs < CRDL Pest/PCB < CRDL Metals < ETM & PRG CRDL - Contract Required Detection Limit	
			25	58	ND	ND	Methylene Chloride-6 BJ *	ND	ND	Silver-ND		
			30	76	ND	ND	Methylene Chloride-11 BJ * Acetone-10 BJ *	Butylbenzylphthalate-310 J	ND	Silver-0.41 B		
			40	ND	ND	ND	Methylene Chloride-14 B * Acetone-17 B *	ND	ND	Silver-0.73 B		
			50	39	ND	ND	Methylene Chloride-8 BJ * Acetone-14 B *	ND	ND	Silver-0.59 B		
			57	35	ND	ND	Methylene Chloride-7 BJ * Acetone-8 BJ *	ND	ND	Silver-0.48 B		

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Room 135
San Diego, CA 92132-5187

Contract No. N68711-92-D-4670

EXTRACTS

**COMPREHENSIVE LONG-TERM ENVIRONMENTAL
ACTION NAVY
CLEAN II**

**FINAL ADDENDUM TO THE
RCRA FACILITY ASSESSMENT
MCAS EL TORO, CALIFORNIA
(VOLUME 6 OF THE FINAL RFA REPORT)**

CTO-0065/0170

May 1996

Prepared by:

BECHTEL NATIONAL, INC.
401 West A Street, Suite 1000
San Diego, CA 92101



Signature: _____

Jacques Lord, CTO Leader

Date: _____

31 May 1996

ACCUMULATION AREA EVALUATION CHECKLIST

(CIRCLE AS APPROPRIATE AND FILL IN COMPLETELY)

JOB 22214 CTO-0065
NAVY CLEAN II MCAS EL TORO RFA CONFIRMATION ACTIVITIES

GENERAL DESCRIPTION:

SWMU #: 227 Accumulation Area (AA) #: 779
Location (bldg): HWSA/Bldg. 779
Site Contact: Leta Suarez Ext: 2772
Permission for Access? Y N If yes, explain: locked fence around berm.
Type of Wastes Observed: None

TYPE: (CIRCLE AS APPROPRIATE)

~~Locker~~ ~~Cabinet~~ Pad Concrete ~~Soil/Asphalt~~ floor
 Berm Fence Fence Type: Cyclone ~~Indoor~~
 Pallets Drum(s) No. of Drums: 6 Outdoor

CONDITION:

~~Stain(s)~~ ~~Odor(s)~~ ~~Crack(s)~~
Placards/Labels: Y N If Yes, list: JP-5
Synthetic Oil

Observations: Clean concrete pad. Roof over pad. Vacant.
Status: Active as of 11-10-95. 3 barrels, spill kits, eyewash.

DIMENSIONS: (ESTIMATED SIZE OR AREA IN FT)

AA/SWMU: 15x10 ft.
"Stain(s)": None.
Any Restrictions To Access?: Fence, roof and poles.

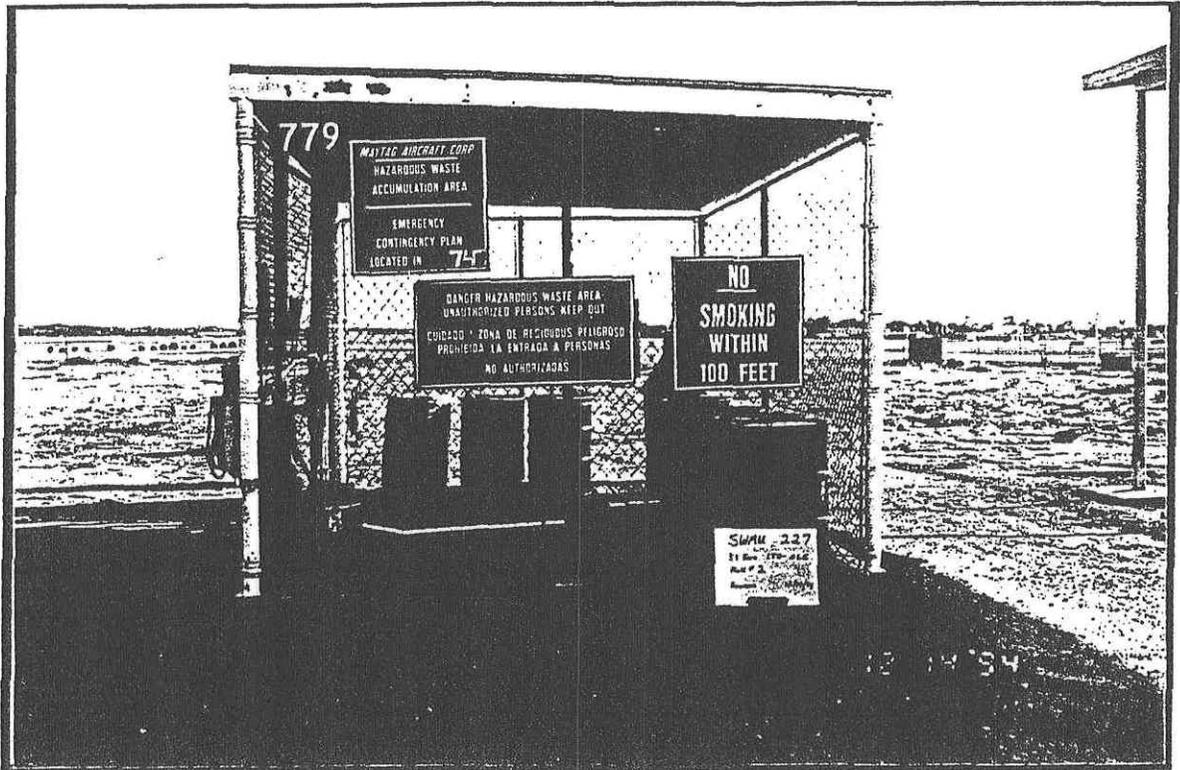
EVALUATION OF REMOVAL/DECONTAMINATION STRATEGY (CIRCLE AS APPROPRIATE)

Yes No Potential for release evident based on this surveillance
Yes No Potential for simple removal
Yes No Potential for decontamination activities prior to removal
Yes No Potential for sampling (describe:)
Yes No Potential for removal after additional assessment activities

SKETCH: (MAKE A SKETCH or ATTACH PHOTO(S) OF RELEVANT ACCESS, OBJECTS, WORK SPACE, ETC., AS APPROPRIATE, ON REVERSE OF THIS FORM)

DATE/TIME OF SURVEILLANCE: 12-7-94/10:50
UPDATED: 11-10-95
SURVEILLANCE PERFORMED BY: Larry Bauman

PHOTO LOG



SWMU #: 227

PHOTO DATE: 12-15-94

MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA
INSTALLATION RESTORATION PROGRAM
FINAL ENVIRONMENTAL
BASELINE SURVEY REPORT

01 April 1995

Revision 0

EXTRACTS

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

THROUGH:
CONTRACT #N68711-89-D-9296
CTO #284
DOCUMENT CONTROL NO:
CLE-C01-01F284-S2-0004

WITH:
Jacobs Engineering Group Inc.
401 West A Street, Suite 1905
San Diego, California 92101

In association with:
International Technology Corporation
CH2M HILL

M. W. Arends

3/31/95

Mike Arends, P.E.
CLEAN Project Manager
CH2M HILL, Inc.

Date

Max Pan

3-31-95

Max Pan, P.E.
CLEAN Technical Reviewer
IT Corporation

Date

Table 3-7
Less Than 90-Day Accumulation Area Inventory
MCAS EI Toro EBS Report - April 1995

Database Tracking	Building Number	Status	SWMU/AOC	Comments	AREA TYPE
SAA 441	441	Inactive	256	RFA recommended NFA	3
SAA 442	442	Inactive	126	Sampling Visit Not Recommended During PR/VS	2
SAA 445	445	Inactive	127	Sampling Visit Not Recommended During PR/VS	2
SAA 447	447	Inactive	130	RFA recommended NFA	3
SAA 456	456	Inactive	135	Sampling Visit Not Recommended During PR/VS	2
SAA 461	461	Active	138	RFA recommended NFA (1)	2
SAA 462	462	Active	140	Sampling Visit Not Recommended During PR/VS	2
SAA 529	529	Inactive	144	RFA recommended NFA	2
SAA 534	534	Inactive	146	Sampling Visit Not Recommended During PR/VS	2
SAA 602	602	Inactive	147	RFA recommended NFA	3
SAA 605	605	Active	149	RFA recommended NFA	3
SAA 606	606	Active	255	RFA recommended NFA	2
SAA 626	626	Active	158	IRP Site 20 (1)	7
SAA 634	634	Active		Identified in 1994 SPCC Plan	7
SAA 636	636	Inactive	160	RFA recommended NFA	3
SAA 651	651	Active	165	Located within SWMU/AOC 164	3
SAA 658	658	Active	171	Shallow soil borings recommended	7
SAA 671	671	Active	172	RFA recommended NFA	2
SAA 672	672	Inactive	177	Sampling Visit Not Recommended During PR/VS	2
SAA 673	673	Active	186	RFA recommended NFA	2
SAA 693	693	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 698	698	Active		Identified in 1994 SPCC Plan	7
SAA 744	744	Active		Identified in 1994 SPCC Plan	7
SAA 746	746	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 747	747	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 761	761	Inactive		Located at IRP Site 6 (2)	7
SAA 765	765	Inactive	266	Sampling Visit Not Recommended During PR/VS	2
SAA 769	769	Inactive	222	RFA recommended NFA	2
SAA 770	770	Inactive	223	RFA recommended NFA	3
SAA 771	771	Inactive	224	RFA recommended NFA	2
SAA 772	772	Inactive	225	RFA recommended NFA	3
SAA 778	778	Inactive	226	RFA recommended NFA	3
SAA 779	779	Inactive	227	RFA recommended NFA	3
SAA 800	800	Active	229	RFA recommended NFA	2
SAA 831	831	Active		Identified in Station's HW Open Drum Inspection Report	7
SAA 856	856	Active	234	RFA recommended NFA	3
SAA 900	900	Active		Environmental Office accumulation area	7

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.



