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FINAL
RECORD OF DECISION
OPERABLE UNIT 2C
INSTALLATION RESTORATION PROGRAM
LANDFILL SITES 3 AND 5

FORMER MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

BEI-7526-0062-0183.R1
February 2008

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ACRONYMS/ABBREVIATIONS

air SWAT	air quality solid waste assessment test
APHO	aerial photograph
ARAR	applicable or relevant and appropriate requirement
bgs	below ground surface
BCT	BRAC Cleanup Team
BMP	best management practice
BRAC	Base Realignment and Closure
Cal. Civ. Code	*California Civil Code*
Cal. Code Regs.	*California Code of Regulations*
Cal/EPA	California Environmental Protection Agency
Cal. Health & Safety Code	*California Health and Safety Code*
CARB	California Air Resources Board
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
C.F.R.	*Code of Federal Regulations*
CIWMB	California Integrated Waste Management Board
CLEAN	Comprehensive Long-Term Environmental Action Navy
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
cpm	counts per minute
CSF	cancer slope factor
DHS	(California) Department of Health Services
DoD	(United States) Department of Defense
DOE	(United States) Department of Energy
DON	(United States) Department of the Navy
DPH	(California) Department of Public Health
DTSC	(Cal/EPA) Department of Toxic Substances Control
EC	engineering control
EIR	environmental impact report
EIS	environmental impact statement
ESD	Explanation of Significant Differences
FFA	Federal Facility Agreement
FML	flexible membrane liner
FOSL	finding of suitability to lease
Freon 12	dichlorodifluoromethane
Freon 113	1,1,2-trichloro-1,2,2-trifluoroethane
FS	feasibility study

GCL	geocomposite clay liner
GPS	global positioning system
HELP	Hydrologic Evaluation of Landfill Performance
HHRA	human-health risk assessment
HI	hazard index
HQ	hazard quotient
HRA	historical radiological assessment
IAS	initial assessment study
IC	institutional control
IR	Installation Restoration
IRP	Installation Restoration Program
Irvine Subbasin	Irvine Groundwater Subbasin
LEA	Local Enforcement Agency
LEL	lower explosive limit
LIFOC	lease in furtherance of conveyance
LRA	Local Redevelopment Authority
LUC	land-use control
µg/L	micrograms per liter
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MCAS	Marine Corps Air Station
MCL	maximum contaminant level
MOA	memorandum of agreement
mrem/y	millirems per year
NAVFAC	Naval Facilities Engineering Command
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
OCWD	Orange County Water District
O&M	operation and maintenance
OSWER	Office of Solid Waste and Emergency Response
OU	operable unit
PCB	polychlorinated biphenyl
PCE	tetrachloroethene (perchloroethene)
pCi/g	picocuries per gram
PP	proposed plan
ppb_v	parts per billion by volume

ppm_v	parts per million by volume
PRG	preliminary remediation goal
pt.	part
Ra-226	radium-226
RAB	Restoration Advisory Board
RACER	Remedial Action Cost Engineering and Requirements
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RESRAD	Residual Radiation (Program)
RFA	RCRA facility assessment
RfD	reference dose
RI	remedial investigation
ROD	record of decision
RWQCB	(California) Regional Water Quality Control Board
§	section
SCAQMD	South Coast Air Quality Management District
SIPOA	Site Inspection Plan of Action
Sr-90	strontium-90
subpt.	subpart
SVOC	semivolatile organic compound
SWPPP	storm water pollution prevention plan
TAL	target analyte list
TBC	to be considered
TCA	trichloroethane
TCE	trichloroethene
TDS	total dissolved solids
TEDE	total effective dose equivalent
tit.	title
UNSAT-H	Unsaturated Soil Water and Heat Flow Model
U.S.C.	*United States Code*
U.S. EPA	United States Environmental Protection Agency
VOC	volatile organic compound

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DECISION SUMMARY

DECLARATION

SITE NAME AND LOCATION

Operable Unit 2C, Installation Restoration Program Sites 3 and 5
Former Marine Corps Air Station (MCAS) El Toro
Santa Ana, California 92709

STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) presents the selected remedial action for two inactive landfills (Sites 3 and 5) at former MCAS El Toro, located in Orange County, California. This ROD has been updated to reflect results of the November 2006 final Feasibility Study (FS) Addendum for Sites 3 and 5 (Earth Tech 2006). The addendum incorporated landfill gas control components into the previously proposed remedies for both sites, along with the findings from supplemental investigations conducted at both sites following issuance of the draft ROD (SWDIV 1999). The FS Addendum was prepared for the Base Realignment and Closure Program Management Office West and the Naval Facilities Engineering Command (NAVFAC) Southwest (formerly Southwest Division Naval Facilities Engineering Command), as authorized by NAVFAC Pacific under Contract Task Order 0078 of the Comprehensive Long-Term Environmental Action Navy II Program, Contract No. N62742-94-D-0048.

This ROD was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 *United States Code* Sections 9601–9675) and the National Oil and Hazardous Substances Pollution Contingency Plan (Title 40 *Code of Federal Regulations* Part 300). The decision in this ROD is based on the Administrative Record for the sites (a site-specific Administrative Record index is included as Attachment A).

A Federal Facility Agreement (FFA) between the U.S. Department of the Navy (DON) and the U.S. Environmental Protection Agency (U.S. EPA) Region 9, the California Department of Health Services (DHS) (now referred to as the California Environmental Protection Agency Department of Toxic Substances Control [DTSC]), and the California Regional Water Quality Control Board (RWQCB) Santa Ana Region was signed by these parties in 1990. The DON and U.S. EPA have coselected the following remedial actions for this ROD:

- no action for groundwater at Sites 3 and 5
- no action for soil at Site 3, Units 2 and 3
- further action for soil at Site 3, Units 1 and 4, and at Site 5
- Site 3 Unit 4 and Site 3 Unit 1 Waste Areas B through F will be recommended for unrestricted reuse after wastes from these areas are consolidated into Site 3 Unit 1 Waste Area A

The State of California (through DTSC and RWQCB Santa Ana Region) concurs with the selected remedy.

Supplemental investigations to support the FS Addendum and ROD were completed between August 2002 and March 2004. These investigations included:

- verification of currently demarcated landfill boundaries (including operational and uncontrolled dumping areas) at Sites 3 and 5 by exploratory trenching;
- collection of *in situ* soil samples during exploratory trenching for geotechnical evaluation;
- establishment of revised landfill boundaries at areas where there was a variance with the existing demarcation; and
- installation of perimeter soil gas monitoring wells at Sites 3 and 5 and collection of soil gas samples for analysis on a quarterly basis for 1 year.

Supplemental trenching activities were conducted in November and December 2003 to further define the lateral waste placement limits at Site 3. In accordance with the final Sampling and Analysis Plan (Earth Tech 2004), a supplemental landfill soil gas investigation was also conducted at Sites 3 and 5 in March 2004 to assess the presence of landfill gases and to provide data for evaluating appropriate engineering controls (ECs) and institutional controls (ICs) to be implemented at Sites 3 and 5.

Based on a review of the landfill gas and other supplemental investigation results, the DON proposed ECs and ICs to address the underlying concern about potential landfill gas migration at Sites 3 and 5. The California Integrated Waste Management Board (CIWMB), along with the FFA signatories, reviewed the proposed landfill gas control components and concurred on the proposed measures (DON 2004b).

Supplemental investigations were also conducted to assess potential radiological contamination at Sites 3 and 5, including the historical radiological assessment at former MCAS El Toro (Weston 2000), site-specific radiological scan surveys and soil sampling (Weston 2006), and modeling to evaluate the effectiveness of the remedial alternatives with respect to radionuclides. These investigations, along with risk and dose assessments, concluded that radium-226 (Ra-226) activity in surface soil (to a depth of 18 inches below ground surface) at Sites 3 and 5 was consistent with background, did not pose unacceptable risk, and did not result in a total effective dose equivalent greater than 25 millirems per year to members of the critical group (resident farmer receptor) at Sites 3 and 5. A "Site Evaluation Accomplished" recommendation was made for radionuclides at Sites 3 and 5, and the sites were recommended for radiological release for the installation and implementation of ICs specified for the sites. Detailed descriptions of the radiological survey procedures, analyses, results, and recommendations are presented in the final Radiological Release Report (Weston 2006), which was reviewed and concurred on by the FFA signatories, including U.S. EPA, RWQCB, and DTSC (with technical support from DHS, now California Department of Public Health).

Although the risk due to potential exposure to radiation from Ra-226 at the surface of the landfills has been determined to be acceptable, the high-density radiological surveys and sampling performed at the landfills were not intended to characterize landfill contents deeper than 18 inches below ground surface, the limitation of the survey equipment.

Therefore, the DON identified radioactive waste applicable or relevant and appropriate requirements for this remedial action because of the potential for small quantities of waste with Ra-226 to be present in the body of the landfills. The remedial action is protective of human health and the environment with regard to potential exposure to external radiation due to radioactive decay of Ra-226, which may be present at small quantities within the waste.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from these sites, if not addressed by implementing the response action selected in this ROD, may present a current or potential threat to public health and welfare or the environment.

DESCRIPTION OF THE REMEDY

The selected remedy for remediation of Sites 3 and 5 will include the following components.

- A single-barrier cap with a flexible membrane liner will be used to prevent contact with landfill materials and to reduce infiltration into landfill contents.
- Prior to capping, wastes from Site 3 Unit 4 and Unit 1 Waste Areas B through F will be consolidated into Site 3 Unit 1 Waste Area A. All waste being considered for consolidation will be radiologically screened for Ra-226. Any waste with an activity concentration of greater than 1 picocurie per gram above background will be removed and disposed off-site at an NRC-licensed disposal facility. Screening methods and frequencies will be presented in the remedial design/remedial action work plan.
- Erosion control features will be used to control surface water flow and protect the integrity of the cap.
- Temporary fencing, signs, and locks will be used to restrict access to the sites until the remedy is in place.
- Land-use restrictions applying to the landfill areas and extending approximately 100 feet beyond the waste boundaries will be used to protect the landfill covers, ensure that the containment remedy and contents of the landfills are not disturbed without approval of the FFA signatories, and allow the DON and other agencies to access the sites for maintenance and monitoring. Construction of structures within the 100-foot buffer zone will require concurrence of the FFA signatories and the CIWMB.
- Monitoring will be performed to detect migration of contaminants from the landfills. Wells will be secured to prevent damage.
- A landfill gas collection and/or venting system will be installed to actively collect and vent landfill gas as necessary and passively vent or monitor gas during inactive periods.
- Passive gas control gravel trenches will be installed within the compliance monitoring zone during remedy implementation as an added measure of safety.

- A CIWMB monitoring protocol with compliance landfill gas monitoring probes will be implemented within 50 feet of the landfill waste boundary to facilitate perimeter monitoring and assess migration of landfill gas.
- Settlement monuments will be used to detect settlement of landfill materials.
- The cap, drainage features, and settlement monuments will be surveyed and inspected, and maintenance will be performed as necessary to assure the integrity of the landfill cap.
- Periodic reviews (at least every 5 years) will be conducted to evaluate the monitoring results and verify that the action remains protective of human health and the environment. Results of the periodic reviews will be documented in summary reports, which would be reviewed by FFA signatories. Proposals for additional work or modification of the remedial action could be submitted by any FFA signatory after their review.

These components of the selected remedy are derived from the U.S. EPA presumptive remedy for municipal and military landfills. The basic premise of the landfill presumptive remedy is containment of landfill wastes and contaminants derived from those wastes found in the air, soil, and groundwater.

STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with substantive federal and state requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. The selected landfill remedy uses permanent solutions and alternative remediation technologies to the maximum extent practicable. However, because treatment of the principal threats at the landfill sites was not found to be practicable, this remedy does not satisfy the statutory preference for treatment as a principal element of the remedy. The heterogeneity and volume of buried wastes and the absence of on-site hot spots that would represent the major sources of contamination preclude a remedy by which contaminants could be excavated and treated effectively. However, wastes from Site 3, Unit 4 and from Unit 1 Waste Areas B through F will be consolidated on-site into the reduced Unit 1 Waste Area A footprint prior to capping.

Because this remedy will result in landfill wastes remaining on-site, reviews will be conducted at least every 5 years (more frequently if deemed necessary) after commencement of remedial action to assure that the remedy continues to provide adequate protection of human health and the environment. Results of the periodic review will be documented in a summary report.

ROD DATA CERTIFICATION CHECKLIST

The following information is included in the Decision Summary section of this ROD:

- chemicals of concern and their respective concentrations (Section 5)
- baseline risk represented by chemicals of concern (Section 6)

- baseline risk represented by chemicals of concern (Section 6)
- cleanup levels established for chemicals of concern and the basis for these levels (Section 7)
- how source materials constituting principal threats are addressed (Section 7)
- current and reasonably anticipated future land-use assumptions and current and potential future beneficial uses of groundwater used in the baseline risk assessment and ROD (Sections 5 and 6)
- potential land and groundwater use that will be available at the site as a result of the selected remedy (Section 9)
- estimated capital, annual operation and maintenance, and total present worth costs, the discount rate, and the number of years over which the remedy cost estimates are projected (Section 9)
- key factors that led to selecting the remedy (Sections 7, 8, and 9)

Additional information can be found in the Administrative Record file for the sites.

This signature sheet documents the Navy's and U.S. EPA's coselection of the following remedial actions: no action for groundwater at Sites 3 and 5; no action for soil at Site 3, Units 2 and 3; and further action for soil at Site 3, Units 1 and 4, and for soil at Site 5 at former MCAS El Toro. Site 3 Unit 4 and Site 3 Unit 1 Waste Areas B through F will be recommended for unrestricted use following consolidation of wastes from these areas into Site 3 Unit 1 Waste Area A. This signature sheet also documents concurrence with this ROD from the State of California by the DTSC and the RWQCB Santa Ana Region.

Signature: _____ Date: 12-FEB-2008

Mr. Richard C. Weissenborn
Base Realignment and Closure Environmental Coordinator
Former Marine Corps Air Station El Toro

Signature: _____ Date: March 6, 2008

Mr. Michael M. Montgomery, Chief
Federal Facilities Cleanup Branch
United States Environmental Protection Agency, Region 9

The State of California, Department of Toxic Substances Control had an opportunity to review and comment on the Record of Decision and the Department of Toxic Substances Control comments were addressed.

Signature: _____ Date: Feb. 21, 2008

Mr. John E. Scandura, Chief
Southern California Operations
Office of Military Facilities
California Environmental Protection Agency
Department of Toxic Substances Control

Signature: _____ Date: 2/25/08

for Mr. Gerard Thibeault, Executive Officer
Regional Water Quality Control Board, Santa Ana Region

This Record of Decision (ROD) has been finalized in February 2008 using replacement page inserts to the Draft Final ROD dated October 2007. Please note that page headers and footers for this Final ROD are unchanged, except on replacement pages.

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Section 1
SITE NAME, LOCATION, AND DESCRIPTION

This Record of Decision (ROD) presents the selected remedial action for Operable Unit (OU)-2C Installation Restoration Program (IRP) Sites 3 and 5 at Former Marine Corps Air Station (MCAS) El Toro in Orange County, California. The National Superfund Database Identification Number for this facility is CA6170023208.

This ROD was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 *United States Code* [U.S.C.] Sections [§§] 9601–9675), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (Title [tit.] 40 *Code of Federal Regulations* [C.F.R.] Part [pt.] 300). The decision for these sites is based on information contained in the Administrative Record. A copy of the site-specific Administrative Record index for Sites 3 and 5 is provided in Attachment A. Figures and tables are presented immediately following Section 12 and the Responsiveness Summary of this ROD.

1.1 SITE NAME

The two sites addressed in this decision document are contained in OU-2C at former MCAS El Toro. The IRP site numbers and names are Site 3, Original Landfill, and Site 5, Perimeter Road Landfill.

1.2 SITE LOCATION

Former MCAS El Toro lies in a semiurban agricultural area in southern California, approximately 8 miles southeast of the City of Santa Ana and 12 miles northeast of the City of Laguna Beach (Figure 1-1). Land northwest of the Station is used for agricultural purposes. Land to the south and northeast is used mainly for commercial, light industrial, and residential purposes. Sites 3 and 5 are located in the eastern portion of the Station as shown on Figure 1-1.

1.3 SITE DESCRIPTION

Former MCAS El Toro is located on the Tustin Plain, a broad alluvial valley. The Station comprises runways, aircraft maintenance and training facilities, housing, shopping facilities, and other support facilities totaling approximately 4,738 acres.

Sites 3 and 5 are located in the eastern portion of former MCAS El Toro. Both sites are relatively flat. Site 3 encompasses approximately 11 acres and is situated between Irvine Boulevard and North Marine Way (Figure 1-2). An unlined channel (Agua Chinon Wash) crosses the site from north-northeast to south-southwest. West of the Agua Chinon Wash, the surface of the site consists of compacted soil and gravel. After closure as a landfill site, Site 3 was also used as an office, staging, and decontamination area by the Station remediation contractor. East of Agua Chinon Wash, the surface of the site is covered primarily by concrete and asphalt pads and was used for staging of wastes and a treatment system by the Station remediation contractor. Building 746, the Flight Simulator Building, is located next to the boundary of Site 3 on the west side of the wash and is a

prominent feature of the area. Exposed soil areas contain nonnative grasses. However, most of the site is not conducive to vegetation that would provide a habitat for wildlife.

The Site 3 landfill was active from 1943 until 1955. It was the original Station landfill, which was operated as a cut-and-fill disposal facility. Wastes were burned at a former incinerator to reduce volume prior to disposal; however, there are no available records indicating the types and quantities of wastes that were incinerated. Typical of municipal landfills, Site 3 contains a variety of materials disposed at assorted locations within the landfill. Reportedly, almost any waste generated on the Station may have been disposed at Site 3, including metals, incinerator ash, solvents, paint residues, hydraulic fluids, engine coolants, construction debris, oily wastes, municipal solid waste, and various inert solid wastes (Brown and Caldwell 1986).

For the purposes of investigating and remediating Site 3, it was divided into four units. These units are shown on Figure 1-2 and discussed as appropriate in the various sections of this ROD.

Site 5 is located on the Tustin Plain near the foothills of the Santa Ana Mountains, approximately 300 feet northwest of Borrego Canyon Wash. The site occupies approximately 1.8 acres and is relatively flat. Elevations range from 400 to 440 feet above mean sea level. Perimeter Road runs parallel to the site (Figure 1-3). The landfill is not being used currently and has become overgrown with nonnative grasses. A soil cover of unknown thickness has been placed over the landfill.

The land surface at the Site 5 study area has been graded level, and the landfill boundaries are not readily apparent. The large rectangular area, labeled "Perimeter Road Landfill" on Figure 1-3, represents the operational portion of the landfill, which was determined by geophysical surveys and aerial photographs (APHOs). At the time the Remedial Investigation (RI) and Feasibility Study (FS) Reports were prepared, a rectangular area surrounded by soil berms had been constructed over that part of the landfill where investigation-derived soil waste from the Phase I and Phase II RIs had been stockpiled. The area consisted of two square cells approximately 240 feet on a side. California-designated wastes were stored in the south cell, and nonhazardous wastes were stored in the north cell. The investigation-derived soil was subsequently spread and graded across the top of the landfill trench in 1997.

The Site 5 landfill was active from approximately 1955 to the late 1960s. It was operated as a cut-and-fill disposal facility. Wastes were typically burned in place to reduce volume prior to burial; however, there are no available records indicating the types and quantities of wastes that were burned. Typical of municipal landfills, Site 5 contains a variety of materials disposed within the landfill. Reportedly, almost any waste generated at the Station may have been disposed at Site 5, including burnable trash, municipal solid waste, cleaning fluids, scrap metals, paint residues, and unspecified fuels, oils, and solvents (Brown and Caldwell 1986).

1.4 GEOLOGY AND HYDROGEOLOGY

Former MCAS El Toro lies on the southeastern edge of the Tustin Plain, a gently sloping surface of alluvial fan deposits derived mainly from the Santa Ana Mountains. These Holocene materials consist of isolated coarse-grained, stream-channel deposits contained within a matrix of fine-grained overbank deposits that range in thickness from a few feet up to 300 feet (Herndon and Reilly 1989). Silts and clays predominate in the central and northwestern portion of the Station. Sands are more common near the foothills. The sands are predominantly well graded (poorly sorted), ranging from coarse to fine, and commonly contain clay lenses. Clays exhibit medium plasticity and contain sand (JEG 1993a).

The Station lies within the Irvine Groundwater Subbasin (Irvine Subbasin), which has been designated by the Santa Ana Regional Water Quality Control Board (RWQCB), as a public water supply source (RWQCB 1995). The regional aquifer beneath former MCAS El Toro is not currently a source of municipal drinking water; however, groundwater in the vicinity of the Station is used for agricultural purposes. One on-Station groundwater well belonging to the Irvine Company is located at the westernmost end of the east-west runway. This well is used for irrigation and is connected to the regional irrigation distribution system. Other wells pumping irrigation water are located west (three wells) and northwest (four wells) of the Station. The closest agricultural well is 18_TIC111, which is adjacent to the northwest Station boundary. To the west, the nearest well is 18_TIC047, which is located approximately 2,600 feet west of the Station boundary.

Review of water-level and water-quality data for multiple-port monitoring wells and cluster wells throughout the Irvine Subbasin suggests that some hydraulic separation may exist between the shallower and deeper portions of the regional groundwater aquifer. According to 1993 water levels, the direction of flow in the shallow aquifer along the southwest boundary of former MCAS El Toro was northwest (Figure 1-4) due to a water-level gradient of approximately 0.008 (JEG 1993a). Regional flow has been west and northwest since the 1940s and has been controlled locally by large pumping depressions. Average linear groundwater flow velocity in the uppermost aquifer across former MCAS El Toro ranges from 0.02 to 1.9 feet per day (JMM 1990).

Site 3 lies near the eastern margin of the Tustin Basin, which is filled with Quaternary alluvial deposits. Sandstone bedrock was encountered only to the east of the site across Irvine Boulevard. Quaternary deposits consist of unconsolidated sand and gravel with interlayered beds of silt and clay. Groundwater is encountered at approximately 200 to 220 feet below ground surface (bgs). Groundwater flow is toward the northwest with water-level gradients ranging from 0.0083 to 0.12. Groundwater gradients to the west of Site 3 decrease to 0.0036. Average linear groundwater flow velocity at the site ranges from 0.62 foot per day upgradient of Site 3 to 0.095 foot per day.

Site 5 is located on a broad alluvial fan that originates on the northeastern edge of the Tustin Plain where Borrego Canyon Wash exits from the foothills of the Santa Ana Mountains. Site 5 lies on Quaternary marine and alluvial sediments. The sediments consist of unconsolidated sand and gravel with discontinuous interbedded deposits of silt and clay. Groundwater is encountered at approximately 160 to 170 feet bgs, and flow is

toward the northwest due to an average gradient of 0.038. Average linear groundwater flow velocity at the site is estimated to range from 0.66 to 8.49 feet per day.

General groundwater quality parameters (total dissolved solids [TDS], nitrate/nitrite, and relative concentrations of cations and anions) indicate that groundwater beneath Sites 3 and 5 appears to be affected by the presence of landfill materials, depending on location. However, the effects are minor and not indicative of significant degradation in water quality.

1.5 SURFACE HYDROLOGY

Surface drainage near former MCAS El Toro generally flows southwest following the slope of the land and is perpendicular to the trend of the Santa Ana Mountains. Several washes originate in the hills northeast of former MCAS El Toro and flow through or adjacent to the Station en route to San Diego Creek.

Site 3 is located in the lower portion of the Agua Chinon Wash. The downstream extent of this wash crosses the landfill site in a man-made channel. The main portion of the landfill is northwest of the man-made channel, although landfill materials are located on both sides of the wash. Surface water enters the site through a concrete-box culvert that is located under Irvine Boulevard. Surface runoff from Irvine Boulevard is discharged into the culvert upstream of Site 3. Surface water exits the site through another concrete-box culvert located under North Marine Way. The portion of Agua Chinon Wash within Site 3 is unlined and about 800 feet long. The wash shows evidence of erosion upstream of the site. If the channel were to erode existing cover soils, landfill materials could become exposed.

No significant surface drainages occur at or adjacent to Site 5. Borrego Canyon Wash is the closest surface water channel and is located approximately 600 feet east of the site.

1.6 CURRENT AND FUTURE LAND USE

Former MCAS El Toro was annexed into the City of Irvine in November 2003. At its maximum acreage, the Station comprised 4,712 acres. The Department of the Navy (DON) currently owns approximately 74 acres of the former Station that is associated with Site 1. The DON also still holds title to 924 acres within 43 parcels, referred to as carve-out parcels, where property transfer cannot occur until all necessary environmental remedial actions have been taken.

In 1998, 23 acres in the southeastern portion of the Station was transferred to the California Department of Transportation. In 2001, 897 acres in the northeast portion of the Station was transferred to the Federal Aviation Administration. In February 2005, 3,719 acres was sold via public auction to a private developer. With the close of escrow in March 2005, 2,806 of the 3,719 acres had been transferred by deed and 913 acres was leased under Leases in Furtherance of Conveyance ("LIFOCs") pending completion of environmental investigations and response actions. Sites 3 and 5 are located on properties currently leased to Lennar doing business as Heritage Fields El Toro, and portions have been assigned to the City of Irvine's Orange County Great Park Corporation.

Former MCAS El Toro provided material and support for Marine Corps aviation activities until the Station was closed in July 1999. Environmental compliance and restoration activities have continued since Station closure, and a caretaker staff will remain at the Station until property transfer is complete.

Historical Station land uses are described below for the following four quadrants, as defined by the bisecting north-south and east-west runways.

- The northwestern quadrant consisted of former MCAS El Toro headquarters, administrative services, family and bachelor housing, and community support services.
- The northeastern quadrant consisted of Marine Aircraft Group activities (e.g., training, maintenance, supply and storage, and airfield operations), family housing, community support services, and ordnance storage areas isolated by topographic relief and distance from other developments.
- The southeastern quadrant consisted of administrative services, maintenance facilities, ordnance storage, and a golf course.
- The southwestern quadrant consisted of aircraft maintenance facilities, supply and storage facilities, and limited administrative services.

Historically, land use around former MCAS El Toro has been largely agricultural. However, land to the south, southeast, and southwest has been developed over the past 10 to 15 years for commercial, light-industrial, and residential uses. Currently, expanding commercial areas adjoin the Station, and additional residential areas are located to the northwest and west. Adjacent land to the northeast and northwest is used for agriculture.

Following Station closure in 1999, the DON finalized an Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) in March 2002 to evaluate several alternatives for the reuse of the Station. However, with the passage of "Measure W," a voter initiative in 2002, reuse of the Station was designated as nonaviation use and recreational theme, with limited development intensities. In November 2003, the City of Irvine annexed the former Station property and approved a conceptual reuse plan titled the "Orange County Great Park." This plan calls for mixed reuse with residential, commercial, and recreational open space uses. In July 2005, the DON completed the process of conveying portions of the former Station through public sale to private developers. However, portions of the property, including Sites 3 (located in Carve-out II-D) and 5 (located in Carve-out II-H), have been leased to the developer in accordance with the Finding of Suitability to Lease (FOSL) (DON 2004a) and Lease in Furtherance of Conveyance (LIFOC) (DON 2005b) pending the completion of ongoing environmental investigations and/or response actions (Figure 1-5). Based on the land-use map for the Orange County Great Park Plan, Site 3 is located in an area designated as a riparian corridor, and Site 5 is located in an area designated as open space/golf course.

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Section 2
SITE HISTORY AND ENFORCEMENT ACTIVITIES

Former MCAS El Toro was commissioned in 1943 as a Marine Corps pilot fleet operation training facility. In 1950, the Station was selected for development as a master jet station and permanent center for Marine Corps aviation on the West Coast. The Station mission has involved the operation and maintenance (O&M) of military aircraft and ground-support equipment. These activities generated oils, solvents, paint residues, hydraulic fluid, used batteries, and other wastes (MCAS El Toro 1991). Wastes were placed in unlined on-Station landfills and burned or covered with soil.

Environmental remediation activities at former MCAS El Toro are performed under the Installation Restoration (IR) Program. The IR Program was developed in 1980 by the United States Department of Defense (DoD) to comply with federal guidelines to manage and control past hazardous waste disposal actions (DON 1992). The first indication of contamination at the Station occurred during routine water-quality monitoring in 1985, when the Orange County Water District (OCWD) discovered trichloroethene (TCE) in groundwater at an irrigation well located approximately 3,000 feet downgradient of former MCAS El Toro. Table 2-1 summarizes the environmental investigations completed at the Station to date.

In 1985, the DON began to work on an initial assessment study (IAS) to locate potentially contaminated sites on the Station. This work was conducted for Naval Facilities Engineering Command (NAVFAC) under the Navy Assessment and Control of Installation Pollutants Program, which was the DON version of the DoD IR Program at that time. The IAS Report identified 17 sites as potential sources of contamination (Brown and Caldwell 1986). The identification of potentially contaminated sites was based on the results of record searches and employee interviews. The report recommended sampling locations and sample analytical parameters to confirm the suspected contamination at the sites.

In 1987, the Marine Corps contracted for a review of the IAS to produce a Site Inspection Plan of Action (SIPOA) (JMM 1988). In July 1987, while the SIPOA study was under way, the Santa Ana RWQCB issued a cleanup and abatement order to the Marine Corps. This order required the Station to initiate a perimeter groundwater volatile organic compound (VOC) investigation and submit a draft report. The SIPOA, released in August 1988, recommended 19 sites for study and amended the site sampling plans proposed in the IAS Report. This SIPOA served as the basis for the Sampling and Analysis Plan for the RI/FS sites.

In June 1988, the United States Environmental Protection Agency (U.S. EPA) recommended adding former MCAS El Toro to the National Priorities List (NPL) of the Superfund Program due to VOC contamination at the Station boundary and in the agricultural wells west of the Station. Former MCAS El Toro was added to the NPL on 15 February 1990. In October 1990, the DON signed a Federal Facility Agreement (FFA) with U.S. EPA Region 9, California Department of Health Services (DHS) (now referred to as the California Environmental Protection Agency [Cal/EPA] Department of Toxic Substances Control [DTSC]), and Santa Ana RWQCB (FFA 1990). The FFA is a cooperative agreement that:

- assures environmental impacts are investigated and appropriate response actions are taken to protect human health and the environment;

- establishes a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions;
- facilitates cooperation, exchange of information, and participation of the parties; and
- assures adequate assessment, prompt notification, and coordination between federal and state agencies.

The implementation of the FFA is included as one of the responsibilities of the Base Realignment and Closure (BRAC) Cleanup Team (BCT). The BCT consists of representatives from the DON, U.S. EPA, DTSC, and Santa Ana RWQCB. The team was established to manage and coordinate environmental restoration and compliance programs related to the operational closure of former MCAS El Toro by July 1999. In addition, the former MCAS El Toro BCT has specified in its mission and vision statements that:

- fast-track remediation of sites is necessary to expedite reuse, and
- restoration and reuse is to be maximized by 1999.

In December 1989, the DON began to prepare a Phase I RI Work Plan and associated documents for former MCAS El Toro. The DON reviewed the available reports and other documents pertinent to past disposal practices at the Station and concluded that 22 sites would be investigated (JEG 1993a). These sites were grouped into three OUs. OU-1 comprised the regional VOC groundwater investigation (Site 18), which was conducted both on and off the Station. OU-2 included the four landfill sites (Sites 2, 3, 5, and 17) and Site 10, the Petroleum Disposal Area (this site was later moved to OU-3). The remaining 16 sites were grouped together as OU-3. These sites were considered to be potential sources for a variety of contaminants. The principal objectives of the Phase I RI were to evaluate the source(s) of contamination in regional groundwater west of the Station and determine whether contamination exists and is affecting the environment at sites in OU-2 and OU-3.

The results of the Phase I RI were documented in a draft Technical Memorandum issued in July 1993 (JEG 1993a), an RI Report for OU-1 issued in July 1994 (JEG 1994c), a draft Soil Gas Technical Memorandum issued in October 1994 (JEG 1994a), and an RI Report for OU-1 issued in August 1996 (JEG 1996). Various contaminants in the groundwater, soil, surface water, and sediment at former MCAS El Toro were identified during the Phase I RI. Contaminants in the soil and sediment consisted primarily of low concentrations of semivolatile organic compounds (SVOCs), petroleum hydrocarbons, pesticides, herbicides, and polychlorinated biphenyls (PCBs) (JEG 1993a). It was concluded in the Phase I RI that the source of contamination for regional groundwater is in the southwest quadrant of the Station, but no specific source was identified. The sampling events yielded sufficient information to warrant conducting a preliminary risk assessment of contaminants at the sites for both groundwater and soil contamination. The results of the Phase I RI provided the primary data for the Phase II RI/FS.

In March 1993, former MCAS El Toro was placed on the BRAC III list of military facilities considered for closure. Under the terms of the FFA, Station closure would not affect the DON's obligation to conduct the RI/FS and to comply with the other requirements of the FFA (FFA 1990, Section 37, Base Closure).

Concurrent with the Phase I RI, the DON conducted a Resource Conservation and Recovery Act (RCRA) facility assessment (RFA) at former MCAS El Toro. The purpose of the RFA was to evaluate whether an additional 140 sites at former MCAS El Toro would require further investigation under the Phase II RI/FS program. The final RFA Report was submitted in July 1993 (JEG 1993b). Based on an evaluation of the sampling results, 25 solid waste management units/areas of concern were recommended for further action. Site 23 (Wastewater Treatment Plant Sewer Lines) was evaluated in the RFA and was recommended for no further action. The sewer lines are located within Site 24, which was added to the Phase II RI scope.

Interviews with active and retired personnel from the Fuel Operations Division and Facility Management Department (currently the Installations Department) were held in July 1994 at former MCAS El Toro (JEG 1994b). The objectives of the meeting were to confirm and supplement information obtained from past interviews and field investigations, obtain a better understanding of current and historical operations at former MCAS El Toro, and identify new areas of potential environmental concern at former MCAS El Toro. Those interviewed had knowledge of operations and procedures for storage and disposal of hazardous materials and waste. The interview panel consisted of regulatory agency personnel, the DON, former MCAS El Toro personnel, and contractor personnel.

The subjects covered during the interviews included underground storage tanks, aboveground storage tanks, IRP sites, tank farms, disposal procedures, disposal areas, and accidental or unintentional spills or leaks that may have occurred. Much of the information gathered from previous interviews and field investigations was confirmed. The interview panel discussed the types of wastes known to be deposited in each of the landfills, the depth and the boundaries of the landfills, and how the wastes were handled. Other subjects discussed included the types of operations that occurred on the Station and the types of chemicals used in these operations.

In July 1995, a final Work Plan for the Phase II RI/FS was issued (BNI 1995). This Work Plan presented an approach for conducting the Phase II RI at 24 sites including 2 new sites, Sites 24 and 25. The objectives of the plan were to present a sampling strategy based on data quality objectives to establish confidence that inferences made from the data were correct and, ultimately, to collect sufficient information to support risk management decisions. The Phase II RI was conducted in 1995 and 1996. During this same period, the DON evaluated background concentrations of metals in soils and reference levels for pesticides and herbicides in soils (BNI 1996). This enabled site-specific analytical results of soil sampling to be compared with background and reference levels during the RI to identify potential releases. Subsequent to the Phase II RI, an evaluation of metals in groundwater was performed (BNI 1998a Appendix F).

The purpose of this evaluation was to determine whether the reported concentrations of metals in groundwater at former MCAS El Toro reflect ambient conditions or are the result of anthropogenic sources associated with historical Station activities.

In 1997, the initial FS Reports for Sites 3 and 5 were published. In the reports, remedial alternatives were developed and evaluated, providing adequate information for decision makers to select the most appropriate alternatives for the sites (BNI 1997c,d). Subsequently, the Proposed Plan (PP) for Sites 3 and 5, along with Sites 2 and 17, was released to the public for comment in June 1998 and documented Alternative 3 as the preferred FS alternative. The PP had a 30-day comment period. State regulatory agencies reviewed and commented on the draft final FS Reports

for Sites 3 and 5 and the PP, and the DON reviewed all written and verbal comments submitted during the comment period. Based on the review of the comments and discussion with the Local Redevelopment Authority (LRA) and the FFA signatories, Alternative 4d was determined to better support the proposed reuse of Sites 3 and 5.

After comments from the public and regulatory agencies had been received, the draft ROD was published in 1999 (SWDIV 1999), documenting the intended remedy (Alternative 4d) for Sites 3 and 5. However, the draft ROD was not finalized at that time due to the need to incorporate results from the historical radiological assessment (HRA) (Weston 2000), the on-site radiological investigations at Sites 3 and 5 (Weston 2006); and an evaluation of the effectiveness of the remedial alternatives with respect to radionuclides (Earth Tech 2006). Supplemental field investigations were also conducted after the draft ROD was issued to further delineate landfill waste boundaries and address concerns about whether additional engineering controls (ECs) and/or institutional controls (ICs) might be needed relative to potential landfill gas migration at the sites.

2.1 SUPPLEMENTAL INVESTIGATIONS AFTER THE DRAFT ROD

Supplemental investigations conducted at Sites 3 and 5 after the draft ROD was issued were reported in the following:

- May 2000: HRA (Weston 2000)
- June/November 2001: Radiological Survey Plan (Weston 2001)
- June–November 2001/February–March 2004: On-Site Radiological Characterization (Weston 2001, 2006)
- August/December 2002: Supplemental Landfill Investigation (Earth Tech 2005)
- March 2004: Supplemental Landfill Soil Gas Investigation (DON 2004b)
- December 2006: final FS Addendum for OU-2C (Earth Tech 2006)
- December 2006: final Radiological Release Report for Sites 3 and 5, Anomaly Area 3, and Building 244 (Weston 2006)

A summary of these investigations is included below.

2.1.1 May 2000 Historical Radiological Assessment

The HRA Report for former MCAS El Toro was issued in May 2000 (Weston 2000) to provide information on potentially impacted areas at the former Station. The HRA was conducted to identify sources of radioactive material contamination and assess the likelihood of contaminant migration, thereby identifying sites that either needed further action or posed no threat to human health. The HRA Report also provided an initial classification (impacted or nonimpacted) for former MCAS El Toro sites. The guidance used in the preparation of the HRA Report included Chapter 3 of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (dated December 1997) and California DHS Guidance for Radiological Cleanup/Remediation (dated August 1995). The HRA included review of correspondence from the DON/Navy, former

MCAS El Toro, and Southwest Division Naval Facilities Engineering Command; historical files and related reports; personnel interviews; site inspections; and limited informal surveys. Based on interviews with former MCAS El Toro employees, the HRA Report concluded that general radioactive material may have been inadvertently disposed at Sites 3 and 5 landfills.

Radium-226 (Ra-226) was identified as the primary radiological chemical of potential concern (COPC) for the vadose zone at Sites 3 and 5. Historical operations at former MCAS El Toro included maintenance of aircraft equipped with components containing Ra-226. Radioluminescent paint mixed with Ra-226 and applied to dials, gauges, and markers was commonly used on aircraft in the 1940s, 1950s, and 1960s. According to the HRA Report, a former radium paint facility located in Building 296 at MCAS El Toro was in operation beginning in the mid-1940s and was decommissioned in the 1950s or 1960s. Since there are no available records for the decommissioning, there is a potential that some decommissioned radiological waste could have been disposed at Site 3 and/or Site 5 (Weston 2001).

Some aircraft displayed in the former Station hangars also used sealed components containing strontium-90 (Sr-90). Sr-90 is a secondary radionuclide of concern because ice detectors and in-flight blade inspection systems are sealed within metal housings, and inoperable units are exchanged for replacement units by the manufacturer on a one-for-one basis. Therefore, it is not likely that these units were worked on at former MCAS El Toro or were located outside of Station buildings in which aircraft was repaired. Consequently, the only radionuclide of concern at outdoor sites is Ra-226.

Equipment and consumer products such as electron tubes (cobalt-57, cobalt-60, thorium-232, krypton-85, etc.), smoke detectors (americum-241), and exit signs (hydrogen-3), which contain exempt quantities of radioactive materials, may have also existed. The total contamination, as a possible result of their use, would typically result in only a small fraction of the release limit. Therefore, these radionuclides were not identified as COPCs.

2.1.2 June–November 2001 Radiological Survey Plan

Based on information provided in the HRA Report, a Radiological Survey Plan (Weston 2001) was prepared to outline the specifications for radiological characterization of sites identified for further assessment. A Sampling Amendment to the Radiological Survey Plan was issued in February 2004 for final radiological characterization of the Station. The on-site radiological survey and laboratory analyses were conducted from June 2001 through November 2001 and during March 2004.

The Radiological Survey Plan and Sampling Amendment were prepared with input and concurrence from the FFA signatories including U.S. EPA, RWQCB, and DTSC with DHS (now California Department of Public Health [DPH]) Food, Drug, and Radiation Safety Division, Radiologic Health Branch acting in support of DTSC. The DPH Radiologic Health Branch enforces radiation control laws and regulations designed to protect the public, radiation workers, and the environment. At former MCAS El Toro, DPH supports DTSC (the lead state agency) by providing services and technical guidance

regarding inspection of facilities that used radiological materials, investigation of radiation incidents, surveillance of radioactive contamination in the environment, and the remediation and release of sites.

The radiological surveys for Sites 3 and 5 were performed using high-density techniques for detecting surface radiation in accordance with the guidelines contained in the MARSSIM, Nuclear Regulatory Commission (NRC) and Regulatory Guide (NUREG 1575) (U.S. EPA 1997). The high-density survey system electronically mapped all the survey data using global positioning system (GPS) coordinates. Soil samples were collected from each outdoor site and analyzed for radionuclides of interest to augment the scan survey data.

2.1.3 June–November 2001/February–March 2004 On-Site Radiological Characterization

The on-site radiological characterization and laboratory analyses of Sites 3 and 5 were conducted from June through November 2001 and during February and March 2004. Results of the surveys and analytical results of soil sampling were evaluated as part of the Radiological Survey Plan (Weston 2001) and Amendment, along with the evaluation and assessment of potential radiological release. A "Site Evaluation Accomplished" recommendation was made for radionuclides at Sites 3 and 5, and the sites were recommended for radiological release for the installation and implementation of ICs specified for the sites. Detailed descriptions of the radiological survey procedures, analyses, results, and recommendations are presented in the final Radiological Release Report (Weston 2006), which was reviewed and concurred on by the FFA signatories including U.S. EPA, RWQCB, and DTSC (with technical support from California DPH).

2.1.3.1 SITE 3

A total of 1,092,184 survey readings were recorded over the survey area of approximately 13.7 acres using a tractor-trailer eight-detector assembly and a single-detector backpack GPS survey. The highest individual detector reading was 135,502 counts per minute (cpm). An investigation was performed at that point and an anomaly (small metal screw with a domed head) was identified and collected. The small anomaly was judged to be a random, low-level radioactive point source adrift at the site. In October 2003, the small screw was transported off-Station by a certified radioactive materials broker for disposal at an NRC or Agreement state-licensed disposal facility.

Initially, 22 soil samples were collected from the areas with elevated readings in contiguous homogeneous locations that were representative of several areas in question. Subsequent to the sampling of areas with elevated readings, nine additional random-systematically located samples were collected to assure that sufficient soil samples were analyzed to fully characterize the site. The Ra-226 activity in the samples ranged from 0.64 to 2.09 picocuries per gram (pCi/g). The survey and sampling data from the site resulted in an average Ra-226 activity of 1.45 pCi/g, which was less than the established site-specific release limit of 2.05 pCi/g.

Based on the average soil sampling results, dose modeling was performed using the NRC and Department of Energy (DOE) Residual Radiation (RESRAD) Program, Version 6.3. Although the proposed future land use at Site 3 is not residential, dose modeling was performed using conservative exposure pathways for a resident farmer scenario with the exception of inhalation of radon and its decay products. For a residual Ra-226 soil activity of 0.4 pCi/g (1.45 pCi/g minus 1.05 pCi/g [naturally occurring background concentration of Ra-226 at former MCAS El Toro]), the RESRAD program yielded a maximum dose of 6.1 millirems per year (mrem/y) at 50 years, which is less than the dose limit of 25 mrem/y specified in 10 C.F.R. pt. 20, Subpart (subpt.) E.

Based on the average incremental Ra-226 activity of 0.4 pCi/g, the assessed risk to a residential receptor, using the Preliminary Remediation Goals (PRGs) for Superfund risk electronic calculator (U.S. EPA 2006), is 3.22×10^{-5}, which is within the NCP risk management range of 10^{-6} to 10^{-4}.

Based on the survey data, soil sample analytical results, and dose and risk calculations, it was concluded that Ra-226 activity in surface soil (up to 18 inches bgs) was within the range of background for a residential receptor, does not pose unacceptable risk, and does not result in a dose greater than 25 mrem/y to a residential receptor at Site 3. However, due to the potential presence of small quantities of radiological material within the subsurface landfill waste, the final Radiological Release Report recommended installation and implementation of ICs at the site (Weston 2006).

2.1.3.2 SITE 5

A total of 555,959 survey readings were recorded over the survey area of approximately 7.3 acres using a tractor-trailer eight-detector assembly and a single-detector backpack GPS survey. The highest individual detector reading was 195,445 cpm. An investigation was performed at that point and an anomaly was identified and collected. The anomaly was caused by a rock approximately 0.5 inch in diameter. The small anomaly source was judged to be from a random, low-level radioactive point source adrift at the site. In October 2003, the anomaly was transported off-Station by a certified radioactive materials broker for disposal at an NRC or Agreement state-licensed disposal facility.

Initially, five soil samples were collected from areas with elevated readings in contiguous homogeneous locations that were representative of several areas in question. Subsequent to the sampling of areas with elevated readings, five additional random-systematic/ judgmentally located samples were collected to assure that sufficient soil samples were analyzed to fully characterize the site. The Ra-226 activity in the samples ranged from 0.76 to 2.97 pCi/g (the site-specific release limit is 2.05 pCi/g). The survey and sampling data from the site resulted in an average Ra-226 activity of 1.43 pCi/g.

Based on the average soil sampling results, dose modeling was performed using the NRC and DOE RESRAD Program, Version 6.3. Although the proposed future land use at Site 5 is not residential, dose modeling was performed using conservative exposure pathways for a resident farmer scenario with the exception of inhalation of radon and its decay products. For a residual Ra-226 soil activity of 0.38 pCi/g (1.43 pCi/g minus 1.05 pCi/g

[background]), the RESRAD program yielded a maximum dose of 5.8 mrem/y at 50.1 years, which is less than the dose limit of 25 mrem/y specified in 10 C.F.R. pt. 20, subpt. E.

Based on the average incremental Ra-226 activity of 0.38 pCi/g, the assessed risk to a residential receptor, using the PRGs for Superfund risk electronic calculator (U.S. EPA 2006), is 3.05×10^{-5}, which is within the NCP risk management range of 10^{-6} to 10^{-4}.

Based on the survey data, soil sample analytical results, and total effective dose equivalent (TEDE) and risk calculations, it was concluded that Ra-226 activity in surface soil (up to 18 inches bgs) does not pose unacceptable risk and does not result in a dose greater than 25 mrem/y to a hypothetical residential receptor at Site 5. However, due to the potential presence of small quantities of radiological material within the subsurface landfill waste, the final Radiological Release Report recommended installation and implementation of ICs at the site (Weston 2006).

2.1.4 August–December 2002/March 2004 Supplemental Landfill Investigations

A supplemental landfill investigation was conducted from August through December 2002 to facilitate landfill boundary demarcation and initial assessment of soil gas. The investigation was designed to accomplish the following objectives:

- verify currently demarcated boundaries of the landfills (including operational and uncontrolled dumping areas) at Sites 3 and 5 by exploratory trenching
- establish revised landfill boundaries at areas where there is a variance with current demarcation
- install perimeter soil gas monitoring wells at Sites 3 and 5 and collect soil gas samples quarterly for 1 year
- collect supplemental soil gas samples from within the landfill boundaries
- evaluate soil gas sampling results to assess the need for ECs and ICs to be implemented at the landfills

2.1.4.1 SITE 3

The initial supplemental investigation activities were conducted from August through November 2002 (Figure 2-1). The main field activities that were conducted during this period were trenching activity to verify the demarcated Sites 3 and 5 boundaries, and installation of perimeter soil gas monitoring wells at Site 3. The trenching activities were initiated at the boundaries identified in the draft ROD (SWDIV 1999). The initial trenching investigation was performed to define the landfill boundaries at Sites 3 and 5 during August and September 2002.

Radiological surveying was also conducted at Sites 3 and 5 to provide screening data in support of the ongoing radiological assessment at former MCAS El Toro. A general area background reading was taken periodically at the beginning and/or end of each day.

Readings obtained were in the range of 3,000 to 14,000 cpm. Background readings were in the range of 4,300 to 12,600 cpm.

Trenching Investigation

During November and December 2003, a supplemental trenching investigation was performed as part of Phase II RI activities at Site 3 to further define the site's landfill boundaries. The original intent of the trenching investigation was to confirm waste placement boundaries established in the Phase I and II RIs. However, due to the limited extent of waste found during the initial trenching investigation, the approach was modified to delineate smaller pockets of waste and determine if the waste was bounded by Irvine Boulevard or extended beyond it. Supplemental trenching locations were chosen to address regulatory comments on the draft Predesign Investigation Technical Memorandum (Earth Tech 2005). Field monitoring for VOCs was conducted using a photoionization detector during trenching and was recorded in trench excavation logs. Methane, oxygen, carbon dioxide, and percent lower explosive limit (LEL) were also monitored using a Landtec GEM 500 multigas meter. Excavation trenches were backfilled and compacted. Figure 2-1 illustrates the landfill boundaries that were revised based on results of these trenching activities.

Soil Gas Investigation

During November 2002, four perimeter soil gas monitoring wells were installed at Site 3 to confirm that soil gas migration from the landfill was not occurring (Figure 2-1). The location, spacing, and depth of the Site 3 perimeter soil gas monitoring wells were designed in accordance with California Integrated Waste Management Board (CIWMB) requirements set forth in *California Code of Regulations* (Cal. Code Regs.) tit. 27, Division 2, § 20925. This regulation requires soil gas monitoring wells to be installed near the perimeter but not within the waste, a maximum of 1,000 feet apart, and in areas that are geologically permeable to landfill gas. Each well included shallow and deep probes. Intermediate probes are not required by Cal. Code Regs. tit. 27, § 20925 for landfills where the depth of the waste is less than 30 feet bgs.

Four rounds of perimeter soil gas sampling were conducted at four wells at Site 3, in accordance with the final Work Plan, Predesign Investigation (Earth Tech 2002). Samples were collected from both the shallow- and deep-screened intervals. Sampling results were provided in the final Predesign Investigation Technical Memorandum (Earth Tech 2005).

Low concentrations of VOCs and very low concentrations of methane were reported in Site 3 perimeter soil gas monitoring wells. The maximum calculated value for total VOCs in the Site 3 wells was 102 micrograms per liter (μg/L), which is less than the screening level of 300 μg/L established in the RI Report. The maximum reported methane concentration was 0.00014 percent (1.4 parts per million by volume [ppm_v]), which is less than the Cal. Code Regs. tit. 27 limit of 50,000 ppm_v at the landfill boundary. Figure 2-2 presents the soil gas sampling results.

2.1.4.2 SITE 5

During March 2004, four perimeter soil gas monitoring wells were installed at Site 5 (Figure 2-3). These wells were designed and installed in accordance with regulations as described for Site 3 above.

Four rounds of perimeter soil gas sampling were conducted at four wells and three lysimeters at Site 5, in accordance with the final Work Plan, Predesign Investigation (Earth Tech 2002). Samples were collected from both the shallow- and deep-screened intervals of the soil gas monitoring wells. Detailed perimeter soil gas sampling results are provided in the final Predesign Investigation Technical Memorandum (Earth Tech 2005).

Low concentrations of VOCs were reported in the Site 5 perimeter lysimeters and soil gas wells. The maximum calculated values for total VOCs in the Site 5 lysimeters and soil gas wells were 20 and 4.3 μg/L, respectively, less than the screening level of 300 μg/L. Methane was not reported in samples at concentrations greater than the reporting limit in any of the Site 5 lysimeters, and very low concentrations of methane were reported in the Site 5 soil gas monitoring wells. The maximum methane concentration detected in the wells was 0.0013 percent (13 ppm_v), which is less than the Cal. Code Regs. tit. 27 methane limit of 50,000 ppm_v at the landfill boundary.

2.1.4.3 CONCLUSIONS

Based on the trenching conducted as a part of supplemental investigations, approximately 30,000 cubic yards of waste is estimated to be contained in Unit 1 at Site 3. This volume is an order of magnitude less than the estimate of 163,500 to 243,000 cubic yards of waste evaluated in the RI and FS for Site 3 as presented in the draft ROD (SWDIV 1999). Further, the waste placement boundary at Site 3 was revised inward at Unit 1 west of Agua Chinon Wash, and the waste boundary east of Agua Chinon Wash was revised outward toward Irvine Boulevard. No waste was found to the northeast of Irvine Boulevard during the supplemental trenching investigation. One large and two small areas containing waste were found within the previous boundary west of Agua Chinon Wash. Trenching into Unit 1, east of Agua Chinon Wash, confirmed the presence of miscellaneous buried concrete. Due to the previously defined small volume of incinerated waste in Unit 4 of Site 3 (approximately 1,110 cubic yards), no delineation was scoped as a part of the preliminary design investigation. However, Unit 4 contains landfill wastes that will be removed and consolidated into Unit 1 as a part of the final remedy for the site. Units 2 and 3 were not part of the operational landfill and do not contain buried waste. Based on the findings of the trenching investigations, the thickness of waste observed in the trenches ranges from less than 1 to 18 feet, and the soil cover thickness ranges from less than 1 to 7 feet.

Results from the supplemental investigations indicated approximately 18,000 bank cubic yards of waste is placed within Site 5. This volume is approximately 60 percent less than the initial estimate of 40,000 bank cubic yards of waste evaluated in the RI and FS for Site 5 as presented in the draft ROD (SWDIV 1999). As a result, the waste placement boundary at Site 5 was revised slightly outward on the north side and slightly inward on all other sides (Figure 2-4). Based on findings of the trenching investigations, the

thickness of waste ranges from less than 1 foot to a maximum of 15 feet, and the soil cover thickness ranges from less than 1 to 8 feet.

Soil gas monitoring results from the perimeter and within the Sites 3 and 5 landfills indicated that landfill gases are at concentrations that would not typically require landfill gas controls. However, as a part of the agreement among FFA signatories to use a 100-foot buffer zone and the need to provide measures to control and minimize the potential for landfill gas migration greater than the Cal. Code Regs. tit. 27 requirements, the DON proposed incorporating both passive and active landfill gas control systems. As such, the final Predesign Investigation Technical Memorandum (Earth Tech 2005) recommended the inclusion of landfill gas control components as part of the remedy. Therefore, the FS Addendum presented an evaluation of a landfill gas control component into several of the remedial alternatives for Sites 3 and 5 (SWDIV 1999).

2.1.5 March 2004 Supplemental Landfill Soil Gas Investigation

A supplemental soil gas investigation was conducted at Sites 3 and 5 in March 2004 to determine whether landfill gases were present and to determine appropriate ECs and ICs to be implemented at Sites 3 and 5. All sampling locations at Sites 3 and 5 are illustrated on Figures 2-1 and 2-3, respectively.

The supplemental landfill gas investigation at Site 3 included the collection of 92 soil gas samples from 34 shallow (7 feet bgs) and deep (15 feet bgs) locations within the waste placement boundary (Figure 2-2). Samples were analyzed for methane using U.S. EPA Method 8015-M. Methane concentrations ranged from 0.0004 to 0.0076 percent (4 to 76 ppm_v). Hydrogen sulfide concentrations ranged from the reporting limit of 0.00001 percent (0.1 ppm_v) to a maximum of 0.0002 percent (2.0 ppm_v).

The supplemental landfill gas investigation at Site 5 included the collection of 39 soil gas samples from 11 shallow (7 feet bgs) and deep (15 feet bgs) locations within the waste placement boundary (Figure 2-3). Samples were analyzed for methane using U.S. EPA Method 8015-M. Methane concentrations at Site 5 ranged from the reporting limit of 0.0002 percent (2 ppm_v) to a maximum of 0.013 percent (130 ppm_v). Hydrogen sulfide concentrations ranged from the reporting limit of 0.00001 (0.1 ppm_v) to 0.00004 percent (0.4 ppm_v).

The DON submitted results of the supplemental landfill gas investigation in a letter dated 24 June 2004 to the CIWMB and FFA signatories for their review (DON 2004b). The accompanying letter also provided the rationale for the use of 100-foot buffer zones along with ECs and ICs with which the DON proposed to control and minimize the potential for landfill gas migration at concentrations greater than Cal. Code Regs. tit. 27 limits.

Based on a review of the supplemental landfill gas investigation results and the proposed ECs and ICs, the CIWMB and the FFA signatories concurred on the measures outlined in Section 1.2 of the June 2004 letter to address the underlying concern about potential landfill gas migration at Sites 3 and 5 (DON 2004b).

2.1.6 December 2006 Final Feasibility Study Addendum for OU-2C

The FS Addendum for Sites 3 and 5 presented the results of the FS evaluation of landfill gas control components added to several of the remedial alternatives and an evaluation of the effectiveness of the remedial alternatives with regard to protection from external radiation due to radioactive decay of Ra-226 potentially present in the landfills (Earth Tech 2006). Results from radiological dose modeling with regard to protection from external radiation due to Ra-226 potentially in the landfills indicate that a 2-foot soil cover would provide sufficient shielding to prevent unacceptable risk to human health, and remedial alternatives evaluated in the FS would not have to be further modified to protect against this potential pathway. The FS Addendum also incorporated findings from the supplemental investigations conducted at both sites following issuance of the draft ROD (SWDIV 1999).

2.1.7 December 2006 Radiological Release Report for Sites 3 and 5

The December 2006 Radiological Release Report for Sites 3 and 5 summarized radiological monitoring results from the June through November 2001 and February through March 2004 radiological characterizations of Sites 3 and 5 (Weston 2006).

As described above in Section 2.1.3, based on radiological survey data, soil sample results, and dose and risk calculations, it was concluded that Ra-226 activity in surface soil (up to 18 inches bgs) does not pose unacceptable risk and does not result in a dose greater than 25 mrem/y to a hypothetical residential receptor at Site 3 or Site 5. A "Site Evaluation Accomplished" recommendation was made for radionuclides at Sites 3 and 5, and the sites were recommended for radiological release for the installation and implementation of ICs specified for the sites in the final Radiological Release Report (Weston 2006); this report was reviewed and concurred on by the FFA signatories.

Section 3
HIGHLIGHTS OF COMMUNITY PARTICIPATION

A Community Relations Plan (DON 2005a) was developed to document concerns identified during community interviews and to provide a detailed description of the community relations activities planned in response to information received from the community. The initial plan was prepared in 1991 and revised in 1993, 1996, and 2005. These revisions incorporated the most recent assessment of community issues, concerns, and information needs related to the ongoing environmental investigation and remediation program at former MCAS El Toro.

The community relations program includes specific activities for obtaining community input and keeping the community informed. These activities include conducting interviews, holding public meetings associated with designated IRP site-specific public comment periods, holding regular Restoration Advisory Board (RAB) meetings, issuing PPs that summarize remedial alternatives evaluated for IRP sites, issuing fact sheets to provide updates on current remediation activities, maintaining an information repository where the public can access technical documents and program information, disseminating information to local and regional media, and making presentations to local groups.

With respect to the four inactive landfills at former MCAS El Toro (OU-2B Sites 2 and 17, and OU-2C Sites 3 and 5), one of the most important roles for community members is gaining an understanding of the remedial alternatives developed for the sites by participating in public meetings and providing formal public comment. The IRP process calls for the development and distribution of PPs, produced in a fact-sheet style, that summarize the evaluation of remedial alternatives and focus on the Navy's preferred remedy. Public meetings also provide an opportunity to learn more about the alternatives and serve as a method for submitting public comments. After the public comment period, the next step in the IRP process is the development of the ROD, the document that formally selects the remedial alternative or remedy for a specific site.

In September 1998, the Navy and the regulatory agencies determined that two separate RODs would be developed, one for Sites 2 and 17 and one for Sites 3 and 5. The Navy and the regulatory agencies concurred on the final Interim ROD for landfill caps at Sites 2 and 17 in April 2000. (A final ROD for groundwater at Site 2 has yet to be developed.) Construction of landfill caps and associated components of the remedy is nearly complete at Site 2. A full-scale effort at Site 17 is anticipated to begin in summer 2007.

The draft ROD for Sites 3 and 5 was issued for regulatory agency review in March 1999 (SWDIV 1999). However, the draft ROD was not finalized, primarily due to the need to incorporate findings from the radiological surveys conducted at Sites 3 and 5. In addition, supplemental investigations were conducted as a data gathering step for the anticipated landfill cap remedy. This resulted in redefined waste boundaries and revised estimates of the volumes of waste at Sites 3 and 5. Subsequently, an FS Addendum and a revised PP for Sites 3 and 5 were issued for public comment. A public meeting presenting the PP and remedial alternatives was held on 31 January 2007 to formally describe the Navy's preferred remedy for Sites 3 and 5 and to obtain public comments.

Community members and local governmental agencies have also participated in planning for the reuse of former MCAS El Toro through development of the Community Reuse Plan (MCAS El Toro

Local Redevelopment Agency 1996). Following operational closure of the Station in 1999, the Navy finalized an EIR/EIS in March 2002 to evaluate several alternatives for reuse of the former Station. However, with passage in 2002 of voter initiative "Measure W," reuse of the former Station was designated as nonaviation and recreational, with limited development intensities. In November 2003, the City of Irvine annexed the former Station property and approved a conceptual reuse plan titled the "Orange County Great Park." This plan calls for mixed reuse with residential property. In July 2005, the Navy completed the process of conveying portions of the former Station through public sale to private developers. However, portions of the property, including Site 3 (located in Carve-out II-D) and Site 5 (located in Carve-out II-H), have been leased to the developer in accordance with the FOSL (DON 2004a) and LIFOC (DON 2005b) pending the completion of ongoing environmental investigation and/or response actions. Based on the Orange County Great Park Plan, Site 3 is located in an area designated as a riparian corridor, and Site 5 is located in an area designated as open space.

3.1 RESTORATION ADVISORY BOARD

In 1994, individuals from local communities began to play an increasingly significant role in the environmental restoration process with the establishment of the RAB. Original membership in the RAB, which was solicited by the Navy through paid newspaper notices, exceeded 50 individuals including business and homeowners' representatives, interested residents, local elected officials, and regulatory agency staff.

3.1.1 Current RAB Information

Currently, the RAB is composed of 20 members. Nine members are community members or private citizens, and 11 members are representatives from various government agencies. RAB meetings occur every 2 months, are open to the public, and include interested representatives from the Navy, city and county offices, water districts, and regulatory agencies. Meetings are scheduled for the last Wednesday of the month beginning in January each year and are held in the evenings (after normal working hours) from 6:30 to 9:00 p.m. at the Irvine City Hall, Conference and Training Center. Several RAB members have taken information from the regular meetings back to the groups they represent, thus contributing to an increased awareness of the IRP process. In addition, members of the public can contact RAB members to obtain information or express concerns to be discussed at subsequent RAB meetings.

Copies of the RAB meeting minutes are available at the former MCAS El Toro Information Repository, located at the Heritage Park Regional Library in Irvine, California, and at the BRAC Office located in Building 307 at the former Station. RAB meeting minutes are also located on the Navy's NAVFAC Southwest environmental web page at the following Internet address:

http://www.navybracpmo.mil

3.1.2 Landfill Presentations at RAB and Public Meetings

The four inactive landfills at former MCAS El Toro, Sites 2 and 17 and Sites 3 and 5, have been a key topic for presentations at numerous RAB meetings. Table 3-1 describes various landfill presentations and discussions as well as key announcements covered at 41 RAB meetings from July 1995 through January 2007. After September 1998, information presented is pertinent only to Sites 3 and 5.

Early technical presentations focused on the landfill presumptive remedy approach, the RI, and preliminary findings from field activities for all four landfill sites. Interim removal actions and maintenance activities were also covered. FSs concentrating on development and evaluation of remedial alternatives were presented to RAB members in later meetings. Another key topic, ICs, was also covered at this time. Navy representatives made presentations and held detailed discussions at two RAB subcommittee meetings that focused on cost comparisons of alternatives, in particular, clean closure and landfill consolidation. Copies of all presentation handouts were provided to RAB members. The public meeting that covered the PP for all four sites was held on 24 June 1998.

After September 1998, presentations focused on Sites 3 and 5. Key topics covered included the FS Addendum, the radiological surveys and the release report for these sites, landfill gas investigations, and supplemental investigations and results pertaining to trenching and related efforts to better define waste boundaries and types and quantities of disposed wastes. ICs were also discussed. The public meeting for presentation of the revised PP was held on 31 January 2007.

3.2 PUBLIC MAILINGS

Public mailings, including information updates, fact sheets, and PPs, have been used to assure an even broader dissemination of information within the local community. The first information update announcing the IRP process at MCAS El Toro was delivered in November 1991 to residents of communities surrounding MCAS El Toro. This update was also mailed to city, state, and federal officials and elected office holders; state and local environmental and health agencies; local groups; and individuals identified in the Community Relations Plan. Subsequent updates and fact sheets were mailed to the community as significant remediation milestones were met (Table 3-2). These publications included information on the status of site investigations, the upcoming remedy selection process, ways the public could participate in the investigation and remediation of former MCAS El Toro, and the availability of the former MCAS El Toro Administrative Record file.

PPs are documents of foremost importance to the community. They provide concise and understandable summaries and evaluations of remedial alternatives proposed for a site or group of sites. Specifically, these fact-sheet style documents describe each alternative, present evaluations of each alternative against nine evaluation criteria, and identify the Navy's preferred alternative. This document is issued to the public just prior to the beginning of a public comment period to provide information and solicit public input on the potential remedial options that were evaluated in detail in the FS. Once the public

comment period closes, the comments are compiled, reviewed by the Navy and regulatory agencies, and used by the Navy to refine the remedial action presented in RODs. Responses to public comments are provided in Responsiveness Summaries that are included in the final RODs.

Currently, updates, fact sheets, and PPs are mailed to over 500 households, businesses, public officials, and agencies that have expressed an interest in being regularly informed on environmental cleanup issues at the former Station. Table 3-2 lists the fact sheets and PPs that have been produced and disseminated to the community to date.

3.3 COMMUNITY PARTICIPATION FOR LANDFILL SITES

The focal point of community participation at IRP sites is the public review of RI and FS reports and corresponding PPs. This participation includes attending site-specific public meetings and providing public comments at the meetings or in writing during specified public comment periods.

3.3.1 1998 Proposed Plan and Public Meeting – Sites 2, 3, 5, and 17

The draft final RI and FS Reports for OU-2B and OU-2C were released to the public in September 1997. The initial PP for Sites 2, 3, 5, and 17 was issued in June 1998. These documents were made available to the public at the information repository maintained at the Heritage Park Regional Library in Irvine, California. The notice of availability for these documents was published in the *Orange County Register* and the *Los Angeles Times (Orange County Edition)* 1 week before the start of the PP public comment period. The public notices also announced the availability of the Administrative Record file for review. The Administrative Record file includes all documents that lead up to decision-making performed by the Navy and the regulatory agencies in the selection of a final remedy that is presented in the ROD. The complete Administrative Record file is available at NAVFAC Southwest in San Diego. A duplicate file is housed in the BRAC Office in Building 307 at former MCAS El Toro. A partial record file is available for review at the information repository located at the Heritage Park Regional Library in the City of Irvine. The information repository also contains a complete index of the Administrative Record file, along with information about how to access the complete file in the BRAC Office at former MCAS El Toro. The PP was also distributed to more than 1,800 recipients listed on the former MCAS El Toro project community relations mailing list.

The public comment period for the PP for OU-2B and OU-2C was held from 15 May to 13 July 1998. In addition, a public meeting was held on 18 June 1998. This meeting was announced in the *Orange County Register* and *Los Angeles Times (Orange County Edition)* on 11 June 1998. Media alerts issued by the BRAC Public Affairs Officer were also used to notify reporters that the public was invited to the meeting and to encourage the reporters to attend and publicize the event. The BRAC Public Affairs Officer also met with reporters to brief them on the PP. Subsequently, the *Orange County Register* and the *Los Angeles Times* published articles on the landfills, FSs, and PP. These articles also announced the date, time, and location of the public meeting. At the public meeting, representatives of the Navy, former MCAS El Toro, and regulatory agencies answered

questions about site conditions and the remedial alternatives under consideration; a court reporter recorded the presentations and public comments.

3.3.2 2007 Proposed Plan and Public Meeting – Sites 3 and 5

The FS Addendum for Sites 3 and 5 was released to the public in December 2006. The 1998 PP was revised for these two sites and was issued in January 2007. Both documents were made available for public review at the information repository and the Administrative Record file at the BRAC Office at former MCAS El Toro and at NAVFAC Southwest in San Diego. The notice of availability of these documents and the announcement of the public comment period were published in the *Orange County Register* and *Los Angeles Times (Orange County Edition)* on 25 January 2007. Both public notices also announced the availability of the Administrative Record file for public review. The 2007 PP was mailed to over 500 recipients listed on the community relations mailing list for former MCAS El Toro.

The public comment period for the revised PP for Sites 3 and 5 was held from 22 January to 21 February 2007. The public meeting was held on 31 January 2007. This meeting was announced in the PP as well as in the *Orange County Register* and *Los Angeles Times (Orange County Edition)* on 25 January 2007. Media alerts issued by the BRAC Public Affairs Officer were also used to notify reporters that the public was invited to the meeting and to encourage the reporters to attend and publicize the event. The BRAC Environmental Coordinator responded to inquiries from the media on the PP. At the public meeting, representatives from the Navy made a presentation that covered the PP and the Navy's preferred remedy and answered questions about site conditions and the remedial alternatives under consideration. A court reporter recorded the presentation and public comments. Responses to comments received on Sites 3 and 5 during this period will be included in the Responsiveness Summary in the final version of this ROD.

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Section 4
SCOPE AND ROLE OF OPERABLE UNIT

Twenty-five IRP sites have been investigated at former MCAS El Toro. Twenty-four of these sites are grouped into six OUs. Site 23 was evaluated in an RFA under the FFA and, as a result, was eliminated as an environmental concern. OU-1 encompasses Site 18 (Regional VOC Groundwater Plume). OU-2 is subdivided into OU-2A, OU-2B, and OU-2C. OU-3 is subdivided into OU-3A and OU-3B.

OU-2A, which includes Site 24 (VOC Source Area) and Site 25 (Major Drainages), was defined to address the potential sources of regional groundwater contamination. Site 25 was included in OU-2A because it was not known whether the major drainages at former MCAS El Toro contributed to the regional VOC groundwater contamination. After the Phase II RI showed that Site 25 did not contribute to regional groundwater contamination, the site was recommended for no further action and included with several OU-3A sites in a no action ROD that was signed in September 1997 (SWDIV 1997). The vadose zone soil at OU-2A Site 24, defined as the soil interval from the ground surface to the water table, or approximately 85 to 120 feet beneath Site 24, was addressed in a final ROD signed in April 2006 (NAVFAC Southwest 2006). Remediation of groundwater at Site 24 and OU-1 was addressed in a separate final ROD that was signed in June 2002 (SWDIV 2002).

OU-2B encompasses Sites 2 and 17, and OU-2C encompasses Sites 3 and 5 and Anomaly Area 3. Sites 2, 3, 5, and 17 are generally referred to as the landfill sites. Anomaly Area 3 is a former construction debris disposal area and is administratively linked to Site 3 since construction debris from Site 3 was disposed at Anomaly Area 3. Because discussions with the regulatory agencies regarding consolidation of Anomaly Area 3 are ongoing, Anomaly Area 3 will be addressed separately and is not included as part of this remedy. Sites 2 and 17 were addressed in an interim ROD that was issued to the public in April 2000 and signed in July 2000 (SWDIV 2000). The ROD was interim because it presented the selected remedial action only for vadose zone soil at Site 2. Remediation of groundwater at Site 2 will be addressed in a final ROD, which will also summarize the results of a radiological survey conducted at Sites 2 and 17 in August through October 2001. Sites 3 and 5 (OU-2C) are addressed in this ROD.

OU-3 was defined to address the remaining IRP sites at former MCAS El Toro. Of the 13 sites in OU-3A, Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22 were investigated, found to present no unacceptable risks to human health or the environment, and recommended for no action. These sites were addressed along with Site 25 in the signed no action ROD (SWDIV 1997). OU-3A Site 11 was addressed in a ROD that was signed in September 1999 (SWDIV 1999) and in an Explanation of Significant Differences (ESD) that was signed in May 2003. OU-3B Sites 7 and 14 were addressed in a no further action ROD that was signed in June 2001 (SWDIV 2001). OU-3B Site 16 was addressed in a ROD that was signed in July 2003 (SWDIV 2003). The remaining sites at OU-3A (Sites 8 and 12) and OU-3B (Site 1) are currently being evaluated.

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Section 5
SUMMARY OF SITE CHARACTERISTICS

Interpretation of the nature and extent of contamination at Sites 3 and 5 was based on data presented in the Phase II RI Reports (BNI 1997a,b), on results of a radiological survey, and on supplemental landfill investigations conducted in August through December 2002 and March 2004. These reports include the results of air, soil, soil gas, groundwater, sediment, and surface water investigations; exploratory trenching; APHO reviews; and interviews with former MCAS El Toro personnel.

The Phase I RI was conducted during 1992 and 1993; the Phase II RI was conducted during 1995 and 1996. The Phase II investigation consisted of a review of previously gathered data (e.g., interviews, APHOs, soil gas surveys, and previous investigation results) and additional sampling and analyses designed to fill in data gaps from the Phase I investigation and provide information necessary to conduct a baseline human-health risk assessment (HHRA) (at both sites) and an ecological risk assessment (at Site 5). The supplemental landfill investigations conducted in August through December 2002 and March 2004 further demarcated landfill boundaries and waste placement, volume, and thickness limits by trenching and soil sampling.

Characterization of the landfill sites and development of the remedial alternatives were based on a presumptive remedy approach developed by U.S. EPA (1993, 1996). The following sections discuss the presumptive remedy approach, the time period when the landfills were in operation, suspected waste types, a summary of sampling performed during the Phase I and Phase II investigations, supplemental landfill investigations, and site-specific sampling results. A complete discussion of sampling locations and methodologies, analytes reported at each site, and the nature and extent of contamination appears in the Phase II RI Reports for Sites 3 and 5 (BNI 1997a,b), the Predesign Investigation Technical Memorandum (Earth Tech 2005), and in the FS Addendum (Earth Tech 2006).

The Phase I and Phase II RIs showed that several metals were present at elevated concentrations in groundwater. Subsequent to the Phase II RI, a technical evaluation was performed to determine whether the reported concentrations of metals reflect ambient conditions or resulted from historical Station operations. The results of this evaluation are also summarized in this section.

5.1 PRESUMPTIVE REMEDY APPROACH

The RI/FS for Sites 3 and 5 was based on application of the U.S. EPA presumptive remedy for municipal and military landfills (U.S. EPA 1993, 1996). The use of the presumptive remedy allows for expedited closure of municipal landfills by using past experience to streamline investigations and expedite selection of remedial action. Under the presumptive remedy approach, engineered designs are usually used to contain releases of contaminants from landfills to the atmosphere, surface water, and/or groundwater. Such engineered designs may include landfill caps, landfill gas collection systems, surface grading, and/or groundwater treatment systems. Sites 3 and 5 were potential candidates for presumptive remedies because the sites met the U.S. EPA criteria for municipal and military landfills, which require that wastes consist of a large-volume, heterogeneous mixture of municipal, industrial, and hazardous wastes. In addition to the

presumptive remedy approach, closure of these landfills must also meet substantive applicable or relevant and appropriate federal and state requirements for landfills. Therefore, engineered closure designs must incorporate these requirements.

Sampling of the landfills was also based on the presumptive remedy approach. Sampling directly from landfill materials was avoided because landfill contents are typically so heterogeneous that it is not practical to completely characterize their contents. Intrusive sampling through the landfills was also avoided because the borings could serve as a potential conduit for transport of leachate to groundwater. Also, under the presumptive remedy approach, the DON assumed that the landfills would require remediation; therefore, the investigation focused on gathering information that would allow selection of the most appropriate remedy (e.g., delineating the extent of landfilled materials, evaluating grades within the landfill boundary, and determining to what extent media surrounding the landfill had been impacted).

5.2 SITE 3 – ORIGINAL LANDFILL

Site 3 occupies approximately 11 acres and is situated between Irvine Boulevard and North Marine Way. It was the original Station landfill, which was operated as a cut-and-fill disposal facility from 1943 until 1955. Wastes were burned at an incinerator to reduce volume prior to burial. Typical of municipal landfills, Site 3 contains a variety of materials disposed at assorted locations within the landfill. Reportedly, almost any waste generated on the Station may have been disposed at Site 3, including metals, incinerator ash, solvents, normal paint residues, hydraulic fluids, engine coolants, construction debris, oily wastes, municipal solid waste, and various inert solid wastes (Brown and Caldwell 1986).

5.2.1 Landfill Extent

Station maps and blueprints, geophysical surveys, borings, trenching, interviews, APHOs, and results of previous investigations were used to delineate the limits of buried wastes at Site 3. Based on this assessment, the operational landfill portion of Site 3 is shown as Units 1 and 4 on Figure 1-2. Unit 1 was the principal area of Marine Corps landfill operations. This area of approximately 11 acres is located to the east and west of Agua Chinon Wash. Review of APHOs showed that waste disposal occurred sporadically over time at several locations within Unit 1. Approximately 163,500 to 243,000 cubic yards of waste was originally estimated to be contained in this area. Unit 4 is the site of a former incinerator. This unit contains landfill wastes to a depth of approximately 9.5 feet bgs and is estimated to contain approximately 1,110 cubic yards of waste material.

Based on the trenching conducted as a part of supplemental investigations in August through December 2002, approximately 30,000 bank cubic yards of waste was estimated to be contained in Unit 1 at Site 3. This updated volume is an order of magnitude less than the estimate from the RI and FS for Site 3 as presented in the draft ROD (SWDIV 1999). Waste thicknesses observed in the trenches ranged from less than 1 to 18 feet. The existing soil cover thickness ranged from less than 1 to 7 feet. The waste placement boundary at Site 3 was revised inward at Unit 1 west of Agua Chinon Wash, and the

waste boundary east of Agua Chinon Wash was revised outward toward Irvine Boulevard (Figure 2-1). No waste was found northeast of Irvine Boulevard during the supplemental trenching investigation. A large area and two small areas containing waste were found within the previous boundary west of Agua Chinon Wash. Trenching in Unit 1, east of Agua Chinon Wash, confirmed the presence of miscellaneous buried concrete. Due to the previously defined small volume of incinerated waste in Unit 4 of Site 3 (1,110 cubic yards), no delineation was conducted as a part of the preliminary design investigation. However, Unit 4 contains landfill wastes that will be removed and consolidated into the reduced Unit 1 footprint at Waste Area A during implementation of the final remedy for the site. Wastes located at Waste Areas B through F of Unit 1 will also be consolidated into Waste Area A at that time.

Units 2 and 3 were not part of the operational landfill and do not contain buried waste but were included in the Site 3 study area boundary of the Phase II RI. Unit 2 consists of an unlined channel (Agua Chinon Wash), which crosses Unit 1. Unit 2 was included in the FS because erosion in this unit could impact the integrity of landfill wastes in Unit 1. Unit 3 is a solvent spill area of approximately 0.5 acre and does not contain landfill wastes. Unit 3 is not part of the operational landfill, and no chemicals reported there exceeded risk-based concentrations. Therefore, no further action is required for Unit 3.

5.2.2 Site Characterization by Medium

Sampling was used to determine the extent to which media surrounding the Site 3 landfill had been impacted by landfill contents. Table 5-1 lists the sampling performed at Site 3 during the air quality solid waste assessment test (air SWAT) (Strata 1991), the Phase I RI, the Phase II RI, and during supplemental investigations. Sections 5.2.2.1 through 5.2.2.7 summarize sampling and results from the investigation of each medium. Detailed descriptions are found in the RI Report for Site 3 (BNI 1997a) and in the FS Addendum (Earth Tech 2006).

5.2.2.1 AIR

The nature and extent of VOCs in air at Site 3 were evaluated based on data obtained during the air SWAT and Phase II RI. Air sampling performed during the air SWAT included instantaneous air sampling, integrated surface air sampling, and ambient air sampling. Instantaneous air sampling was limited to a single 50,000-square-foot area. Within this zone, no readings greater than the detection limit of 2 ppm_v were reported.

Ambient air sampling was conducted for the air SWAT over 3 days. Analytes reported include methylene chloride and 1,1,1-trichloroethane (TCA). The maximum reported concentrations of these analytes are shown in Table 5-2. The air SWAT also reported methylene chloride in equipment blanks at concentrations of approximately 1 part per billion by volume (ppb_v).

One integrated surface sample was collected during the air SWAT. Total organic compounds as methane was reported at 2.9 ppm_v.

Phase II RI sampling of air included instantaneous air sampling, integrated surface air sampling, ambient air sampling, and isolation flux chamber sampling. During the instantaneous air sampling, no readings of total organic compounds as methane were at levels greater than ambient air (0 to 1.0 ppm_v). In addition to instantaneous surface air sampling at the landfill surface, the C.F.R. (40 C.F.R. §§ 257–258) requires that buildings located above a landfill not have methane levels in excess of 25 percent of the LEL. The LEL for methane is 5 percent or 50,000 ppm_v. The Flight Test Center (Building 746) was tested on 07 December 1995; all readings were at normal ambient air levels measured on that day (0.2 ppm_v).

Three integrated surface air samples were collected during the Phase II RI. No samples exceeded the South Coast Air Quality Management District (SCAQMD) 50-ppm_v total organic compounds screening criteria. Table 5-3 shows VOCs reported in the integrated surface air samples. Table 5-3 also compares the Phase II RI and air SWAT investigation results with median and maximum concentrations published by California Air Resources Board (CARB) (1990). Chloroform, methylene chloride, and 1,1,1-TCA concentrations reported during the Phase II RI exceeded the CARB median values but were well below the CARB maximum values.

Three ambient air samplers were used to collect upwind and downwind samples during the Phase II RI. Table 5-2 compares sampling results from the Phase II RI and the air SWAT against statewide urban average concentrations, annual average concentrations generated from the SCAQMD Anaheim air toxics monitoring station, and ambient air sampling results of the 1990 CARB study. As Table 5-2 shows, the reported concentrations of organic compounds measured in ambient air at Site 3 were of the same order of magnitude as those observed in urban areas. Therefore, the Phase II RI concluded that the Site 3 landfill is not impacting the ambient air quality of the surrounding area.

Four isolation flux chamber samples were taken at Site 3 on 10 January 1996. Reported concentrations of all four flux chamber samples were below the detection limits of the 39 targeted VOCs.

Figure 5-1 illustrates the results of flux chamber, ambient air, and integrated surface sampling at Site 3.

5.2.2.2 SOIL GAS

The nature and extent of VOCs reported in shallow soil gas were evaluated based on data obtained during the air SWAT, Phase II RI, and supplemental investigations conducted in August through November 2002 and March 2004. Results are discussed by unit and are illustrated on Figure 5-2.