THE EBS INDICATES THAT NFA IS RECOMMENDED FOR TEMPORARY ACCUMULATION AREA (SATELLITE ACCUMULATION AREA (SAA)) 779.

Table 3-7 Less Than 90-Day Accumulation Area Inventory MCAS El Toro EBS Report - April 1995					
Database Tracking	Building Number	Status	SWMU/AOC	Comments	AREA TYPE
NOTES: (1) - SWMUs/AOCs that were determined to be located within RI/FS site boundaries were eliminated from RFA sampling visits. These SWMUs/AOCs will be investigated in the IRP. (2) - Accumulation areas are currently being evaluated for removal and/or decontamination strategies. * - Indicates RFA recommendation of "no further action" is pending U.S. EPA approval. PR/VSi - Preliminary Review/Visual Site Inspection performed as part of the RFA. IRP - Installation Restoration Program RFA - RCRA Facility Assessment NFA - No Further Action Sources: Jacobs, 1993. MCAS El Toro Final RCRA Facility Assessment Report. MCAS El Toro Hazardous Waste Open Drum Inspection Report Sheet SAIC, 1994. Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan (SPCC).					

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

Extracts from MCAS El Toro Property Records, Building Guides, and Historical Facility Maps

BLDG CLASS 2 PROPERTY RECORD
 TIME: 10:18:04 DATE: 94/09/17
 (004) UIC..M60050 (001) PR NO.....202829
 MCAS EL TORO SANTA ANA CA (005) FACILITY NO..779
 (106) SPEC AREA....
 (604) EXCESS CODE..
 (605) EXCESS DATE.. PR LAST UPDATED....14 SEP 1994

LOCATION
 (101) COUNTRY..US UNITED STATES
 (102) STATE....06 CALIFORNIA
 (103) COUNTY...059 ORANGE
 (104) CITY.....0000
 (107) MAP GRID.N10

GENERAL INFORMATION
 (007) ACTION.....CAP-IMPROV
 (008) FAM HOUSING....NO
 (009) EE DATE.....16 JUL 1990
 (011) PR REVIEW DATE.01 AUG 1984
 (010) FACILITY NAME..
 HAZ MATLS COL FAC

ACQUISITION
 (201) ESTATE.....13 OTHER MIL FUND
 (202) ACQ CONTRACT...N6247483C5697
 (203) ACQ DATE.....01 SEP 1983
 (204) GOVT COST..... \$6,605
 (CONST, DESIGN, OVERHEAD & OTHER)
 (205) APPR/EST.....
 (206) APPR/EST DATE..
 (207) LAND CCN.....91140
 (014) NATO JFAI.....

INGRANTS
 (208) DOD INSTL.....
 (209) RENT PAID.....
 (210) REF PR NO.....
 (211) IG EFF DATE....
 (212) IG EXP DATE....
 (213) IG MAX TERM....
 (233) IG EFD CONTR...
 (234) IG LESSOR NAME.

MEASUREMENTS
 ENGLISH METRIC
 (301) LENGTH.... 17 FT 5 M
 (302) WIDTH..... 12 FT 4 M
 (303) HEIGHT.... 10 FT 3 M
 (304) / (308) AREA/UM... 204 SF 19 m2
 (305) STORIES... 01
 (307) IRREGULAR. NO

CONSTRUCTION
 (401) YEAR BUILT.....1983 (404) ABMP CODE.....
 (402) CONSTRUCTION TYPE..PERMANENT (409) CURR PROJ ID...
 (403) YEAR IMPROVED.....1984 (411) ORIG PROJ ID...
 (410) HISTORIC IND...

MAINTENANCE
 (701) MAINT UIC..M60050 (702) PRIME USE....83141 (703) MFC...4 USMC

Change per Xenia 5/2/95 mef

BLDG
TIME: 10:18:04

CLASS 2 PROPERTY RECORD

DATE: 94/09/17

(C-O-N-T-I-N-U-A-T-I-O-N)

(004) UIC..M60050
MCAS EL TORO SANTA ANA CA

(001) PR NO.....202829
(005) FACILITY NO.:779
(106) SPEC AREA....

(604) EXCESS CODE..
(605) EXCESS DATE..

PR LAST UPDATED....14 SEP 1994

STATUS / UTILIZATION

+ (502) CATEGORY CODE...83141 (501) USE..HAZARD WASTE STOR & TRANSF
(510) USER UIC.....M60050.....MCAS EL TORO SANTA ANA CA
(511) USE LAST UPDATED.14 SEP 1994

ENGLISH	AREA/SF*	OTHER/	ALT/	DEF CODES
ADEQ (515)	204.00	(516)	(517)	(524)
SBST (518)		(519)	(520)	(525)
INAD (521)		(522)	(523)	(526)
TOTAL	204.00			

METRIC	AREA/m2*	OTHER/	ALT/	DEF CODES
ADEQ (515)	18.95	(516)	(517)	(524)
SBST (518)		(519)	(520)	(525)
INAD (521)		(522)	(523)	(526)
TOTAL METRIC	18.95			

773	13210	ANTENNA (MARS)		19830822		0	0	0	0	\$12,385	\$17,153	1983	
774	13210	ANTENNA (MARS)		19830822		0	0	0	0	\$12,384	\$17,152	1983	
775	13210	ANTENNA (MARS)		19830822		0	0	0	0	\$12,384	\$17,152	1983	1983
776	13210	ANTENNA (MARS)		19830822		0	0	0	0	\$12,384	\$17,152	1983	
777	13210	ANTENNA (MARS)		19830822		0	0	0	0	\$12,384	\$17,152	1983	
744	14345	ARMORY	N6247480C9163	19830114	SF	10,789	153	100	15	\$1,131,033	\$1,527,340	1983	1990
748	73075	RESTROOM VAN COMPLEX	N6247480C9165	19830125	SF	560	20	20	11	\$106,358	\$145,594	1983	1984
749	73075	RESTROOMS	N6247480C9165	19830125	SF	560	28	20	11	\$106,358	\$145,594	1983	1984
750	73025	SENTRY BOOTH	N6247480C9165	19830125	SF	60	14	13	9	\$27,273	\$37,337	1983	1984
751	44130	STORAGE SHED	N6247480C9165	19830125	SF	126	14	9	8	\$16,930	\$23,178	1983	1984
	11665	MAG-11 VAN COMPLEX	N6247480C9165	19830125	SY	6,273	0	0	0	\$389,036	\$532,568	1983	1984
753	44130	PEST CONTROL FACILITY	N6247482C2834	19830511	SF	1,118	43	26	13	\$71,631	\$96,392	1984	1990
747	61010	PHOTO MAINT BLDG	N6247480C9329	19830409	SF	1,200	60	20	16	\$346,816	\$476,739	1983	1984
	11665	PHOTO VAN COMPLEX	N6247480C9329	19830409	SY	131	0	0	0	\$2,160	\$2,992	1983	
	11665	APU TEST STAND	N6247480C9167	19830822	SY	87	0	0	0	\$1,200	\$1,662	1983	
745	44112	WAREHOUSE	N6247480C9830	19830114	SF	23,693	201	121	27	\$1,090,822	\$1,501,512	1983	1986
782	74080	GOLF COURSE STRGE BLDG		19840201	SF	1,320	60	22	21	\$32,281	\$44,748	1983	1988
783	74003	EXCHANGE SERVICES/ADMIN	N6247481C8526	19840203	SF	21,720	147	89	33	\$1,703,791	\$2,298,414	1984	
769	83141	HAZ MATLS COL FAC	N6247483C5697	19830901	SF	204	17	12	10	\$6,605	\$9,145	1983	1984
770	83141	HAZ MATLS COL FAC	N6247483C5697	19830901	SF	204	17	12	10	\$6,605	\$9,145	1983	1984
771	83141	HAZ MATLS COL FAC	N6247483C5697	19830901	SF	204	17	12	10	\$6,605	\$9,145	1983	1984
772	83141	HAZ MATLS COL FAC	N6247483C5697	19830901	SF	204	17	12	10	\$6,605	\$9,145	1983	1984
778	83141	HAZ MATLS COL FAC	N6247483C5697	19830901	SF	204	17	12	10	\$6,605	\$9,145	1983	1984
779	83141	HAZ MATLS COL FAC	N6247483C5697	19830901	SF	204	17	12	10	\$6,605	\$9,145	1983	1984
784	61010	DRMO FIELD OFFICE LOT #2	N6247482C2828	19840515	SF	400	40	10	10	\$5,500	\$7,420	1984	
6604	71170	3146 A-F AKINS ST.	N62474818934	19831209	SF	13,320	90	74	26	\$194,550	\$270,114	1983	
6605	71170	3147 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6606	71170	3150 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6607	71170	3151 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6608	71170	3157 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6609	71170	3158 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6610	71170	3159 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6611	71170	3162 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6612	71170	3172 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6613	71170	3178 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6614	71170	3184 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6615	71170	3186 A-F AKINS ST.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6616	71170	15902 A-F BECKER CRT.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6617	71170	15905 A-F BECKER CRT.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6618	71170	15918 A-F BECKER CRT.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6619	71170	15921 A-F BECKER CRT.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6620	71170	15924 A-F BECKER CRT.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6621	71170	15205 A-F GALLION CRT.	N6247481C8934	19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6622	71170	15214 A-D GALLION CRT.		19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6623	71170	1522		19831209	SF	6,688	74	45	26	\$132,110	\$182,972	1983	
6624	71170	1520		19831209	SF	6,688	74	45	26	\$132,110	\$182,972	1983	
6625	71170	1521		19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6626	71170	1522		19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6627	71170	15904		19831209	SF	6,688	74	45	26	\$132,110	\$182,972	1983	
6628	71170	15912		19831209	SF	13,320	90	74	26	\$200,861	\$278,855	1983	
6629	71170	15913		19831209	SF	13,320	90	74	26	\$200,860	\$278,854	1983	
6630	71170	15920		19831209	SF	13,320	90	74	26	\$200,860	\$278,854	1983	
6631	71170	15207		19831209	SF	13,320	90	74	26	\$200,860	\$278,854	1983	

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.



PLANT ACCOUNT RECORD FOR STRUCTURE 779 (TAA 779).

MCAS EL TORO BUILDING GUIDE

BLDG NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE	COST ACCOUNT CODE	U S E
748	M9	Public Toilet/Van Complex	H&MS-11	73075	71JO	
749	M9	Public Toilet/Van Complex	H&MS-11	73075	71JO	
750	M9	Sentry House/Van Complex	H&MS-11	73025	71JO	
751	M10	Hazardous/Flam Storage	H&MS-11	44130	7140	
752	N10	Fuel Farm #5 Office	Supply	61010	7160	
753	T7	Pest Control Bldg	FMD	44130	7140	
754	Q14	Check Valve	FMD	84209		
755	R12	LOX/NOX Shelter	Supply	14187	71LO	
756	R12	LOX/NOX Shelter	H&MS-11	14187	71LO	
757	M2	MARS Facility	CEO	13160	71KO	
758	U7	Vehicle Washrack Utility Bldg	FMD	89009	76EO	
759	T7	Vehicle Washrack Utility Bldg	FSSG	89009	76EO	
760	U8	Vehicle Washrack Utility Bldg	FSSG	89009	76EO	
761	R11	ACFT Washrack Utility Bldg	MAG-11	89009	76EO	
762	P13	Vehicle Washrack Utility Bldg	WTS-37	89009	76EO	
763	N10	ACFT Washrack Utility Bldg	MAG-11	89009	76EO	
764	M9	Vehicle Washrack Utility Bldg	H&MS-11	89009	76EO	
765	S5	Vehicle Washrack Utility Bldg	MWSS-371	89009	76EO	
766	R5	Vehicle Washrack Utility Bldg	MWCS-38	89009	76EO	
767	M7	Billboard	MAG-11	69010	75DO	
769	T6	Hazardous Waste Coll Facility	FMD	44135	7140	
770	T7	Hazardous Waste Coll Facility	FMD	44135	7140	
771	S4	Hazardous Waste Coll Facility	MWSG-37	44135	7140	
772	P13	Hazardous Waste Coll Facility	MAG-11	44135	7140	
773	M2	Antenna-MARS	CEO	13210	7530	
774	M2	Antenna-MARS	CEO	13210	7530	
775	N2	Antenna-MARS	CEO	13210	7530	
776	Y1	Antenna-MARS	CEO	13210	7530	
777	M2	Antenna-MARS	CEO	13210	7530	
778	U9	Hazardous Waste Coll Facility	MAG-46	44135	7140	
779	N10	Hazardous Waste Coll Facility	MAG-11	44135	7140	
780	G14	Ready Serv Locker	EOD	42135	71NO	
781	G15	Ready Serv Locker	Sta Ordn	42135	71NO	
782	Q13	Golf Course Maint Bldg	MWR	74080	71JO	
783	P2	Exchange Outlets	MWR	74009	71JO	
784			DRMO	61010	7160	
785			VMFAT-101	21106	71UO	
786			H&MS-11	21154	71UO	
787				17110	7110	
789			FMD	83229	7760	
790			MWR	74080	71JO	
791			MWR	74060	71JO	
792			MWR	74079	71JO	
793			MWR	74004	71JO	
794	Q4	EOD Team Bldg	EOD	14320	71MO	
795	E14	EOD Range Bldg	EOD	14820	75WO	
796	M10	Substation/Chiller Bldg	FMD	82610	76GO	
797	R5	AVGAS Fueling Station	Supply	12120	7550	



Annotations made the by writer of the Summary Report are identified with an arrow or a star symbol.

A star symbol has been placed near the description of TAA 779 on the 1989 Building Guide Extract.

MCAS EL TORO BUILDING GUIDE

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

 1994 BUILDING GUIDE EXTRACT.

FAC NO.	MAP GRID	DESCRIPTION		SIZE
745	M10	Office Space		23396 SF
746	M10	Flight Simulator		22516 SF
747	N9	Contract Refueler Facility	Supply	1200 SF
748	M9	Public Toilet/Van Complex	MCC-3	560 SF
749	M9	Public Toilet/Van Complex	MALS-11	560 SF
750	M9	Sentry Booth/Van Complex	MALS-11	60 SF
751	M10	Hazardous/Flam Storage	MALS-11	126 SF
752	N10	Fuel Farm #5 Office	Supply	348 SF
753	T7	Pest Control Bldg	Installation	1118 SF
755	R12	LOX/NOX Shelter	Supply	150 SF
756	R12	LOX/NOX Shelter	MALS-11	150 SF
757	M2	MARS Facility	CEO	1716 SF
758	U7	Vehicle Washrack Util Bldg	MWSG-37	228 SF
759	T7	Vehicle Washrack Util Bldg	CSSD-14	228 SF
760	U8	Vehicle Washrack Util Bldg	CSSD-14	228 SF
761	R11	ACFT Washrack Utility Bldg	MAG-11	684 SF
762	P13	Vehicle Washrack Util Bldg	MWSG-37	228 SF
763	N10	ACFT Washrack Utility Bldg	MAG-11	684 SF
764	M9	Vehicle Washrack Util Bldg	MALS-11	228 SF
765	S5	Vehicle Washrack Util Bldg	MWSS-371	228 SF
766	R5	Vehicle Washrack Util Bldg	Aero Club	228 SF
767	M7	Billboard	MAG-11	1 EA
769	T6	HW Collection Facility	Environment	204 SF
770	T7	HW Collection Facility	Environment	204 SF
771	S4	HW Collection Facility	MWSG-37	204 SF
772	P13	HW Collection Facility	Environment	204 SF
773	M2	Antenna-MARS	CEO	1 EA
774	M2	Antenna-MARS	CEO	1 EA
775	N2	Antenna-MARS	CEO	1 EA
776	M2	Antenna-MARS	CEO	1 EA
777	M2	Antenna-MARS	CEO	1 EA
778	U9	HW Collection Facility	Environment	204 SF
779	N10	HW Collection Facility	Environment	204 SF
780	G14	Ready Serv Magazine	EOD	128 SF
781	G15	Ready Serv Magazine	Sta Drdn	512 SF
782	Q13	Golf Course Maint Bldg	MWR-Rec	1320 SF
783	P2	Exchange Admin	MWR-Retail	10683 SF
783	P2	MCX Service Outlets	MWR-Retail	11037 SF
784	Q13	DRMO Field Office Lot #2	DRMO	400 SF
785	Q11	Aviation Maint Bldg	VMFAT-101	5600 SF
786	P12	Aviation Armament	MALS-11	3000 SF
787	P12	NBC Defense Training	MWHS-3	4000 SF
788	L2	Recreation Pavilion	MWR-Rec	1500 SF
789	U6	Sewage Monitoring Station	Installation	36 SF
790	S13	Golf Cart Bldg	MWR-Rec	3471 SF
791	T3	Officers Club	MWR-Hosp	22500 SF
792	K7	Stables Barn	MWR-Rec	2880 SF
793	Q3	Mc Donald's	MWR-Hosp	3754 SF