Unit 1

During the air SWAT, five shallow soil gas samples were collected at approximately 8 feet bgs from five locations. During the Phase II RI, 48 shallow soil gas samples were collected from 36 Unit 1 locations at approximately 15 feet bgs. Samples collected during the air SWAT were analyzed by a fixed-base laboratory for ten compounds:

benzene, carbon tetrachloride, chloroform, 1,2-dichloroethane, 1,2-dibromoethane, methylene chloride, tetrachloroethene (PCE), 1,1,1-TCA, TCE, and vinyl chloride. Of these ten VOCs, four were reported above detection limits: chloroform, methylene chloride, PCE, and TCE. The Phase II RI shallow soil gas samples were analyzed for 24 compounds using an on-site mobile laboratory. Phase II RI samples were not analyzed for methane. Table 5-4 lists the analytes reported in soil gas at Site 3, Unit 1, their frequency of detection, and their range of reported concentrations. None of the total VOCs reported at any Unit 1 soil gas sampling location exceeded the hot spot criterion of 300 μg/L.

Phase II RI and air SWAT soil gas concentrations were compared with the results from a CARB soil gas survey of 340 landfills (Table 5-5). As shown in this table, concentrations of chloroform and TCE were above the CARB median values but were below the CARB maximum values for these compounds.

Three perimeter landfill gas samples were collected from Unit 1 during the air SWAT. These samples were analyzed by a fixed-base laboratory for total organic compounds as methane. Twelve landfill gas samples were collected from four sampling locations during the Phase II RI and were analyzed for VOCs and methane. Methane was reported in each of the three air SWAT gas samples at concentrations from 1.7 to 2.5 ppm_v and in each of the Phase II landfill gas samples at concentrations from 2 to 19 ppm_v. None of the reported concentrations exceeded the LEL for methane.

During the supplemental investigations conducted in August through November 2002, four rounds of perimeter soil gas sampling were conducted at four wells at Unit 1, in accordance with the final Work Plan, Predesign Investigation (Earth Tech 2002). Samples were collected from both the shallow- and deep-screened intervals of the soil gas monitoring wells. Detailed perimeter soil gas sampling results are provided in the final Predesign Investigation Technical Memorandum (Earth Tech 2005). In addition, a supplemental landfill soil gas investigation was conducted at Unit 1 in March 2004. The objective of the 2004 investigation was to collect data to support the development of appropriate levels of ECs and ICs. A total of 92 soil gas samples were collected from 34 shallow (7 feet bgs) and deep (15 feet bgs) locations within the waste placement boundary. The samples were analyzed for methane using U.S. EPA Method 8015-M. The locations of the Unit 1 wells are shown on Figure 2-1.

The August through November 2002 results indicated low concentrations of VOCs were present in the Unit 1 perimeter soil gas monitoring wells. The maximum calculated value for total VOCs in the Unit 1 wells was 102 μg/L, which is less than the screening level of 300 μg/L established in the RI Report. Very low levels of methane were also reported in the Unit 1 perimeter wells. The maximum methane concentration detected was 0.00014 percent (1.4 parts ppm_v), which is less than the Cal. Code Regs. tit. 27 methane limit of 50,000 ppm_v at the landfill boundary.

The March 2004 soil gas results at Unit 1 indicated methane concentrations ranging between 0.0004 and 0.0076 percent (4 and 76 ppm_v). Hydrogen sulfide concentrations at Unit 1 ranged from the reporting limit of 0.00001 percent (0.1 ppm_v) to a maximum of 0.0002 percent (2.0 ppm_v). Methane results for Unit 1 are illustrated on Figure 2-2.

Because the analyte concentrations were below their respective cleanup levels, the data sets were not tabulated.

Unit 2

Four soil gas samples were collected from four locations at Unit 2 during the Phase II RI. Samples were collected at depths from 11.5 to 15 feet bgs and were analyzed for VOCs using an on-site mobile laboratory. Benzene, toluene, ethylbenzene, and m- and p-xylenes, and o-xylene were reported at one location at concentrations of 13, 36, 59, 40, and 60 µg/L, respectively. None of the total VOCs exceeded the hot spot criterion of 300 µg/L.

Unit 3

Fifty-two soil gas samples were collected from 50 locations in Unit 3. 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) was the only VOC reported in these samples. The reported concentrations ranged from 1 to 3 µg/L, well below the hot spot criterion of 300 µg/L.

Unit 4

Soil gas samples were collected from five locations in Unit 4. Freon 113 was reported at three locations at concentrations ranging from 3 to 9 µg/L. PCE was reported at two locations at concentrations ranging from 2 to 4 µg/L. No soil gas hot spots were identified.

5.2.2.3 RADIATION

On-site radiological characterization and laboratory analyses were conducted from June through November 2001 and during March 2004. Results of the surveys performed were analyzed as part of the Radiological Survey Plan and Amendment, along with the evaluation and assessment of potential radiological releases. Detailed descriptions of the survey activities, results, analyses, and recommendations are presented in the Radiological Release Report (Weston 2006) and are summarized in Sections 2.1.3 and 5.2.2.4 in this ROD.

5.2.2.4 SOIL

Units 1, 3, and 4 were evaluated for potential soil contamination at Site 3. Shallow (0 to 10 feet bgs) and subsurface (greater than 10 feet bgs) soil samples were collected within each unit. The results are discussed by unit and illustrated on Figures 5-3 and 5-4.

Unit 1

Shallow soil samples were collected during the Phase I RI. Six samples were collected at ground surface. Two additional samples were collected at 5 and 10 feet bgs. VOCs, petroleum hydrocarbons, pesticides, herbicides, and metals were reported in one or more shallow soil samples. Table 5-6 lists the analytes reported, their frequency of detection, and their range of reported concentrations.

During the Phase I RI, 34 subsurface soil samples were collected from monitoring well borings. An additional sample was collected during the Phase II RI from each of three lysimeter borings. Subsurface soil samples had detectable concentrations of VOCs, petroleum hydrocarbons, SVOCs, pesticides, herbicides, metals, and gross alpha and beta as shown in Table 5-7.

During the 2001 and 2004 radiological characterization surveys, 22 initial soil samples were collected from the areas with elevated survey readings in contiguous homogeneous locations that were representative of several areas in question (Weston 2006). Subsequent to the sampling of areas with elevated readings, nine additional random-systematically located samples were collected to assure that sufficient soil samples were analyzed to fully characterize the site. The Ra-226 activity in the samples ranged from 0.64 to 2.09 pCi/g. The survey and sampling data from the site resulted in an average Ra-226 activity of 1.45 pCi/g, which was less than the established site-specific release limit of 2.05 pCi/g. Figure 5-4 illustrates the surface soil sampling locations and Ra-226 activity. Table 5-6 summarizes the Ra-226 data as a function of soil sample data.

Based on the average soil sampling results, dose modeling was performed using the NRC and DOE RESRAD Program, Version 6.3. Although the proposed future land use at Site 3 is not residential, dose modeling was performed using conservative exposure pathways for a resident farmer scenario with the exception of inhalation of radon and its decay products. For a residual Ra-226 soil activity of 0.4 pCi/g (1.45 pCi/g minus 1.05 pCi/g [naturally occurring background activity of Ra-226 at former MCAS El Toro]), the RESRAD program yielded a maximum dose of 6.1 mrem/y at 50 years, which is less than the dose limit of 25 mrem/y specified in 10 C.F.R. pt. 20, subpt. E. Based on the average incremental Ra-226 activity of 0.4 pCi/g, the assessed risk to a residential receptor, using PRGs for Superfund risk electronic calculator (U.S. EPA 2006), is 3.22×10^{-5}, which is within the NCP risk management range of 10^{-6} to 10^{-4}.

Based on the combination of survey data, soil sample analytical results, and dose and risk calculations, it was concluded that Ra-226 activity in surface soil (up to 18 inches bgs) was within background, does not pose unacceptable risk, and does not result in a dose greater than 25 mrem/y to a hypothetical residential receptor at Site 3. A "Site Evaluation Accomplished" recommendation was made for radionuclides at Site 3, and the site was recommended for radiological release for the installation and implementation of ICs specified for the site in the final Radiological Release Report (Weston 2006), which was reviewed and concurred on by the FFA signatories, including U.S. EPA, RWQCB, and DTSC (with technical support from DPH).

Unit 3

Analytical results for shallow soil samples collected during the RFA and the Phase II RI were evaluated to assess the impact of the solvent spill on shallow soils at Unit 3. Shallow soil samples included eight samples collected during the RFA and four samples collected during the Phase II RI. The RFA samples were collected from four locations at 5 and 10 feet bgs. Phase II samples were collected at 0.5, 4, and 9 feet bgs at one sampling location and at 0.5 foot bgs at another sampling location. Analytes reported in

shallow soil at Unit 3 include VOCs, petroleum hydrocarbons, SVOCs, herbicides, and metals. Table 5-8 lists the analytes reported in Unit 3 shallow soil samples, their respective frequency of detection, and their range of reported concentrations.

Twelve subsurface soil samples were collected from four locations at Unit 3 during the RFA. The samples were collected at 15, 20, and 25 feet bgs. Subsurface soil samples were not collected during the Phase II RI. Analytes reported during the RFA include VOCs, petroleum hydrocarbons, SVOCs, and metals. Table 5-9 presents the analytes reported, their respective frequency of detection, and their range of reported concentrations.

Based on RFA and Phase II RI soil sampling results, Unit 3 contained no landfill wastes, and reported analytes did not exceed risk-based concentrations. Elevated levels of petroleum hydrocarbons reported in shallow soil were attributed to a probable motor oil or waste oil spill, but low concentrations of only a few VOCs in soil and soil gas (Section 5.2.2.2) did not indicate a significant solvent release at this unit. Therefore, no action was recommended at Unit 3.

Unit 4

Analytical results for shallow soil samples collected from the Former Incinerator Area during the RFA, as well as for shallow and subsurface soil samples collected during the Phase II RI, were evaluated to assess the potential impact of the former incinerator operation on Unit 4 soils.

Five shallow soil samples were collected during the RFA from three locations. Samples were collected at 2 and 5 feet bgs from two locations, and at 2 feet bgs from the third location. Seven additional samples were collected from four locations during the Phase II RI. Phase II RI samples were collected at 1, 4, and 9 feet bgs from one location, at 1 and 4 feet bgs from a second location, at 1 foot bgs from a third location, and at 10 feet bgs from a fourth location. Analytes reported include VOCs, petroleum hydrocarbons, SVOCs, pesticides, herbicides, dioxins and dibenzofurans, metals, and radionuclides. Table 5-10 lists the analytes reported in shallow soil, their respective frequency of detection, and their range of reported concentrations.

Ten subsurface soil samples were collected from three Unit 4 sampling locations during the Phase II RI. Seven samples were collected from one location at depths of 15, 20.5, and 30.5 feet bgs. Samples were collected at 15.5 and 20.5 feet bgs from a second sampling location, and at 15 feet bgs from a third location. Analytes reported in one or more of the subsurface soil locations include VOCs, SVOCs, metals, dioxins and dibenzofurans, and radionuclides. Table 5-11 lists the analytes reported in subsurface soil, their respective frequency of detection, and their range of reported concentrations.

RFA and Phase II RI soil sampling results, particularly those for SVOCs and dioxins and dibenzofurans, confirmed the use of Unit 4 for waste incineration, as well as the presence of landfill wastes to a depth of approximately 10 feet bgs at this unit. On this basis, Unit 4 was recommended for further action.

5.2.2.5 GROUNDWATER

Site 3 monitoring wells were sampled twice during the Phase I RI and once during the Phase II RI. Analytes reported in groundwater include VOCs, petroleum hydrocarbons, SVOCs, pesticides, herbicides, metals, and radionuclides. Table 5-12 lists the analytes reported during the RIs, their frequency of detection, and their range of reported concentrations.

Figure 5-5 illustrates the results of the most recent groundwater sampling at Site 3.

VOCs reported include benzene, chloroform, chloromethane, 2-hexanone, methylene chloride, PCE, TCE, and xylenes. Chloroform was the most frequently reported VOC, with a maximum reported concentration of 1 μg/L. Benzene exhibited the highest concentration of the VOCs (20 μg/L). However, the RI Report concluded that based on the location where benzene was reported, this analyte originated from Tank Farm 5 and not from the landfill. Similarly, TCE and PCE were reported in the upgradient well for Site 3. Therefore, the RI Report concluded that the presence of these analytes was not attributable to the Site 3 landfill.

5.2.2.6 SEDIMENT

Sediment samples were collected and analyzed during the Phase I and Phase II RIs to evaluate whether the contents of Unit 1 are impacting sediments in Agua Chinon Wash (Unit 2). Seven sediment samples were collected from Agua Chinon Wash during the Phase I RI. Samples were collected at depths of 0 and 2 feet bgs from two sampling locations and at 0, 2, and 4 feet bgs from a third sampling location. Sediment samples were collected from three different locations during the Phase II RI at a uniform depth of 0.5 foot bgs. Table 5-13 lists the analytes reported in sediment samples, their respective frequency of detection, and their range of reported concentrations. Figure 5-6 illustrates the results of sediment sampling.

The Phase II RI Report analyzed the locations and concentrations of analytes in sediment samples and concluded that local releases were probably responsible for the VOCs, SVOCs, and pesticides. Total recoverable petroleum hydrocarbons and motor oil were likely due to runoff from local streets. Metal concentrations did not have an apparent trend when upstream and downstream concentrations were compared.

5.2.2.7 SURFACE WATER

Surface water samples were collected following major storm events during the Phase I and Phase II RIs. Analytes reported in surface water include VOCs, petroleum hydrocarbons, SVOCs, pesticides, and metals. The RI Reports analyzed the locations and concentrations of these analytes and concluded that VOCs and total petroleum hydrocarbons were probably derived from local streets. SVOC concentrations were near detection limits and did not represent significant releases from landfill materials. Pesticides were reported at higher concentrations upstream, suggesting that the source is upstream of the site. Table 5-14 lists the analytes reported in surface water, their

respective frequency of detection, and their range of reported concentrations. Figure 5-7 illustrates the results of surface water sampling.

5.3 SITE 5 – PERIMETER ROAD LANDFILL

Site 5 is located adjacent to Perimeter Road and occupies approximately 1.8 acres. The Site 5 landfill operation was active from about 1955 until the late 1960s. The landfill was operated as a trench disposal facility where wastes were typically burned to reduce volume prior to burial. Typical of municipal and military landfills, Site 5 contains a variety of materials disposed at various locations within the landfill. Reportedly, almost any waste generated on the Station may have been disposed at Site 5, including burnable trash, municipal solid waste, cleaning fluids, scrap metals, paint residues, and unspecified fuels, oils, and/or solvents (Brown and Caldwell 1986).

5.3.1 Landfill Extent

Visual mapping, geophysical surveys, borings, trenching, interviews, and APHOs were used to delineate the limits of buried and exposed wastes at Site 5. An APHO showing the site in operation with what appears to be trucks inside the trenches was particularly useful in this delineation. Based on this assessment, the operational landfill at Site 5 had a lateral extent of approximately 60 by 1,200 feet and a depth of approximately 15 feet bgs. The volume of waste was estimated to be approximately 40,000 cubic yards in the landfill trench. At the time of the Phase II RI, the operational landfill was overlain by an area used to store soils derived from the Phase II RI. This area contained approximately 2,000 cubic yards of investigation-derived soils. For the purposes of the Phase II RI, the operational landfill was designated as Unit 1. The area containing investigation-derived soils was designated as Unit 2. In 1997, subsequent to the Phase II RI, the Unit 2 investigation-derived soils were graded over the landfill trench.

The results of the supplemental investigations indicate approximately 18,000 bank cubic yards of waste is contained within Site 5. This volume is approximately 60 percent less than the initial estimate of 40,000 bank cubic yards of waste used in the RI and FS as presented in the draft ROD (SWDIV 1999). As a result, the waste placement boundary at Site 5 was revised slightly outward on the north side and slightly inward on all other sides. Based on the findings of the trenching investigation, the thickness of waste ranges from less than 1 foot to a maximum of 15 feet and the existing soil cover thickness ranges from less than 1 foot to 8 feet. Figure 2-4 illustrates the revised landfill boundary.

5.3.2 Site Characterization by Medium

Sampling was used to determine the extent to which media surrounding the Site 5 landfill had been impacted by landfill contents. Table 5-15 depicts the types of sampling performed at Site 5 during the air SWAT, the Phase I RI, and the Phase II RI. The remainder of this section describes the sampling performed and summarizes the results of the investigation of each medium. Detailed results are found in the RI Report for Site 5 (BNI 1997b) and the FS Addendum (Earth Tech 2006).

5.3.2.1 AIR

The nature and extent of VOCs in air were evaluated based on data obtained during the air SWAT and Phase II RI. Air sampling performed during the air SWAT included instantaneous air sampling, integrated surface air sampling, and ambient air sampling. Instantaneous air sampling was limited to a single 50,000-square-foot area. Within this zone, all reported readings were less than the 2-ppm_v detection limit. A single integrated surface air sample was collected during the air SWAT investigation. A concentration of 2.0 ppm_v total organic compounds as methane was reported. Ambient air sampling was conducted for the air SWAT over 3 days. Concentrations of methylene chloride and 1,1,1-TCA were detected in both upwind and downwind samples. Table 5-16 lists the maximum reported concentrations of these VOCs. Methylene chloride was also reported at 1 ppb_v in equipment blanks.

Phase II RI sampling of air included instantaneous air sampling, integrated surface air sampling, ambient air sampling, and isolation flux chamber sampling. Instantaneous air sampling indicated no methane levels greater than the normal ambient air level (0 to 1 ppm_v) above areas of the landfill. Three integrated surface air samples were collected during the Phase II RI. No samples exceeded the SCAQMD 50-ppm_v screening criteria for total organic compounds. Two samples were sent to a fixed-base laboratory for further analysis. Dichlorodifluoromethane (Freon 12), benzene, m- and p-xylenes, and 1,2,4-trimethylbenzene were reported in both integrated samples. Chloromethane was also reported in one of the two samples. The maximum concentrations of these VOCs were compared with data published by the CARB (Table 5-17). The benzene concentrations reported at Site 5 (0.9 and 1.2 ppb_v) were less than the CARB study median of 2 ppb_v (the detection limit). Freon 12, chloromethane, m- and p-xylenes, and 1,2,4-trimethylbenzene were not reported at the landfills included in the CARB study.

Three ambient air samplers were used to collect one upwind sample and two downwind samples during the Phase II RI. Table 5-16 compares the maximum concentrations reported during the Phase II RI and the air SWAT with statewide urban average concentrations, annual average concentrations generated from the SCAQMD Anaheim air toxics monitoring station, and ambient air sampling results of the 1990 CARB study. As Table 5-16 shows, the concentrations of organic compounds measured in ambient air at Site 5 were of the same order of magnitude as those observed in urban areas. From these data, the Phase II RI concluded that the Site 5 landfill is not impacting the ambient air quality of the surrounding area.

Six isolation flux chamber samples were collected from Site 5 on 09 January 1996. Vinyl chloride, chloroform, TCE, and 1,2,4-trichlorobenzene were reported at concentrations near the detection limits for these compounds.

Figure 5-8 illustrates the results of flux chamber, ambient air, and integrated surface sampling at Site 5.

5.3.2.2 SOIL GAS

The nature and extent of VOCs reported in shallow soil gas were evaluated based on data obtained during the air SWAT, Phase II RI, and the supplemental investigations conducted in August through November 2002 and March 2004. Results are discussed by unit and are illustrated on Figure 5-3.

During the air SWAT, five shallow soil gas samples were collected at approximately 8 feet bgs from five locations. During the Phase II RI, 21 additional soil gas samples were collected at 8 to 15 feet bgs from 16 locations. Samples collected during the air SWAT were analyzed at a fixed-base laboratory for benzene, carbon tetrachloride, chloroform, 1,2-dibromomethane, 1,2-dichloroethane, methylene chloride, PCE, 1,1,1-TCA, TCE, and vinyl chloride. Methylene chloride was reported in each of the five shallow soil gas samples and in an equipment blank at concentrations ranging from 0.35 to 1.02 μg/L. TCE was reported in two soil gas samples at concentrations of 0.24 and 14.9 μg/L. PCE was reported in two soil gas samples at concentrations of 0.41 and 0.49 μg/L. Table 5-18 lists the analytes reported in soil gas at Site 5, their frequency of detection, and their range of reported concentrations. The Phase II RI shallow soil gas samples were analyzed for 24 analytes using an on-site laboratory. Freon 113 and TCE were each reported at 3 of the 16 sampling locations at concentrations ranging from 1 to 2 μg/L (Freon 113) and 5 to 10 μg/L (TCE). Table 5-19 lists the Phase II RI maximum values and compares them with the median and maximum values from the CARB study. None of the VOCs reported at any Site 5 soil gas sampling location exceeded the hot spot criterion of 300 μg/L.

Soil gas concentrations reported during the air SWAT and Phase II RI were also compared with CARB study data for 340 landfills. The results are presented in Table 5-19. As shown in this table, the concentration of TCE was above the CARB median value but below the CARB maximum value.

Three perimeter gas migration samples were collected from three sampling stations inside the perimeter of the landfill at Site 5 during the air SWAT. The samples were analyzed by a fixed-base laboratory for total organic compounds as methane. Methane was not reported in these samples.

Eleven landfill gas migration samples were collected from three sampling locations during the Phase II RI. Samples were collected at 10, 25, 40, 60, and 80 feet bgs from one sampling location and at 10, 25, and 40 feet bgs from the other two sampling locations. Phase II RI samples were analyzed for VOCs and methane by an on-site mobile laboratory. Methane was reported in 9 of the 11 landfill gas migration samples at concentrations from 1 to 25 ppm_v (0.7 to 16.8 μg/L). These concentrations were well below the LEL of 50,000 ppm_v for methane. Based on these data, the Phase II RI concluded that methane does not appear to be migrating beyond the perimeter of the landfill at concentrations that exceed the Cal. Code Regs. tit. 27 threshold. Table 5-20 lists the analytes reported in perimeter landfill gas migration samples at Site 5, their frequency of detection, and their range of reported concentrations.

Ten deep soil gas samples were obtained from three lysimeter soil gas probes. Toluene (15 µg/L) and TCE (5 µg/L) were reported in a sample collected at 81.4 feet bgs. Toluene was also reported at 6 µg/L in a sample collected at 84 feet bgs. Figure 5-9 illustrates the results of soil gas sampling at Site 5.

During the supplemental investigations conducted in August through November 2002, four rounds of perimeter soil gas sampling were conducted at four wells and three lysimeters at Site 5, in accordance with the final Work Plan, Predesign Investigation (Earth Tech 2002). Samples were collected from both the shallow- and deep-screened intervals of the soil gas monitoring wells. Detailed perimeter soil gas sampling results are provided in the final Predesign Investigation Technical Memorandum (Earth Tech 2005). At Site 5, the supplemental landfill gas investigation conducted in March 2004 included the collection of 39 soil gas samples from 11 shallow (7 feet bgs) and deep (15 feet bgs) locations at Site 5 within the waste placement boundary. The samples were analyzed for methane using U.S. EPA Method 8015-M. The locations of the Site 5 wells are shown on Figure 2-2.

The August through November 2002 results indicated that low concentrations of VOCs were found in the Site 5 perimeter lysimeters and soil gas wells. The maximum calculated values for total VOCs in the Site 5 lysimeters and soil gas wells were 20 and 4.3 µg/L, respectively, less than the screening criterion of 300 µg/L. Methane was not reported in samples at concentrations greater than the reporting limit in any of the Site 5 lysimeters. Very low levels of methane were reported in the Site 5 soil gas monitoring wells. The maximum methane concentration detected in the wells was 0.0013 percent (13 ppm_v), which is less than the Cal. Code Regs. tit. 27 methane limit of 50,000 ppm_v at the landfill boundary.

Methane concentrations collected from the March 2004 investigation at Site 5 ranged from the reporting limit of 0.0002 percent (2 ppm_v) to a maximum of 0.013 percent (130 ppm_v). Hydrogen sulfide concentrations at Site 5 ranged from the reporting limit of 0.00001 (0.1 ppm_v) to 0.00004 percent (0.4 ppm_v). The methane results for Site 5 are illustrated on Figure 2-3.

5.3.2.3 RADIATION

On-site radiological survey and laboratory analyses were conducted from June through November 2001 and during March 2004. Results of the surveys were analyzed as part of the Radiological Survey Plan and Amendment, along with the evaluation and assessment of potential radiological releases. Detailed descriptions of the survey activities, results, analyses, and recommendations are presented in the Radiological Release Report (Weston 2006) and are summarized in Sections 2.1.3 and 5.3.2.4 of this ROD. The survey area for Site 5 included APHO 46, which was recommended for unrestricted radiological release; unrestricted radiological release was obtained from DHS in a letter dated 06 September 2006 (Weston 2006).

5.3.2.4 SOIL

Soil samples were collected during the Phase I and Phase II RIs from shallow soil (0 to 10 feet bgs) and subsurface soil (greater than 10 feet bgs). During the Phase I RI,

shallow soil samples were collected from five locations. Nine samples, plus one field duplicate were collected at the ground surface. Two additional samples were collected at 5 and 10 feet bgs from a deep soil boring. During the Phase II RI, one shallow soil sample was collected at 6.5 feet bgs. Shallow soil samples collected during the Phase I and Phase II RIs had detectable concentrations of VOCs, petroleum hydrocarbons, pesticides, herbicides, and metals exceeding former MCAS El Toro background concentrations. These analytes occurred sporadically and at low concentrations. Table 5-21 lists the analytes reported in shallow soil, their frequency of detection, and their range of reported concentrations.

A total of 16 subsurface soil samples were collected during the Phase I RI from four monitoring well borings. Ten additional subsurface soil samples were collected during the Phase II RI from a new monitoring well boring and each of two lysimeter borings. Analytes reported above detection limits include VOCs, petroleum hydrocarbons, SVOCs, herbicides, dibenzofurans, metals, and radionuclides. In general, analytes were reported sporadically at low concentrations. Table 5-22 lists the analytes reported in subsurface soil samples collected during the Phase I and Phase II RIs, their respective frequency of detection, and their range of reported concentrations. Figures 5-10 and 5-11 illustrate the results of soil sampling at Site 5.

Based on the results of the 2001 and 2004 radiological survey results, five soil samples were initially collected from areas within Site 5 that exhibited elevated readings in contiguous, homogeneous locations that were representative of several areas in question (Weston 2006). Subsequent to the sampling of areas exhibiting elevated readings, five additional random-systematic judgmentally located samples were collected to assure that sufficient soil samples were analyzed to fully characterize the site. The Ra-226 activity in the samples ranged from 0.76 to 2.97 pCi/g (the site-specific release limit is 2.05 pCi/g). The survey and sampling data from the site resulted in an average Ra-226 activity of 1.43 pCi/g. Table 5-21 summarizes the results.

Based on the average soil sampling results, dose modeling was performed using the NRC and DOE RESRAD Program, Version 6.3. Although the proposed future land use at Site 5 is not residential, dose modeling was performed using conservative exposure pathways for a resident farmer scenario with an exception of inhalation of radon and its decay products. For a residual Ra-226 soil activity of 0.38 pCi/g (1.43 pCi/g minus 1.05 pCi/g [background]), the RESRAD program yielded a maximum dose of 5.8 mrem/y at 50.1 years, which is less than the dose limit of 25 mrem/y specified in 10 C.F.R. pt. 20, subpt. E. Based on the average incremental Ra-226 activity of 0.38 pCi/g, the assessed risk to a residential receptor, using the PRGs for Superfund risk electronic calculator (U.S. EPA 2006), is 3.05×10^{-5}, which is within the NCP risk management range of 10^{-6} to 10^{-4}.

Based on the combined survey data, soil sample analytical results, and TEDE and risk calculations, it was concluded that Ra-226 concentrations in surface soil (up to 18 inches bgs) do not pose unacceptable risk and do not result in a dose greater than 25 mrem/y to a hypothetical residential receptor at Site 5. A "Site Evaluation Accomplished" recommendation was made for radionuclides at Site 5, and the site was recommended for

radiological release for the installation and implementation of ICs specified for the site in the final Radiological Release Report (Weston 2006), which was reviewed and concurred on by the FFA signatories including U.S. EPA, RWQCB, and DTSC (with technical support from DPH).

5.3.2.5 GROUNDWATER

The nature and extent of chemicals in groundwater were evaluated using data from the Phase I and Phase II RIs and the results of quarterly groundwater monitoring at Site 5. Groundwater contamination was investigated at Site 5 during the Phase I RI based on samples collected from four monitoring wells. During the Phase II RI, one additional monitoring well was installed to evaluate the horizontal and vertical extent of contamination in groundwater. A total of 15 groundwater samples were collected from the five monitoring wells during the Phase I and Phase II RIs. HydroPunch groundwater samples were analyzed during the Phase II RI to evaluate the placement of the new monitoring well. These samples were analyzed by an on-site mobile laboratory for VOCs. No VOCs were reported above the detection limits.

Samples collected from monitoring wells during the Phase I and Phase II RIs had detectable concentrations of VOCs, petroleum hydrocarbons, SVOCs, herbicides, metals, and radionuclides. Table 5-23 lists the analytes reported in the samples collected during the RIs, their respective frequency of detection, and their range of reported concentrations.

Figure 5-12 illustrates the results of groundwater sampling performed at Site 5 in October 1997. Reported analytes were limited to trace amounts of two VOCs (tetrachloroethane and/or acetone) in three wells at concentrations below maximum contaminant levels (MCLs), and dissolved metals at concentrations generally below MCLs. Radionuclide activities were reported at levels attributable to natural sources. The Phase II RI concluded that organic analytes reported in groundwater appeared to be from an upgradient source and not from the Site 5 landfill. The probability that metals concentrations were naturally occurring was further analyzed in a Stationwide evaluation (see Section 5.5).

5.4 ROUTES OF EXPOSURE

Potential pathways for exposure to contaminants at Sites 3 and 5 are discussed in the following sections.

5.4.1 Site 3

Site 3 is generally covered with a soil fill layer approximately 1 to 7 feet thick. Portions of the site are covered with asphalt and concrete. There is no exposed waste. However, erosion has impacted Agua Chinon Wash. Although the landfill is not immediately adjacent to the wash, if this erosion continues, it is possible that landfill materials on either side of the wash could eventually be exposed. There is currently no complete exposure pathway to groundwater because groundwater at Site 3 is not being used for domestic purposes or for irrigation. However, groundwater represents a potential route of

exposure should groundwater from the shallow aquifer be used for these purposes in the future.

5.4.2 Site 5

Site 5 is currently covered with a soil fill layer approximately 1 to 8 feet thick. There is no exposed waste. However, the landfill is not fenced, and it is possible that a person could be directly exposed to landfill wastes by digging below the surface above the operational landfill. In addition, portions of the landfill are relatively flat. This can lead to localized ponding and infiltration of surface water.

There is currently no complete exposure pathway to groundwater at Site 5 because water is not being used for domestic purposes or for irrigation. However, groundwater represents a potential route of exposure should groundwater from the shallow aquifer be used for these purposes in the future.

Because Site 5 is relatively flat, the Phase II RI concluded that the site is not susceptible to erosion that might expose landfill materials in the future. Therefore, contamination of surface water is not anticipated.

5.5 EVALUATION OF METALS IN GROUNDWATER

The metals reported in groundwater at Sites 3 and 5 and their range of reported concentrations are shown in Tables 5-12 and 5-23, respectively. As shown in Table 5-24, the concentrations of nickel and selenium at Site 3 and nickel and thallium at Site 5 exceeded their respective U.S. EPA or Cal/EPA MCLs. The U.S. EPA and Cal/EPA MCLs are drinking water standards derived from health-based criteria and represent enforceable regulatory levels. At the time the RI and FS Reports were prepared for the landfill sites, it was not known whether these MCL exceedances reflected ambient conditions within the groundwater system or were the result of contamination associated with historical Station operations. To resolve this issue, a Stationwide evaluation was performed. The results of the evaluation are presented in Appendix F of the draft CERCLA Groundwater Monitoring Plan (BNI 1998a) and summarized in the following sections.

5.5.1 Sources of Data

The evaluation of metals was based on target analyte list (TAL) metals analytical data obtained from four separate sources and integrated into a single combined groundwater database. The four sources of data were:

- Comprehensive Long-Term Environmental Action Navy (CLEAN) I analytical results for groundwater samples collected between 21 September 1992 and 01 December 1993;
- CLEAN II analytical results for groundwater samples collected between 15 August 1995 and 24 April 1996;
- former MCAS El Toro groundwater monitoring program analytical results for groundwater samples collected between 15 January 1996 and 01 April 1997; and

- OCWD analytical results for groundwater samples collected between 21 January 1985 and 27 March 1997.

The groundwater database contained analytical results for 1,345 samples and included 22,824 individual records pertaining to 20 metals, including nickel, selenium, and thallium.

5.5.2 Methodology and Conclusions

The groundwater evaluation focused on assessing the hypothesis that reported metals concentrations at former MCAS El Toro reflect ambient groundwater quality conditions and normal variation inherent in the groundwater system. TAL metals exceeding their respective MCLs were considered COPCs in the evaluation. Of these, data for metals with ten or fewer reported MCL exceedances were further reviewed to identify possible spatial or temporal trends, or determine whether anomalous sampling (e.g., sample turbidity) or analysis conditions may be responsible. Probability plots were then developed for metals warranting further assessment, using the single combined groundwater database described above. The plots were evaluated to determine whether the data suggest a single sample population, a single population with outliers, or multiple sample populations. Multiple probability patterns on these plots are possible indicators of contamination because the processes that produce naturally occurring concentrations of metals in groundwater are different from those responsible for groundwater contamination. Single probability patterns generally indicate ambient conditions.

As discussed above, nickel, selenium, and thallium were reported in groundwater at Sites 3 and 5 at concentrations that exceeded their respective MCLs and therefore were identified as COPCs. The probability plots for selenium and thallium indicated that the analytical data for these metals conform to a single sample population (BNI 1998a). The sample population includes data collected from or near the four inactive landfills as well as data collected from on- and off-Station locations remote from the areas that are potential sources of metals contamination. Because the data for samples from all of these areas are part of the same sample population, the evaluation concluded that the reported concentrations of selenium and thallium, including those exceeding MCLs, fall within the range of ambient concentrations for those metals in groundwater.

The probability plot for nickel also suggested that the data conform to a single sample population (BNI 1998a). The single population supports the hypothesis that groundwater has not been adversely impacted by historical Station operations because nickel concentrations reported for sampling locations at the landfill sites are no different from the concentrations at sampling locations upgradient, downgradient, or crossgradient from these sites.

The groundwater evaluation noted that data for nickel, as well as iron and chromium, although not indicative of groundwater contamination from Station operations, have apparently been influenced by corrosion of monitoring well stainless steel casings, screens, and dedicated pumps. Nickel, iron, and chromium are primarily constituents of Type 304 stainless steel, and widespread corrosion and failure of dedicated pumps,

coincident with increasing concentrations of these metals in Station monitoring wells, has occurred over time. Thus, the reported concentrations of these three metals at former MCAS El Toro may not necessarily reflect ambient groundwater conditions throughout the Irvine Subbasin.

Section 6
SUMMARY OF SITE RISKS

An HHRA was conducted for Sites 3 and 5 using data collected during the Phase I and Phase II RIs. However, the site characterization data and corresponding risk assessment did not evaluate landfill contents. As part of the presumptive remedy approach, it is assumed that the actual landfill contents do pose a potential risk. This risk would be difficult to quantify, however, due to the heterogeneity and unknown nature of the landfill contents. As such, although landfill contents were not sampled during the RI, the presumptive remedy assumes that the wastes will be isolated by the cap. As such, the investigations and HHRA focused on the surrounding soils, surface water, and groundwater to determine whether landfill contents have impacted surrounding media and if so, to determine the risk associated with said impacts. The human-health evaluation methodology is provided in Section 6 of the RI Reports for these sites (BNI 1997a,b). An ecological risk assessment was also conducted for Site 5. The methodology is provided in Section 7 of the RI Report for this site (BNI 1997b). An ecological risk assessment was not performed for Site 3 because this site is covered with gravel or pavement, was used as a staging and office area for the cleanup contractor at former MCAS El Toro, and does not support wildlife habitat.

6.1 HUMAN-HEALTH RISK ASSESSMENT

During the Phase II RI, the Navy considered the potential human-health risks associated with the landfill sites. The HHRA was performed using recreational and residential scenarios for Site 5 and recreational, residential, and industrial scenarios for Site 3. For the playing child and industrial worker, exposure was considered to be limited to contaminants in surface soils (0 to 2 feet bgs), whereas for the resident, exposure was considered to be to contaminants present in groundwater downgradient of the site. The resident was assumed to live adjacent to and downgradient of the landfill sites and use groundwater pumped from the shallow groundwater aquifer.

Possible exposure pathways examined for COPCs in surface soil at the landfill sites were ingestion of soil, inhalation of vapors and dust, and direct contact with the skin. Possible exposure pathways for COPCs in groundwater were ingestion, inhalation of vapors, and direct contact with the skin. Exposure conditions used in the estimation of risk were chosen to represent what is known as "reasonable maximum exposure." Use of these exposure conditions tends to overestimate risk. This effort to overestimate risk is deliberate; it provides risk managers a margin of safety when making cleanup decisions. The combination of the intake variables, expressing the exposure conditions for each receptor at each site, results in a chronic daily dose. The dose is an estimate of exposure for each pathway.

Risks were calculated by integrating the chronic daily dose with toxicity factors. Toxicity factors are numbers that indicate the toxicity of chemicals and were developed by U.S. EPA for each COPC. The toxicity factor for carcinogenic effects is called a cancer slope factor (CSF), and the toxicity factor for noncarcinogenic effects is called a reference dose (RfD). COPCs that show a potential for both carcinogenic and noncarcinogenic health effects are assigned both CSFs and RfDs. In addition to the U.S. EPA-derived CSFs, Cal/EPA has developed CSFs for a group of carcinogens.

Following DON policy, both U.S. EPA and Cal/EPA CSFs were used in the estimation of the risk from those carcinogens when present. CSFs and RfDs are derived from the results of human epidemiological studies or chronic animal bioassays to which animal-to-human extrapolation and uncertainty factors have been applied. These uncertainty factors help assure that the toxicity values will not underestimate the potential for carcinogenic and adverse noncarcinogenic effects to occur.

Excess lifetime cancer risks are probabilities that are generally expressed in scientific notation (e.g., 1×10^{-6} or 1E-6). An excess lifetime cancer risk of 1×10^{-6} indicates that, as a plausible upper bound, an individual has a 1 in a million chance of developing cancer as a result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site. Guidelines for managing cancer risks are promulgated in the NCP (40 C.F.R. § 300.430 [e][2][i][A][*2*]). According to these regulations, excess cancer risks ranging between 10^{-4} and 10^{-6} are considered generally acceptable. Cancer risks below 10^{-6} are considered unconditionally acceptable.

Potential noncarcinogenic effects of a single contaminant in a single medium are expressed as hazard quotients (HQs). By adding the HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, the hazard index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. U.S. EPA has also established guidelines for noncancer risks. Using these guidelines, an HI of less than 1 is generally considered protective of human health. If the HI is greater than 1, an assessment of the COPCs contributing to the HI is performed to determine whether the HI represents an unacceptable noncarcinogenic human-health risk.

The results of the risk assessment for Sites 3 and 5 are summarized in Tables 6-1 and 6-2. These tables identify the total cancer and/or noncancer risk for each receptor. In addition, they identify the COPCs contributing to the majority of the cancer risk and HI. Cancer risks are based on U.S. EPA and Cal/EPA CSFs, as appropriate. Risks to an excavation worker at the landfill sites were qualitatively assessed. Cancer risk to these individuals was estimated to be less than the risk to a playing child and were therefore not considered significant. However, because the COPC contents within the subsurface of the landfill are not known, the RI suggested it would be prudent to require a worker to wear protective equipment and to monitor worker breathing space for potential organic vapors if subsurface work was attempted.

The results of the HHRA indicate that excess cancer risks associated with soil overlaying the landfill contents at Sites 3 and 5 are less than 10^{-4} for both recreational and industrial use scenarios. The excess cancer risks to the residents from groundwater exposure at Sites 3 and 5 would also be below 10^{-4}.

Table 6-2 shows that the HIs for Sites 3 and 5 are less than 1 under the recreational and industrial scenarios. Under the residential scenario, the HIs exceed 1 for Site 5. This exceedance was primarily associated with arsenic, manganese, and nickel in groundwater. For comparison, an HI was calculated at Site 5 using sampling results from upgradient wells. The upgradient HI at Site 5 was 0.16. This is approximately 20 times less than the downgradient noncancer risks.

The excess cancer risks and the noncancer risks associated with groundwater are considered to be conservative and therefore to overstate the actual risks. For the residential scenario, it is assumed that future residents would build a home immediately downgradient from the landfill and use water from the downgradient wells for domestic purposes. Given the proposed reuses of the landfill sites (industrial, recreational), it is unlikely that a residence would be constructed in these locations. Furthermore, given the availability of municipal water, it is highly unlikely that a resident would choose to use well water for domestic purposes. Finally, as discussed in Section 5.5, an evaluation of metals in groundwater showed that the concentrations of metals at the landfill sites fall within the range of ambient concentrations. Therefore, risks (if present) do not appear to be due to activities that occurred at the landfill sites.

In addition, for soil and groundwater COPCs, the procedure for calculating an exposure point concentration tends to use either the maximum detected concentration in cases of low frequency of detection or relatively few samples, such as was the case with the landfills where relatively few groundwater samples were collected. The assumption of long-term contact with the maximum concentration is conservative, and the use of maximum concentrations in the risk assessment may result in overestimates of exposures and risks.

With regard to risks due to exposure to soils, although the risk assessments are based on very conservative assumptions, only the soils surrounding the buried wastes, and not the actual wastes, were sampled for analysis during the RIs. Sampling of landfill materials was not considered practical because of the large variation in waste types found within the landfills. Drilling into the landfills could also create a conduit for water to pass into the wastes and cause leachate to form that could impact groundwater. Because characteristic sampling of landfill wastes was impractical, risks due to actual wastes within the operational landfill boundary were not estimated.

6.2 ECOLOGICAL RISK ASSESSMENT

An ecological risk assessment was also performed for Site 5. The purpose was to assess current and potential hazards to ecological receptors posed by chemicals of potential ecological concern (COPECs) present in the soils at this site.

The potential for mobilization of COPECs in the food chain was evaluated by modeling soil macroinvertebrates, plants, California ground squirrel, and red-tailed hawk. Site 5 is adjacent to a road and a golf course. The site is covered with grass, contains no shrub cover, and would therefore provide habitat for a limited range of animal species. In the Community Reuse Plan, the proposed reuse for Site 5 is recreation (golf).

The primary ecological exposure pathway was ingestion. Ground squirrels were assumed to ingest COPECs from plants, soil, and soil macroinvertebrates and invertebrates. The red-tailed hawk is assumed to ingest COPECs from soil and ground squirrels.

Ecological receptors may also be exposed to COPECs in sediment via dermal contact (e.g., while burrowing). However, because of the paucity of data regarding dermal exposure for wildlife organisms, this pathway was not evaluated in the risk

assessment. Receptors may also be exposed to COPECs through inhalation of organic vapors and fugitive dust. Inhalation of organic vapors was assumed to be limited to those receptors living at or below the ground surface. Intake through inhalation of fugitive dust was considered minimal relative to other pathways and was not considered in the risk assessment.

Field surveys and ecological sampling were performed at Site 5 to provide qualitative and quantitative data to assess the potential uptake of contaminants into the food chain. Information collected in the field included data on plant communities, wildlife observations, small mammal tissue samples, plant samples, and soil samples. Biota samples included plant parts (e.g., foliage, flowers, and twigs) used as food items by herbivores and tissue from small mammals (i.e., deer mice and brush mice).

Like human-health hazards, ecological hazards are also characterized using an HQ approach. The effects of a single contaminant in a single medium are expressed as the HQ. By adding HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, the HI is developed. HIs of less than 1 for each mechanism of action or target organ are reasonably good indicators that adverse effects are unlikely. If an HI is greater than 1, the hazards of exposure through individual pathways are generally examined in greater detail to evaluate the primary sources of risk.

At Site 5, the HIs for the ground squirrel and coyote are slightly greater than 1 (Table 6-3). The Phase II RI report for Site 5 concluded that metals and organic compounds in soil are not likely to impact terrestrial receptors and that site chemicals are not biomagnifying to higher-trophic-level organisms when realistic scenarios are considered.

Section 7
DESCRIPTION OF ALTERNATIVES

Based on results of the Phase I and Phase II RIs, the baseline HHRA, and a review of applicable or relevant and appropriate requirements (ARARs), the following remedial action objectives (RAOs) were developed for Sites 3 and 5:

- prevent direct contact with the landfill wastes
- control run-on, runoff, and erosion (Site 3)
- minimize infiltration and potential contaminant leaching to groundwater
- prevent surface water in washes from contacting the landfill (Site 3)

For purposes of the RIs, soil gas "hot spots" were defined as areas where the total VOC concentrations exceed 300 μg/L. No such areas were detected at Sites 3 or 5; therefore, remediation of hot spots is not required at these sites. Leachate collection is also considered unnecessary at these sites because significant leachate production was not identified from the RI results, and placement of a landfill cap would reduce the potential for future leachate production. The Phase II RI Reports also concluded that landfill gas emissions at Sites 3 and 5 were too low to warrant landfill gas controls. Subsequent to the RIs, an additional evaluation of the potential for gas emissions was performed (BNI 1998b). This evaluation concluded that methane production peaked at Site 3 in 1955 and at Site 5 in 1968 and that current methane and nonmethane organic compound generation is too low to warrant landfill gas controls.

The RI and FS Reports for Sites 3 and 5 contained RAOs for groundwater. These objectives were developed to address elevated concentrations (i.e., concentrations exceeding MCLs) of inorganics. Subsequent to completion of the RI and FS Reports for Sites 3 and 5, an evaluation was performed to determine whether the concentrations of metals reported in groundwater at the landfills and elsewhere at former MCAS El Toro reflect ambient conditions or are the result of activities that occurred at the Station. The conclusion of this evaluation was that the concentrations of metals reflect ambient conditions. Therefore, the RAOs for groundwater at Sites 3 and 5 have been eliminated from this document.

An FS Addendum was prepared to update RAOs and reevaluate remedial alternatives, as necessary, as a result of the inclusion of landfill gas control components to the previously proposed remedial alternatives (Earth Tech 2006). The Addendum also evaluated the effectiveness of the remedial alternatives with regard to protection from external radiation due to radioactive decay of Ra-226, which may be present in small quantities within the waste. The FS Addendum evaluated risk and exposure to a resident farmer from infinite subsurface slabs with both average and maximum detected concentrations of Ra-226 (using site-specific data) and concluded that a 2-foot soil cover would provide sufficient shielding to prevent unacceptable risk to human health. The RAOs and remedial alternatives evaluated in the FS with regard to radionuclides were therefore not modified further. The FS Addendum did, however, present revised RAOs and reevaluated remedial alternatives with added landfill gas control components as described below.

7.1 FEASIBILITY STUDY ADDENDUM: REEVALUATION OF RAOs

Sampling results from the RIs did not report landfill gas concentrations that warranted a specific response action. Therefore, the initial FS Reports included a provision that should elevated landfill gas concentrations be reported after installation of the remedy, then landfill gas and leachate controls would be installed. However, based on a review of data from supplemental investigations and discussions with the CIWMB and FFA signatories, the DON proposed the following measures to address the underlying concern of potential landfill gas migration at Sites 3 and 5 (DON 2004b).

- Construct a single-barrier cap with a flexible membrane liner (FML) and implement erosion control, land-use restrictions, and environmental monitoring (including landfill gas, leachate, and groundwater) at Sites 3 and 5 as proposed in the draft ROD (SWDIV 1999).
- Install an active landfill gas collection system or gas vent system during remedy implementation at Sites 3 and 5. The system will remain inactive or will vent passively unless monitoring results trigger a contingency for active control. While inactive, wells/pipes screened within the waste will be used to monitor landfill gas inside the waste itself, providing an early warning feature.
- Construct passive gas control gravel trenches within the compliance monitoring zone during remedy implementation, providing an added measure of safety.
- Implement land-use restrictions within approximately 100 feet of the waste boundary (includes the 50-foot compliance monitoring zone plus another 50 feet as an additional safety measure). Within this 100-foot land-use restriction buffer zone, construction of structures will require concurrence of the FFA signatories and the CIWMB.
- Implement CIWMB monitoring protocol with compliance landfill gas monitoring probes within 50 feet of the waste boundary. Monitor the perimeter to demonstrate that landfill gas is not migrating. Once adequate data are collected, and with CIWMB concurrence, monitoring will be discontinued and land-use restrictions regarding construction of structures with concurrence of signatories will be removed.

Due to inclusion of the active or passive landfill gas controls for Sites 3 and 5, RAOs for landfill gas control were added to the response action for these sites. The following RAOs were developed and the remedial alternatives for landfill Sites 3 and 5 were reevaluated as part of the FS Addendum.

- Protect human health by minimizing the potential for direct contact with landfill wastes.
- Control run-on, runoff, and erosion; minimize infiltration and potential contaminant leaching to groundwater.
- Minimize the potential for landfill gas to migrate beyond the 100-foot buffer zone established for Sites 3 and 5 at concentrations greater than the Cal. Code Regs. tit. 27 thresholds.

- Minimize the potential for surface waters in the washes from contacting the landfill (only Site 3).

7.2 REMEDIAL ALTERNATIVE REEVALUATION/DESCRIPTIONS

Based on new site-specific data and technical information obtained from the supplemental site characterization activities, it was necessary to reevaluate the remedial alternatives previously developed for Sites 3 and 5. The new data indicated a lack of leachate production, the presence of low levels of methane, and the absence of hot spot areas of contamination. As such, the environmental conditions of the landfills were redefined. The inclusion of passive or active landfill gas controls, as agreed upon by FFA signatories, added a critical component to the consideration of remedial alternatives. The combination of these factors necessitated a refinement and reevaluation of the alternatives developed in the initial FS Reports (BNI 1997c,d).

As in the initial FS Reports, development and reevaluation of remedial alternatives for Sites 3 and 5 in the FS Addendum followed the requirements identified in CERCLA, as amended by Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. § 9601 et seq., and the NCP. The development of remedial alternatives was also guided by prior U.S. EPA experience at municipal and military landfill sites. The Presumptive Remedy for CERCLA Municipal Landfill Sites (U.S. EPA 1993) and Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills (Interim Guidance) (U.S. EPA 1996) describe certain preferred technologies or presumptive remedies for landfills. Use of these technologies is designed to expedite the investigation and selection of remedial alternatives. In addition, based on agreements reached between the CIWMB, the state agency responsible for overseeing landfills, and the FFA signatories, the remedial alternatives as presented in this ROD directly address the underlying concerns of potential landfill gas emanation and migration.

The presumptive remedy approach allowed the focus to be on those technologies that have proven the most effective in the past. The basis of the presumptive remedy for landfill sites is containment. Components of containment applicable to Sites 3 and 5 include ICs, capping, and long-term monitoring. Leachate collection and treatment is a component of the presumptive remedy that was considered unnecessary at these sites. Source area groundwater control was also considered unnecessary for Sites 3 and 5. Based on the evaluation of metals discussed in Section 5.5 of this ROD, the concentrations of metals at Sites 3 and 5 were determined to be the result of natural processes and not attributable to waste-disposal activities that occurred at the landfills. Long-term monitoring upgradient and downgradient of the landfills would be used to verify that concentrations of metals in groundwater remain within the range considered ambient at former MCAS El Toro. The FS Reports for Sites 3 and 5 and the subsequent Technical Memorandum (BNI 1998b) concluded that landfill gas concentrations were too low to warrant landfill gas collection and treatment. However, as previously mentioned, the FS Addendum directly addressed the potential for landfill gas migration based on the supplemental site characterization data.

Six alternatives were developed for Sites 3 and 5. These alternatives were presented in the FS Reports for these sites (BNI 1997c,d) and updated as necessary in the FS Addendum (Earth Tech 2006). Evaluation of the technologies and screening process that led to the development of these alternatives is also documented in the FS Reports.

The alternatives developed for Sites 3 and 5 reflect the current and proposed future use of these sites. Sites 3 and 5 are located on the Tustin Plain. Site 3 is adjacent to an industrialized portion of the Station that formerly supported aviation activities, and Site 5 is adjacent to an existing golf course. Considering these factors, several of the alternatives developed for Sites 3 and 5 provide for relatively impermeable liners to allow irrigation of the landfill surface or provide for concrete or asphalt surfaces to allow parking or storage of light materials in the event that the landfill surfaces could involve some element of commercial reuse.

The alternatives, which are described in the following sections, include the following:

- Alternative 1 – no action
- Alternative 2 – institutional controls and monitoring
- Alternative 3 – single-layer soil cap with institutional controls and monitoring
- Alternative 4 – single-barrier cap with institutional controls and monitoring with four options:
  - Alternative 4a: clay barrier and a vegetative cover,
  - Alternative 4b: soil/bentonite mix barrier and a vegetative cover,
  - Alternative 4c: geocomposite clay liner (GCL) barrier and a vegetative cover, and
  - Alternative 4d: synthetic flexible membrane liner barrier and a vegetative cover (preferred alternative)
- Alternative 5 – pavement cap with institutional controls and monitoring with two options:
  - Alternative 5a: concrete pavement cap and
  - Alternative 5b: asphalt pavement cap
- Alternative 6 – pavement cap with a flexible membrane liner barrier with institutional controls and monitoring with two options:
  - Alternative 6a: concrete pavement cap with a flexible membrane liner barrier and
  - Alternative 6b: asphalt pavement cap with a flexible membrane liner barrier

7.2.1 Alternative 1 – No Action

Alternative 1, no action, is required by the NCP (40 C.F.R. § 300.430[e][6]) to provide a baseline condition if no remedial action is taken. Under this alternative, no remediation measures or access or land-use controls (LUCs) would be initiated at Sites 3 or 5. With

no action, direct contact with landfill wastes could occur and infiltration into the landfill could continue to create a potential for contaminant leaching to groundwater. At Site 3, surface water runoff in the washes could continue to have the potential to erode and transport landfill contaminants.

7.2.2 Alternative 2 – Institutional Controls and Monitoring

Alternative 2 consists of two components: ICs and monitoring. ICs are used to protect human health and prevent disturbance of landfill materials and would consist of access restrictions. Monitoring is used to assess changes in concentrations and locations of contaminants at the sites.

7.2.2.1 INSTITUTIONAL CONTROLS

ICs are legal and administrative mechanisms used to implement land-use and access restrictions that are used to limit the exposure of future landowner(s) and/or user(s) of the property to hazardous substances and to maintain the integrity of the remedial action until remediation is complete and remediation goals have been achieved. Monitoring and inspections are conducted to assure that the ICs are being followed.

Legal mechanisms include proprietary controls such as restrictive covenants, negative easements, equitable servitudes, lease restrictions, and deed notices. Administrative mechanisms include notices, adopted local land-use plans and ordinances, construction permitting, or other existing land-use management systems that may be used to assure compliance with use restrictions.

The Navy has determined that it will rely upon proprietary controls in the form of environmental restrictive covenants as provided in the Memorandum of Agreement Between the United States Department of the Navy and the California Department of Toxic Substances Control and attached covenant models (hereinafter referred to as "Navy/DTSC MOA") (DON 2000).

More specifically, land-use restrictions would be incorporated into and implemented through the following two separate legal instruments as provided in the Navy/DTSC MOA:

- restrictive covenants included in one or more quitclaim deeds from the Navy to the property recipient
- restrictive covenants included in a "Covenant to Restrict Use of Property" entered into by the Navy and DTSC as provided in the Navy/DTSC MOA and consistent with the substantive provisions of Cal. Code Regs. tit. 22, § 67391.1

The quitclaim deed(s) would include the land-use restrictions in environmental restrictive covenants that run with the land and that would be enforceable by the Navy against future transferees. The Covenant to Restrict Use of Property would incorporate identical land-use restrictions into environmental restrictive covenants that run with the land and are enforceable by DTSC and the Navy against future transferees.

Land-use restrictions would be applied to the property and included in findings of suitability to transfer, findings of suitability for early transfer, Covenant(s) to Restrict Use

of Property between the Navy and DTSC, and any quitclaim deeds conveying real property containing Sites 3 and 5.

Access

The Navy and FFA signatories and their authorized agents, employees, contractors, and subcontractors would have the right to enter Sites 3 and 5 to conduct investigations, tests, or surveys; inspect field activities; or construct, operate, and maintain any response or remedial action as required or necessary under the cleanup program.

Institutional Control Objectives and Land-Use Restrictions

The following are IC objectives to be achieved through land-use restrictions for Sites 3 and 5 in order to assure that any necessary measures to protect human health and the environment and the integrity of the remedy have been undertaken.

- Prohibit the following land uses without the prior review and written approval of the FFA signatories:
  - residential use, including any mobile home or factory-built housing, constructed or installed for use as residential human habitation;
  - hospital for humans;
  - school for persons under 21 years of age;
  - day care facility for children; or
  - any permanently occupied human habitation other than those used for commercial or industrial purposes.
- Prohibit the alteration, disturbance, or removal of any component of a response or cleanup action on Sites 3 and 5 (including but not limited to cap/containment and landfill gas vent/collection systems); groundwater extraction, injection, and/or monitoring wells and associated piping and equipment; or associated utilities without the prior review and written approval of the FFA signatories.
- Prohibit land-disturbing activity including but not limited to: 1) excavation of soil; 2) construction of roads, utilities, facilities, structures, and appurtenances of any kind; 3) demolition or removal of "hardscape" (e.g., concrete roadways, parking lots, foundations, and sidewalks) existing at the time of the ROD issuance; and/or 4) any activity that involves movement of the soil to the surface from below the surface without prior approval of the FFA signatories. In addition, construction of a structure within 100 feet of the edge of the landfill is prohibited without prior approval of the DON and CIWMB.
- Prohibit installing any well without the prior review and written approval of the FFA signatories.
- Prohibit planting deep-rooted plants that could penetrate the FML without the prior review and written approval of the FFA signatories.

- Prohibit irrigating the surface of the landfill without the prior review and written approval of the FFA signatories.
- Prohibit land-disturbing activity within the 100-foot buffer zone adjacent to the edge of the landfill that may cause adverse effects upon the landfill through erosion of the surface or diversion of off-site surface water runoff onto the landfill.
- Prohibit removal of or damage to security features (e.g., locks on monitoring wells, survey monuments, fencing, and signs) without the prior review and written approval of the FFA signatories.

ICs will remain in place until RAOs and remediation goals have been achieved and it can be demonstrated that concentrations of hazardous substances in the landfills and exposure to external radiation from radioactive decay of Ra-226, which is potentially present in small quantities within the waste, are at levels that allow for unrestricted use.

Implementation

The Navy shall address IC implementation and maintenance actions including periodic inspections in the preliminary and final remedial design reports to be developed and submitted to the FFA signatories for review pursuant to the FFA (see Navy Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions attached to 16 January 2004 DoD Memorandum titled "CERCLA ROD and Post-ROD Policy"). The preliminary and final remedial design reports are primary documents as provided in Section 10.3 of the FFA.

The preliminary and final remedial design reports will include a "LUC Remedial Design" section to describe items associated with IC implementation as follows:

- requirements for CERCLA 5-year remedy review
- frequency of and requirements for periodic monitoring or visual inspections
- reporting for monitoring and inspections
- notification procedures to the regulators for planned property conveyance, changes, and/or corrective action required for the remedy
- development of wording for land-use restrictions and parties to be provided copies of the deed language once executed
- identification of responsibilities for the Navy, U.S. EPA, DTSC, RWQCB, other government agencies, and the new property owner for implementation, monitoring, reporting, and enforcement of ICs
- a list of ICs with the expected duration
- maps identifying where ICs are to be implemented

The Navy will be responsible for implementing, inspecting, reporting, maintaining, and enforcing the IC objectives described in this ROD and land-use restrictions specified in the approved remedial design reports until property transfer. Although the Navy may later transfer these procedural responsibilities to another party by contract, property

transfer agreement, or other means, the Navy shall retain ultimate responsibility for remedy integrity. Should any of the IC objectives fail, the Navy shall ensure that appropriate actions are taken to reestablish protectiveness of the remedy and may initiate legal action to either compel action by a third party(ies) and/or recover the Navy's costs for mitigating any discovered IC violation(s).

7.2.2.2 MONITORING AND INSPECTIONS

Environmental monitoring for Alternative 2 would employ monitoring equipment that is currently installed at each site. At Sites 3 and 5, subsurface landfill gas, leachate, and groundwater would be monitored. Security measures (fences, signs, locks) would be inspected and repaired as required.

Site 3

- Passive landfill gas monitoring would be performed using gas control trenches, landfill gas monitoring wells, and soil gas probes attached to existing lysimeters, as appropriate, and new lysimeters as required. The trenches and wells would be installed within the compliance monitoring zone along with vertical landfill gas extraction wells within the waste placement boundary. These vertical wells would be valved to allow either a piping manifold for active extraction or passive venting to the atmosphere. Any additional required lysimeters would be placed at the perimeter of the landfill and used to detect potential off-site migration of landfill gases. The landfill gas control and monitoring system, both active and passive, would also apply to Alternatives 3, 4, 5, and 6.
- Leachate monitoring would be conducted using a network of existing and new lysimeters, each equipped with a moisture probe. These would be used to obtain samples from the vadose zone beneath the landfill. One existing background lysimeter would be used to sample vadose zone quality unimpacted by the landfill.
- Groundwater monitoring would be performed using five existing downgradient monitoring wells, two existing upgradient monitoring wells, and new lysimeters, if required.

Site 5

- Passive landfill gas monitoring would be performed using gas control trenches, landfill gas monitoring wells, and existing soil gas probes attached to three existing lysimeters. The trenches and wells would be installed within the compliance monitoring zone along with vertical landfill gas extraction wells within the waste placement boundary. The vertical wells would be valved to allow either a piping manifold for active extraction or passive venting to the atmosphere. The existing lysimeters would be used to detect off-site migration of landfill gases. The landfill gas control and monitoring system, both active and passive, would also apply to Alternatives 3, 4, 5, and 6.
- Leachate monitoring would be conducted using a network of three existing lysimeters, each equipped with a moisture probe. Two existing lysimeters would be used to obtain samples from the vadose zone beneath the landfill. The

third existing lysimeter would be used to sample vadose zone quality unimpacted by the landfill.

- Groundwater monitoring would be performed using four existing downgradient wells and one upgradient monitoring well.

Landfill gas samples would be monitored for fixed gases and VOCs.

The FS Reports and FS Addendum recommended that groundwater and leachate samples be analyzed for VOCs, SVOCs, TAL metals, turbidity, pH, alkalinity, nitrogen, and radioisotopes. Groundwater would also be analyzed for TDS. Subsequent to the FS Reports, the DON issued a Groundwater Monitoring Plan (BNI 1998a) that further addressed monitoring needs at the landfill sites. The Groundwater Monitoring Plan recommended that routine (semiannual) groundwater detection monitoring include measurement of the water level in each well and collection of samples for analyses of VOCs, sulfate, sulfide, and radionuclides. Every 5 years, groundwater would also be analyzed for SVOCs, herbicides, metals, PCBs, and pesticides. More frequent monitoring for these compounds is not necessary because the RIs and subsequent evaluation of groundwater monitoring conducted between 1992 and 1997 showed that SVOCs, herbicides, metals, PCBs, and pesticides do not represent chemicals of concern for Sites 3 and 5.

7.2.3 Alternative 3 – Single-Layer Soil Cap With Institutional Controls and Monitoring

Alternative 3 provides a combination of landfill capping, ICs, and monitoring. The ICs are similar to those associated with Alternative 2 but contain additional restrictions to protect the integrity of the landfill cap and erosion control features. In addition, in accordance with the agreement with the FFA signatories, passive gas control trenches would be installed within the compliance monitoring zone along with vertical landfill gas extraction wells within the waste placement boundary. These vertical wells would be valved to allow either a piping manifold for active extraction or passive venting to the atmosphere. Monitoring would be augmented in Alternative 3 to add additional monitoring equipment and address soil gas, perimeter gas, leachate, and groundwater at all sites. Locks would be used to prevent unauthorized access to monitoring wells. The landfill cap, settlement monuments, erosion control features (e.g., riprap, vegetation, and drainage channels), and security features would be inspected periodically and repaired as necessary. Groundwater monitoring would be used to confirm the effectiveness of the landfill cap at preventing any future releases to groundwater. ICs would be used to prohibit use of groundwater at Sites 3 and 5.

7.2.3.1 LANDFILL CAP

The landfill cap for Alternative 3 consists of a single-layer (monolithic) soil cap designed to prevent exposure to landfill materials and reduce the amount of rainfall that can infiltrate into and through the landfill. The top of the cap would be graded to prevent ponding, and drainage channels constructed of riprap or concrete would be used to control runoff to prevent erosion of landfill materials. The cap would consist of clean soil

imported from locally available borrow sources and compacted to achieve a conservative permeability. The surface of the cap would be vegetated with drought-resistant annual grasses to reduce erosion, and irrigation would be prohibited, as described for Alternative 2. Figure 7-1 presents a conceptual representation of the Alternative 3 cap. Figures 7-2 and 7-3 represent the current extent of each landfill based on investigation data to date and illustrate the conceptual grading plans for Sites 3 and 5, respectively.

On-site waste consolidation would occur prior to capping at Site 3. Approximately 1,110 cubic yards of landfill wastes would be removed from Unit 4 (the former incinerator) and consolidated into Unit 1 (the main landfill). At Site 5, consolidation of wastes is not necessary since all wastes are confined to one area.

Under Alternative 3, Waste Areas B through F at Site 3 (Figure 7-2) will also be consolidated into the reduced Unit 1 footprint at Waste Area A, which is situated topographically 15 to 20 feet above Aqua Chinon Wash. Consolidation of wastes at this main landfill area eliminates the potential for surface water in the wash to contact and erode landfill materials at the site. All waste being considered for consolidation will be radiologically screened for Ra-226. Any waste with an activity concentration of greater than 1 pCi/g above background will be removed and disposed off-site at an NRC-licensed disposal facility. Screening methods and frequencies will be presented in the remedial design/remedial action work plan. Waste within both landfills at Site 3 and Site 5 will be protected from precipitation and surface water runoff by construction and maintenance of the engineered landfill cover and associated drainage controls.

7.2.3.2 INSTITUTIONAL CONTROLS

ICs for Alternative 3 would consist of land-use restrictions, restrictions to protect the remedy, restrictions to protect equipment, and provisions for site access. With the following additions below, these controls are basically the same as the ICs for Alternative 2 (Section 7.2.2) and are subject to the legal requirements and objectives specified under Section 7.2.2.1.

- Future landowner(s) and or user(s) of the property would be restricted from any activity that would adversely impact the cover or affect the drainage and erosion controls developed to protect the cover.
- Excavations below grade surface would be allowed only to maintain and/or repair the landfill cover. Excavations that would affect drainage and erosion controls developed for the cover/cap would be prohibited.
- Visual settlement monuments would be provided as part of Alternative 3. The future landowner(s) and user(s) would be restricted from disturbing the monuments without prior approval from DON, FFA signatories, and DHS (with approval of DTSC).
- Maintenance activities requiring site access would be expanded to include maintaining the landfill cap and the erosion and drainage controls associated with the landfill cap.

7.2.3.3 MONITORING

Under Alternative 3, perimeter soil gas migration monitoring probes would be added at all sites to detect off-site migration of landfill gases. These probes would be designed and installed in accordance with Cal. Code Regs. tit. 27, § 20925. Remedial design documentation (e.g., engineering design reports and O&M manuals) would be submitted to DTSC and RWQCB for review in accordance with the FFA.

Monitoring the integrity of the cap and the effectiveness of runoff controls and revegetation would take place quarterly following placement and after major storm events until the site stabilizes and complete revegetation occurs. This high frequency of monitoring is necessary because of the potential for settlement. Settlement would be monitored by a visual inspection of the cover system for cracks, eroded areas, surface irregularities, and localized depressions and by surveying existing and new settlement monuments. The settlement monuments would be protected and maintained throughout the postclosure maintenance period. Annual mowing would be done for the first 5 years to facilitate inspection of the cap and surface control features. Periodic mowing, as required, would continue for 30 years after landfill closure.

7.2.4 Alternative 4 – Single-Barrier Cap With Institutional Controls and Monitoring

Alternative 4 provides landfill capping, ICs with access restrictions, and monitoring. The single-barrier cap system would satisfy the functions and objectives that a Cal. Code Regs. tit. 27 prescriptive cap is intended to serve (e.g., minimizing water infiltration and leachate generation and migration) and would consist of a soil foundation layer overlain with a barrier layer and a vegetative soil layer. At Site 3, excavated wastes from Unit 4 (former incinerator area) and wastes from Unit 1 Waste Areas B through F would be consolidated within the reduced Unit 1 Waste Area A footprint (main landfill area) and under the cap area. Consolidation of wastes into the Unit 1 main landfill area at Waste Area A (Figure 7-2), which is situated topographically 15 to 20 feet above Agua Chinon Wash, eliminates the potential for surface water in the wash to contact and erode landfill materials at the site. All waste being considered for consolidation will be radiologically screened for Ra-226. Any waste with an activity concentration of greater than 1 pCi/g above background will be removed and disposed off-site at an NRC-licensed disposal facility. Screening methods and frequencies will be presented in the remedial design/remedial action work plan. Excavation and consolidation of wastes would not be part of the remedial action at Site 5.

Four separate single-barrier cap options are considered part of the EC measures in Alternative 4. The four options are:

- Alternative 4a: clay barrier and a vegetative cover;
- Alternative 4b: soil/bentonite mix barrier and a vegetative cover;
- Alternative 4c: geosynthetic clay liner barrier and a vegetative cover; and
- Alternative 4d: synthetic flexible membrane liner barrier and a vegetative cover.

Figure 7-4 presents a conceptual representation of the Alternative 4 cap.

For each of the four Alternative 4 options for Sites 3 and 5, a portion of the soil used for the foundation layer would be taken from the existing soil cover. The excavated existing cover soils would be densified to serve as foundation. The remainder of the soil would be taken from locally available borrow sources. Soils from the borrow sources would also be used for the construction of the vegetative soil cover of this cap system.

In accordance with the agreement with the FFA signatories, passive gas control trenches would be installed within the compliance monitoring zone along with vertical landfill gas extraction wells within the waste placement boundary. These vertical wells would be valved to allow either a piping manifold for active extraction or passive venting to the atmosphere.

ICs implemented under this alternative would include land-use restrictions, and access barriers under this alternative may be in the form of physical controls such as a perimeter fence or signs. ICs for this alternative are identical to Alternative 3 except that there would be no prohibitions on irrigation of the landfill cap for Alternatives 4c and 4d because the barrier layer in the caps is virtually impermeable. Monitoring and maintenance would be identical to Alternative 3. A drainage layer would be provided to divert infiltration from the top of the barrier layer. Groundwater monitoring would be used to assess the effectiveness of the landfill cap in preventing future groundwater contamination.

7.2.4.1 ALTERNATIVE 4a, CLAY BARRIER AND A VEGETATIVE COVER

The landfill cap would consist of the following layers.

- Foundation layer – soil material (from on-site or off-site locations). According to Cal. Code Regs. tit. 27, § 21090(a)(1), the prescribed foundation shall consist of soil over the waste, compacted to provide an adequate structural substrata for successive layers. No permeability specification is given for this layer.
- Barrier layer – compacted clay consistent with identified ARARs placed over the foundation layer and equal to the permeability of any bottom liner system or underlying natural geologic materials, whichever is less. This layer is intended to act as a barrier to infiltration.
- Protective soil layer – clean soil on top of the barrier layer consistent with identified ARARs; intended to protect the barrier layer, control surface erosion, and provide a medium for vegetation. No permeability specification is given for this layer.

Implementation of Alternative 4a would involve importing clay from off-site sources because suitable clayey materials are not available on-site. The material for the clay layer would be obtained from off-site clay deposits around the former MCAS El Toro area. For cost-estimating purposes, it is assumed that potential clay borrow sources may be available from around the Bee Canyon area, which is located approximately 20 miles northwest of the site. The clay would be excavated, transported to the landfill site, and graded and compacted to achieve a permeability consistent with identified ARARs.

Clean soil for the vegetative layer would be imported from off-site borrow sources. The cap would be revegetated with native grasses. The purpose of the vegetative layer is to protect the clay layer from erosion, desiccation and cracking, burrowing animals, traffic, and roots. The vegetative soil cover proposed in Alternative 4a is of sufficient thickness to support the rooting depth of annual grasses and enhance its effectiveness at protecting a barrier layer. This layer would have a 3 to 4 percent slope to maximize runoff with minimal surface erosion.

The cap would be designed and constructed according to the commonly practiced standards of the industry and would require minimal maintenance. Standard and readily available construction equipment would be used.

Figure 7-5 presents a typical cross section of the Alternative 4a cap.

7.2.4.2 ALTERNATIVE 4b, SOIL/BENTONITE MIX BARRIER AND A VEGETATIVE COVER

The cap system for Alternative 4b consists of the same elements as for Alternative 4a, except that a soil and bentonite mixture is used as the barrier. This option was considered in the FS Reports because a local source for clay suitable for constructing the barrier layer may not be available. If clay material is not available, a soil and bentonite mixture can be processed and manufactured at the site and used in lieu of natural clay. Suitable off-site or on-site silts and sandy silts would be mixed with powdered bentonite to produce a soil mixture with a permeability consistent with identified ARARs, as needed for the barrier layer.

Implementation of Alternative 4b would involve transporting selected fine-grained soils from on-site or off-site borrow sources, importing bentonite from a commercial supplier at a ratio of approximately 3 to 6 percent by volume of the selected soil, mixing these materials to obtain a soil mixture with the required permeability, and constructing a barrier layer consistent with identified ARARs. An extensive laboratory and field test program should be conducted to establish the ratio of soil to bentonite that would result in the required permeability for the constructed cap.

Figure 7-6 presents a typical cross section of the Alternative 4b cap.

7.2.4.3 ALTERNATIVE 4c, GEOCOMPOSITE CLAY LINER BARRIER AND A VEGETATIVE COVER

Alternative 4c is another variation of Alternative 4a that uses a GCL rather than a clay barrier. Given the potentially high cost of importing clay or processing/mixing of soil and bentonite for the barrier layer, it may be cost-effective to use a GCL for the barrier layer. GCL is a manufactured hydraulic barrier consisting of sodium-bentonite clay sandwiched between two layers of geotextile that are held together by needling, stitching, or adhesives. The GCL provides a permeability consistent with identified ARARs and is simpler to construct than a geomembrane or clay liner. The GCL material is available in 15-foot-wide rolls. Unrolled sheets vary in length and are approximately 150 feet long. The material is unrolled and placed over the surface that needs to be covered. Sheets are

overlapped by 1 foot on each side. A layer of bentonite powder is placed between the overlapping areas. Anchoring may be required on the steep slopes. Other components of Alternative 4c are identical to the corresponding components of Alternative 4a. Installation of the GCL does not require a specialty contractor or specialized equipment.

Figure 7-7 presents a typical cross section of the Alternative 4c cap.

7.2.4.4 ALTERNATIVE 4d, SYNTHETIC FLEXIBLE MEMBRANE LINER BARRIER AND A VEGETATIVE COVER

Gradual desiccation of the low-permeability layers used in Alternatives 4a and 4b is a strong possibility in arid and semiarid climates. This desiccation might compromise the effectiveness of the cap for minimizing infiltration. Alternative 4d addresses this issue by replacing the clay layer with an FML. All other components of this alternative are identical to those for Alternatives 4a, 4b, and 4c, except there is no restriction on irrigating the surface.

The FML would be designed and constructed according to commonly practiced standards of the industry. Examples of FMLs include high-density polyethylene or low-density polyethylene. The specific membrane material would be selected during remedial design. After compaction, grading, and surface preparation of the foundation layer, sheets of FML would be placed and fusion-welded together, followed by weld testing to assure the integrity of welded seams. The FML is available in rolls 22 feet or 34 feet wide and up to 450 feet long. The material is unrolled on-site and placed over the areas to be lined. FML can be easily cut to fit corners and areas with any unusual size and shape. When placed on steep slopes, the FML requires anchoring (in anchor trenches) at the top of the slope to prevent the liner and the overlying soils from slipping and sliding. A layer of geotextile material with sufficient thickness would be placed under and over the FML to provide additional protection to the liner against puncture or tearing resulting from settlement of the underlying foundation layer or the overlying protective soil cover.

Figure 7-8 presents a typical cross section of the Alternative 4d cap.

7.2.5 Alternative 5 – Pavement Cap With Institutional Controls and Monitoring

Similar to Alternatives 3 and 4, Alternative 5 provides a combination of landfill capping, ICs with access restrictions, and monitoring. The ICs for Alternative 5 are identical to those for Alternatives 4c and 4d and consist of future land- and groundwater-use restrictions and temporary access restrictions. ICs restricting irrigation are not necessary because the cap would be paved. Monitoring would be identical to Alternatives 3 and 4 and would be used to assess the effectiveness of the remedy. Surface drainage controls would be implemented to control run-on and runoff and prevent erosion of the grounds around the landfill.

The landfill cap consists of a compacted native soil foundation overlain by a concrete or asphalt barrier. The principal functions of a pavement cap are to reduce surface water infiltration, minimize direct contact with landfill contents, and control erosion. The type of pavements considered would consist of concrete or asphalt.

In accordance with the agreement with the FFA signatories, passive gas control trenches would be installed within the compliance monitoring zone along with vertical landfill gas extraction wells within the waste placement boundary. These vertical wells would be valved to allow either a piping manifold for active extraction or passive venting to the atmosphere.

At Site 3, excavated landfill wastes from Unit 4 (former incinerator area) and waste from Waste Areas B through F would be consolidated within the reduced Unit 1 footprint (main landfill area) and under the cap area. Consolidation of wastes into the Unit 1 main landfill area at Waste Area A (Figure 7-2), which is situated topographically 15 to 20 feet above Agua Chinon Wash, eliminates the potential for surface water in the wash to contact and erode landfill materials at the site. All waste being considered for consolidation will be radiologically screened for Ra-226. Any waste with an activity concentration of greater than 1 pCi/g above background will be removed and disposed off-site at an NRC-licensed disposal facility. Screening methods and frequencies will be presented in the remedial design/remedial action work plan. Excavation and consolidation of wastes are not part of the remedial design at Site 5. For each of the two Alternative 5 options for Sites 3 and 5, a portion of the soil used for the foundation layer would be taken from the existing soil cover. The excavated existing cover soil would be densified to serve as a foundation. The remainder of the soil would be taken from locally available borrow sources.

Figure 7-9 presents a conceptual representation of the Alternative 5 cap.

7.2.5.1 ALTERNATIVE 5a, CONCRETE PAVEMENT CAP

The concrete pavement cap would consist of the following layers:

- foundation layer – appropriate material from locally available borrow sources
- moisture barrier – a thin layer of VisQueen used as a moisture barrier over the top surfaces only
- 6 inches of concrete with welded steel mesh

Clean soil for construction of the foundation layer and for grading the site for proper drainage would be imported from the vicinity of Sites 3 and 5 and installed using standard construction equipment. The general fill and material for the foundation layer and subgrade preparation would be free of large rock and deleterious material. Following densification, the compacted subgrade would be scarified prior to placement and construction of the overlying foundation layer.

The concrete pavement would be designed for withstanding light vehicular traffic and occasional light vehicular storage. Properties of the concrete mix and required reinforcing would be determined during the design phase. Final design issues, construction specifications, and surface settlement issues would also be addressed during the remedial design phase.

The structural integrity of the pavement is dependent on the strength of the foundation soils. The existing subgrade conditions may have to be improved by densification, using

dynamic compacting, before the concrete layer is placed. Otherwise, the concrete surface could settle prematurely and fail by cracking until eventually becoming unstable or requiring extensive maintenance. The concrete layer would be designed to withstand light vehicular traffic and occasional light vehicular storage.

Figure 7-10 presents a typical cross section of the Alternative 5a cap

7.2.5.2 ALTERNATIVE 5b, ASPHALT PAVEMENT CAP

The cap system for Alternative 5b is similar to 5a, except that an asphalt concrete mix is used as the pavement and no moisture barrier is provided. A layer of compacted crushed aggregate base would be placed over the foundation layer and beneath the asphalt pavement. The foundation layer would be the same as that used for Alternative 5a. The design of the asphalt mix and the crushed aggregate base would be determined in the design phase. All layer thicknesses would be consistent with identified ARARs.

Figure 7-11 presents a typical cross section of the Alternative 5b cap.

7.2.6 Alternative 6 – Pavement Cap With a Flexible Membrane Liner Barrier With Institutional Controls and Monitoring

Alternative 6 provides a combination of landfill capping, ICs with access restrictions, and monitoring. The ICs, access restrictions, and monitoring for Alternative 6 are identical to Alternatives 3, 4, and 5. The landfill cap is similar to that in Alternative 5, except that an FML would be added over the foundation and under the pavement to further reduce infiltration and the potential for leaching of landfill contents. The FML would act as a barrier to surface water penetrating and infiltrating through pavement cracks and contents. Both concrete and asphalt can develop cracks over time from shrinkage, foundation settlement, and stress caused by traffic and usage. The drainage components of this alternative are the same as in Alternative 5. However, because the sand layer in the concrete cap option and the combined geotextile/crushed aggregate base beneath the asphalt cap option would also function as a drainage layer, the two options in Alternative 6 include a subsurface drainage collection and removal system. The subsurface drainage system would consist of a 6-inch-diameter, perforated polyvinyl chloride piping laid inside gravel-backfilled trenches along the perimeter of the cap.

In accordance with the agreement with the FFA signatories, passive gas control trenches would be installed within the compliance monitoring zone along with vertical landfill gas extraction wells within the waste placement boundary. These vertical wells would be valved to allow either a piping manifold for active extraction or passive venting to the atmosphere.

At Site 3, excavated landfill wastes from Unit 4 (former incinerator area) and waste from Waste Areas B through F would be consolidated within the reduced Unit 1 footprint (main landfill area) and under the cap area. Consolidation of wastes into the Unit 1 main landfill area at Waste Area A (Figure 7-2), which is situated topographically 15 to 20 feet above Agua Chinon Wash, eliminates the potential for surface water in the wash to contact and erode landfill materials at the site. All waste being considered for

consolidation will be radiologically screened for Ra-226. Any waste with an activity concentration of greater than 1 pCi/g above background will be removed and disposed off-site at an NRC-licensed disposal facility. Screening methods and frequencies will be presented in the remedial design/remedial action work plan. Excavation and consolidation of wastes would not be part of the remedial design at Site 5. For each of the two Alternative 6 options for Sites 3 and 5, a portion of the soil used for the foundation layer would be taken from the existing soil cover. The excavated existing cover soils would be scarified and densified to serve as foundation. All layer thicknesses would be consistent with identified ARARs.

Figure 7-12 presents a conceptual representation of the Alternative 6 cap.

7.2.6.1 ALTERNATIVE 6a, CONCRETE PAVEMENT CAP WITH A FLEXIBLE MEMBRANE LINER BARRIER

This alternative replaces the barrier and vegetative layers in the prescriptive cap system with an FML beneath a concrete layer reinforced with steel mesh (included to minimize concrete shrinkage during the curing period after placement). Installation of an FML beneath the concrete layer would provide an additional barrier to infiltration since concrete can develop cracks that could become avenues for precipitation infiltration into the landfill.