El Toro Building Guide

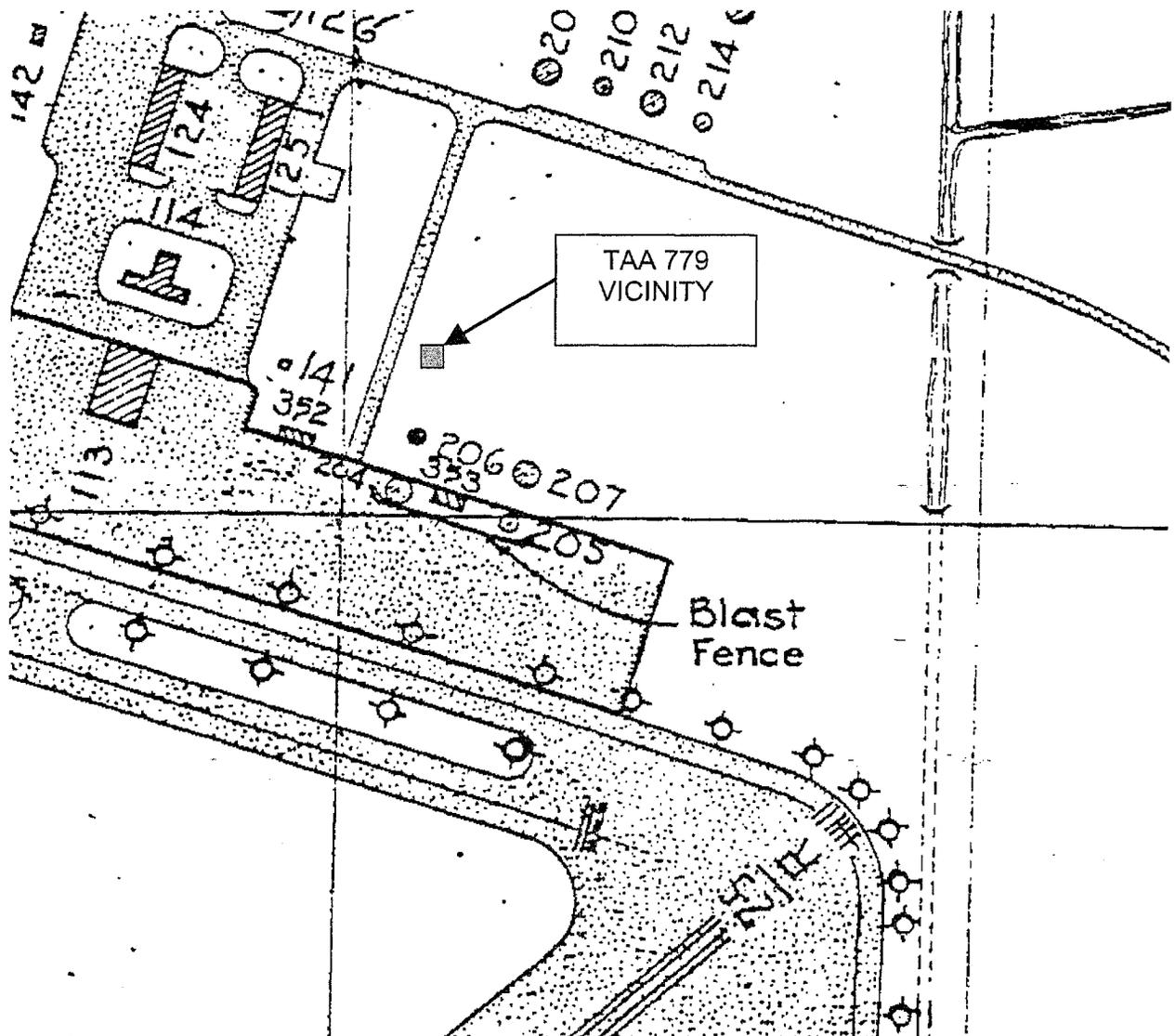
BLDG	GRI	DESCRIPTION	TENANT	CATCO	CAC	SIZE
751	M10	Hazardous/Flam Storage	MALS-11	44130	EBDO	126 SF
752	N10	Fuel Farm #5 Office	Supply	61010	EBFO	348 SF
753	T7	Pest Control Bldg	Installation	44130	EBDO	1118 SF
755	R12	LOX/NOX Shelter	Supply	14187	EBNO	150 SF
756	R12	LOX/NOX Shelter	MALS-11	14187	EBNO	150 SF
757	M2	Telephone Office	Sta/G-6			1716 SF
758	U7	Vehicle Washrack Util Bldg	MWSG-37	89009	EAP0	228 SF
759	T7	Vehicle Washrack Util Bldg	CSSD-14	89009		228 SF
760	U8	Vehicle Washrack Util Bldg	C			28 SF
761	R11	ACFT Washrack Utility Bldg	M			34 SF
762	P13	Vehicle Washrack Util Bldg	M			18 SF
763	N10	ACFT Washrack Utility Bldg	M			4 SF
764	M9	Vehicle Washrack Util Bldg	M			3 SF
765	S5	Vehicle Washrack Util Bldg	M			1 SF
766	R5	Vehicle Washrack Util Bldg	Ae			SF
767	M7	Billboard	MA			EA
769	T6	HW Collection Facility	Environment	83141	EAQO	204 SF
770	T7	HW Collection Facility	Environment	83141	EAQO	204 SF
771	S4	HW Collection Facility	MWSG-37	83141	EAQO	204 SF
772	P13	HW Collection Facility	Environment	83141	EAQO	204 SF
773	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
774	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
775	N2	Antenna-MARS	CEO	13210	ECCO	1 EA
776	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
777	M2	Antenna-MARS	CEO	13210	ECCO	1 EA
778	U9	HW Collection Facility	Environment	83141	EAQO	204 SF
→ 779	N10	HW Collection Facility	Environment	83141	EAQO	204 SF
780	G14	Ready Serv Magazine	EOD	42135	EBQO	128 SF
781	G15	Ready Serv Magazine	Sta Ordn	42135	EBQO	512 SF
782	Q13	Golf Course Maint Bldg	MWR/Rec	74080	EBLO	1320 SF
783	P2	Exchange Admin	MWR/Ret	74003	EBLO	10683
783	P2	MCX Service Outlets	MWR/Ret	74009	EBLO	11037
784	Q13	DRMO Field Office Lot #2	DRMO	61010	EBFO	400 SF
785	Q11	Aviation Maint Bldg	VMFAT-101	21106	EBVO	5600 SF
786	P12	Aviation Armament	MALS-11	21154	EBVO	3000 SF
787	P12	NBC Defense Training	MWHS-3	17110	EBAO	4000 SF
788	L2	Recreation Pavilion	MWR/Rec	74078	EBLO	1500 SF
789	U6	Sewage Monitoring Station	Installation	83229	EHFO	36 SF
790	S13	Golf Cart Bldg	MWR/Rec	74080	EBLO	3471 SF
791	T3	Officers Club	MWR/Hosp	74060	EBLO	22500
792	K7	Stables Barn	MWR/Rec	74079	EBLO	2880 SF
793	O3	Mc Donald's	MWR/Hosp	74004	EBLO	3754 SF
794	Q4	EOD Team Bldg	EOD	14320	EBPO	3600 SF
795	E14	EOD Range Bldg	EOD	14320	EBPO	340 SF
796	M10	Substation/Chiller Bldg	Installation	82610	EBPO	1518 SF
797	R5	AVGAS Fueling Station	DLA	12120	ECDO	800 GM

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

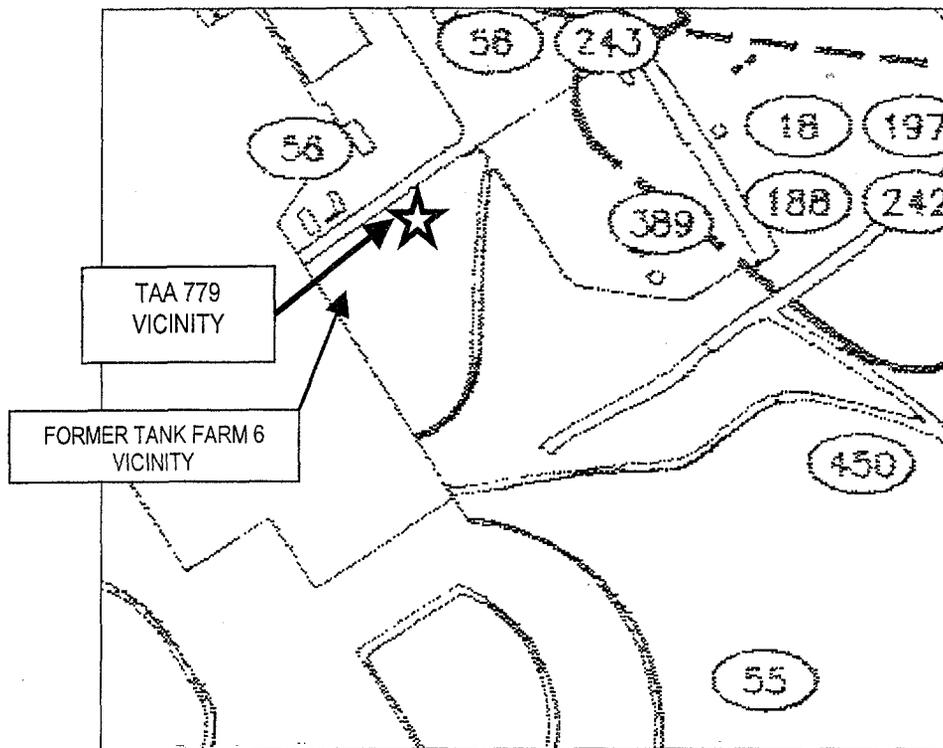


1997 BUILDING GUIDE EXTRACT.

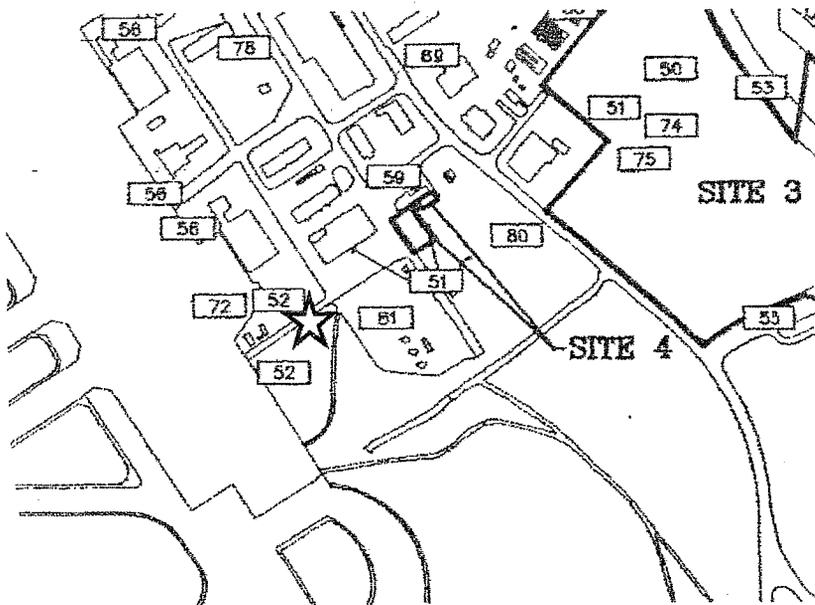
EXTRACT FROM 1949 FACILITY MAP
TAA 779 VICINITY
FORMER MCAS EL TORO



SAIC Aerial Photograph Anomalies Located near Former TAA 779, MCAS El Toro



USEPA Aerial Photograph Anomalies Located near Former TAA 779 MCAS El Toro (Approximate Location of TAA 779 is Identified with a Star Symbol)



SOUTHWESTNAVFACEGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

Extracts from historical hazardous waste management documents

Final

Marine Corps Air Station El Toro
Hazardous Material/Hazardous Waste
Management Plan

August 1994

EXTRACTS

Appendices A - G



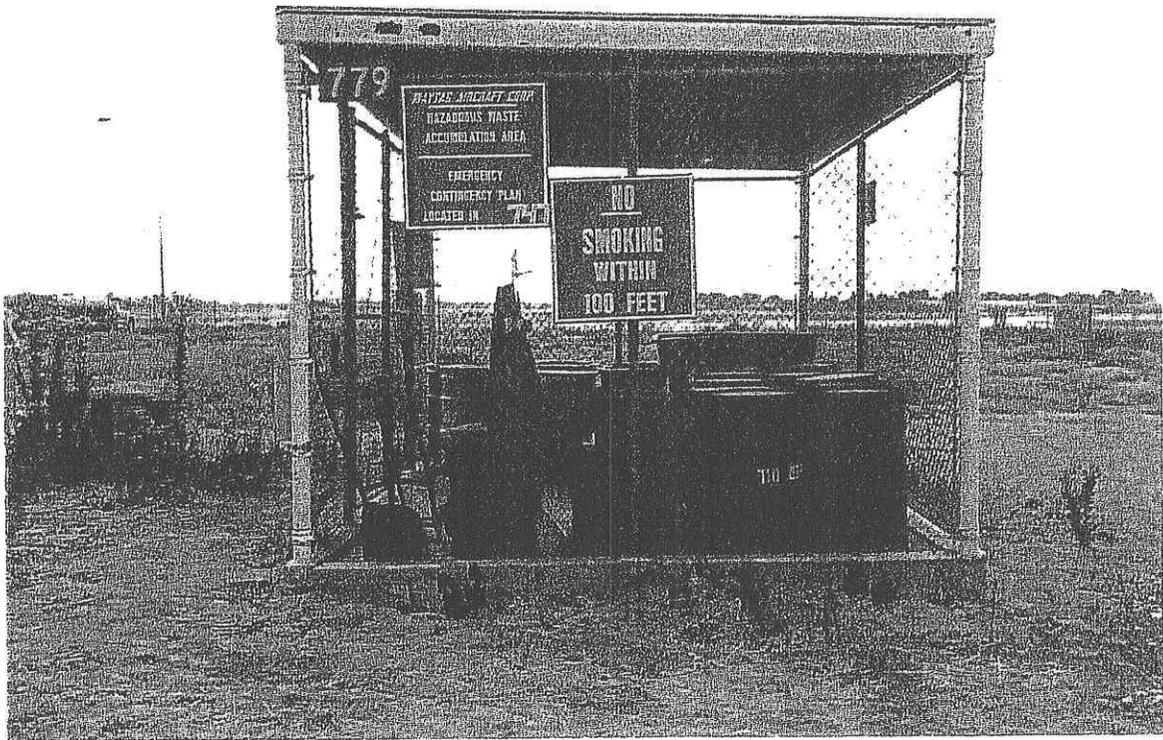
Prepared for:

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

Prepared by:

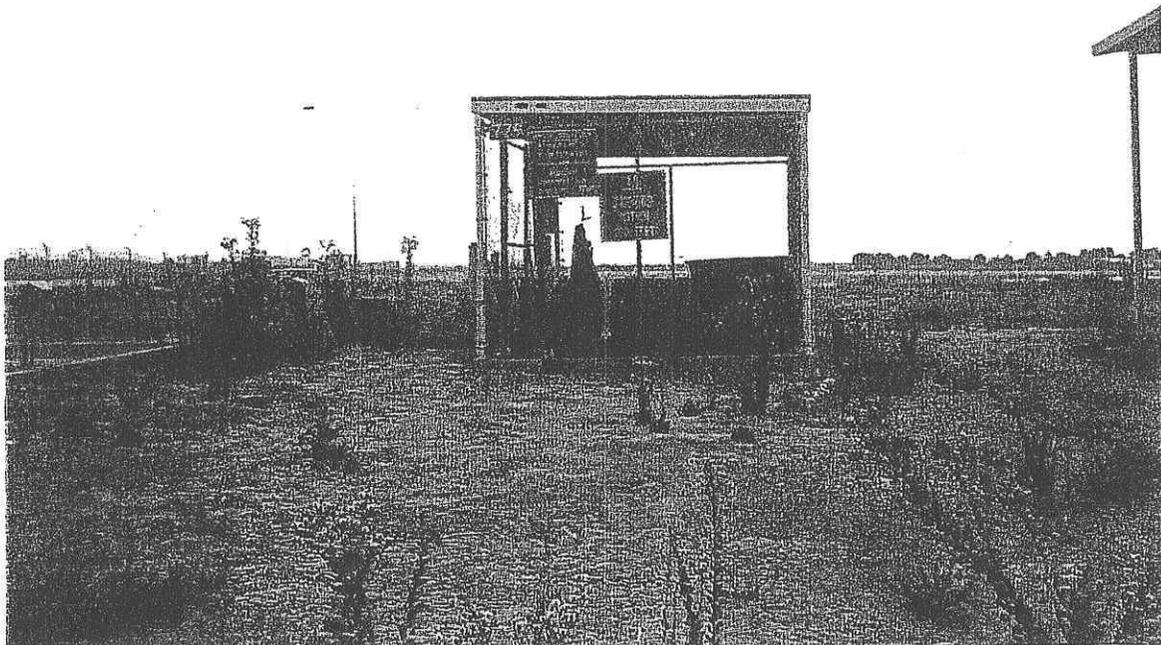
Science Applications International Corporation
Engineering Sciences Division
10260 Campus Point Drive
San Diego, CA 92121