A firm foundation would be provided for installation of the FML and concrete layer. A layer of geotextile fabric would be placed over the fine-graded foundation layer or prepared subgrade to protect the FML from puncture. A layer of fine-grained sand would be placed between the FML and the concrete to protect the liner from puncture or other damage and to function as the drainage layer over the FML.

The combination of concrete and FML with a drainage layer in between virtually eliminates infiltration and direct contact while allowing for continued and limited future use of the land (e.g., as an open storage or parking area). Alternative 6a would allow use of the site without disturbing the surface soil or increasing fugitive dust emissions.

Figure 7-13 presents a typical cross section of the Alternative 6a cap.

7.2.6.2 ALTERNATIVE 6b, ASPHALT PAVEMENT CAP WITH A FLEXIBLE MEMBRANE LINER BARRIER

This alternative replaces the clay and vegetative layers in the prescriptive cap system with an FML and an asphalt layer placed over a crushed aggregate base. Installation of an FML beneath the asphalt layer would provide an additional barrier to infiltration since asphalt can develop cracks that could become avenues for precipitation infiltration into the landfill.

A firm foundation would be provided for installation of the FML and concrete layer. A layer of geotextile fabric would be placed over the fine-graded foundation layer or prepared subgrade to protect the FML from puncture. A sand layer of fine-grained sand would be placed between the FML and the asphalt to protect the liner from puncture or other damage and to function as the drainage layer over the FML. As is the case with

concrete pavement, the existing subsurface conditions may have to be improved by densification, using dynamic compacting, before placement of subsequent layers of the final cover system because the structural integrity of the asphalt pavement also relies on the strength of the foundation soils. All layer thicknesses would be consistent with identified ARARs.

Figure 7-14 presents a typical cross section of the Alternative 6b cap.

Section 8
SUMMARY OF THE COMPARATIVE ANALYSIS OF ALTERNATIVES

This section summarizes the comparative analysis that was conducted to evaluate the relative performance of each remedial alternative in relation to the nine evaluation criteria outlined in CERCLA Section 121(b), as amended. The purpose of the comparative analysis is to identify the relative advantages and disadvantages of each alternative relative to the others. The evaluation criteria are based on requirements promulgated in the NCP. As stated in the NCP (40 C.F.R. § 300.430[f]), the evaluation criteria are arranged in a hierarchical manner that is then used to select a remedy for the site based on the following categories:

- *Threshold criteria:*
  - overall protection of human health and the environment
  - compliance with ARARs
- *Primary balancing criteria:*
  - long-term effectiveness and permanence
  - reduction of toxicity, mobility, or volume
  - short-term effectiveness
  - implementability
  - cost
- *Modifying criteria:*
  - state acceptance
  - community acceptance

The remedial alternatives (Alternatives 2, 3, 4, 5, and 6) are based on the selected presumptive remedies, capping and ICs. These presumptive remedies achieve RAOs in the following manner.

Landfill capping uses engineered designs to:

- minimize contact with landfill wastes;
- control run-on, runoff, and erosion;
- minimize infiltration and potential leaching;
- minimize the potential for landfill gas to migrate to and beyond the 100-foot buffer zone established for Sites 3 and 5;
- minimize the potential for surface water to contact wastes; and
- minimize the potential for contaminated sediments to wash off-site.

ICs restrict development through restrictive covenants. Physical barriers such as fencing and signs physically restrict access. Long-term monitoring of soil gas, leachate, groundwater, erosion controls, and revegetation would be used to confirm the effectiveness of the remedy.

Tables 8-1 and 8-2 provide a comparative evaluation of the alternatives with respect to the nine NCP criteria for Sites 3 and 5, respectively. Tables 8-3 and 8-4 compare costs for each alternative evaluated under the FS Addendum for Sites 3 and 5, respectively.

8.1 OVERALL PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

Alternative 1 (no action) would not substantially alter current or potential future risks to human health or the environment. Although the HHRA indicated that the excess cancer risks at the landfill sites were within the range considered generally acceptable by U.S. EPA under most scenarios, these risks were based on soil samples collected from areas surrounding the landfill, not from landfill materials themselves. In addition, Alternative 1 is not considered protective of human health and the environment because infiltration and leaching of landfill wastes due to ponding on ungraded portions of the landfill would not be minimized. Alternative 1 would neither reduce these risks significantly nor reduce the potential for ecological contact with the landfill materials at Site 5 or erosion of landfill materials at Site 3, with the resultant potential for direct exposure to landfill wastes. For these reasons, Alternative 1 is not considered to be protective of human health and the environment.

Alternative 2 (institutional controls and monitoring) would reduce the potential for inadvertent human exposure to landfill materials and groundwater, restricting excavation and drilling or use of groundwater. However, similar to Alternative 1, Alternative 2 is not considered protective of human health and the environment because infiltration and leaching of landfill wastes due to ponding on ungraded portions of the landfill would not be minimized. Alternative 2 would monitor these conditions, but would not proactively control them. In addition, Alternative 2 would not reduce ecological risks to ground squirrels or avian species, which could still potentially come into contact with landfill waste at the site. Alternative 2 also would not provide engineered features to prevent erosion of landfill materials. Consequently, the potential for future contact with landfill materials would remain.

Alternatives 3 and 4 would use clean off-site soils for construction of a landfill cap, which would reduce risks resulting from dermal exposure, ingestion, and inhalation of surface soils. In addition, by providing grading, these alternatives are expected to reduce risks caused by direct contact with landfill material and the potential for ponding and resultant infiltration.

Alternatives 5 and 6 also would reduce surface soil risks to human and ecological receptors by severing the exposure pathway to soil. In addition, these alternatives would provide for grading of the landfill surface. Therefore, they are expected to reduce the potential for ponding and infiltration of surface water through landfill materials. Alternatives 3, 4, 5, and 6 also minimize erosion of landfill materials and reduce the potential for transport of contaminants off-site. They include deed restrictions prohibiting activities that would disturb the landfill cap. They would also prevent exposure to groundwater by prohibiting drilling and/or use of groundwater.

Based on Unsaturated Soil Water and Heat Flow (UNSAT-H) and Hydrologic Evaluation of Landfill Performance (HELP) modeling, it was determined that none of the landfill caps described in Alternatives 3, 4, 5, and 6 completely eliminated infiltration; however, several cap designs appear to be more effective than others in terms of minimizing infiltration. For all alternatives except Alternative 1, installation of landfill gas controls in the form of vertical wells and horizontal trenches minimizes potential landfill gases from migrating beyond the 100-foot buffer zone.

In general, Alternatives 1, 2, 3, 4a, and 4b (existing soil and monolithic clay and soil/bentonite caps) allowed more infiltration into the landfill than did Alternatives 4c, 4d, 5, and 6. Therefore, Alternatives 1, 2, 3, 4a, and 4b are less protective of human health and the environment from risks due to contaminants in groundwater. The GCL and FML barriers (Alternatives 4c and 4d) and FML and pavement caps (Alternatives 6a and 6b) generally allow the least infiltration, thereby increasing the possibility that future potential impacts are minimized or eliminated.

8.2 COMPLIANCE WITH APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

ARARs are triggered only when a remedial action is taken. Therefore, an ARARs discussion is not necessary for the no action alternative.

Alternative 2 uses ICs to prevent exposure to contaminated soil. This alternative also provides for monitoring of groundwater, leachate, and landfill gas using existing monitoring wells and probes. As such, Alternative 2 meets both location-specific and groundwater monitoring action-specific requirements. However, Alternative 2 does not fully comply with the ARARs for controlling landfill gas migration.

Alternatives 3, 4a, 4b, 4c, 4d, 5, and 6 comply with all ARARs for Sites 3 and 5 identified in Appendix A of the FS Addendum. Each of these alternatives includes a landfill cap. Alternative 4 options all include a prescriptive cap that complies with the controlling cap ARARs determined by comparing federal and state cap ARARs in the FS Addendum. Although Alternative 4 has previously been referred to as a "Title 27 prescriptive cap," the Alternative 4 cap options actually comply with the controlling federal and state ARARs identified for a prescriptive cap at Cal. Code Regs. tits. 22 and 27. The other cap Alternatives (3, 5, and 6) incorporate acceptable modifications to a prescriptive cap by variance or alternatives allowed by Cal. Code Regs. tit. 22, § 66264.310(a)(7) and Cal. Code Regs. tit. 27, § 20080(b) and (c). Regarding Alternative 3, the HELP model evaluation performed on remedial alternatives for Sites 3 and 5 showed that Alternative 3 is equivalent to the prescriptive standard (clay) landfill cap.

Alternatives 4a, 4b, 4c, 4d, 5, and 6 comply with the Cal. Code Regs. tit. 27, §§ 20921(a)(1), (2), and (3) and 21160(b) requirements for landfill gas monitoring and controls, thereby meeting the requirement of not exceeding 5 percent methane by volume in air at the facility property boundary. The installation of landfill gas controls in the form of vertical wells and horizontal trenches will minimize potential landfill gases from migrating beyond the 100-foot buffer zone.

8.3 LONG-TERM EFFECTIVENESS AND PERMANENCE

Each alternative leaves wastes in place. Alternatives 1 and 2 do not provide long-term effectiveness and permanence because they do not take measures to eliminate erosion, reduce potential exposure/direct contact with landfill wastes, or reduce potential migration of contaminants to groundwater. Alternative 2 would use restrictions on excavation to eliminate the potential for direct contact with landfill materials, but would not control runoff or erosion, minimize infiltration, or prevent surface waters in washes from eroding the landfill cover at Site 3. This alternative has the second lowest long-term effectiveness of the remedial alternatives developed for the landfill sites.

Alternatives 3, 4, 5, and 6 meet the RAOs for the landfill sites. These alternatives provide erosion control, minimize infiltration, and use capping and deed restrictions to prevent direct contact with landfill wastes and groundwater. At Site 3, Alternatives 3, 4, 5, and 6 consolidate wastes from Unit 4 and Waste Areas B through F into the main landfill but do not move wastes off-site. No consolidation of wastes would occur during the remedial action at Site 5.

All the capping alternatives (3, 4a–4d, 5a, 5b, 6a, and 6b) under consideration reduce infiltration by at least 89 percent over current conditions. Alternative 3 provides the same effectiveness as Alternative 4a because it allows the same amount of infiltration into the landfill.

Alternatives 4c, 4d, 5a, 5b, 6a, and 6b provide the highest degree of long-term effectiveness because they provide the greatest reduction in infiltration of all alternatives. Alternative 4d is considered the most effective of the landfill capping alternatives because it allows the least amount of infiltration into the landfill materials and would accommodate irrigation that would be expected to occur under a recreational- or industrial-use scenario. Alternatives 6a and 6b also minimize infiltration; however, because of the pavement covers, these alternatives would restrict site uses to parking lots or storage areas.

Landfill caps are designed to protect water quality by limiting infiltration into landfill materials. Limiting infiltration into the landfill lowers the potential for formation of leachate, which can migrate to and contaminate groundwater. Computer modeling was used to estimate the amount of infiltration that would occur under each of the remedial alternatives. Because the reuses of Sites 3 and 5 may necessitate irrigation, landfill caps were modeled under both irrigation (Site 5) and nonirrigation (Sites 3 and 5) scenarios.

Modeling results for each alternative at each landfill site are shown in Table 8-5. Assumptions used as the basis of this modeling are presented in the FS Reports for the landfill sites (BNI 1997c,d).

Under the existing nonirrigated site conditions, infiltration at Sites 3 and 5 ranges from 4.4 to 5.0 inches per year, respectively. Alternative 4a, the Cal. Code Regs. tit. 27 prescriptive cap, would reduce the amount of infiltration at Sites 3 and 5 by approximately 90 percent to 0.48 and 0.46 inches per year, respectively. Alternatives 3 and 4b allow approximately the same infiltration as the Cal. Code Regs. tit. 27 cap. As such, the remaining alternatives are more effective than Alternative 4a in reducing infiltration.

Subsequent to the initial FS Reports, additional infiltration modeling was performed for Alternatives 1, 3, and 4a using the computer model UNSAT-H along with more precise values for hydraulic conductivity of soil and rainfall volumes. Results showed that Alternative 3 would perform as effectively as Alternative 4a under an irrigation scenario and could receive up to 30 inches of irrigation with no more infiltration than is currently occurring at Site 3.

The clay and soil/bentonite mixture used in the barrier layers for Alternatives 4a and 4b, respectively, have low resistance to cracking due to differential settlement. However, the sizable thickness of the clay and soil/bentonite mixture barrier layers used in Alternatives 4a and 4b make these barriers more resistant to puncture by root systems or burrowing animals than the thinner barrier layers used in Alternatives 4c and 4d. The pavement covers used in Alternatives 5a, 5b, 6a, and 6b are generally durable and long lasting but would require routine maintenance to repair cracks that may occur due to stress or differential settlement. Alternative 3 has an advantage over Alternatives 4, 5, and 6 because the native soil cover is not affected by desiccation and settlement cracking, and is easy to repair and maintain. Alternatives 3 and 4a through 4d also have an advantage over Alternatives 5a, 5b, 6a, and 6b when site reuse is considered because site reuse for Sites 3 and 5 is riparian corridor and golf course, respectively.

Alternative 1 would not control landfill gas surface emissions and subsurface landfill gas migration, although data indicate that landfill gas at Sites 3 and 5 is currently below levels typically requiring control. As part of the agreement among FFA signatories, Alternatives 2, 3, 4, 5, and 6 include installation and monitoring of an active and passive gas control system at the two sites to address this concern.

8.4 REDUCTION OF TOXICITY, MOBILITY, OR VOLUME

None of the alternatives reduce the volume or toxicity of the landfill materials. Mobility of potential contaminants by leaching and erosion of the landfill would be minimized and controlled by capping in Alternatives 3, 4, 5, and 6. Alternatives 4c, 4d, 6a, and 6b would be the most effective in terms of reducing infiltration at Sites 3 and 5. Alternatives 1 and 2 do not minimize potential leaching of wastes from the landfill.

8.5 SHORT-TERM EFFECTIVENESS

Alternative 1 poses no additional risks to workers, the general public, or the environment over current site conditions because no response actions would be taken.

Alternative 2 poses minimal risk to site workers during groundwater, leachate, and landfill gas sampling. Short-term impacts associated with the implementation of Alternative 2 include increased risk of exposure to workers during monitoring. Potential on-site exposures and risks from monitoring would be controlled through use of personal protective equipment, monitoring, and compliance with a site-specific safety and health plan. Impacts to the surrounding community or environment are expected to be negligible.

Alternatives 3, 4, 5, and 6 present more short-term risks because these alternatives involve construction activities associated with consolidation and capping. Short-term

impacts associated with implementation of these alternatives include the potential for exposure to landfill gas and landfill materials during consolidation of wastes and construction of the landfill caps. These risks would be controlled through use of personal protective equipment, monitoring, and compliance with a site-specific safety and health plan. Alternative 3 has the least short-term risks because the monolithic cap requires the least time to construct of all the landfill caps. During Site 3 remedial actions, consolidation activities are common to Alternative 3, Alternative 4 (all options), Alternative 5 (all options), and Alternative 6 (all options). Consolidation refers to moving landfill wastes at Site 3 from Unit 4 and Waste Areas B through F to the main landfill footprint.

Alternatives 4a and 4b present the most risk to the community because these alternatives involve the most extensive field construction operations due to placement of the clay and bentonite (soil barrier layers). Alternatives 3 and 5a require the shortest amount of time to complete.

Under Alternatives 3, 4, 5, and 6, RAOs related to preventing contact with landfill materials, controlling erosion, and preventing surface water in the washes from contacting landfill wastes would be achieved as soon as the landfill cap had been constructed.

8.6 IMPLEMENTABILITY

Alternative 1 would be the most easily implemented alternative from a technical perspective because it would involve no on-site construction or other remedial activities. However, the administrative feasibility of this alternative is low, given the potential opposition to a no action scenario.

Alternatives 3, 4, 5, and 6 use proven remedial technologies and commercial services for implementation and are generally comparable in implementability. They are also comparable in terms of ability to monitor effectiveness. The GCL barrier used in Alternative 4c can be rapidly installed and is easier to install than the FML used in Alternatives 4d, 6a, and 6b; however, the primary difference in installation is that specialized equipment and trained labor are needed to install the FML. This is not necessary for the GCL landfill cap. The installation of the clay or soil/bentonite layer in Alternatives 4a and 4b is also more time-consuming than the installation of the GCL barrier. Moreover, installation of the soil/bentonite mix is more complicated than that of clay due to on-site mixing and processing requirements.

Alternative 2 is also readily implementable because it involves only ICs with access restrictions and monitoring. Implementation of Alternative 2 would involve construction of security features (e.g., locks on monitoring wells) and implementation of deed restrictions to limit land uses. It would also prohibit the drilling of wells or use of groundwater and would allow the DON and regulatory agencies access to the site for monitoring and inspection. Implementation of Alternatives 3, 4 (all options), 5 (all options), and 6 (all options) is more complicated than implementation of Alternatives 1 and 2 because of the activities associated with consolidation of the Unit 4 landfill wastes at Site 3. Implementation of Alternatives 3, 4, 5, and 6 involves construction of a landfill cap and security and erosion control features, implementation of deed restrictions, and

monitoring. Landfill capping and monitoring involve standard, proven practices known to be readily implementable. No difficulties regarding feasibility, availability of equipment and services, or schedule are anticipated. ICs associated with Alternatives 3, 4, 5, and 6 are also readily implementable.

Alternative 3 is the most easily implemented of the landfill capping designs from a technical perspective as it does not involve special preparation of soil materials or installation of man-made materials for the cap. The cap would consist of only one layer of imported and compacted soil obtained from locally available borrow sources. Alternatives 4, 5, and 6 are more difficult to implement because their designs are more complex, and cap materials, such as clay, bentonite, FML or GCL liner, concrete, or asphalt, would require assembly into a multilayered cap. However, the administrative feasibility of Alternative 3 is considered low due to agency resistance to the use of this alternative under an irrigation scenario.

8.7 COST

There are no costs associated with Alternative 1. Alternative 2 has minimal costs associated with fencing the landfills and monitoring groundwater, leachate, and landfill gas. Alternative 3 is the least costly of the capping alternatives because it requires the least construction time and is the easiest to construct and maintain. Alternatives using soil and bentonite and synthetic FMLs are generally the most costly. The soil and bentonite barrier is costly because bentonite must be imported to the site by rail from as far away as Wyoming. Landfill caps using FMLs are more costly to construct because they require a quality assurance/quality control program to assure proper installation.

Costs associated with implementation of the alternatives are presented in Tables 8-3 and 8-4 for Sites 3 and 5, respectively. Site 3 costs range from $3.8 million to $10.4 million. Site 5 costs range from $3.0 million to $6.8 million. Of the remedial alternatives, the least costly is Alternative 2, and the most costly is Alternative 6b.

The costs for Alternatives 2, 3, 4, 5, and 6 were developed using the Remedial Action Cost Engineering and Requirements (RACER) system developed by the U.S. Air Force. RACER cost models are based on generic engineering solutions for environmental projects, technologies, and processes. These solutions are derived from historical project information, government laboratories, construction management agencies, vendors, contractors, and engineering analysis. RACER cost estimates are made site-specific through modifications of the geographic and project-specific factors. The estimated net present worth costs for each alternative are shown in Tables 8-3 and 8-4 for Sites 3 and 5, respectively. Capital costs shown in the two tables include remedial design, construction, construction materials, direct labor, equipment, land and site development, remedial action professional labor, indirect costs (contractor overhead and profit, taxes, insurance, etc.), escalation, and contingency. O&M costs assumed for a 30-year period include operating labor, postclosure maintenance, replacement materials, cap maintenance (grading, mowing, reseeding, etc.), administration (e.g., ICs and monitoring/maintenance), postclosure inspection and monitoring, analytical testing, and reporting. Cost estimate

details are presented in the initial FS Reports (BNI 1997c,d) and the final FS Addendum (Earth Tech 2006).

8.8 STATE ACCEPTANCE

Following supplemental investigations performed after the draft ROD for Sites 3 and 5 was issued, the draft FS Addendum for the sites was prepared and submitted for regulatory agency review in spring 2005. After resolution of agency comments and issuance of a draft final version, the final FS Addendum was issued in December 2006 (Earth Tech 2006). The 1998 PP was subsequently revised and issued in January 2007 to document the Navy's proposed selection of Alternative 4d. The 2007 PP, developed in cooperation with the agencies, also documents state regulatory agency concurrence with the selected alternative.

8.9 COMMUNITY ACCEPTANCE

Following supplemental investigations performed after the draft ROD for Sites 3 and 5 was issued, the final FS Addendum was issued in December 2006 (Earth Tech 2006). The 1998 PP was subsequently revised and issued in January 2007 to document the Navy's proposed selection of Alternative 4d. Both documents were made available for public review, as described in Section 3.3.2. At the initiation of a 30-day public comment period for the PP, notices of availability of these documents were published in local newspapers, and over 500 PP copies were mailed to recipients on the community relations list.

In addition to the 30-day public comment period, the public was given an opportunity to provide questions and comments during and after a public meeting for the PP held on 31 January 2007. The Navy reviewed and responded to all public comments received during the comment period, as documented in the Responsiveness Summary immediately following Section 12 of this ROD.

8.10 CONCLUSION

Based on the comparative analysis, the DON selects Alternative 4d as the alternative that represents the best balance of the nine NCP evaluation criteria. Alternatives 1 and 2 are unacceptable because they do not provide adequate protection for human health and the environment. Although Alternatives 3, 4, 5, and 6 meet the ARARs for landfill sites and provide equal protection for human health and the environment from exposure to landfill contaminants, they differ in ease of implementation, long-term effectiveness, and cost. Alternative 3 is the easiest alternative to implement from a technical perspective and is the least costly of the landfill capping alternatives. However, regulatory agencies, including DTSC, U.S. EPA, and RWQCB, have indicated that they will not support use of this cap under an irrigation scenario. Because the land uses envisioned for Sites 3 and 5 (i.e., recreation and industrial) are expected to require irrigation, Alternative 4d is considered the most administratively feasible and effective over time and has been selected as the most appropriate remedial alternative for these sites.

Section 9
SELECTED REMEDY

The DON and U.S. EPA have coselected Alternative 4d as the remedy for landfill Sites 3 and 5. The selection is based on review of Sites 3 and 5 RI/FS Reports, the Radiological Release Report, Technical Memorandum for Pre-Design Investigation, FS Addendum, and the Administrative Record for these sites, as well as an evaluation of all comments submitted by interested parties during the public comment period for the January 2007 PP. ICs will be implemented for the landfill areas and surrounding buffer zones at both sites. As part of the Site 3 remedy, wastes from Unit 4 and from Unit 1 Waste Areas B through F will be excavated, consolidated with waste at the reduced Unit 1 Waste Area A footprint (main landfill area), and capped. All waste being considered for consolidation will be radiologically screened for Ra-226. Any waste with an activity concentration of greater than 1 pCi/g above background will be removed and disposed off-site at an NRC-licensed disposal facility. Screening methods and frequencies will be presented in the remedial design/remedial action work plan.

Upon completion of the remedial action, portions of Site 3 exclusive of the consolidated landfill and surrounding buffer zone will be suitable for unrestricted use; these areas include Unit 4 and Unit 1 Waste Areas B through F. At Site 5, excavation and consolidation of wastes are not required prior to implementing the landfill capping remedy. The selected alternative includes the following components.

- A single-barrier cap with an FML will be used to prevent contact with landfill materials and reduce infiltration into landfill contents. On-site consolidation of waste from Unit 1 and Unit 4 will occur prior to capping at Site 3.
- Erosion control features will be used to control surface water flow and protect the integrity of the cap.
- Temporary fencing, signs, and locks will be used to restrict access to the sites until the remedy is in place. Areas requiring ICs at Sites 3 and 5 are shown on Figures 7-2 and 7-3, respectively.
- ICs as described in Section 7.2.2.1, with the exception of prohibiting surface irrigation, and including but not limited to, land-use restrictions within approximately 100 feet of the waste boundary will be used to protect the landfill cover, prevent use of groundwater, assure that contact with landfill materials does not occur, and allow the DON and other agencies to access the sites for maintenance and monitoring. Construction of structures within the 100-foot buffer zone will require concurrence of the FFA signatories and the CIWMB.
- Monitoring will be conducted to detect migration of contaminants from the landfills. Wells will be secured to prevent damage.
- A landfill gas collection and/or venting system will be installed to actively collect and vent landfill gas as necessary and passively vent or monitor gas during inactive periods.
- Passive gas control gravel trenches will be installed within the compliance monitoring zone during remedy implementation as an added measure of safety.
- A CIWMB monitoring protocol with compliance landfill gas monitoring probes will be implemented within 50 feet of the landfill waste boundary to facilitate perimeter monitoring and assess migration of landfill gas.

- Settlement monuments will be used to detect settlement of landfill materials.
- The cap, drainage features, and settlement monuments will be inspected, and maintenance will be performed as necessary to assure the integrity of the landfill cap.
- Periodic reviews (at least every 5 years) will be conducted to evaluate the monitoring results and verify that the action remains protective of human health and the environment. Results of the periodic reviews will be documented in summary reports, which would be reviewed by FFA signatories. Proposals for additional work or modification of the remedial action could be submitted by any FFA signatory after their review.

Elevated levels of metals occur at each landfill site. However, these elevated metals concentrations were reviewed (BNI 1998a) and found to reflect natural ambient conditions at former MCAS El Toro. Because the elevated metals concentrations are not the result of Station activities, remediation of metals in groundwater is not necessary. Groundwater monitoring will be used to assure that concentrations remain within ambient ranges and provide early warning of any potential future releases.

Because waste will be left in place, site conditions will be reviewed in detail at least once every 5 years to evaluate the continued protectiveness of the remedy and determine whether a modification to the selected alternative is necessary.

The selected alternative (Alternative 4d) is believed to provide the best balance of trade-offs among the alternatives with respect to the evaluation criteria. Based on information available at this time, the DON believes the preferred alternative offers:

- superior or equivalent performance for the NCP evaluation criteria of overall protection of human health and the environment, compliance with ARARs, long-term effectiveness and permanence, short-term effectiveness, and implementability;
- a cost-effective means of accomplishing the RAOs for the sites and supporting the proposed reuses; and
- regulatory agency acceptance.

Cost estimate summaries for the selected alternative at Sites 3 and 5 are presented in Tables 9-1 and 9-2, respectively. The cost estimates include capital costs and O&M costs assumed to extend for a period of 30 years. The 30-year time frame does not necessarily reflect the duration of the O&M activities at the site; the discontinuation or prolongation of O&M activities such as monitoring will be determined based on the results of the 5-year reviews.

The primary advantages of the selected remedy include its protectiveness (it allows the least infiltration of any alternative and therefore should be the most protective of groundwater) and its compatibility with current and future land uses. Because the FML virtually prevents infiltration, irrigation necessary to support site use as a golf course, park, or industrial center would be allowed.

9.1 DESIGN OF LANDFILL CAP

During the FS stage, a preliminary design was developed for each landfill cap (Figures 7-2 and 7-3). These designs are included in the FS Reports for the landfill sites. Some

modifications to the preliminary design may be necessary as a result of the remedial design and construction processes. Detailed design specifications, performance evaluations, and schedule will be determined during the remedial design phase.

9.2 INSTITUTIONAL CONTROLS

Based on the 2003 DON-U.S. EPA agreement for Principals and Procedures Concerning LUCs, this section discusses site-specific ICs for Sites 3 and 5. This discussion includes the purpose of the ICs, the IC objectives, IC restrictions, where implementation of the ICs will be necessary, and the entities responsible for implementing, monitoring, reporting, and enforcing the ICs.

9.2.1 Purpose of Land-Use Controls

The purpose of the ICs for Sites 3 and 5 is to assure that the integrity of the landfill caps and their associated components are maintained in the long-term to prevent direct contact with the landfill wastes or exposure to external radiation from radioactive decay of Ra-226, which may be present in small quantities within the waste, and to minimize erosion of, and prevent infiltration into the contents of the landfills. The effectiveness of the caps will be periodically monitored in accordance with the remedial design package and per CERCLA 5-year reviews.

9.2.2 Land-Use Control Performance Objectives

ICs are required to maintain the integrity of the Sites 3 and 5 caps by preventing excavations of, construction on, or breaching of the landfill cap, or increased infiltration of surface waters; preventing land use that presents unacceptable risk to human health due to residual contamination; assuring that no residential use or residential development of the property occurs; assuring no excavation of soils occurs without a use permit and special handling procedures; protecting groundwater monitoring equipment; and preserving access to the sites and associated monitoring equipment for the DON and the FFA signatories. Such ICs shall consist of lease restrictions and/or deed restrictions or other controls mutually agreed to by the FFA signatories. The DON shall notify FFA signatories and other appropriate governmental agencies, such as the CIWMB and Local Enforcement Agency (LEA), in the event of a property transfer of Sites 3 and 5. Transferees of Sites 3 and 5 will be required to notify FFA signatories, the CIWMB, and LEA in the event of a land-use change at the sites so that issues related to postclosure land use, as well as implementing, monitoring, reporting on, and enforcing the land-use restrictions at these sites, are managed appropriately.

9.2.3 Land-Use Control Restrictions

The ICs, described in Section 7.2.2.1, shall prohibit the following:

- residential use of the sites, including any mobile home or factory-built housing, constructed or installed for use as a residential human habitation; a hospital for humans; a school for persons under 21 years of age; construction of a day care facility for children on the sites; or any permanently occupied human habitation

other than those used for commercial or industrial purposes without the prior review and written approval of the FFA signatories

- construction of facilities, structures, or appurtenances; excavation; or any other land-disturbing activity into or on the surface of the landfills that may involve adverse impacts upon the performance of the cap or affect the drainage and erosion controls developed for the cap unless prior approval is obtained from the DON and FFA signatories; in addition, construction of structures within 100 feet of the edge of the landfill is prohibited without prior approval of the DON and CIWMB
- planting deep-rooted plants that have the potential to interfere with the performance of the cap in preventing infiltration (surface irrigation is not prohibited)
- land-disturbing activity within the 100-foot buffer zone adjacent to the landfill that may cause adverse effects upon the cap through erosion of the cap or diversion of off-site surface water runoff onto the cap
- removal of or damage to security features (e.g., locks on monitoring wells, survey monuments, signs, or monitoring equipment and associated pipelines and appurtenances) without the prior review and written approval of the FFA signatories

9.2.4 Land-Use Control Implementation

The remedial design will describe short- and long-term LUC implementation actions, and the entities responsible for the actions, to assure long-term viability of the remedy. LUC implementation actions will be incorporated and implemented through the legal instruments as specified under Section 7.2.2.1. The Navy will retain responsibility for all LUC implementation actions until property transfer. As indicated in Section 7.2.2.1, remedial design reports will contain a LUC Remedial Design section that will identify FFA signatory agencies, other government agencies, and new property owner responsibilities for LUC implementation actions upon property transfer.

9.3 MONITORING

Monitoring associated with Alternative 4d was discussed in Section 7.2.4. Tables 9-3 and 9-4, respectively, summarize proposed postclosure monitoring for Sites 3 and 5, including the monitoring frequency and sampling methods to be used. Final monitoring requirements for Sites 3 and 5 will be determined in remedial design documents approved by the Navy and regulatory agencies.

Monitoring results would be submitted to U.S. EPA, RWQCB, CIWMB, DTSC, and LEA within 90 days of the sampling event. The SCAQMD will also receive landfill gas migration results. Changes in monitoring frequency (e.g., from semiannually to annually) would require approval of these same agencies.

There is no evidence that leachate is currently being produced at any of the landfill sites. During the Phase II RI, lysimeters were installed at Sites 3 and 5. However, it was not

possible to purge the volume of distilled water used to set the lysimeters. Therefore, no soil moisture samples were collected. If detailed design evaluation shows that lysimeters are impractical or if leachate collection continues to fail due to lack of soil moisture, the DON may request that this monitoring be discontinued.

Upon review of the monitoring reports, remedial actions may need to be implemented if landfill contaminants are increasing in concentration or migrating beyond their current locations. If contamination is confirmed, U.S. EPA, RWQCB, CIWMB, DTSC, and LEA would be notified immediately and a remedial action program would be prepared and submitted. Remedial actions may include resampling, continued monitoring, increased frequency of monitoring, installation and sampling of additional monitoring equipment, or additional remediation measures. Significant changes (changes that significantly alter the scope, performance, or cost of a component of the remedy) will also need to be addressed in an ESD. If fundamental changes to the initial remedy are required, a ROD amendment will be issued. Specific remedial actions would be evaluated at the time of monitoring.

Periodic reviews, involving a detailed analysis of the monitoring data, would be conducted to determine the adequacy of the remedy and whether additional or less monitoring would be required. As required by CERCLA Section 121(c), the periodic reviews would occur at least every 5 years. Results of the periodic reviews will be documented in summary reports, which would be reviewed by FFA signatories. Proposals for additional work or modification of the remedial action could be submitted by any FFA signatory after their review.

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Section 10
STATUTORY DETERMINATIONS

Under CERCLA, the DON's primary responsibility is to undertake remedial actions that achieve adequate protection of human health and the environment. In addition, Section 121 of CERCLA establishes several other statutory requirements and preferences. These specify that when complete, the selected remedial action must comply with ARARs established under federal and state laws unless a statutory waiver is justified. The selected remedy also must be cost-effective and use permanent solutions and alternative treatment technologies to the maximum extent practicable. Finally, the statute includes a preference for remedies that, as their principal element, permanently and significantly reduce the volume, toxicity, or mobility of hazardous waste. The following sections discuss how the selected remedy meets these statutory requirements and preferences. Complete discussions are found in the FS Reports for Sites 3 and 5 (BNI 1997c,d) and in the FS Addendum (Earth Tech 2006).

ARARs have been identified for potential radioactive waste within the landfills. ARARs are often the determining factor in establishing cleanup levels at CERCLA sites. However, where ARARs are not available or are not sufficiently protective, site-specific remediation goals are generally set for carcinogens (radionuclides) at a level that represents an excess upper bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6}. The residual risk of the remedial action will be consistent with acceptable risk levels set forth in U.S. EPA's 22 August 1997 Office of Solid Waste and Emergency Response (OSWER) Directive "Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination" (OSWER No. 9200.4-18) as well as the NRC ARAR "Criteria for License Termination Under Restricted Conditions" at 10 C.F.R. § 20.1403(a) (25 mrem/y and "as low as reasonably achievable"). **Note: U.S. EPA does not believe this NRC regulation is protective of human health and the environment.** In addition, the ICs selected in this ROD will preserve the integrity of the cap and comply with the IC requirements of 10 C.F.R. § 20.1403(b).

10.1 PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

RAOs for the landfill sites were concerned primarily with limiting future migration of contaminants and preventing exposure to landfill wastes. The selected remedy protects human health and the environment by assuring the continued isolation of the wastes at the site. Currently, direct exposure to landfill wastes is possible at Site 5 because the landfill is covered in places with only a thin layer of soil and is not fenced. Groundwater is not used for domestic purposes or for irrigation at any of the landfill sites. Potential threats to human health at Site 3 include exposure to landfill materials due to erosion in Agua Chinon Wash. Exposure to contaminated subsurface soils and waste material will be controlled through capping and deed restrictions. Drainage controls will be used to prevent erosion. There are no short-term threats associated with the selected remedy that cannot be readily controlled. In addition, no adverse impacts are expected from the remedy.

10.2 COMPLIANCE WITH ARARs

The selected remedial action will comply with the substantive provisions of federal and state requirements identified as ARARs. The chemical-, location-, and action-specific

ARARs for the selected remedy for Sites 3 and 5 are presented in Tables 10-1, 10-2, and 10-3, respectively, and discussed below.

10.2.1 Chemical-Specific ARARs

Chemical-specific ARARs are health- or risk-based numerical values or methodologies that, when applied to site-specific conditions, establish the acceptable amount or concentration of a chemical that may be found in, or discharged to, the ambient environment. If a chemical has more than one cleanup level, the most stringent level will be identified as an ARAR for this remedial action. The selected remedial action can be implemented to comply with chemical-specific ARARs. Chemical-specific ARARs are discussed below by medium.

10.2.1.1 GROUNDWATER

Prior investigation data have indicated that groundwater beneath Sites 3 and 5 has not been impacted by releases from the landfills. Therefore, there is no need for a response action for groundwater, and detection monitoring will be incorporated as part of the remedy. Risk assessments performed for these sites were used as the basis for this decision.

These risk assessments showed that excess cancer risks due to groundwater are within the range defined in the NCP. Noncancer risks due to groundwater exceed 1 under a residential-use scenario at Site 5. However, this exceedance is due to the presence of inorganics, specifically manganese, nickel, and arsenic (Table 6-2). As discussed in Section 5.5, the concentrations of these metals in groundwater are within the range considered ambient at former MCAS El Toro, indicating that their presence in groundwater is not the result of site-specific activities.

Furthermore, the only chemicals exceeding federal or state MCLs are benzene in groundwater (at Site 3), nickel (at Sites 3 and 5), and thallium (at Site 5). Benzene appears to be associated with Tank Farm No. 5 and is not considered for remedial action at Site 3. Nickel, selenium, and thallium are inorganic chemicals present in groundwater at concentrations within the background range at former MCAS El Toro.

Because groundwater is not a medium of concern, there are no cleanup goals for groundwater at Sites 3 and 5, and groundwater protection standards (e.g., Cal. Code Regs. tit. 22, § 66264.94) are not ARARs for cleanup. Future releases that would warrant a response action are not expected to occur; however, detection monitoring will be performed to detect any release of organic constituents entering the groundwater from materials present in the vadose zone. Although the groundwater protection standards are not ARARs for the cleanup, the substantive provisions at Cal. Code Regs. tit. 22, § 66264.94(a)(2), (d), and (e) are ARARs for concentration limits for detection monitoring. Section 10.2.3 discusses action-specific ARARs governing groundwater monitoring.

10.2.1.2 SOIL CHEMICAL-SPECIFIC ARARs

Soil is the only medium of concern at Sites 3 and 5. The consolidation within the landfill does not constitute "placement" because the landfill is considered an area of concern and

no movement of soil outside that area is planned. Therefore, no land-disposal restrictions have been identified for this action. However, waste may be generated by other activities such as well installation and development. The hazardous waste determination is needed for any contaminated soil or water generated from remedial actions. The definitions of both RCRA and non-RCRA hazardous waste and the numerical limits associated with those definitions are applicable for characterizing waste generated during this remedial action. Table 10-1 identifies the characterization requirements determined to be ARARs.

Since there may be Ra-226 in the waste to be buried, the substantive NRC regulations at 10 C.F.R. § 20.1403(a) and (b) are relevant and appropriate. These subsections require demonstrating that further reduction cannot be made for unrestricted use or meeting as low as reasonably achievable for restricted land use. **Note: U.S. EPA does not believe this NRC regulation is protective of human health and the environment.**

10.2.1.3 AIR CHEMICAL-SPECIFIC ARARs

State ARARs that can be considered chemical- or action-specific include Cal. Code Regs. tit. 27, § 20921 and substantive requirements of SCAQMD rules. Cal. Code Regs. tit. 27, § 20921(a)(1), (2), and (3) requirements for landfill gas monitoring are applicable for Sites 3 and 5. Chemical-specific requirements for air are as follows.

- The concentration of methane gas must not exceed 1.25 percent of the volume in air within on-site structures.
- The concentration of methane gas migrating from the landfill must not exceed 5 percent by volume in air at the facility property boundary.
- Trace gases must be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds.

Chemical-specific requirements for landfill gas are evaluated in Table 10-1. Landfill gas monitoring requirements and SCAQMD rules are evaluated in Table 10-3 and discussed in Section 10.2.3.

In addition to the state ARARs identified above, substantive federal air chemical-specific provisions at 40 C.F.R. § 192.02(b) were determined to be relevant and appropriate for potential radon-222 emissions, since waste containing Ra-226 may be buried in Sites 3 and 5 landfills and its radioactive decay may lead to generation of radon-222.

10.2.2 Location-Specific ARARs

Location-specific ARARs are restrictions on the concentrations of hazardous substances or on the conduct of activities solely because they are in specific locations. Based on the current information available for Sites 3 and 5, none of the resource categories including cultural resources, wetland protection, flood plain management, hydrologic resources, biological resources, coastal resources, other natural resources, and geologic characteristics relating to location-specific requirements are potentially affected by the Sites 3 and 5 response actions.

However, if archaeological resources or natural landmarks are identified during the course of remedial action, substantive provisions of the following requirements, which were identified as the most stringent of the potential federal and state location-specific ARARs for remedial actions at Sites 3 and 5, will apply:

- Archaeological and Historic Preservation Act (16 U.S.C. § 469–469c-1)
- Historic Sites, Buildings, and Antiquities Act of 1935 (16 U.S.C. §§ 461–467)
- Archaeological Resources Protection Act of 1979 (Public Law No. 96-95 [16 U.S.C. § 470aa–470mm])

Table 10-2 presents an evaluation of the applicability of these historical and cultural resource protection laws to the selected remedial actions for Sites 3 and 5. Based on the scope of the remedial actions selected for these sites, it is not expected that any buildings or landmarks would be impacted. However, Phase I cultural resources surveys are needed if remedial activities take place in areas that have not been surveyed for prehistoric and historic cultural resources.

10.2.3 Action-Specific ARARs

Action-specific ARARs are technology- or activity-based requirements or limitations for remedial activities. These requirements are triggered by the particular remedial activities conducted at the site. The selected alternative, Alternative 4d, includes consolidation of waste at Site 3, the covering of both Sites 3 and 5 with a landfill cap in accordance with ARARs, groundwater monitoring, and ICs. Action-specific ARARs for the selected alternative include landfill closure and postclosure, monitoring, waste-generating, air quality protection, and IC requirements.

10.2.3.1 LANDFILL CLOSURE AND POSTCLOSURE REQUIREMENTS

Landfill closure and postclosure ARARs are contained in Cal. Code Regs. tits. 22 and 27. The landfills addressed in this ROD ceased operation prior to the effective date of any of these three sets of similar (but not identical) regulations; therefore, Cal. Code Regs. tits. 22 and 27 are not considered "applicable" ARARs but were reviewed to determine whether any of the regulations were potentially "relevant and appropriate."

Because Cal. Code Regs. tits. 22 and 27 contain overlapping requirements, the FS Reports for Sites 3 and 5 compared regulations and identified those that were the most stringent, or controlling. When federal and state regulations were considered to be equally stringent, federal regulations were selected as controlling ARARs. Table 10-3 identifies the controlling action-specific ARARs. Federal ARARs that were not determined to be controlling are identified in the FS Addendum (Earth Tech 2006).

Since items containing Ra-226 may be present in the waste at Sites 3 and 5, controlling ARARs identified through comparison of landfill closure and postclosure requirements contained in Cal. Code Regs. tits. 22 and 27 were compared to cap design requirements for land disposal of radioactive wastes in subpt. D of 10 C.F.R. pt. 61 (see Table A-8 of Appendix A of the FS Addendum). This comparison indicated that, in general,

compliance with cap design requirements of Cal. Code Regs. tits. 22 and 27 will lead to compliance with potential ARARs in subpt. D of 10 C.F.R. pt. 61. The 10 C.F.R. pt. 61 ARARs that were not determined to be controlling ARARs are identified in the FS Addendum.

10.2.3.2 STORMWATER MANAGEMENT REQUIREMENTS

This remedial action is expected to involve disturbance of over an acre of soil. Therefore, the substantive provisions of the general requirements for stormwater plans and best management practices (BMPs) set forth in 40 C.F.R. § 122.44(k)(2) and (4) are potential federal ARARs. The Navy has determined that Section 121 (e)(1) of CERCLA and the corresponding provision in the NCP (40 C.F.R. § 300.400[e][1]) apply to the discharge of stormwater from Sites 3 and 5 and that an National Pollutant Discharge Elimination System (NPDES) permit (either general or individual) is not required for that discharge. However, the Navy will comply with the substantive provisions of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (California State Water Resources Control Board Order No. 99-08) identified by the State of California as "TBC" [to be considered] guidance for compliance with the federal Clean Water Act and State of California water quality requirements identified as potential water quality ARARs. Associated reporting and record keeping are considered procedural and are therefore not substantive.

The Navy will also comply with the substantive provisions of the General Permit to develop and implement BMPs during the remedial action and prepare a stormwater management plan, which will address technical monitoring and analytical requirements (i.e., location and frequency of sample collection, parameters to be tested, and analytical methods). Compliance with these substantive requirements will be documented in the remedial design package.

10.2.3.3 GROUNDWATER MONITORING REQUIREMENTS

Groundwater is not a medium of concern and there are no cleanup goals for groundwater at Sites 3 and 5. Although it is not expected that future releases to groundwater warranting a response action will occur, a groundwater detection monitoring program will be implemented for the sites as required, and evaluation monitoring will be performed if there is measurably significant evidence of a release during the detection monitoring program. Therefore, the substantive requirements for a detection monitoring program at Cal. Code Regs. tit. 22, § 66264.91(a)(1)–(4) and (c) (except as it cross-references permit requirements); 66264.95(a) and (b); 66264.97(b)(1)(A), (b)(1)(B), (b)(4–7), (e)(6), (12)(A) and (B), (13), and (15); and 66264.98(e)(1–5), (i), (j), (k)(1–3), (4)(A) and (D), (5), (7)(C) and (D), (n)(1), (2)(B), and (C) were identified as relevant and appropriate federal ARARs. The substantive evaluation monitoring requirements at Cal. Code Regs. tit. 22, § 66264.99(b), (e)(1)–(6), (f)(3), and (g) were identified as relevant and appropriate federal ARARs if a release is detected. The detection monitoring will continue based on protectiveness of human health and the environment in accordance with Cal. Code Regs. tit. 22, § 66264.117(b)(1) and (2) as a relevant and appropriate federal ARAR.

10.2.3.4 LANDFILL GAS MONITORING REQUIREMENTS

For landfill gas monitoring, substantive provisions of Cal. Code Regs. tit. 27, §§ 20921(a)(1), (2), and (3); 20921(b) and (d); 20923; 20925 (a), (b), and (c); 20925(d)(1) and (3); 20932; 20933; and 20937 have been identified as relevant and appropriate requirements.

10.2.3.5 WASTE GENERATING REQUIREMENTS

Wastes (e.g., drill cuttings, well purge water) will be generated as a result of the installation of monitoring wells. Wastes generated during remedial activities will be characterized to determine available disposal options. If the wastes are determined to be hazardous, they will be regulated as hazardous waste. Thus, substantive hazardous waste generator requirements, including those for accumulation and container storage, and disposal requirements would be applicable for hazardous waste generated. The waste accumulation and container storage requirements at Cal. Code Regs. tit. 22, § 66264.34, 66264.171, 66264.172, 66264.173, 66264.174, 66264.175(a) and (b), and 66264.178 are applicable or relevant and appropriate depending on results of waste characterization in accordance with Cal. Code Regs. tit. 22, §§ 66262.10(a), 66262.11, and 66264.13(a) and (b), except when alternatives for temporary units at 40 C.F.R. § 264.553 can be met.

Waste that may contain Ra-226 will be handled in accordance with 10 C.F.R. § 20.1801 and 20.1802 control and storage requirements. The substantive provisions of these requirements have been determined to be relevant and appropriate for this remedial action.

10.2.3.6 SCAQMD REQUIREMENTS

Grading and excavation activities for consolidation and cap installation at all landfill sites have the potential to create discharges of fugitive dust that must be managed to comply with the substantive portions of SCAQMD Rules 403, 404, 405, and 1150.1, which are applicable federal ARARs since they have been approved into the State Implementation Plan. Additionally, SCAQMD Rule 401 is an applicable state ARAR at Sites 3 and 5.

10.2.3.7 INSTITUTIONAL CONTROLS

The substantive portions of the following state statutes have been accepted by the Navy as ARARs for implementing ICs and entering into a Covenant to Restrict Use of Property with DTSC:

- *California Civil Code* Land-Use Controls § 1471
- *California Health and Safety Code* Land-Use Controls §§ 25202.5, 25222.1, 25233(c), 25234, and 25355.5

DTSC promulgated a regulation on 19 April 2003 regarding "Requirements for Land-Use Covenants" at Cal. Code Regs. tit. 22, § 67391.1. The substantive provisions of this regulation have been determined to be "relevant and appropriate" state ARARs by the Navy.

The substantive provisions of *California Civil Code* (Cal. Civ. Code) § 1471 are the following general narrative standard: ". . . to do or refrain from doing some act on his or her own land . . . where . . .: (c) Each such act relates to the use of land and each such act is reasonably necessary to protect present or future human health or safety of the environment as a result of the presence on the land of hazardous materials, as defined in § 25260 of the Health and Safety Code." This narrative standard would be implemented through incorporation of restrictive environmental covenants in the deed at the time of transfer. These covenants would be recorded with the Covenant to Restrict Use of Property and run with the land.

The substantive provision of *California Health and Safety Code* (Cal. Health & Safety Code) § 25202.5 is the general narrative standard to restrict "present and future uses of all or part of the land on which the . . . facility . . . is located . . . ." This substantive provision will be implemented by incorporation of restrictive environmental covenants in the Covenant to Restrict Use of Property at the time of transfer for purposes of protecting present and future public health and safety.

Cal. Health & Safety Code §§ 25222.1 and 25355.5(a)(1)(C) provide the authority for the state to enter into voluntary agreements to establish land-use covenants with the property owner. The substantive requirements of the following Cal. Health & Safety Code § 25222.1 provisions are "relevant and appropriate": (1) the general narrative standard: "restricting specified uses of the property, . . ." and (2) ". . . the agreement is irrevocable, and shall be recorded by the owner, . . . as a hazardous waste easement, covenant, restriction or servitude, or any combination thereof, as appropriate, upon the present and future uses of the land." The substantive requirements of the following Cal. Health & Safety Code § 25355.5(a)(1)(C) provisions are "relevant and appropriate": ". . . execution and recording of a written instrument that imposes an easement, covenant, restriction, or servitude, or combination thereof, as appropriate, upon the present and future uses of the land."

The Navy will comply with the substantive requirements of Cal. Health & Safety Code §§ 25222.1 and 25355.5(a)(1)(C) by incorporating CERCLA use restrictions into the Navy's deed of conveyance in the form of restrictive covenants under the authority of Cal. Civ. Code § 1471. The substantive provisions of Cal. Health & Safety Code §§ 25222.1 and 25355.5(a)(1)(C) may be interpreted in a manner that is consistent with the substantive provisions of Cal. Civ. Code § 1471. The covenants shall be recorded with the deed and run with the land.

Cal. Health & Safety Code § 25233(c) sets forth "relevant and appropriate" substantive criteria for granting variances from uses prohibited by Cal. Health & Safety Code § 25232(b)(1) based upon specified environmental and health criteria. Cal. Health & Safety Code § 25234 sets forth the following "relevant and appropriate" substantive criteria for the removal of a land-use restriction on the grounds that ". . . the waste no longer creates a significant existing or potential hazard to present or future public health or safety."

In addition to being implemented through the Covenant to Restrict Use of Property between the Navy and DTSC, the appropriate and relevant portions of Cal. Health &

Safety Code §§ 25202.5, 25222.1, 25232(b)(1), 25233(c), 25234, and 25355.5(a)(1)(C) and Cal. Civ. Code § 1471 shall also be implemented through the deed between the Navy and the transferee. Compliance with these requirements shall ensure compliance with the substantive IC provisions of 10 C.F.R. § 20.1403(b).

U.S. EPA agrees that the substantive portions of the state statutes and regulations referenced in this section are ARARs. U.S. EPA specifically considers sections (a), (b), (d), and (e) of Cal. Code Regs., tit. 22, § 67391.1 to be ARARs for this ROD. DTSC's position is that all the state statutes and regulations referenced in this section are ARARs.

10.3 COST-EFFECTIVENESS

Alternative 4d, the selected remedy, has been determined to provide overall effectiveness proportional to its costs; it is therefore considered cost-effective. The order-of-magnitude net present worth is estimated as follows:

- For Site 3, $9.6 million. This includes capital costs of $5.0 million and O&M and monitoring costs of $4.6 million.
- For Site 5, $6.5 million. This includes capital costs of $3.2 million and O&M and monitoring costs of $3.3 million.

Alternative 4d is not the least costly of the landfill capping alternatives evaluated in the FS Reports. However, it is considered cost-effective because the less costly alternatives that would be suitable for semiarid climates such as former MCAS El Toro (i.e., Alternatives 3 and 5a) would not allow effective future reuse of the sites. Alternative 3, the monolithic soil cap, is not acceptable to the regulatory agencies under an irrigation scenario. Alternative 5a, the concrete pavement cap, may not support the intended reuse of Sites 3 or 5. All the technologies included in the remedy are readily implementable and have been widely used and demonstrated to be effective.

10.4 UTILIZATION OF PERMANENT SOLUTIONS AND ALTERNATIVE TREATMENT TECHNOLOGIES (OR RESOURCE RECOVERY TECHNOLOGIES) TO THE MAXIMUM EXTENT PRACTICABLE

The DON, U.S. EPA, DTSC, and RWQCB have determined that the selected remedy represents the maximum extent practicable to which permanent solutions and alternative treatment technologies can be used in a cost-effective manner for the landfill sites. Of the alternatives evaluated in the FS that are protective of human health and the environment and comply with ARARs, the DON and the state have determined that the selected remedy provides the best balance among short-term effectiveness, long-term effectiveness and permanence, implementability, and cost. The selected remedy is expected to be permanent and effective over the long term, as long as routine maintenance of the fence, cap, and erosion control features is performed; environmental restrictive covenants are enforced; and monitoring is continued.

10.5 PREFERENCE FOR TREATMENT AS A PRINCIPAL ELEMENT

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. The selected remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for Sites 3 and 5. However, because treatment of the principal threats at the sites was not found to be practicable, the selected remedy does not satisfy the statutory preference for treatment as a principal element of the remedy. The size of the landfills and the absence of on-site hot spots that represent the major sources of contamination preclude a remedy by which contaminants could be excavated and treated effectively.

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Section 11
DOCUMENTATION OF SIGNIFICANT CHANGES

The initial FS Reports presented the development and evaluation of remedial alternatives, providing adequate information for decision makers to select the most appropriate alternatives for Sites 3 and 5 (BNI 1997c,d). Subsequently, the PP for Sites 2, 3, 5, and 17 was released to the public for comment in June 1998. The PP identified Alternative 3, monolithic soil cap with institutional controls, as the preferred alternative for all four landfill sites.

The DON reviewed all written and verbal comments submitted during the PP comment period. Based on review of these comments and discussion with the LRA and regulatory members of the BCT, it was determined that Alternative 4d would better support the proposed reuse of Sites 3 and 5. The LRA expected that the proposed reuses of Sites 3 and 5 would require irrigation and that Alternative 4d would tolerate irrigation of the landfill cap better than Alternative 3. The original preference for Alternative 3 was based on the assumption that the capped portions of Sites 3 and 5 could be integrated into the Community Reuse Plan as nonirrigated portions of the golf course or industrial park. However, during the public comment period, it became evident that the uses envisioned for these sites may require irrigation of the entire sites. The Alternative 4d cap with an FML is expected to allow less infiltration than the Alternative 3 cap under such an irrigation scenario.

The initial PP also identified a groundwater remediation component of the preferred alternative designed to remediate elevated concentrations of metals in groundwater. As discussed in Section 5, an evaluation of metals in groundwater was performed subsequent to issuance of the PP. This evaluation concluded that the elevated concentrations of metals at the landfill sites reflect ambient conditions. Because the concentrations of metals are ambient and not due to activities that occurred at Sites 3 and 5, the groundwater remediation component of Alternative 4d was deleted.

Subsequent to the receipt of the comments from the public and the regulatory agencies and review by the DON, the draft ROD was published in 1999 (SWDIV 1999). The draft ROD was not finalized due to the need to incorporate findings from a radiological survey (Weston 2001). In addition, subsequent to publishing the FS, PP, and draft ROD documents for Sites 3 and 5, and in anticipation of the final selection of the remedies, supplemental field investigations for landfill activities were initiated in 2002 as a data gathering step for the remedial designs for Sites 3 and 5.

Based on a review of the landfill gas and other supplemental investigation results, the DON proposed ECs and ICs to address the underlying concern regarding the potential for landfill gas migration at Sites 3 and 5. The CIWMB and the FFA signatories reviewed the proposed landfill gas control components and concurred on the following measures (DON 2004b).

- Construct a single-barrier cap with an FML and implement erosion controls, land-use restrictions, and environmental monitoring (including landfill gas, leachate, and groundwater) at Sites 3 and 5 as proposed in the draft ROD.
- Install an active landfill gas collection or vent system at Sites 3 and 5. The system will remain inactive or will vent passively unless monitoring results trigger a contingency for active control. While inactive, wells/pipes screened within the waste will be used to monitor potential landfill gas generation within the waste itself, providing an early warning feature.

- Construct passive gas control gravel trenches within the compliance monitoring zone, which will provide an added measure of safety.
- Implement CIWMB monitoring protocols with compliance landfill gas monitoring probes within 50 feet of the waste boundary. Monitor the perimeter to demonstrate that landfill gas is not migrating. Once adequate data are collected, and with CIWMB concurrence, monitoring would be discontinued and land-use restrictions would be removed.
- Implement land-use restrictions within approximately 100 feet of the waste boundary (includes the 50-foot compliance monitoring zone plus another 50 feet as an additional safety measure). Within this 100-foot land-use restriction buffer zone, construction of structures would require concurrence of the FFA signatories and CIWMB.

Due to inclusion of active or passive landfill gas controls for response actions at Sites 3 and 5, revised RAOs were developed for the landfills as part of the FS Addendum as follows.

- Protect human health by minimizing the potential for direct contact with landfill wastes.
- Control run-on, runoff, and erosion; minimize infiltration and potential contaminant leaching to groundwater.
- Minimize the potential for landfill gas to migrate beyond the 100-foot buffer zone established for Sites 3 and 5 at concentrations greater than the Cal. Code Regs. tit. 27 thresholds.
- Minimize the potential for surface waters in the washes from contacting the landfill (only Site 3).

CERCLA Section 117(b) requires the lead agency to analyze modifications made to the preferred alternative between the PP and ROD to determine whether the modifications are "significant" and whether the modifications warrant a new PP and public comment period. The change from Alternative 3 in the PP to Alternative 4d in the draft ROD was considered a significant change because it involves selection of a remedy other than the one selected in the PP. Typically, per CERCLA, this change does not require a new PP and corresponding public comment period. However, FFA signatories concurred that the 2007 PP would be issued and a corresponding 30-day public comment period would be held. The key reasons were that the results from the radiological evaluation and the Supplemental Site Characterization, completed in 2006 and 2004, respectively, were now available and would be incorporated into the FS Addendum.

Prior to the Supplemental Site Characterization, landfill gas controls were not considered to be necessary at Sites 3 and 5. However, FFA signatories and the CIWMB agreed that the underlying concern for potential landfill gas migration would need to be addressed, and landfill gas control systems would be required for all remedial alternatives evaluated except for the no action alternative. The inclusion of landfill gas controls changed the RAOs for these sites as well. Implementation of these controls added an additional measure of protection from the potential for landfill gas migration and enabled the 100-foot land-use restriction buffer to be included in the remedial alternatives. This new information would be included in the FS Addendum and in the subsequent 2007 PP that was issued for public review and comment.

Section 12
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RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY
FORMER MARINE CORPS AIR STATION EL TORO, CALIFORNIA
PROPOSED PLAN FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5

Letters Received During Public Comment Period

Comments by: Larry Laven, letters dated February 9, 2007 and February 10, 2007, respectively

Number	Comments	Responses
1	I notice that none of the remedies proposed for the land fill caps at sites 3 and 5 mention "Natural Attenuation" under the remedial alternatives evaluated in the paper titled "Proposed Plan" a paper that notified me of the thirty day public comment period. In Table 2, under Summary of Landfill Closures Alternatives, on page 8 of the paper, Natural Attenuation is not mentioned, possibly because all of the proposed possibilities for the land fill caps except option #1 (no action at all), prevents not only the water from sinking into the soil, but also keeps out the air that would be drawn down into the soil by the sinking water, and therefore, theoretically, the trash and waste under the land fill caps will be cut off from fresh oxygen, and will never again receive fresh oxygen creating a situation where some of it might possibly become petrified if, in ten thousand or a million or so years from now, or maybe sooner, silica is introduced, like was done by nature to the trees in the Petrified Forest, a forest that is actually buried under ground and I believe covered with ash from trees that burned, before water carried silica down through the dirt and the ash surrounding the trees. I think the silica and ash cut the fallen trees off from the surrounding oxygen, causing the trees to petrify. However, for now, at sites 3 and 5 I believe that there is still a sufficient amount of oxygen that will be trapped in place when covered by a landfill cap, to allow some amount of natural attenuation to take place. I do not know for sure whether or not organic or inorganic waste decays faster or more efficiently when in an environment with oxygen or without oxygen. According to the RAB Glossary of Technical Terms: Anaerobic life or processes take place inside of, and are not destroyed by, the absence of oxygen, suggesting that some form or something, possibly some form of decomposition like the souring of milk, or the fermentation of organic matter like in the formation of alcohol from sugar, can take place inside the absence of oxygen; however, I believe that the decomposition of most organic matter is slower in an anaerobic	In the original Feasibility Studies performed for Sites 3 and 5, the Navy used a presumptive remedy approach advocated by U.S. EPA for municipal and appropriate military landfill sites. Presumptive remedies are based on those technologies that are preferred for common categories of sites (such as landfills) based on past experience, and historical patterns that show they will be cost-effective and time-efficient for clean-up. The presumptive remedy established by U.S. EPA for landfills is containment. Per this approach, the Navy defined appropriate remedial action objectives and developed remedial alternatives 3 through 6, as described in the Proposed Plan, that utilize containment as the principal technology. Natural attenuation, frequently referred to as "monitored natural attenuation" when discussed as a remedial technology, is a range of physical and biological processes that can reduce the concentration, toxicity, or mobility of organic contaminants in soil and/or groundwater. However, these processes are not effective for inorganic contaminants, such as metals, that would be present in landfills. Due to this limitation with respect to landfill waste material and because a presumptive remedy approach was used, natural attenuation was not considered as a viable technology during the remedial alternatives development process for Sites 3 and 5.

RESPONSIVENESS SUMMARY FORMER MARINE CORPS AIR STATION EL TORO, CALIFORNIA PROPOSED PLAN FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5		
Letters Received During Public Comment Period		
Comments by: Larry Laven, letters dated February 9, 2007 and February 10, 2007, respectively		
Number	**Comments**	**Responses**
	environment and the inorganic matter in the landfills is likely to take even longer when outside the presence of oxygen, and therefore this project will probably need to be monitored for not just thirty years but more likely for hundreds of years.	
2	I am not sure, but I think that the Gnatcatcher might be a subject of concern at Landfill sites 3 and 5; and if it is please include this paper on the Gnatcatcher. THE GNAT CATCHER What the Gnatcatcher wants most is to be left alone. The basic Gnatcatcher, a small slender grayish bird on the list of endangered species, is probably bigger than a humming bird, but does not do well around people, not as well as the humming bird, or the crow. Many birds do well in the environment people provide. Birds appreciate lawns full of worms, and water puddles. I believe that it is possible to find more birds and other wild life in a landscaped neighborhood, than amongst trees by a stream in the mountains; however, the Gnatcatcher is unique and possibly incapable of competing with other birds like the crow. Perhaps the Gnatcatcher has found a home at El Toro because there, the Gnatcatcher does not have to compete with larger birds like the crow, that will ultimately steal its eggs; or smaller birds that are quicker at stealing crumbs from one another. Although the Gnatcatcher would obviously prefer to be left alone, one might try to learn about the bird. Because much is already known about the Gnatcatcher's diet, someone might already know if a Gnatcatcher can find food around other plants like wild daisies? Or do plants different than sagebrush attract other birds that will compete with the Gnatcatcher? The Gnatcatcher might take advantage of a birdbath; (a pail of water held off the ground by a stand) but then again, maybe the Gnatcatcher is afraid of new and unusual objects, or unnatural objects. Perhaps the	Potential impacts to ecological receptors at Site 5 was addressed in an ecological risk assessment (ERA) performed as part of the Remedial Investigation conducted at the site. There was no ERA required for Site 3, since the site is cover with gravel or pavement and does not support wildlife habitat. The ERA at Site 5 supports the conclusion that significant ecological effects are not expected. Site 3 is currently covered with native grasses, and as mentioned above, Site 5 is covered with gravel and pavement. Neither landfill site contains significant riparian habitat that is typically preferred by species such as the Gnatcatcher. The preferred remedy (alternative 4d) will include an upper soil cover layer that will support vegetation such as native grasses, to control erosion and aid slope stability.

RESPONSIVENESS SUMMARY FORMER MARINE CORPS AIR STATION EL TORO, CALIFORNIA PROPOSED PLAN FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5		
Letters Received During Public Comment Period		
Comments by: Larry Laven, letters dated February 9, 2007 and February 10, 2007, respectively		
Number	**Comments**	**Responses**
	Gnatcatcher would like a bird bath, but is afraid of the other birds attracted to the water. On the other hand, one might ask ones self; Does the Gnatcatcher really need any more water than it already has? And if forgotten about, will the water breed mosquitoes? If a person was to stake out and tie a ribbon around the land fill that is to be covered with a cap, would the Gnatcatcher's instinctively comprehend the meaning of the ribbon? Would the Gnatcatcher understand that the people are only interested in the staked out land fill near by and that the people are not there to bother the Gnatcatcher its self? Or would the Gnatcatcher fear the ribbon and fly away? The Gnatcatcher was probably not afraid of the noise from the military aircraft that flew in and out of El Toro, but would the Gnatcatcher be frightened away by a new noise, or if the aircraft were to return?	

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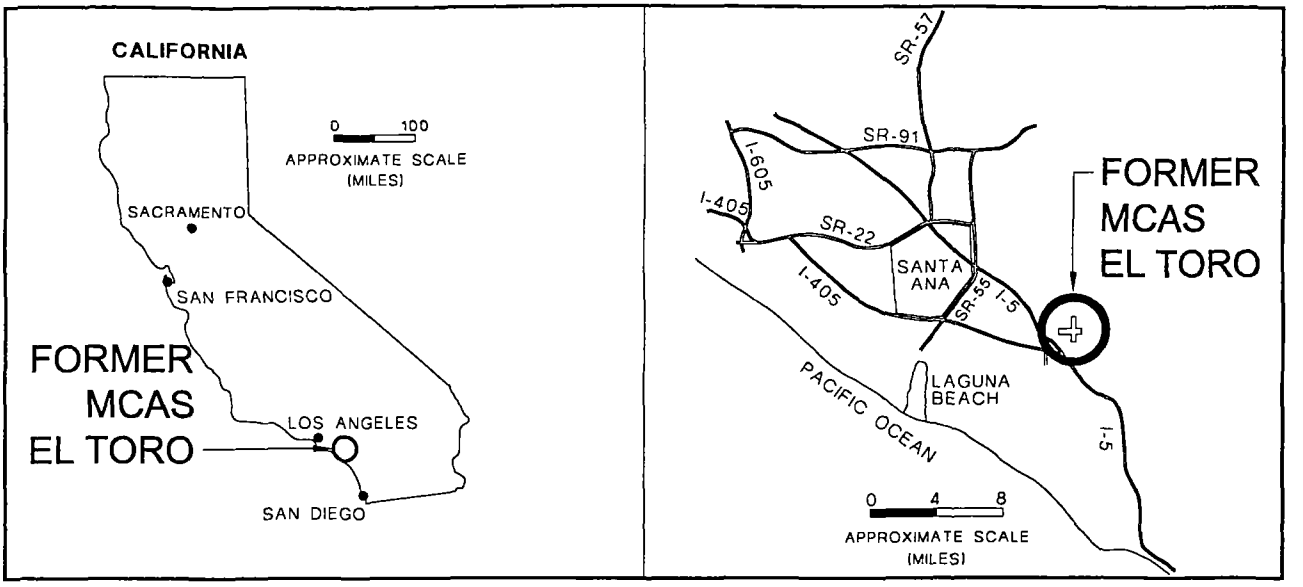
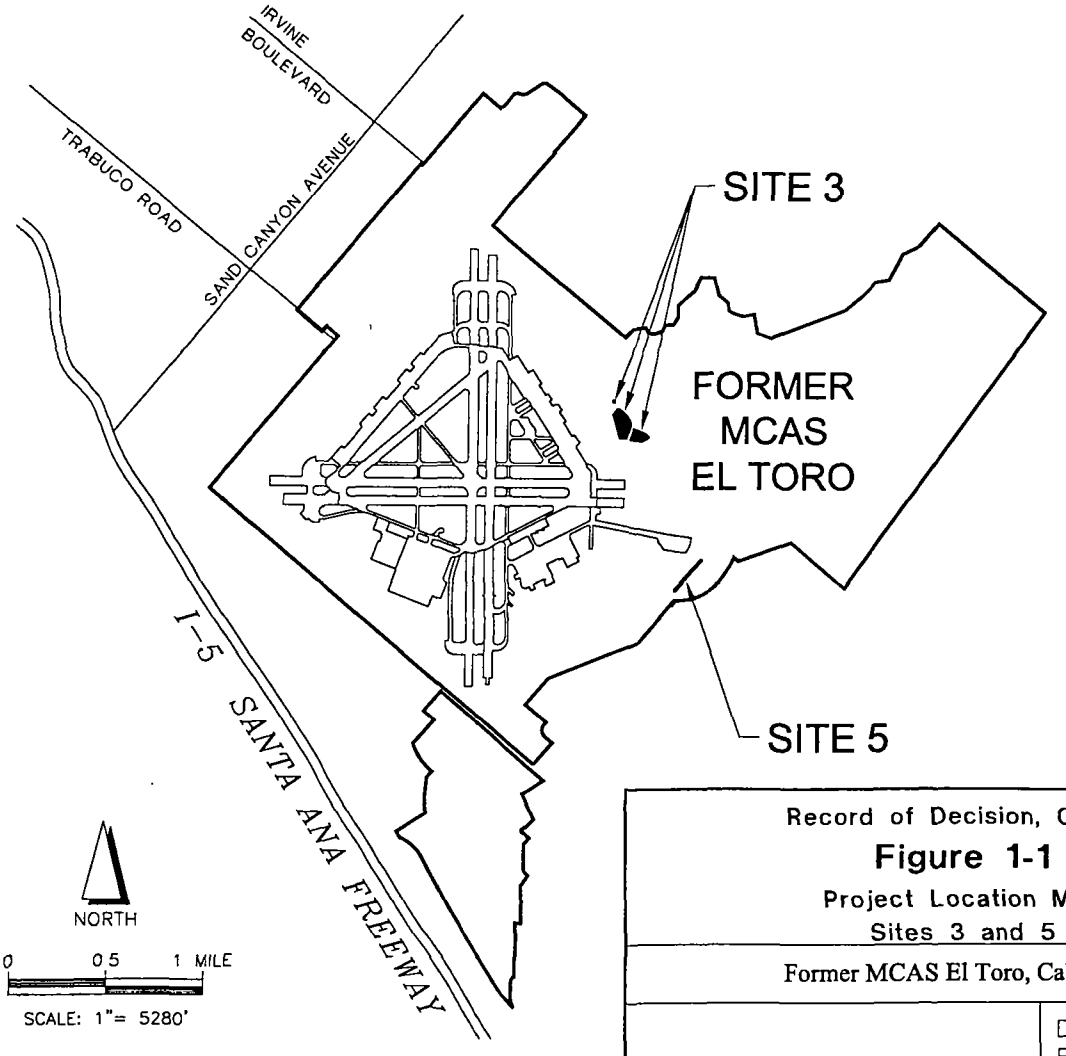
FIGURES





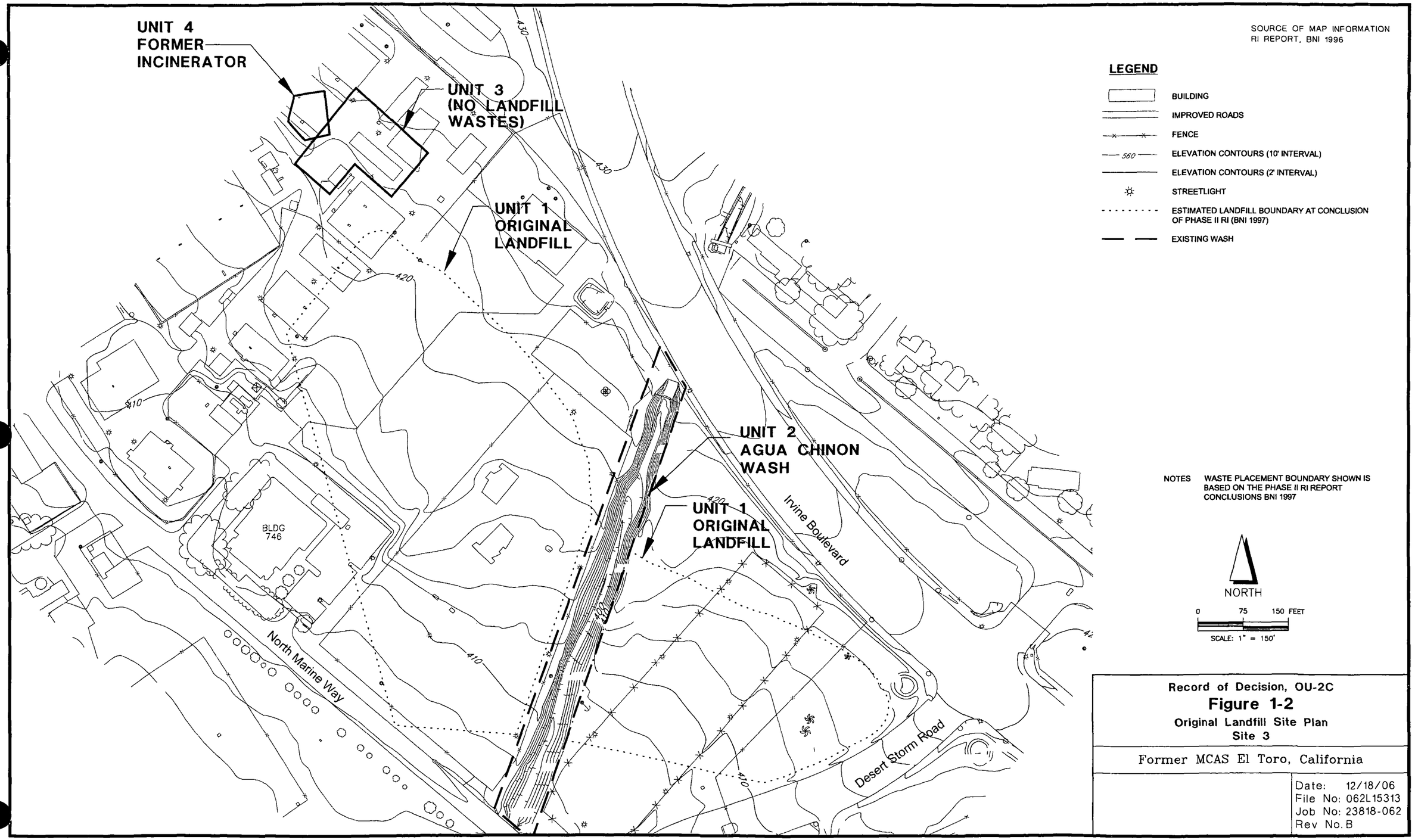
Record of Decision, OU-2C

Figure 1-1

Project Location Map
Sites 3 and 5

Former MCAS El Toro, California

Date	12/18/06
File No	062A15312
Job No	23818-062
Rev No	B



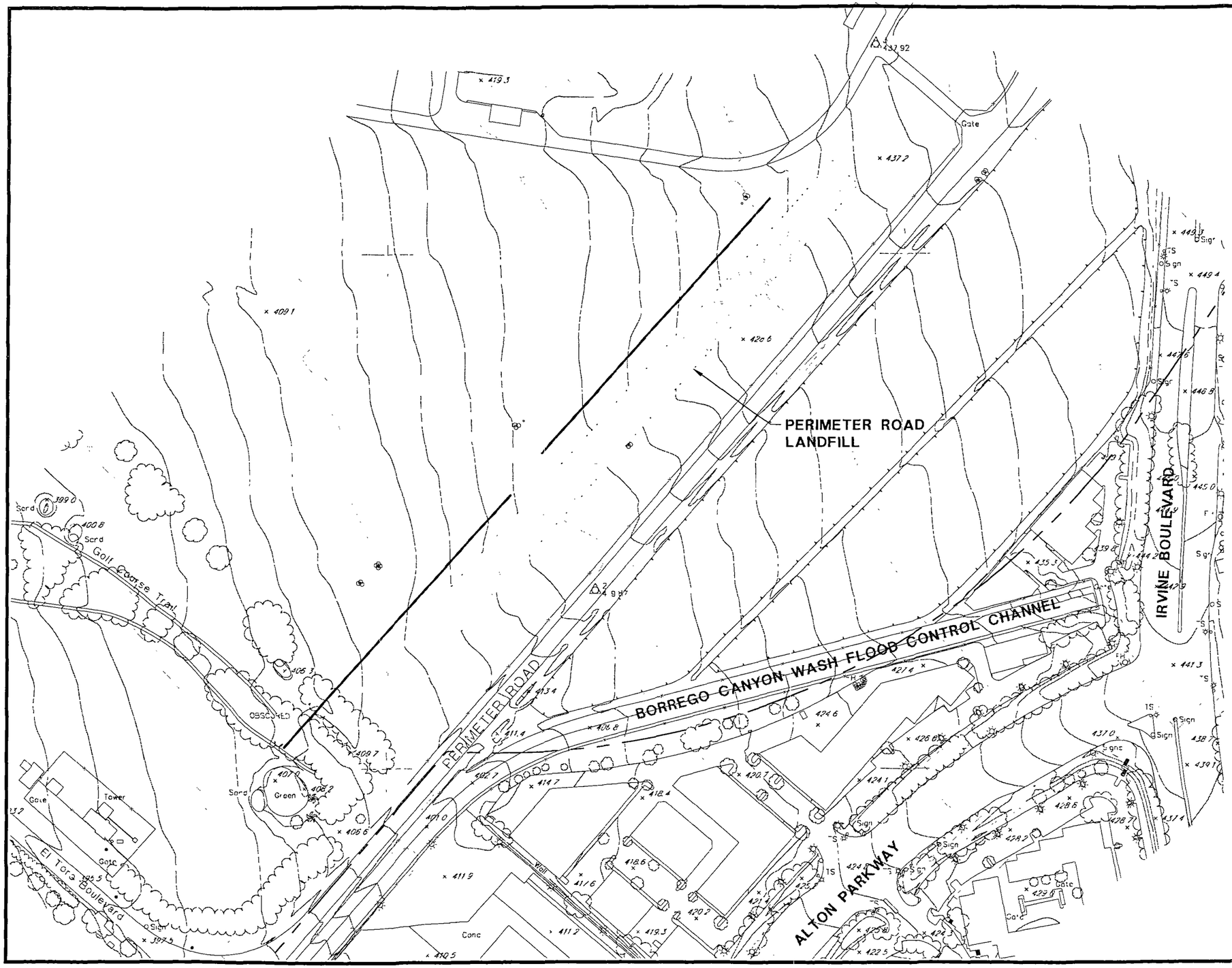
Record of Decision, OU-2C

Figure 1-2

Original Landfill Site Plan
Site 3

Former MCAS El Toro, California

Date: 12/18/06
File No: 062L15313
Job No: 23818-062
Rev No. B



LEGEND

- BUILDING
- IMPROVED ROADS
- FENCE
- ELEVATION CONTOURS (10' INTERVAL)
- ELEVATION CONTOURS (2' INTERVAL)
- STREETLIGHT
- MCAS EL TORO BOUNDARY
- PREVIOUSLY IDENTIFIED DISPOSAL TRENCH
- ESTIMATED LANDFILL BOUNDARY AT CONCLUSION OF PHASE II RI (BNI 1997)
- INFERRED UNDERGROUND UTILITY LINES (PHASE II RI, BNI 1996b)

NOTES WASTE PLACEMENT BOUNDARY SHOWN IS BASED ON THE PHASE II RI REPORT CONCLUSIONS BNI 1997b

NORTH

0 100 200 FEET

SCALE 1" = 200'