Contract No. N68711-92-D-4658
Delivery Order No. 0004



Maytag Aircraft Corporation

Bldg 779



Maytag Aircraft Corporation

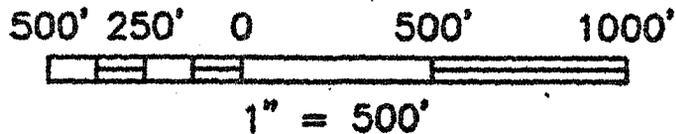
Bldg 779

- ▲ HAZARDOUS MATERIALS STORAGE
- HAZARDOUS WASTE ACCUMULATION POINT
- ONE YEAR PERMITTED HAZARDOUS WASTE STORAGE AREA

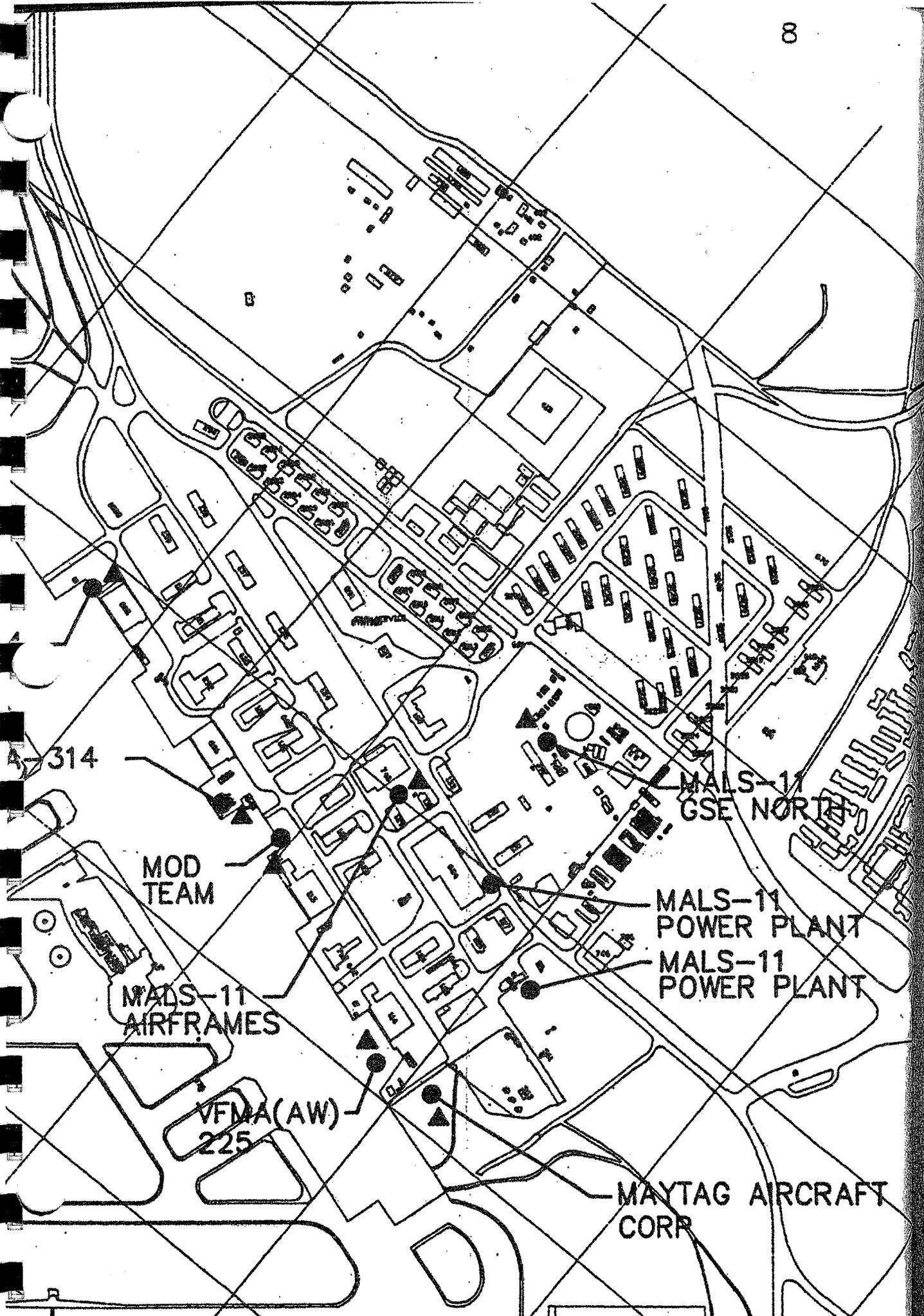
MCAS El Toro
Santa Ana, California

HAZARDOUS WASTE ACCUMULATION POINTS AND HAZARDOUS MATERIAL STORAGE LOCATIONS

NOVEMBER 5, 1993



Science Applications
International Corporation
● An Employee-Owned Company



A-314

MOD TEAM

MALS-11 AIRFRAMES

VFMA(AW) 225

MALS-11 GSE NORTH

MALS-11 POWER PLANT

MALS-11 POWER PLANT

MAYTAG AIRCRAFT CORP

**STORM WATER POLLUTION PREVENTION PLAN
(SWPPP)**

EXTRACTS

FOR

**MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA**

**CONTRACT NO. N68711-96-D-2059
DELIVERY ORDER NO. 0002**

VOLUME 1

JULY, 1997

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

TABLE 5-9		
BASIN 8		
BUILDINGS OF LIMITED CONCERN		
BLDG#	DESCRIPTION	TENANT
	Airfield Operations Building	Station/G-3
	Control Tower	Station/G-3
	Snack Bar	Vacant
	Standby Generator Building	Station/G-3
	Field Lighting Vault	Station/G-3
380*	Standby Generator Building	Installation
385	Electrical Distribution Subs #4	Installation
391	Loading/Unloading Ramp	MAG-11
396*	Aircraft Truck Refueling	Supply
610	Water Distribution Building	Installation
637*	Exchange Gas Station	MWR-Ret
659	Storage Tank/Nonpotable	Installation
698	Line Maintenance Shelter	HMM-163
708	Sign-Station Activities	PMO
734	Public Toilet/Van Complex	MAG-11
735*	Generator Building/Van Complex	Installation
747*	Contract Refueler Facility	Supply
748	Public Toilet/Van Complex	MWHS-3
749	Public Toilet/Van Complex	MALS-11
750	Sentry Booth/Van Complex	MALS-11
751T*	Hazardous/Flammable Storage Locker	MALS-11
752	Fuel Farm #5 Office	Supply
764*	Vehicle Washrack Utility Building	MALS-11
840	Explosives Safety Office	MALS-11
900*	Haz/Flam Materials Storehouse	Environment

Building 658 - Engine Test Cell - MALS-11

Industrial activities at this facility include jet engine testing. Potential pollutants include lubricating oil and hydraulic fluid. There is an oil/water separator (#658) at the site which is used daily, and waste water from the oil/water separator is directed to the sanitary sewer. Fifty-five gallon drums containing "Lube Oil" are stored outside the building with no secondary containment or cover. Fifty-five gallon drums containing oil and JP-5 fuel stained rags are stored in a small hazardous materials storage shed with a concrete berm.

Existing BMPs include a SPCCP, a spill kit and routine dry sweeping of the test cell floor. Recommended BMPs are to remove or provide secondary containment for the unprotected drums outside the building if they are to remain.

Building 746 - Flight Simulator - Training

No industrial activities occur in this area, however, there are waste drums stored inside the building without secondary containment. Chemicals stored are paint, lubricating oil and grease. A spill kit and a SPCCP are located at the drum storage area.

Existing BMPs include dry sweeping. Recommended BMPs are to install secondary containment for the stored waste drums. Personnel may need training in the use of spill kits.

Building 763 - Aircraft Wash Rack Utility Bldg - MAG-11

Industrial activities at this site include aircraft parts and engine washing. Potential pollutants include JP-5 fuel, oil, grease, and detergents. Wash rack waste water is drained to an oil/water separator (#763) which is used daily. The oil/water separator then discharges to the sanitary sewer.

Recommended BMPs are to inspect the oil/water separator quarterly to ensure that proper operation and maintenance is performed in accordance with the manufacturer's specifications and to provide a SPCCP for the facility.

→ Building 779 - Hazardous Materials Collection Facility - Environment

This facility consists of a hazardous waste area which has secondary containment, is covered and is fenced.

5.8.3 Summary of Potential Pollutants

The following pollutants pose a potential threat to storm water quality in Drainage Basin 8:

antifreeze	detergent	deteriorated oil	diesel	JP-5 fuel
flammable liquid	hydraulic fluid	lubricating oil		waste oil
synthetic oil	unleaded gasoline	solvent stripper		solvents

5.8.4 Summary of Best Management Practices

The following BMPs are general management practices for the control or prevention of storm water pollution associated with activities at MCAS El Toro. These BMPs have been formulated based on the existing conditions at the various buildings and facilities throughout MCAS El Toro, as described above. Table 5-10 lists the existing and recommended BMPs for each building located within the drainage basin.

TABLE 5-10
BASIN 8
SUMMARY OF BMPs

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	BMP STATUS	BMP #	BMP Description
					Existing	065	Place Spill Kit in Area
747	08	Contract Refueler Facility	Supply	Previous			No Additional BMPs Recommended
748	08	Public Toilet/Van Complex	MWHS-3	Limited			No Additional BMPs Recommended
749	08	Public Toilet/Van Complex	MAIS-11	Limited			No Additional BMPs Recommended
750	08	Sentry Booth/Van Complex	MAIS-11	Limited			No Additional BMPs Recommended
751T	08	Hazardous/Flammable Storage Locker	MAIS-11	Previous			No Additional BMPs Recommended
752	08	Fuel Farm #5 Office	Supply	Limited			No Additional BMPs Recommended
763	08	ACFT Washrack Utility Building	MAG-11	Concern	Rec	009	Personnel Training
					Rec	112	Prepare Appropriate Spill Prevention and Response Plans
					Rec	110	Regularly Inspect and Maintain Storm Water Conveyance System
764	08	Vehicle Washrack Utility Building	MAIS-11	Previous			No Additional BMPs Recommended
779	08	HW Collection Facility	Environment	Concern	Rec	009	Personnel Training
					Existing	112	Prepare Appropriate Spill Prevention and Response Plans
					Existing	012	Construct Berm or Dike Around Critical Areas

TABLE 5-10
BASIN 8
SUMMARY OF BMPs

BLDG #	BASIN	BUILDING DESCRIPTION	TENANT	Concern Level	BMP STATUS	BMP #	BMP Description
					Existing	018	Provide Roof to Cover Source Area
					Existing	065	Place Spill Kit in Area
840	08	Explosives Safety Office	MALS-11	Limited			No Additional BMPs Recommended
900	08	Haz/Flam Materials Storehouse	Environment	Previous			No Additional BMPs Recommended
921	08	Haz/Flam Materials Storehouse	MALS-11	Previous			No Additional BMPs Recommended
923	08	Drop Tank Rinse Facility	MAG-11	Previous			No Additional BMPs Recommended

TABLE 5-39
MCAS EL TORO
SPILL HISTORY

Date	Incident No.	Description
November 28, 1995	N/A	Approximately 2 quarts of hydraulic fluid were lost on the roadway and shoulder when a forklift's hydraulic line was inadvertently punctured. A drip pan was placed under the leaking line to contain the leak and contaminated soil was removed and drummed as hazardous waste.
September 18, 1995	N/A	A one gallon container of liquid scale dissolver spilled when it was dropped by warehouse personnel. The spill was diked and absorbed with ash. Spill contained to the warehouse floor.
September 12, 1995	N/A	Three quarts of hydraulic fluid spilled onto the concrete warehouse floor when a forklift's fork punctured the stored material during issuance. Spilled cleaned up with speedy dry absorbent. Spill contained to the warehouse floor.
July 21, 1995	N/A	Approximately 80 gallons of JP-5 fuel spilled when a fuel truck attempted to fuel an aircraft with an open fuel cell. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
July 20, 1995	N/A	Approximately 10 gallons of JP-5 fuel spilled when an aircraft vented it's tanks. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
June 29, 1995	N/A	Approximately 70 gallons of JP-5 fuel spilled from an aircraft fuel tank with a dysfunctional valve. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
November 1, 1994	N/A	Approximately 400 gallons of JP-5 fuel leaked from an F/A-18 aircraft. Three hundred gallons were recovered and 100 gallons were cleaned up with speedy dry absorbent. Spill contained to the flightline.
November 1, 1994	N/A	Approximately 250 gallons of JP-5 fuel leaked from an F/A-18 aircraft. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.

TABLE 5-39
MCAS EL TORO
SPILL HISTORY

Date	Incident No.	Description
September 1, 1994	N/A	Approximately 1 gallon of hydrochloric acid and another gallon of chlorine spilled when their lines ruptured. Pumping through the line was stopped immediately and the spill was cleaned up with sodium bicarbonate. Spill contained to the flightline.
August 12, 1994	N/A	A small amount of paint stripper (methyene chloride) from a 5 gallon can spilled when the can overheated and blew its cap. The small amount evaporated before cleanup could occur.
July 14, 1994	249777	Approximately 25 gallons of transformer oil, possibly containing more than 55 ppm PCBs, spilled when the personnel handling the transformer overturned it. The initial responders laid down absorbent socks, mats pads and Lite-Dri absorbent around the spill and on the liquid. Workers then removed and drummed soil from the spill area as hazardous waste. Cleanup began immediately on 14 July 94 and was completed 15 July 94. Additional hazardous waste included the absorbent materials, personal protective gear rags and mops used to cleanup the spill.
April 26, 1994	N/A	Approximately 100 gallons of JP-5 fuel spilled when an aircraft vented its tanks. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
March 8, 1994	N/A	Approximately 20 gallons of JP-5 fuel spilled when an aircraft was refueling. Spill cleaned up with speedy dry absorbent. Spill contained to the flightline.
May 11, 1993	318	Caustic soap leaked from a container behind Bldg. 317.
March 1, 1993	146	Approximately one quart of methyl ethyl ketone spilled to the ground at Bldg. 306.
September 9, 1992	873	Unknown quantity of fumigant released into the soil at Strawberry Field.
August 16, 1992	788	Fire occurred at Bldg. 751 with a van containing Hg, Li, Cd, and Pb-acid batteries. This caused a chemical release into the atmosphere.