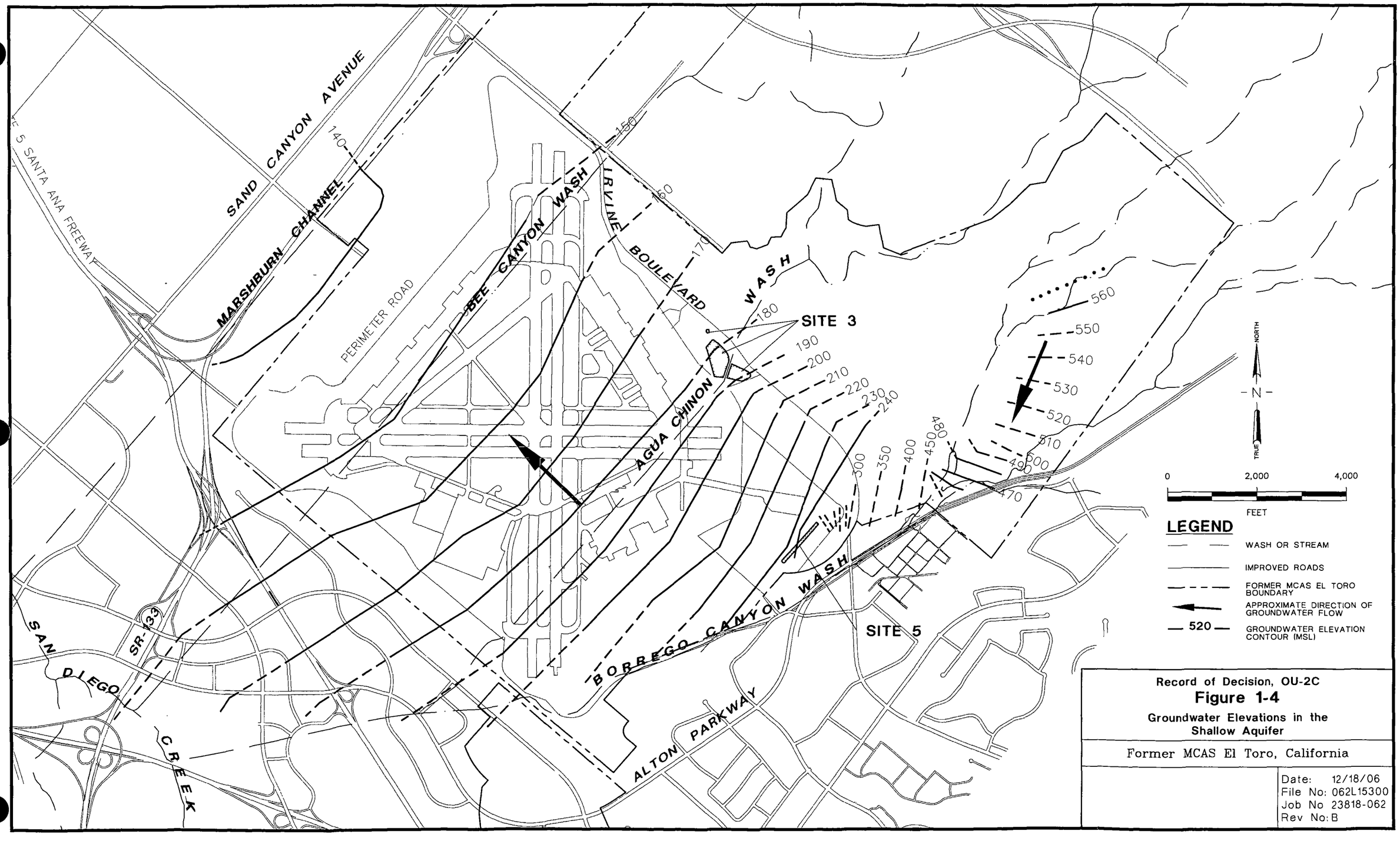
Record of Decision

Figure 1-3

Perimeter Road Landfill Site Plan
Site 5

Former MCAS El Toro, California

Date 4/2/07
File No 062A15314
Job No 23818-062
Rev No C



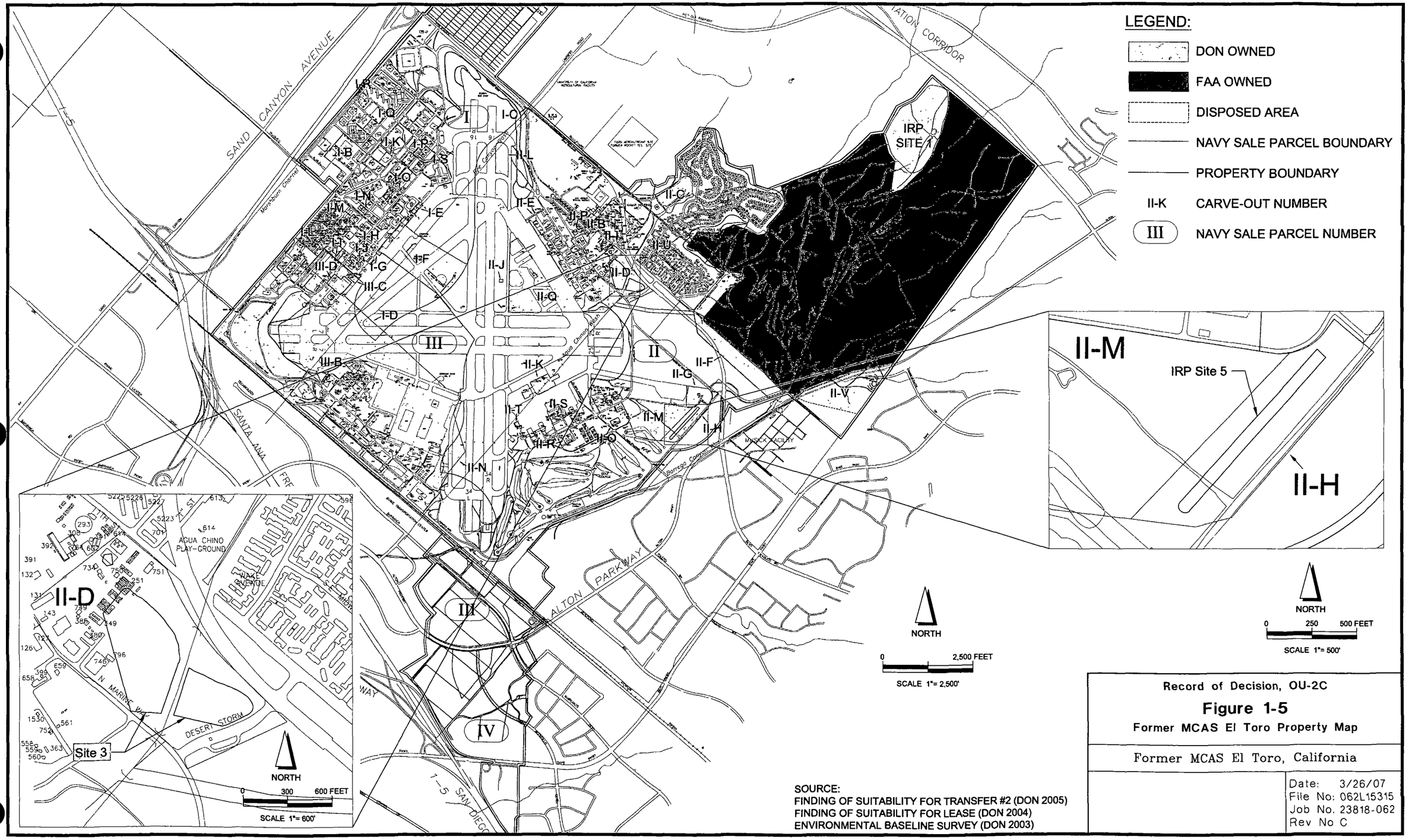
Record of Decision, OU-2C

Figure 1-4

Groundwater Elevations in the Shallow Aquifer

Former MCAS El Toro, California

Date: 12/18/06
File No: 062L15300
Job No 23818-062
Rev No: B



SOURCE:
FINDING OF SUITABILITY FOR TRANSFER #2 (DON 2005)
FINDING OF SUITABILITY FOR LEASE (DON 2004)
ENVIRONMENTAL BASELINE SURVEY (DON 2003)

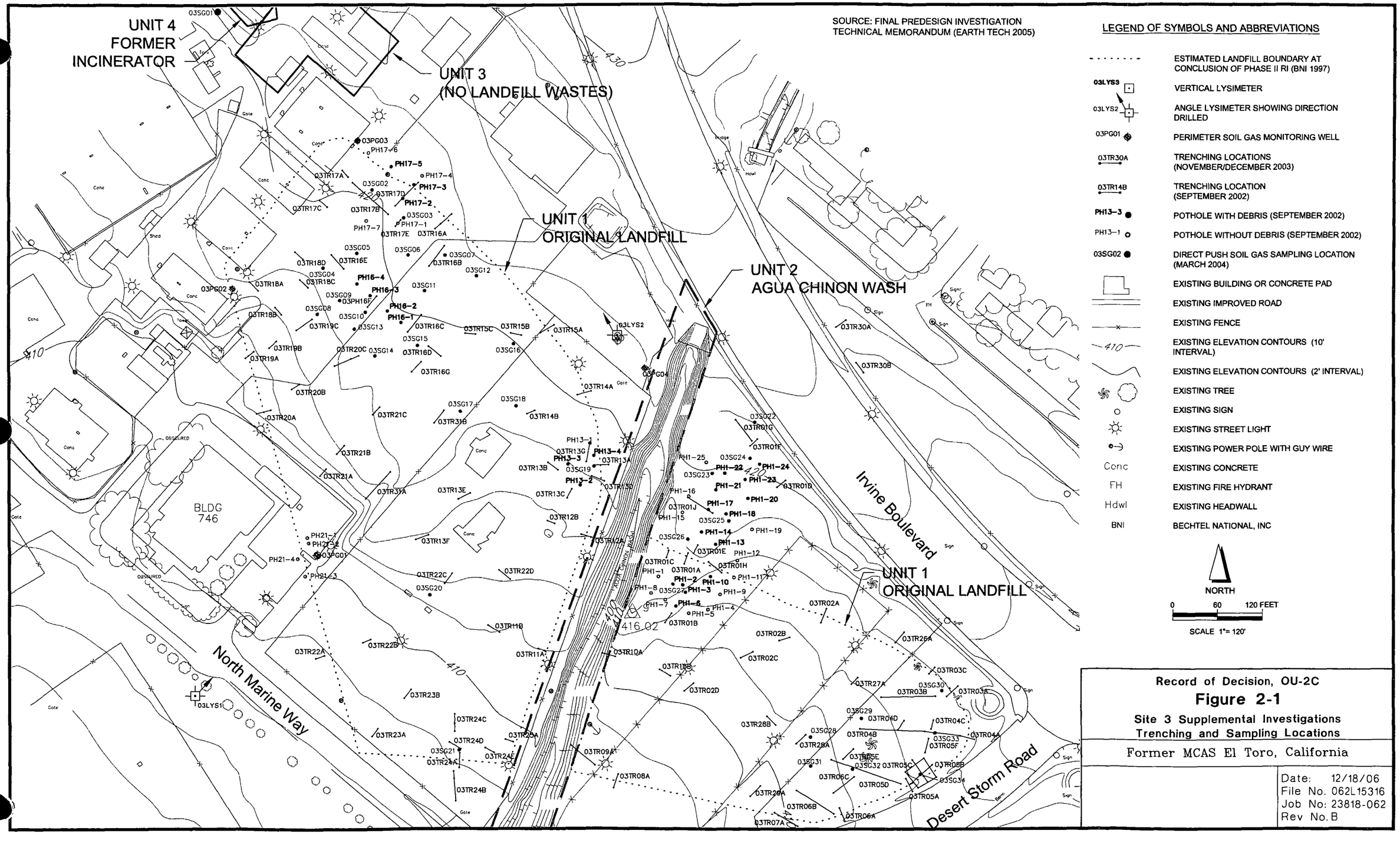
Record of Decision, OU-2C

Figure 1-5

Former MCAS El Toro Property Map

Former MCAS El Toro, California

Date: 3/26/07
File No: 062L15315
Job No. 23818-062
Rev No C



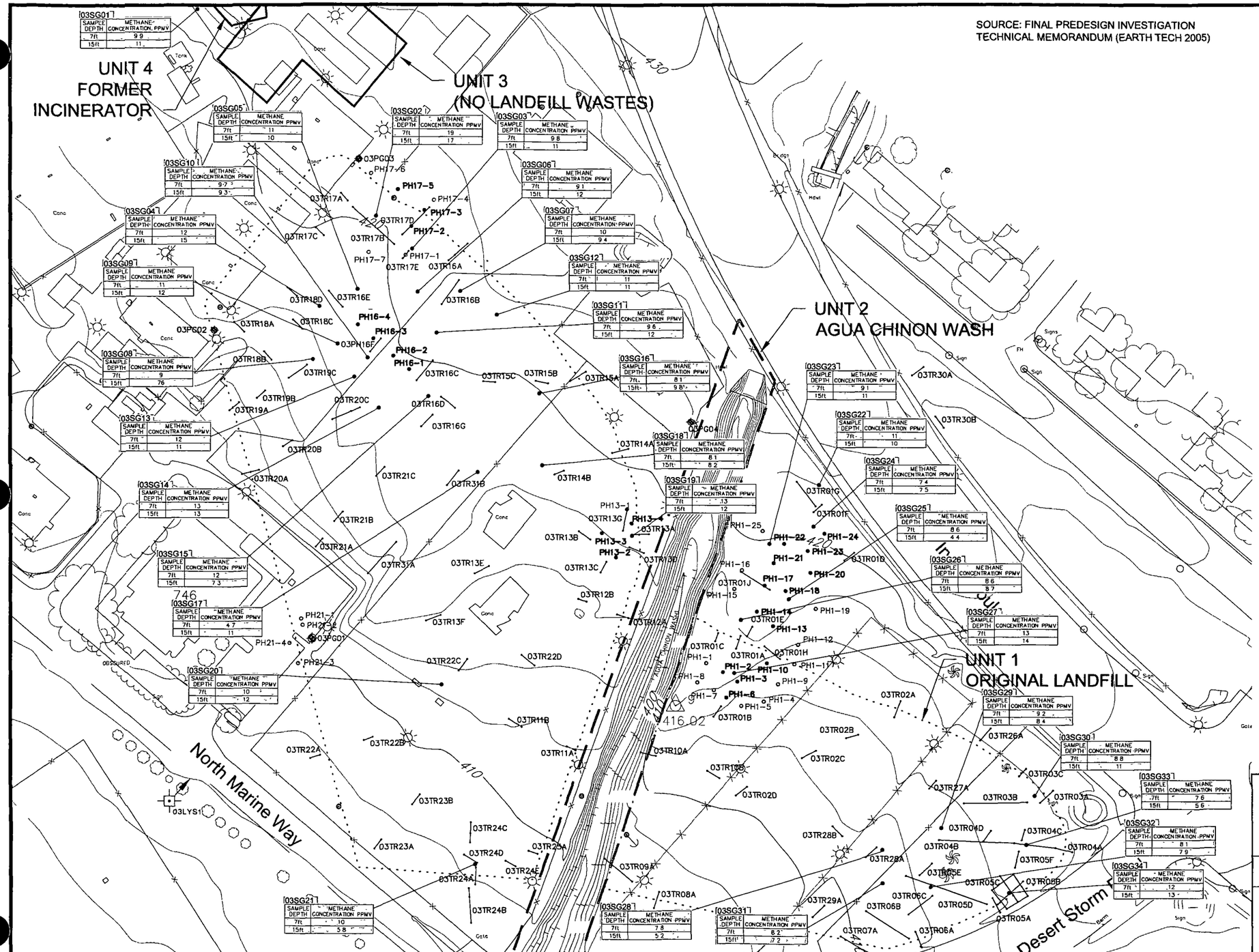
Record of Decision, OU-2C

Figure 2-1

Site 3 Supplemental Investigations
Trenching and Sampling Locations

Former MCAS El Toro, California

Date: 12/18/06
File No. 062L15316
Job No: 23818-062
Rev No. B



LEGEND OF SYMBOLS AND ABBREVIATIONS

- - - - - - - - -	ESTIMATED LANDFILL BOUNDARY AT CONCLUSION OF PHASE II RI (BNI 1997)
03LYS3	VERTICAL LYSIMETER
03LYS2	ANGLE LYSIMETER SHOWING DIRECTION DRILLED
03PG01	PERIMETER SOIL GAS MONITORING WELL (MARCH 2004)
03TR30A	TRENCHING LOCATIONS (NOVEMBER/DECEMBER 2003)
03TR14B	TRENCHING LOCATION (SEPTEMBER 2002)
PH13-3	POTHOLE WITH DEBRIS (SEPTEMBER 2002)
PH13-1	POTHOLE WITHOUT DEBRIS (SEPTEMBER 2002)
03SG02	DIRECT PUSH SOIL GAS SAMPLING LOCATION (MARCH 2004)
	EXISTING BUILDING OR CONCRETE PAD
	EXISTING IMPROVED ROAD
	EXISTING FENCE
410	EXISTING ELEVATION CONTOURS (10' INTERVAL)
	EXISTING ELEVATION CONTOURS (2' INTERVAL)
	EXISTING TREE
	EXISTING SIGN
	EXISTING STREET LIGHT
	EXISTING POWER POLE WITH GUY WIRE
Conc	EXISTING CONCRETE
FH	EXISTING FIRE HYDRANT
Hdwl	EXISTING HEADWALL
BNI	BECHTEL NATIONAL, INC
PPMV	PARTS PER MILLION BY VOLUME

NORTH

0 60 120 FEET

SCALE 1"= 120'

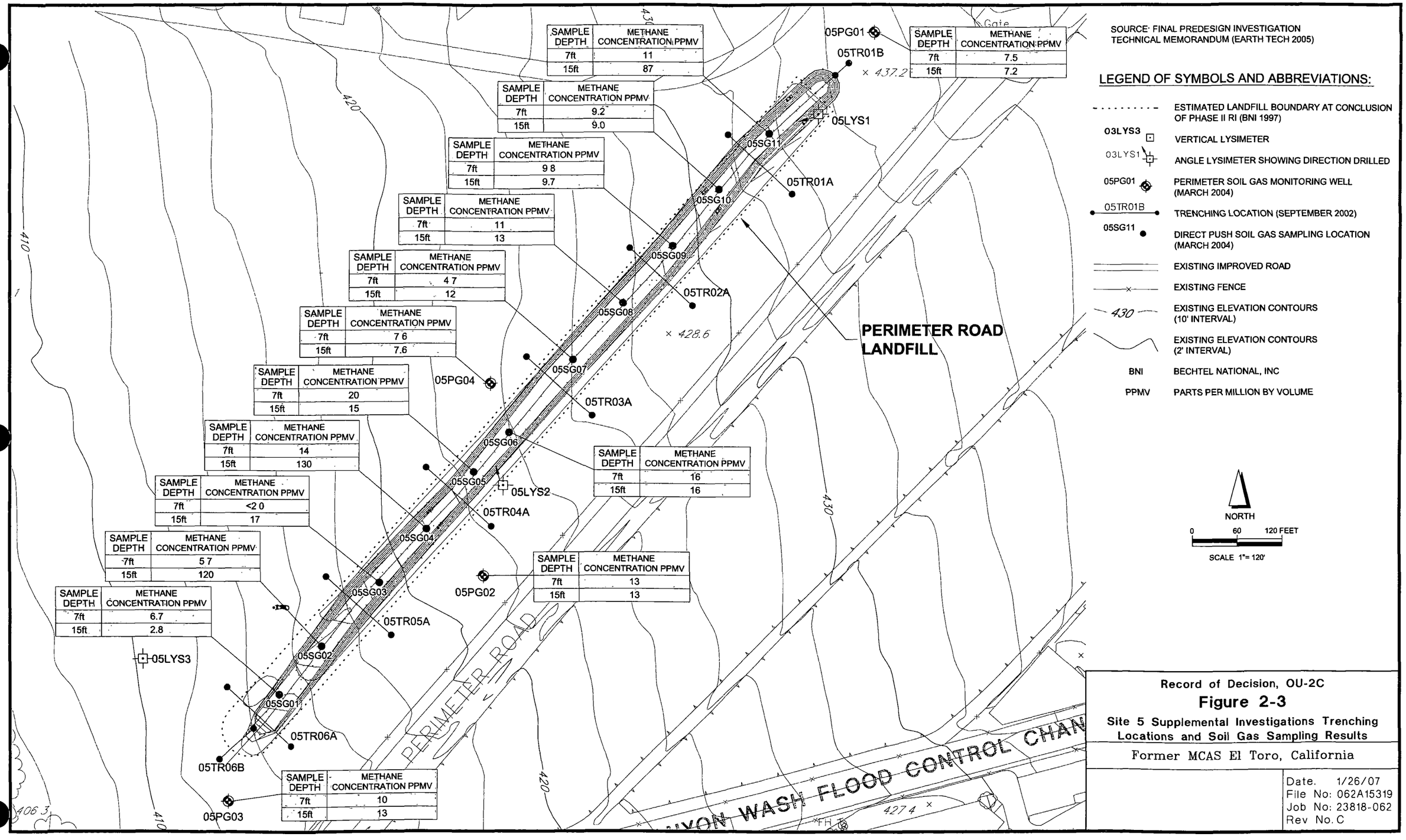
Record of Decision, OU-2C

Figure 2-2

Site 3 Supplemental Investigations Trenching Locations and Soil Gas Sampling Results

Former MCAS El Toro, California

Date: 1/26/07
File No: 062A15318
Job No: 23818-062
Rev No. C



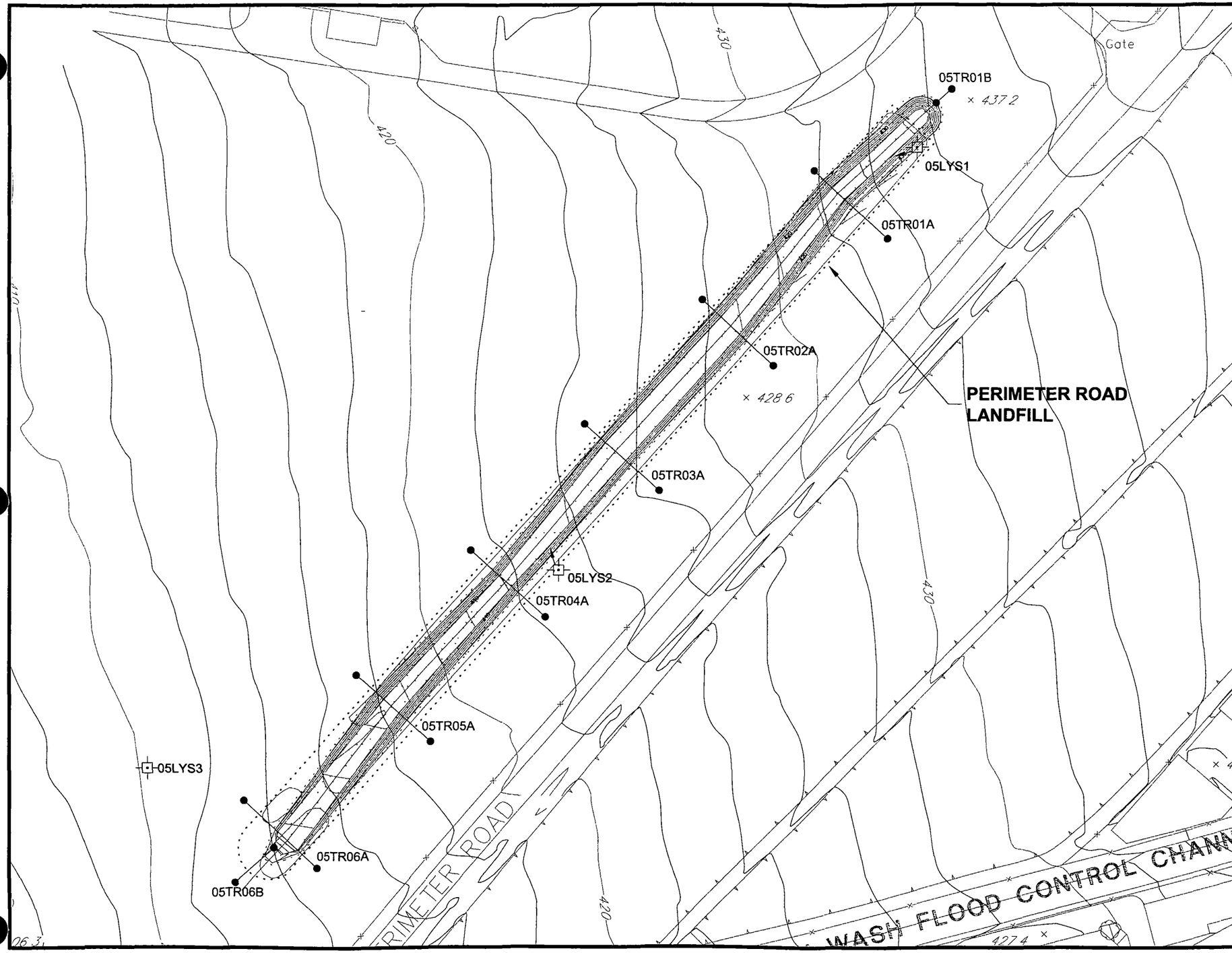
Record of Decision, OU-2C

Figure 2-3

Site 5 Supplemental Investigations Trenching Locations and Soil Gas Sampling Results

Former MCAS El Toro, California

Date. 1/26/07
File No: 062A15319
Job No: 23818-062
Rev No. C



LEGEND OF SYMBOLS AND ABBREVIATIONS:

- ESTIMATED LANDFILL BOUNDARY AT CONCLUSION OF PHASE II RI (BNI 1997)
- ESTIMATED LIMIT OF WASTE FOUND DURING PREDESIGN TRENCHING ACTIVITIES
- 03LYS3 — VERTICAL LYSIMETER
- 03LYS1 — ANGLE LYSIMETER SHOWING DIRECTION DRILLED
- 05TR01B — TRENCHING LOCATION (SEPTEMBER 2002)
- EXISTING IMPROVED ROAD
- EXISTING FENCE
- 430 — EXISTING ELEVATION CONTOURS (10' INTERVAL)
- EXISTING ELEVATION CONTOURS (2' INTERVAL)
- BNI — BECHTEL NATIONAL, INC

NOTES BUFFER ZONE AREA AS PER THE DON LETTER TO CIWMB, DATED 24 JUNE 2004

NORTH

0 60 120 FEET

SCALE 1"= 120'

Record of Decision, OU-2C

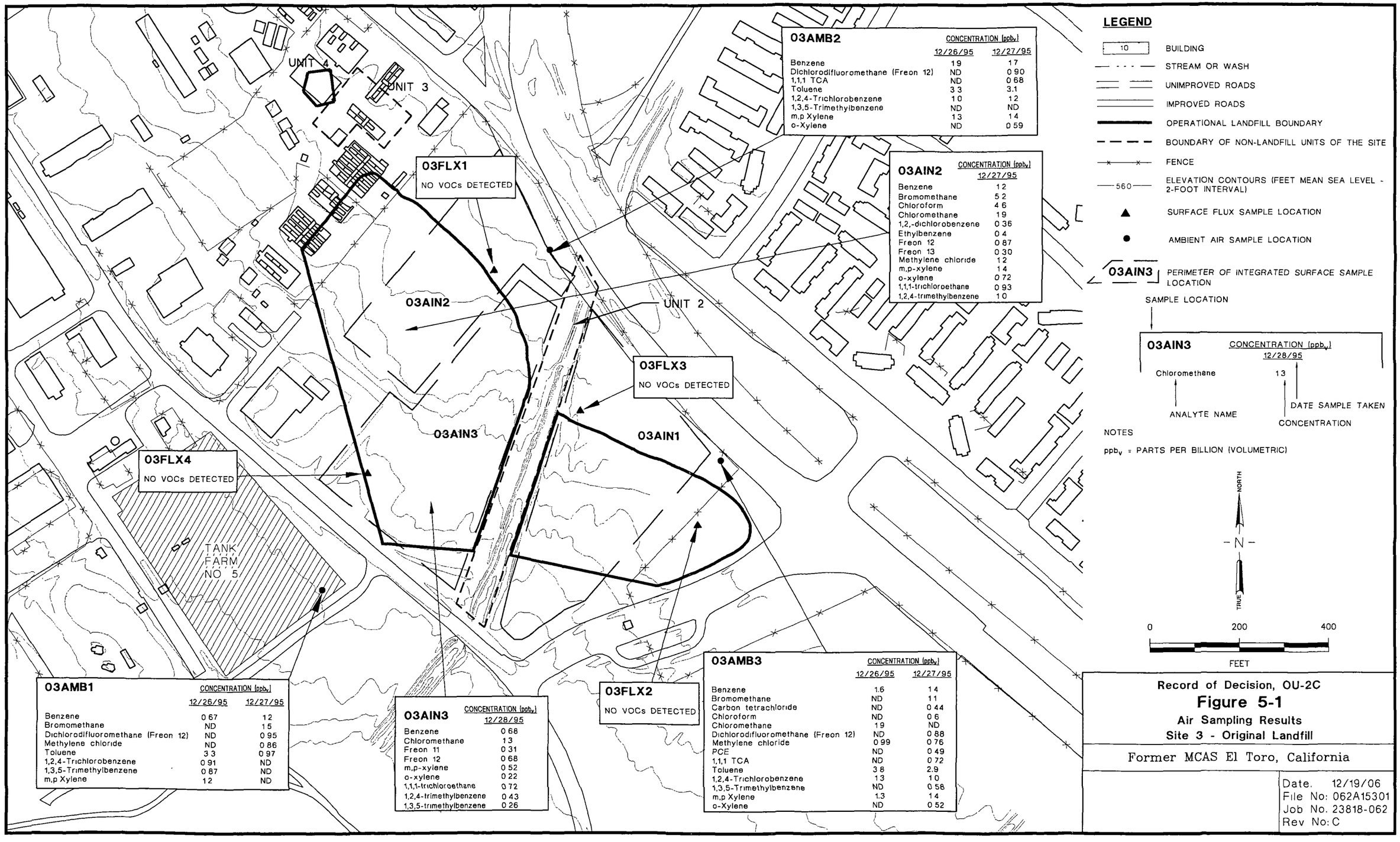
Figure 2-4

Revised Landfill Boundary

Site 5

Former MCAS El Toro, California

Date. 1/26/07
File No· 062L15320
Job No: 23818-062
Rev No. C



03AMB2

	CONCENTRATION (ppbv) 12/26/95	12/27/95
Benzene	1 9	1 7
Dichlorodifluoromethane (Freon 12)	ND	0 90
1,1,1 TCA	ND	0 68
Toluene	3 3	3.1
1,2,4-Trichlorobenzene	1 0	1 2
1,3,5-Trimethylbenzene	ND	ND
m,p Xylene	1 3	1 4
o-Xylene	ND	0 59

03AIN2

	CONCENTRATION (ppbv) 12/27/95
Benzene	1 2
Bromomethane	5 2
Chloroform	4 6
Chloromethane	1 9
1,2,-dichlorobenzene	0 36
Ethylbenzene	0 4
Freon 12	0 87
Freon 13	0 30
Methylene chloride	1 2
m,p-xylene	1 4
o-xylene	0 72
1,1,1-trichloroethane	0 93
1,2,4-trimethylbenzene	1 0

03AMB1

	CONCENTRATION (ppbv) 12/26/95	12/27/95
Benzene	0 67	1 2
Bromomethane	ND	1 5
Dichlorodifluoromethane (Freon 12)	ND	0 95
Methylene chloride	ND	0 86
Toluene	3 3	0 97
1,2,4-Trichlorobenzene	0 91	ND
1,3,5-Trimethylbenzene	0 87	ND
m,p Xylene	1 2	ND

03AIN3

	CONCENTRATION (ppbv) 12/28/95
Benzene	0 68
Chloromethane	1 3
Freon 11	0 31
Freon 12	0 68
m,p-xylene	0 52
o-xylene	0 22
1,1,1-trichloroethane	0 72
1,2,4-trimethylbenzene	0 43
1,3,5-trimethylbenzene	0 26

03AMB3

	CONCENTRATION (ppbv) 12/26/95	12/27/95
Benzene	1.6	1 4
Bromomethane	ND	1 1
Carbon tetrachloride	ND	0 44
Chloroform	ND	0 6
Chloromethane	1 9	ND
Dichlorodifluoromethane (Freon 12)	ND	0 88
Methylene chloride	0 99	0 76
PCE	ND	0 49
1,1,1 TCA	ND	0 72
Toluene	3 8	2.9
1,2,4-Trichlorobenzene	1 3	1 0
1,3,5-Trimethylbenzene	ND	0 58
m,p Xylene	1.3	1 4
o-Xylene	ND	0 52

Record of Decision, OU-2C

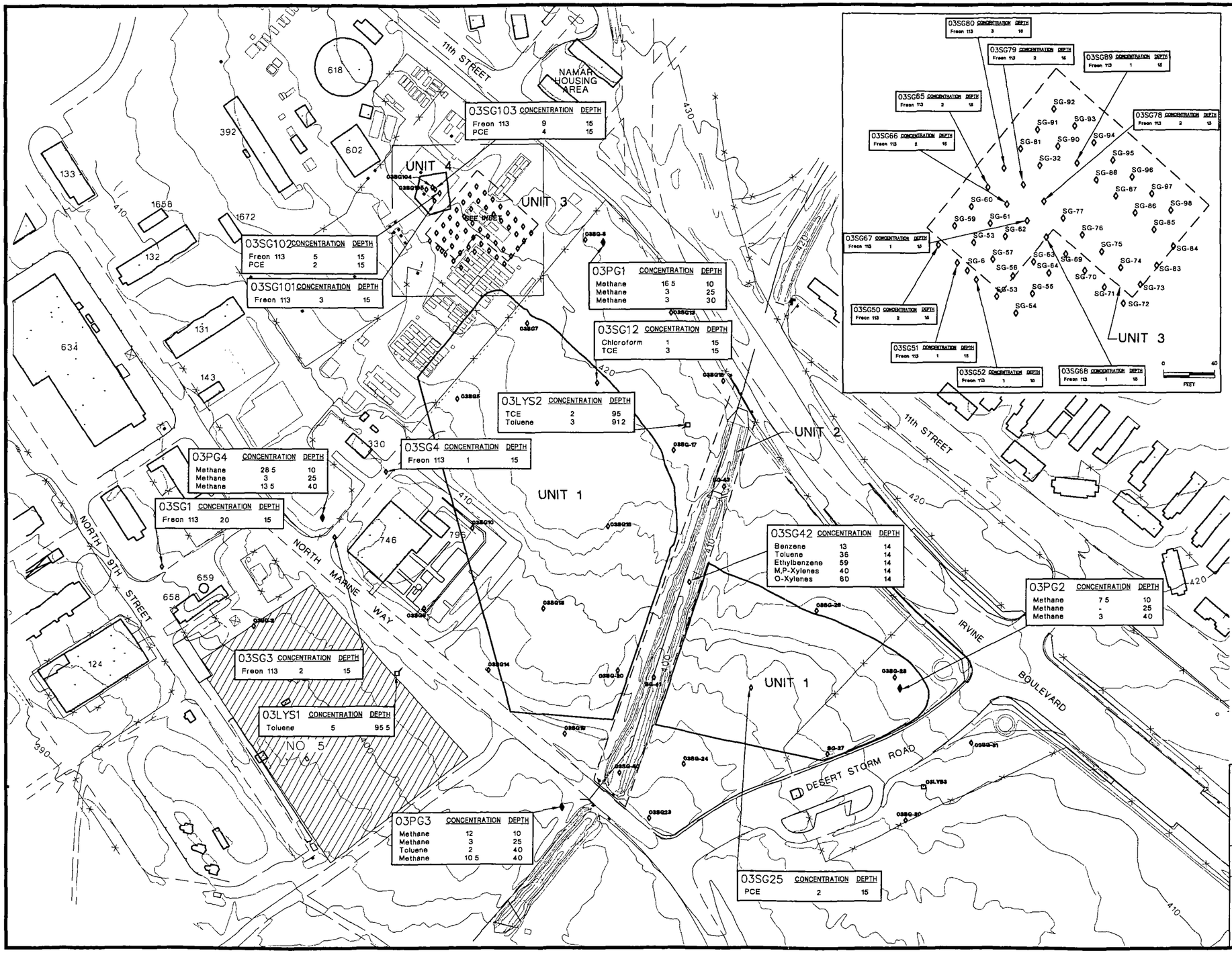
Figure 5-1

Air Sampling Results

Site 3 - Original Landfill

Former MCAS El Toro, California

Date. 12/19/06
File No: 062A15301
Job No. 23818-062
Rev No: C



LEGEND

- 10 — BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- OPERATIONAL LANDFILL BOUNDARY
- BOUNDARY OF NONLANDFILL UNITS OF THE SITE
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- SHALLOW SOIL GAS SAMPLE
- PERIMETER GAS MIGRATION SAMPLE
- PERIMETER GAS MIGRATION SAMPLE

SAMPLE NUMBER

03SG3	CONCENTRATION	DEPTH
SVOCs		
Butylbenzylphthalate	12 J	10

ANALYTE NAME — IN FEET

ANALYTE GROUP — VALIDATION QUALIFIER — CONCENTRATION IN ug/L

NORTH — TRUE

NOTES

SHALLOW SOIL GAS SAMPLES COLLECTED FROM 18 SEPTEMBER THROUGH 3 OCTOBER 1995

PERIMETER GAS SAMPLES COLLECTED FROM 17 NOVEMBER THROUGH 21 DECEMBER 1995

ANALYTICAL RESULTS FOR OTHER COMPOUNDS WERE NOT DETECTED ABOVE CONTRACT LABORATORY DETECTION LIMITS

ug/L = MICROGRAMS PER LITER

PCE = TETRACHLOROETHENE

TCE = TRICHLOROETHENE

0 200 400

FEET

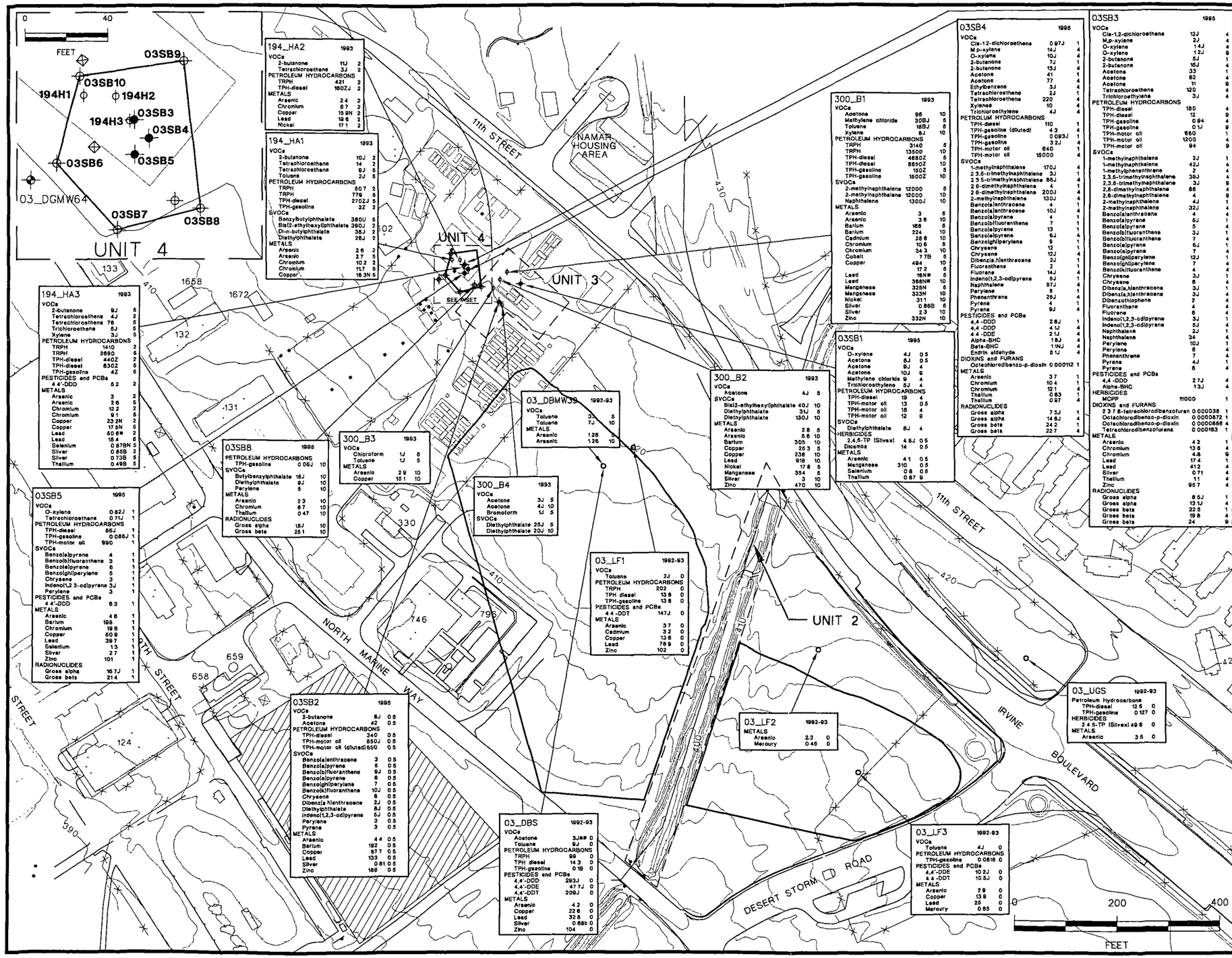
Record of Decision, OU-2C

Figure 5-2

Analytes Detected in Soil Gas
Site 3 - Original Landfill

Former MCAS El Toro, California

Date: 3/27/07
File No: 062A15364
Job No: 23818-062
Rev No: C



LEGEND

- 10 — BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- OPERATIONAL LANDFILL BOUNDARY
- BOUNDARY OF NONLANDFILL UNITS OF THE SITE
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- PHASE I SURFACE AND NEAR SURFACE SOIL SAMPLE (1992-93)
- PHASE II SOIL BORING (1995)
- RFA BORING (1993)

NORTH — N — TRUE

SAMPLE NUMBER

300_B2
VOCs
Acetone 4 J 5
ANALYTE NAME — DEPTH IN FEET
ANALYTE GROUP — VALIDATION QUALIFIER
CONCENTRATION

NOTES

ANALYTICAL RESULTS SHOWN FOR DETECTED ORGANIC COMPOUNDS AND RADIONUCLIDES, AND FOR METALS DETECTED ABOVE BACKGROUND CONCENTRATIONS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) FOR PETROLEUM HYDROCARBONS AND METALS, IN MICROGRAMS PER KILOGRAM (ug/kg) FOR ORGANIC COMPOUNDS, IN NANOGRAMS PER KILOGRAM (ng/kg) FOR DIOXINS AND FURANS, AND IN PICOCURIES PER GRAM (pCi/g) FOR RADIONUCLIDES

* COMPOUND ORIGINALLY WAS NOT ASSIGNED DATA VALIDATION QUALIFIER, HOWEVER, SOME BLANK CONTAMINATION MAY EXIST.

** COMPOUND OBSERVED IN THE FIELD BLANKS AT THE SAME ORDER OF MAGNITUDE

2,4,5-TP = TRICHLOROPHENOXYACETIC ACID
b = ESTIMATED VALUE
B = ANALYTE WAS FOUND IN ASSOCIATED BLANK AS WELL AS THE SAMPLE
BHC = BENZENE HEXACHLORIDE
DB = DICHLOROPHENOXYBUTYRIC ACID
DDD = DICHLORODIPHENYLDICHLOROETHANE
DDE = DICHLORODIPHENYLDICHLOROETHENE
DDT = DICHLORODIPHENYLTRICHLOROETHANE
J = ESTIMATED VALUE
MCPP = 2-(2-METHYL-4CHLOROPHENOXY)-PROPIONIC ACID
N = SPIKED SAMPLE RECOVERY NOT WITHIN CONTROL LIMITS
PCBs = POLYCHLORINATED BIPHENYLS
SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
TPH = TOTAL PETROLEUM HYDROCARBONS
TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
VOCs = VOLATILE ORGANIC COMPOUNDS
Z = UNKNOWN SINGLE PEAK DETECTED THAT DOESN'T RESEMBLE A TYPICAL FUEL PATTERN

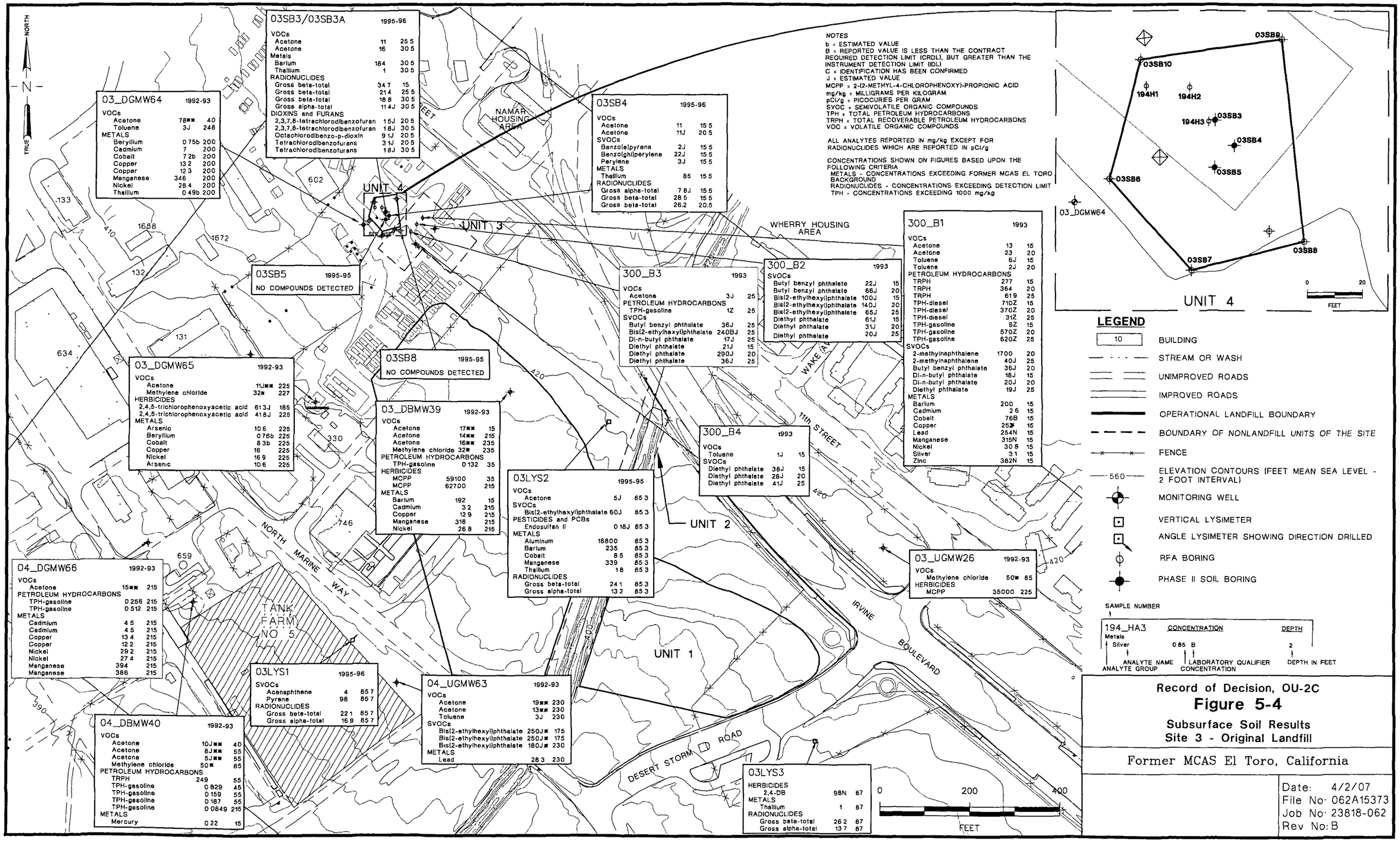
Record of Decision, OU-2C

Figure 5-3

Analytes in Shallow Soil Samples
Site 3 - Original Landfill

Former MCAS El Toro, California

Date. 3/26/07
File No. 062A15375
Job No. 23818-062
Rev No: B



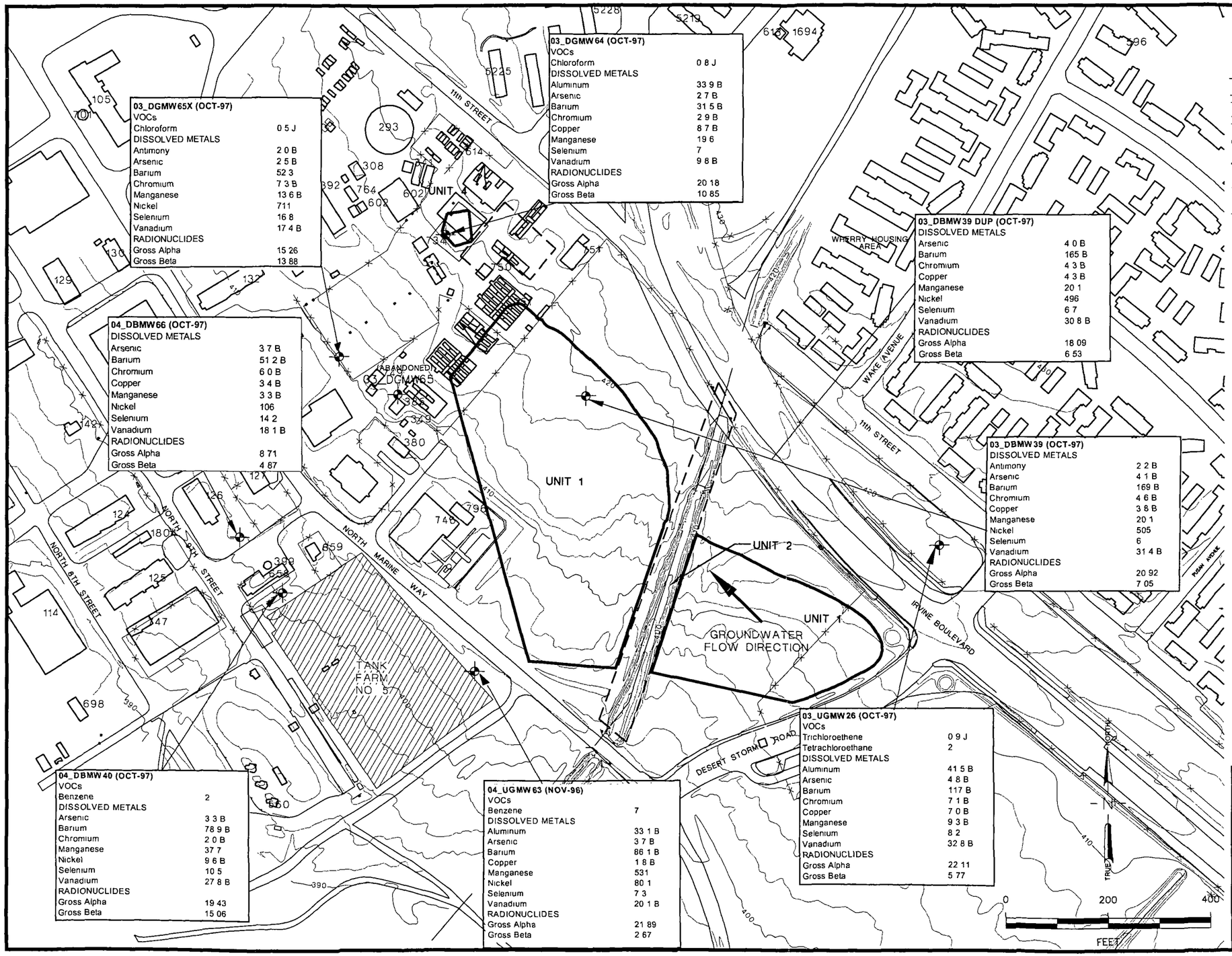
Record of Decision, OU-2C

Figure 5-4

Subsurface Soil Results
Site 3 - Original Landfill

Former MCAS El Toro, California

Date: 4/2/07
File No: 062A15373
Job No: 23818-062
Rev No: B



LEGEND

- BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- OPERATIONAL LANDFILL BOUNDARY
- BOUNDARY OF NON-LANDFILL UNITS OF THE SITE
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- MONITORING WELL

SAMPLE LOCATION — DATE COLLECTED

03_DGMW65X (OCT-97)

VOCs — ANALYTE GROUP

Chloroform — ANALYTE NAME

0 6 J — CONCENTRATION; VALIDATION QUALIFIER

NOTES

B = ANALYTE ALSO REPORTED IN BLANK SAMPLE
DUP = DUPLICATE
J = ESTIMATED VALUE
VOCs = VOLATILE ORGANIC COMPOUNDS

ANALYTICAL RESULTS SHOWN FOR ALL DETECTED COMPOUNDS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MICROGRAMS PER LITER (ug/L) FOR METAL AND ORGANIC COMPOUNDS, AND IN PICOCURIES PER LITER (pCi/L) FOR RADIONUCLIDES

SAMPLES WERE ANALYZED FOR VOCs, DISSOLVED METALS AND RADIONUCLIDES

SOURCE: FINAL GROUNDWATER MONITORING REPORT, OCTOBER 1997 ROUND (CDM 1998)

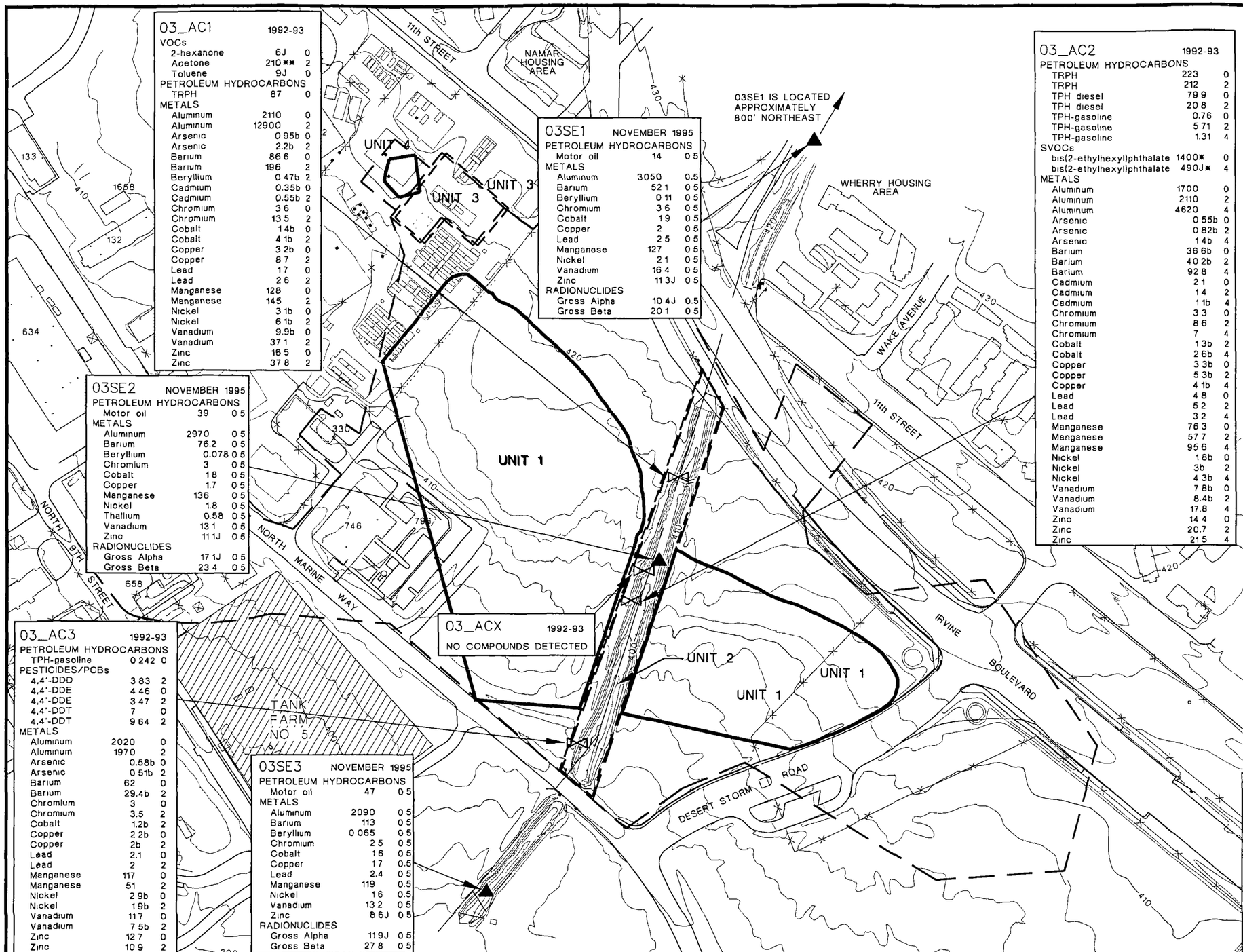
Record of Decision, OU-2C

Figure 5-5

Analytes in Groundwater
Site 3 - Original Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No. 062A15302
Job No: 23818-062
Rev No. B



LEGEND

- BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- OPERATIONAL LANDFILL BOUNDARY
- BOUNDARY OF NON-LANDFILL UNITS OF THE SITE
- FENCE
- ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- PHASE I SURFACE AND NEAR SURFACE SOIL SAMPLE
- PHASE II SEDIMENT SAMPLE LOCATION

SAMPLE NUMBER

03SE3

RADIONUCLIDES

Gross Alpha 11 9 J 0

ANALYTE NAME — IN FEET

ANALYTE GROUP — VALIDATION QUALIFIER — CONCENTRATION

NOTES

ANALYTICAL RESULTS SHOWN FOR DETECTED ORGANIC COMPOUNDS, RADIONUCLIDES, AND METALS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) FOR PETROLEUM HYDROCARBONS AND METALS, IN MICROGRAMS PER KILOGRAM (ug/kg) FOR ORGANIC COMPOUNDS, AND IN PICOCURIES PER GRAM (pCi/g) FOR RADIONUCLIDES

* COMPOUND ORIGINALLY WAS NOT ASSIGNED DATA VALIDATION QUALIFIER HOWEVER, SOME BLANK CONTAMINATION MAY EXIST.

** THIS COMPOUND WAS OBSERVED IN THE FIELD BLANKS AT THE SAME ORDER OF MAGNITUDE.

DDD = DICHLORODIPHENYLDICHLOROETHANE
DDE = DICHLORODIPHENYLDICHLOROETHENE
DDT = DICHLORODIPHENYLTRICHLOROETHANE
PCBs = POLYCHLORINATED BIPHENYLS
SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
TPH = TOTAL PETROLEUM HYDROCARBONS
TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
VOCs = VOLATILE ORGANIC COMPOUNDS

NORTH — N — TRUE

0 1-INCH 2-INCH
FEET

Record of Decision, OU-2C

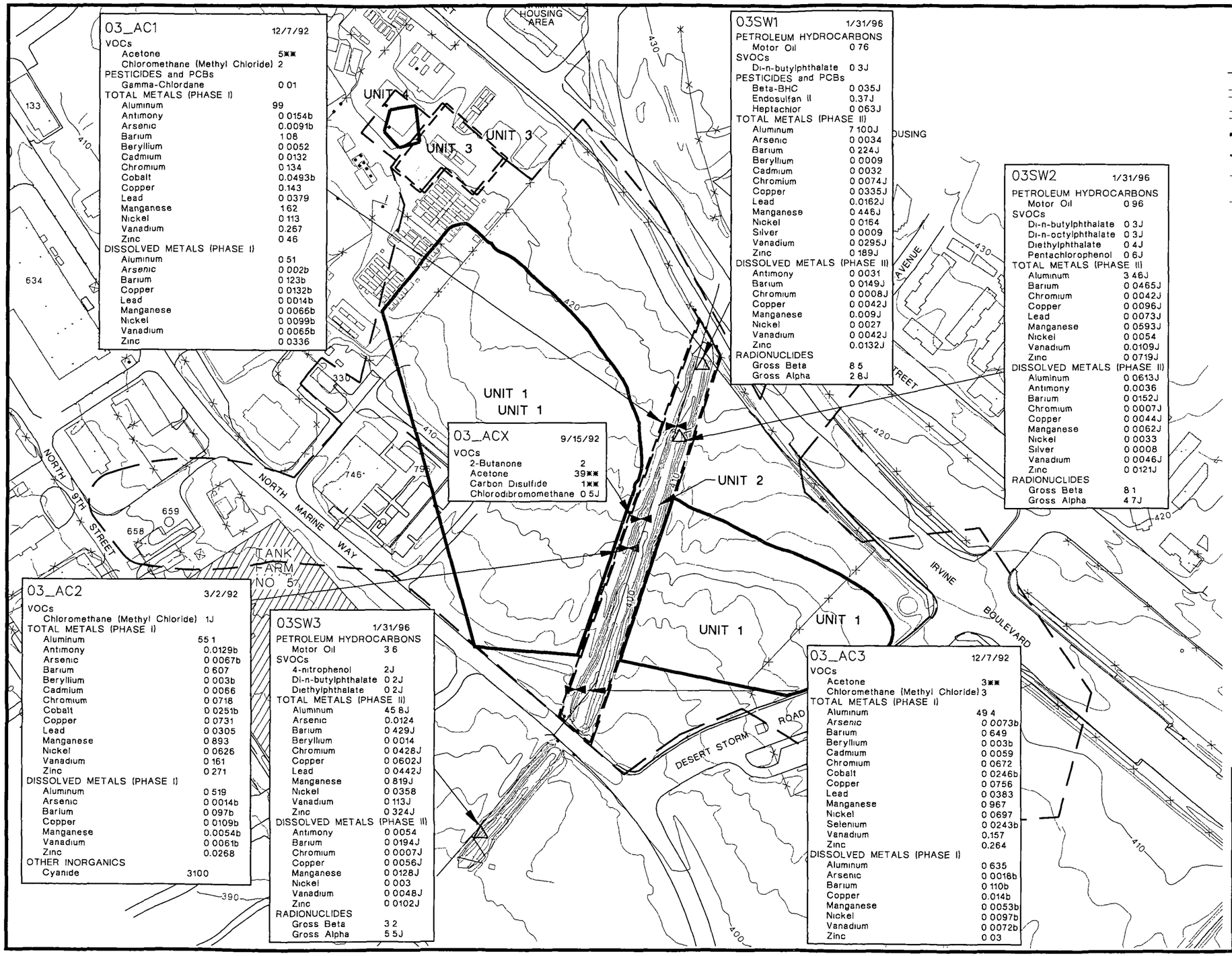
Figure 5-6

Analytes in Sediment Samples

Site 3 - Original Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No: 062A15303
Job No: 23818-062
Rev No. B



03_AC1 12/7/92

VOCs	
Acetone	5**
Chloromethane (Methyl Chloride)	2
PESTICIDES and PCBs	
Gamma-Chlordane	0 01
TOTAL METALS (PHASE I)	
Aluminum	99
Antimony	0 0154b
Arsenic	0.0091b
Barium	1 08
Beryllium	0 0052
Cadmium	0 0132
Chromium	0 134
Cobalt	0.0493b
Copper	0.143
Lead	0 0379
Manganese	1 62
Nickel	0 113
Vanadium	0.267
Zinc	0 46
DISSOLVED METALS (PHASE I)	
Aluminum	0 51
Arsenic	0 002b
Barium	0 123b
Copper	0 0132b
Lead	0 0014b
Manganese	0 0066b
Nickel	0 0099b
Vanadium	0 0065b
Zinc	0 0336

03SW1 1/31/96

PETROLEUM HYDROCARBONS	
Motor Oil	0 76
SVOCs	
Di-n-butylphthalate	0 3J
PESTICIDES and PCBs	
Beta-BHC	0 035J
Endosulfan II	0.37J
Heptachlor	0 063J
TOTAL METALS (PHASE II)	
Aluminum	7 100J
Arsenic	0 0034
Barium	0 224J
Beryllium	0 0009
Cadmium	0 0032
Chromium	0 0074J
Copper	0 0335J
Lead	0.0162J
Manganese	0 446J
Nickel	0 0164
Silver	0 0009
Vanadium	0 0295J
Zinc	0 189J
DISSOLVED METALS (PHASE II)	
Antimony	0 0031
Barium	0 0149J
Chromium	0 0008J
Copper	0 0042J
Manganese	0.009J
Nickel	0 0027
Vanadium	0 0042J
Zinc	0.0132J
RADIONUCLIDES	
Gross Beta	8 5
Gross Alpha	2 8J

03SW2 1/31/96

PETROLEUM HYDROCARBONS	
Motor Oil	0 96
SVOCs	
Di-n-butylphthalate	0 3J
Di-n-octylphthalate	0 3J
Diethylphthalate	0 4J
Pentachlorophenol	0 6J
TOTAL METALS (PHASE II)	
Aluminum	3 46J
Barium	0 0465J
Chromium	0 0042J
Copper	0 0096J
Lead	0 0073J
Manganese	0 0593J
Nickel	0 0054
Vanadium	0.0109J
Zinc	0 0719J
DISSOLVED METALS (PHASE II)	
Aluminum	0 0613J
Antimony	0.0036
Barium	0 0152J
Chromium	0 0007J
Copper	0 0044J
Manganese	0 0062J
Nickel	0 0033
Silver	0 0008
Vanadium	0 0046J
Zinc	0 0121J
RADIONUCLIDES	
Gross Beta	8 1
Gross Alpha	4 7J

03_ACX 9/15/92

VOCs	
2-Butanone	2
Acetone	39**
Carbon Disulfide	1**
Chlorodibromomethane	0 5J

03_AC2 3/2/92

VOCs	
Chloromethane (Methyl Chloride)	1J
TOTAL METALS (PHASE I)	
Aluminum	55 1
Antimony	0.0129b
Arsenic	0 0067b
Barium	0 607
Beryllium	0 003b
Cadmium	0 0066
Chromium	0 0718
Cobalt	0 0251b
Copper	0 0731
Lead	0 0305
Manganese	0 893
Nickel	0 0626
Vanadium	0 161
Zinc	0 271
DISSOLVED METALS (PHASE I)	
Aluminum	0 519
Arsenic	0 0014b
Barium	0 097b
Copper	0 0109b
Manganese	0.0054b
Vanadium	0 0061b
Zinc	0.0268
OTHER INORGANICS	
Cyanide	3100

03SW3 1/31/96

PETROLEUM HYDROCARBONS	
Motor Oil	3 6
SVOCs	
4-nitrophenol	2J
Di-n-butylphthalate	0 2J
Diethylphthalate	0 2J
TOTAL METALS (PHASE II)	
Aluminum	45 8J
Arsenic	0.0124
Barium	0 429J
Beryllium	0 0014
Chromium	0 0428J
Copper	0 0602J
Lead	0 0442J
Manganese	0 819J
Nickel	0 0358
Vanadium	0 113J
Zinc	0 324J
DISSOLVED METALS (PHASE II)	
Antimony	0 0054
Barium	0 0194J
Chromium	0 0007J
Copper	0 0056J
Manganese	0 0128J
Nickel	0 003
Vanadium	0 0048J
Zinc	0 0102J
RADIONUCLIDES	
Gross Beta	3 2
Gross Alpha	5 5J

03_AC3 12/7/92

VOCs	
Acetone	3**
Chloromethane (Methyl Chloride)	3
TOTAL METALS (PHASE I)	
Aluminum	49 4
Arsenic	0 0073b
Barium	0 649
Beryllium	0 003b
Cadmium	0 0059
Chromium	0 0672
Cobalt	0 0246b
Copper	0 0756
Lead	0 0383
Manganese	0 967
Nickel	0 0697
Selenium	0 0243b
Vanadium	0.157
Zinc	0.264
DISSOLVED METALS (PHASE I)	
Aluminum	0 635
Arsenic	0 0016b
Barium	0 110b
Copper	0.014b
Manganese	0 0053b
Nickel	0 0097b
Vanadium	0 0072b
Zinc	0 03

LEGEND

- 10 — BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- OPERATIONAL LANDFILL BOUNDARY
- BOUNDARY OF NON-LANDFILL UNITS OF THE SITE
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- △ PHASE II SURFACE WATER SAMPLE LOCATION
- ⋈ PHASE I SURFACE WATER SAMPLE LOCATION

SAMPLE NUMBER

03_AC3
DISSOLVED METALS
Aluminum 0 635

ANALYTE GROUP — ANALYTE NAME — CONCENTRATION

NOTES

ANALYTICAL RESULTS SHOWN FOR DETECTED ORGANIC COMPOUNDS, RADIONUCLIDES, AND METALS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MILLIGRAMS PER LITER (mg/L) FOR PETROLEUM HYDROCARBONS AND METALS, IN MICROGRAMS PER LITER (ug/L) FOR ORGANIC COMPOUNDS, AND IN PICOCURIES PER GRAM (pCi/g) FOR RADIONUCLIDES

** THIS COMPOUND WAS OBSERVED IN THE FIELD BLANKS AT THE SAME ORDER OF MAGNITUDE AS OBSERVED IN THE SAMPLE.

b = ESTIMATED VALUE
J = ESTIMATED VALUE
SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
TPH = TOTAL PETROLEUM HYDROCARBONS
VOCs = VOLATILE ORGANIC COMPOUNDS

NORTH — N — TRUE

0 1-INCH 2-INCH
FEET

Record of Decision, OU-2C

Figure 5-7

Analytes in Surface Water Samples
Site 3 - Original Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No: 062A15304
Job No: 23818-062
Rev No. B

NOTE
Sample locations without result boxes indicate the results of the sample taken were "no detection" for all TO-14 analytes (see Table 2-4)

05AMB3

	CONCENTRATION (ppbv) 12/6/95	12/7/95
Benzene	1 7J	1 3
Chloromethane	0 75J	0 83
Ethylbenzene	ND	1 2
Freon 12	0.85J	0 70
Methylene chloride	0 98J	0 70
Toluene	3 3J	2 7
1,1,1-trichloroethane	0 97J	0 69
1,2,4-trimethylbenzene	0.83J	4 7
1,3,5-trimethylbenzene	ND	1.6
m,p-xylene	1 1J	3 7
o-xylene	0.57J	ND

05FLX6

	FLUX (ug/m²/min) 01/09/96
Vinyl chloride	0 18

05AIN2

	CONCENTRATION (ppbv) 12/28/95
Benzene	12
Chloromethane	11
Freon 12	0 89
1,2,4-trimethylbenzene	0.83
m,p-xylene	0.91

05FLX3

	FLUX (ug/m²/min) 01/09/96
Chloroform	0 029
TCE	0 044
1,2,4-trichlorobenzene	0 025

05AMB2

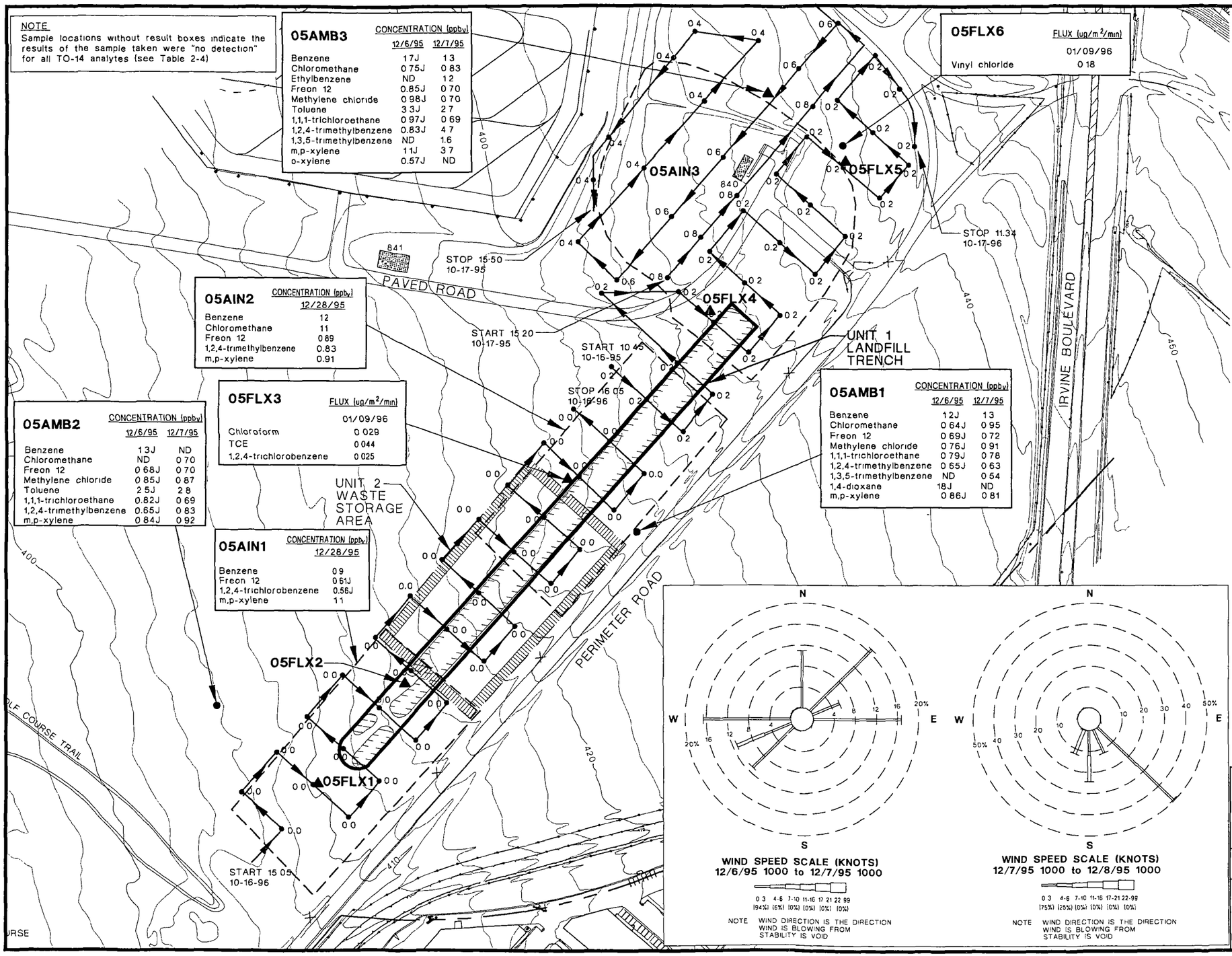
	CONCENTRATION (ppbv) 12/6/95	12/7/95
Benzene	1 3J	ND
Chloromethane	ND	0 70
Freon 12	0 68J	0 70
Methylene chloride	0 85J	0 87
Toluene	2 5J	2 8
1,1,1-trichloroethane	0.82J	0 69
1,2,4-trimethylbenzene	0.65J	0 83
m,p-xylene	0 84J	0 92

05AIN1

	CONCENTRATION (ppbv) 12/28/95
Benzene	0 9
Freon 12	0 61J
1,2,4-trichlorobenzene	0.56J
m,p-xylene	1 1

05AMB1

	CONCENTRATION (ppbv) 12/6/95	12/7/95
Benzene	1 2J	1 3
Chloromethane	0 64J	0 95
Freon 12	0 69J	0 72
Methylene chloride	0 76J	0 91
1,1,1-trichloroethane	0 79J	0 78
1,2,4-trimethylbenzene	0 65J	0 63
1,3,5-trimethylbenzene	ND	0 54
1,4-dioxane	18J	ND
m,p-xylene	0 86J	0 81



LEGEND

- 10 — BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- FORMER MCAS EL TORO BOUNDARY
- OPERATIONAL LANDFILL BOUNDARY (1950's-1960's)
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- PREVIOUSLY IDENTIFIED DISPOSAL TRENCH
- BERM
- AREA OF INSTALLATION RESTORATION PROGRAM (IRP) INVESTIGATION-DERIVED SOIL WASTE DISPOSAL (1991-1995)
- WALK PATTERN WITH DIRECTION
- 0 2 — CONCENTRATION READINGS IN ppm_v AS METHANE
- 05AIN3 — PERIMETER OF INTEGRATED SURFACE SAMPLE LOCATION
- AMBIENT AIR SAMPLE LOCATION
- ISOLATION FLUX CHAMBER SAMPLE LOCATION

05AIN1 — SAMPLE LOCATION
CONCENTRATION 12/18/95 — DATE SAMPLE TAKEN
Freon 12 — ANALYTE NAME
0 61 J — CONCENTRATION (SEE NOTES); J — VALIDATION QUALIFIER

NOTES
J = ESTIMATED VALUE
ug/m²/min = MICROGRAMS PER SQUARE METER PER MINUTE
ND = LESS THAN CONTRACT-REQUIRED DETECTION LIMIT
ppb_v = PARTS PER BILLION (VOLUMETRIC)
ppm_v = PARTS PER MILLION (VOLUMETRIC)
TCE = TRICHLOROETHENE

FIELD SCREENING RESULTS

SAMPLE LOCATION	TOTAL ORGANIC COMPOUNDS AS METHANE (ppm_v)
05AIN1	<1
05AIN2	<1
05AIN3	<1

0 200 400
FEET

NORTH
N
TRUE

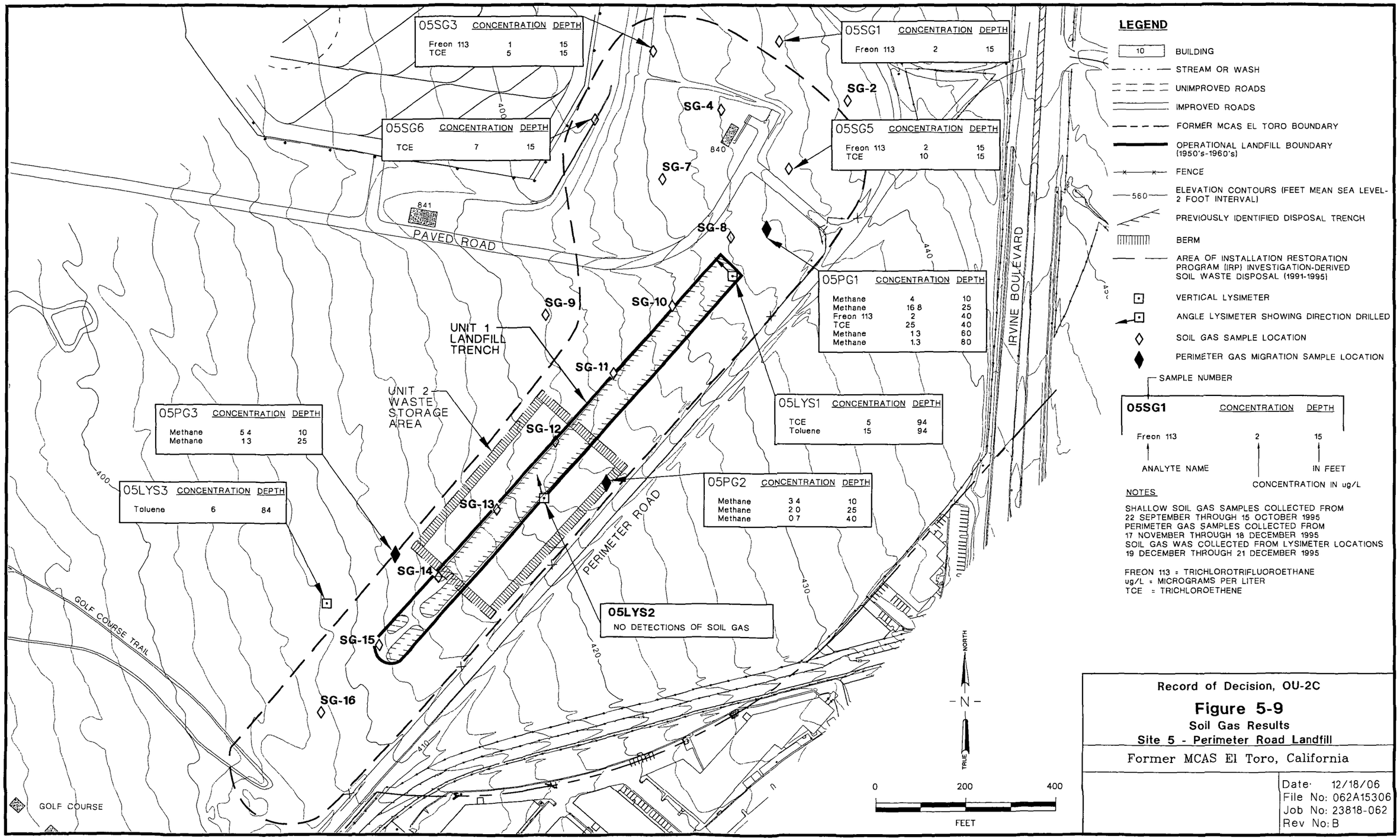
Record of Decision, OU-2C

Figure 5-8

Compounds Detected in Air Samples
Site 5 - Perimeter Road Landfill

Former MCAS El Toro, California

Date: 12/19/06
File No: 062A15305
Job No: 23818-062
Rev No. C



Record of Decision, OU-2C

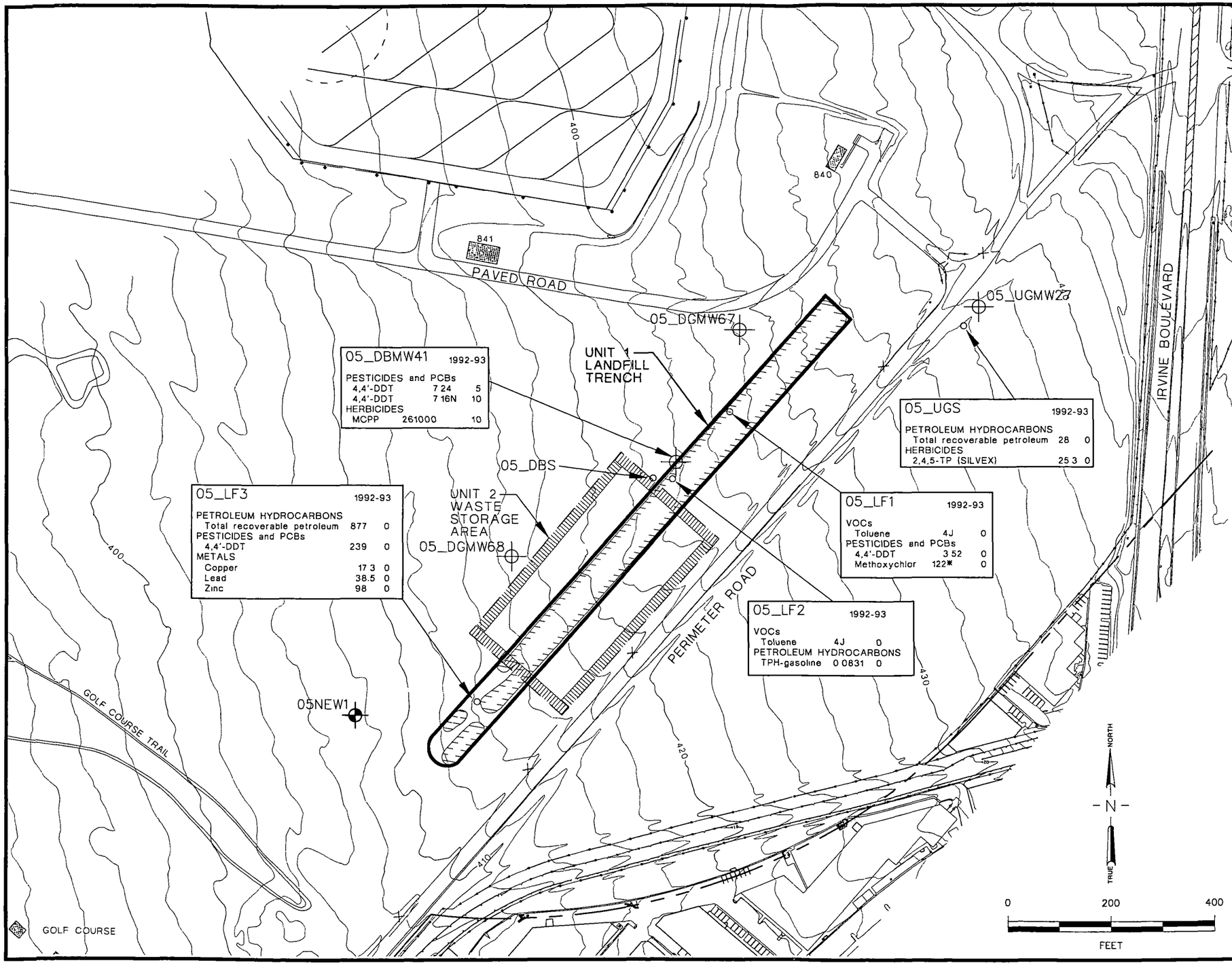
Figure 5-9

Soil Gas Results

Site 5 - Perimeter Road Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No: 062A15306
Job No: 23818-062
Rev No: B



LEGEND

- 10 — BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- FORMER MCAS EL TORO BOUNDARY
- OPERATIONAL LANDFILL BOUNDARY (1950's-1960's)
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- PREVIOUSLY IDENTIFIED DISPOSAL TRENCH
- BERM
- AREA OF INSTALLATION RESTORATION PROGRAM (IRP) INVESTIGATION-DERIVED SOIL WASTE DISPOSAL (1991-1995)
- PHASE I SURFACE AND NEAR SURFACE SOIL SAMPLE LOCATION
- PHASE I MONITORING WELL
- PHASE II MONITORING WELL

SAMPLE LOCATION

05_LF3
METALS
Lead 38 5 J 0

ANALYTE GROUP — ANALYTE NAME — CONCENTRATION (SEE NOTES) — VALIDATION QUALIFIER — DEPTH IN FEET

NOTES.

- * = THIS COMPOUND ORIGINALLY WAS NOT ASSIGNED DATA VALIDATION QUALIFIER. HOWEVER, SOME BLANK CONTAMINATION MAY EXIST
- DDT = DICHLORODIPHENYLTRICHLOROETHANE
- J = ESTIMATED VALUE
- MCPP = 2-(2-METHYL-4-CHLOROPHENOXY)-PROPIONIC ACID
- N = TENTATIVELY IDENTIFIED ANALYTE BASED ON PRESUMPTIVE EVIDENCE
- PCBs = POLYCHLORINATED BIPHENYLS
- TPH = TOTAL PETROLEUM HYDROCARBONS
- VOCs = VOLATILE ORGANIC COMPOUNDS

ANALYTICAL RESULTS SHOWN FOR DETECTED ORGANIC COMPOUNDS, AND FOR METALS DETECTED ABOVE BACKGROUND CONCENTRATIONS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) FOR PETROLEUM HYDROCARBONS AND METALS, IN MICROGRAMS PER KILOGRAM (ug/kg) FOR ORGANIC COMPOUNDS.

AT 05_DBS, AND 05NEW1 METALS DID NOT EXCEED BACKGROUND AND NO ORGANIC COMPOUNDS WERE DETECTED

Record of Decision, OU-2C

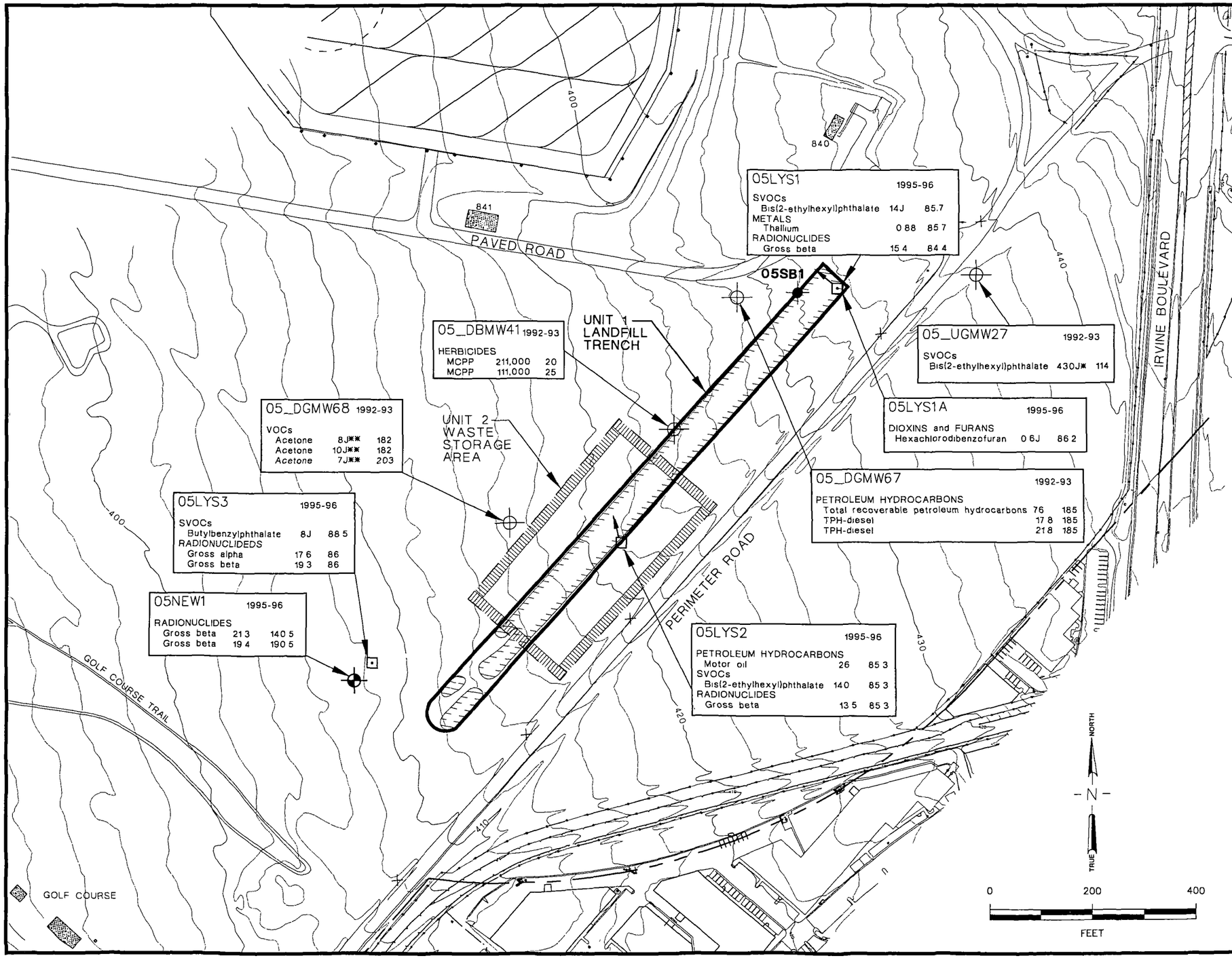
Figure 5-10

Shallow Soil Results

Site 5 - Perimeter Road Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No: 062A15307
Job No: 23818-062
Rev No: B



LEGEND

- 10 — BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- FORMER MCAS EL TORO BOUNDARY
- OPERATIONAL LANDFILL BOUNDARY (1950's-1960's)
- FENCE
- 560 — ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- PREVIOUSLY IDENTIFIED DISPOSAL TRENCH
- BERM
- AREA OF INSTALLATION RESTORATION PROGRAM (IRP) INVESTIGATION-DERIVED SOIL WASTE DISPOSAL (1991-1995)
- PHASE I MONITORING WELL
- PHASE II MONITORING WELL
- SOIL BORING LOCATION
- VERTICAL LYSIMETER
- ANGLE LYSIMETER SHOWING DIRECTION DRILLED

SAMPLE LOCATION

05LYS1A — CONCENTRATION — DEPTH

DIOXINS and FURANS

Hexachlorodibenzofuran 0.6 J 86 2

ANALYTE GROUP — ANALYTE NAME — CONCENTRATION (SEE NOTES) — VALIDATION QUALIFIER — DEPTH IN FEET

NOTES

- * = COMPOUND ORIGINALLY WAS NOT ASSIGNED DATA VALIDATION QUALIFIER HOWEVER, SOME BLANK CONTAMINATION MAY EXIST
- ** = COMPOUND WAS OBSERVED IN FIELD BLANKS AT THE SAME ORDER OF MAGNITUDE
- J = ESTIMATED VALUE
- MCPP = 2-(2-METHYL-4-CHLOROPHENOXY)-PROPIONIC ACID
- SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
- TPH = TOTAL PETROLEUM HYDROCARBONS
- TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
- VOCs = VOLATILE ORGANIC COMPOUNDS

ANALYTICAL RESULTS SHOWN FOR DETECTED ORGANIC COMPOUNDS, AND RADIONUCLIDES, AND FOR METALS DETECTED ABOVE BACKGROUND CONCENTRATIONS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) FOR PETROLEUM HYDROCARBONS AND METALS, IN MICROGRAMS PER KILOGRAM (µg/kg) FOR ORGANIC COMPOUNDS, IN PICOCURIES PER GRAM (pCi/g) FOR RADIONUCLIDES, AND IN NANOGRAMS PER KILOGRAM (ng/kg) FOR FURANS.

Record of Decision, OU-2C

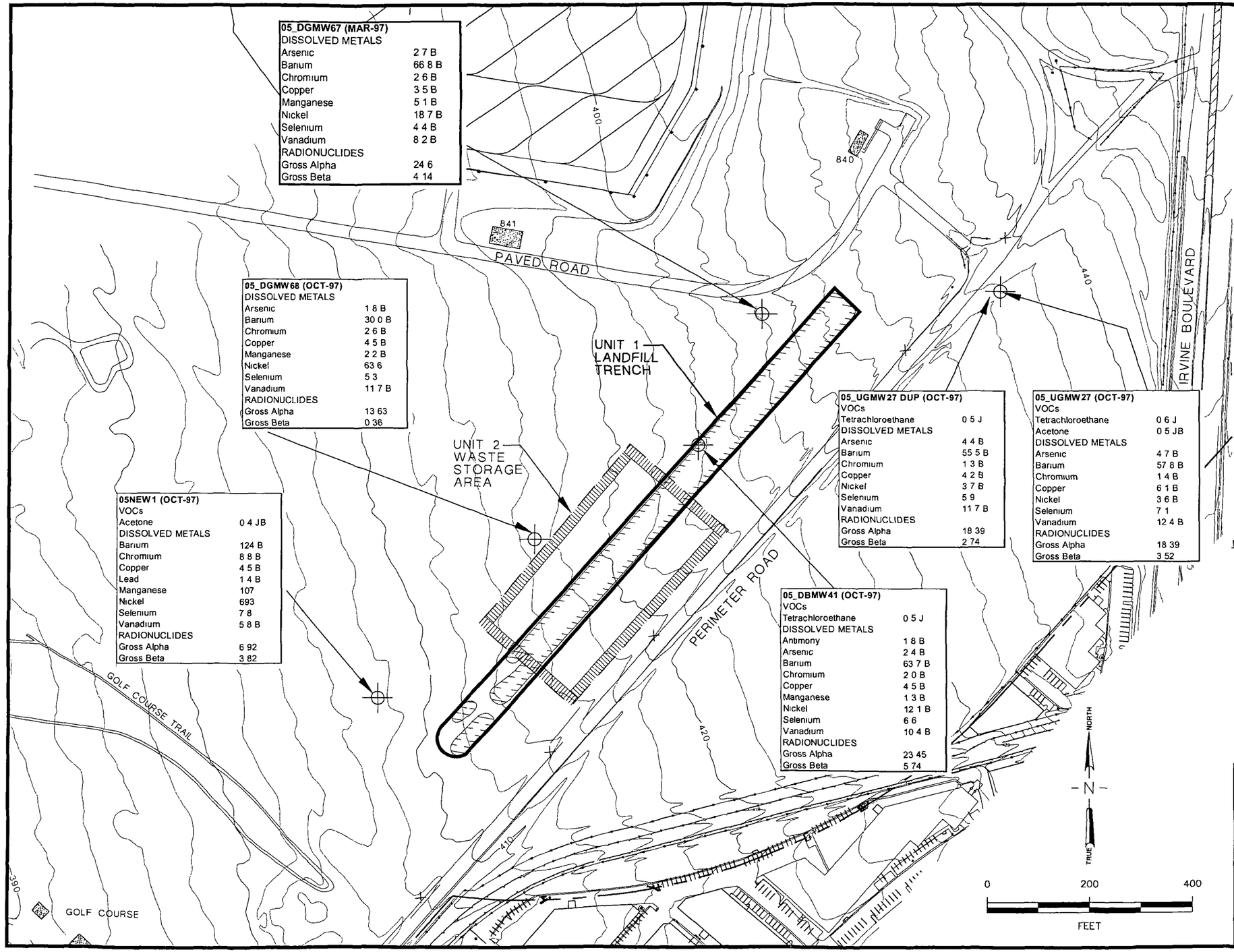
Figure 5-11

Subsurface Soil Results

Site 5 - Perimeter Road Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No: 062A15308
Job No: 23818-062
Rev No: B



LEGEND

- BUILDING
- STREAM OR WASH
- UNIMPROVED ROADS
- IMPROVED ROADS
- FORMER MCAS EL TORO BOUNDARY
- OPERATIONAL LANDFILL BOUNDARY (1950's-1960's)
- FENCE
- ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 2 FOOT INTERVAL)
- PREVIOUSLY IDENTIFIED DISPOSAL TRENCH
- BERM
- AREA OF INSTALLATION RESTORATION PROGRAM (IRP) INVESTIGATION-DERIVED SOIL WASTE DISPOSAL (1991-1995)
- MONITORING WELL

SAMPLE LOCATION — DATE COLLECTED

05_DBMW67 (MAR-97)

RADIONUCLIDES — ANALYTE GROUP

Gross alpha — ANALYTE NAME

23 2 — CONCENTRATION (SEE NOTES)

J — VALIDATION QUALIFIER

NOTES

B = ANALYTE ALSO REPORTED IN BLANK SAMPLE
DUP = DUPLICATE
J = ESTIMATED VALUE
VOCs = VOLATILE ORGANIC COMPOUNDS

ANALYTICAL RESULTS SHOWN FOR ALL DETECTED COMPOUNDS

ANALYTE CONCENTRATIONS ARE EXPRESSED IN MICROGRAMS PER LITER (ug/L) FOR METAL AND ORGANIC COMPOUNDS, AND IN PICOCURIES PER LITER (pCi/L) FOR RADIONUCLIDES

SAMPLES WERE ANALYZED FOR VOCs, DISSOLVED METALS, AND RADIONUCLIDES

SOURCE FINAL GROUNDWATER MONITORING REPORT, OCTOBER 1997 SAMPLING ROUND (CDM 1998)

Record of Decision, OU-2C

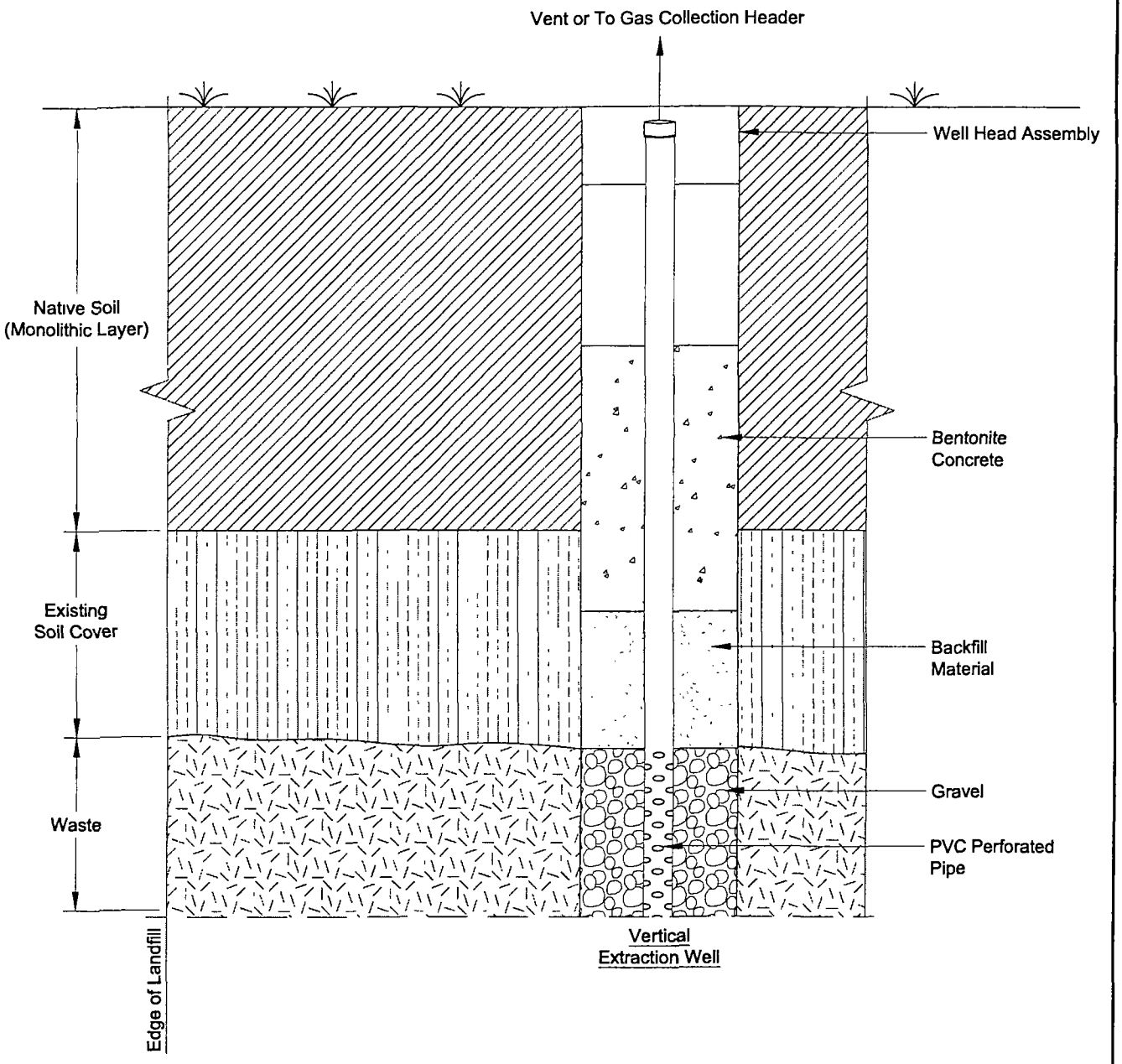
Figure 5-12

Groundwater Results

Site 5 - Perimeter Road Landfill

Former MCAS El Toro, California

Date: 12/18/06
File No: 062A15309
Job No: 23818-062
Rev No: B



Alternative 3 - Single-Layer Soil Cap with Institutional Controls and Monitoring

Not to Scale

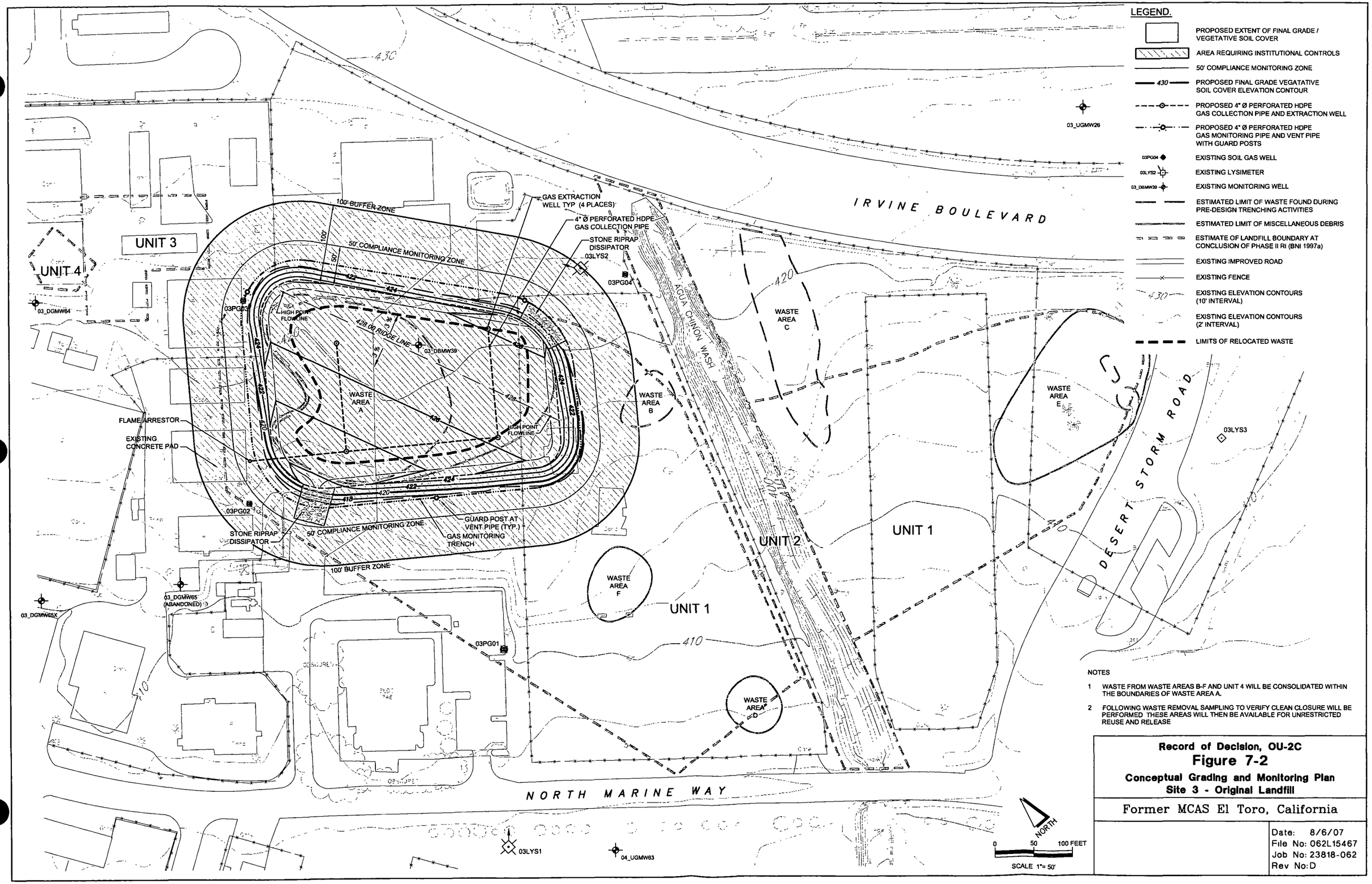
Record of Decision, OU-2C

Figure 7-1

Alternative 3 - Typical Landfill Cross Section
Sites 3 and 5

Former MCAS El Toro, California

	Date 1/31/07 File No 062X15321 Job No 23818-062 Rev No C



NOTES

1 WASTE FROM WASTE AREAS B-F AND UNIT 4 WILL BE CONSOLIDATED WITHIN THE BOUNDARIES OF WASTE AREA A.

2 FOLLOWING WASTE REMOVAL SAMPLING TO VERIFY CLEAN CLOSURE WILL BE PERFORMED THESE AREAS WILL THEN BE AVAILABLE FOR UNRESTRICTED REUSE AND RELEASE

Record of Decision, OU-2C

Figure 7-2

Conceptual Grading and Monitoring Plan
Site 3 - Original Landfill

Former MCAS El Toro, California

Date: 8/6/07
File No: 062L15467
Job No: 23818-062
Rev No: D

HIGH POINT FLOWLINE

FLAME ARRESTOR

CONCRETE PAD

AC PAVED ACCESS ROAD

05_DGMW67

05_PG01

05LYS1

100' BUFFER ZONE

50' COMPLIANCE MONITORING ZONE

05_DGMW68

GUARD POST AT VENT PIPE (TYP.)

GAS MONITORING TRENCH

05_DBMW41

4" Ø PERFORATED HDPE GAS COLLECTION PIPE

05_UGMW27

GAS EXTRACTION WELL (4 EACH)

05_PG03

05NEW1

05LYS3

05LYS2

50' COMPLIANCE MONITORING ZONE

05_PG02

100' BUFFER ZONE

PERIMETER RD.

STONE RIPRAP DISSIPATOR

BORREGO CANYON WASH

NORTH

0 50 100 FEET

SCALE 1"= 50'

LEGEND:

- PROPOSED EXTENT OF FINAL GRADE / VEGETATIVE SOIL COVER
- AREA REQUIRING INSTITUTIONAL CONTROLS
- 50' COMPLIANCE MONITORING ZONE
- 430 — PROPOSED FINAL GRADE VEGATATIVE SOIL COVER ELEVATION CONTOUR
- PROPOSED 4" Ø PERFORATED HDPE GAS COLLECTION PIPE AND EXTRACTION WELL
- PROPOSED 4" Ø PERFORATED HDPE GAS MONITORING PIPE AND VENT PIPE WITH GUARD POSTS
- 05_PG01 — EXISTING SOIL GAS WELL
- 05LYS3 — EXISTING LYSIMETER
- 05_UGMW27 — EXISTING MONITORING WELL
- ESTIMATED LIMIT OF WASTE FOUND DURING PRE-DESIGN TRENCHING ACTIVITIES
- EXISTING IMPROVED ROAD
- EXISTING FENCE
- 430 — EXISTING ELEVATION CONTOURS (10' INTERVAL)
- EXISTING ELEVATION CONTOURS (2' INTERVAL)

Record of Decision, OU-2C

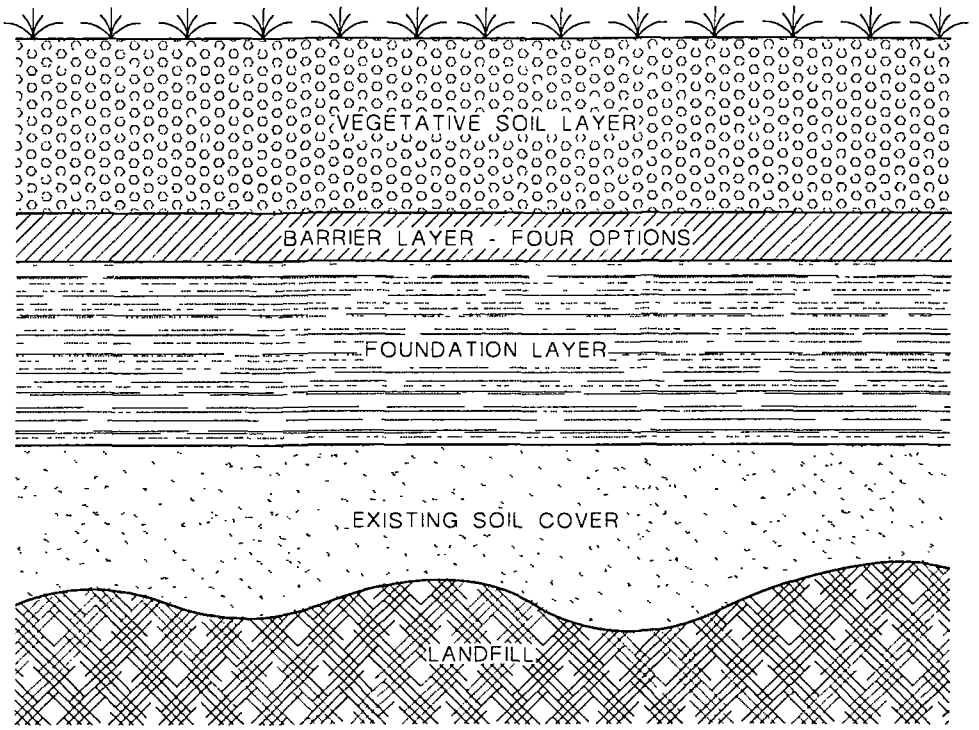
Figure 7-3

Conceptual Grading and Monitoring Plan

Site 5 - Perimeter Road Landfill

Former MCAS El Toro, California

Date: 8/9/07
File No: 062L15468
Job No: 23818-062
Rev No: D



BARRIER LAYER OPTIONS -

ALTERNATIVE 4a - CLAY BARRIER AND A VEGETATIVE COVER
ALTERNATIVE 4b - SOIL/BENTONITE BARRIER AND A VEGETATIVE COVER
ALTERNATIVE 4c - GEOCOMPOSITE CLAY LINER BARRIER AND A VEGETATIVE COVER
ALTERNATIVE 4d - SYNTHETIC FLEXIBLE MEMBRANE LINER BARRIER AND A VEGETATIVE COVER

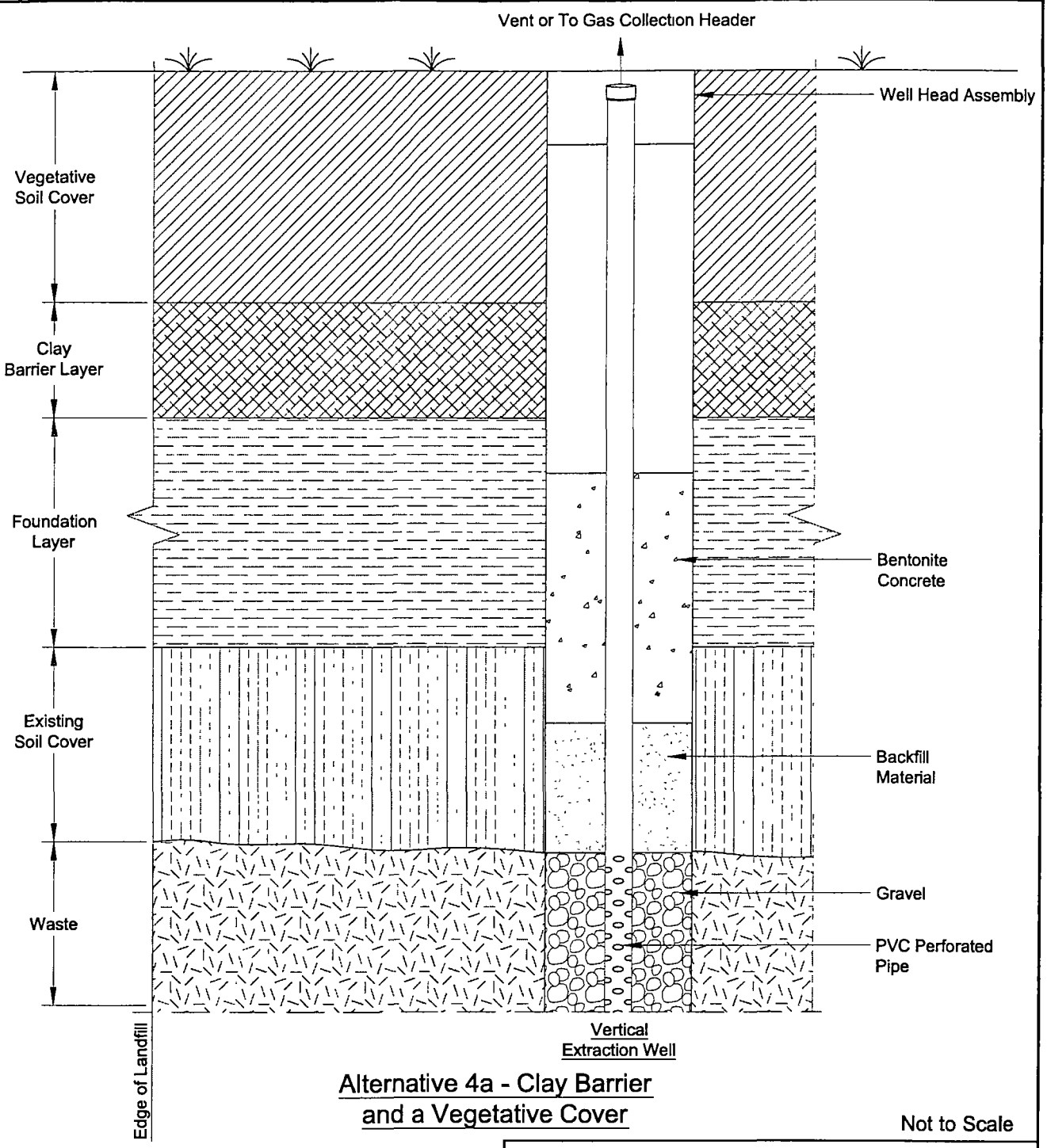
Record of Decision, OU-2C

Figure 7-4

Conceptual Representation of the Alternative 4 Cap

Former MCAS El Toro, California

Date 1/31/07
File No 062X15365
Job No 23818-062
Rev No B



Alternative 4a - Clay Barrier and a Vegetative Cover

Not to Scale

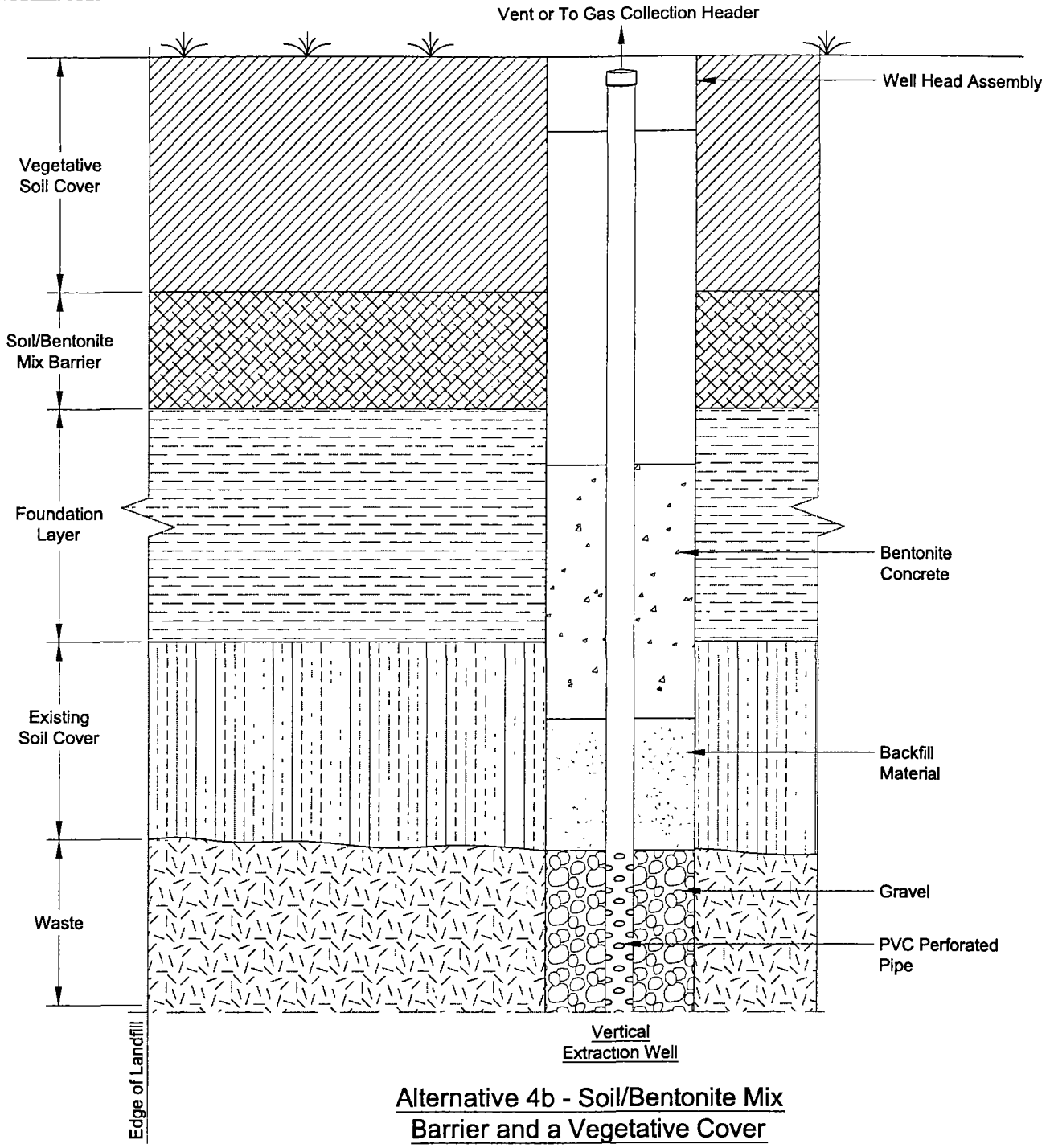
Record of Decision, OU-2C

Figure 7-5

Alternative 4a - Typical Landfill Cross Section Sites 3 and 5

Former MCAS El Toro, California

Date 2/1/07
File No 062X15322
Job No 23818-062
Rev No E



Alternative 4b - Soil/Bentonite Mix Barrier and a Vegetative Cover

Record of Decision, OU-2C

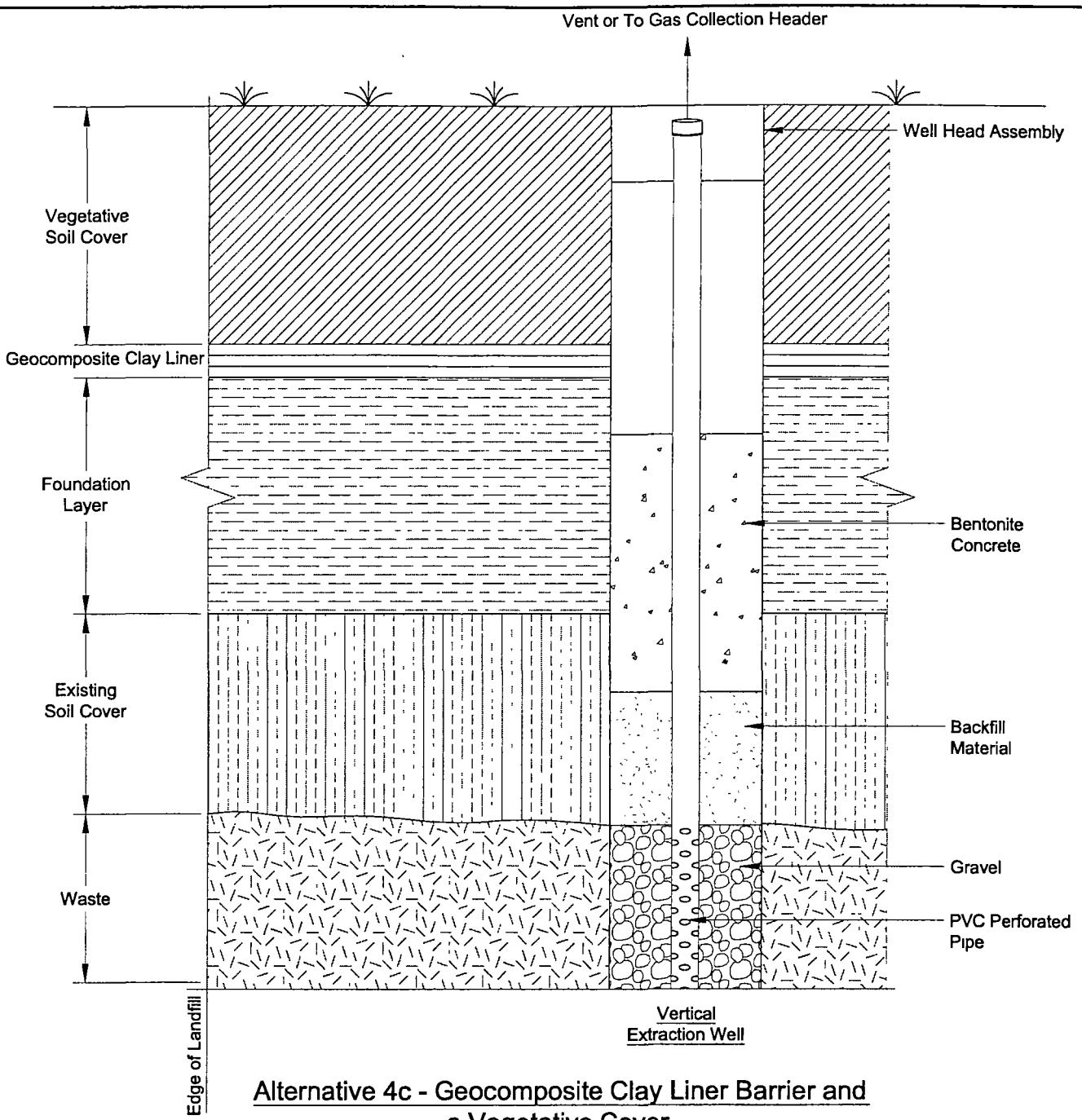
Figure 7-6

Alternative 4b - Typical Landfill Cross Section Sites 3 and 5

Former MCAS El Toro, California

Date 1/31/07
File No 062X15323
Job No 23818-062
Rev No D

Not to Scale



Alternative 4c - Geocomposite Clay Liner Barrier and a Vegetative Cover

Not to Scale

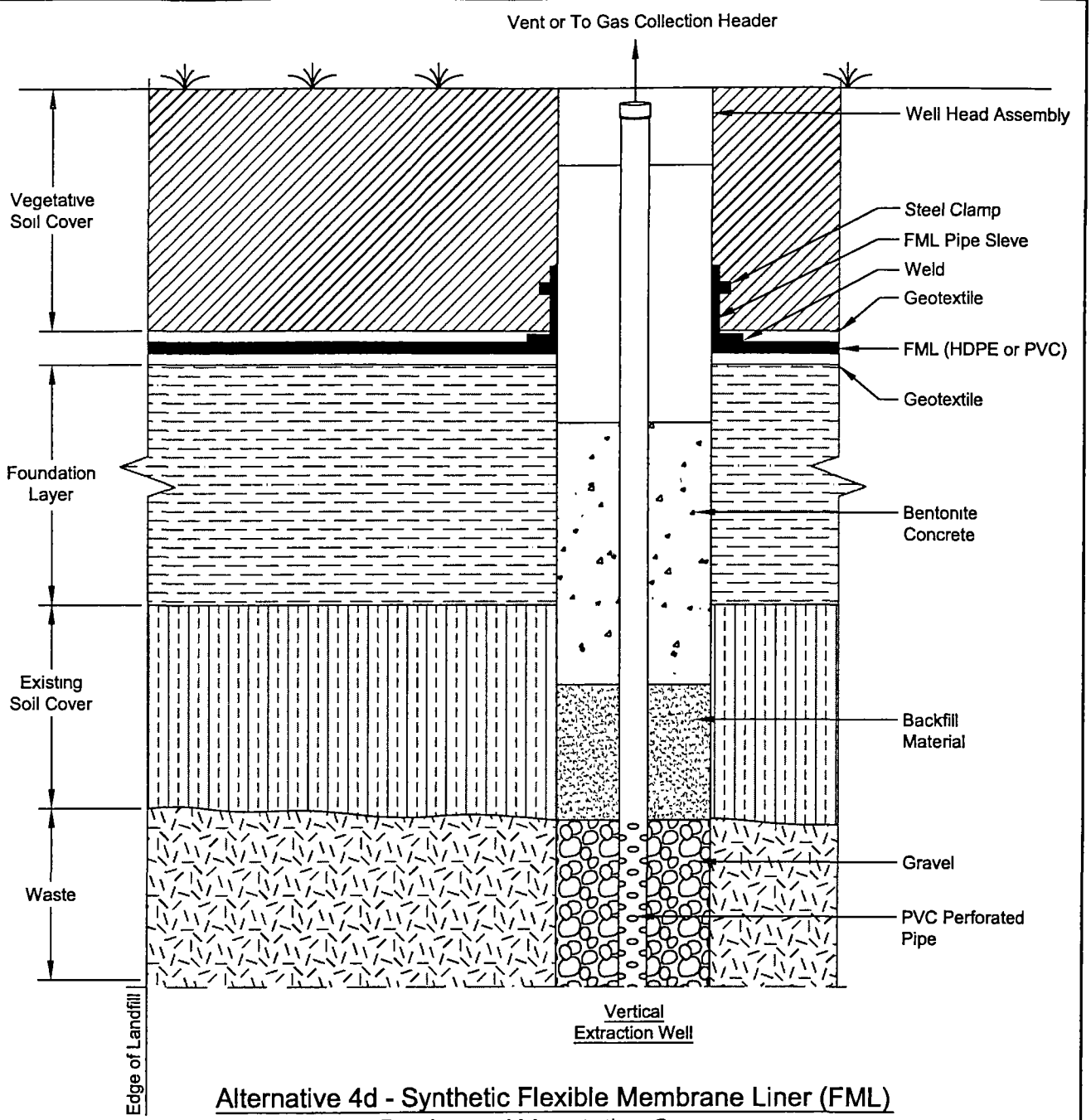
Record of Decision, OU-2C

Figure 7-7

Alternative 4c - Typical Landfill Cross Section Sites 3 and 5

Former MCAS El Toro, California

Date 1/31/07
File No 062X15324
Job No 23818-062
Rev No D



Alternative 4d - Synthetic Flexible Membrane Liner (FML) Barrier and Vegetative Cover

Record of Decision, OU-2C

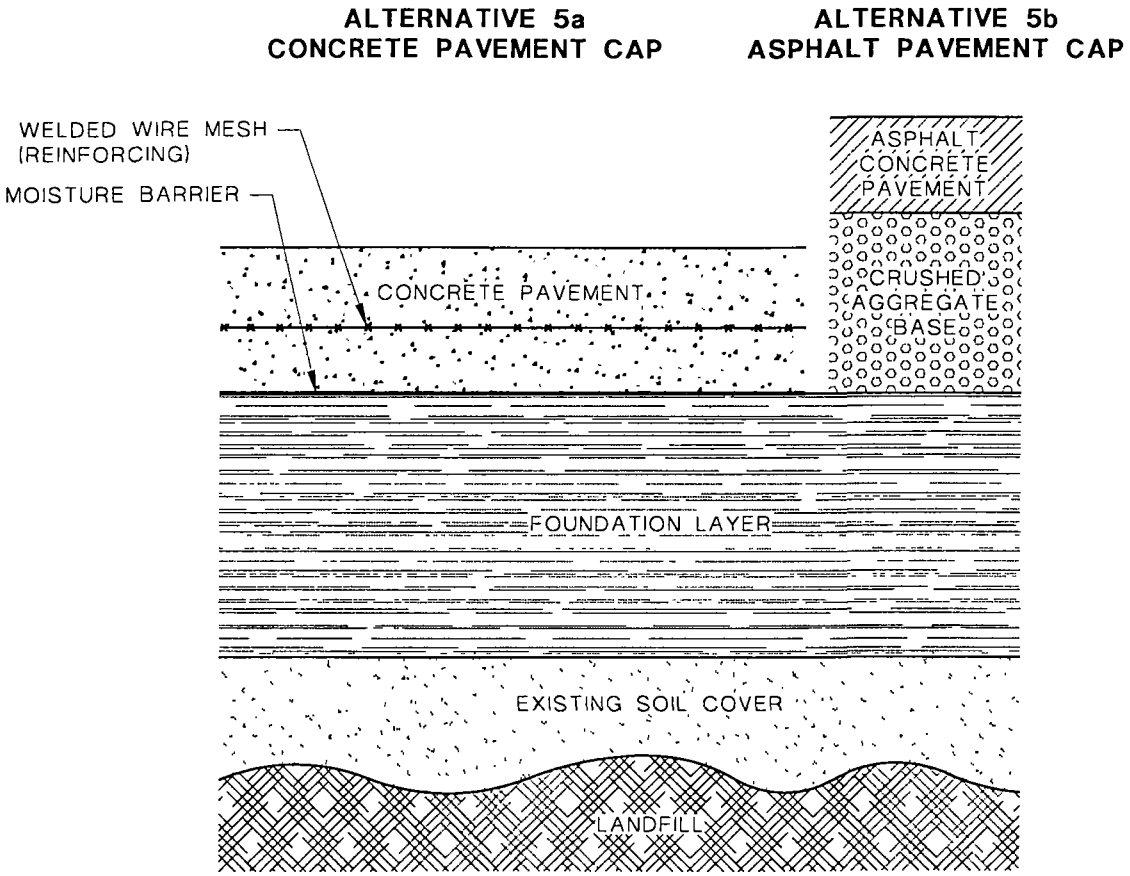
Figure 7-8

Alternative 4d - Typical Landfill Cross Section Sites 3 and 5

Former MCAS El Toro, California

Not to Scale

Date 1/31/07
File No 062X15325
Job No 23818-062
Rev No D



FOUNDATION LAYER AND EXISTING COVER ARE THE SAME FOR BOTH OPTIONS

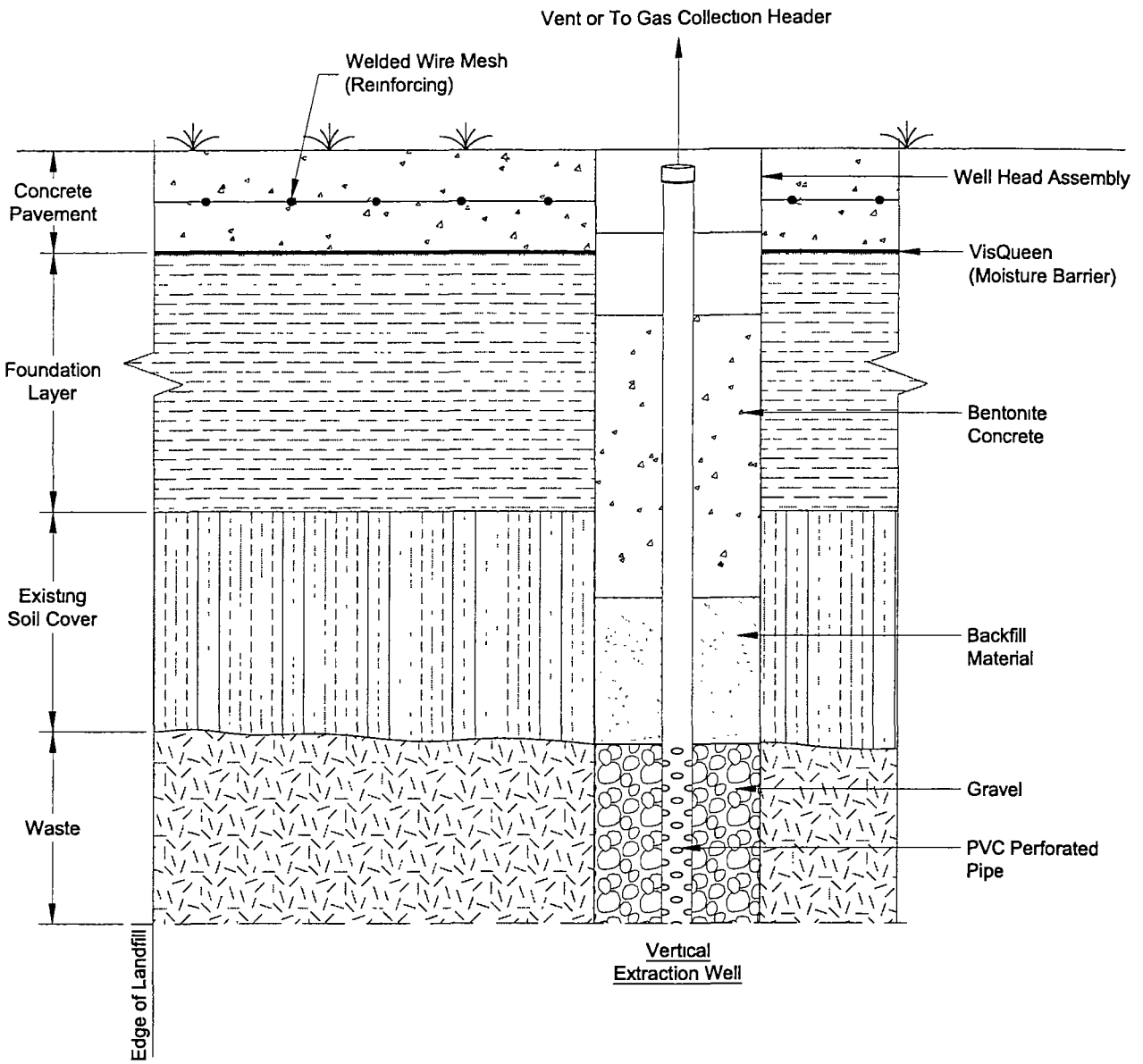
Record of Decision, OU-2C

Figure 7-9

Conceptual Representation of the Alternative 5 Cap

Former MCAS El Toro, California

	Date 1/31/07 File No 062X15366 Job No 23818-062 Rev No B



Alternative 5a - Concrete Pavement Cap

Not to Scale

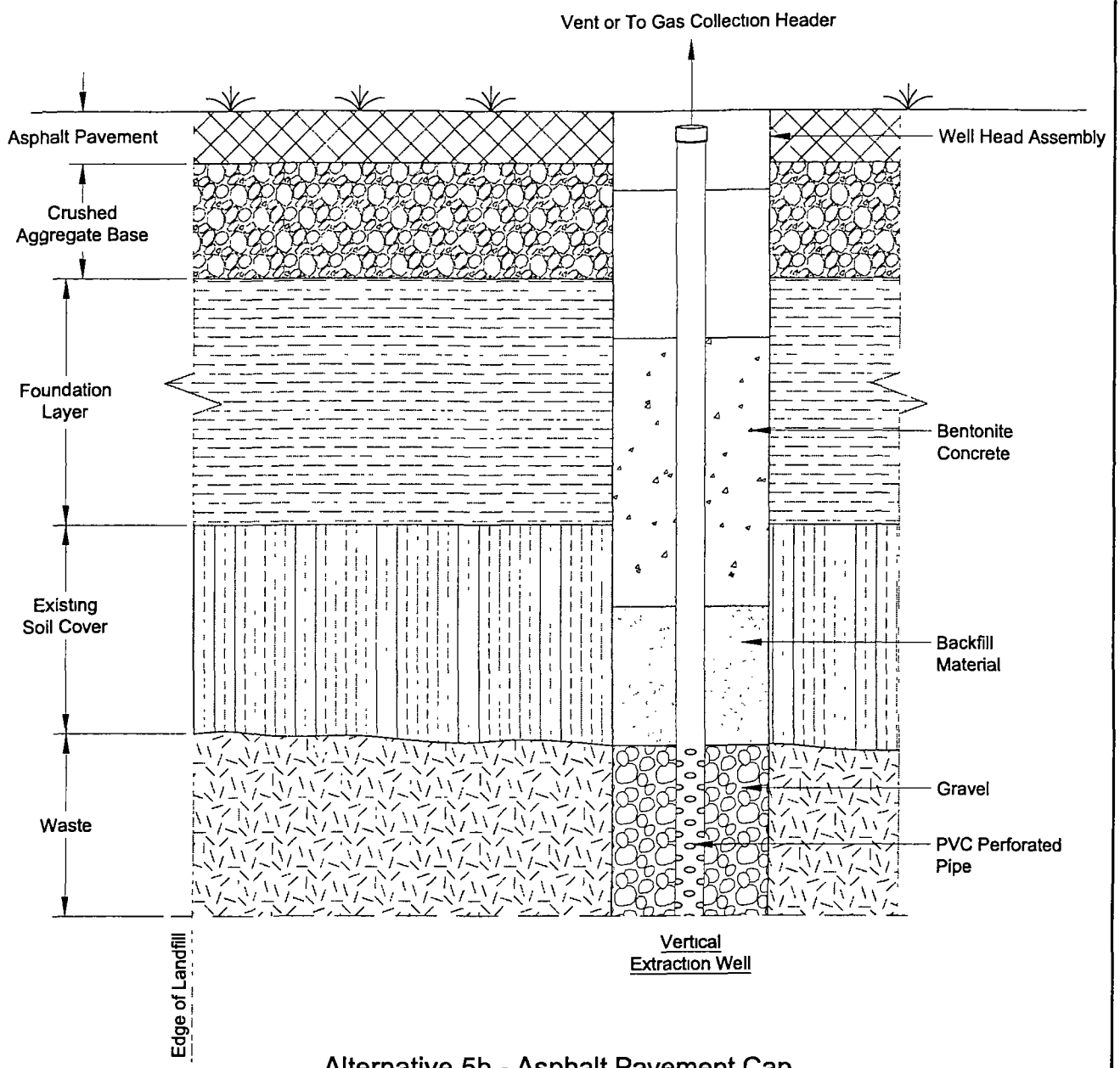
Record of Decision, OU-2C

Figure 7-10

Alternative 5a - Typical Landfill Cross Section
Sites 3 and 5

Former MCAS El Toro, California

Date	1/31/07
File No	062X15326
Job No	23818-062
Rev No	C



Alternative 5b - Asphalt Pavement Cap

Not to Scale

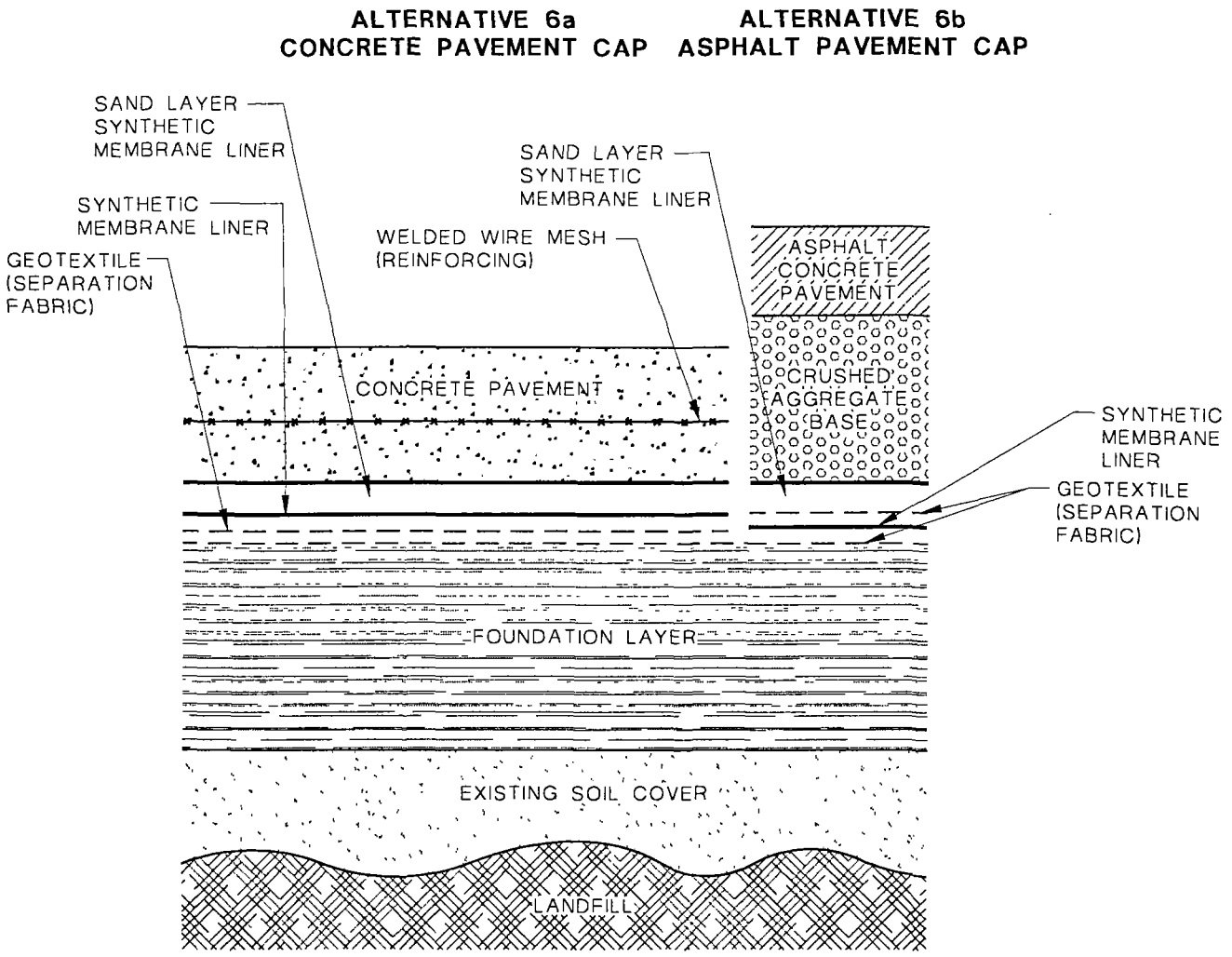
Record of Decision, OU-2C

Figure 7-11

Alternative 5b - Typical Landfill Cross Section
Sites 3 and 5

Former MCAS El Toro, California

Date. 2/1/07
File No 062X15327
Job No 23818-062
Rev No D



FOUNDATION LAYER AND EXISTING COVER ARE THE SAME FOR BOTH OPTIONS

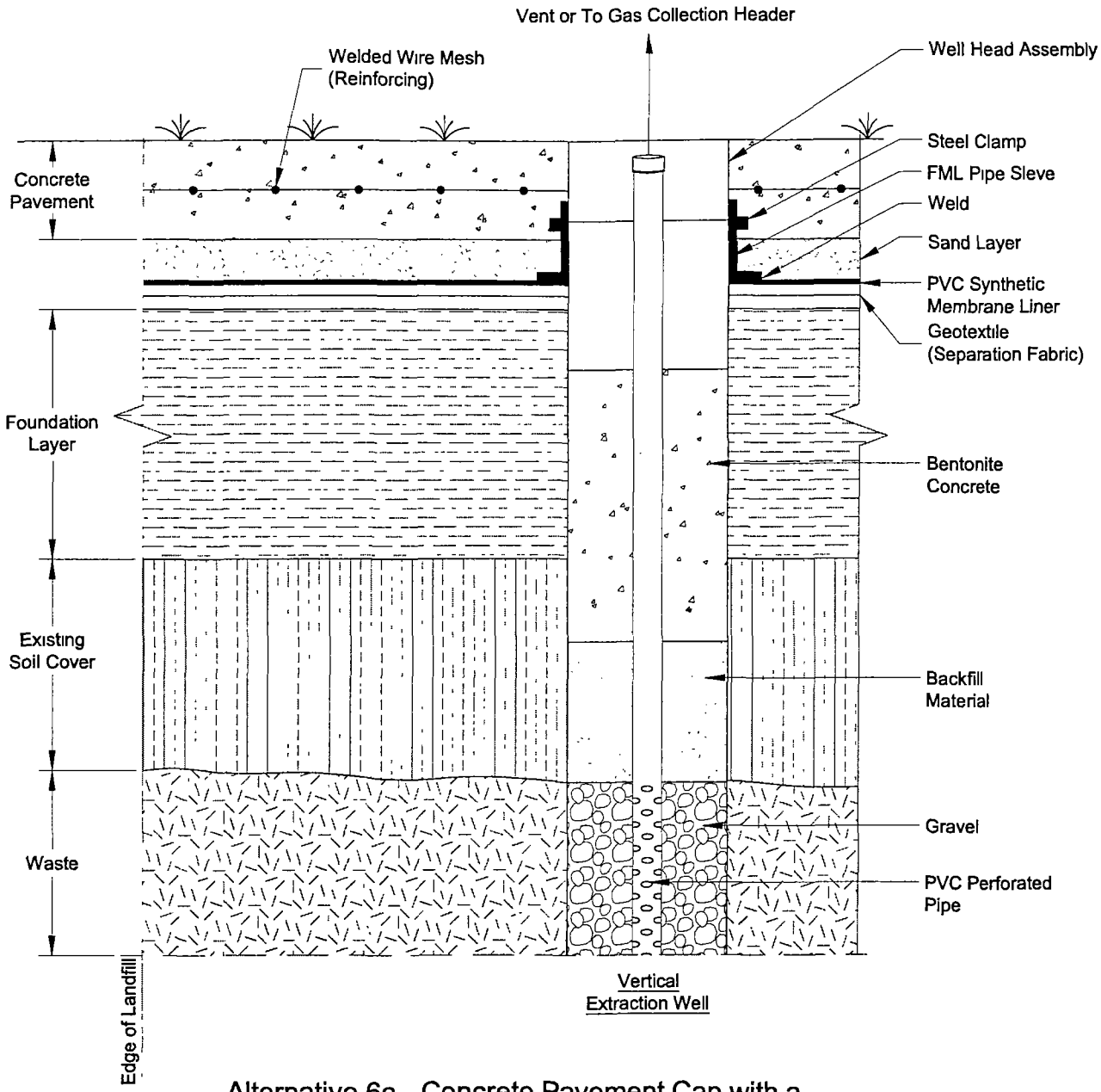
Record of Decision, OU-2C

Figure 7-12

Conceptual Representation of the Alternative 6 Cap

Former MCAS El Toro, California

Date. 1/31/07
File No 062X15367
Job No 23818-062
Rev No. B



Alternative 6a - Concrete Pavement Cap with a Flexible Membrane Liner (FML) Barrier

Not to Scale

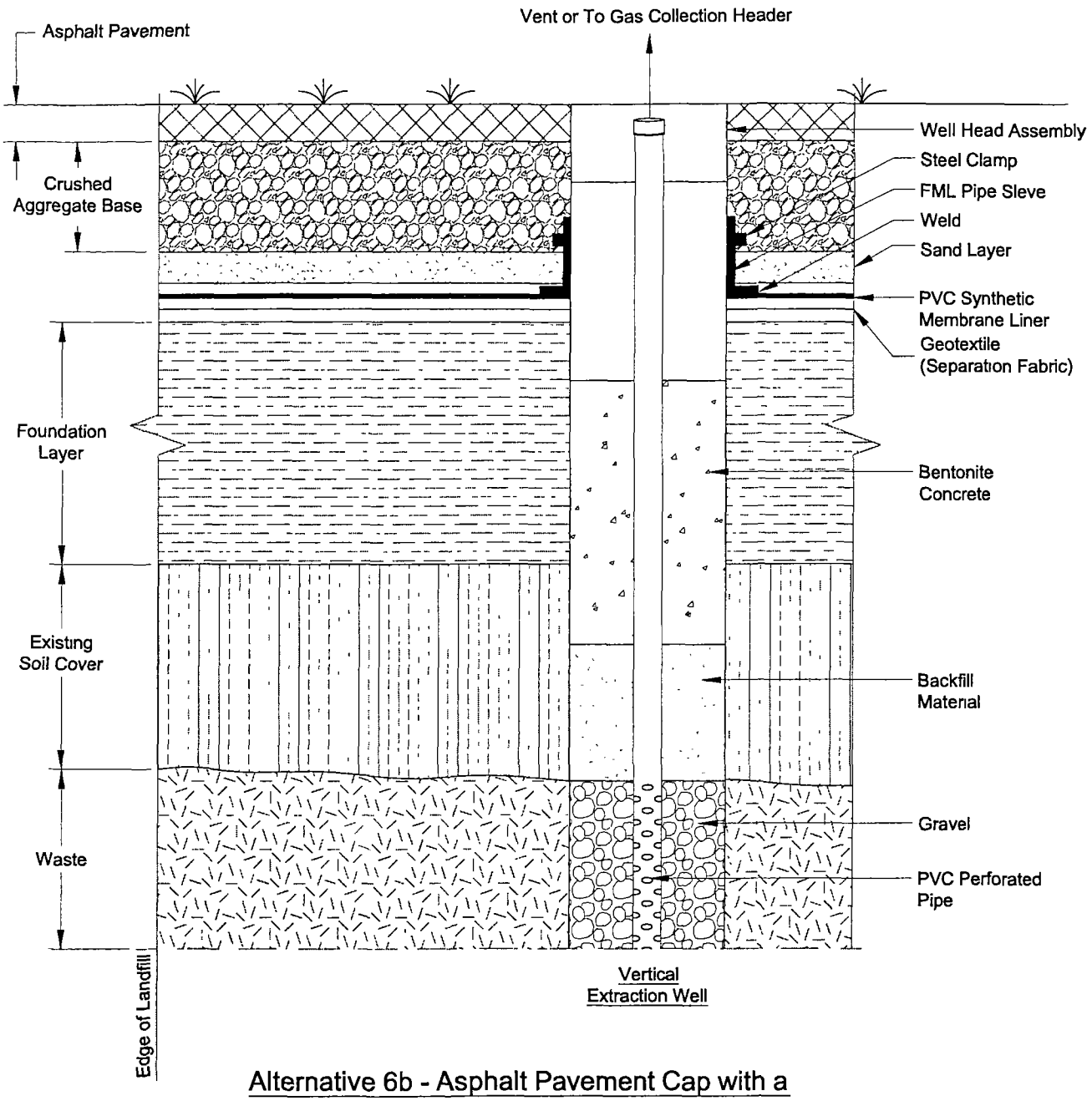
Record of Decision, OU-2C

Figure 7-13

Alternative 6a - Typical Landfill Cross Section
Sites 3 and 5

Former MCAS El Toro, California

Date. 2/1/07
File No 062X15328
Job No 23818-062
Rev No D



Alternative 6b - Asphalt Pavement Cap with a Flexible Membrane Liner (FML) Barrier

Not to Scale

Record of Decision, OU-2C

Figure 7-14

Alternative 6b - Typical Landfill Cross Section Sites 3 and 5

Former MCAS El Toro, California

	Date 1/31/07 File No 062X15329 Job No 23818-062 Rev No C

TABLES

Table 2-1
Summary of Environmental Investigations

Date	Investigation	Objective	Summary of Findings
1985	IAS	Locate potentially contaminated sites at Former MCAS El Toro using record searches and employee interviews.	Identified 17 sites as potential sources of contamination. Recommended sampling locations and sample analytical parameters to confirm the suspected contamination at the 17 sites.
1986	OCWD Groundwater Investigation	Investigate source of TCE found in agricultural well west of Former MCAS El Toro.	After installing a series of monitoring wells and soil vapor probes and reviewing independent investigations, OCWD concluded that Former MCAS El Toro was the source of TCE contamination detected in groundwater downgradient of the Station.
1988	Site Inspection Plan of Action	Review IAS findings.	Recommended 19 sites for investigation and amended the site sampling plans proposed in the IAS report. This included one site (Site 18) intended to address the off-Station contaminant plume of VOCs.
1988	Perimeter Study Investigation	Address the Santa Ana RWQCB Cleanup and Abatement Order requiring investigation of the source of regional VOC groundwater contamination.	Detected the presence of VOCs in shallow groundwater near the southwestern boundary of the Station.
1989	Interim pump and treat system	Pump and treat VOC-contaminated groundwater from three extraction wells near the Station boundary.	Groundwater was extracted at a combined rate of 30 gallons per minute from three wells and treated with granular activated carbon. Extracted groundwater had concentrations of TCE and PCE from 10 to 160 and 25 to 100 parts per billion, respectively.
1989	Phase I RI Work Plan and associated documents for Former MCAS El Toro	Formulate Work Plan, Field Sampling Plan, and other RI documents to direct the Phase I fieldwork.	The DON concluded that 22 sites would be investigated and grouped into three OUs.
1990	Superfund NPL	Identify sites with imminent risks to the public.	Former MCAS El Toro was added to the NPL due to VOC contamination at the Station boundary and in agricultural wells west of the Station boundary.
1993	Base Closure and Realignment Act	Identify sites for closure.	Former MCAS El Toro was placed on the BRAC III list. Under the terms of the FFA, Station closure would not affect the DON's obligation to conduct the RI/FS and comply with the other requirements of the FFA.

Table 2-1 (continued)

Date	Investigation	Objective	Summary of Findings
1993	Phase I RI	The draft Technical Memorandum and draft OU-1 RI Report document the results of the Phase I RI. The principal objective of the Phase I RI was to make an initial determination regarding the existence and risks of contamination at sites in OU-1, OU-2, and OU-3.	Various contaminants in the groundwater, soil, surface water, and sediment were detected at Former MCAS El Toro. Soil and sediment contaminants were primarily SVOCs, petroleum hydrocarbons, pesticides, herbicides, and PCBs. The Phase I RI concluded that the source of contamination for regional groundwater was the southwest quadrant of the Station, but it did not indicate specific sources. A preliminary risk assessment was conducted for contaminants at the sites in both groundwater and soil.
1993	RCRA Facility Assessment	Evaluate whether an additional 140 sites at Former MCAS El Toro would require further investigation under the Phase II RI/FS program.	Based on the RCRA Facility Assessment results, SWMUs/AOCs were recommended for further action. This action included additional subsurface investigation or other activities such as inspection of underground storage tanks, repair of cracks in concrete-paved areas, and excavation of contaminated soil. Of these 25 SWMUs/AOCs, 2 were recommended for further action under the Phase II RI/FS program. Site 23 was investigated and recommended for no further action.
1994	Interviews with active and retired personnel	To supplement and confirm information from past investigations and interviews, obtain a better understanding of current and historical operations, and identify new areas of potential environmental concern.	The interview panel provided information about types of operations that occurred on-Station and types of chemicals used in these operations.
1995	Final Work Plan for Phase II RI/FS and associated documents	Present an approach to conduct the Phase II RI at 24 sites at Former MCAS El Toro using the U.S. EPA DQO process. Establish background concentrations of metals in soils. Establish a process to collect sufficient information to support decisions on risk management.	Established DQO process for conducting RI/FS. Two new sites, Sites 24 and 25, were established for investigation in Phase II.

Table 2-1 (continued)

Date	Investigation	Objective	Summary of Findings
1996	Evaluation of background concentrations and reference levels in soil	Calculate background concentrations for metals in soil and reference levels for herbicides and pesticides in soil at Former MCAS El Toro.	Background concentrations for metals and reference levels for herbicides and pesticides were compared with site-specific analytical results in the RI to identify potential releases.
1996	Interim-Action RI/FS for groundwater contamination designated as OU-1	Characterize groundwater contamination and evaluate potential actions to remediate VOC-contaminated groundwater in the principal aquifer.	A range of remedial alternatives was prepared. The preferred alternative was presented for public comment in early 1999.
1996	RI for vadose zone and groundwater contamination at Site 24	Determine the nature and extent of VOC contamination at Site 24 and evaluate the human-health risk due to this contamination.	Soil and groundwater were investigated. The RI linked the groundwater hot spot identified during the Phase II RI with high concentrations of TCE in the vadose zone beneath Buildings 296 and 297.
1996	FS for vadose zone contamination at Site 24	Evaluate potential actions to remediate the VOC-contaminated soils at Site 24	SVE was presented as the presumptive remedy most appropriate for remediation of contaminated soils.
1997	RI for OU-3A and Site 25	Determine the nature and extent of contamination at Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25, and evaluate the human-health risk due to this contamination.	Investigations revealed that contamination at Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22 was limited to shallow soils. Contamination at Site 25 was limited to sediment and surface water. In all cases, risks to human health were within the range considered generally acceptable by U.S. EPA. A recommendation for no action was made to the BCT and was approved.
1997	RI for landfill sites	Determine the nature and extent of contamination at Sites 2, 3, 5, and 17, and evaluate the human-health risk due to this contamination.	Air, soil, and groundwater were investigated. Risks at each site were driven by contamination in soil. VOCs were present above MCLs in groundwater at Site 2. Landfill gas controls were not necessary, and no principal threat wastes were found in soil gas.
1997	FS for landfill sites	Evaluate potential actions to remediate landfill Sites 2, 3, 5, and 17, and allow site closure.	Capping, institutional controls, and monitoring were presented as the presumptive remedies most appropriate for remediation of the landfills. Low levels of VOC contamination at Site 2 will be remediated by monitored natural attenuation.

Table 2-1 *(continued)*

Date	Investigation	Objective	Summary of Findings
1997	FS for groundwater at Site 24	Evaluate potential actions to remediate VOC-contaminated groundwater at Site 24.	A range of remedial alternatives was prepared. The preferred alternative was presented for public comment in early 1999.
1997	Interim ROD for Site 24 vadose zone	Select remedial alternative at Site 24.	SVE was selected as the remedial alternative for soil at Site 24.
1997	ROD for OU-2A and OU-3A No Action Sites	Select remedial alternative for selected OU-2A and OU-3A sites.	No action was selected for Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25.
1998	Evaluation of metals in Groundwater at Former MCAS El Toro	Evaluate whether the reported concentrations of metals in groundwater at Former MCAS El Toro reflect ambient conditions or are the result of anthropogenic sources associated with historical Station operations.	Groundwater beneath and downgradient of the four on-Station landfills does not appear to have been contaminated by metals wastes generated or disposed at these areas. Although the concentrations of some metals exceed MCLs, such conditions are characteristic of basinwide groundwater quality conditions and are not limited to the landfill sites.
June 1998	Proposed Plan for Sites 2, 3, 5, and 17	Submit preferred FS Alternative 3 for all four landfills for public comment and review.	Based on the review of public comments and discussion with the LRA, it was determined that FS Alternative 4d would better support the proposed reuse of Sites 3 and 5.
March 1999	Draft ROD for OU-2C Landfill Sites 3 and 5	Select remedial alternative. RAOs developed in the FS for Sites 3 and 5 were revised in the ROD for Sites 3 and 5.	ROD indicated that Alternative 3 would perform as effectively as Alternative 4a. Regulators preferred Alternative 4d under the irrigated scenario. ROD was not finalized due to need for further landfill gas and radiological assessment.
May 2000	Historical Radiological Assessment	Identify sources of radioactive material, identify sites that needed further action for contamination, and assess likelihood of contaminant migration.	Identified radium and strontium as primary and secondary COPC. Other radionuclides, including cobalt, thorium, krypton, and hydrogen, were not identified as sources.
Jun/Nov 2001	Radiological Survey Plan	Outline the specifications for radiological characterization of sites selected based on the HRA at Former MCAS El Toro.	Results were presented in the Radiological Release Report in 2006.

Table 2-1 (continued)

Date	Investigation	Objective	Summary of Findings
Aug/Dec 2002	Supplemental Landfill Investigation for Sites 3 and 5	Demarcate landfill boundaries and waste placement limits, collect soil samples, and install soil gas monitoring wells.	Trenching was used to estimate approximately 30,000 bank cubic yards of waste is contained in Unit 1 at Site 3. Approximately 18,000 bank cubic yards of waste is contained in Site 5. Observed waste thickness ranged from less than 1 to 18 feet. The existing waste cover thickness ranged from less than 1 to 8 feet. Soil gas monitoring results at the perimeter and within the Sites 3 and 5 landfills indicated that landfill gases are at concentrations that would not typically require landfill gas control.
Feb/Mar 2004	Sampling Amendment to the Radiological Survey Plan	Amend the final radiological characterization of the Station. Conduct on-site radiological characterization and laboratory analysis.	Results were presented in the Radiological Release Report in 2006.
March 2004	Supplemental Landfill Soil Gas Investigation for Sites 3 and 5	Further assess the presence of landfill gases.	Low concentrations of VOCs were found in the Site 5 perimeter soil gas monitoring wells. The maximum calculated value for total VOCs in the wells was less than the screening level of 300 µg/L established in the RI. Very low levels of methane were detected in the Site 5 perimeter soil gas monitoring wells. The maximum methane concentrations detected were less than the Cal. Code Regs. tit. 27 methane limit of 50,000 ppm_v at the landfill boundary.
July 2006	Draft Final FS Addendum for OU-2C Landfill Sites 3 and 5	Present 1997 FS update of landfill gas control, supplemental investigations, and radiological assessment.	The range of remedial alternatives in the initial FS was augmented with the results of the supplemental investigations. The preferred alternative will be presented for regulatory review and public comment in late 2006.
2006	Radiological Release Report for Sites 3 and 5, Anomaly Area 3, and Building 244	Collect ambient survey readings and soil samples to assess radionuclide levels above/below regulatory standards.	Findings indicated that both ambient survey samples and subsurface soil samples had radioactivities below regulatory criteria. Ra-226 isotope was added to COPCs for both Sites 3 and 5.

Table 2-1 (continued)

Acronyms/Abbreviations:

AOC – area of concern
BCT – BRAC Cleanup Team
BRAC – Base Realignment and Closure
Cal. Code Regs. – *California Code of Regulations*
COPC – chemical of potential concern
DON – Department of the Navy
DQO – data quality objective
FFA – Federal Facility Agreement
FS – feasibility study
HRA – historical radiological assessment
IAS – initial assessment study
LRA – Local Redevelopment Authority
µg/L – micrograms per liter
MCAS – Marine Corps Air Station
MCL – maximum contaminant level
NPL – National Priorities List
OCWD – Orange County Water District
OU – operable unit
PCB – polychlorinated biphenyl
PCE – tetrachloroethene
ppm_v – parts per million by volume
Ra-226 – radium-226
RAO – remedial action objective
RCRA – Resource Conservation and Recovery Act
RI – remedial investigation
ROD – record of decision
RWQCB – (California) Regional Water Quality Control Board
SVE – soil vapor extraction
SVOC – semivolatile organic compound
SWMU – solid waste management unit
TCE – trichloroethene
tit. – title
U.S. EPA – United States Environmental Protection Agency
VOC – volatile organic compound

Table 3-1
RAB Meeting Technical Presentations on Landfill Sites, Focusing on Sites 3 and 5

Date	Topic/Summary
27 July 1995	Announcements: sampling activities will begin in August 1995 at landfill Sites 2, 3, 5, and 17; and draft remedial investigation landfill reports will be due out in March 1996.
31 August 1995	Magazine Road Landfill remedial investigation – Site 2.
28 September 1995	Overview of landfill remedial investigations – Sites 2, 3, 5, and 17.
26 October 1995	Update on remedial investigation activities at the landfills.
30 November 1995	Preliminary results of geophysical surveys and soil gas sampling conducted at the landfills.
24 April 1996	Interim (removal) actions at landfill Sites 2 and 17 (with slide presentation).
04 December 1996	RAB Subcommittee meeting report, 30 October 1996 meeting – overview and discussion with SWDIV Remedial Project Managers of four landfill feasibility studies. Update on interim (removal) actions at landfill Sites 2 and 17. Update on landfill feasibility studies and issues of classification, consolidation, and state agency concurrence.
30 January 1997	Landfill alternatives and feasibility studies and results of landfill consolidation costing.
26 March 1997	RAB Subcommittee meeting report, 26 February 1997 meeting – discussion with SWDIV Remedial Project Managers on comparing costs for capping/monitoring versus landfill consolidation/clean closure.
03 December 1997	Former MCAS El Toro landfills and institutional controls.
25 March 1998	Station landfills: Remedial Investigation/Feasibility Study Reports and Proposed Plan clarifications. Landfill maintenance activities at Site 2.
24 June 1998	Presentation and discussion – 18 June 1998, Proposed Plan public meeting for Sites 2, 3, 5, and 17.
29 July 1998	Recap of public comments submitted during the public comment period for Sites 2, 3, 5, and 17. RAB requested presentation on "most often asked questions" stated at the 24 June 1998 meeting.
30 September 1998	Navy announced that separate draft RODs would be prepared, one for Sites 2 and 17 and one for Sites 3 and 5, and a new schedule would be developed. Modeling studies were being conducted to find some common ground with the Local Redevelopment Authority and the regulatory agencies regarding institutional controls.
2 December 1998	U.S. EPA expressed concerns and offered recommendations on the proposed soil caps for Sites 3 and 5. Concerns include those stated by the CIWMB about irrigation of landfills and the potential for generation of landfill gas. U.S. EPA and DTSC recommended waste characterization studies of Sites 3 and 5 landfills.
27 January 1999	U.S. EPA reported on study developed by the regulatory agencies (U.S. EPA, DTSC, RWQCB, and CIWMB) in January 1999 that was forwarded to the Navy. The proposed study called for performing waste characterization at Sites 3 and 5 landfills to determine whether organic content present would cause generation of methane gas that could cause differential settlement once the new landfill cap was in place. CIWMB representative stated that there was insufficient conclusive evidence supporting information for state regulatory agencies to concur with the proposed landfill cover for Sites 3 and 5. DTSC expressed concerns about landfill gas and leaching of landfill wastes to groundwater. RAB motioned to support U.S. EPA's proposal for further investigations at Sites 3 and 5; the motion was seconded and approved.

Table 3-1 (continued)

Date	Topic/Summary
21 April 1999	RAB Subcommittee expressed concern that the Navy's choice for Sites 3 and 5 of a native soil cap with membrane (liner) would be implemented without further evaluation of wastes at the sites.
26 May 1999	Based on a previous request by the RAB, DTSC made a presentation on the Land-Use Restrictive Covenant Agreement. The presentation focused on defining institutional controls and implementation and enforcement.
28 July 1999	RAB Subcommittee Chair, Dr. Charles Bennett, presented a RAB Subcommittee Technical Memorandum pertaining to the landfill sites. The key concern was that the approach put forth by the Navy to conduct superficial probes at Sites 1, 2, 3, 5, and 17 would be inadequate and that more extensive sampling and testing, including radionuclides, should be done.
29 September 1999	Presentation covering the Historical Radiological Assessment recommended conducting radiological surveys at all landfill sites.
26 January 2000	RAB Subcommittee Chair, Dr. Charles Bennett, presented data from a forensic viewpoint whereby he interpreted that gross alpha leakage is occurring from Site 2 and the leakage follows the groundwater gradient at Site 5. Concern was raised that MCLs for gross alpha are exceeded in groundwater. The Navy formally announced in a technical presentation that a comprehensive radiological survey would be conducted and would include all landfill sites at the former station. Groundwater monitoring for radiological constituents would also be conducted.
31 May 2000	Presentation on the radionuclides investigation in groundwater at former landfill sites. This investigation focused on evaluating whether man-made radionuclides were present in groundwater beneath the landfills and on analyzing for the decay products of naturally occurring radionuclides. The majority of elevated gross alpha readings were apparently due to the presence of naturally occurring uranium. No meaningful comparison of isotope ratios could be made due to the very low concentrations of radium-226/228, lead-210, and thorium. Detected uranium and the calculated isotope ratios were consistent (with measurement error) with published isotopic ratios of naturally occurring uranium.
26 July 2000	The proposed schedule (October–December 2000) was announced for conducting on-site radiological surveys at the landfill sites and other sites at the former Station. RAB members inquired if they could observe this effort.
29 November 2000	A revised schedule (January–March 2001) was announced for conducting on-site radiological surveys at the landfill sites and other sites. A presentation covering the scope of the survey, main approach, and the precision differential global positioning system technology that would be used was discussed. For landfills, data collected would be compared with the background radiation level established for the site.
31 January 2001	A radiological issues update was presented covering radiological surveys and the supplemental radionuclide groundwater evaluation for landfills and other sites. Detailed information on the use of survey equipment was presented as well as sampling protocols. Results would be compiled into a Radiological Release Report.
25 July 2001	Results of the radiological surveys were presented for Sites 3 and 5. At Site 5, one potential anomaly was identified that registered 15 times the survey investigation level. Only a minute amount of radiation was detected such that if a person stood at this one place for 2,000 hours, the person would receive a dose of radiation approximately equivalent to one chest X-ray.