TABLE 5-39 MCAS EL TORO SPILL HISTORY		
Date	Incident No.	Description
June 1, 1992	560	Approximately 3,950 gallons of JP-5 spilled from a refueler. Fuel was contained and did not enter storm drains.
May 28, 1992	552	JP-5 smell coming from storm drain at Bldg. 368. Flow from drain diverted to oil/water separators.
March 5, 1992	228	Three quarts of Hg spilled at Bldg. 297. The spill was contained.
March 5, 1992	223	Tractor trailer spilled 15-20 gallons of diesel fuel into sanitary sewer. Sewer system was diked and covered.
February 5, 1992	121	One gallon of transformer oil containing PCBs spilled at Bldg. 439. The spill was contained.
January 17, 1992	053	Approximately 100 gallons of antifreeze spilled into ditch and then to Agua Chinon.
December 18, 1991	1092	Lithium battery exploded at Bldg. 17. The debris was contained with some off-gassing.
November 19, 1991	997	Approximately 10 Lithium Batteries leaking and off-gassing at Bldg. 673T3.
September 16, 1991	754	Contaminated oil spilled into sewer at Bldg 295.
July 12, 1991	580	Paint stripper spilled into ditch near Bldg. 800. The spill was diverted to oil/water separator.
May 23, 1991	453	Unknown white substance found at Officer's Club crystal room.

A reference to a major spill is contained in the May 1990 SPCCP written for the MCAS. The SPCC states that "one major unauthorized release has occurred in the last two years. In August 1988, a 108,000 gallon JP-5 storage tank pipe was reported to have leaked causing soil and ground water contamination. The leak was reportedly repaired in early 1990."

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGIONINDIANA AVENUE, SUITE 200
SANTA ANA, CALIFORNIA 92706
PHONE: (714) 782-4130

M60050.001130



Annotations made by the writer of the
Summary Report are identified with a
star symbol or an arrow.

June 23, 1989

LTJG Michael Rehor, Environmental Director
MCAS El Toro (Code 1JG)
Santa Ana, CA 92709-5001

The 1989 list does not identify Building
or TAA 779.

MCAS EL TORO - SITE INSPECTION PLAN OF ACTION

Dear LTJG Rehor:

As we discussed in our May 30, 1989 meeting, we are hereby transmitting our recommendations for additional sites at the El Toro Marine Corps Air Station (MCAS) which we believe should be included in the Site Inspection Plan of Action.

Although the Installation Restoration (IRP) program is intended to address only past facility operations, we believe that some currently operating facilities should be included in the IRP program. Past and current chemical use and disposal practices at these sites may have allowed contaminants to be discharged where they could impact water quality. We believe that it is appropriate to include these sites in the present phase of investigation. The sites listed are areas where trichloroethylene (TCE) is either known or suspected to have been used. Chemical use and disposal practices, documented in the November 1987 Oil and Hazardous Substance Spill Prevention Control and Countermeasure (SPCC) plan, strongly suggest that there are areas on the base where TCE was routinely discharged to bare ground and unlined channels.

Although some of these areas are located near sites that have already been selected for investigation, we believe that the sites require individual investigation to adequately evaluate the threat to water quality from past chemical use practices. In some cases adequate coverage may be provided by expanding the specific site investigations. However, in most cases separate site investigations will be necessary. Investigation of these sites should focus on potential discharge areas and any adjacent drainage channels. The following sites should be given highest priority:

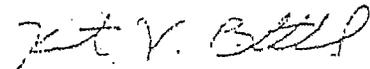
1. Building 359 - corrosion control facility, which housed 2 TCE degreasers.
2. Three engine test cells - the SPCC plan documents oily discharges from two of these test cells, located in buildings 658 and 447, that eventually entered storm drains. The location of the third test cell is not indicated.

3. Six drum storage areas - The SPCC plan depicts numerous drum storage areas on bare ground. The plan documents solvent storage in the following areas:
 - A. Northeast of building 392
 - B. Southeast of building 602
 - C. Between buildings 454 and 456
 - D. Northeast of building 320
 - E. Northeast of building 317
 - F. East of building 359
4. Hazardous and flammable materials storehouses 320 and 357.
5. Oil/water separators at Bee Canyon Wash and Agua Chinon Wash.

In addition, the SPCC plan identifies 23 wash areas including seven aircraft wash facilities. Each of these wash areas should be evaluated to determine whether solvents were used. If solvents were used at any wash area, that area should be included in the investigation.

Please submit a proposed sampling program for the sites discussed above in the form of an amendment to the Site Inspection Plan of Action. If you should have any questions, please call me or Steven Overman of our Pollutant Investigation Section.

Sincerely,



Kurt V. Berchtold
Supervising Engineer

cc: OCWD - Jim Reilly

TDP/mcaset2

ADDITIONAL SITES NEEDING INVESTIGATION

Tom D Pelrier

M60050.00
MCAS El Toro

DUPLICATE

Test Cells 658 and 447	
Bldg. 626	Wash Rack
Bldg. 392	Wash Rack and Drum Storage Area
Bldg. 127	Wash Rack
Bldg. 673	Wash Rack and Drum Storage
Bldg. 390	Wash Rack
Bldg. 386	Steam Cleaning Area
Bldg. 298	Maintenance Shop
Bldg. 388	Wash Rack
Hanger 605	Aircraft Wash Area
Hanger 606	Aircraft Wash Area
Hanger 114	Aircraft Wash Area
Hanger 463	Aircraft Wash Area
Hanger 461	Aircraft Wash Area
Hanger 297	Aircraft Wash Area and Drum Storage
Bldg. 320	Trichloroethylene Drum Storage
Bldg. 357	Drum Storage
Bldg. 454/456	Drum Storage
Bldg. 317	Drum Storage
Bldg. 534	Drum Storage
Bldg. 655	Drum Storage
Bldg. 359	Drum Storage
Bldg. 130	Drum Storage
Bldg. 602	Drum Storage
Salvage Yard	Drum Storage

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.



The RWQCB letter of 23 June 1989 does not identify Building or TAA 779.

TITLE: ADDITIONAL SITES NEEDING INVESTIGATION, POTENTIAL AREAS OF CONTAMINATION

AUTHOR: TOM D. PELTIER

DATE: 4/17/89

CATEGORY: 1.2

OTHER POTENTIAL AREAS OF CONTAMINATION

Mag. 13	Paint Sheds
Auto Hobby Shop	Leaking waste Oil Tank
Bldg. 103	Paint Shed
Heavy Equipment	Vehicle Wash Area
Empty or Destroyed Buildings 143, 343, and 1789	
Combat Ready Vehicle Storage and Wash Area	
Bldgs. 359 & 651	Wash Areas
Bldg. 262	Wash Rack
Exchange Car Wash	

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

No Further Action Decision Documents for Nearby Locations of Concern



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

JACK MILLER, REHS
DEPUTY DIRECTOR

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720

TELEPHONE: (714) 667-3600
FAX: (714) 972-0749

**PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

July 11, 1997

LT. Hope Katcharian
Director, Environmental Engineering Division
Commanding General
AC/S Environmental 1AU
Marine Corps Air Station El Toro
P.O. Box 95001
Santa Ana, CA 92709-5001

Subject: Completion of Tank Removal Project

**RE: Marine Corps Air Station El Toro
Tank #T-9
Santa Ana, CA 92709**

Dear Lt. Katcharian:

This is in response to your request for a confirmation of the completion of the tank removal project. With the provision that the results for the soil samples obtained during the tank removal on March 19, 1997, were accurate and representative of existing conditions, it is the position of this office that no significant soil contamination has occurred at the above noted facility location.

It should be pointed out that this letter does not relieve you of any responsibilities mandated under the California Health and Safety Code if additional or previously unidentified contamination is discovered at the subject site.

If you have any questions regarding this matter, please contact Arghavan Rashidi-Fard at (714) 667-3713.

Sincerely,

William J. Diekmann, M.S., REHS
Supervising Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

cc: Larry Vitale, Santa Ana Regional Water Quality Control Board



OHM Remediation
Services Corp.

1202 Kettner Boulevard
San Diego, California 92101

EXTRACTS

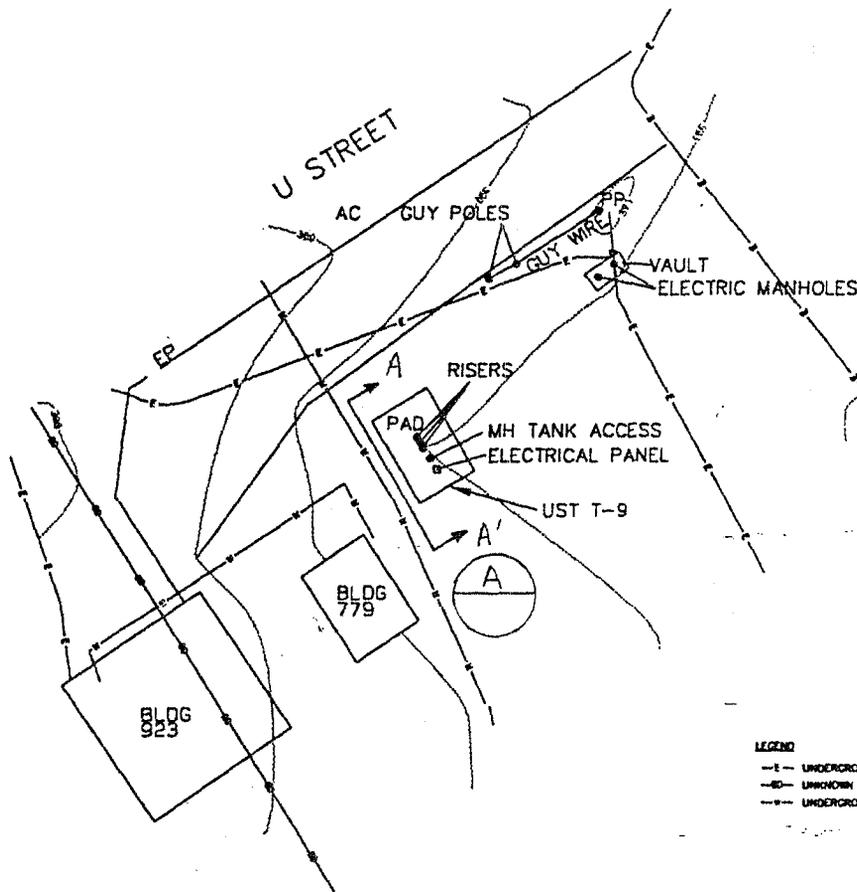


Underground Storage Tank T-9
Marine Corps Air Station, El Toro, California

SWDIV Contract No. N68711-93-D-1459 — Delivery Order No. 0024 — Revision 0
OHM Project No. 17486 — Document Control No. SW3612 — June 16, 1997