Table 3-1 (continued)

Date	Topic/Summary
	At Site 3, one potential anomaly registered five times the survey detection level. Approximately half the site is covered with gravel that contains some granite that reads 1.5 times the survey investigation level. Granite contains small amounts of naturally occurring radium-226. Up to eight areas have been identified that require collection of soil samples to determine whether elevated readings are due to the presence of naturally occurring residual radioactivity.
30 January 2002	Presentation focused on the predesign investigation activity for Sites 3 and 5. This investigation would determine if refuse had been disposed at small sites located near the main sites at Sites 3 and 5 and to better define the waste boundaries. Gathering of additional environmental and geotechnical data would be conducted along with trenching to help design the remedy for Sites 3 and 5 and evaluate the need for a landfill gas collection system. Results would be included in a Technical Memorandum and incorporated into the design submittal documentation.
31 July 2002	A radiological survey update was provided. Potential anomalies at Sites 3 and 5 had been checked using gamma spectrum field instrumentation. At Site 3, 7 percent of the readings exceeded the DCGL; this was attributed to the naturally occurring radium present in the 4-to-6-inch layer of gravel on the surface of the site. At Site 5, less than 0.02 percent of the survey readings exceeded the DCGL. It was anticipated that neither site would require any further action pertaining to radiological issues.
4 December 2002	Predesign investigation update presented results of the field activity. Results of trenching at 15 locations at Site 3 reduced waste areas from 11 to 4 acres. At Site 5, the landfill boundaries remained unchanged from what was published in the Remedial Investigation Report.
28 May 2003	Navy announced that Sites 3 and 5 were on hold, awaiting finalization of the Radiological Release Report.
3 December 2003	Navy proceeding with review of regulatory agency comments on Sites 3 and 5 draft Predesign Investigation Technical Memorandum.
31 March 2004	Update on Sites 3 and 5 provided to the RAB. Soil gas samples collected from areas at Sites 3 and 5 landfill boundaries during March 2004 would be evaluated to determine boundaries and to confirm whether landfill gas is present or absent at the places it would most likely be generated. The Navy would be working with the regulators and CIWMB to determine the optimal mix of institutional and engineering controls to assure that landfill gas would not be a problem.
28 July 2004	Navy announced that the draft final Predesign Investigation Technical Memorandum was scheduled for submittal to the regulatory agencies in September 2004.
29 September 2004	RAB Subcommittee inquired about institutional and engineering controls (fencing) and possible adjustments for Sites 3 and 5. Navy responded that there would be time to consider other barriers and adjustments.
1 December 2004	Navy announced that the draft FS Addendum was underway. The FS Addendum presented and evaluated a passive and active landfill gas system component as part of the landfill cap alternatives.
30 March 2005	RAB was informed that the draft FS Addendum had been submitted for regulatory agency review. Results from trenching activities were incorporated into the FS Addendum.
25 May 05	RAB was notified that the Navy had received regulatory agency comments on the draft FS Addendum and preparation of the draft final version was under way. A draft Proposed Plan was submitted to the regulatory agencies and would be undergoing review.

Table 3-1 (continued)

Date	Topic/Summary
25 January 2006	Navy stated that the current focus was to resolve radiological issues with the regulatory agencies, finalize the Sites 3 and 5 FS Addendum, and prepare a draft final Proposed Plan for regulatory agency review.
26 July 2006	RAB was notified that the Navy submitted the draft final FS Addendum for Sites 3 and 5 for review by the regulatory agencies.
27 September 2006	Regulatory agencies stated that minor comments on the draft final FS Addendum and the draft final Radiological Release Report (both documents pertain to Sites 3 and 5) were submitted to the Navy.
29 November 2006	Navy announced that the revised Proposed Plan for Sites 3 and 5 was under development and anticipated its release for public review in January 2007. The public comment period was anticipated to run for 30 days during January and February 2007 and a public meeting was also being planned.
31 January 2007	Presentation and discussion of revised Proposed Plan public meeting for Sites 3 and 5.

Acronyms/Abbreviations:
CIWMB – California Integrated Waste Management Board
DCGL – derived concentration guideline level
DTSC – (California Environmental Protection Agency) Department of Toxic Substances Control
FS – feasibility study
MCAS – Marine Corps Air Station
MCL – maximum contaminant level
RAB – Restoration Advisory Board
ROD – record of decision
RWQCB – Regional Water Quality Control Board
SWDIV – Southwest Division Naval Facilities Engineering Command
U.S. EPA – United States Environmental Protection Agency

Table 3-2
Summary of Former MCAS El Toro Updates, Fact Sheets, and Proposed Plans

Date	Summary of Contents
11/91	Fact Sheet: Information Update/IRP Process
12/92	Fact Sheet: Information Update
12/93	Fact Sheet: Phase I RI Results
12/93	Fact Sheet: RAB Formation
07/95	Fact Sheet: Information Update/Tank 398
10/95	Fact Sheet: Information Update/Engineering Evaluation/Cost Analysis
11/95	Fact Sheet: MCAS El Toro Building 673-T3 Certification for Closure
04/96	Fact Sheet: Looking Back–Moving Forward Update on IRP Progress
12/96	Fact Sheet: Groundwater Investigation at OU-1 and OU-2A
05/97	Proposed Plan: OU-2A, Site 24 VOC Source Area/Vadose Zone, SVE for Cleanup of Contaminated Soil
06/97	Proposed Plan: OU-3, Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, 22, and 25, No Further Action
05/98	Proposed Plan: OU-2B and OU-2C, Inactive Landfill Sites 2, 3, 5, and 17, Soil Cap and Long-Term Monitoring
01/99	Fact Sheet: OU-2A, Site 24 Interim Action Proceeds Utilizing SVE for VOC-Contaminated Soil
05/99	Proposed Plan: OU-3, Sites 8, 11 and 12, Excavation and Recycling of Contaminated Soil
09/00	Proposed Plan: OU-3, Sites 7 and 14, No Further Action
11/01	Proposed Plan: OU-1 and OU-2A, Joint Treatment Facility for Groundwater Plume Cleanup
09/02	Proposed Plan: OU-3, Site 16, Monitored Natural Attenuation With Institutional Controls
06/05	Fact Sheet: Site 11, Soil Excavation and Off-Site Disposal
06/05	Fact Sheet: Site 24, Installation of Wells and Piping for Groundwater Cleanup
07/05	Proposed Plan: OU-2A, Site 24, No Further Action for VOC Source Area/Vadose Zone
09/05	Fact Sheet: Sites 2 and 17, Landfill Capping Underway
02/06	Fact Sheet: Sites 18 and 24, Groundwater Cleanup Construction Moves Forward
03/06	Revised Proposed Plan: OU-3, Sites 8 and 12, Excavation and Off-Site Disposal of Contaminated Soil
05/06	Information Package: RAB Sites/Station Tour, May 6, 2006,
01/07	Revised Proposed Plan: OU-2C, Sites 3 and 5, New Landfill Cap Preferred Remedy, Single Barrier Cap With FML

Acronyms/Abbreviations:
- FML – flexible membrane liner
- IRP – Installation Restoration Program
- MCAS – Marine Corps Air Station
- OU – operable unit
- RAB – Restoration Advisory Board
- RI – remedial investigation
- SVE – soil vapor extraction
- VOC – volatile organic compound

Table 5-1
Media Sampled at Site 3

Media	Air SWAT	RFA	Phase I RI	Phase II RI	Supplemental Investigations
Air					
• Instantaneous surface air	X			X	
• Integrated surface air	X			X	
• Ambient air	X			X	
• Isolation flux chamber				X	
Soil Gas					
• Shallow soil gas	X			X	X
• Perimeter gas migration	X			X	X
Radiation					
• Instantaneous surface air					X
• Shallow soil (0–10 feet bgs)					X
Soil					
• Shallow soil (0–10 feet bgs)		X	X	X	X
• Subsurface soil (> 10 feet bgs)			X	X	
Water					
• Groundwater			X	X	
• Surface water			X	X	
Sediment			X	X	
Ecological					
• Plant tissue				X	
• Animal tissue				X	

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
bgs – below ground surface
RFA – Resource Conservation and Recovery Act facility assessment
RI – remedial investigation

Table 5-2
Comparison of Ambient Air Sampling Results at Site 3
Phase II RI and Air SWAT

Analyte	Phase II RI Maximum (ppb_v)	Air SWAT Maximum (ppb_v)	Statewide Urban Average[a] (ppb_v)	Average Anaheim Results[b] (ppb_v)	CARB STUDY		
					Number of Detections[c]	Median (ppb_v)	Maximum (ppb_v)
Freon 12	0.95	—[d]	NR	NR	NR	NR	NR
chloromethane	1.9	—	NR	3.4	NR	NR	NR
vinyl chloride	0.80 U	2.0 U	NR	NR	24	2 U	15
methylene chloride	0.99	9.1	2.1	NR	132	1 U	1,300
chloroform	0.6 J	0.80 U	0.08	NR	38	0.8 U	32
1,1,1-trichloroethane	0.72 J	5.1	1.8	NR	163	0.7	51
carbon tetrachloride	0.44 J	0.20 U	0.14	NR	63	0.2 U	15
benzene	1.9	2.0 U	2.6	NR	116	2 U	500
1,2-dichloroethane	0.80 U	0.20 U	0.06	NR	36	0.2 U	17
trichloroethene	0.80 U	0.60 U	0.8	NR	93	0.6 U	130
toluene	3.8	NR	NR	NR	NR	NR	NR
tetrachloroethene	0.49 J	0.2 U	NR	NR	141	0.2 U	269
ethylene dibromide	0.80 U	0.50 U	0.01	NR	20	0.5 U	22
m- and p-xylenes	1.4	—	NR	1.9	NR	NR	NR
1,2,4-trichlorobenzene	1.3	—	NR	NR	NR	NR	NR

Notes:
[a] 1988 Air Toxics Monitoring Network summary data for all CARB stations (CARB 1988)
[b] South Coast Air Quality Management District annualized average ambient air quality data for the Anaheim monitoring station (01 June 1992 through 01 June 1993)
[c] number of landfills at which the contaminant was detected out of 288 landfills at which ambient air sampling was conducted
[d] dash indicates not analyzed for

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
CARB – California Air Resources Board
Freon 12 – dichlorodifluoromethane
NR – not reported (in study results)
ppb_v – parts per billion by volume
RI – remedial investigation

Review Qualifiers:
J – estimated value
U – not detected; the number shown is the detection limit

Table 5-3
Comparison of Integrated Surface Air Sampling Results at Site 3
Phase II RI and Air SWAT

Analyte	Phase II RI Maximum (ppb_v)	Air SWAT Maximum (ppb_v)	CARB STUDY Median (ppb_v)	CARB STUDY Maximum (ppb_v)
Freon 12	0.87	—*	NR	NR
vinyl chloride	0.50 U	—	2 U	1,000
methylene chloride	1.2	—	1 U	3,200
chloroform	4.6	—	2 U	10
1,1,1-trichloroethane	0.93	—	0.2	52
carbon tetrachloride	0.50 U	—	0.2 U	11
benzene	1.2	—	2 U	120
1,2-dichloroethane	0.50 U	—	0.2 U	46
trichloroethene	0.50 U	—	0.6 U	80
toluene	0.50 U	—	NR	NR
tetrachloroethene	0.50 U	—	0.2 U	269
ethylene dibromide	0.50 U	—	0.5 U	22
ethylbenzene	0.40 J	—	NR	NR
m- and p-xylenes	1.4	—	NR	NR
o-xylene	0.72	—	NR	NR
1,3,5-trimethylbenzene	0.26 J	—	NR	NR
1,2,4-trimethylbenzene	1.0	—	NR	NR
total organic compounds as methane	10,000 U	2,900	2.6	130,000

Note:
* dash indicates not analyzed for

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
CARB – California Air Resources Board
Freon 12 – dichlorodifluoromethane
NR – not reported (in CARB study)
ppb_v – parts per billion by volume
RI – remedial investigation

Review Qualifiers:
J – estimated value
U – not detected; the number shown is the detection limit

Table 5-4
Summary of Analytical Results for Soil Gas Sampling at Site 3, Unit 1
Phase II RI, Air SWAT, and Supplemental Investigations

Analyte	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (µg/L)
Phase II RI and Air SWAT				
methylene chloride	52	5*	10	0.71–0.85
TCE	52	4	8	2–30
Freon 113	47	3	6	1–20
PCE	52	2	4	0.19–2
toluene	47	2	4	3–5
chloroform	52	2	4	1–19
Supplemental Investigation/Perimeter Soil Gas, Rounds 1 and 2				
1,2,4-trimethylbenzene	18	5	28	0 0025–0.033
2-butanone	18	13	72	0.042–25
2-propanol	18	12	67	0.022-0.22
acetone	18	14	77	0.016–5.1
benzene	18	3	17	0.0068–0.014
chloromethane	18	1	6	0.038
chlorohexane	18	2	11	0.007–4.3
ethanol	18	8	44	0.0048–0.019
ethylbenzene	18	3	17	0.0028–0.0038
Freon 11	18	1	6	0.0076
Freon 113	18	10	56	0.0098–1.8
Freon 12	18	7	39	0.0029–0.0073
hexane	18	1	6	0.0072
m- and p-xylenes	18	11	61	0.0026–0.016
methylene chloride	18	10	56	0.0093–0.015
tetrachloroethene	18	8	44	0.01–0.6
tetrahydrofuran	18	18	100	0.024–87
toluene	18	13	72	0.0046–0.026
trichloroethene	18	7	39	0.017–0.11
o-xylene	18	3	17	0.0044–0.0056
carbon disulfide	18	1	6	0.025
carbon tetrachloride	18	6	33	0.0061–0.036

Note:
* compound also detected in blank at a concentration of the same order of magnitude

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
Freon 11 – trichlorofluoromethane
Freon 12 – dichlorodifluoromethane
Freon 113 – 1,1,2-trichloro-1,2,2-trifluoroethane
µg/L – micrograms per liter
PCE – tetrachloroethene
RI – remedial investigation
TCE – trichloroethene

Table 5-5
Comparison of Soil Gas Sampling Results at Site 3, Unit 1
Phase II RI and Air SWAT

Analyte	Phase II RI Maximum (µg/L)	Air SWAT Maximum (µg/L)	CARB STUDY		
			Number of Detections[a]	Median (µg/L)	Maximum (µg/L)
Freon 113	20	—[b]	—	NR	NR
PCE	2	0.19	241	38	310.5
TCE	3	30	228	0.16	60.8
methylene chloride	1 U	0.85	197	0.13	564.8
chloroform	1	19	58	0.004 U	54.4
toluene	5	—	—	NR	NR

Notes:
[a] number of California landfills at which the contaminant was detected (of the 340 landfills where soil gas samples were collected)
[b] dash indicates not analyzed for

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
CARB – California Air Resources Board
Freon 113 – 1,1,2-trichloro-1,2,2-trifluoroethane
µg/L – micrograms per liter
NR – not reported (in CARB study)
PCE – tetrachloroethene
RI – remedial investigation
TCE – trichloroethene

Review Qualifier:
U – not detected; concentration is below listed detection limit

Table 5-6
Summary of Analytical Results for Shallow Soil Sampling at Site 3, Unit 1
Phase I RI and Supplemental Investigations

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentrations
Volatile Organic Compounds (mg/kg)						
acetone	6	6	1	17	0.003* J	NA
toluene	6	6	5	83	0.002 J–0.009 J	NA
Petroleum Hydrocarbons (mg/kg)						
TRPH	7	7	2	29	99–202	NA
TPH-gasoline	7	7	4	57	0.0616–13.8	NA
TPH-diesel	7	7	3	43	12.5–14.3	NA
Pesticides and PCBs (mg/kg)						
4,4′-DDD	6	6	1	17	0.293 J	NA
4,4′-DDE	6	6	2	33	0.0102 J–0.0477 J	NA
4,4′-DDT	6	6	3	50	0.0105 J–0.209 J	NA
Herbicides (mg/kg)						
silvex	7	7	1	14	0.0496	NA
Metals (mg/kg)						
aluminum	7	7	7	100	4,250–13,000	14,800
arsenic	7	7	7	100	1.1 b–4.2	6.86
barium	7	7	7	100	67.2–145	173
beryllium	7	7	4	57	0.33 b–0.49 b	0.669
cadmium	7	7	7	100	0.32 b–3.2	2.35
chromium	7	7	7	100	4.9–16.9	26.9
cobalt	7	7	7	100	2.5 b–6.6 b	6.98
copper	7	7	7	100	3.5 b–22.6	10.5
lead	7	7	7	100	0.64–76.9	15.1
manganese	7	7	7	100	139–224	291

Table 5-6 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentrations
Metals (mg/kg) (continued)						
mercury	7	7	2	29	0.45–0.65	0 22
nickel	7	7	2	29	3.8 b–13.7	15.3
selenium	7	7	1	14	0.12 b	0.32
silver	7	7	2	29	0.52 b–0.69 b	0.539
thallium	7	7	4	57	0.18 b–0.31 b	0.42
vanadium	7	7	7	100	16 3–35	71.8
zinc	7	7	7	100	21.6–104	77.9
Radionuclides (pCi/g)						
Ra-226	22	22	22	100	0.64–2.09	NA

Note:
* compound was also detected in the field blank at a concentration that is of the same order of magnitude

Acronyms/Abbreviations:
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethene
DDT – dichlorodiphenyltrichloroethane
MCAS – Marine Corps Air Station
mg/kg – milligrams per kilogram
NA – not applicable
PCB – polychlorinated biphenyl
pCi/g – picocuries per gram
Ra-226 – radium-226
RI – remedial investigation
silvex – 2-(2,4,5-trichlorophenoxy)propionic acid
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
b – estimated value below the detection limit for inorganic compound
J – estimated value below the detection limit for organic compound

Table 5-7
Summary of Analytical Results for Subsurface Soil Sampling at Site 3, Unit 1
Phase I RI and Supplemental Investigations

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Volatile Organic Compounds (mg/kg)						
acetone	36	36	12	33	0.005 J–0.078[a]	NA
methylene chloride	36	39	3	8	0.032[b]–0.050[b]	NA
toluene	36	39	2	5	0.003 J	NA
Petroleum Hydrocarbons (mg/kg)						
TRPH[g]	21	21	1	5	249	NA
TPH-gasoline	21	21	7	33	0.0849–0.829	NA
Semivolatile Organic Compounds (mg/kg)						
acenaphthene	30	31	1	3	0.004	NA
bis(2-ethylhexyl)phthalate	30	31	4	13	0.060 J–0.250 J	NA
pyrene	30	31	1	3	0.098	NA
Pesticides and PCBs (mg/kg)						
endosulfan II	15	15	1	7	0.00018 J	NA
Herbicides (mg/kg)						
silvex	17	17	1	6	0.0613 J	NA
2,4,5-trichlorophenoxyacetic acid	17	17	1	6	0.0418 J	NA
2,4-DB	17	17	1	6	0.098 N	NA
MCPP	17	17	3	18	35–62.7	NA
Metals (mg/kg)						
aluminum	23	23	23	100	854–16,800	14,800
antimony	23	23	1	4	0.5 J	3.06
arsenic	23	23	17	74	0.87 b–10.6	6.86
barium	23	23	23	100	21.4 b–235	173
beryllium	23	23	10	43	0.12 b–0.76 b	0.669
cadmium	23	23	23	83	0.17–7	2.35

Table 5-7 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Metals (mg/kg) (continued)						
chromium	23	23	23	100	1.8 b–21.2	26.9
cobalt	23	23	22	96	1.6 b–8.5	6.98
copper	23	23	23	100	1.8 b–16	10.5
lead	23	23	21	91	0.41 b–28.3	15.1
magnesium	23	23	23	100	520 b–9,140	8,370
mercury	23	23	5	22	0.07–0.22	0.22
nickel	23	23	22	96	1.8 b–29.2	15.3
selenium	23	23	5	22	0.11 b–0.2 b	0.32
thallium	23	23	9	39	0.16 b–1.8 b	0.42
vanadium	23	23	23	100	4 8 b–64.9	71.8
zinc	23	23	23	100	6.8–67	77.9
Radiation (pCi/g)						
gross alpha	3	3	3	100	13.2–16.9	NA
gross beta	3	3	3	100	22.1–26.2	NA

Notes:
[a] this compound was not assigned data validation qualifiers; sample concentrations were observed to be greater than 5 to 10 times those of the field blanks; however, some blank contamination may exist
[b] compound was also detected in the field blank at a higher concentration

Acronyms/Abbreviations:
DB – dichlorophenoxybutyric acid
MCAS – Marine Corps Air Station
MCPP – 2-(2-methyl-4-chlorophenoxy)-propionic acid
mg/kg – milligrams per kilogram
NA – not applicable
PCB – polychlorinated biphenyl
pCi/g – picocuries per gram
RI – remedial investigation
silvex – 2-(2,4,5-trichlorophenoxy)propionic acid
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
b – estimated value below the detection limit for inorganic compound
J – estimated value below the detection limit for organic compound
N – presumptive evidence to tentatively identify organic compound

Table 5-8
Summary of Analytical Results for Shallow Soil Sampling at Site 3, Unit 3
RFA and Phase II RI

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (mg/kg)	Former MCAS El Toro Background Concentrations (mg/kg)
Volatile Organic Compounds						
2-butanone	9	9	1	11	0.006	NA
acetone	12	12	8	67	0.003 J–0.096	NA
bromoform	12	16	1	6	0.001 J	NA
chloroform	12	16	1	6	0.001	NA
methylene chloride	12	16	2	13	0.009–0.03 B, J	NA
toluene	12	16	2	13	0.001 J–0.016 B, J	NA
trichloroethene	12	16	1	6	0.005 J	NA
o-xylene	4	4	1	25	0.004 J	NA
xylenes	12	12	1	8	0.008 J	NA
Petroleum Hydrocarbons						
TPH-motor oil	5	5	5	100	12–550 J	NA
TRPH	8	8	2	25	3,140–13,500	NA
TPH-diesel	13	13	5	38	19–8,650 Z	NA
TPH-gasoline	8	8	2	25	150 Z–1,500 Z	NA
Semivolatile Organic Compounds						
bis(2-ethylhexyl)phthalate	12	12	1	8	0.04 J	NA
diethyl phthalate	12	12	6	50	0.008 J–0.13 J	NA
2-methylnaphthalene	12	16	2	13	12	NA
benz(a)anthracene	12	16	1	6	0.003	NA
benzo(a)pyrene	12	16	1	6	0.005	NA
benzo(b)fluoranthene	12	16	1	6	0.009 J	NA
benzo(e)pyrene	4	4	1	25	0.006	NA
benzo(g,h,i)perylene	12	16	1	6	0.007	NA

Table 5-8 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (mg/kg)	Former MCAS El Toro Background Concentrations (mg/kg)
Semivolatile Organic Compounds (continued)						
benzo(k)fluoranthene	12	16	1	6	0.01 J–0.01 J	NA
chrysene	12	16	1	6	0.006	NA
dibenz(a,h)anthracene	12	16	1	6	0.002 J	NA
indeno(1,2,3-cd)pyrene	12	16	1	6	0.005 J	NA
naphthalene	12	16	1	6	1.3 J	NA
perylene	4	4	1	25	0.003	
pyrene	12	16	1	6	0.003	NA
Herbicides						
2,4,5-trichlorophenoxyacetic acid	4	4	1	25	0.0048 J	NA
dicamba	4	4	1	25	0.014	NA
Metals						
aluminum	12	12	12	100	2,400–11,700	14,800
antimony	12	12	2	17	0.53 J–1.7 J	3.06
arsenic	12	12	10	83	0.58 B–5.6	6.86
barium	12	12	12	100	25.8 B–305	173
beryllium	12	12	8	67	0.15–0.62 B	0.669
cadmium	12	12	7	58	0.37 B–2.8	2.35
chromium	12	12	12	100	3–34.3	26.9
cobalt	12	12	12	100	1.4 B–7.7 B	6.98
copper	12	12	12	100	1.9 B–494	10.5
lead	12	12	12	100	0.43 B–918	15.1
manganese	12	12	12	100	88–354	291
mercury	12	12	5	42	0.03 B–0.073	0.22
nickel	12	12	8	67	2.6–31.1	15.3
selenium	12	12	1	8	0.8	0.32

Table 5-8 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (mg/kg)	Former MCAS El Toro Background Concentrations (mg/kg)
Metals (continued)						
silver	12	12	4	33	0.81–3	0.539
thallium	12	12	1	8	0.87	0.42
vanadium	12	12	12	100	8.7 B – 43.3	71.8
zinc	12	12	12	100	12.5 – 470	77.9

Acronyms/Abbreviations:
- MCAS – Marine Corps Air Station
- mg/kg – milligrams per kilogram
- NA – not applicable
- RCRA – Resource Conservation and Recovery Act
- RFA – RCRA facility assessment
- RI – remedial investigation
- TPH – total petroleum hydrocarbons
- TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
- B – analyte is found in associated blank as well as in the sample
- J – estimated value below detection limit for organic compound
- Z – unknown chromatographic peak or patterns were detected that do not resemble a typical fuel pattern

Table 5-9
Summary of Analytical Results for Subsurface Soil Sampling at Site 3, Unit 3
RFA

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (mg/kg)	Former MCAS El Toro Background Concentrations (mg/kg)
Volatile Organic Compounds						
acetone	12	12	3	25	0.003 J–0.023	NA
toluene	12	12	3	25	0.001 J–0.006 J	NA
Petroleum Hydrocarbons						
TRPH	12	12	3	25	61.9–364	NA
TPH-diesel	12	12	3	25	31 Z–710 Z	NA
TPH-gasoline	12	12	4	33	1 Z–620 Z	NA
Semivolatile Organic Compounds						
2-methylnaphthalene	12	12	1	8	0.04 J–1.7	NA
benzyl butyl phthalate	12	12	4	33	0.022 J–0.066 J	NA
bis(2-ethylhexyl)phthalate	12	12	4	33	0.065 J–0.24 B J	NA
di-n-butyl phthalate	12	12	3	27	0.017 J–0.020 J	NA
diethyl phthalate	12	12	10	83	0.019 J–0.29 J	NA
Metals						
aluminum	12	12	12	100	2,440–11,600	14,800
antimony	12	12	1	8	2.9 BN	3.06
arsenic	12	12	10	83	0.55 B–3.1	6.86
barium	12	12	12	100	34.8 B–200	173
beryllium	12	12	2	17	0.22 B–0.45 B	0.669
cadmium	12	12	10	83	0.27 B–2.6	2.35
chromium	12	12	12	100	2.8–26.3	26.9
cobalt	12	12	12	100	1.7 B–7.6 B	6.98

Table 5-9 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (mg/kg)	Former MCAS El Toro Background Concentrations (mg/kg)
Metals (continued)						
copper	12	12	12	100	2.1 B–252	10.5
lead	12	12	12	100	0.38 B–254* N	15.1
manganese	12	12	12	100	104–315 N	291
mercury	12	12	7	58	0.03 B–0.08	0.22
nickel	12	12	3	25	2.9 B–30.8	15.3
silver	12	12	1	8	3.1	0.539
vanadium	12	12	12	100	9.4 B–33.7	71.8
zinc	12	12	12	100	13.9–382 N	77.9

Note:
* this compound originally was not assigned data validation qualifiers; sample concentrations were observed to be greater than 5 to 10 times those of the field blanks; however, some blank contamination may exist

Acronyms/Abbreviations:
MCAS – Marine Corps Air Station
mg/kg – milligrams per kilogram
NA – not available
RCRA – Resource Conservation and Recovery Act
RFA – RCRA facility assessment
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
B – estimated value below detection limit for inorganic compound
J – estimated value below detection limit for organic compound
N – presumptive evidence to make a tentative identification of the analyte
Z – unknown chromatographic peak or patterns detected that do not resemble a typical fuel pattern

Table 5-10
Summary of Analytical Results for Shallow Soil Sampling at Site 3, Unit 4
RFA and Phase II RI

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Volatile Organic Compounds (mg/kg)						
acetone	12	12	5	42	0.011–0.082	NA
2-butanone	10	10	7	70	0.005 J–0.11 J	NA
cis-1,2-dichloroethene	7	13	2	15	0.00097 J–0.012 J	NA
ethylbenzene	12	18	1	6	0.003 J	NA
tetrachloroethene	12	18	12	6	0.00071 J–0.290 J	NA
toluene	12	18	1	6	0.002 J	NA
trichloroethene	12	18	3	17	0.003 J–0.005 J	NA
xylenes	12	12	2	17	0.003 J–0.010	NA
m- and p-xylenes	6	6	2	33	0.002 J–0.014 J	NA
o-xylene	6	6	4	67	0.00082 J–0.01 J	NA
Petroleum Hydrocarbons (mg/kg)						
TPH-motor oil	7	7	6	86	94–15,000	NA
TRPH	5	5	5	100	50.7–2,680	NA
TPH-diesel	12	12	8	67	12–830 Z	NA
TPH-gasoline	12	13	9	69	0.06 J–4.3	NA
Semivolatile Organic Compounds (mg/kg)						
1-methylnaphthalene	7	7	3	43	0.002 J–0.170 J	NA
1-methylphenanthrene	6	6	1	17	0.0002	NA
2,3,5-trimethylnaphthalene	6	6	4	67	0.003 J–0.066 J	NA
2,6-dimethylnaphthalene	6	6	4	67	0.004–0.2 J	NA
2-methylnaphthalene	12	12	3	25	0.004 J–0.130 J	NA
benz(a)anthracene	12	18	3	17	0.004–0.010 J	NA
benzo(a)pyrene	11	18	4	22	0.004–0.005	NA

Table 5-10 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Semivolatile Organic Compounds (mg/kg) (continued)						
benzo(b)fluoranthene	11	18	4	22	0.003 J–0.007	NA
benzo(e)pyrene	7	7	5	71	0.005 J–0.013	NA
benzo(g,h,i)perylene	11	18	4	22	0.005–0.012 J	NA
benzo(k)fluoranthene	11	17	1	6	0.004	NA
benzyl butyl phthalate	12	12	2	17	0.016 J–0.390 J	NA
bis(2-ethylhexyl)phthalate	12	12	1	8	0.041 J	NA
chrysene	12	19	5	26	0.003 J–0.012	NA
di-n-butyl phthalate	12	12	1	8	0.038 J	NA
dibenz(a,h)anthracene	11	18	3	17	0.002 J–0.003 J	NA
dibenzothiopene	6	6	1	17	0.002	NA
diethyl phthalate	12	12	2	17	0.009 J–0.026 J	NA
fluoranthene	12	18	2	11	0.002–0.004	NA
fluorene	12	18	2	11	0.006–0.014 J	NA
indeno(1,2,3-cd)pyrene	11	18	4	22	0.003 J–0.005 J	NA
naphthalene	12	19	3	16	0.002 J–0.057 J	NA
perylene	7	7	5	71	0.003–0.01 J	NA
phenanthrene	12	18	2	11	0.007–0.025 J	NA
pyrene	12	9	4	44	0.004 J–0.009 J	NA
Pesticides and PCBs (mg/kg)						
4,4′-DDD	12	12	5	42	0.0026 J–0.0063	NA
4,4′-DDE	12	12	1	8	0.0021 J	NA
alpha-BHC	12	12	2	17	0.0013 J–0.0018 J	NA
beta-BHC	12	12	1	8	0.0011 NJ	NA
endrin aldehyde	12	12	1	8	0.0051 J	NA

Table 5-10 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Herbicides (mg/kg)						
MCPP	7	7	1	14	11	NA
Dioxins and Dibenzofurans (mg/kg)						
tetrachlorodibenzofuran	6	6	1	17	0.000183	NA
2,3,7,8-tetrachlorodibenzofuran	6	6	1	17	0.00004	NA
octachlorodibenzo-p-dioxin	6	6	3	50	0.00007–0.00011	NA
Metals (mg/kg)						
aluminum	12	12	12	100	4,280–13,700	14,800
antimony	12	12	4	33	0.55 J–0.84 J	3.06
arsenic	12	12	9	75	2.3–4.6	6.86
barium	12	12	12	100	43.1–198	173
beryllium	12	12	11	92	0.1–0.41 B	0.669
cadmium	12	12	3	25	1.1–1.2	2.35
chromium	12	12	12	100	4.8–19.6	26 9
cobalt	12	12	12	100	2.3–7.4 B	6.98
copper	12	12	12	100	4.5–50.9	10.5
lead	12	12	12	100	1.7–50.6*	15.1
manganese	12	12	12	100	96–250	291
nickel	12	12	12	100	2.6–17.1	15.3
selenium	12	12	2	17	0.87 BN–1.3	0.32
silver	12	12	5	42	0.5 B–2.7	0.534
thallium	12	12	5	42	0.47–1.1	0.42
vanadium	12	12	12	100	13.8–35.5	71.8
zinc	12	12	12	100	23.3–105	77.9
Radionuclides (pCi/g)						
gross alpha	7	7	6	86	7.5 J–16.7 J	NA
gross beta	7	7	7	100	19.8–25.1	NA

Table 5-10 (continued)

Note:
* analyte also detected in field

Acronyms/Abbreviations:
BHC – benzene hexachloride
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethene
MCAS – Marine Corps Air Station
MCPP – 2-(2-methyl-4-chlorophenoxyl)-propionic acid
mg/kg – milligrams per kilogram
NA – not available
PCB – polychlorinated biphenyl
pCi/g – picocuries per gram
RCRA – *Resource Conservation and Recovery Act*
RFA – RCRA facility assessment
RI – remedial investigation
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
B – analyte was found in associated blank as well as the sample
J – estimated value below the detection limit for organic compound
N – presumptive evidence to tentatively identify analyte
Z – unknown single peak detected that does not resemble a typical fuel pattern

Table 5-11
Summary of Analytical Results for Subsurface Soil Sampling at Site 3, Unit 4
Phase II RI

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentrations
Volatile Organic Compounds (mg/kg)						
acetone	4	4	4	100	0.011–0.016	NA
Semivolatile Organic Compounds (mg/kg)						
benzo(g,h,i)perylene	4	8	1	12	0.022 J	NA
benzo(e)pyrene	4	4	1	25	0.002 J	NA
perylene	4	4	1	25	0.003 J	NA
Metals (mg/kg)						
aluminum	4	4	4	100	3,110–12,400	14,800
antimony	4	4	2	50	0.47 J–0.53 J	3.06
arsenic	4	4	4	100	1.4 J–4.2 J	6.86
barium	4	4	4	100	59.7–184	173
beryllium	4	4	4	100	0.064–0.4	0.669
chromium	4	4	4	100	3.1–11.6	26.9
cobalt	4	4	4	100	2.3–6.2	6.98
copper	4	4	4	100	2.1–5.6	10.5
lead	4	4	3	75	1.3–4.5	15.1
manganese	4	4	4	100	103–221	291
nickel	4	4	4	100	2–6.4	15.3
thallium	4	4	2	50	0.85–1	0.42
vanadium	4	4	4	100	12 J–42.2 J	71.8
zinc	4	4	4	100	13.4 J–35.5 J	77.9

Table 5-11 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentrations
Dioxins and Dibenzofurans (mg/kg)						
2,3,7,8-tetrachlorodibenzofuran	5	5	2	40	0.00000015 J–0.00000018 J	NA
octachlorodibenzo-p-dioxin	5	5	1	20	0.00000091 J	NA
tetrachlorodibenzofurans	5	5	2	40	0.00000018 J–0.00000031 J	NA
Radiation (pCi/g)						
gross alpha, total	5	5	2	40	7.8 J–11.4 J	NA
gross beta, total	5	5	5	100	18.8–34.7	NA

Acronyms/Abbreviations:
MCAS – Marine Corps Air Station
mg/kg – milligrams per kilogram
NA – not available
pCi/g – picocuries per gram
RI – remedial investigation

Review Qualifier:
J – estimated value below detection level

Table 5-12
Summary of Analytical Results for Groundwater Sampling at Site 3

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations
Volatile Organic Compounds (µg/L)					
benzene	21	28	7	25	3–20
2-hexanone	21	21	1	5	7–7
chloroform	21	27	8	30	0.51 J–1
chloromethane	21	27	1	4	3
m- and p-xylenes	7	7	1	14	1.7
methylene chloride	21	27	3	11	0.5* J–2*
tetrachloroethene	21	27	1	4	0.9 J
trichloroethene	21	27	1	4	0.6 J
xylenes	21	21	3	14	0.8 J–3
Petroleum Hydrocarbons (µg/L)					
TPH-gasoline	14	14	3	21	77.7–522
TPH-diesel	14	14	2	14	439–769
TPH-motor oil	7	7	1	14	170
Semivolatile Organic Compounds (µg/L)					
bis(2-ethylhexyl)phthalate	21	21	4	19	2 J–14
butyl benzyl phthalate	21	21	1	5	0.2 J
diethyl phthalate	21	21	3	14	0.1 J
phenol	21	21	1	5	0.1 J
Pesticides and PCBs (µg/L)					
4,4′-DDT	21	21	1	5	0.108
gamma-BHC (lindane)	21	21	1	5	0.053
dieldrin	21	21	1	5	0.113
heptachlor	21	21	1	5	0.068
Herbicides (µg/L)					
2,4,5-trichlorophenoxyacetic acid	16	16	1	6	0.943*
dalapon	16	16	1	6	2.2*
Total Metals (µg/L)					
aluminum	21	21	12	57	8 b–228
antimony	21	21	4	19	10 b–14.7 b
arsenic	21	21	19	90	0.9 b–22.8 J
barium	21	21	21	100	32 b–163
cadmium	21	21	3	14	1.6 b–3 b
chromium	21	21	11	52	2.9 b–157 J
cobalt	21	21	9	43	1.5–11.9
copper	21	21	6	29	0.95 b–9.4

Table 5-12 (continued)

Compound	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations
Total Metals (µg/L) (continued)					
lead	21	21	1	5	2.2
manganese	21	21	21	100	2.4–359
mercury	21	21	1	5	0.13 b
nickel	21	21	20	95	16.2–1,140
selenium	21	21	17	81	5.5 J–23.1
vanadium	21	21	21	100	8.2 b–73.6
zinc	21	21	6	29	1.6 b–146
Dissolved Metals (µg/L)					
aluminum	7	7	3	43	13.3–17.7
antimony	7	7	1	14	3.5
arsenic	7	7	5	71	4.8–7.6
barium	7	7	7	100	30.9–130
cadmium	7	7	1	14	0.44
chromium	7	7	7	100	1.2 J–5.2
cobalt	7	7	6	86	2.5–3.6
copper	7	7	1	14	6.1
manganese	7	7	7	100	1.5–172 J
nickel	7	7	7	100	12.4–376
selenium	7	7	4	57	4.7 J–21.5
silver	7	7	1	14	0.79
vanadium	7	7	7	100	17.1–36.3
zinc	7	7	3	43	13.3 J–176
Radiation (pCi/L)					
gross alpha	15	15	12	80	8.6–28 J
gross beta	16	16	14	88	7.3–16.6

Note:
* compound was detected in the field blank at a concentration that is of the same order of magnitude

Acronyms/Abbreviations:
BHC – benzene hexachloride
DDT – dichlorodiphenyltrichloroethane
µg/L – micrograms per liter
PCB – polychlorinated biphenyl
pCi/L – picocuries per liter
TPH – total petroleum hydrocarbons

Review Qualifiers:
b – estimated value below the detection limit for inorganic compound
J – estimated value below the detection limit for organic compound

Table 5-13
Summary of Analytical Results for Sediment Sampling at Site 3

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Volatile Organic Compounds (mg/kg)						
2-hexanone	10	10	1	10	0.006 J	NA
acetone	10	10	1	10	0.21[a]	NA
toluene	10	13	1	8	0.009 J	NA
Petroleum Hydrocarbons (mg/kg)						
TRPH	7	7	3	43	87–223	NA
TPH-diesel	10	10	2	20	20.8–79.9	NA
TPH-gasoline	7	7	4	57	0.242–5.71	NA
Semivolatile Organic Compounds (mg/kg)						
bis(2-ethylhexyl)phthalate	10	10	2	20	0.49[b] J–1.4[b]	NA
Pesticides and PCBs (mg/kg)						
4,4′-DDD	9	9	1	11	0.0038	NA
4,4′-DDE	9	9	2	22	0.0035–0.0045	NA
4,4′-DDT	9	9	2	22	0.007–0.0096	NA
Metals (mg/kg)						
aluminum	10	10	10	100	1,700–12,900	14,800
arsenic	10	10	7	70	0.51 b–2.2 b	6.86
barium	10	10	10	100	29.4 b–196	173
beryllium	10	10	4	40	0.065–0.47 b	0.669
cadmium	10	10	5	50	0.35 b–2.1	2.35
calcium	10	10	10	100	1,130–3,090	46,000
chromium	10	10	10	100	2.5–13.5	26.9
cobalt	10	10	8	80	1.2 b–4.1 b	6.98
copper	10	10	10	100	1.7–8.7	10.5
iron	10	10	10	100	2,840–14,700	18,400
lead	10	10	9	90	1.7–5.2	15.1

Table 5-13 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background Concentration
Metals (mg/kg) (continued)						
magnesium	10	10	10	100	881 b–4,950	8,370
manganese	10	10	10	100	51–145	291
nickel	10	10	10	100	1.6–6.1 b	15.3
potassium	10	10	10	100	517 J–2,490	4,890
sodium	10	10	7	70	109 b–256 b	405
thallium	10	10	1	10	0.58	0.42
vanadium	10	10	10	100	7.5 b–37.1	71.8
zinc	10	10	10	100	8.6 b–37.8	71.9
Radiation (pCi/g)						
gross alpha-total	3	3	3	100	10.4 J–17.1 J	NA
gross beta-total	3	3	3	100	20.1–27.8	NA

Notes:
[a] this compound is observed in the field blanks at the same order of magnitude
[b] this compound originally was not assigned data validation qualifiers; sample concentrations were observed to be greater than 5 to 10 times those of the field blanks; however, some blank contamination may exist

Acronyms/Abbreviations:
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethene
DDT – dichlorodiphenyltrichloroethane
MCAS – Marine Corps Air Station
mg/kg – milligrams per kilogram
NA – not applicable
PCB – polychlorinated biphenyl
pCi/g – picocuries per gram
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
b – reported value is less than the contract-required detection limit but greater than or equal to the instrument detection limit
J – estimated value

Table 5-14
Summary of Analytical Results for Surface Water Sampling at Site 3

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations
Volatile Organic Compounds (µg/L)					
2-butanone (methyl ethyl ketone)	7	7	1	14	2
acetone	7	7	4	57	2 J–39*
carbon disulfide	7	7	1	14	1*
chlorodibromomethane	7	7	1	14	0.5 J
chloromethane (methyl chloride)	7	7	4	57	1 J–3
methylene chloride	7	7	1	14	14*
Petroleum Hydrocarbons (µg/L)					
TPH-diesel	4	4	1	25	287
TPH-motor oil	4	4	4	100	760–3,600
Semivolatile Organic Compounds (µg/L)					
bis(2-ethylhexyl)phthalate	9	9	1	11	15
4-nitrophenol	9	9	1	11	2 J
di-n-butyl phthalate	9	9	3	33	0.2 J–0 3 J
di-n-octyl phthalate	9	9	1	13	0.3 J
diethyl phthalate	9	9	2	22	0.2 J–0.4 J
pentachlorophenol	9	9	1	13	0.6 J
Pesticides and PCBs (µg/L)					
beta-BHC	8	8	1	13	0.04 J
endosulfan II	8	8	1	13	0.37 J
gamma-chlordane	8	8	1	13	0.01
heptachlor	8	8	1	13	0 06 J
Total Metals (µg/L)					
aluminum	9	9	7	78	204–99,000
antimony	9	9	2	22	12.9 b–15.4 b
arsenic	9	9	7	78	3.4–12.4
barium	9	9	9	100	3.9 b–1,080
beryllium	9	9	5	56	0.87–5.2
cadmium	9	9	6	67	2.7 b–84.5
chromium	9	9	8	88	4.2 J–134
cobalt	9	9	4	44	6.2 b–49.3
copper	9	9	9	100	3 9 b–143
lead	9	9	6	67	7.3 J–42.2
manganese	9	9	8	89	22.9–1,620
nickel	9	9	7	78	5.4–113
selenium	9	9	2	22	1.3 b–24.3 b

Table 5-14 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations
Total Metals (µg/L) (continued)					
silver	9	9	1	11	0.85
vanadium	9	9	6	67	10.9 J–267
zinc	9	9	9	100	15.6 b–460
Dissolved Metals (µg/L)					
aluminum	8	8	5	63	61.3 J–635
antimony	8	8	3	38	3.1–5.4
arsenic	8	8	4	50	1.4 b–3.4 b
barium	8	8	7	88	1.3 b–158 b
cadmium	8	8	1	13	76.4
chromium	8	8	4	50	0.7 J–7.2 b
copper	8	8	8	100	4.2 J–15.1 b
lead	8	8	2	25	1.3 b–1.4 b
manganese	8	8	7	88	5.3 b–14.5 b
nickel	8	8	6	75	2.7–9.9 b
selenium	8	8	1	13	1.3 b
silver	8	8	1	13	0.75
vanadium	8	8	8	88	4.2 b–7.2 b
zinc	8	8	8	100	9.7 b–39.4
Other Inorganics (µg/L)					
cyanide	4	4	1	25	3.1
fluoride	2	2	1	50	0.2 J
phosphate	2	2	2	100	0.1 J
Radiation – Total (pCi/L)					
gross alpha	3	3	3	100	2.8 J–5.5 J
gross beta	3	3	3	100	3.2–8.5

Note:
* compound also detected in the field blank at a concentration that is of the same order of magnitude

Acronyms/Abbreviations:
BHC – benzene hexachloride
µg/L – micrograms per liter
PCB – polychlorinated biphenyl
pCi/L – picocuries per liter
TPH – total petroleum hydrocarbons

Review Qualifiers:
b – estimated value below the detection limit for inorganic compound
J – estimated value below the detection limit for organic compound

Table 5-15
Media Sampled at Site 5

Media	Air SWAT	Phase I RI	Phase II RI	Supplemental Investigations
Air				
• Instantaneous surface air	X		X	
• Integrated surface air	X		X	
• Ambient air	X		X	
• Isolation flux chamber			X	
Soil Gas				
• Shallow soil gas	X		X	X
• Perimeter gas migration	X		X	X
Radiation				
• Instantaneous surface air				X
• Shallow soil (0–10 feet bgs)				X
Soil				
• Shallow soil (0–10 feet bgs)		X	X	X
• Subsurface soil (> 10 feet bgs)		X	X	
Water				
• Groundwater		X	X	

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
bgs – below ground surface
RI – remedial investigation

Table 5-16
Comparison of Ambient Air Sampling Results at Site 5
Phase II RI and Air SWAT

Analyte	Phase II RI Maximum (ppb_v)	Air SWAT Maximum (ppb_v)	Statewide Urban Average[a] (ppb_v)	Average Anaheim Results[b] (ppb_v)	CARB STUDY Median (ppb_v)	CARB STUDY Maximum (ppb_v)
Freon 12	0.85	—[c]	NR	NR	NR	NR
chloromethane	0.95	—	NR	3.4	NR	NR
vinyl chloride	0.50 U	2.0 U	NR	NR	2 U	15
methylene chloride	0.98 U	13	2.1	NR	1 U	1,300
chloroform	0.50 U	0.80 U	0.08	NR	0.8 U	32
1,1,1-trichloroethane	0.97	2 8	1.8	NR	0.7	51
carbon tetrachloride	0.50 U	0.20 U	0.14	NR	0.2 U	15
benzene	1.7	2.0 U	2.6	NR	2 U	500
1,2-dichloroethane	0.50 U	0.20 U	0.06	NR	0.2 U	17
trichloroethene	0.70 U	0.60 U	0.8	NR	0.6 U	130
toluene	3.3	—	NR	NR	NR	NR
tetrachloroethene	0.50 U	0.38	NR	NR	0.2 U	269
ethylene dibromide	0.70 U	0.50 U	0.01	NR	0.5 U	22
m- and p-xylenes	3.7	—	NR	1.9	NR	NR
o-xylene	0.57	—	NR	1.1	NR	NR
1,3,5-trimethylbenzene	1.6	—	NR	NR	NR	NR
1,2,4-trichlorobenzene	4.7	—	NR	NR	NR	NR

Notes:
[a] 1988 Air Toxics Monitoring Network summary data for all CARB stations (CARB 1988)
[b] South Coast Air Quality Management District annualized average ambient-air quality data for the Anaheim monitoring station (01 June 1992 through 01 June 1993)
[c] dash indicates not analyzed

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
CARB – California Air Resources Board
Freon 12 – dichlorodifluoromethane
NR – not reported (in study results)
ppb_v – parts per billion by volume
RI – remedial investigation

Review Qualifier:
U – detection limit, analyte not detected

Table 5-17
Comparison of Integrated Surface Air Sampling Results at Site 5
Phase II RI and Air SWAT

Analyte	Phase II RI Maximum (ppb_v)	Air SWAT Maximum (ppb_v)	CARB STUDY Median (ppb_v)	CARB STUDY Maximum (ppb_v)
Freon 12	0.89	—*	NR	NR
chloromethane	1.1	—	NR	NR
vinyl chloride	0.70 U	—	2 U	1,000
methylene chloride	0.70 U	—	1 U	3,200
chloroform	0.70 U	—	2 U	10
1,1,1-trichloroethane	0.70 U	—	0.2	52
carbon tetrachloride	0.70 U	—	0.2 U	11
benzene	1.2	—	2 U	120
1,2-dichloroethane	0.70 U	—	0.2 U	46
trichloroethene	0.70 U	—	0.6 U	80
toluene	0.70 U	—	NR	NR
tetrachloroethene	0.70 U	—	0.2 U	269
ethylene dibromide	0.70 U	—	0.5 U	22
ethylbenzene	0.70 U	—	NR	NR
m- and p-xylenes	1.1	—	NR	NR
o-xylene	0.70 U	—	NR	NR
1,3,5-trimethylbenzene	0.70 U	—	NR	NR
1,2,4-trimethylbenzene	0.83	—	NR	NR
total organic compounds as methane	10,000 U	2,000 U	2,600	130,000

Note:
* dash indicates not analyzed

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
CARB – California Air Resources Board
Freon 12 – dichlorodifluoromethane
NR – not reported (in CARB study)
ppb_v – parts per billion by volume
RI – remedial investigation

Review Qualifier:
U – not detected; the number shown is the detection limit

Table 5-18
Summary of Analytical Results for Soil Gas Sampling at Site 5

Analyte	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (µg/L)
Freon 113	21	3	14	1–2
methylene chloride	26	5	19	0.35–1.02
TCE	26	6	23	0.24–14.9
PCE	26	2	8	0.41–0.49
toluene	21	2	10	6–15

Acronyms/Abbreviations:
- Freon 113 – 1,1,2-trichloro-1,2,2-trifluoroethane
- µg/L – micrograms per liter
- PCE – tetrachloroethene
- TCE – trichloroethene

Table 5-19
Comparison of Soil Gas Sampling Results at Site 5
Phase II RI and Air SWAT

Analyte	Phase II RI Maximum (µg/L)	Air SWAT Maximum (µg/L)	CARB STUDY		
			Number of Detections[a]	Median (µg/L)	Maximum (µg/L)
Freon 113	2	NT	—[b]	NR	NR
methylene chloride	U < 1	1.02	197	0.13	564.8
tetrachloroethene	U < 1	0.49	241	38	310.5
trichloroethene	10	14.9	228	0.16	60.8
toluene	15	NT	—	NR	NR

Notes:
[a] number of California landfills at which the contaminant was detected (of the 340 landfills where integrated surface sampling was conducted)
[b] dash indicates not analyzed for

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
CARB – California Air Resources Board
Freon 113 – 1,1,2-trichloro-1,2,2-trifluoroethane
µg/L – micrograms per liter
NR – not reported in CARB study
NT – not tested
RI – remedial investigation

Review Qualifier:
U – not detected; concentration is below listed detection limit

Table 5-20
Summary of Analytical Results for Perimeter Landfill Gas Migration Sampling at Site 5
Phase II RI, Air SWAT, and Supplemental Investigations

Analyte	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (µg/L)
Phase II RI/Air SWAT				
Freon 113	11	1	9	2
TCE	11	1	9	25
methane	11	9	82	0.7–16.8
Supplemental Investigations				
Volatile Organic Compounds				
2-butanone	6	2	33	0.009–0.009
2-propanol	6	4	67	0.0075–0.023
acetone	22	15	68	0.0076–0.056
chloroform	22	7	32	0.0069–0.029
benzene	22	6	27	0.0026–0.0058
bromodichloromethane	22	8	36	0.0086–0.053
carbon disulfide	22	9	41	0.0074–0.029
carbon tetrachloride	22	5	23	0.0063–0.0067
chloromethane	22	0	0	0
cyclohexane	22	1	5	0.015
dibromochloromethane	22	6	27	0.010–0 065
ethanol	22	4	18	0.0042–0.012
Freon 11	22	2	9	0.0029–0.0031
Freon 113	22	8	36	0.0041–0.46
Freon 12	22	18	82	0.0042–0.090
hexane	22	2	9	0.0083–0.034
m- and p-xylenes	22	12	55	0.0033–0.010
o-xylene	22	2	9	0.0042–0.0047
methylene chloride	22	2	9	0.0020–0.035
tetrahydrofuran	22	9	41	0.0026–0.023
trichloroethene	22	12	55	0.0084–18
tetrachloroethene	22	20	91	0.0069–0.85
toluene	22	12	55	0.0042–0.017
4-ethyltoluene	22	1	5	0.0058
1,2,4-trimethylbenzene	22	3	15	0.0048–0.0077
Fixed Gases				
oxygen	16	16	100	19–21%
nitrogen	16	16	100	78–79%
carbon monoxide	16	0	0	0

Table 5-20 (continued)

Analyte	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations (µg/L)
Fixed Gases (continued)				
carbon dioxide	16	16	100	0.97–2.3%
methane	22	0	0	0

Acronyms/Abbreviations:
air SWAT – air quality solid waste assessment test
Freon 11 – trichlorofluoromethane
Freon 12 – dichlorodifluoromethane
Freon 113 – 1,1,2-trichloro-1,2,2-trifluoroethane
µg/L – micrograms per liter
RI – remedial investigation
TCE – trichloroethene

Table 5-21
Summary of Analytical Results for Shallow Soil Sampling at Site 5
Phase I RI and Supplemental Investigations

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background
Volatile Organic Compounds (mg/kg)						
toluene	6	6	2	33	0.004 J	NA
Petroleum Hydrocarbons (mg/kg)						
TPH-gasoline	7	7	1	14	0.0831	NA
TRPH	7	7	2	29	28–877	NA
Pesticides and PCBs (mg/kg)						
4,4′-DDT	6	6	4	67	0.00352–0.239	NA
methoxychlor	6	6	1	17	0.122*	NA
Herbicides (mg/kg)						
silvex	6	6	1	17	0.0253	NA
MCPP	6	6	1	17	261	NA
Metals (mg/kg)						
aluminum	7	7	7	100	4,750–11,200	14,800
arsenic	7	7	7	100	1.5 b–3.3	6.86
barium	7	7	7	100	61.3–116	173
beryllium	7	7	6	86	0.15 b–0.28 b	0.669
cadmium	7	7	7	100	0.96 b–1.5	2.35
chromium	7	7	7	100	5.8–10.9	26.9
cobalt	7	7	7	100	2.4 b–5 b	6.98
copper	7	7	7	100	6.2–17.3	10.5
lead	7	7	7	100	1.8–38.5	15.1
manganese	7	7	7	100	136–227	291
mercury	7	7	2	29	0.05 b	0.22
nickel	7	7	6	86	5.6 b–9.9	15.3
silver	7	7	2	29	0.43 b–0.5 b	0.539

Table 5-21 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background
Metals (mg/kg) (continued)						
thallium	7	7	6	86	0.14 b–0.22 b	0.42
vanadium	7	7	7	100	17.5–36.5	71.8
zinc	7	7	7	100	27–98	77.9
Radionuclides (pCi/g)						
Ra-226	5	5	5	100	0.76–2.97	NA

Note:
* compound originally was not assigned data validation qualifiers; however, some blank contamination may exist

Acronyms/Abbreviations:
DDT – dichlorodiphenyltrichloroethane
MCAS – Marine Corps Air Station
MCPP – 2-(2-methyl-4-chlorophenoxy)-propionic acid
mg/kg – milligrams per kilogram
NA – not applicable
PCB – polychlorinated biphenyl
pCi/g – picocuries per gram
Ra-226 – radium-226
RI – remedial investigation
silvex – 2-(2,4,5-trichlorophenoxy)propionic acid
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
b – estimated value
J – estimated value

Table 5-22
Summary of Analytical Results for Subsurface Soil Sampling at Site 5
Phase I RI, Phase II RI, and Supplemental Investigations

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background
Volatile Organic Compounds (mg/kg)						
acetone	20	20	3	15	0.007[a] J–0.01[a] J	NA
Petroleum Hydrocarbons (mg/kg)						
TPH-motor oil	4	4	1	25	26	NA
TPH-diesel	12	12	2	17	17.8–21.8	NA
TRPH	10	10	1	10	76	NA
Semivolatile Organic Compounds (mg/kg)						
bis(2-ethylhexyl)phthalate	17	17	3	18	0.014 J–0.43[b] J	NA
butyl benzyl phthalate	17	17	1	6	0.008 J	NA
Herbicides (mg/kg)						
MCPP	9	9	2	22	111–211	NA
Dioxins and Dibenzofurans (mg/kg)						
hexachlorodibenzofurans	3	3	1	33	0.0000006 J	NA
Metals (mg/kg)						
aluminum	14	14	14	100	1,520–12,100	14,800
antimony	14	14	1	7	0.54 J	3.06
arsenic	14	14	12	86	0.66 b–3.4	6.86
barium	14	14	14	100	16 b–88.9	173
beryllium	14	14	4	29	0.12 b–0.49	0.669
cadmium	14	14	7	50	0.2 b–1 b	2.35
chromium	14	14	14	100	2.2–15.3	26.9
cobalt	14	14	12	86	1.4 b–5.1 b	6.98
copper	14	14	14	100	2 b–6.5	10.5
lead	14	14	13	93	0.46 b–3.4	15.1
manganese	14	14	14	100	16.2–182	291

Table 5-22 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations	Former MCAS El Toro Background
Metals (mg/kg) (continued)						
mercury	14	14	1	7	0.03 b	0.22
nickel	14	14	12	86	2.1 b–12.9	15.3
selenium	14	14	1	7	0.16 b	0.32
thallium	14	14	1	7	0.88 b	0.42
vanadium	14	14	14	100	6.5 b–31	71.8
zinc	14	14	14	100	7.1–32.3 J	77.9
Radiation (pCi/g)						
gross alpha	5	5	1	20	17.6	NA
gross beta	5	5	5	100	13.5–21.3	NA

Notes:
[a] compound detected in the field blank at the same order of magnitude
[b] compound originally had a J flag, indicating the sample concentrations were estimated; however, some blank contamination may exist

Acronyms/Abbreviations:
MCAS – Marine Corps Air Station
MCPP – 2-(2-methyl-4-chlorophenoxy)-propionic acid
mg/kg – milligrams per kilogram
NA – not applicable
pCi/g – picocuries per gram
RI – remedial investigation
TPH – total petroleum hydrocarbons
TRPH – total recoverable petroleum hydrocarbons

Review Qualifiers:
b – estimated value
J – estimated value

Table 5-23
Summary of Analytical Results for Groundwater Sampling at Site 5

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations
Volatile Organic Compounds (µg/L)					
methylene chloride	15	21	1	5	0.5* J
benzene	15	21	2	10	0.3 J–1
chlorobenzene	15	21	1	5	1
chloromethane	15	21	4	19	0.5 J–2 J
tetrachloroethene	15	21	9	43	0.4 J–0.9 J
toluene	15	21	1	5	2
trichloroethene	15	21	3	14	0.6 J–2
Petroleum Hydrocarbons (mg/L)					
TPH-motor oil	5	6	1	17	0.00022
Semivolatile Organic Compounds (µg/L)					
bis(2-ethylhexyl)phthalate	15	15	1	7	12
diethyl phthalate	15	15	1	7	0.2 J
di-n-butyl phthalate	15	15	1	7	0.5
Herbicides (µg/L)					
2,4,5-trichlorophenoxyacetic acid	14	14	1	7	0.685
Dissolved Metals (µg/L)					
aluminum	6	6	1	17	13.3
antimony	6	6	1	17	2.8
arsenic	6	6	4	67	3–5.9
barium	6	6	6	100	24.7–91.2
chromium	6	6	4	67	0.56 J–7
cobalt	6	6	4	67	1.8–3.6
copper	6	6	4	67	1.1–1.9
manganese	6	6	5	83	0.61 J–65.1
nickel	6	6	5	83	1.5–201
selenium	6	6	4	67	6.6–11.4
silver	6	6	1	17	1.2
thallium	6	6	1	17	3.4
vanadium	6	6	6	100	9.6–12.9
zinc	6	6	2	33	0.83–78.4
Total Metals (µg/L)					
aluminum	15	15	5	33	12.6–78.6
antimony	15	15	3	20	18.6 b–20.8 b
arsenic	15	15	12	80	1.1 b–5 b

Table 5-23 (continued)

Analyte	Number of Samples	Number of Analyses	Number of Detections	Frequency of Detections (percent)	Range of Reported Concentrations
Total Metals (µg/L) (continued)					
barium	15	15	15	100	22.6 b–92.6
chromium	15	15	7	47	0.9 J–201
cobalt	15	15	4	27	1.3–6.2
copper	15	15	5	33	1.2 b–7.3
manganese	15	15	12	80	0.51 J–79.1
mercury	15	15	2	13	0.18 b–0.21
nickel	15	15	10	67	2.3–259
selenium	15	15	13	87	3.9 J–9.8
silver	15	15	2	13	1.8 b–2.5 b
vanadium	15	15	15	100	10–15.1 b
zinc	15	15	2	13	0.55–73.5
Radiation (pCi/L)					
gross alpha	13	13	12	92	7–27 J
gross beta	13	13	11	85	6.3–53
Other Inorganics (µg/L)					
fluoride	6	6	3	50	200–300

Note:
* compound was also detected in the field blank at a concentration that is of the same order of magnitude

Acronyms/Abbreviations:
µg/L – micrograms per liter
mg/L – milligrams per liter
pCi/L – picocuries per liter
TPH – total petroleum hydrocarbons

Review Qualifiers:
b – estimated value below the detection level for inorganic compound
J – estimated value

Table 5-24
Metals Concentrations Exceeding U.S. EPA or California MCLs

Site	Metal	Highest Reported Concentration (µg/L)	Controlling MCL* (µg/L)
3	nickel	380	100
	selenium	21.5	10
5	nickel	201	100
	thallium	3.4	2

Note:
* the lower of the following two values: U.S. EPA MCLs found at 40 C.F.R. § 141 or California primary MCLs found at Cal. Code Regs. tit. 22

Acronyms/Abbreviations:
Cal. Code Regs. – *California Code of Regulations*
C.F.R. – *Code of Federal Regulations*
µg/L – micrograms per liter
MCL – maximum contaminant level
§ – section
tit. – title
U.S. EPA – United States Environmental Protection Agency

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Table 6-1
Summary of Excess Lifetime Cancer Risks

Site Number	Site Name	Unit Number	PHASE II RI RISK ASSESSMENT Recreational Soil Exposure Scenario (0 to 2 feet bgs)[a] U.S. EPA / Cal/EPA	Recreational Scenario Risk Drivers[b]	Residential Groundwater Use Scenario U.S. EPA / Cal/EPA	Residential Scenario Risk Drivers[b]	Industrial Soil Exposure Scenario (0 to 2 feet bgs) U.S. EPA / Cal/EPA	Industrial Scenario Risk Drivers[b]
3	Original Landfill	Sitewide	—[c]	—	6.1×10^{-6}	chloroform (100%)	$5.6 \times 10^{-7}/5.6 \times 10^{-7}$	—
		1	—	—	—	—	$5.0 \times 10^{-6}/5.1 \times 10^{-6}$	arsenic (90%/88%)
		2	$1.9 \times 10^{-8}/1.9 \times 10^{-8}$	—	—	—	—	—
		3	—	—	—	—	$4.7 \times 10^{-6}/4.7 \times 10^{-6}$	arsenic (100%)
		4	—	—	—	—	$6.0 \times 10^{-6}/1.5 \times 10^{-5}$	arsenic (82%/33%) chromium[d] (—/66%)
5	Perimeter Road Landfill	Sitewide	$8.0 \times 10^{-8}/8.0 \times 10^{-8}$	—	$8.1 \times 10^{-5}/8.1 \times 10^{-5}$	arsenic (99%)	—	—

Notes:
[a] cancer risk results shown are for a hypothetical residential adult; adult cancer risks are higher than child cancer risks
[b] as determined by human-health risk assessment, number in parentheses is percentage of risk accounted for by the risk driver (U.S. EPA / Cal/EPA)
[c] dash indicates not established
[d] evaluated as hexavalent chromium

Acronyms/Abbreviations:
bgs – below ground surface
Cal/EPA – California Environmental Protection Agency
RI – remedial investigation
U.S. EPA – United States Environmental Protection Agency

Table 6-2
Summary of Noncancer Risks (Hazard Index)

Site Number	Site Name	Unit Number	PHASE II RI RISK ASSESSMENT Recreational Soil Exposure Scenario (0 to 2 feet bgs)[a]	Recreational Scenario Risk Drivers[b]	Residential Groundwater Use Scenario	Residential Scenario Risk Drivers[b]	Industrial Soil Exposure Scenario (0 to 2 feet bgs)	Industrial Scenario Risk Drivers[b]
3	Original Landfill	Sitewide	—[c]	—	0.65	—	0.066	—
		1	—	—	—	—	0.043	—
		2	0.00086	—	—	—	—	—
		3	—	—	—	—	0.039	—
		4	—	—	—	—	0.11	—
5	Perimeter Road Landfill	Sitewide	0.0049	—	3.2	manganese (31%) nickel (26%) arsenic (24%)	—	—

Notes:
[a] cancer risk results shown are for a hypothetical residential adult; adult cancer risks are higher than child cancer risks
[b] as determined by human-health risk assessment, number in parentheses is percentage of risk accounted for by the risk driver
[c] dash indicates not established

Acronyms/Abbreviations:
bgs – below ground surface
RI – remedial investigation

Table 6-3
Hazard Quotients for Selected Receptors at Site 5

Chemical	Ground Squirrel	Red-Tailed Hawk
silvex	5.80E-04	2.94E-04
4,4'-DDT	1.28E-02	2.42E+00
methoxychlor	1.38E-03	2.87E-03
toluene	4.72E-05	1.06E-05
copper	7.21E-02	3.43E-03
lead	1.55E-01	6.73E-02
zinc	9.17E-01	6.67E-01
Total	**1.15E+00**	**3.17E+00**

Acronyms/Abbreviations:
DDT – dichlorodiphenyltrichloroethane
silvex – 2-(2,4,5-trichlorophenoxy)propionic acid

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Table 8-1
Comparative Analysis of Remedial Alternatives at Site 3

NCP Criteria	Alternative 1 No Action	Alternative 2 ICs and Monitoring	Alternative 3 Single-Layer Soil Cap, ICs/Monitoring	Alternative 4a Cap With Clay Barrier, ICs/Monitoring	Alternative 4b Cap With Soil and Bentonite Mix, ICs/Monitoring	Alternative 4c Cap With GCL, ICs/Monitoring	Alternative 4d Cap With FML, ICs/Monitoring	Alternative 5a Concrete Pavement Cap, ICs/Monitoring	Alternative 5b Asphalt Pavement Cap, ICs/Monitoring	Alternative 6a Concrete Pavement Cap With FML, ICs/Monitoring	Alternative 6b Asphalt Pavement Cap With FML, ICs/Monitoring
Overall protection of human health and the environment[a]	**Low.** Does not prevent direct contact with landfill wastes. Infiltration into the landfill is 4.4 inches (HELP Model estimate)[b].	**Low-Moderate.** Prevents direct human contact with wastes. Infiltration into landfill is 4 4 inches (HELP Model estimate)[b]. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.5 inch (HELP Model estimate)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil Infiltration into landfill is 0.48 inch (HELP Model estimate)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.48 inch (HELP Model estimate)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil Infiltration into landfill is 0 04 inch (HELP Model estimate)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.01 inch (HELP Model estimate)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.37 inch (HELP Model estimate)[b]. Reduces risk by severing the soil contact pathway. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil Infiltration into landfill is 0.29 inch (HELP Model estimate)[b]. Reduces risk by severing the soil contact pathway. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.06 inch (HELP Model estimate)[b] Reduces risk by severing the soil contact pathway. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.05 inch (HELP Model estimate)[b]. Reduces risk by severing the soil contact pathway. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.
Compliance with ARARs[c]	**Low.** Does not trigger ARARs.	**Low.** Does not meet requirement to control landfill gas	**Moderate.** Meets ARARs Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs Equivalent to a prescriptive cap.
Long-term effectiveness and permanence[d]	**Low.** Does not prevent ponding or infiltration.	**Low.** Does not prevent ponding or infiltration.	**Moderate.** Resistant to desiccation cracking and cracking from settlement.	**Moderate.** Clay barrier is subject to desiccation and cracking from settlement.	**Moderate.** Bentonite subject to desiccation. May crack from settlement.	**Moderate-High.** Geocomposite clay liner is resistant to desiccation Easily punctured. Not impermeable to gases.	**Moderate-High.** Flexible membrane liner is flexible. Can be punctured.	**Moderate.** Concrete is subject to cracking from stress or settlement. Requires maintenance to repair cracks and prevent vegetation growth.	**Moderate.** Asphalt may crack from stress or settlement. Requires maintenance to repair cracks and prevent vegetation growth.	**High.** Not subject to desiccation Concrete would provide additional protection for flexible membrane liner barrier.	**High.** Not subject to desiccation. Asphalt would provide additional protection for flexible membrane liner barrier.

Table 8-1 (continued)

NCP Criteria	Alternative 1 No Action	Alternative 2 ICs and Monitoring	Alternative 3 Single-Layer Soil Cap, ICs/Monitoring	Alternative 4a Cap With Clay Barrier, ICs/Monitoring	Alternative 4b Cap With Soil and Bentonite Mix, ICs/Monitoring	Alternative 4c Cap With GCL, ICs/Monitoring	Alternative 4d Cap With FML, ICs/Monitoring	Alternative 5a Concrete Pavement Cap, ICs/Monitoring	Alternative 5b Asphalt Pavement Cap, ICs/Monitoring	Alternative 6a Concrete Pavement Cap With FML, ICs/Monitoring	Alternative 6b Asphalt Pavement Cap With FML, ICs/Monitoring
Reduction of toxicity, mobility, or volume through treatment[e]	**Low.** Does not reduce infiltration or production of leachate. No reduction in the volume of landfill materials.	**Low.** Does not reduce infiltration or production of leachate. No reduction in the volume of landfill materials.	**Moderate.** Prevents most infiltration. No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**Moderate.** Prevents most infiltration. No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**Moderate.** Prevents most infiltration. No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** Prevents almost all infiltration. No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** Prevents almost all infiltration No reduction in the volume of landfill materials Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone	**Moderate.** Prevents most infiltration. No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**Moderate.** Prevents most infiltration No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** Prevents almost all infiltration. No reduction in the volume of landfill materials Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** Prevents almost all infiltration. No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.
Short-term effectiveness[f]	**High.** No construction activities to increase risk to workers or general public.	**High.** No construction activities to increase risk to workers or general public.	**Moderate-High.** Moderate earthwork. Relatively short time to construct (3 months).	**Low.** Most earthwork. Longest time to construct (3 9 months).	**Low.** Most earthwork Longest time to construct (3.9 months).	**Moderate.** Moderate earthwork. Intermediate time to construct (3 3 months).	**Moderate.** Moderate earthwork. Intermediate time to construct (3.3 months)	**High.** Least earthwork. Shortest time to construct all landfill cap options (2.7 months).	**Moderate-High.** Least earthwork. Relatively short time to construct (2.9 months)	**Moderate-High.** Least earthwork. Relatively short time to construct (2 9 months).	**Moderate.** Least earthwork. Relatively short time to construct (3.2 months).
Implementability[g]	**High.** No construction activities.	**High.** No construction activities. Institutional controls are readily implementable.	**Moderate-High.** Materials are readily available. No specialized equipment involved.	**Low-Moderate.** Suitable clay would have to be imported from off-site sources. Slow construction.	**Low-Moderate.** Bentonite would have to be imported by rail and mixed on-site. Requires specialized equipment (pug mill) and extensive quality assurance/quality control Slow construction	**Moderate-High.** Materials are readily available. No specialized equipment involved. Geocomposite clay liner can be rapidly installed.	**Moderate-High.** Materials are readily available. Requires specialty contractor to weld and seam the liner. Extensive quality assurance/quality control	**High.** Materials are readily available. No specialized equipment involved.	**High.** Materials are readily available No specialized equipment involved.	**Moderate-High.** Materials are readily available. Requires specialty contractor to weld and seam the liner Extensive quality assurance/quality control.	**Moderate-High.** Materials are readily available. Requires specialty contractor to weld and seam the liner. Extensive quality assurance/quality control.
Cost[h]	**High.** No cost.	**High.** Minimal cost for fencing, monitoring, and deed restrictions ($3.8 million).	**Moderate.** Least expensive of landfill cap designs ($8 5 million).	**Low-Moderate.** Costly due to import of clay ($9 6 million).	**Low-Moderate.** Among the costly cap designs Costly due to import of materials and on-site mixing ($9.7 million).	**Low-Moderate.** Least costly of Alternative 4 landfill cap designs ($9.0 million).	**Low-Moderate.** Costly due to specialized equipment and quality assurance and quality control ($9 6 million)	**Low-Moderate.** Among the least costly landfill cap designs ($9.1 million).	**Low-Moderate.** Among the costly cap designs ($9.8 million).	**Low-Moderate.** Costly because of use of barrier and pavement ($9.6 million).	**Low.** Most costly landfill cap design ($10.4 million).
State acceptance[i]	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.
Community acceptance[j]	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed	To be discussed.	To be discussed.

Table 8-1 (continued)

Notes:

[a] this assessment focuses on how the alternative, as a whole, achieves and maintains protection of human health and the environment; among the factors considered are how well the alternative reduces risk by preventing contact with wastes or mitigating waste migration, alternatives that take longer to implement and require exposing/moving large amounts of landfill wastes are rated the lowest

[b] these infiltration rates were estimated using the HELP model (BNI 1997c)

[c] the assessment against this criterion considers whether the alternative complies with the ARARs for Site 3

[d] this criterion focuses on long-term effectiveness in maintaining protection of human health and the environment after the response objectives have been met; among factors considered are how well the alternatives prevent infiltration and erosion and maintain their integrity over time

[e] none of the Site 3 alternatives treat landfill wastes; alternatives that reduce mobility of landfill wastes are rated slightly higher than those that do not attempt to reduce mobility

[f] the assessment against this criterion focuses on how well the alternative protects human health and the environment during the construction and implementation of the remedy until response objectives have been met

[g] this assessment evaluates the technical and administrative feasibility of alternatives and availability of required goods and services; alternatives that are easy to construct using readily available materials and no specialized equipment are rated the highest

[h] this assessment evaluates the capital and operation and maintenance costs of each alternative; alternatives that cost the least are rated highest

[i] state and community acceptance will be assessed following the California Department of Toxic Substances Control and public review process

Acronyms/Abbreviations:

ARAR – applicable or relevant and appropriate requirement
FML – flexible membrane liner
GCL – geocomposite clay liner
HELP – Hydrologic Evaluation of Landfill Performance
IC – institutional control
NCP – National Oil and Hazardous Substances Pollution Contingency Plan
ROD – record of decision

Table 8-2
Comparative Analysis of Remedial Alternatives at Site 5

NCP Criteria	Alternative 1 No Action	Alternative 2 ICs and Monitoring	Alternative 3 Single-Layer Soil Cap, ICs/Monitoring	Alternative 4a Cap With Clay Barrier, ICs/Monitoring	Alternative 4b Cap With Soil and Bentonite Mix, ICs/Monitoring	Alternative 4c Cap With GCL, ICs/Monitoring	Alternative 4d Cap With FML, ICs/Monitoring	Alternative 5a Concrete Pavement Cap, ICs/Monitoring	Alternative 5b Asphalt Pavement Cap, ICs/Monitoring	Alternative 6a Concrete Pavement Cap With FML, ICs/Monitoring	Alternative 6b Asphalt Pavement Cap With FML, ICs/Monitoring
Overall protection of human health and the environment[a]	**Low.** Does not prevent direct contact with landfill wastes Infiltration into the landfill is 5 0 (nonirrigated) to 7.25 (irrigated) inches (HELP modeling estimates)[b].	**Low-Moderate.** Prevents direct human contact with wastes. Infiltration into landfill is 5 0 (nonirrigated to 7.25 (irrigated) inches (HELP modeling estimates)[b]. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.47 (nonirrigated) to 3.71 (irrigated) inches (HELP modeling estimates)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0 46 (nonirrigated) to 1.1 (irrigated) inches (HELP modeling estimates)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.46 (nonirrigated) to 1.1 (irrigated) inches (HELP modeling estimates)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0 04 (nonirrigated) to 0.06 (irrigated) inch (HELP modeling estimates)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0 01 (nonirrigated) to 0 02 (irrigated) inch (HELP modeling estimates)[b]. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate-High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.05 (nonirrigated) inch (HELP modeling estimate)[b]. Reduces risk by severing the soil contact pathway Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**Moderate.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.19 (nonirrigated) inch (HELP modeling estimate)[b]. Reduces risk by severing the soil contact pathway. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0 01 (nonirrigated) inch (HELP modeling estimate)[b]. Reduces risk by severing the soil contact pathway Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.	**High.** Eliminates risks due to dermal contact, inhalation, and ingestion of surface soil. Infiltration into landfill is 0.01 (nonirrigated) inch (HELP modeling estimate)[b]. Reduces risk by severing the soil contact pathway. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone. Landfill leachate and groundwater would be monitored as part of the monitoring requirements using existing wells.
Compliance with ARARs[c]	**Low.** Does not trigger ARARs.	**Low.** Meets ARARs and there is no need to control landfill gas.	**Moderate.** Meets ARARs. Equivalent to a prescriptive cap under the non-irrigated scenario.	**High.** Meets ARARs. Equivalent to a prescriptive cap	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap.	**High.** Meets ARARs. Equivalent to a prescriptive cap	**High.** Meets ARARs. Equivalent to a prescriptive cap	**High.** Meets ARARs Equivalent to a prescriptive cap.
Long-term effectiveness and permanence[d]	**Low.** Does not prevent ponding or infiltration.	**Low.** Does not prevent ponding or infiltration	**Moderate.** Prevents direct contact with wastes. Resistant to desiccation cracking and cracking from settlement	**Moderate.** Clay barrier is subject to desiccation and cracking from settlement.	**Moderate.** Bentonite subject to desiccation. May crack from settlement.	**Moderate-High.** Geocomposite clay liner is resistant to desiccation. Easily punctured. Not impermeable to gases.	**Moderate-High.** Flexible membrane liner is flexible Can be punctured.	**Moderate.** Concrete is subject to cracking from stress or settlement. Requires maintenance to repair cracks and prevent vegetation growth	**Moderate.** Asphalt may crack from stress or settlement. Requires maintenance to repair cracks and prevent vegetation growth.	**High.** Not subject to desiccation. Concrete would provide additional protection for flexible membrane liner barrier.	**High.** Not subject to desiccation. Asphalt would provide additional protection for flexible membrane liner barrier.

Table 8-2 (continued)

NCP Criteria	Alternative 1 No Action	Alternative 2 ICs and Monitoring	Alternative 3 Single-Layer Soil Cap, ICs/Monitoring	Alternative 4a Cap With Clay Barrier, ICs/Monitoring	Alternative 4b Cap With Soil and Bentonite Mix, ICs/Monitoring	Alternative 4c Cap With GCL, ICs/Monitoring	Alternative 4d Cap With FML, ICs/Monitoring	Alternative 5a Concrete Pavement Cap, ICs/Monitoring	Alternative 5b Asphalt Pavement Cap, ICs/Monitoring	Alternative 6a Concrete Pavement Cap With FML, ICs/Monitoring	Alternative 6b Asphalt Pavement Cap With FML, ICs/Monitoring
Reduction of toxicity, mobility, or volume through treatment[e]	**Low.** Does not address toxicity, mobility, or volume. No reduction in the volume of landfill materials	**Low.** Does not address toxicity, mobility, or volume. No reduction in the volume of landfill materials.	**Moderate.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**Moderate.** No reduction in the volume of landfill materials Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**Moderate.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**Moderate-High.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.	**High.** No reduction in the volume of landfill materials. Installation of landfill gas controls in the form of vertical wells and horizontal trenches prevents potential landfill gases from migrating beyond the 100-foot buffer zone.
Short-term effectiveness[f]	**High.** No construction activities to increase risk to workers or general public.	**High.** No construction activities to increase risk to workers or general public.	**Moderate-High.** Least earthwork. Shortest time to construct all landfill cap options (3.4 months).	**Moderate.** More earthwork than Alternative 3. Longest time to construct (3.9 months).	**Low.** More earthwork than Alternative 3. Longest time to construct (4 2 months).	**Moderate-High.** Least earthwork. Shortest time to construct all landfill cap options (3 4 months)	**Moderate-High.** Least earthwork. Relatively short time to construct (3 7 months).	**Moderate-High.** Least earthwork. Relatively short time to construct (3.7 months).	**Moderate-High.** Least earthwork. Relatively short time to construct (3.7 months).	**Moderate.** Least earthwork. Relatively short time to construct (3 9 months).	**Moderate.** Least earthwork. Relatively short time to construct (3.9 months).
Implementability[g]	**High.** No construction activities.	**High.** No construction activities Institutional controls are readily implementable	**Moderate-High.** Materials are readily available. No specialized equipment involved.	**Low-Moderate.** Suitable clay would have to be imported from off-site sources. Slow construction	**Low-Moderate.** Bentonite would have to be imported by rail and mixed on-site. Requires specialized equipment (pug mill) and extensive quality assurance/quality control. Slow construction.	**Moderate-High.** Materials are readily available. No specialized equipment involved. Geocomposite clay liner can be rapidly installed.	**Moderate-High.** Materials are readily available. Requires specialty contractor to weld and seam the liner. Extensive quality assurance/quality control.	**High.** Materials are readily available. No specialized equipment involved.	**High.** Materials are readily available. No specialized equipment involved.	**Moderate-High.** Materials are readily available. Requires specialty contractor to weld and seam the liner. Extensive quality assurance/quality control.	**Moderate-High.** Materials are readily available. Requires specialty contractor to weld and seam the liner. Extensive quality assurance/quality control.
Cost[h]	**High.** No cost.	**High.** Minimal Cost for fencing, monitoring, and deed restrictions ($3.0 million).	**Moderate.** Least expensive of landfill cap designs ($5.9 million).	**Moderate.** $6.2 million.	**Moderate.** $6.4 million.	**Moderate.** Next to Alternative 3, least costly of all landfill cap designs ($6.1 million)	**Moderate.** Costly due to specialized equipment and quality assurance and quality control ($6.5 million) Second most costly landfill cap design.	**Moderate.** Among the least costly of all landfill caps designs ($6.3 million).	**Moderate.** Third most expensive cap design ($6 5 million)	**Moderate.** Costly because of use of barrier and pavement ($6.5 million).	**Low.** Most costly landfill cap design ($6 8 million).
State acceptance[i]	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending	The review of this alternative as part of this ROD effort is pending	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending.	The review of this alternative as part of this ROD effort is pending	The review of this alternative as part of this ROD effort is pending.
Community acceptance[i]	To be discussed.	To be discussed	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed.	To be discussed	To be discussed.	To be discussed.

Table 8-2 (continued)

Notes:

[a] this assessment focuses on how the alternative, as a whole, achieves and maintains protection of human health and the environment; among the factors considered are how well the alternative reduces risk by preventing contact with wastes or mitigating wastes migration

[b] these infiltration rates were estimated using the HELP model (BNI 1997c)

[c] the assessment against this criterion considers whether the alternative complies with the ARARs for Site 5

[d] this criterion focuses on long-term effectiveness in maintaining protection of human health and the environment after the response objectives have been met; among factors considered are how well the alternatives prevent infiltration and erosion and maintain their integrity over time

[e] none of the Site 5 alternatives treat landfill wastes; alternatives that reduce mobility of landfill wastes are rated slightly higher than those that do not attempt to reduce mobility

[f] the assessment against this criterion focuses on how well the alternative protects human health and the environment during the construction and implementation of the remedy until response objectives have been met; alternatives that take longer to implement and require exposing/moving large amounts of landfill wastes are rated the lowest

[g] this assessment evaluates the technical and administrative feasibility of alternatives and availability of required goods and services; alternatives that are easy to construct using readily available materials and no specialized equipment are rated the highest

[h] this assessment evaluates the capital and operation and maintenance costs of each alternative; alternatives that cost the least are rated highest

[i] state and community acceptance will be assessed following the California Department of Toxic Substances Control and public review process

Acronyms/Abbreviations:

ARAR – applicable or relevant and appropriate requirement
FML – flexible membrane liner
GCL – geocomposite clay liner
HELP – Hydrologic Evaluation of Landfill Performance
IC – institutional control
ROD – record of decision

Table 8-3
Site 3 – Cost Comparison of Remedial Alternatives*

Alternative	Capital Cost (millions)	O&M Net Present Worth (millions)	Total Net Present Worth (millions)	Remedial Construction Duration (months)	Monitoring and Maintenance Period (years)
1	NA	NA	NA	NA	NA
2	0.5	3.3	3.8	NA	30
3	3.9	4.6	8.5	3.0	30
4a	4.9	4.6	9.6	3.9	30
4b	5.1	4.6	9.7	3.9	30
4c	4.4	4.6	9.0	3.3	30
4d	5.0	4 6	9.6	3.3	30
5a	4.2	4.9	9.1	2.7	30
5b	4.8	5.0	9.8	2.9	30
6a	4.7	4.9	9.6	2.9	30
6b	5.3	5.0	10.4	3.2	30

Source: Earth Tech 2006

Note:
* cost estimates are based on the initial FS cost estimates and are prorated for changes in the landfill acreage or waste consolidation volumes and escalated from year 1997 costs to year 2005 costs; initial FS cost estimates were from the RACER database with escalation applied from January 1995 to the midpoint of the project (assumed to be September 1997 for capital costs and November 2012 for O&M costs [BNI 1997c,d])

Acronyms/Abbreviations:
FS – feasibility study
NA – not applicable
O&M – operation and maintenance
RACER – Remedial Action Cost Engineering and Requirements

Table 8-4
Site 5 – Cost Comparison of Remedial Alternatives*

Alternative	Capital Cost (millions)	O&M Net Present Worth (millions)	Total Net Present Worth (millions)	Remedial Construction Duration (months)	Monitoring and Maintenance Period (years)
1	NA	NA	NA	NA	NA
2	0.5	2.5	3.0	NA	30
3	2.6	3.3	5.9	3.4	30
4a	2.9	3.3	6.2	3.9	30
4b	3.1	3.3	6.4	4.2	30
4c	2.8	3.3	6.1	3.4	30
4d	3.2	3.3	6.5	3.7	30
5a	2.9	3 4	6.3	3.7	30
5b	3.2	3.4	6.5	3.7	30
6a	3.1	3.4	6.5	3.9	30
6b	3.5	3.4	6.8	3.9	30

Source: Earth Tech 2006

Note:
* cost estimates are based on the initial FS cost estimates and are prorated for changes in the landfill acreage or waste consolidation volumes and escalated from year 1997 costs to year 2005 costs; initial FS cost estimates were from the RACER database with escalation applied from January 1995 to the midpoint of the project (assumed to be September 1997 for capital costs and November 2012 for O&M costs [BNI 1997c,d])

Acronyms/Abbreviations:
FS – feasibility study
NA – not applicable
O&M – operation and maintenance
RACER – Remedial Action Cost Engineering and Requirements

Table 8-5
Infiltration Rates[a]
(inches per year)

Alternatives	Site 3 Existing (nonirrigation scenario)	Site 5 Existing (nonirrigation scenario)	Site 5 (irrigation scenario)
1 and 2	4.4	5.0	7 25
3	0.50	0.47	3.71
4a	0.48	0.46	1.1
4b	0.48	0.46	1.1
4c	0.04	0.04	0.06
4d	0.01	0.01	0.02
5a	0.37	0.05	NA[b]
5b	0.29	0.19	NA[b]
6a	0.06	0.01	NA[b]
6b	0.05	0.01	NA[b]

Notes:
[a] infiltration rates were estimated using the HELP model
[b] a concrete or asphalt cap would not be used in an irrigation scenario

Acronyms/Abbreviations:
HELP – Hydrologic Evaluation of Landfill Performance
NA – not applicable

Table 9-1
Site 3 Cost-Estimate Summary for Alternative 4d

Cost Category	Capital Costs	O&M Costs[a]
Direct Costs		
Capping (~3.20 acres)	$642,000	
Cut and fill (4,650 bcy)	21,000	
Consolidation of waste (12,186 bcy)	117,000	
Clear and grub (3.20 acres)	12,000	
Erosion control blanket (5,600 sy)	290,000	
Riprap (200 bcy)	14,000	
Test pad (not required)	0	
Perimeter fence (1,900 lf)	35,000	
Demolition (not required)	0	
Perimeter gas-migration monitoring wells (3 wells)	36,000	
Lysimeter (add 4)	53,000	
Landfill gas control system	377,000	
Sampling and analysis	59,000	
Professional labor (project oversight)	255,000	
Remedial design	207,000	
Subtotal Direct Costs	**$2,118,000**	
Indirect Costs	1,531,000	Included
Escalation[b]	308,000	Included
Contingency[c]	997,000	Included
O&M Costs		
Capping (5 years)		$60,000
Monitoring (30 years)		2,199,000
Monitoring reports (35 reports)		249,000
Postclosure inspection and maintenance (45 events)		71,000
Groundwater monitoring well replacements		1,604,000
Lysimeter replacements		251,000
Gas monitoring well replacements		126,000
Landfill gas control system replacements		50,000
Maintenance of perimeter fence (1,900 lf)		21,000
Total Alternative 4d	**$4,954,000[d]**	**$4,631,000[d]**

Source: Earth Tech 2006

Notes:
- [a] O&M costs are presented on a net worth dollars based on an annual cash flow and a net 4.0 discount rate and represent total costs for the postclosure monitoring period
- [b] escalation modifies the costs from the database to the midpoint of the project
- [c] contingency costs of 20% are added to cover cost increases that may occur as a result of unforeseen conditions and changes that typically occur on remediation projects
- [d] cost estimate is based on the initial FS estimates and are prorated for changes in the landfill acreage or waste consolidation volumes and escalated from year 1997 costs to year 2005 costs

Table 9-1 (continued)

Acronyms/Abbreviations:
- bcy – bank cubic yard
- FS – feasibility study
- lf – linear foot
- O&M – operation and maintenance
- sy – square yard

Table 9-2
Site 5 Cost-Estimate Summary for Alternative 4d

Cost Category	Capital Costs	O&M[a] Costs
Direct Costs		
Capping (~2.84 acres)	$685,000	
Cut and fill (10,800 bcy)	46,000	
IDW consolidation (not required)	0	
Clear and grub (2.84 acres)	12,000	
Erosion control blanket (10,000 sy)	529,000	
Riprap (100 bcy)	8,000	
Test pad (not required)	0	
Perimeter fence (3,350 lf)	61,000	
Perimeter gas-migration monitoring wells	0	
Landfill gas control system	352,000	
Professional labor (project oversight)	188,000	
Remedial design	71,000	
Subtotal Direct Costs	**1,952,000**	
Indirect Costs	732,000	Included
Escalation[b]	118,000	Included
Contingency[c]	401,000	Included
O&M Costs		
Capping (5 years)		$25,000
Monitoring (30 years)		1,503,000
Monitoring reports (35 reports)		251,000
Postclosure inspection and maintenance (45 events)		71,000
Groundwater monitoring well replacements		1,116,000
Lysimeter replacements		136,000
Perimeter monitoring well replacements		91,000
Landfill gas control system replacements		50,000
Maintenance of perimeter fence (3,350 lf)		37,000
Total Alternative 4d	**$3,203,000[d]**	**$3,280,000[d]**

Source: Earth Tech 2006

Notes:
- [a] O&M costs are presented on a net worth dollars based on an annual cash flow and a net 4.0 discount rate and represent total costs for the postclosure monitoring period
- [b] escalation modifies the costs from the database to the midpoint of the project
- [c] contingency costs of 20% are added to cover cost increases that may occur as a result of unforeseen conditions and changes that typically occur on remediation projects
- [d] cost estimate is based on the initial FS estimates and are prorated for changes in the landfill acreage or waste consolidation volumes and escalated from year 1997 costs to year 2005 costs

Table 9-2 (continued)

Acronyms/Abbreviations:
- bcy – bank cubic yard
- FS – feasibility study
- IDW – investigation-derived waste
- lf – linear foot
- O&M – operation and maintenance
- sy – square yard

Table 9-3
Proposed Postclosure Monitoring for Site 3

Description	Means	Target Analyte	Test Method	Monitoring Frequency
Landfill gas	Perimeter probes (6 new)	VOCs Fixed gases	U.S. EPA Method T014 ASTM Method D-3416	Quarterly until stabilized
	Landfill gas extraction well (passive operation)			
Vadose zone gas	Soil probes on lysimeters (4 new, 1 existing)	VOCs Fixed gases	U.S. EPA Method T014 ASTM Method D-3416	Semiannually, 5 years Annually, 25 years
Groundwater	Monitoring wells (7 existing)	VOCs	U.S. EPA Method 8260B	Semiannually, 5 years Annually, 25 years
		Sulfate Sulfide	U.S. EPA Method 375 or 300 U.S. EPA Method 376	Four rounds minimum
		SVOCs Herbicides Pesticides/PCBs Total metals	U.S. EPA Method 8270C U.S. EPA Method 8157 U.S. EPA Methods 8081/8082 U.S. EPA 6000/7000 Series	Every 5 years
Leachate	Lysimeters (4 new, 1 existing)	VOCs	U.S. EPA Method 8260B	Semiannually, 5 years Annually, 25 years
		SVOCs Total metals	U.S. EPA Method 8270C U.S. EPA 6000/7000 Series	Every 5 years
Landfill cap	Visual settlement monuments	NA	NA	Quarterly until stabilized
Surface control features/final grading	Visual settlement monuments	NA	NA	Quarterly until stabilized
Revegetation/site security	Visual	NA	NA	Semiannually, 5 years Annually, 25 years

Acronyms/Abbreviations:
- ASTM – American Society for Testing and Materials
- NA – not applicable
- PCB – polychlorinated biphenyl
- SVOC – semivolatile organic compound
- U.S. EPA – United States Environmental Protection Agency
- VOC – volatile organic compound

Table 9-4
Proposed Postclosure Monitoring for Site 5

Description	Means	Target Analyte	Test Method	Monitoring Frequency
Landfill gas	Perimeter probes (4 new)	VOCs Fixed gases	U.S. EPA Method T014 ASTM Method D-3416	Quarterly until stabilized
	Landfill gas extraction well (passive operation)			
Vadose zone gas	Soil probes on lysimeters (3 existing)	VOCs Fixed gases	U.S. EPA Method T014 ASTM Method D-3416	Semiannually, 5 years Annually, 25 years
Groundwater	Monitoring wells (5 existing)	VOCs	U.S. EPA Method 8260B	Semiannually, 5 years Annually, 25 years
		Sulfate Sulfide	U.S. EPA Method 375 or 300 U.S. EPA Method 376	Four rounds minimum
		SVOCs Herbicides Pesticides/PCBs Total metals	U.S. EPA Method 8270C U.S. EPA Method 8157 U.S. EPA Methods 8081/8082 U.S. EPA 6000/7000 Series	Every 5 years
Leachate	Lysimeters (3 existing)	VOCs	U.S. EPA Method 8260B	Semiannually, 5 years Annually, 25 years
		SVOCs Total metals	U.S. EPA Method 8270C U.S. EPA 6000/7000 Series	Every 5 years
Landfill cap	Visual settlement monuments	NA	NA	Quarterly until stabilized
Surface control features/final grading	Visual settlement monuments	NA	NA	Quarterly until stabilized
Revegetation/ site security	Visual	NA	NA	Semiannually, 5 years Annually, 25 years

Acronyms/Abbreviations:
- ASTM – American Society for Testing and Materials
- NA – not applicable
- PCB – polychlorinated biphenyl
- SVOC – semivolatile organic compound
- U.S. EPA – United States Environmental Protection Agency
- VOC – volatile organic compound

Table 10-1
Chemical-Specific ARARs for Selected Remedy

Action/Requirement	Citation	ARAR Determination	Comments
		FEDERAL	
Resource Conservation and Recovery Act*			
TCLP regulatory levels; persistent and bioaccumulative toxic substances TTLCs and STLCs. Hazardous waste treatment, storage, or disposal.	Cal. Code Regs. tit. 22, § 66261.21, 66261.22(a)(1), 66261.23, 66261.24(a)(1), and 66261.100	Applicable (only if hazardous waste is generated)	While it is not anticipated that any RCRA hazardous wastes will be generated as a result of this remedial action, in the event that wastes are generated (e.g , drill cuttings from monitoring well construction) generator requirements (i.e., hazardous waste determinations) will be applicable.
Groundwater protection standards: Owners/operators of RCRA treatment, storage, or disposal facilities must comply with conditions in this section that are designed to ensure that hazardous constituents entering the groundwater from a regulated unit do not exceed the concentration limits for contaminants of concern set forth under Cal. Code Regs. tit. 22, § 66264.94 in the uppermost aquifer underlying the waste management area of concern at the POC.	Cal. Code Regs. tit. 22, § 66264.94(a)(1), (d), and (e)	Relevant and appropriate	Sites 3 and 5 have no record of hazardous waste disposal. Not an ARAR for groundwater cleanup since there is no known release to groundwater from the site. However, the Cal. Code Regs. tit. 22, § 66264.94 regulations pertaining to groundwater protection standards are relevant and appropriate for groundwater monitoring program at Sites 3 and 5. More specifically, detection monitoring program will be established as part of the closure and postclosure requirements.
Uranium Mill Tailings Radiation Control Act*			
Design requirements for remedial actions that involve disposal for controlling combined releases of radon-220 and radon-222 to the atmosphere.	40 C.F.R. § 192.02(b)	Relevant and appropriate	Standards are typically applicable only to UMTRCA sites that are exempt from CERCLA. The sites may potentially generate radon-220 or radon-222 as contaminants.
NRC Radiological Criteria*			
As a condition for license termination with restricted site use, the licensee must demonstrate that further reductions in residual radioactivity necessary to comply	10 C.F.R. § 20.1403(a)	Relevant and appropriate	Not applicable because this is not an NRC-licensed facility. Substantive provisions are relevant and appropriate for potential Ra-226 within the landfills.

Table 10-1 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
with the provisions of 10 C.F.R. § 20.1402 would result in net public or environmental harm or were not being made because the residual levels associated with restricted conditions are ALARA.			
As a condition for license termination with restricted site use, the licensee must make provisions for legally enforceable institutional controls that provide reasonable assurance that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 25 mrem/yr.	10 C.F.R. § 20.1403(b)	Relevant and appropriate	Not applicable because this is not an NRC-licensed facility. Substantive provisions are relevant and appropriate for potential Ra-226 within the landfills. **Note: U.S. EPA does not believe this NRC regulation is protective of human health and the environment.**
		STATE	
Cal/EPA Department of Toxic Substances Control*			
Definition of "non-RCRA hazardous waste."	Cal. Code Regs. tit. 22, § 66261.22(a)(3) and (4), 66261.24(a)(2) to (a)(8), 66261.101, 66261.3(a)(2)(C), or 66261.3(a)(2)(F)	Applicable (only if hazardous waste is generated)	While it is not anticipated that any non-RCRA hazardous wastes will be generated as a result of this remedial action, in the event that such wastes are generated (e.g., drill cuttings from monitoring well construction), generator requirements (i.e., hazardous waste determinations) will be applicable.
California Integrated Waste Management Board*			
Landfill gas control. Requires that landfill gases are controlled during periods of closure and postclosure maintenance such that: 1) the concentration of methane does not exceed 1.25 percent of the volume in air within on-site structures; 2) the concentration of methane gas migrating from the landfill must not exceed 5 percent by volume in air at the facility property boundary or an alternative boundary in accordance with Cal. Code Regs. tit. 27, § 20925; and 3) trace gases shall be controlled to prevent acute and chronic	Cal. Code Regs. tit. 27, § 20921(a)(1), (2), and (3)	Relevant and appropriate	Substantive requirements pertaining to landfill gas control and monitoring are relevant and appropriate. There are no on-site structures. Potential gas migration will be monitored using perimeter landfill gas probes.

Table 10-1 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
exposure to toxic and/or carcinogenic compounds. Period of control must continue for 30 years or until it can be demonstrated that there is no potential for gas migration beyond the property boundary or into on-site structures.			

Note:

* statutes and policies, and their citations are provided as headings to identify general categories of potential ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Department of the Navy accepts the entire statutes or policies as potential ARARs; specific potential ARARs are addressed in the table below each general heading; only substantive requirements of the specific citations are considered potential ARARs

  chemical-specific concentrations used for feasibility study evaluation may not be ARARs indicated in this table, but may be concentrations based upon other factors; such factors may include the following:

  - human-health risk-based concentrations (40 C.F.R. § 300.430[e][A][1] and [2])
  - ecological risk-based concentrations (40 C.F.R. § 300.430 [e][G])
  - practical quantitation limits of contaminants (40 C.F.R. § 300.430[e][A][3])

  many potential action-specific ARARs contain chemical-specific limitations and are addressed in the action-specific ARAR tables

Acronyms/Abbreviations:

ALARA – as low as reasonably achievable
ARAR – applicable or relevant and appropriate requirement
Cal/EPA – California Environmental Protection Agency
Cal. Code Regs. – California Code of Regulations
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
C.F.R. – Code of Federal Regulations
mrem/yr – millirems per year
NRC – National Regulatory Commission
POC – point of compliance
Ra-226 – radium 226
RCRA – Resource Conservation and Recovery Act
§ – section
STLC – soluble threshold limit concentration
TCLP – toxicity characteristics leaching procedure
TEDE – total effective dose equivalent
tit. – title
TTLC – total threshold limit concentration
UMTRCA – Uranium Mill Tailings Radiation Control Act
U.S. EPA – United States Environmental Protection Agency

Table 10-2
Location-Specific ARARs for Selected Remedy

Location/Requirement	Citation	ARAR Determination	Comments
		FEDERAL	
National Archaeological and Historical Preservation Act*			
Within area where action may cause irreparable harm, loss, or destruction of significant artifacts.	Substantive requirements of 36 C.F.R. § 65, 40 C.F.R. § 6.301(3), 16 U S.C. § 469	Applicable	Construction on previously undisturbed land would require an archaeological survey of the area.
Historic Sites, Buildings, and Antiquities Act*			
Actions taken should avoid undesirable impacts on landmarks at historic sites.	16 U.S.C. §§ 461–467, 40 C.F.R. § 6.301(a)	Applicable	While the National Historic Preservation Act is applicable, no potential adverse effects on historic and cultural resource properties included on or eligible for inclusion on the National Register of Historic Places have been identified.
Archaeological Resources Protection Act of 1979*			
If archaeological resources or natural landmarks are identified during the course of remedial action.	Pub. L. No. 96-95 (16 U.S.C. § 470aa–470mm)	Applicable	While this Act is applicable, no potential archaeological resources or natural landmarks have been identified at the sites.

Note:
* statutes and policies and their citations are provided as headings to identify general categories of potential ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Department of the Navy accepts the entire statues or policies as potential ARARs; specific potential ARARs are addressed in the table below each general heading; only substantive requirements of the specific citations are considered potential ARARs

Acronyms/Abbreviations:
ARAR – applicable or relevant and appropriate requirement
C.F.R. – *Code of Federal Regulations*
Pub. L. – Public Law
§ – section
U.S.C. – *United States Code*

Table 10-3
Action-Specific ARARs for Selected Remedy

Action/Requirement	Citation	ARAR Determination	Comments
		FEDERAL	
Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq.*			
On-site waste generation. Person who generates waste shall determine whether that waste is a hazardous waste.	Cal. Code Regs. tit. 22, § 66262.10(a), 66262.11	Applicable	Applicable for any operation where waste is generated. The determination of whether wastes generated during remedial activities (e.g., soil cuttings from well installations) are hazardous will be made at the time the wastes are generated.
Requirements for analyzing waste for determining whether waste is hazardous.	Cal. Code Regs. tit. 22, § 66264.13(a) and (b)	Applicable	The determination of whether wastes generated during remedial activities (e.g., equipment waste or soil cuttings from well installations) that require off-site disposal are hazardous will be made at the time the wastes are generated.
Hazardous waste accumulation. Generator may accumulate waste on-site for 90 days or less or must comply with requirements for operating a storage facility.	Cal. Code Regs. tit 22, § 66264.34	Applicable	Substantive requirements are applicable for well installation and monitoring waste accumulation of wastes for less than 90 days if the waste is hazardous waste and is stored on-site. Not an ARAR for staging piles addressed below. Storage of wastes for greater than 90 days is not pertinent to the remedial actions.
Containers of RCRA hazardous waste must be • maintained in good condition, • compatible with hazardous waste to be stored, and • closed during storage except to add or remove waste.	Cal. Code Regs. tit. 22, § 66264.171, 66264.172, 66264.173	Relevant and appropriate	In the event that hazardous wastes requiring off-site disposal are generated (e.g., equipment waste or drill fluids from monitoring well installation), substantive provisions are ARARs for storage in containers depending on waste characterization.
Inspect container storage areas weekly for deterioration	Cal. Code Regs. tit. 22, § 66264.174	Relevant and appropriate	In the event that hazardous wastes requiring off-site disposal are generated (e.g., equipment waste or drill fluids from monitoring well installation), substantive provisions are ARARs for storage in containers depending on waste characterization.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
Place containers on a sloped, crack-free base, and protect from contact with accumulated liquid. Provide containment system with a capacity of 10 percent of the volume of containers of free liquids. Remove spilled or leaked waste in a timely manner to prevent overflow of the containment system.	Cal. Code Regs. tit. 22, § 66264.175(a) and (b)	Relevant and appropriate	In the event that hazardous wastes requiring off-site disposal are generated (e g., equipment waste or drill fluids from monitoring well installation), substantive provisions are ARARs for storage in containers depending on waste characterization.
At closure, remove all hazardous waste and residues from the containment system, and decontaminate or remove all containers and liners.	Cal. Code Regs. tit. 22 § 66264.178	Relevant and appropriate	In the event that hazardous wastes requiring off-site disposal are generated (e.g., equipment waste or drill fluids from monitoring well installation), substantive provisions are ARARs for storage in containers depending on waste characterization.
Alternate requirements for container storage that are protective of human health and the environment.	40 C.F.R. § 264.553	Relevant and appropriate	In the event that hazardous wastes requiring off-site disposal are generated (e.g., equipment waste or drill fluids from monitoring well installation), substantive provisions are ARARs for storage in containers depending on waste characterization.
Landfill Closure and Postclosure Requirements			
General performance standard requires minimization or elimination of need for further maintenance and control; elimination of postclosure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products, to the extent necessary to protect human health and the environment.	Cal. Code Regs. tit. 22, § 66264.111(a) and (b) except as it cross-references procedural requirements such as preparation and submittal of closure plans and other notifications	Relevant and appropriate	Substantive provisions are relevant and appropriate.
If waste is to remain in a unit, the unit shall be compacted before any portion of the final cover is installed.	Cal. Code Regs. tit. 22, § 66264.228(e)(1)	Relevant and appropriate	Substantive requirements pertaining to compaction prior to placement of a final cover are relevant and appropriate for this response action.
Before installing the compacted layer of the final cover, the owner or operator shall accurately establish the correlation between the desired permeability and the density at which that permeability is achieved.	Cal. Code Regs. tit. 22, § 66264.228(f)	Relevant and appropriate	The substantive requirements are relevant and appropriate for cap construction.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
A map must be prepared showing the exact location and dimensions, including depth of each cell with respect to permanently surveyed benchmarks with horizontal and vertical controls.	Cal. Code Regs. tit. 22, § 66264.309(a)	Relevant and appropriate	Substantive requirements for surveying of the closed landfill are relevant and appropriate.
The final cover shall accommodate lateral and vertical shear forces generated by the maximum credible earthquake so that the integrity of the cover is maintained.	Cal. Code Regs. tit. 22, § 66264.310(a)(5)	Relevant and appropriate	Substantive provisions are relevant and appropriate for the cap only where there is hazardous waste. See also Cal. Code Regs. tit 27, § 20370 for nonhazardous waste cap requirements.
The final cover shall be designed to prevent the downward entry of water into the closed landfill throughout a period of at least 100 years.	Cal. Code Regs. tit. 22, § 66264.310(a)(1)	Relevant and appropriate	Substantive requirements are relevant and appropriate.
Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events throughout the postclosure period	Cal. Code Regs. tit. 22, § 66264.310(b)(1)	Relevant and appropriate	Substantive requirements are relevant and appropriate.
After final closure, maintain and monitor the groundwater system and comply with monitoring requirements.	Cal. Code Regs. tit. 22, § 66264.310(b)(3)	Relevant and appropriate	Substantive requirements are relevant and appropriate.
Protect and maintain surveyed benchmarks throughout the postclosure period.	Cal. Code Regs. tit. 22, § 66264.310(b)(5)	Relevant and appropriate	Substantive requirements pertaining to benchmark maintenance are relevant and appropriate.
Postclosure care shall be begin after completion of closure and continue for a minimum of 30 years, based on protectiveness to human health and the environment.	Cal. Code Regs. tit. 22, § 66264.117(b)(1) and (2)	Relevant and appropriate	Substantive requirements are relevant and appropriate.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
Monitoring			
Owners/operators of RCRA surface impoundment, waste pile, land treatment unit, or landfill shall conduct a monitoring and response program for each regulated unit.	Cal. Code Regs. tit. 22, § 66264.91(a)(1)–(4) and (c), except as it cross-references permit requirements	Relevant and appropriate	Substantive requirements for detection monitoring program at Cal. Code Regs. tit. 22, § 66264.91(a)(1) and (c) are relevant and appropriate. The requirements for evaluation and corrective action monitoring at Cal. Code Regs. tit. 22, § 66264.91(a)(2)–(4) are ARARs only if the detection monitoring program shows a significant evidence of release.
The POC is a vertical surface, located at the hydraulically downgradient limit of the waste management area that extends through the uppermost aquifer underlying the regulated unit.	Cal. Code Regs. tit. 22, § 66264.95(a) and (b)	Relevant and appropriate	Substantive requirements are potentially relevant and appropriate for all alternatives including groundwater monitoring.
Requirements for monitoring groundwater, surface water, and the vadose zone.	Cal. Code Regs. tit. 22, § 66264.97 (b)(1)(A), (b)(1)(B), (b)(4–7), (e)(6), (12)(A) and (B), (13), and (15)	Relevant and appropriate	Substantive requirements are potentially relevant and appropriate for detection monitoring program.
Requirements for a detection monitoring program.	Cal. Code Regs. tit. 22, § 66264.98(e)(1–5), (i), (j), (k)(1–3), (4)(A) and (D), (5), (7)(C) and (D), (n)(1), (2)(B), and (C)	Relevant and appropriate	Substantive requirements are potentially relevant and appropriate for detection monitoring program.
Requirements for an evaluation monitoring program.	Cal. Code Regs. tit. 22, § 66264.99(b), (e)(1)–(6), (f)(3), and (g)	Relevant and appropriate	The requirements of an evaluation monitoring program are only relevant and appropriate if there is statistically significant evidence of release during the detection monitoring program.
Clean Water Act, as Amended (33 U.S.C., ch. 26, §§ 1251–1387)*			
Owners and operators of construction activities must be in compliance with discharge standards for construction activities that disturb an acre or more of soil.	CWA Section 402 (33 U.S C. ch. 26, § 1342); 40 C.F.R. § 122.44(k)(2) and (4)	Applicable	Substantive provisions of the stormwater management plan best management practices are applicable since the site will disturb more than 1 acre.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
Atomic Energy Act of 1954 (42 U.S.C. ch. 23, § 2011 et seq.)*			
The licensee shall secure from unauthorized removal or access, licensed materials that are stored in controlled or unrestricted areas.	10 C.F.R. § 20.1801	Relevant and appropriate	Relevant and appropriate for Site 3 if temporary storage of excavated waste that may contain radiological constituents is conducted for consolidation purposes.
The licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.	10 C.F.R. §20.1802	Relevant and appropriate	Relevant and appropriate for Site 3 if temporary storage of excavated waste that may contain radiological constituents is conducted for consolidation purposes.
Clean Air Act (42 U.S.C. §§ 7401–7671)*			
Prohibits emissions of fugitive dust such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source and shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples.	SCAQMD Rule 403	Applicable	Fugitive dust emissions of particulate matter are expected from the excavation and waste handling. Measures such as applying water to minimize fugitive dust emissions may be required.
Limits equipment from discharging particulate emissions in excess of 0.01 to 0.196 grain per cubic foot based on a given volumetric (dry standard cubic feet per minute) exhaust gas flow rate averaged over 1 hour or one cycle of operation. It excludes steam generators or gas turbines.	SCAQMD Rule 404	Applicable	The equipment used will comply with substantive requirements of this rule.
Limits equipment from discharging particulate emissions in excess of 0.99 to 30 pounds per hour based on a given process weight.	SCAQMD Rule 405	Applicable	The equipment used will comply with substantive requirements of this rule.
Install a landfill gas control system and proper disposal of the collected gas.	SCAQMD Rule 1150.1	Applicable	A landfill gas control system is designed for Sites 3 and 5.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
		STATE	
State Water Resource Control Board and Regional Water Quality Control Board*			
Waste management units undergoing final closure, with 1 acre of disturbance or more, must comply with the substantive requirements for eliminating most nonstormwater discharges, developing and implementing a stormwater pollution prevention plan, and performing monitoring to stormwater discharges.	SWRCB Order No. 92-08-DWQ (General Construction Activity Storm Water Permit)	TBC	Permits are administrative in nature and thus are not considered ARARs. Substantive provisions for BMPs in a stormwater management plan will be used as guidance to comply with federal ARARs. A separate stormwater pollution prevention plan will not be prepared.
Closed landfills shall be graded and maintained to prevent ponding and to provide slopes of at least 3 percent.	Cal. Code Regs. tit. 27, § 21090(b)(1)	Relevant and appropriate	Substantive provisions pertaining to final grading requirements are relevant and appropriate.
Hazardous waste and designated waste management units shall be designed to withstand the maximum credible earthquake, and nonhazardous waste management units must be designed to withstand the maximum probable earthquake without damage to the foundation or the structures that control leachate, surface drainage, erosion, or gas.	Cal. Code Regs. tit. 27, § 20370	Relevant and appropriate	Substantive provisions are relevant and appropriate. Design to maximum credible earthquake standards were determined not to be ARARs where there was not hazardous waste.
Diversion and drainage facilities shall be designed and constructed to accommodate the anticipated volume of precipitation and peak flows. Collection and holding facilities associated with drainage control shall be emptied immediately or otherwise managed to maintain design capacity.	Cal. Code Regs. tit. 27, § 20365(c) and (d)	Relevant and appropriate	Substantive provisions are relevant and appropriate.
Prevent erosion and related damage of the final cover through the postclosure maintenance period.	Cal. Code Regs. tit. 27, § 21090(c)(4)	Relevant and appropriate	Substantive requirements are relevant and appropriate.
Closed landfills shall be provided with an uppermost cover layer consisting of a vegetative layer including no less than 1 foot of soil, containing no waste or leachate, placed on top of a low-hydraulic-conductivity layer (see Cal. Code Regs. tit. 27, § 21090[a][2]); vegetation rooting	Cal. Code Regs. tit. 27, § 21090(a)(3)	Relevant and appropriate	Substantive requirements pertaining to the vegetation layer are relevant and appropriate.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
depth must not exceed the depth to (a)(2) layer (vegetation layer).			
Foundation Layer—Closed landfills shall be provided with not less than 2 feet of appropriate materials as a foundation layer for the final cover. These materials may be soil, contaminated soil, incinerator ash, or other waste materials, provided that such materials have appropriate engineering properties to be used for a foundation layer. The foundation layer shall be compacted to the maximum density obtainable at optimum moisture content using methods that are in accordance with accepted civil engineering practice. A lesser thickness may be allowed for units if the differential settlement of waste and ultimate land use will not affect the structural integrity of the final cover.	Cal. Code Regs. tit. 27, § 21090(a)(1)	Relevant and appropriate	Substantive provisions are relevant and appropriate.
Low-Hydraulic-Conductivity Layer—Closed landfills shall be provided with a low-hydraulic-conductivity (or low through-flow rate) layer, consisting of not less than 1 foot of soil containing no waste or leachate, that is placed on top of the foundation layer and compacted to attain a hydraulic conductivity of either 1×10^{-6} cm/sec (i.e., 1 foot per year) or less, or equal to the hydraulic conductivity of any bottom liner system or underlying natural geologic materials, whichever is less permeable, or another design that provides a correspondingly low through-flow rate throughout the postclosure maintenance period.	Cal. Code Regs. tit. 27, § 21090(a)(2)	Relevant and appropriate	Substantive provisions are relevant and appropriate.
Hydraulic conductivities shall be determined primarily by appropriate field test methods in accordance with accepted civil engineering practice.	Cal. Code Regs. tit. 27, §§ 20320(c) and (d) and 20324(g)(1)	Relevant and appropriate	Substantive requirements with respect to cover permeability requirements are relevant and appropriate.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
The operator shall ensure that landfill gases generated at a disposal site are controlled. Methane must not exceed 1.25 percent by volume in air within on-site structures, concentrations of methane gas migrating from the landfill must not exceed 5 percent by volume in air at the property boundary, and trace gases shall be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds.	Cal. Code Regs. tit. 27, § 20921(a)(1), (2), and (3)	Relevant and appropriate	Substantive requirements are relevant and appropriate.
South Coast Air Quality Management District*			
Visible emissions standard that states a person shall not discharge any air contaminant into the atmosphere from any single source of emission for a period or periods aggregating more than 3 minutes in a 60-minute period, which is (a) as dark or darker in shade at that designated No. 1 on the Ringlemann Chart, or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in (a).	SCAQMD Rule 401	Applicable	Grading and excavation activities have the potential to produce visible emissions due to fugitive dust. Substantive requirements pertaining to visible emissions, such as wetting the soil or waste, may be required to minimize fugitive dust.
California Integrated Waste Management Board*			
Security: All points of access to the site must be restricted. All monitoring, control, and recovery systems shall be protected from unauthorized access. Once closure activities are complete, site access by the public may be allowed in accordance with the approved closure and postclosure maintenance plan.	Cal. Code Regs. tit. 27, § 21135(f) and (g)	Relevant and appropriate	Substantive provisions are relevant and appropriate. A perimeter fence exists around the Station to restrict unauthorized access until remedial actions are complete. Monitoring wells will also be locked and maintained to restrict unauthorized access. Removal of the locks would be prohibited by lease conditions or deed restrictions.
Final cover requirements: Cross-references Cal. Code Regs. tit. 27, § 21090 with regard to specific cover requirements and states that engineered alternatives to the prescriptive	Cal. Code Regs. tit. 27, § 21140(a)(b)	Relevant and appropriate	Substantive requirements are relevant and appropriate to the placement of the final cover.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
standard are allowed provided they meet performance requirements.			
Final drainage and erosion control: The design of the final cover must control run-on and runoff produced by a 100-year, 24-hour storm event. Slopes must be stabilized.	Cal. Code Regs. tit. 27, § 21150	Relevant and appropriate	Substantive requirements pertaining to final drainage are relevant and appropriate.
Requires that gas monitoring and control be conducted during the closure and postclosure maintenance period.	Cal. Code Regs. tit. 27, § 21160 (a) and (b) except leachate	Relevant and appropriate	The landfill gas control system will be implemented and maintained in accordance with the substantive provisions of Cal. Code Regs. tit. 27, §§ 20921–20937 that have been determined to be ARARs for Sites 3 and 5 remedial action. The leachate production and accumulation has not been evident at Sites 3 and 5 landfills; therefore, the provisions for leachate collection and control are not potential ARARs.
Establishes requirements for design and maintenance of proposed postclosure land uses. Also stipulates that site closure design should show one or more proposed uses of the closed site or show development that is compatible with open space.	Cal. Code Regs. tit. 27, § 21190(a) and (b)	Relevant and appropriate	Substantive provisions are relevant and appropriate for design and maintenance of postclosure land use.
Closed waste management units shall be provided with at least two permanent monuments (to be installed by a licensed land surveyor or a registered civil engineer) from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the postclosure maintenance period.	Cal. Code Regs. tit. 27, § 20950(d)	Relevant and appropriate	Substantive provisions are relevant and appropriate.
Conduct an aerial photographic survey to include closed portions of the unit and its immediate surrounding area, including the surveying monuments. This survey will be used to produce a topographic map showing as-closed topography and to allow early detection of any differential settlement.	Cal. Code Regs. tit. 27, § 21090(e)(1)	Relevant and appropriate	Substantive provisions are relevant and appropriate.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
Final grading: Final grades must be designed and maintained to reduce impacts to health and safety and take into consideration any postclosure land use.	Cal. Code Regs. tit. 27, § 21090(b)(1)	Relevant and appropriate	Substantive requirements are relevant and appropriate for this action.
The landfill shall be maintained and monitored for a period of not less than 30 years after completion of closure of the entire solid waste landfill.	Cal. Code Regs. tit. 27, § 21180(a)	Relevant and appropriate	Substantive requirements are relevant and appropriate for maintenance and monitoring of the cap. There is a separate requirement for the groundwater monitoring period under federal ARARs at Cal. Code Regs. tit. 22 § 66264.117.
Land-Use Controls			
Provides conditions under which land-use restrictions will apply to successive owners of land	Cal. Civ. Code § 1471	Relevant and appropriate	Generally, Cal. Civ. Code § 1471 allows an owner of land to make a covenant to restrict the use of land for the benefit of a covenantee. The covenant runs with the land to bind successive owners, and the restrictions must be reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials, as defined in Cal. Health & Safety Code § 25260. Substantive provisions are the following general narrative standard: "to do or refrain from doing some act on his or her own land . . . where (c) Each such act relates to the use of land and each such act is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence of hazardous materials, as defined in Section 25260 of the California Health and Safety Code." This narrative standard would be implemented through incorporation of restrictive covenants in the deed and Environmental Restriction and Covenant Agreement at the time of transfer.

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
Allows DTSC to enter into an agreement with the owner of a hazardous waste facility to restrict present and future land uses.	Cal. Health & Safety Code § 25202.5	Relevant and appropriate	The substantive provisions of Cal. Health & Safety Code § 25202.5 are the general narrative standards to restrict "present and future uses of all or part of the land on which the . . . facility . . . is located . . ."
Provides a streamlined process to be used to enter into an agreement to restrict specific use of property in order to implement the substantive use restrictions of Cal. Health & Safety Code § 25232(b)(1)(A)–(E).	Cal. Health & Safety Code §§ 25222.1 and 25355.5(a)(1)(C)	Relevant and appropriate	Generally, Cal. Health & Safety Code §§ 25222.1 and 25355.5(a)(1)(C) provide the authority for the DTSC to enter into voluntary agreements with land owners to restrict the use of property. The agreements run with the land, restricting present and future uses of the land. The substantive requirements of the following Cal. Health & Safety Code § 25222.1 provisions are relevant and appropriate· (1) the general narrative standard: "restricting specified uses of the property..." and (2) "...the agreement is irrevocable, and shall be recorded by the owner, ...as a hazardous waste easement, covenant, restriction or servitude, or any combination thereof, as appropriate, upon the present and future uses of the land." The substantive requirements of the following Cal. Health & Safety Code § 25355.5(a)(1)(C) provisions are relevant and appropriate: "...execution and recording of a written instrument that imposes an easement, covenant, restriction, or servitude, or combination thereof, as appropriate, upon the present and future uses of the land "
Provides processes and criteria for obtaining written variances from a land-use restriction and for removal of the land-use restrictions.	Cal. Health & Safety Code §§ 25233(c) and 25234	Relevant and appropriate	Cal. Health & Safety Code § 25233(c) sets forth relevant and appropriate substantive criteria for granting variances from use prohibitions set forth in Cal. Health & Safety Code § 25232(b) based upon specified environmental and health criteria. Cal. Health & Safety Code § 25234 sets forth the following relevant and appropriate substantive criteria for the removal of a land-use restriction on the grounds that "...the waste no longer

Table 10-3 (continued)

Action/Requirement	Citation	ARAR Determination	Comments
			creates a significant existing or potential hazard to present or future public health or safety."
A land-use covenant imposing appropriate limitations on land use shall be executed and recorded when facility closure, corrective action, remedial or removal action, or other response actions are undertaken and hazardous materials, hazardous wastes or constituents, or hazardous substances will remain at the property at levels which are not suitable for unrestricted use of the land.	Cal. Code Regs. tit. 22, § 67391.1	Relevant and appropriate	Cal. Code Regs. tit. 22, § 67391.1 provides for a land-use covenant to be executed and recorded when remedial actions are taken and hazardous substances will remain at the property at concentrations that are unsuitable for unrestricted use of the land. The substantive provisions of this regulation have been determined to be relevant and appropriate state ARARs by the DON.

Note:
* statutes and policies and their citations are provided as headings to identify general categories of potential ARARs; specific potential ARARs are addressed in the table below each general heading

Acronyms/Abbreviations:
ARAR – applicable or relevant and appropriate requirement
art. – article
BMP – best management practice
Cal. Civ. Code – *California Civil Code*
Cal. Code Regs. – *California Code of Regulations*
Cal. Health & Safety Code – *California Health and Safety Code*
C.F.R. – *Code of Federal Regulations*
ch. – chapter
CWA – Clean Water Act
DON – Department of the Navy
DTSC – (California Environmental Protection Agency) Department of Toxic Substances Control
DWQ – Division of Water Quality
NRC – Nuclear Regulatory Commission
POC – *point of compliance*
RCRA – Resource Conservation and Recovery Act
§ – section
SCAQMD – South Coast Air Quality Management District
SWRCB – (California) State Water Resources Control Board
TBC – to be considered
tit. – title
U.S.C. – *United States Code*

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ATTACHMENT A

ADMINISTRATIVE RECORD INDEX

EL TORO MCAS

DRAFT ADMINISTRATIVE RECORD FILE INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

DOCUMENTS RELATED TO SITES 3 AND 5

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
M60050 / 000187	11-01-1993	MCAS EL TORO	INITIAL ASSESSMENT STUDY	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0006
NONE	**09-11-1985**	J. LEAP		INFO REPOSITORY	002		30090141
LTR	NONE	NAV PORT HUENEME			003	IMAGED	
NONE	01.1				004	TORO_001	
00003		COMMANDING OFFICER			005		
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					007		
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					022		
					OU 1		
					OU 2		
					OU 2A		
					OU 2B		
					OU 2C		
					OU 3		

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M60050 / 001051 NONE LTR NONE 00017	12-11-1995 **05-13-1987** NONE 01.6	SCAQMD EL MONTE A. WILSON MCAS EL TORO B. VAN CLEEF	DEFINITION OF "FACILITY" FOR RULE 1107 FOR DISTRICT PURPOSES	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 001808 LTR NONE 00002	03-21-1997 **03-14-1988** NONE 01.6	ORANGE COUNTY HEALTH DEPT. L. GJETLEY NAVFAC - SOUTHWEST DIVISION E. CERINI	VERIFICATION STEP PLAN OF ACTION FOR THE CONFIRMATION STUDY (SEE AR #1809 - ORANGE COUNTY HEALTH DEPT COMMENTS & #1811 - DEPT OF HEALTH SERVICES COMMENTS)	ADMIN RECORD	001 005 007	FRC - PERRIS IMAGED TORO_012	181-06-0125 BOX 0042 30090141
M60050 / 001836 LTR NONE 00003	03-24-1997 **03-14-1988** NONE 01.6	COUNTY OF ORANGE L. GJETLEY NAVFAC - SOUTHWEST DIVISION E. CERINI	COMMENTS ON THE VERIFICATION STEP PLAN OF ACTION FOR CONFIRMATION STUDY AND RESPONSE TO COMMENTS	ADMIN RECORD INFO REPOSITORY	001 005 007	FRC - PERRIS IMAGED TORO_009	181-06-0125 BOX 0043 30090141
M60050 / 000788 NONE PLAN N62474-85-C-5592 00250	07-07-1995 **08-01-1988** NONE 01.2	JAMES M. MONTGOMERY, INC. J. GOODELL MCAS EL TORO	SITE INSPECTION PLAN OF ACTION IRP MCAS TUSTIN AND EL TORO	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 013 014 016 017 019 OU 2 OU 2A OU 2B OU 2C OU 3	SOUTHWEST DIVISION - BLDG. 1 *PROBLEM FILE* CABINET IMAGED	

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M60050 / 000009 NONE RPT N68711-89-D-9296 00052	10-29-1993 01-01-1990 00018 03.3	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	IMPLEMENTATION PLAN - WORK PLAN FOR A REMEDIAL INVESTIGATION /FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0001 30090141

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M60050 / 000011 NONE RPT N68711-89-D-9296 00052	10-29-1993 **02-01-1990** 00018 03.3	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	REVISED IMPLEMENTATION PLAN - WORK PLAN FOR A REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0001 30090141

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M60050 / 000016 NONE RPT N68711-89-D-9296 00072	10-29-1993 **04-09-1990** 00018 03.3	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	DRAFT SUMMARY REPORT - COMPREHENSIVE WORK PLAN FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022	FRC - PERRIS IMAGED TORO_001	181-06-0125 30090141	BOX 0001
M60050 / 001011 NONE MEMO NONE 00001	12-08-1995 **04-27-1990** NONE 10.3	SOUTHWEST DIVISI L. NUZUM TRC MEMBERS	APRIL 26, 1990 TRC MEETING MINUTES	ADMIN RECORD	002 003 005 010 OU 2 OU 2B OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0025

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M60050 / 001734 MISC NONE 00009	03-04-1997 06-25-1990 NONE 10.4	EPA SAN FRANCISC MEMBERS	JUNE 25, 1990, AGENDA, MCAS EL TORO FFA NEGOTIATIONS TECHNICAL APPENDICES AND ATTACHMENTS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 OU 1 OU 2 OU 3 OU 4	FRC - PERRIS IMAGED TORO_012	181-06-0125 BOX 0040 30090141

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M60050 / 000022 NONE RPT N68711-89-D-9296 00091	10-29-1993 09-10-1990 00018 03.5	JACOBS ENGINEERING GROUP NAVFAC - SOUTHWEST DIVISION	DRAFT SITE HEALTH AND SAFETY PLAN - CTO #0018 COMPREHENSIVE WORK PLAN FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0001 30090141

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M60050 / 000023 NONE RPT N68711-89-D-9296 00423	10-29-1993 09-10-1990 00018 03.1	JACOBS ENGINEERING GROUP NAVFAC - SOUTHWEST DIVISION	DRAFT SITE SAMPLING AND ANALYSIS PLAN - CTO #0018 COMPREHENSIVE WORK PLAN FOR REMEDIAL INVESTIGATION/ FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0001 30090141

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M60050 / 000024 NONE PLAN N68711-89-D-9296 00106	10-29-1993 09-10-1990 00018 03.3	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022	FRC - PERRIS IMAGED TORO_006	181-06-0125 BOX 0001 30090141

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M60050 / 002203 CLE-C01-01F018-I3-0002 MISC N68711-89-D-9296 00017	05-31-2001 09-26-1990 00018	JACOBS ENGINEERING GROUP NAVFAC - SOUTHWEST DIVISION	AGENDA OF THE TECHNICAL REVIEW COMMITTEE PRESENTATION FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0050 30090141

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M60050 / 000545	07-07-1994	MCAS EL TORO	INSTALLATION RESTORATION PROGRAM STATUS REPORT.	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0012
NONE	10-19-1990				002		30090141
RPT	NONE				003	IMAGED	
NONE	03.4				004	TORO_001	
00005					005		
					006		
					007		
					008		
					008A		
					009		
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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
M60050 / 000190 NONE RPT NONE 00005	03-03-1994 11-01-1990 NONE 07.1	NAVFAC - SOUTHWEST DIVISION ENVIRONMENTAL NAVFAC - SOUTHWEST DIVISION FILE	INSTALLATION RESTORATION PROGRAM STATUS REPORT AND SITE HISTORY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 OU 1 OU 2 OU 3 OU 4	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0006 30090141

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M60050 / 002489 CLE-C01-01F018-I3-0017 MM N68711-89-D-9296 00003	09-04-2001 **11-27-1990** 00018	JACOBS ENGINEERING GROUP B. HAGH NAVFAC - SOUTHWEST DIVISION	SUMMARY OF MEETING WITH REGULATORY AGENCIES TO DISCUSS SAMPLING STRATEGIES	ADMIN RECORD BASE	003 004 008 009 010 015 018 022 OU 2 OU 3	FRC - PERRIS IMAGED TORO_019	181-06-0125 30090141	BOX 0057
M60050 / 000903 NONE XMTL N68711-89-D-9296 00014	07-19-1995 **02-26-1991** 00018 03.1	JACOBS ENGINEERING E. ROGAN NAVFAC - SOUTHWEST DIVISION L. NUZUM	MEETING MINUTES OF PROJECT MANAGERS MEETING	ADMIN RECORD	001 002 003 005 007 009 011 016	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0022

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M60050 / 000029 NONE RPT N68711-89-D-9296 00217	10-29-1993 **02-27-1991** 00018 03.4	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL SITE SAFETY AND HEALTH PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0001 30090141

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M60050 / 000672 NONE PLAN N68711-89-D-9296 00600	04-05-1995 02-28-1991 00018 03.3	JACOBS ENGINEERING E. ROGER NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_002	181-06-0125 BOX 0016 30090141

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M60050 / 000977 CLE-C01-01F018-B5 0003 PLAN N68711-89-D-9296 00859	08-30-1995 02-28-1991 00018 03.1	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL SAMPLING AND ANALYSIS PLAN (SEE AR #920 - DRAFT FINAL SAP AMENDMENT)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-011	000-00-0000 BOX 0076 NONE

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M60050 / 000892 NONE MISC NONE 00006	07-19-1995 11-01-1991 NONE 10.6	SOUTHWEST DIVISI	FACT SHEET "DESCRIBING INVESTIGATION OF POSSIBLE HAZARDOUS WASTE CONTAMINATION"	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022	FRC - PERRIS IMAGED TORO_002	181-06-0125 BOX 0022 30090141

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M60050 / 001834	03-24-1997	MCAS EL TORO	PUBLIC FORUM AGENDA WITH HANDOUTS	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0043
	11-18-1991				002		30090141
MISC	NONE				003	IMAGED	
NONE	10.4				004	TORO_009	
00011					005		
					006		
					007		
					008		
					009		
					010		
					011		
					012		
					013		
					014		
					015		
					016		
					017		
					018		
					019		
					020		
					021		
					022		
					OU 1		
					OU 2		
					OU 4		

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M60050 / 000960 NONE PLAN N68711-89-D-9296 00176	08-18-1995 12-14-1991 00145 03.3	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION	FINAL WASTE MANAGEMENT PLAN IRP	ADMIN RECORD	001 002 003 004 005 006 007 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0024 30090141

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M60050 / 001019 NONE LTR N68711-89-D-9296 00010	12-08-1995 05-14-1992 00145 01.6	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	MEETING MINUTES WITH REGULATORY AGENCIES ON THE RI/FS PHASE I	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 001020 NONE CORRESP N68711-89-D-9296 00004	12-08-1995 **06-02-1992** 00145 01.6	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	JUNE 2, 1992 TRC MEETING MINUTES ON THE RI/FS PHASE I	ADMIN RECORD	002 003 005 017 018 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141
M60050 / 000920 CLE-C01-01F145-B5 0001 PLAN N68711-89-D-9296 00550	07-20-1995 **08-26-1992** 00145 03.1	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL SAMPLING AND ANALYSIS PLAN AMENDMENT VOLUME I AND II OF II	ADMIN RECORD	001 002 003 005 006 007 008 010 011 012 013 015 016 017 018 019 020 021 OU 1 OU 2 OU 3	SOUTHWEST DIVISION - BLDG. 1 PROBLEM FILE CABINET IMAGED	

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M60050 / 000078 NONE DATA NONE 00054	11-01-1993 **09-16-1992** NONE 02.2	ELANA COLBY PACIFIC ANALYTIC HADLEY INDUSTRY	SAMPLES ANALYZED BY THE CLP VOLATILES METHOD	ADMIN RECORD	003 004	FRC - PERRIS IMAGED TORO_001	181-06-0125 30090141	BOX 0003
M60050 / 001483 MISC N68711-89-D-9296 00008	05-21-1996 **12-10-1992** 00145 03.0	JACOBS ENGINEERING C. FLAGG NAVFAC - SOUTHWEST DIVISION A. PISZKIN	MINUTES FROM REMEDIAL PROJECT MANAGER'S MEETING TO DISCUSS REMEDIAL INVESTIGATION/FEASIBILITY STUDY AND RCRA FACILITY ASSESSMENT	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 30090141	BOX 0035

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M60050 / 001028 NONE MM N68711-89-D-9296 00026	12-08-1995 **12-17-1992** 00145 01.6	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	DECEMBER 17, 1992 TRC MEETING MINUTES	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 000976 NONE MEMO N68711-89-D-9296 00003	08-30-1995 01-01-1993 00145 01.1	CH2M HILL M. ARENDS NAVFAC - SOUTHWEST DIVISION	RFA SITES REQUIRING EVALUATION DURING THE DQO PROCESS RI/FS PHASE I	ADMIN RECORD	003 006 007 008 013 015 016 020 021	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0024 30090141

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M60050 / 001023 NONE LTR N68711-89-D-9296 00018	12-08-1995 02-10-1993 00145 01.6	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	REMEDIAL PROJECT MANAGER MEETING MINUTES WITH REGULATORY AGENCIES ON THE RFA	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 001024 NONE LTR N68711-89-D-9296 00067	12-08-1995 **03-12-1993** 00145 01.6	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	REMEDIAL PROJECT MANAGER MEETING MINUTES WITH REGULATORY AGENCIES ON THE RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 020 021 022 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 000083 CLE-C01-01F145-B18-0001 RPT N68711-89-D-9296 00810	11-01-1993 **05-07-1993** 00145 01.1	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	PHASE I REMEDIAL INVESTIGATION (RI) DRAFT TECHNICAL MEMORANDUM, VOLUME I - TEXT {SEE AR #84 - VOLUME II, #85 - VOLUME III, #86 - VOLUME IV}	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_006	181-06-0125 30090141	BOX 0003

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M60050 / 000084 CLE-C01-01F145-B18-0001 RPT N68711-89-D-9296 00822	11-01-1993 **05-07-1993** 00145 01.1	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	PHASE I REMEDIAL INVESTIGATION (RI) DRAFT TECHNICAL MEMORANDUM, VOLUME II - APPENDICES A AND B {SEE AR #83 - VOLUME I, #85 - VOLUME III, #86 - VOLUME IV}	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_006	181-06-0125 BOX 0003 30090141

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M60050 / 000085 CLE-C01-01F145-B18-0001 RPT N68711-89-D-9296 01028	11-01-1993 **05-07-1993** 00145 01.1	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	PHASE I REMEDIAL INVESTIGATION (RI) DRAFT TECHNICAL MEMORANDUM, VOLUME III - APPENDICES C THROUGH E {SEE AR #83 - VOLUME I, #84 - VOLUME II, #86 - VOLUME IV}	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_006	181-06-0125 BOX 0003 30090141

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M60050 / 000086 CLE-C01-01F145-B18-0001 RPT N68711-89-D-9296 01352	11-01-1993 05-07-1993 00145 01.1	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	PHASE I REMEDIAL INVESTIGATION (RI) DRAFT TECHNICAL MEMORANDUM, VOLUME IV - APPENDICES F THROUGH K {SEE AR #83 - VOLUME I, #84 - VOLUME II, #85 - VOLUME III}	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_006	181-06-0125 BOX 0004 30090141

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M60050 / 000713 CLE-C01-01F145-B18-0001 RPT N68711-89-D-9296 00800	04-05-1995 **05-07-1993** 00145 03.4	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION	PHASE I REMEDIAL INVESTIGATION DRAFT TECHNICAL MEMORANDUM VOLUMES I THROUGH IV	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 OU 1 OU 2 OU 3	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-027 IMAGED	000-00-0000 BOX 0082 NONE

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M60050 / 000132 NONE LTR NONE 00003	11-01-1993 **05-13-1993** NONE 04.1	NAVFAC - SOUTHWEST DIVISION A. PISKIN US EPA J. ZARNOCH	IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE REMEDIAL INVESTIGATION AND FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 026 027 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0005 30090141

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M60050 / 001571	07-11-1996	DTSC REGION IV	DTSC COMMENTS ON REVISED FIELD SAMPLING PLAN PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0037
	06-23-1993	J. JIMENEZ			002		30090141
LTR	NONE	MCAS EL TORO			003	IMAGED	
NONE	10.1	J. JOYCE			004	TORO_005	
00011					005		
					006		
					007		
					008		
					009		
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M60050 / 001531 MEMO NONE 00003	07-10-1993 **08-23-1993** NONE 10.1	OFF. OF SCI. AFF J. CHRISTOPHER DTSC REGION IV J. ZARNOCH	STATE OF CALIFORNIA, OFFICE OF SCIENTIFIC AFFAIRS COMMENTS ON POSITION PAPERS RELATED TO DATA QUALITY OBJECTIVES FOR THE PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED *TORO_005*	181-06-0125 BOX 0037 30090141

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M60050 / 001026 NONE MM N68711-89-D-9296 00019	12-08-1995 11-01-1993 00145 01.6	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION	DQO MEETING MINUTES WITH REGULATORY AGENCIES	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 000690 NONE PLAN N68711-89-D-9296 00212	04-05-1995 11-09-1993 00145 04.2	JACOBS ENGINEERING GROUP M. BITNER NAVFAC - SOUTHWEST DIVISION	PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT QUALITY ASSURANCE PROJECT PLAN (QAPP)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_006	181-06-0125 BOX 0017 30090141

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M60050 / 000955 NONE PLAN N68711-89-D-9296 00152	08-18-1995 11-09-1993 00145 03.5	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION	PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT HEALTH AND SAFETY PLAN	ADMIN RECORD	001 002 003 004 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_007	181-06-0125 BOX 0024 30090141

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M60050 / 001074 NONE PLAN N68711-89-D-9296 00550	12-14-1995 **11-09-1993** 00145 04.2	JACOBS ENGINEERING GROUP M. BITNER NAVFAC - SOUTHWEST DIVISION	PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT QUALITY ASSURANCE PROJECT PLAN DRAFT WORK PLAN (VOLUME II) APPENDIX A DATA QUALITY OBJECTIVES SITES 1 THROUGH 11	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 OU 2 OU 2B OU 2C OU 3	SOUTHWEST DIVISION - BLDG. 1 TO BE DELETED BOX 8 OF 15 IMAGED	

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M60050 / 000890 NONE MISC NONE 00010	07-19-1995 12-01-1993 NONE 10.6	NAVFAC - SOUTHWEST DIVISION GENERAL PUBLIC	FACT SHEET "UPDATE OF THE ENVIRONMENTAL INVESTIGATIONS AT MCAS EL TORO"	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022	FRC - PERRIS IMAGED TORO_002	181-06-0125 BOX 0022 30090141

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M60050 / 001487 LTR NONE 00038	05-21-1996 **12-07-1993** NONE 10.1	USE EPA REGION I J. HAMILL NAVFAC - SOUTHWEST DIVISION A. PISZKIN	US EPA LETTER REQUESTING 30 DAY EXTENSION ON REVIEW PERIOD FOR THE DRAFT PHASE II RI/FS WORK PLAN; US EPA COMMENTS DATED 12/17/93 INCLUDED	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0035 30090141

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M60050 / 001534 LTR NONE 00037	07-10-1993 **12-17-1993** NONE 10.1	US EPA REGION IX J. HAMILL NAVFAC - SOUTHWEST DIVISION A. PISZKIN	US ENVIRONMENTAL PROTECTION AGENCY'S COMMENTS ON MCAS EL TORO INSTALLATION RESTORATION PROGRAM PHASE II RI/FS STUDY DRAFT WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0037 30090141

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M60050 / 002204 CLE-C01-01F145-I2-0073 MTG MINS N68711-89-D-9296 00006	05-31-2001 01-13-1994 00145	JACOBS ENGINEERING C. FLAGG NAVFAC - SOUTHWEST DIVISION A. PISKIN	TECHNICAL REVIEW COMMITTEE/REMEDIAL ADVISORY BOARD MEETING SUMMARY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 3	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 001308 LTR NONE 00007	03-14-1996 01-20-1994 00059 03.6	DTSC REGION IV J. JIMENEZ MCAS EL TORO W. LEE	DTSC'S REVIEW COMMENTS ON THE DRAFT DATA MANAGEMENT PLAN PORTION OF THE PHASE II REMEDIAL INVESTIGATION WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 000827 NONE XMTL N68711-89-D-9296 00010	07-10-1995 02-03-1994 00145 11.5	JACOBS ENGINEERING R. GREEN NAVFAC - SOUTHWEST DIVISION	REMEDIAL PROJECT MANAGERS MEETING RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_002	181-06-0125 BOX 0021 30090141

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M60050 / 001535 MM NONE 00008	07-10-1993 02-03-1994 NONE 03.0	DTSC REGION IV VARIOUS AGENCIES	MEETING MINUTES FROM REMEDIAL PROJECT MANAGERS' MEETING HELD TO DISCUSS: POTENTIAL REMOVAL ACTIONS ANDFIELD SCREENING AT RI/FS SITES; AND NON RI/FS SITES	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0037 30090141

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M60050 / 001029 NONE LTR NONE 00006	12-08-1995 **02-08-1994** NONE 01.6	DTSC LONG BEACH NAVFAC - SOUTHWEST DIVISION	RPM MEETING ON THE POTENTIAL REMOVALS AT RI/FS SITES	ADMIN RECORD	003 004 005 007 008 011 013 014 017 019 020 022 025 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141
M60050 / 001030 NONE LTR NONE 00004	12-08-1995 **02-08-1994** NONE 01.6	DTSC LONG BEACH NAVFAC - SOUTHWEST DIVISION	RPM MEETING ON FIELD SCREENING AT RI/FS STRATA - POTENTIAL CHANGES TO STRATEGIES PROPOSED IN THE DRAFT PHASE II RI WORK PLAN	ADMIN RECORD	002 003 004 006 007 008 009 010 012 013 019 020 022 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0025 30090141

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M60050 / 001031 NONE MM N68711-89-D-9296 00024	12-08-1995 **03-21-1994** 00145 01.6	JACOBS ENGINEERING J. DOLEGOWSKI NAVFAC - SOUTHWEST DIVISION R. GREEN	REMEDIAL PROJECT MANAGERS MEETING RI/FS WITH REGULATORY AGENCIES (CAL-EPA,SRWQCB,DTSC,OCWD)	ADMIN RECORD	001 002 003 004 007 012 016 018 024 OU 1 OU 2 OU 2A OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0025
M60050 / 000752 NONE LTR NONE 00037	06-15-1995 **03-25-1994** NONE 03.4	MCAS EL TORO W.D. LEE EPA SAN FRANCISI J. HAMILL	SOIL STOCKPILE CHARACTERIZATION SALME RESULTS SOIL REMOVED FROM STRATUM SITE 3 AND BACKFILL AT EXCAVATED AREA OF SITE 19	ADMIN RECORD	003 004 007 011 013 014 019 020	FRC - PERRIS IMAGED TORO_002	181-06-0125 30090141	BOX 0019

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M60050 / 000708 NONE PLAN N68711-89-D-9296 00159	04-05-1995 **04-22-1994** 00145 08.0	JACOBS ENGINEERING D.R. SMITH NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL HEALTH AND SAFETY PLAN REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) PHASE II (SEE AR #001032)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_009	181-06-0125 BOX 0018 30090141

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M60050 / 001034 CLE-J02-01F284-I3-0002 MM N68711-89-D-9296 00020	12-08-1995 06-28-1994 00284 01.6	JACOBS ENGINEERING M. ARENDS NAVFAC - SOUTHWEST DIVISION R. GREEN	INTERVIEW WITH ACTIVE AND RETIRED PERSONNEL FROM MCAS EL TORO REGARDING PROCEDURES FOR STORAGE AND DISPOSAL OF HAZARDOUS MATERIALS AND WASTE	ADMIN RECORD	001 002 003 004 005 007 008 009 010 011 012 013 014 015 016 017 019 021 022 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0025

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M60050 / 001289 MISC NONE 00036	03-13-1996 08-19-1994 00059 03.6	BECHTEL NATIONAL T. LATAS BECHTEL NATIONAL D. COWSER	MEETING MINUTES AND MEETING PRESENTATION MATERIALS FORTHE PROGRESS MEETING OF THE PHASE II RI/FS WORKPLANS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001541 MEMO NONE 00036	07-10-1996 **08-19-1994** 00059 03.0	KLEINFELDER T. LATAS BECHTEL NATIONAL D. COWSER	MEETING MINUTES FROM THE PROGRESS MEETING TO DISCUSS OVERALL APPROACH AND SAMPLING STRATEGIES FOR THE RI/FSWORK PLANS FOR OU-2, OU-3, AND VOC SOURCE AREA (24,25)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0037 30090141

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M60050 / 001191 NONE DATA N68711-89-D-9296 00440	01-22-1996 09-30-1994 00145 01.1	JACOBS ENGINEERING NAVFAC - SOUTHWEST DIVISION	GROUNDWATER QUALITY DATA REPORT IRP RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0028 30090141

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M60050 / 001291 MISC NONE 00067	03-13-1996 10-12-1994 00059 03.6	BECHTEL NATIONAL T. LATAS BECHTEL NATIONAL D. COWSER	MEETING MINUTES FOR THE 12-13 OCTOBER PROGRESS MEETINGPHASE II RI/FS WORKPLANS DISCUSSED APPROACHES FOR RI/FS ACTIVITIES, FIELD SAMPLING PLAN AND QAPP,	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001277 CTO-0059/0030 MISC N68711-92-D-4670 00016	03-13-1996 10-24-1994 00059 03.6	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	MINUTES OF PROGRESS MEETING FOR PHASE II REMEDIAL INVESTIGATION/ FEASIBILITY STUDY WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001290 MISC NONE 00021	03-13-1996 10-28-1994 00059 03.6	BECHTEL NATIONAL T. LATAS BECHTEL NATIONAL D. COWSER	MEETING MINUTES AND MEETING PRESENTATION MATERIALS FORTHE PROGRESS MEETING TO DISCUSS APPROACHES AND SAMPLING ACTIVITIES, MEETING HELD 28 OCTOBER 1994	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001264 RPT N68711-92-D-4670 00029	02-09-1996 **11-05-1994** 00059 03.3	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	SUBMITTAL OF DRAFT DATA MANAGEMENT PLAN FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001265 CTO-0059/0036 RPT N68711-92-D-4670 00003	02-09-1996 11-15-1994 00059 03.5	BECHTEL NATIONAL, INC. J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	SUBMITTAL OF DRAFT HEALTH AND SAFETY PLAN FOR PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY (SEE AR #955)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001307 LTR NONE 00007	03-14-1996 12-20-1994 00059 03.6	DTSC REGION IV J. JIMENEZ MCAS EL TORO W. LEE	DTSC'S REVIEW COMMENTS ON THE HEALTH AND SAFETY PLAN PORTION OF THE PHASE II REMEDIAL INVESTIGATION WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001545 CORRESP NONE 00005	07-10-1996 12-29-1994 00080 01.1	SOUTHWEST DIVISI J. PAWLISCH DTSC REGION IV J. SCANDURA	LETTER WRITTEN FROM THE NAVY TO DTSC REQUESTING AN EXTENSION TO FFA SCHEDULE FOR OPERABLE UNIT (OU) 2 AND 3 DATED 12/29/94	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0037 30090141

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M60050 / 001306 RPT N68711-92-D-4670 00028	03-14-1996 01-01-1995 00059 03.4	BECHTEL NATIONAL T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT INVESTIGATION-DERIVED WASTE MANAGEMENT PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001263 RPT N68711-92-D-4670 00004	02-09-1996 **01-20-1995** 00059 03.3	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	SUBMITTAL OF DRAFT INVESTIGATION DERIVED WASTE MANAGEMENT PLAN FOR PHASE II RI/FS (REF. DOC# 001306)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001309 LTR NONE 00005	03-14-1996 **01-20-1995** 00059 03.6	DTSC REGION IV J. JIMENEZ MCAS EL TORO W. LEE	DTSC'S DRAFT HEALTH AND SAFETY COMMENTS FOR THE PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001189 NONE RPT N68711-92-D-4670 00087	01-22-1996 03-01-1995 00059 03.5	BECHTEL NATIONAL T.W. LATAS NAVFAC - SOUTHWEST DIVISION	FINAL HEATH AND SAFETY PLAN SUPPLEMENT PHASE II RI/FS	ADMIN RECORD INFO REPOSITORY	002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_009	181-06-0125 BOX 0028 30090141

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M60050 / 001234 NONE RPT N68711-92-D-4670 01007	01-31-1996 03-01-1995 00059 03.2	BECHTEL NATIONAL T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001261 CTO-0059/0062 RPT N68711-92-D-4670 00003	02-09-1996 **03-01-1995** 00059 02.7	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	SUBMITTAL OF DRAFT QUALITY ASSURANCE PROJECT PLAN FOR THE PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY (SEE AR #835 & #715 - QAPP)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 000917 NONE PLAN N68711-89-D-9296 00485	07-20-1995 03-03-1995 00284 01.1	JACOBS ENGINEERING B. ARTHUR NAVFAC - SOUTHWEST DIVISION J. JOYCE	BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3 OU 3B	FRC - PERRIS IMAGED TORO_007	181-06-0125 BOX 0023 30090141

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M60050 / 001280	03-13-1996	DTSC REGION IV	RWQCB REVIEW COMMENTS ON THE DRAFT INVESTIGATION DERIVED WASTE MANAGEMENT PLAN (IDWMP)	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0031
	03-27-1995	J. JIMENEZ			002		30090141
LTR	00059	MCAS EL TORO			003	IMAGED	
NONE	02.4	J. JOYCE			004	TORO_003	
00008					005		
					006		
					007		
					008		
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M60050 / 001281 CTO-0059/0084 MISC N68711-92-D-4670 00005	03-13-1996 **03-27-1995** 00059 03.6	BECHTEL NATIONAL, INC. T. LATAS CRWQCB L. VITALE	COMPILED RESPONSE TO COMMENTS ON THE DRAFT HEALTH AND SAFETY PLAN SUPPLEMENT PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001257 LTR N68711-92-D-4670 00006	02-09-1996 **03-31-1995** 00059 02.1	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	DRAFT FIELD SAMPLING PLAN FOR THE PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0030 30090141

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M60050 / 001258 RPT N68711-92-D-4670 00012	02-09-1996 **03-31-1995** 00059 03.5	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL HEALTH AND SAFETY SUPPLEMENT PHASE II RI/FS AND RESPONSE TO COMMENTS ON HEALTH AND SAFETY SUPPLEMENT	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001282 MISC NONE 00155	03-13-1996 **03-31-1995** 00059 03.6	BECHTEL NATIONAL T. LATAS VARIOUS AGENCIES	RESPONSE TO REGULATORY AGENCY (DTSC, RWQCB, USEPA) COMMENTS ON REVISED DRAFT WORK PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001555 CTO-0059/0090 MISC N68711-92-D-4670 00051	07-10-1996 04-05-1995 00059 10.1	BECHTEL NATIONAL, INC. J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	COMPILED RESPONSE TO REGULATORY AGENCY COMMENTS TO THE DRAFT DATA MANAGEMENT PLAN, PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0037 30090141

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M60050 / 001365 CTO-0065/0051 RPT N68711-92-D-4670 00075	03-19-1996 **05-01-1995** 00065 01.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION G. GARELICK	FINAL ADDENDUM TO THE RCRA FACILITY ASSESSMENT WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 3	SOUTHWEST DIVISION - BLDG. 1 TO BE DELETED BOX 5 OF 15 IMAGED	

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M60050 / 001367 MISC NONE 00078	03-19-1996 **05-02-1995** 00059 02.7	BECHTEL NATIONAL P. WEIGAND VARIOUS	COPY OF MEETING HANDOUT "RECOMMENDED NO FURTHER ACTIONAND REMOVAL ACTION OU-3 SITES", PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001254 MISC N68711-92-D-4670 00008	02-09-1996 **05-03-1995** 00059 02.7	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	APRIL 25, 1995 MEETING MINUTES FOR CTO-0059	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0030 30090141

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M60050 / 001255 MISC N68711-92-D-4670 00010	02-09-1996 **05-03-1995** 00059 02.7	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	APRIL 24, 1995 MEETING MINUTES FOR CTO-0059	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0030 30090141

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M60050 / 001256 LTR N68711-92-D-4670 00010	02-09-1996 **05-05-1995** 00059 10.2	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSE TO REGULATORY AGENCY COMMENTS TO THE DRAFT DATA MANAGEMENT PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0030 30090141

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M60050 / 001310 LTR NONE 00002	03-14-1996 **05-11-1995** 00059 06.2	CA DEPT OF FISH & GAME J. TURNER DTSC REGION IV J. JIMENEZ	DEPT OF FISH AND GAME RESPONSE TO DTSC REQUEST FOR INFORMATION ON APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS ARARS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141 BOX 0031
M60050 / 001567 CORRESP NONE 00003	07-11-1996 **05-11-1995** NONE 10.1	RAB MEMBER J. WERNER MCAS EL TORO J. JOYCE	COMMENTS FROM RAB MEMBER OF THE OPERABLE UNIT (OU) 2 SUBCOMMITTEE ON THE REVISED DRAFT WORK PLAN AND DRAFT FIELD SAMPLING PLAN/PHASE II RI/FS	ADMIN RECORD	002 003 005 015 017 024 OU 2	FRC - PERRIS IMAGED TORO_005	181-06-0125 30090141 BOX 0037

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M60050 / 001259 RPT N68711-92-D-4670 00006	02-09-1996 **05-17-1995** 00059 02.0	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	REVISED DRAFT WORK PLAN FOR THE PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001403 LTR N68711-92-D-4670 00019	03-20-1996 **05-17-1995** 00080 03.6	BECHTEL NATIONAL D. TEDALDI DTSC REGION IV J. JIMENEZ	BECHTEL TECHNICAL REVIEW COMMENTS ON DRAFT WORK PLAN AND FIELD SAMPLING PLAN FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0033 30090141

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M60050 / 001375 LTR N68711-92-D-4670 00019	03-19-1996 **05-22-1995** 00080 03.3	BECHTEL NATIONAL D. TEDALDI RWQCB REGION IX L. VITALE	BECHTEL'S TECHNICAL REVIEW COMMENTS ON DRAFT WORK PLANAND FIELD SAMPLING PLAN FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001376 LTR N68711-92-D-4670 00019	03-19-1996 **05-22-1995** 00080 03.3	BECHTEL NATIONAL D. TEDALDI US EPA REGION IX B. ARTHUR	BECHTEL'S TECHNICAL REVIEW COMMENTS ON DRAFT WORK PLANAND FIELD SAMPLING PLAN FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001565	07-11-1996	RWQCB	REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) COMMENTS ON THE PHASE II DRAFT REMEDIAL INVESTIGATION WORK PLAN	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0037
	05-22-1995				002		30090141
MEMO	NONE	DTSC REGION IV			003	IMAGED	
NONE	10.1	J. JIMENEZ			004	TORO_005	
00008					005		
					006		
					007		
					008		
					009		
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					OU 3		

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M60050 / 001292 LTR NONE 00014	03-13-1996 **05-23-1995** 00059 03.3	DTSC REGION IV J. JIMENEZ MCAS EL TORO J. JOYCE	DTSC'S REVIEW COMMENTS ON THE REVISED DRAFT WORK PLAN PHASE II RI/FS WORKPLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 000945 NONE LTR NONE 00042	08-07-1995 **05-24-1995** NONE 03.6	EPA SAN FRANCISC B. ARTHUR NAVFAC - SOUTHWEST DIVISION J. JOYCE	COMMENTS ON THE REVISED DRAFT WORK PLAN PHASE II RI/ FS STUDY AND DRAFT FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	002 003 004 005 007 008 009 010 011 012 013 017 022 023 024	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0023 30090141

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M60050 / 001293 LTR NONE 00042	03-13-1996 **05-24-1995** 00059 03.3	US EPA REGION IX B. ARTHUR MCAS EL TORO J. JOYCE	US EPA EVIEW COMMENTS ON THE REVISED DRAFT WORK PLAN PHASE II RI/FS WORKPLAN AND DRAFT FIELD SAMPLING PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141
M60050 / 001294 CORRESP NONE 00004	03-13-1996 **05-25-1995** 00059 10.1	IRV RANCH WATER R. MCVICKER RAB COMMUNITY CH M. RUDOLPH	RESTORATION ADVISORY BOARD OU-2 SUBCOMMITTEE COMMENTS TO REVISED DRAFT WORKPLAN AND DRAFT FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	002 003 005 017 024 025 OU 2	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001566 CORRESP NONE 00001	07-11-1996 **05-25-1995** NONE 03.0	IRV. RANCH WATER R. MCVICKER MCAS EL TORO RAB M. RUDOLPH	LETTER FORWARDING COMMENTS FROM THE OPERABLE UNIT (OU)2 RAB SUBCOMMITTEE ON THE REVISED DRAFT WORK PLAN AND DRAFT FIELD SAMPLING PLAN/PHASE II RI/FS	ADMIN RECORD	002 003 005 017 024 025 OU 2	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0037 30090141
M60050 / 001348 LTR N68711-92-D-4670 00010	03-18-1996 **06-09-1995** 00080 03.6	BECHTEL NATIONAL D. TEDALDI NAVFAC - SOUTHWEST DIVISION J. JOYCE	BECHTEL'S TECHNICAL REVIEW COMMENTS ON DRAFT RI/FS EVALUATION OF BACKGROUND CONCENTRATIONS OF INORGANIC CONSTITUENTS IN GROUNDWATER PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001251 MISC N68711-92-D-4670 00005	02-09-1996 **06-15-1995** 00059 02.7	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	MAY 31, 1995 MEETING MINUTES FOR CTO-0059	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001194 NONE PLAN N68711-92-D-4670 01067	01-22-1996 07-01-1995 00059 03.3	BECHTEL NATIONAL T.W. LATAS NAVFAC - SOUTHWEST DIVISION	FINAL WORK PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 30090141	BOX 0029

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M60050 / 001246 NONE RPT N68711-92-D-4670 00012	02-09-1996 07-19-1995 00059 10.1	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSE TO COMMENTS ON INVESTIGATION-DERIVED WASTE MANAGEMENT PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001248 CTO-0059/0186 LTR N68711-92-D-4670 00006	02-09-1996 **07-19-1995** 00059 10.1	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSE TO COMMENTS FINAL HEALTH AND SAFETY PLAN SUPPLEMENT, PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001249 LTR N68711-92-D-4670 00003	02-09-1996 07-19-1995 00059 03.6	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL INVESTIGATION-DERIVED WASTE MANAGEMENT PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001573 CTO-0059/0186 MISC N68711-92-D-4670 00007	07-11-1996 **07-19-1995** 00059 10.1	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSE TO COMMENTS FROM DTSC ON THE FINAL HEALTH AND SAFETY PLAN SUPPLEMENT, PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_005	181-06-0125 30090141	BOX 0037
M60050 / 000966 NONE MM NONE 00016	08-29-1995 **07-27-1995** NONE 10.4	RAB MEMBERS	JULY 27, 1995 RAB MEETING MINUTES	ADMIN RECORD INFO REPOSITORY	002 003 005 017 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0024

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M60050 / 000970 NONE MM NONE 00016	08-29-1995 **07-27-1995** NONE 10.4	MCAS EL TORO	JULY 27, 1995 RAB MEETING MINUTES	ADMIN RECORD INFO REPOSITORY	002 003 005 017 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0024 30090141

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M60050 / 001067	12-11-1995	MCAS EL TORO	JULY 27, 1995 RAB MEETING MINUTES	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0026
NONE	**07-27-1995**			INFO REPOSITORY	002		30090141
MM	NONE	RAB MEMBERS			003	IMAGED	
NONE	10.4				004	TORO_003	
00007					005		
					006		
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					025		
					OU 1		
					OU 2		
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M60050 / 001192 NONE PLAN N68711-92-D-4670 00100	01-22-1996 08-01-1995 00063 10.2	BECHTEL NATIONAL A. SCHWARTZ NAVFAC - SOUTHWEST DIVISION	DRAFT UPDATED COMMUNITY RELATIONS PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_011	181-06-0125 BOX 0028 30090141

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M60050 / 001193 NONE PLAN N68711-92-D-4670 00944	01-22-1996 **08-01-1995** 00059 03.3	BECHTEL NATIONAL T.W. LATAS NAVFAC - SOUTHWEST DIVISION	FINAL FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_011	181-06-0125 BOX 0028 30090141

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M60050 / 001244 NONE RPT N68711-92-D-4670 00003	02-09-1996 **08-01-1995** 00059 01.1	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL QUALITY ASSURANCE PROJECT PLAN, PHASE II RI/FS	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED *TORO_010*	181-06-0125 BOX 0030 30090141

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M60050 / 001245 NONE LTR N68711-92-D-4670 00019	02-09-1996 08-01-1995 00059 10.1	BECHTEL NATIONAL, INC. J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	COMPILED RESPONSE TO COMMENTS ON THE DRAFT QUALITY ASSURANCE PROJECT PLAN PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY (SEE AR #931 - EPA COMMENTS)	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001373 RPT N68711-92-D-4670 00105	03-19-1996 **08-01-1995** 00059 03.4	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL QUALITY ASSURANCE PROJECT PLAN PHASE II RI/FS	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001465 RPT N68711-92-D-4670 00184	05-21-1996 **08-01-1995** 00059 08.0	BECHTEL NATIONAL T. LATAS NAVFAC - SOUTHWEST DIVISION	FINAL RISK ASSESSMENT WORK PLAN (DOCUMENT SIGNED 8/29/95)	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0035 30090141

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M60050 / 001243 NONE LTR N68711-92-D-4670 00003	02-08-1996 08-09-1995 00059 10.1	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSE TO COMMENTS FOR WORK PLAN AND FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001296 LTR N68711-92-D-4670 00001	03-13-1996 **08-09-1995** 00059 02.7	BECHTEL NATIONAL D. COWSER DTSC REGION IV J. JIMENEZ	BNI RESPONSE TO DTSC REVIEW QUESTIONS CONCERNING FINALINVESTIGATION DERIVED WASTE MANAGEMENT PLAN FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001372 MISC N68711-92-D-4670 00137	03-19-1996 **08-09-1995** 00059 10.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSE TO VARIOUS REGULATORS' COMMENTS FOR WORK PLANAND FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 000964 NONE PLAN N68711-92-D-4670 00093	08-29-1995 08-15-1995 00063 10.2	BECHTEL NATIONAL, INC. A. SCHWARTZ NAVFAC - SOUTHWEST DIVISION	DRAFT UPDATED COMMUNITY RELATIONS PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0024 30090141