Tank Removal and Site Closure Report

Appendix A - Orange County Health Care Agency Modification Application and Approval Forms;
Appendix B - Geophysical Survey Data; Appendix C - Marine Chemist Certification;
Appendix D - Land Surveying Report and Soil Sample Locations; Appendix E - Laboratory
Analytical Reports; Appendix F - Site Photographs; Appendix G - Compaction Test Field Report



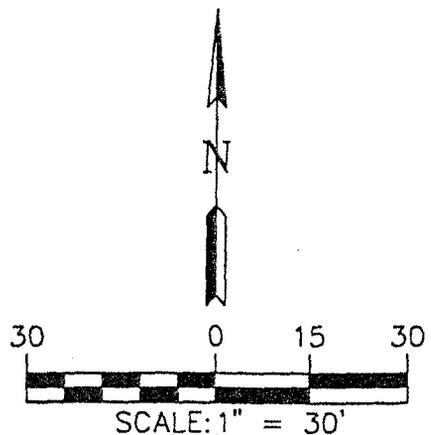
LEGEND

- E- UNDERGROUND ELECTRICAL LINE
- SD- UNKNOWN STORM DRAIN LINE
- W- UNDERGROUND WATER LINE



THIS REPRESENTS A SURVEY DONE UNDER MY SUPERVISION.

Ruel del Castillo
 RUEL DEL CASTILLO, L.S. 4212



JOB #: 5490
 DATE: 5/23/97
 SCALE: 1" = 30'
 SHEET 1 OF 1

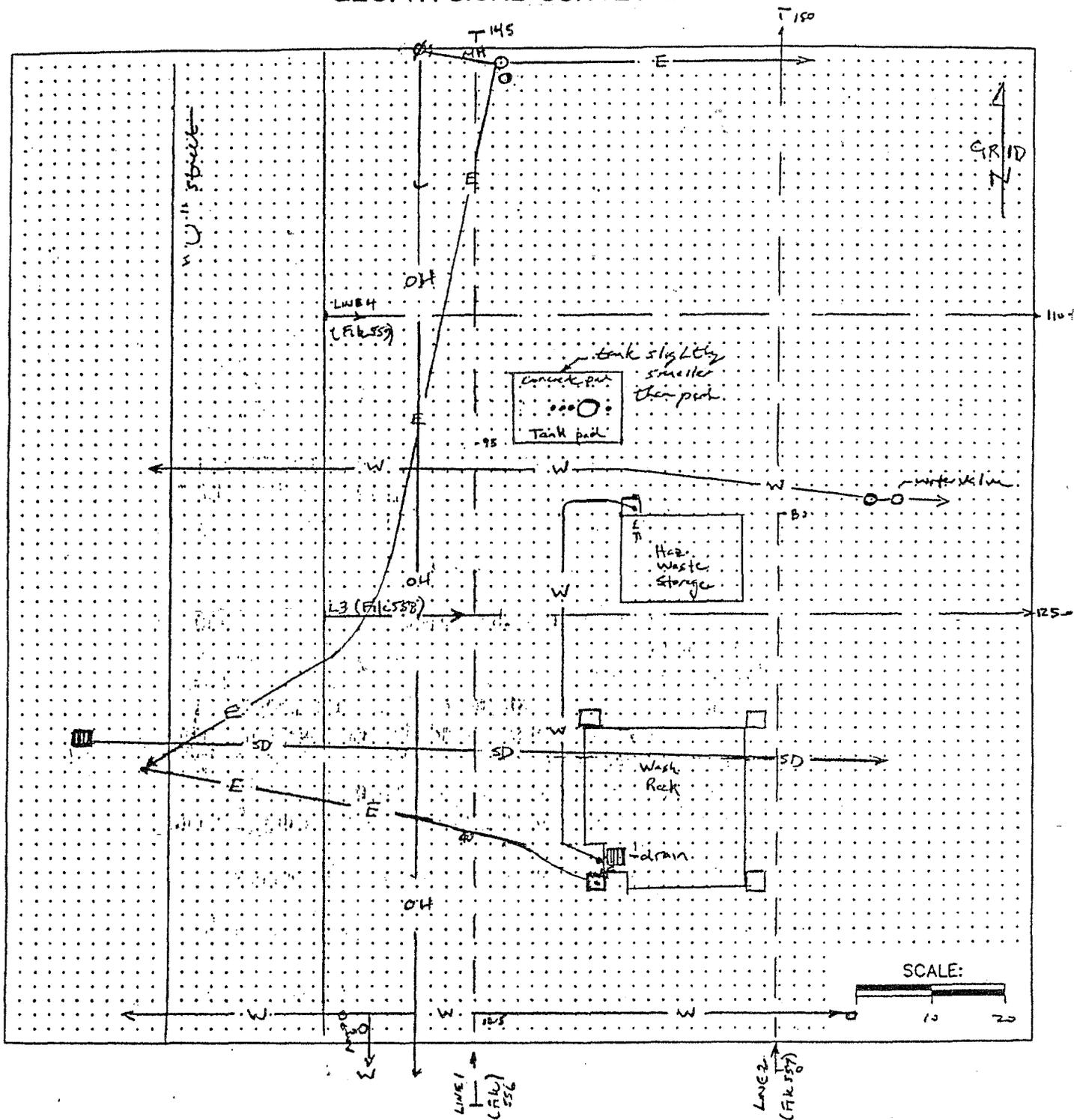
UST T9

MCAS FL TORO

Towill, Inc.

15405 Redhill Avenue, Suite A
 Tustin, CA 92780 (714) 555-1111

GEOPHYSICAL SURVEY MAP



LEGEND

— — — — — GEOPHYSICAL TRAVERSE

UTILITY:

- E = ELECTRICAL, T = TELEPHONE,
- G = GAS, S = SEWER, SD = STORM DRAIN,
- W = WATER, P = PRODUCT LINE,
- V = VENT LINE, L = UNKNOWN LINE

WF = water faucet
 WV = water valve

OH = overhead line

SCALE:

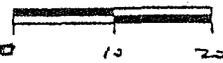


Table 2-1
UST T-9 Confirmation Soil Sample Analytical Results

Sample Identification	17486-T9-021	17486-T9-022	17486-T9-023	17486-T9-024
Date Sampled	3/19/97	3/19/97	3/19/97	3/19/97
Sample Depth (feet bgs)	10	11	10	11
Analytical Methods/Analytes (mg/kg)				
TPH Diesel	ND(10)	ND(10)	ND(10)	ND(10)
TPH Gasoline	ND(10)	ND(10)	ND(10)	ND(10)
BTEX Compounds (mg/kg)				
Benzene	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Toluene	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Ethylbenzene	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Total Xylenes	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)

*Explanation:**bgs - below ground surface**BTEX - benzene, toluene, ethylbenzene, and total xylenes**mg/kg - milligrams per kilogram**NA - not applicable**ND(0.005) - below detection limit of 0.005 mg/kg**TPH - total petroleum hydrocarbons*

Section 2

Summary of Field Activities

Field activities conducted at UST T-9 included a geophysical utility investigation, tank gauging and sampling, tank removal and disposal, confirmation sampling, surveying, soil transportation, backfilling, and site restoration. Field activities were conducted in accordance with the OHM *Draft Project Plans, Remediation of Various Underground Storage Tanks* (OHM, 1995).

2.1 Permitting and Utility Investigation

Prior to initiating field activities, OHM completed an Orange County Health Care Agency (OCHCA) Facility Modification Application and received approval (Permit No. 96-195) for the removal of UST T-9. The OCHCA Facility Modification Application and Approval Forms are provided as Appendix A, Orange County Health Care Agency Facility Modification Application and Approval Forms.

A geophysical survey of the UST area was conducted by the OHM subcontractor, GeoVision Services, to locate the underground utilities in the area. The survey employed analog electromagnetic methods for the utility detection survey and ground penetration radar and electromagnetic induction metal detection methods for the pit delineation work. The Geophysical Survey Data is provided as Appendix B.

2.2 Tank Gauging and Sampling

UST T-9 was located and identified as a 1,000 gallon steel tank. The tank was gauged on December 6, 1996. There was no product present in the tank at the time of gauging (the tank was empty).

2.3 Tank Removal

UST T-9 was removed on March ¹⁹27, 1997, in the presence of the OCHCA Inspector. The tank was inspected after removal and showed no visible damage. No noticeable stains or odors were observed during tank exposure and removal. The bottom of the tank was at a depth of approximately 11 feet below ground surface. Approximately 42 cubic yards of soil were excavated to remove the UST.

A tie down concrete pad was discovered during tank removal. The pad was not removed due to safety concerns with regards to the vicinity of the water main to the excavation.