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M60050 / 001242 NONE RPT N68711-92-D-4670 00003	02-08-1996 **08-16-1995** 00059 03.2	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001297 LTR NONE 00002	03-13-1996 **08-25-1995** 00059 02.7	US EPA REGION IX B. ARTHUR MCAS EL TORO J. JOYCE	EPA LETTER STATING CONCERN OVER PLANS TO CONDUCT CPT SOIL GAS TESTING AND HYDROPUNCH SAMPLING BEFORE APPROVAL OF PHASE II RI/FS, QAPP AND FSP	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0031
M60050 / 001339 CTO-0076/0029 MISC N68711-92-D-4670 00013	03-18-1996 **08-30-1995** 00076 03.6	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	30 AUGUST 1995 MINUTES FOR WEEKLY BASE CLEANUP TEAM MEETING HELD TO DISCUSS FINDINGS AND DECISIONS FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	002 003 005 017 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0032

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M60050 / 001068 NONE MM NONE 00010	12-11-1995 **08-31-1995** NONE 10.4	MCAS EL TORO RAB MEMBERS	AUGUEST 31, 1995 RAB MEETING MINUTES (PARTIALLY PRIVILEGED AND CONFIDENTIAL)	ADMIN RECORD SENSITIVE	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0026 30090141

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M60050 / 001069	12-11-1995	MCAS EL TORO	RAB MAILING LIST (PARTIALLY PRIVILEGED AND CONFIDENTIAL)	ADMIN RECORD	001	FRC - PERRIS	181-06-0125 BOX 0026
NONE	**08-31-1995**			SENSITIVE	002		30090141
MISC	NONE	RAB MEMBERS			003	IMAGED	
NONE	10.4				004	TORO_003	
00009					005		
					006		
					007		
					008		
					009		
					010		
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					OU 2		
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					OU 3		

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M60050 / 001055 NONE CORRESP NONE 00001	12-11-1995 09-05-1995 NONE 10.1	BROWN, PISTONE, HU G.F. HURLEY NAVFAC - SOUTHWEST DIVISION J. JOYCE	REQUEST FOR APPLICATION FOR MEMBERSHIP IN THE RESTORATION ADVISORY BOARD (RAB)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0026 30090141

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M60050 / 001239 NONE LTR N68711-92-D-4670 00003	02-08-1996 09-06-1995 00059 10.1	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	RESPONSE TO COMMENTS DOCUMENT, PREPARED IN CONJUNCTIONWITH THE FINAL RISK ASSESSMENT WORK PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001240 NONE LTR N68711-92-D-4670 00003	02-08-1996 **09-06-1995** 00059 08.2	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL RISK ASSESSMENT WORK PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141
M60050 / 001341 CTO-0076/0044 MM N68711-92-D-4670 00011	03-18-1996 **09-06-1995** 00076 03.6	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	MEETING MINUTES FOR 6 SEPTEMBER 1994 WEEKLY BRAC CLEANUP TEAM MEETING HELD TO DISCUSS FINDINGS AND DECISIONS REGARDING REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	002 003 004 005 017 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001353 MISC N68711-92-D-4670 00002	03-18-1996 09-06-1995 00080 03.6	BECHTEL NATIONAL D. TEDALDI NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL TECHNICAL NOTES/COMMENTS ON DRAFT RI/FS EVALUATION OF BACKGROUND CONCENTRATIONS OF INORGANIC CONSTITUENTS IN GROUNDWATER CLEAN I PHASE I RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001370 RPT N68711-92-D-4670 00185	03-19-1996 **09-06-1995** 00059 08.0	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	FINAL RISK ASSESSMENT WORK PLAN PHASE II RI/FS	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001371 MISC N68711-92-D-4670 00025	03-19-1996 **09-06-1995** 00059 10.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION J. ASHMAN	RESPONSES TO VARIOUS AGENCIES COMMENTS ON THE FINAL RISK ASSESSMENT WORKPLAN FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0032
M60050 / 001569 NONE MM NONE 00004	07-11-1996 **09-06-1995** NONE 01.1	BECHTEL NATIONAL K. LYONS BCT MEMBERS	MINUTES FROM BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING HELD TO DISCUSS FINDINGS OF OU 2 FIELD INVESTIGATIONS, SCHEDULE OF UPCOMING INVESTIGATIONS, AND BCT DECISIONS	ADMIN RECORD	002 003 005 017 024 025 OU 2	FRC - PERRIS IMAGED TORO_005	181-06-0125 30090141	BOX 0037

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M60050 / 001337 CTO-0076/0028 MM N68711-92-D-4670 00020	03-18-1996 **09-11-1995** 00076 03.6	BECHTEL NATIONAL, INC. M. DALYRYMPLE NAVFAC - SOUTHWEST DIVISION J. ASHMAN	11 SEPTEMBER 1995 MEETING MINUTES REGARDING THE INFORMAL CONSULTATION FOR THE PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY FIELD ACTIVITIES IN THE CONSERVATION AREA	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 019 020 021 022 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141
M60050 / 001340 CTO-0076/0043 MM N68711-92-D-4670 00027	03-18-1996 **09-13-1995** 00076 03.6	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	MEETING MINUTES FOR 13 SEPTEMBER 1995 BRAC CLEANUP TEAM MEETNG TO DISCUSS FINDINGS AND DISCUSSIONS FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	002 003 005 017 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001057 NONE CORRESP N68711-92-D-4670 00009	12-11-1995 09-14-1995 00063 10.3	BECHTEL NATIONAL D.K. COWSER NAVFAC - SOUTHWEST DIVISION L. NUZUM	DRAFT AGENDA AND PUBLICE NOTICE SEPTEMBER 28, 1995 WITH RAB MAILING LIST (DOCUMENT MADE DISCLOSABLE)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0026 30090141

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M60050 / 001300 MISC NONE 00002	03-14-1996 **09-15-1995** NONE 03.6	US EPA REGION IX BECHTEL NATIONAL D. COWSER	US EPA COMMENTS ON THE MCAS EL TORO FINAL WORK PLAN AND FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141
M60050 / 001059 NONE LTR NONE 00002	12-11-1995 **09-19-1995** NONE 03.3	EPA SAN FRANCISC B. ARTHUR NAVFAC - SOUTHWEST DIVISION J. JOYCE	COMMENTS ON THE FINAL PHASE II RI/FS WORKPLAN AND FIELD SAMPLING PLAN IN EITHER REVISED PAGES OR BY ADDENDUM	ADMIN RECORD	003 007 012 024 OU 2 OU 2A OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0026 30090141

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M60050 / 001356 LTR N68711-92-D-4670 00016	03-18-1996 **09-20-1995** 00080 08.3	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	SUBMITTAL OF BECHTEL'S FINAL NOTES REGARDING RESPONSE TO COMMENTS DOCUMENT PREPARED IN CONJUNCTION WITH THE FINAL RISK ASSESSMENT WORK PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0032

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M60050 / 001062 NONE MM NONE 00012	12-11-1995 09-28-1995 NONE 10.4	MCAS EL TORO COMMUNITY MEMBER	SEPTEMBER 28, 1995 RAB MEETING MINUTES WITH ATTENDANCELIST (PARTIACLLY PRIVELEGED AND CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0026 30090141

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M60050 / 001070 NONE MISC NONE 00009	12-11-1995 **10-12-1995** NONE 10.4	MCAS EL TORO J. JOYCE RAB MEMBERS	NOTICE OF RAB MEETING FOR OCTOBER 26, 1995 AND RAB MAILING LIST (PARTIALLY PRIVILEGED AND CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0026 30090141

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M60050 / 001377 MISC N68711-92-D-4670 00006	03-19-1996 **10-18-1995** 00080 10.1	BECHTEL NATIONAL D. TEDALDI NAVFAC - SOUTHWEST DIVISION P. KENNEDY	SUBMITTAL OF BECHTEL'S REVIEW COMMENTS ON DRAFT QAPP, SAP, AND DATA MANAGEMENT PLAN FOR GROUNDWATER MONITORING	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001363 CTO-0076/0054 LTR N68711-92-D-4670 00001	03-18-1996 **10-23-1995** 00076 03.6	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	LETTER INITIATING ECOLOGICAL RISK ASSESSMENT AS PART OF THE PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141
M60050 / 001342 CTO-0076/0055 FAX N68711-92-D-4670 00004	03-18-1996 **10-24-1995** 00076 03.6	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	FAX OF AGENDA AND HANDOUTS FOR THE WEEKLY BRAC CLEANUP TEAM BRIEFING SCHEDULED FOR 25 OCTOBER 1995 TO PROVIDE AN UPDATE ON FIELD ACTIVITIES	ADMIN RECORD	002 003 005 017 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001237 NONE LTR N68711-92-D-4670 00004	02-08-1996 **11-06-1995** 00059 10.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	RESPONSE TO COMMENTS FOR FINAL QUALITY ASSURANCE PROJECT PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141
M60050 / 001343 CTO-0076/0065 FAX N68711-92-D-4670 00008	03-18-1996 **11-15-1995** 00076 03.6	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	FAX OF AGENDA AND HANDOUTS FOR THE WEEKLY BRAC CLEANUP TEAM BRIEFING SCHEDULED FOR NOVEMBER 15, 1995 TO PROVIDE AN UPDATE ON FIELD ACTIVITIES	ADMIN RECORD	002 003 005 017 024 025	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001228 CTO-0063/0181 LTR N68711-92-D-4670 00021	01-31-1996 11-21-1995 00063 10.1	BECHTEL NATIONAL, INC. H. MASRI NAVFAC - SOUTHWEST DIVISION P. KENNEDY	RESPONSE TO COMMENTS FOR MCAS TUSTIN AND MCAS EL TORO DRAFT REVISED COMMUNITY RELATIONS PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0030 30090141

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M60050 / 001236 NONE LTR N68711-92-D-4670 00004	02-08-1996 **11-27-1995** 00059 10.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	RESPONSE TO COMMENTS FOR DRAFT FINAL WORKPLAN AND FIELD SAMPLING PLAN PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 30090141	BOX 0030
M60050 / 001675 XMTL N68711-92-D-4670 00003	10-01-1996 **12-18-1995** 00073 06.3	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	INVESTIGATION DERIVED WASTE, REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR CTO-0073 AND CTO-0076, LETTER OF DECEMBER 19, 1995	ADMIN RECORD	005	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039

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M60050 / 001214 NONE RPT N68711-92-D-4670 00100	01-30-1996 12-28-1995 00063 10.2	BECHTEL NATIONAL J. KLEUSENER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT FINAL UPDATED COMMUNITY RELATIONS PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0029 30090141

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M60050 / 001433 CTO-0063/0210 MM N68711-92-D-4670 00021	04-03-1996 01-12-1996 00063 10.0	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT MINUTES FROM THE 30 NOVEMBER 1995 RESTORATION ADVISORY BOARD (RAB) MEETING; INCLUDES SIGN-IN SHEETS, FLIER, AND RAB MAILING LIST	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0033 30090141

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M60050 / 001466 CTO-00103/0045 PLAN N68711-92-D-4670 00402	05-21-1996 01-22-1996 00103 03.3	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION	DRAFT 1996 BASE REALIGNMENT AND CLOSURE CLEANUP PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0035 30090141

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M60050 / 001378 CTO-0079/0080 MISC N68711-92-D-4670 00004	03-19-1996 **01-29-1996** 00079 03.6	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MEETING MINUTES FROM 24 JANUARY 1996 WEEKLY BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) BRIEFING FOR PHASE II RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0032 30090141

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M60050 / 001276 MM N68711-92-D-4670 00028	03-12-1996 02-06-1996 NONE 11.3	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MINUTES OF 30 JANUARY 1996 WEEKLY BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING FOR PHASE II REMEDIAL INVESTIGATIONFEASIBILITY STUDY (RI/FS)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001395 LTR NONE 00010	03-20-1996 02-23-1996 00065 10.1	DTSC REGION IV T. MAHMOUD MCAS EL TORO J. JOYCE	DTSC COMMENTS ON THE DRAFT FINAL ADDENDUM TO THE RCRA FACILITY ASSESSMENT	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0032 30090141

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M60050 / 001273 MISC N68711-92-D-4670 00005	03-07-1996 02-26-1996 00103 06.0	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MEETING MINUTES - 20 FEBRUARY 1996 BRAC CLEANUP PLAN MEETING HELD TO DISCUSS COMMENTS ON THE BCP AND DISTRIBUTION OF THE BCP	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141

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M60050 / 001402 MISC NONE 00039	03-20-1996 **02-27-1996** 00063 10.0	MCAS EL TORO C. WIEMERT BECHTEL NATIONAL B. COLEMAN	DOCUMENTS FOR 23 AND 24 FEBRUARY 1996 MCAS EL TORO RAB TOUR INCLUDES TOUR INFORMATION, PUBLIC NOTICE AND TOWN HALL FLIER	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0033 30090141

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M60050 / 001401 CTO-0103/0058 MISC N68711-92-D-4670 00504	03-20-1996 **03-01-1996** 00103 05.4	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION	BASE REALIGNMENT AND CLOSURE PLAN (BCP) DATED MARCH 1, 1996 (SIGNED 2/20/96)	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0033 30090141

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M60050 / 001393 RPT N68711-92-D-4670 00095	03-20-1996 03-14-1996 00073 03.4	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT GROUNDWATER EXTRACTION AND INJECTION WELL AQUIFER TESTS FOR FINAL PHASE II RI/FS WORK PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0032 30090141

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M60050 / 001436 MISC NONE 00010	04-03-1996 **03-25-1996** 00079 03.6	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MEETING MINUTES FOR 20 MARCH 1996 BRAC CLEANUP TEAM MEETING HELD TO DISCUSS OU2A, OU2B, AND OU3 FIELD WORK.	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0033 30090141

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M60050 / 001419 LTR N68711-92-D-4670 00022	04-03-1996 03-28-1996 0063B 10.0	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	LETTER TRANSMITTING COPY OF MATERIALS FOR "CURRENT STATUS MCAS EL TORO ENVIRONMENTAL INVESTIGATION INSTALLATION RESTORATION PROGRAM" PRESENTATION	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0033 30090141

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M60050 / 001331 CTO-0079/0126 MM N68711-92-D-4670 00007	03-18-1996 **04-01-1996** 00079 03.6	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MEETING MINUTES FOR 27 MARCH 1996 WEEKLY BASE CLEANUP TEAM MEETING HELD TO DISCUSS SITES 24 AND 25, THE LANDFILL SITES, AND OU 3 (SITE 15) FIELDWORK	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 BOX 0031 30090141
M60050 / 001498 RPT N68711-92-D-4670 00100	05-22-1996 **04-01-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT VOLUME I OF V SIGNED APRIL 12, 1996	ADMIN RECORD	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-030 IMAGED	

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M60050 / 001499 RPT N68711-92-D-4670 00100	05-22-1996 **04-01-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT VOLUME II OF V APPENDICES A - D SIGNED APRIL 12, 1996	ADMIN RECORD	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-030 IMAGED		
M60050 / 001500 RPT N68711-92-D-4670 00100	05-22-1996 **04-01-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT VOLUME III OF V APPENDICES E - M SIGNED APRIL 12, 1996	ADMIN RECORD	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-030 IMAGED		
M60050 / 001501 RPT N68711-92-D-4670 00250	05-22-1996 **04-01-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT VOLUME IV OF V, APPENDIX N SIGNED APRIL 12, 1996	ADMIN RECORD	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-030 IMAGED		
M60050 / 001502 RPT N68711-92-D-4670 00250	05-22-1996 **04-01-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT VOLUME V OF V, APPENDICES O - P SIGNED APRIL 12, 1996	ADMIN RECORD	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-030 IMAGED		
M60050 / 001493 CTO-0076/0136 RPT N68711-92-D-4670 00304	05-22-1996 **04-12-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME I OF V) - TEXT	ADMIN RECORD	005 OU 2C	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0035

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M60050 / 001494 CTO-0076/0136 RPT N68711-92-D-4670 00438	05-22-1996 **04-12-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME II OF V) - APPENDICES A - E	ADMIN RECORD	005 OU 2C	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0035
M60050 / 001495 CTO-0076/0136 RPT N68711-92-D-4670 00873	05-22-1996 **04-12-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME III OF V) - APPENDICES F - O	ADMIN RECORD	005 OU 2C	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0036
M60050 / 001496 CTO-0076/0136 RPT N68711-92-D-4670 00666	05-22-1996 **04-12-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME IV OF V) - APPENDIX P	ADMIN RECORD	005 OU 2C	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0036
M60050 / 001497 CTO-0076/0136 RPT N68711-92-D-4670 00183	05-22-1996 **04-12-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME V OF V) - APPENDICES Q - R	ADMIN RECORD	005 OU 2C	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0036

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M60050 / 000365 NONE MM N68711-92-D-4670 00005	06-19-1996 **04-17-1996** 00079 00.0	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MINUTES FROM 10 APRIL 1996 WEEKLY BRAC CLEANUP TEAM MEETING HELD TO DISCUSS OU2A, OU2B, OU3, AND RCRA FACILITY ASSESSMENT ADDENDUM	ADMIN RECORD	001 002 003 004 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_001	181-06-0125 BOX 0009 30090141

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M60050 / 001503 RPT N68711-92-D-4670 00129	05-22-1996 **05-07-1996** 00065 00.0	BECHTEL NATIONAL J. LORD NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DRAFT REPORT ANTHROPOGENIC POLYNUCLEAR AROMATIC HYDROCARBON (PAH) REFERENCE-LEVEL STUDY	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0036 30090141

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M60050 / 001506 MM N68711-92-D-4670 00035	06-06-1996 **05-31-1996** 00079 01.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MINUTES FROM WEEKLY BRAC CLEANUP TEAM MEETING HELD 22 MAY 1996 TO DISCUSS OU1, OU2A, OU2B, AND OU3	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0036 30090141

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M60050 / 001507 LTR N68711-92-D-4670 00016	06-06-1996 **06-05-1996** 00065 10.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	DOCUMENT REVIEW COMMENTS AND RESPONSES ON FINAL RCRA FACILITY ASSESSMENT ADDENDUM	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0036 30090141

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M60050 / 001516 CTO-0079/0169 MM N68711-92-D-4670 00005	07-03-1996 **06-14-1996** 00079 01.1	BECHTEL NATIONAL D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MEETING MINUTES FROM 5 JUNE 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING HELD TO DISCUSS OU 1, 2A, 2B, 2C, 3 AND THE SITE 25 RI/FS	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_004	181-06-0125 BOX 0036 30090141
M60050 / 001610 LTR NONE 00015	09-04-1996 **06-18-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON THE DRAFT PHASE II RI REPORT FOR THE COMMUNICATION STATION LANDFILL, SITE 5, OU 2C W/ENCL	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0038 30090141

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M60050 / 001609 LTR NONE 00021	09-04-1996 **06-19-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON THE DRAFT PHASE II RI REPORT FOR THE ORIGINAL LANDFILL SITE 3, OU 2C	ADMIN RECORD INFO REPOSITORY	003 OU 2C	FRC - PERRIS IMAGED TORO_005	181-06-0125 30090141	BOX 0038
M60050 / 001608 LTR NONE 00022	09-04-1996 **06-20-1996** NONE 10.1	EPA SAN FRANCISC B. ARTHUR MCAS EL TORO J. JOYCE	COMMENTS ON THE DRAFT PHASE II RI REPORT, OU 2B-SITE 3AND DRAFT PHASE II RI REPORT OU 2B-SITE 5 W/ENCL	ADMIN RECORD INFO REPOSITORY	003 005 OU 2B	FRC - PERRIS IMAGED TORO_005	181-06-0125 30090141	BOX 0038
M60050 / 002265 MISC N68711-92-D-4670 00674	09-21-1998 **06-24-1996** 00076 03.2	BECHTEL NATIONAL, INC. D. TEDALDI NAVFAC - SOUTHWEST DIVISION	CHAIN OF CUSTODY RECORDS, PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY AT THE STATION LANDFILLS	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051
M60050 / 001519 MISC N68711-92-D-4670 00015	07-03-1996 **06-25-1996** 00080 10.1	BECHTEL NATIONAL D. TEDALDI NAVFAC - SOUTHWEST DIVISION P. KENNEDY	BNI'S COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION (RI) REPORTS FOR SITE 3 AND SITE 5 - ATTACHMENTS A AND B	ADMIN RECORD	003 005	FRC - PERRIS IMAGED TORO_004	181-06-0125 30090141	BOX 0036
M60050 / 001646 NONE MM N68711-92-D-4670 00023	09-27-1996 **07-08-1996** 00079 10.5	BNI SAN DIEGO D.K. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	19 JUNE 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	003 005 006 008 015 025 OU 1 OU 2A	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0039

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M60050 / 001606 LTR NONE 00005	09-04-1996 **07-10-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON THE DRAFT PHASE II RI REPORT FOR SITE 3, OU 2C AND SITE 5, OU 2C W/ENCL	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_005	181-06-0125 BOX 0038 30090141
M60050 / 001647 MM N68711-92-D-4670 00012	09-27-1996 **07-11-1996** 00079 10.5	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MINUTES OF 3 JULY 1996 BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING W/ENCL	ADMIN RECORD	002 003 005 017 019 OU 1 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_009	181-06-0125 BOX 0039 30090141
M60050 / 001650 NONE XMTL N68711-92-D-4670 00045	09-27-1996 **07-30-1996** 00079 10.6	BNI SAN DIEGO D.K. COWSER NAVFAC - SOUTHWEST DIVISION R. SELBY	10 JULY 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	002 003 005 017 018 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_009	181-06-0125 BOX 0039 30090141

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M60050 / 001980 MISC NONE 00100	09-18-1997 **07-31-1996** NONE 10.3	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIALS FOR JULY 31, 1996, RAB MEETING-AGENDA, HANDOUTS	ADMIN RECORD INFO REPOSITORY	002 003 005 015 017 018 019 020 024 025 OU 1 OU 2A OU 2B OU 2C OU 3 TANK 398	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0045
M60050 / 001657 NONE XMTL N68711-92-D-4670 00004	09-27-1996 **08-23-1996** 00079 10.6	BNI SAN DIEGO D.K. COWSER NAVFAC - SOUTHWEST DIVISION R. SELBY	14 AUGUST 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	002 005 017 OU 2A OU 3A OU 3B	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039
M60050 / 001658 NONE MM N68711-92-D-4670 00012	09-27-1996 **08-27-1996** 00079 10.6	BNI SAN DIEGO D.K. COWSER NAVFAC - SOUTHWEST DIVISION R. SELBY	21 AUGUST 1996 BCT MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 OU 1 OU 3A OU 3B	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039

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M60050 / 001681 LTR NONE 00036	10-02-1996 **09-05-1996** NONE 06.2	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	REQUEST FOR ARAR'S FOR LANDFILL SITES OU2B & OU2C TRANSMITTAL OF SCAQMD ARAR'S	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039
M60050 / 001674 CTO-0063B/0419 LTR N68711-92-D-4670 00005	01-31-2000 **09-20-1996** 0063B 00.0	BECHTEL NATIONAL INC. A. SCHWARTZ NAVFAC - SOUTHWEST DIVISION T. MARTIN	QUARTERLY UPDATING & MAINTENANCE OF THE INFORMATION REPOSITORY AT THE HERITAGE PARK REGIONAL LIBRARY IN IRVINE WAS PERFORMED.	ADMIN RECORD	002 003 004 007 011 013 014 017 019 020 024 OU 1 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039
M60050 / 001698 CTO-0076/0250 RPT N68711-92-D-4670 00542	11-11-1996 **09-20-1996** 00076 04.2	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT PHASE II FEASIBILITY STUDY REPORT (SEE AR #1821 - DTSC COMMENTS)	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0040
M60050 / 001695 CTO-0076/0243 RPT N68711-92-D-4670 01050	11-11-1996 **09-23-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT VOLUME I OF II	ADMIN RECORD INFO REPOSITORY	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-032 IMAGED		

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M60050 / 001696 CTO-0076/0243 RPT N68711-92-D-4670 01050	11-11-1996 **09-23-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT VOLUME II OF II	ADMIN RECORD INFO REPOSITORY	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-034 IMAGED		
M60050 / 001697 CTO-0076/0251 RPT N68711-92-D-4670 00637	11-11-1996 **09-23-1996** 00076 04.2	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT PHASE II FEASIBILITY STUDY REPORT (SEE AR #1822 - DTSC COMMENTS)	ADMIN RECORD INFO REPOSITORY	003 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039
M60050 / 001693 CTO-0076/0244 RPT N68711-92-D-4670 00362	11-11-1996 **09-25-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME I OF II - TEXT) [SEE AR #1694 - VOLUME II]	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0039
M60050 / 001694 CTO-0076/0244 RPT N68711-92-D-4670 00380	11-11-1996 **09-25-1996** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT (VOLUME II OF II - APPENDICES) [SEE AR #1693 - VOLUME I]	ADMIN RECORD INFO REPOSITORY	005 OU 2C	SOUTHWEST DIVISION - BLDG. 1 PROBLEM FILE CABINET IMAGED TORO_011		

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M60050 / 001983 MISC NONE 00069	09-18-1997 **09-25-1996** NONE 10.4	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIALS FOR SEPTEMBER 25, 1996, MEETING-AGENDA, HANDOUTS, & MINUTES OF JULY 31, 1996 RAB MTG., SIGN-IN SHEETS, REV. "BLUE SHEET"	ADMIN RECORD INFO REPOSITORY	002 003 005 015 017 018 019 020 024 025 OU 1 OU 2A OU 2B OU 2C OU 3 TANK 398	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0045
M60050 / 001699 CTO-0076/0270 MISC N68711-92-D-4670 00071	11-12-1996 **10-03-1996** 00076 10.1	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION	RESPONSE TO COMMENTS DRAFT PHASE II REMEDIAL INVESTIGATION REPORT (VARIOUS DATES) W/ENCLS	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0040
M60050 / 001704 CTO-0080/0156 XMTL N68711-92-D-4670 00011	11-13-1996 **10-08-1996** 00080 04.5	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION J. JOYCE	LETTER TO JOSEPH JOYCE REGARDING SUBMITTAL OF INTERNAL REVIEW COMMENTS BY ENVIRONMENTAL MGT. FOR CTO-80 ON DRAFT FEASIBILITY STUDY REPORT FOR OU 2C BY CLEAN II CTO-073	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0040
M60050 / 001707 NONE XMTL N68711-92-D-4670 00009	11-13-1996 **10-15-1996** 00079 10.4	BNI SAN DIEGO D. COWSER NAVFAC - SOUTHWEST DIVISION R. SELBY	09 OCTOBER 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	002 003 005 017	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0040

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M60050 / 001843 CTO-0076/0546 XMTL N68711-92-D-4670 00004	03-24-1997 **10-18-1996** 00076 10.1	BECHTEL NATIONAL, INC. C. CARLISLE VARIOUS AGENCIES	RESPONSE TO COMMENTS ON DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0043
M60050 / 001268 CTO-0059/0033 RPT N68711-92-D-4670 00072	02-09-1996 **11-04-1996** 00059 02.4	BECHTEL NATIONAL T. LATAS NAVFAC - SOUTHWEST DIVISION J. ASHMAN	DRAFT RISK ASSESSMENT WORK PLAN FOR THE PHASE II RI/FS (DOCUMENT NEEDS TO BE RE-IMAGED - DUE TO TRANSMITTAL LETTER ONLY BEING IMAGED)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 019 020 021 022 024 025 OU 2 OU 3	FRC - PERRIS IMAGED TORO_003	181-06-0125 30090141	BOX 0031

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M60050 / 001860 LTR NONE 00012	03-26-1997 **11-04-1996** NONE 10.1	DTSC LONG BEACH J. SCANDURA MCAS EL TORO J JOYCE	REVIEW OF DRAFT FINAL PHASE II RI REPORT: PERIMETER ROAD LANDFILL, SITE 5 OU 2C AND ACCEPTENCE & COMMENTS ENCLOSED	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0043
M60050 / 001861 LTR NONE 00011	03-26-1997 **11-04-1996** NONE 10.1	DTSC LONG BEACH J. SCANDURA MCAS EL TORO J JOYCE	COMMENTS AND ACCEPTANCE OF THE DRAFT FINAL PHASE II RIREPORT: THE ORIGINAL LANDFILL, SITE 3, OU 2C	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0043
M60050 / 001885 LTR NONE 00002	03-27-1997 **11-08-1996** NONE 10.1	EPA SAN FRANCISC B. ARTHUR MCAS EL TORO J. JOYCE	EPA REVIEW OF "DRAFT FINAL PHASE II RI REPORT - OU 2C SITES 3 AND 5"	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0044
M60050 / 001721 CTO-0076/0330 RPT N68711-92-D-4670 00035	11-21-1996 **11-12-1996** 00076 04.2	BECHTEL NATIONAL, INC. D. COWSER NAVFAC - SOUTHWEST DIVISION	ERRATA PAGE FOR THE DRAFT PHASE II FEASIBILITY STUDY REPORTS	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0040
M60050 / 002939 CTO-0076/0487 MM N68711-92-D-4670 00006	03-19-2003 **11-15-1996** 00076	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	15 NOVEMBER 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141	BOX 0066

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M60050 / 001919 NONE MM N68711-92-D-4670 00016	03-27-1997 **12-03-1996** 00079 10.4	BECHTEL NATIONAL D. COWSER VARIOUS AGENCIES	20 NOVEMBER 1996 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 OU 1 OU 2A OU 2B OU 2C OU 3A	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0044
M60050 / 001848 MISC NONE 00182	03-24-1997 **12-04-1996** NONE 10.4		DECEMBER 4, 1996 RAB MEETING PUBLIC INFO. MATERIALS INCLDS· MTG. AGENDA, DRF MTG. MIN., MEMBER SIGN-UP SHEET, FACT SHT.#7, EXEC.SUMRY ON DRFT RI OU 3A, ETC.	ADMIN RECORD INFO REPOSITORY	002 003 004 005 006 008 009 010 011 012 013 015 016 017 018 019 020 021 022 024 OU 1 OU 2A OU 2B OU 2C OU 3A	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0043

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M60050 / 001981 MISC NONE 00182	09-18-1997 **12-04-1996** NONE 10.4	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIALS FOR DECEMBER 4, 1996,RAB MEETING-AGENDA, HANDOUTS, & MINUTES OF SEPTEMBER 25, 1996, REVISED "BLUE SHEET" FOR 12/4/96 MTG.	ADMIN RECORD INFO REPOSITORY	002 003 004 005 006 008 009 010 011 012 013 015 016 017 018 019 021 022 OU 1 OU 2B OU 2C OU 3A	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0045
M60050 / 001771 LTR NONE 00014	03-20-1997 **12-06-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT FS FOR ORIGINAL LANDFILL, SITE 3, OU 2C	ADMIN RECORD INFO REPOSITORY	003 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 001772 LTR NONE 00014	03-20-1997 **12-06-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT PHASE II FS FOR PERIMETER ROAD LANDFILL, SITE 5, OU 2C	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042

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M60050 / 001821 LTR NONE 00014	03-21-1997 **12-06-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT PHASE II FEASIBILITY STUDY REPORT FOR THE PERIMETER ROAD LANDFILL, OPERABLE UNIT 2C (SEE AR #1698 - FS REPORT)	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0043
M60050 / 001822 LTR NONE 00014	03-21-1997 **12-06-1996** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT PHASE II FEASIBILITY STUDY REPORT FOR THE ORIGINAL LANDFILL, OPERABLE UNIT 2C (SEE AR #1697 - FS REPORT)	ADMIN RECORD INFO REPOSITORY	003 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0043
M60050 / 001767 LTR NONE 00018	03-20-1997 **12-09-1996** NONE 10.1	EPA SAN FRANCISC G. KISTNER MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT PHASE II FS SITES 3 AND 5	ADMIN RECORD INFO REPOSITORY	003 005	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 001766 LTR NONE 00006	03-20-1997 **12-10-1996** NONE 10.1	EPA SAN FRANCISC G. KISTNER MCAS EL TORO J. JOYCE	REVISED COMMENTS ON THE HELP MODELS FOR SITES 3 AND 5	ADMIN RECORD INFO REPOSITORY	003 005	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042

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M60050 / 001730 PLAN N68711-92-D-4670 01500	01-29-1997 **01-01-1997** 00103 04.4	BECHTEL NATIONAL, INC. J. KLUESENER NAVFAC - SOUTHWEST DIVISION	DRAFT BASE REALIGNMENT AND CLOSURE CLEANUP PLAN (BCP)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3 OU 3A OU 3B	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-039 IMAGED	000-00-0000 BOX 0066 NONE

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M60050 / 002064 LTR NONE 00004	01-30-1998 **01-05-1997** NONE 10.1	DTSC LONG BEACH J. SCANDURA MCAS EL TORO J. JOYCE	DTSC'S RESPONSE TO MCAS EL TORO'S REQUEST FOR EXTENSIONS TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULES	ADMIN RECORD	001 002 003 005 007 008 011 012 014 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047
M60050 / 001817 MISC NONE 00017	03-21-1997 **01-09-1997** NONE 10.4	MCAS EL TORO J. JOYCE	DEFENSE ENVIRONMENTAL RESPONSE TASK FORCE (DERTF) PRESENTATION	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042

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M60050 / 001729 RPT N68711-92-D-4670 02000	01-29-1997 01-21-1997 00073 03.4	BECHTEL NATIONAL, INC. P. BROOKS NAVFAC - SOUTHWEST DIVISION	DRAFT PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY ADDENDUM FOR SITE 25	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 008 009 010 011 012 013 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-036 IMAGED	000-00-0000 BOX 0065 NONE

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M60050 / 001754 XMTL N68711-92-D-4670 00018	03-20-1997 **01-24-1997** 00103 10.4	BECHTEL NATIONAL D. HALLERBACH NAVFAC - SOUTHWEST DIVISION R. SELBY	JANUARY 16, 1997, MEETING MINUTES	ADMIN RECORD	002 003 005 017 018 019 024 025 OU 2A OU 2B OU 2C TANK 398 TK FARM 2	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 002072 CTO-0155/0062 MISC N68711-92-D-4670 00033	02-23-1998 **01-27-1997** 00155 10.1	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	RESPONSE TO COMMENTS ON THE DRAFT PROPOSED PLAN STATION LANDFILLS OPERABLE UNITS 2B AND 2C (VARIOUS DATES)	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0048
M60050 / 001755 CTO-0076/0516 MM N68711-92-D-4670 00004	03-20-1997 **01-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	JANUARY 22, 1997, MEETING MINUTES	ADMIN RECORD	002 003 005	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
M60050 / 001745 CTO-0103/0144 PLAN N68711-92-D-4670 02000	03-17-1997 01-30-1997 00103 04.2	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	BASE REALIGNMENT AND CLOSURE CLEANUP PLAN (BCP) DATED MARCH 1997	ADMIN RECORD INFO REPOSITORY MISSING @ SWDIV	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3 OU 3A OU 3B	SOUTHWEST DIVISION - BLDG. 12 PALLET 12 - BX-046 IMAGED	

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M60050 / 001743 CTO-0076/0512 XMTL N68711-92-D-4670 02000	03-17-1997 **02-06-1997** 00076 04.2	BECHTEL NATIONAL, INC. T. LATAS VARIOUS AGENCIES	DRAFT FINAL PHASE II FEASIBILITY STUDY REPORT	ADMIN RECORD INFO REPOSITORY	005 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 11 - BX-040 IMAGED	000-00-0000 NONE	BOX 0067
M60050 / 001742 CTO-0076/0514 XMTL N68711-92-D-4670 00809	03-17-1997 **02-12-1997** 00076 04.2	BECHTEL NATIONAL, INC. T. LATAS VARIOUS AGENCIES	DRAFT FINAL PHASE II FEASIBILITY STUDY REPORT DATED FEBRUARY 6, 1997	ADMIN RECORD INFO REPOSITORY	003 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0041
M60050 / 001758 CTO-0076/0522 XMTL N68711-92-D-4670 00067	03-20-1997 **02-12-1997** 00076 10.1	BECHTEL NATIONAL, INC. D. COWSER VARIOUS AGENCIES	COMPILED RESPONSE TO DTSC COMMENTS ON THE DRAFT FINAL PHASE II REMEDIAL INVESTIGATION AND DRAFT FEASIBILITY STUDY REPORTS	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 001759 XMTL N68711-92-D-4670 00004	03-20-1997 **02-26-1997** 00073 10.4	BECHTEL NATIONAL P. BROOKS VARIOUS AGENCIES	FEBRUARY 20, 1997, MEETING MINUTES	ADMIN RECORD	002 003 005 017 018 024 OU 1 OU 2A	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 001746 RPT N68711-95-D-7530 00769	03-17-1997 **02-27-1997** DO 9 04.2	CDM FEDERAL PROGRAMS L. DAVIDSON NAVFAC - SOUTHWEST DIVISION	GROUNDWATER MONITORING REPORT NOVEMBER-DECEMBER 1996 SAMPLING ROUND (VOLUME I AND II OF II)	ADMIN RECORD	001 002 003 004 006 013 015 019	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0041 BOX 0042

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M60050 / 001760 CTO-0076/0535 XMTL N68711-92-D-4670 00005	03-20-1997 **03-05-1997** 00076 10.1	BECHTEL NATIONAL, INC. C. CARLISLE VARIOUS AGENCIES	OCTOBER 25, 1996 RESPONSE TO COMMENTS ON POTENTIAL REUSE ISSUES ASSOCIATED WITH OU 2C - SITE 5	ADMIN RECORD	005 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 002154 CTO-0076/0569 MEMO N68711-92-D-4670 00005	04-15-1998 **05-12-1997** 00076 01.6	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	MAPS FROM A FILE SEARCH CONDUCTED WITH THE CALIFORNIA DIVISION OF OIL AND GAS TO LOCATE INFORMATION ON AN ABANDONED OIL WELL LOCATED AT SITE 3	ADMIN RECORD	003 OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002002 RPT N68711-92-D-4670 01500	09-23-1997 **05-15-1997** 00076 03.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT VOLUMES I THROUGH VOLUMES V DATED APRIL 1997	ADMIN RECORD INFO REPOSITORY	003 OU 2C	SOUTHWEST DIVISION - BLDG. 12 PALLET 12 - BX-056 IMAGED	000-00-0000 NONE	BOX 0098
M60050 / 002003 CTO-0076/0548 RPT N68711-92-D-4670 02392	09-24-1997 **05-15-1997** 00076 03.4	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL PHASE II REMEDIAL INVESTIGATION REPORT (VOLUMES I THROUGH VOLUMES V OF V) DATED APRIL 1997	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_005	181-06-0125 30090141	BOX 0046

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M60050 / 001934 MISC N68711-92-D-4670 00018	05-28-1997 **05-28-1997** 0063B 10.4	BECHTEL NATIONAL C. CARLISLE VARIOUS AGENCIES	SITE (B) BASEWIDE COMMUNITY RELATIONS SUPPORT-INCLUDESMAY 28, 1997 RAB AGENDA, MARCH 26, 1997 DRAFT MEETING MINUTES, PUBLIC NOTICE & (MAILING LIST IN CONFIDNTL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	001 002 003 004 005 006 007 008 010 011 012 013 015 016 017 019 020 021 022 024 025 OU 1 OU 2C OU 3 OU 3A	FRC - PERRIS IMAGED TORO_009	181-06-0125 BOX 0044 30090141
M60050 / 002007 RPT N68711-95-D-7530 01000	09-24-1997 **06-30-1997** DO009 01.1	CDM FEDERAL PROGRAMS VARIOUS AGENCIES	GROUNDWATER MONITORING REPORT MARCH 1997 SAMPLING ROUND VOLUMES I AND II	ADMIN RECORD	002 003 004 013 015 OU 2B OU 2C OU 3A	SOUTHWEST DIVISION - BLDG. 12 PALLET 12 - BX-058 IMAGED	

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M60050 / 001966 MM N68711-92-D-4670 00005	08-20-1997 **07-01-1997** 00076 01.6	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	JULY 1, 1997 BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 008 011 012 017 024 OU 1 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0044
M60050 / 002366 RPT NONE 00004	04-08-1999 **07-02-1997** NONE 01.1	NAVFAC - SOUTHWEST DIVISION L. HORNECKER US FISH & WILDLIFE SERVICE M. NELSON	BIOLOGICAL MONITORING REPORTS INTERIM ACTIONS AT LANDFILL SITES	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053
M60050 / 002365 RPT NONE 00003	04-08-1999 **07-18-1997** NONE 01.1	NAVFAC - SOUTHWEST DIVISION L. HORNECKER US FISH & WILDLIFE SERVICE M. NELSON	BIOLOGICAL MONITORING REPORTS INTERIM ACTIONS AT LANDFILL SITES	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053
M60050 / 002367 RPT NONE 00002	04-12-1999 **07-25-1997** NONE 01.1	NAVFAC - SOUTHWEST DIVISION L. HORNECKER US FISH & WILDLIFE SERVICE M. NELSON	BIOLOGICAL MONITORING REPORT (5-11 JUL 97), INTERIM ACTIONS AT LANDFILL SITES	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053

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M60050 / 001968 MM N68711-92-D-4670 00016	09-18-1997 **08-25-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	AUGUST 6, 1997, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	005 017 024 OU 1 OU 2A OU 3A	FRC - PERRIS IMAGED TORO_009	181-06-0125 30090141	BOX 0045
M60050 / 001990 CTO-0076/0600 RPT N68711-92-D-4670 00806	09-22-1997 **09-01-1997** 00076 04.2	BECHTEL NATIONAL, INC. T. LATAS VARIOUS AGENCIES	DRAFT FINAL PHASE II FEASIBILITY STUDY (FS) REPORT (SEE AR #3239 - DRAFT FS ADDENDUM, AR #3679 - DRAFT FINAL FS ADDENDUM, AND AR #3863 - FINAL FS ADDENDUM)	ADMIN RECORD INFO REPOSITORY	003 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0045
M60050 / 001991 CTO-0076/0601 RPT N68711-92-D-4670 00750	09-22-1997 **09-01-1997** 00076 04.2	BECHTEL NATIONAL, INC. T. LATAS VARIOUS AGENCIES	DRAFT FINAL PHASE II FEASIBILITY STUDY (FS) REPORT (SEE AR #3239 - DRAFT FS ADDENDUM, AR #3679 - DRAFT FINAL FS ADDENDUM, AND AR #3863 - FINAL FS ADDENDUM)	ADMIN RECORD INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0045

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M60050 / 001986 FAX NONE 00015	09-18-1997 **09-05-1997** NONE 01.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	ADVANCED SUBMITTAL OF FEDERAL FACILITIES AGREEMENT EXTENSION REQUEST FOR CHANGES TO THE DRAFT FINAL INTERIM RECORD OF DECISION (ROD) FOR OU 2A, OU 2B AND OU 2C	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_011	181-06-0125 BOX 0045 30090141
M60050 / 001994 RPT N68711-92-D-4670 00068	09-23-1997 **09-05-1997** 00076 10.1	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	RESPONSE TO COMMENTS ON DRAFT FINAL PHASE II FEASIBILITY STUDY REPORTS (VARIOUS DATES)	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_011	181-06-0125 BOX 0046 30090141

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M60050 / 002005 XMTL N68711-92-D-4670 00021	09-24-1997 **09-05-1997** 00076 01.6	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	TRANSMITTAL LETTER OF MODIFICATIONS TO DRAFT FINAL REMEDIAL INVESTIGATION REPORTS ON THE LANDFILLS AND RESPONSE TO COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORTS	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0046
M60050 / 001987 CORRESP NONE 00018	09-18-1997 **09-18-1997** NONE 01.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	SUBMITTAL OF FEDERAL FACILITIES AGREEMENT EXTENSION REQUEST FOR CHANGES IN THE DRAFT FINAL INTERIM RECORD OF DECISION (ROD) FOR OU 2A, OU 2B AND OU 2C (SEE AR #2662 - CRWQCB RESPONSE)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_011	181-06-0125 30090141	BOX 0045

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M60050 / 002015 CTO-0063/0638 XMTL N68711-92-D-4670 00018	09-24-1997 **09-18-1997** 00063 01.6	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	DRAFT PROPOSED PLAN, OPERABLE UNITS 2B AND 2C, CLOSURE OF INACTIVE LANDFILLS	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141 BOX 0046
M60050 / 002164 CTO-0076/0624 MM N68711-92-D-4670 00014	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	SEPTEMBER 20, 1995, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 025 BLDG. 296 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0049
M60050 / 002165 CTO-0076/0625 MM N68711-92-D-4670 00017	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	SEPTEMBER 27, 1995, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 025 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0049
M60050 / 002166 CTO-0076/0626 MM N68711-92-D-4670 00013	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	OCTOBER 4, 1995, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 025 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0049

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M60050 / 002167 CTO-0076/0627 MM N68711-92-D-4670 00023	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	OCTOBER 11, 1995, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 025	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002168 CTO-0076/0628 MM N68711-92-D-4670 00015	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	OCTOBER 28, 1995, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 025 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002169 CTO-0076/0629 MM N68711-92-D-4670 00026	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	OCTOBER 25, 1995,BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 024 025	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002170 CTO-0076/0630 MM N68711-92-D-4670 00011	04-15-1998 **10-28-1997** 00076 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	NOVEMBER 1, 1995,BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002022 LTR NONE 00001	11-21-1997 **11-03-1997** NONE 01.6	EPA SAN FRANCISCO G. KISTNER MCAS EL TORO J. JOYCE	NOTIFICATION THAT THE EPA HAS NO FURTHER COMMENTS ON THE DRAFT FINAL FEASIBILITY STUDY REPORTS FOR OPERABLE UNIT 2C, THE DOCUMENT IS APPROVED	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0046

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M60050 / 002028 LTR NONE 00005	11-21-1997 **11-03-1997** NONE 10.1	EPA SAN FRANCISCO G. KISTNER MCAS EL TORO J. JOYCE	COMMENTS ON THE DRAFT PROPOSED PLAN FOR CLOSURE OF INACTIVE LANDFILLS	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047
M60050 / 002047 CTO-0142/0129 MM N68711-92-D-4670 00006	12-16-1997 **11-05-1997** 00142 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	NOVEMBER 5, 1997, BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES	ADMIN RECORD	005 024 OU 2A OU 2C SWMU 46	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047
M60050 / 002029 LTR NONE 00015	11-21-1997 **11-17-1997** NONE 10.1	DTSC LONG BEACH T. MAHMOUND VARIOUS AGENCIES	COMMENTS ON DRAFT PROPOSED PLAN FOR OPERABLE UNIT 2B, SITES 2 & 17 AND OPERABLE UNIT 2C, SITES 3 & 5	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047
M60050 / 002030 MM N68711-92-D-4670 00020	11-21-1997 **11-19-1997** 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	COMMUNITY RELATIONS SUPPORT-RAB MEETING AGENDA AND PUBLIC NOTICE FOR 12/3/97 RAB MEETING RAB MEETING SEPTEMBER 24, 1997 MTG. MIN.(MAILER IN CONFIDTL.FILE)	ADMIN RECORD INFO REPOSITORY SENSITIVE	002 003 005 008 011 012 017 024 OU 2A OU 3A	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047

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M60050 / 002058 MISC NONE 00091	01-29-1998 **12-03-1997** NONE 10.4	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIAL/HANDOUTS INCLUDES: 12/3/97RAB MEETING AGENDA, PUB. NOTICE, SEPTEMBER 24, 1997 MTG MIN. RAB SIGN-IN SHEET & VARIOUS AGENCIES COMMENTS	ADMIN RECORD INFO REPOSITORY	002 003 005 008 011 012 017 024 OU 2A OU 2B OU 2C OU 3A	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047
M60050 / 002063 NONE MM N68711-92-D-4670 00003	01-30-1998 **12-09-1997** 00142 10.4	BECHTEL NATIONAL D.TEDALDI VARIOUS AGENCIES	09 DECEMBER 1997 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	002 003 007 014 017 018 024 OU 1 OU 2A	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047

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M60050 / 002068 LTR NONE 00018	01-30-1998 **12-30-1997** NONE 01.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	REQUEST FOR CHANGES TO THE FEDERAL FACILITIES AGREEMENT APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS (SEE AR #2672 - RESPONSE TO THIS REQUEST)	ADMIN RECORD	001 002 003 005 007 008 011 012 014 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_012	181-06-0125 BOX 0047 30090141
M60050 / 002056 LTR NONE 00001	01-29-1998 **01-07-1998** NONE 01.6	COUNTY OF ORANGE T. MATHEWS OMF LONG BEACH J. SCANDURA	DRAFT PROPOSED PLAN FOR FOUR LANDFILL SITES (LETTER REGARDING DRAFT PROPOSED PLAN)	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 BOX 0047 30090141

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M60050 / 002672 NONE LTR NONE 00001	05-29-2002 **01-07-1998** NONE	CRWQCB - RIVERSIDE L. VITALE MCAS EL TORO J. JOYCE	RESPONSE TO REQUEST FOR EXTENSIONS TO THE FEDERAL FACILITIES AGREEMENT APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS - RWQCB CONCURS WITH PROPOSED EXTENSION DATES (SEE AR #2068 - REQUEST)	ADMIN RECORD BASE	001 002 003 005 007 008 011 012 014 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062
M60050 / 002055 MISC N68711-92-D-4670 00024	01-29-1998 **01-21-1998** 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	JANUARY 28, 1998, RAB MEETING AGENDA,AND PUBLIC NOTICERAB AND NON RAB MEMBER SIGN-IN SHEET, DECEMBER 3, 1997MEETING MINUTES (MAILER IN CONFIDENTIAL FILE)	ADMIN RECORD INFO REPOSITORY SENSITIVE	001 002 003 004 005 017 OU 2B OU 2C OU 3A OU 3B	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0047
M60050 / 002071 CTO-0155/0061 PLAN N68711-92-D-4670 00019	02-23-1998 **01-27-1998** 00155 02.1	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	DRAFT FINAL PROPOSED PLAN, OPERABLE UNITS 2B AND 2C CLOSURE OF INACTIVE LANDFILLS, DATED MARCH 1998	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0048

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M60050 / 002205 CTO-0155/0062 XMTL N68711-92-D-4670 00033	05-07-1998 **01-27-1998** 00155 10.1	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	RESPONSE TO COMMENTS ON THE DRAFT PROPOSED PLAN STATION LANDFILLS OPERABLE UNITS 2B AND 2C (VARIOUS DATES)	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0050
M60050 / 002148 MM NONE 00051	03-30-1998 **01-28-1998** NONE 10.4	MCAS EL TORO PUBLIC	PUBLIC INFORMATION MATERIALS INCLUDES· JANUARY 28, 1998 AGENDA, PUBLIC NOTICE, DECEMBER 3, 1997 FINAL MTG. MINS., SIGN-IN SHEETS, MISC. AGENCIES COMMENTS	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 008 011 012 017 024 OU 2A OU 2B OU 2C OU 3A TANK 398	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002076 LTR NONE 00006	03-02-1998 **02-25-1998** NONE 01.6	DTSC LONG BEACH T. MAHMOUD VARIOUS AGENCIES	DRAFT FINAL PROPOSED PLAN FOR LANDFILL SITES (LETTER REGARDING DRAFT PROPOSED PLAN)	ADMIN RECORD	003 005	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0048
M60050 / 002144 LTR NONE 00006	03-30-1998 **02-25-1998** NONE 10.1	DTSC LONG BEACH T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON THE DRAFT FINAL PROPOSED PLAN FOR LANDFILL SITES	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049

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M60050 / 002147 CTO-0155/0086 MM N68711-92-D-4670 00024	03-30-1998 **03-12-1998** 00155 10.4	BECHTEL NATIONAL, INC. D. TEDALDI NAVFAC - SOUTHWEST DIVISION	BASEWIDE COMMUNITY RELATIONS SUPPORT-MARCH 25, 1998 RAB AGENDA, JANUARY 28, 1998 MEETING MINUTES, RAB SIGN-IN SHEETS (MAILER IN CONFIDENTIAL FILE)	ADMIN RECORD INFO REPOSITORY SENSITIVE	002 003 005 007 008 011 012 OU 2B OU 2C OU 3 OU 3A	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049
M60050 / 002193 MISC NONE 00066	05-07-1998 **03-25-1998** NONE 10.6	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIALS/HANDOUTS INCLUDES: RAB MTG. AGENDA, PUBLIC NOTICE, JANUARY 28, 1998 MTG. MIN.MISC. PRESENTATIONS,AGCY. COMMENTS (MAILER IN CONFID.)	ADMIN RECORD INFO REPOSITORY SENSITIVE	002 003 005 017 024 OU 1 OU 2A OU 3A	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0050
M60050 / 002187 CTO-0161/0016 XMTL N68711-92-D-4670 00005	05-07-1998 **04-02-1998** 00161 10.4	BECHTEL NATIONAL D.TEDALDI VARIOUS AGENCIES	BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) 23 FEBRUARY 1998 MEETING MINUTES	ADMIN RECORD	005	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0049

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M60050 / 002192 LTR NONE 00003	05-07-1998 **04-08-1998** NONE 01.6	DTSC - CYPRESS J. SCANDURA VARIOUS AGENCIES	REQUEST FOR EXTENSION TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULES	ADMIN RECORD	002 003 005 008 011 012 017 018 024 OU 1 OU 2A OU 3	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0050
M60050 / 002206 LTR NONE 00007	05-08-1998 **04-14-1998** NONE 01.6	COUNTY OF ORANGE C. WIERCIOCH MCAS EL TORO E.J. RICHIE	INITIAL QUESTIONS FROM EL TORO MASTER DEVELOPMENT PROGRAM REGARDING DON/USMC PROPOSED PLAN FOR LANDFILL SITES 2,3,5 & 7	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0050
M60050 / 002191 LTR NONE 00005	05-07-1998 **04-24-1998** NONE 01.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	LETTER REGARDING DTSC COMMENTS FOR INCLUSION IN THE FINAL PROPOSED PLAN FOR LANDFILL SITE 24 FILOT TEST UPDATE	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0049
M60050 / 002207 LTR NONE 00013	05-08-1998 **04-28-1998** NONE 10.1	MCAS EL TORO E.J. RITCHIE EL TORO MSTR.DEV C. WIERCIOCH	RESPONSE TO MCAS EL TORO INITIAL QUESTIONS REGARDING DON/USMC DRAFT FINAL PROPOSED PLAN FOR REMEDIATION LANDFILL	ADMIN RECORD	002 003 005 017	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141 BOX 0050
M60050 / 000420 CTO-0155/0146 PLAN N68711-92-D-4670 00074	04-19-2000 **05-01-1998** 155-2	BECHTEL NATIONAL, INC. D. TEDALDI NAVFAC - SOUTHWEST DIVISION	FINAL PROPOSED PLAN FOR CLOSURE OF INACTIVE LANDFILLS (MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD SENSITIVE	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141 BOX 0010

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M60050 / 002208 LTR NONE 00009	05-11-1998 **05-04-1998** NONE 01.6	DTSC - CYPRESS T. MAHMOUD MCAS EL TORO J. JOYCE	RESPONSE TO LETTER DATED APRIL 24, 1998 REGARDING DRAFT FINAL PROPOSED PLAN FOR LANDFILL SITES	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0050
M60050 / 002210 CTO-155/0123 XMTL N68711-92-D-4670 00073	05-11-1998 **05-11-1998** 155-2 01.1	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	FINAL PROPOSED PLAN, OPERABLE UNITS 2B AND 2C SITES 2, 3, 5, AND 17 CLOSURE OF INACTIVE LANDFILLS DATED MAY 1998 (PARTS OF CR & BASE HOUSING MAILING LISTS ARE CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0050
M60050 / 002292 NONE MTG MINS N68711-92-D-4670 00015	11-17-1998 **05-13-1998** 00161 10.4	BECHTEL NATIONAL D. TEDALDI NAVFAC - SOUTHWEST DIVISION T. BROUSSARD	05 MARCH 1998 MEETING MINUTES FOR THE MCAS EL TORO BASE REALIGNMENT AND CLOSURE (BRAC) OFFICE AND LOCAL REDEVELOPMENT AUTHORITY COORDINATION MEETING ON LANDFILL SITES {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD SENSITIVE	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0052
M60050 / 002220 MISC NONE 00042	07-21-1998 **05-27-1998** NONE 01.1	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIALS INCLUDES: RAB SCHEDULE MEETING ANNOUNCEMENT DTD MAY 27, 1998, PROPOSED PLAN CLOSURE OF INACTIVE LANDFILLS, LTRS (VAR.DTES) MISC.	ADMIN RECORD	002 003 005 017	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0050
M60050 / 002217 MISC NONE 00002	07-21-1998 **06-11-1998** NONE 01.1	LOS ANGELES TIMES GENERAL PUBLIC	PUBLIC NOTICE ANNOUNCEMENTS 18 JUNE 1998. PUBLIC MEETING REGARDING CLOSURE OF LANDFILLS [LOS ANGELES TIMES (ORANGE COUNTY EDITION) AND ORANGE COUNTY REGISTER]	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0050
M60050 / 002221 MISC NONE 00310	07-28-1998 **06-18-1998** NONE 01.1	MCAS EL TORO MEMBERS	PUBLIC INFORMATION MATERIALS, JUNE 18, 1998 PUB. MTG. PROPOSED PLAN-CLOSURE OF INACTIVE LANDFILLS, PUBLIC COMMENT FORMS, AND MISC. HANDOUTS	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0050

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M60050 / 002280 MM NONE 00223	09-24-1998 **06-18-1998** NONE 10.4	HAHN & BOWERSOCK J. BURGNER MCAS EL TORO	PUBLIC MEETING TRANSCRIPT, PROPOSED PLAN FOR CLOSURE OF INACTIVE LANDFILLS. PUBLIC COMMENT MEETING ON JUNE 18, 1998 (PUBLIC COMMENT FORMS IN CONFIDENTIAL FILE)	ADMIN RECORD SENSITIVE	005	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0052
M60050 / 003069 NONE LTR NONE 00002	05-03-2004 **07-12-1998** NONE	BL ASSOCIATES C. BENNETT NAVFAC - SOUTHWEST DIVISION J. JOYCE	COMMENTS ON PROPOSED PLAN - SOIL VAPOR EXTRACTION (SVE) FOR VADOSE ZONE	ADMIN RECORD BASE	002 003 005 017 024 OU 2A	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0070
M60050 / 003070 NONE LTR NONE 00002	05-03-2004 **07-12-1998** NONE	BL ASSOCIATES NAVFAC - SOUTHWEST DIVISION	COMMENTS ON THE LANDFILLS, REFERENCE TO THE DRAFT PHASE II FEASIBILITY STUDY (FS) REPORT	ADMIN RECORD BASE	003 005	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0070
M60050 / 002408 CTO-153/0065 RPT N68711-92-D-4670 01200	05-19-1999 **07-15-1998** 00153 03.3	BNI P. WIEGAND NAVFAC - SOUTHWEST DIVISION	DRAFT GROUNDWATER MONITORING PLAN (VOLUMES 1-2 OF 2)	ADMIN RECORD	002 003 005 017 018 024 OU 1 OU 2A OU 2B OU 2C	SOUTHWEST DIVISION - BLDG. 1 PROBLEM FILE CABINET		
M60050 / 002251 LTR NONE 00003	08-31-1998 **07-23-1998** NONE 01.6	DTSC S. FAIR MCAS EL TORO J. JOYCE	RESPONSE TO PROPOSED REMEDY FOR LANDIFLL SITES 3 & 5 ON STATION	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051

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M60050 / 002252 LTR NONE 00008	08-31-1998 **08-03-1998** NONE 01.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	REQUEST FOR CHANGE TO MCAS EL TORO FEDERAL FACILITY AGREEMENT (FFA)	ADMIN RECORD	002 003 005 017 OU 2A OU 2B	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051
M60050 / 002256 LTR NONE 00002	08-31-1998 **08-06-1998** NONE 01.6	DTSC J. SCANDURA MCAS EL TORO J. JOYCE	DTSC APPROVAL OF REQUEST FOR EXTENSION OF DEADLINE FORSUBMITTAL OF DRAFT ROD	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051
M60050 / 002257 LTR NONE 00001	08-31-1998 **08-10-1998** NONE 01.6	USEPA G. KISTNER MCAS EL TORO J. JOYCE	USEPA APPROVAL OF REQUEST FOR EXTENSION OF DEADLINE FOR SUBMITTAL OF DRAFT ROD FOR CLOSURE OF INACTIVE STATION LANDFILLS	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051
M60050 / 002254 MM N68711-92-D-4670 00020	08-31-1998 **08-11-1998** 00161 10.4	BECHTEL NATIONAL D. TEDALDI MCAS EL TORO J. JOYCE	MEETING MINUTES RE. MCAS EL TORO BRAC OFFICE AND LOCAL REDEVELOPMENT AUTHORITY COORDINATION MEETING ON LANDFILL SITES	ADMIN RECORD	002 003 017	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051

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M60050 / 002259 LTR NONE 00008	08-31-1998 **08-20-1998** NONE 01.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	REQUEST FOR CHANGES IN THE FEDERAL FACILITY AGREEMENT APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS (SEE AR #2690 - EPA APPROVAL, #2691 - DTSC APPROVAL, & #2692 - CRWQCB APPROVAL)	ADMIN RECORD	002 003 005 007 014 016 017 018 024 OU 1 OU 2A OU 3	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0051
M60050 / 003229 NONE RPT N68711-92-D-4670 00030	02-08-2005 **10-01-1998** 0161/0175	BECHTEL NATIONAL, INC. T. LATAS NAVFAC - SOUTHWEST DIVISION	DRAFT TECHNICAL MEMORANDUM FOR THE LANDFILL GAS EMISSIONS MODEL (LANDGEM)	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 002291 CTO-135/0170 MM N68711-92-D-4670 00008	10-07-1998 **10-07-1998** 00135 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	03 SEPTEMBER 1998 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD INFO REPOSITORY	002 003 005 008 011 012 017 024 OU 2A OU 2B OU 2C OU 3A	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0052

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M60050 / 002378 RPT NONE 00059	04-12-1999 **10-22-1998** NONE 1.1	DTSC - CYPRESS S. FAIR MCAS EL TORO J. JOYCE	DRAFT TECHNICAL MEMORANDUM, UNSAT-H INFILTRATION MODELING FOR LANDFILL COVERS	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0054
M60050 / 002295 NONE MISC NONE 00008	11-17-1998 **11-03-1998** NONE 01.1	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	FEDERAL FACILITY AGREEMENT (FFA) APPENDIX A SCHEDULE EXTENSION REQUEST FOR DRAFT RECORD OF DECISION, OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD SENSITIVE	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_016	181-06-0125 30090141	BOX 0052

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M60050 / 002296 LTR NONE 00001	11-17-1998 **11-06-1998** NONE 01.6	DTSC - CYPRESS J. SCANDURA MCAS EL TORO J. JOYCE	DTSC DISAPPROVAL OF REQUEST FOR EXTENSIONS TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULES FOR OPERABLE UNIT 2C DRAFT RECORD OF DECISION	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_016	181-06-0125 BOX 0052 30090141
M60050 / 002368 MISC NONE 00009	04-13-1999 **11-23-1998** NONE 10.1	DTSC - CYPRESS S. FAIR MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT TECHNICAL MEMORANDUM, UNSAT-H INFILTRATION MODELING FOR LANDFILL COVERS	ADMIN RECORD	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0053 30090141
M60050 / 002298 MM N68711-92-D-4670 00024	11-25-1998 **11-25-1998** 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RAB MEETING MAILER: AGENDA AND PUBLIC NOTICE FOR 12/2/98 RAB MEETING, RAB MEETING MINUTES, 9/30/98 RAB MEETING MINUTES (RAB MAILING LIST IN CONF. FILE)	ADMIN RECORD INFO REPOSITORY SENSITIVE	002 003 005 007 008 011 012 014 016 017 024 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0052 30090141
M60050 / 002302 MM N68711-92-D-4670 00035	12-22-1998 **12-01-1998** 00161 10.4	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	MINUTES FROM OCTOBER 22, 1998 COORDINATION MEETING FOR LANDFILL PROPOSED PLAN, WITH AGENDA, SIGN-IN SHEETS AND VARIOUS HANDOUTS	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0052 30090141

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M60050 / 002369 NONE LTR NONE 00002	04-12-1999 **12-08-1998** NONE 01.6	CA INTEGRATED WASTE MANAGEMENT M. WOCHNICK MCAS EL TORO J. JOYCE	LACK OF RESPONSE TO REQUESTS BY CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD TO BE COPIED ON ALL CORRESPONDENCE REGARDING EL TORO LANDFILLS	ADMIN RECORD	003 005	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053
M60050 / 002318 LTR NONE 00002	04-06-1999 **12-22-1998** NONE 01.1	DTSC - CYPRESS J. SCANDURA MCAS EL TORO J. JOYCE	DTSC REQUEST FOR AN ACTIVITY TO BE REMOVED FROM THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE WITH REQUEST FOR A RESUBMITTAL OF A REVISED SCHEDULE OF ACTIVITIES T		003 005 OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053
M60050 / 002320 LTR NONE 00002	04-06-1999 **12-22-1998** NONE 01.6	EPA SAN FRANCISC G. KISTNER MCAS EL TORO J. JOYCE	EPA RESPONSE TO REQUEST FOR FEDERAL FACILITIES AGREEMENT (FFA) SCHEDULE EXTENSION, SITES 3 AND 5 LANDFILLS		003 005	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053
M60050 / 000200 NONE LTR NONE 00002	11-19-1999 **02-15-1999** NONE 01.6	LAKE FOREST COUNCIL MEMBER M. RUDOLF US SENATOR D. FEINSTEIN	QUESTIONS AND CONCERNS REGARDING FOUR LANDFILLS	ADMIN RECORD	002 003 005 017	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0006
M60050 / 002391 MTG N68711-92-D-4670 00016	04-13-1999 **02-25-1999** 00161 10.4	BECHTEL NATIONAL, INC. G. STEINWAY VARIOUS AGENCIES	BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING MINUTES REGARDING: LANDFILL STATUS, GROUNDWATER MONITORING PLAN, AND PERCHLORATE RESULTS. DTD JANUARY 21, 1999	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0054

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M60050 / 002717 CERT. MAIL NO. P115386417 LTR NONE 00005	06-04-2002 **03-08-1999** NONE	MCAS EL TORO J. JOYCE US EPA - SAN FRANCISCO G. KISTNER	REQUEST FOR CHANGES TO FEDERAL FACILITIES AGREEMENT SCHEDULE FOR PRIMARY DOCUMENTS, SCHEDULE FOR OPERABLE UNIT 2C AGREED UPON DURING 4 MARCH 1999 BCT PHONE CONFERENCE, WITH ADDDITIONAL EXTENSION REQUEST FOR OPERABLE UNITS 2B AND 3 W/ENCLOSURE	ADMIN RECORD BASE	002 003 005 007 008 011 012 014 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 BOX 0062 30090141
M60050 / 002718 CERT. MAIL NO. P115386418 LTR NONE 00005	06-04-2002 **03-08-1999** NONE	MCAS EL TORO J. JOYCE DTSC - CYPRESS J. SCANDURA	REQUEST FOR CHANGES TO FEDERAL FACILITIES AGREEMENT SCHEDULE FOR PRIMARY DOCUMENTS, SCHEDULE FOR OPERABLE UNIT 2C AGREED UPON DURING 4 MARCH 1999 BCT PHONE CONFERENCE, WITH ADDDITIONAL EXTENSION REQUEST FOR OPERABLE UNITS 2B AND 3 W/ENCLOSURE	ADMIN RECORD BASE	002 003 005 007 008 011 012 014 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 BOX 0062 30090141

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M60050 / 002719 CERT. MAIL NO. P115386419 LTR NONE 00005	06-04-2002 **03-08-1999** NONE	MCAS EL TORO J. JOYCE CRWQCB - RIVERSIDE P. HANNON	REQUEST FOR CHANGES TO FEDERAL FACILITIES AGREEMENT SCHEDULE FOR PRIMARY DOCUMENTS, SCHEDULE FOR OPERABLE UNIT 2C AGREED UPON DURING 4 MARCH 1999 BCT PHONE CONFERENCE, WITH ADDDITIONAL EXTENSION REQUEST FOR OPERABLE UNITS 2B AND 3 W/ENCLOSURE	ADMIN RECORD BASE	002 003 005 007 008 011 012 014 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062
M60050 / 002393 CTO-0135/0221 RPT N68711-92-D-4670 00387	03-13-1999 **03-11-1999** 00135/0221 05.0	BECHTEL NATIONAL, INC. D. TEDALDI NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT RECORD OF DECISION (ROD) FOR OPERABLE UNIT (OU) 2C AND LANDFILL SITES 3 & 5 [SEE AR #3679 - DRAFT FINAL FEASIBILITY STUDY ADDENDUM]	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0074
M60050 / 002372 LTR NONE 00004	04-12-1999 **03-12-1999** NONE 05.0	DTSC S. FAIR MCAS EL TORO J. JOYCE	REQUEST FOR LAND USE COVENANT FOR LANDFILL RECORD OF DECISION		003 005	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0053
M60050 / 000003 NONE LTR NONE 00056	08-03-1999 **03-16-1999** NONE 03.6	SPORTS ENVIRONMENTAL R. LENEKER NAVFAC - SOUTHWEST DIVISION D. DEMARS	PRELIMINARY DRAFT HISTORICAL RADIOLOGICAL ASSESSMENT	ADMIN RECORD	001 002 003 005 008 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_010	181-06-0125 30090141	BOX 0001

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M60050 / 000457 FWSD-RAC-99-0193 PLAN N68711-98-D-5713 00074	06-29-2000 **04-14-1999** 00005	FOSTER WHEELER ENVIRONMENTAL D. DIRKIN NAVFAC - SOUTHWEST DIVISION	DRAFT WORK PLAN - GEOTECHNICAL EVALUATION OF BORROW SOURCE FOR LANDFILL COVERS	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0011
M60050 / 000459 FWSD-RAC-99-0195 PLAN N68711-98-D-5713 00052	06-29-2000 **04-14-1999** 00005	FOSTER WHEELER ENVIRONMENTAL R. MARGOTTO NAVFAC - SOUTHWEST DIVISION	DRAFT SITE-SPECIFIC HEALTH AND SAFETY PLAN - GEOTECHNICAL EVALUATION OF BORROW SOURCES FOR LANDFILL COVERS	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141	BOX 0011
M60050 / 002403 CTO-0170/0140 RPT N68711-92-D-4670 00182	05-03-1999 **04-16-1999** 00171 01.4	BECHTEL NATIONAL, INC. J. WIEGAND NAVFAC - SOUTHWEST DIVISION	DRAFT EVALUATION OF PERCHLORATE IN GROUNDWATER (SEE AR #32 - EPA COMMENTS, #2707 - DTSC COMMENTS, #2708 - CRWQCB COMMENTS, & #57 - RESPONSE TO COMMENTS)	ADMIN RECORD	001 002 003 005 017 018 024	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0054
M60050 / 002405 CTO-135/0238 MISC N68711-92-D-4670 00159	05-03-1999 **04-21-1999** 00135 10.1	BECHTEL NATIONAL, INC. D. TEDALDI VARIOUS AGENCIES	DRAFT RESPONSIVENESS SUMMARY ASSOCIATED WITH THE RECORD OF DECISION FOR OU-2C - LANDFILL SITES 3 AND 5	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0054

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M60050 / 002410 MISC NONE 00065	05-19-1999 **04-21-1999** NONE 10.4	MCAS EL TORO RAB MEMBERS	PUBLIC INFORMATION MATERIALS: PUBLIC NOTICE AND AGENDA FOR 4/21/99 RAB MEETING, MINUTES FROM 1/27/99 RAB MEETING AND VARIOUS HANDOUTS	ADMIN RECORD	002 003 005 008 011 012 017 OU 2B OU 2C OU 3A	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0054

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M60050 / 002406 LTR NONE 00008	05-03-1999 **04-29-1999** NONE 03.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	REQUEST FOR CHANGES IN FEDERAL FACILITY AGREEMENT SCHEDULE - THIRTY DAY EXTENSION FOR SUBMITTAL OF THE DRAFT FINAL PROPOSED PLAN FOR OPERABLE UNITS 1 AND 2A GROUNDWATER REMEDIATION (SEE AR #2705 - DTSC RESPONSE)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0054 30090141
M60050 / 000055 NONE RPT NONE 00082	08-04-1999 **05-01-1999** NONE 03.4	SUPERVISOR SHIPBUILDING NAVFAC - SOUTHWEST DIVISION	DRAFT HISTORICAL RADIOLOGICAL ASSESSMENT AT SITES 3, 5 AND 8 (COMMENTS CAN BE REFERENCED AT AR #356)	ADMIN RECORD	003 005 008	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0002 30090141

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M60050 / 000461 FWSD-RAC-99-0228 PLAN N68711-98-D-5713 00082	06-29-2000 **05-07-1999** 00005	FOSTER WHEELER ENVIRONMENTAL D. DIRKIN NAVFAC - SOUTHWEST DIVISION	FINAL WORK PLAN - GEOTECHNICAL EVALUATION OF BORROW SOURCE FOR LANDFILL COVERS	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0011
M60050 / 000463 FWSD-RAC-99-0247 PLAN N68711-98-D-5713 00052	06-29-2000 **05-07-1999** 00005	FOSTER WHEELER ENVIRONMENTAL R. MARGOTTO NAVFAC - SOUTHWEST DIVISION	FINAL SITE-SPECIFIC HEALTH AND SAFETY PLAN - GEOTECHNICAL EVALUATION OF BORROW SOURCES FOR LANDFILL COVERS	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141	BOX 0011
M60050 / 002707 NONE LTR NONE 00003	06-03-2002 **05-18-1999** NONE	DTSC - CYPRESS T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT REPORT EVALUATION OF PERCHLORATE IN GROUNDWATER (SEE AR #2403 - EVALUATION & #57 - RESPONSE TO COMMENTS)	ADMIN RECORD BASE	001 002 003 005 017 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062
M60050 / 002708 NONE LTR NONE 00001	06-03-2002 **05-20-1999** NONE	CRWQCB - RIVERSIDE P. HANNON MCAS EL TORO J. JOYCE	WATER BOARD CONCURS WITH DRAFT EVALUATION OF PERCHLORATE IN GROUNDWATER BUT REQUESTS FURTHER INVESTIGATION AT THE EXPLOSIVE ORDNANCE DISPOSAL RANGE (SEE AR #2403 - EVALUATION & #57 - RESPONSE TO COMMENTS)	ADMIN RECORD BASE	001 002 003 005 017 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062

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M60050 / 000032 NONE LTR NONE 00003	08-04-1999 **06-03-1999** NONE 10.1	US EPA REGION IX G. KISTNER MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT EVALUATION OF PERCHLORATE IN GROUNDWATER (SEE AR #2403 - EVALUATION & #57 - RESPONSE TO COMMENTS)	ADMIN RECORD	003 016 018	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0001 30090141
M60050 / 000077 CTO-0153/0135 RPT N68711-92-D-4670 01200	08-04-1999 **06-07-1999** 00153 03.4	BECHTEL NATIONAL, INC. J. WIEGAND NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL CERCLA GROUNDWATER MONITORING PLAN, VOLUMES 1 AND 2	ADMIN RECORD	002 003 005 017 018 024 OU 1 OU 2 OU 3	SOUTHWEST DIVISION - BLDG. 1 PROBLEM FILE CABINET	
M60050 / 000054 NONE LTR NONE 00003	08-04-1999 **06-08-1999** NONE 10.1	DTSC - CYPRESS M. MINGAY NAVFAC - SOUTHWEST DIVISION	AGENCY RESPONSE TO PUBLIC PARTICIPATION COMMENTS ON RESPONSIVENESS SUMMARY FOR PROPOSED PLAN (SEE AR #2393 - DRAFT ROD)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0002 30090141
M60050 / 000053 NONE LTR NONE 00004	08-04-1999 **06-14-1999** NONE 10.1	US EPA REGION IX G. KISTNER MCAS EL TORO J. JOYCE	US EPA COMMENTS ON DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 (SEE AR #2393)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0002 30090141
M60050 / 000045 NONE LTR NONE 00003	08-04-1999 **06-17-1999** NONE 05.2	CRWQCB P. HANNON EL TORO J. JOYCE	COMMENTS ON DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 (SEE AR #2393)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0002 30090141

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M60050 / 000048 NONE LTR NONE 00022	08-04-1999 **06-17-1999** NONE 05.2	EL TORO MASTER DEVELOPMENT PRO C. WIERCIOCH MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 (SEE AR #2393)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0002
M60050 / 000049 NONE LTR NONE 00002	08-04-1999 **06-17-1999** NONE 05.2	CA INTEGRATED WASTE MANAGEMENT M. WHOCHNIK MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 (SEE AR #2393)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0002
M60050 / 000052 NONE LTR NONE 00004	08-04-1999 **06-17-1999** NONE 05.2	DTSC - CYPRESS T. MAHMOUD MCAS EL TORO J. JOYCE	COMMENTS ON DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 (SEE AR #2393)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_010	181-06-0125 30090141	BOX 0002
M60050 / 000070 CTO-0171/0217 RPT N68711-92-D-4670 00186	08-04-1999 **07-01-1999** 00171 03.4	BECHTEL NATIONAL, INC. J. WIEGAND NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL EVALUATION OF PERCHLORATE IN GROUNDWATER (SEE AR #404 - EPA COMMENTS)	ADMIN RECORD	001 002 003 005 016 017 018 024	FRC - PERRIS IMAGED TORO_010	181-06-0125 30090141	BOX 0002
M60050 / 002728 NONE CORRESP NONE 00005	06-04-2002 **07-15-1999** NONE	DEPT OF HEALTH SERVICES D. BAILEY DTSC - CYPRESS T. MAHMOUD	TRANSMITTAL OF COMMENTS ON THE TECHNICAL MEMORANDUM, *RADIONUCLIDES IN GROUNDWATER* (COMMENTS ON THE TECHNICAL MEMORANDUM WAS NOT SUBMITTED TO ADMINISTRATIVE RECORDS)	ADMIN RECORD BASE	002 003 005 017 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_026	181-06-0125 30090141	BOX 0062

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M60050 / 000057 CTO-0171/0129 LTR N68711-92-D-4670 00005	08-04-1999 **07-23-1999** 00171 03.3	BECHTEL NATIONAL, INC. T. HEIRONIMUS NAVFAC - SOUTHWEST DIVISION	COMPILED RESPONSE TO REGULATOR COMMENTS ON THE DRAFT EVALUATION OF PERCHLORATE IN GROUNDWATER (SEE AR #32 - EPA COMMENTS, #2707 - DTSC COMMENTS, & #2708 - CRWQCB COMMENTS)	ADMIN RECORD	001 002 003 005 017	FRC - PERRIS IMAGED TORO_010	181-06-0125 BOX 0002 30090141
M60050 / 000134 NONE MISC NONE 00118	09-09-1999 **07-28-1999** NONE 10.4	EL TORO RAB RAB MEMBERS	PUBLIC INFORMATION MATERIALS FROM 7/28/99 RESTORATION ADVISORY BOARD MEETING WITH 5/26/99 RAB MEETING MINUTES AND VARIOUS HANDOUTS (PORTION OF MAILING LIST AND SIGN-IN-SHEETS ARE CONFIDENTIAL)	ADMIN RECORD SENSITIVE	001 002 003 005 008 012 017 024 OU 1 OU 2A OU 3	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0005 30090141
M60050 / 000137 CTO-0155/0563 MM N68711-92-D-4670 00020	09-09-1999 **08-04-1999** 00155 10.4	BECHTEL NATIONAL INC T. HEIRONIMUS VARIOUS AGENCIES	RESTORATION ADVISORY BOARD SUBCOMMITTEE MEETING MINUTES AND RAB MEMBER DOCUMENT COMMENTS PRESENTED AT THE 7/28/99 RAB MEETING	ADMIN RECORD	001 002 003 005 008 012 017 018 024	FRC - PERRIS IMAGED TORO_013	181-06-0125 BOX 0005 30090141
M60050 / 000140 FWSD-RAC-99-0477 RPT N68711-98-D-5713 00282	09-09-1999 **08-12-1999** 00005 03.4	FOSTER-WHEELER ENVIRONMENTAL N. HART NAVFAC - SOUTHWEST DIVISION R. LOVERING	DRAFT TECHNICAL MEMORANDUM. REPORT OF FINDINGS FROM GEOTECHNICAL EVALUATION OF BORROW SOURCES FOR LANDFILL COVERS	ADMIN RECORD	002 003 005 017	FRC - PERRIS IMAGED TORO_013	181-06-0125 BOX 0005 30090141

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M60050 / 000123 NONE LTR NONE 00008	09-09-1999 **08-17-1999** NONE 03.6	MCAS EL TORO J. JOYCE VARIOUS AGENCIES	REQUEST FOR CHANGE TO THE FEDERAL FACILITIES AGREEMENT APPENDIX A SCHEDULE DUE TO THE NEED FOR A RADIOLOGICAL SURVEY OF LANDFILL SITES	ADMIN RECORD	003 005	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0005
M60050 / 000404 NONE LTR NONE 00002	04-18-2000 **08-23-1999** NONE	U.S. EPA, SAN FRANCISCO, CA G. KISTNER NAVFAC - SOUTHWEST DIVISION D. GOULD	COMMENTS ON THE DRAFT FINAL EVALUATION OF PERCHLORATE IN GROUNDWATER DATED JULY 1999 (SEE AR #70 - EVALUATION)	ADMIN RECORD	001 002 003 005 017 018 024	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0010
M60050 / 000238 NONE RPT NONE 00102	12-27-1999 **10-01-1999** NONE 01.1	NAVFAC - SOUTHWEST DIVISION D. GOULD VARIOUS AGENCIES	DRAFT FINAL HISTORICAL RADIOLOGICAL ASSESSMENT (HRA) (COMMENTS CAN BE REFERENCED AT AR #355 AND #468)	ADMIN RECORD	001 002 003 005 008 012 017 025	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0007
M60050 / 000358 NONE LTR NONE 00009	04-13-2000 **11-04-1999** NONE	U.S EPA, SAN FRANCISCO, CA G. KISTNER NAVFAC - SOUTHWEST DIVISION D. GOULD	COMMENTS ON DRAFT PHASE II REMEDIAL INVESTIGATION REPORT, ATTACHMENTS O AND P DATED 9/7/99 (WITH ATTACHMENT) {SEE AR #143 - REPORT}	ADMIN RECORD INFO REPOSITORY	002 003 005 007 014 017 OU 2B OU 2C OU 3A OU 3B	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0009

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M60050 / 000211 SW7386 MISC N68711-93-D-1459 00028	11-22-1999 **11-16-1999** DO 65 01.1	OHM REMEDIATION CORP MCAS EL TORO D. GOULD	DEMONSTRATION PROJECT UPDATE, ENVIRONMENTAL LOCATIONS OF CONCERN AND OTHER FEATURES	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0006
M60050 / 000409 NONE MM NONE 00004	04-19-2000 **11-19-1999** NONE	KENNEDY/JENKS CONSULTANTS R. OUELLETTE BECHTEL NATIONAL, INC. B. COLEMAN	RESTORATION ADVISORY BOARD (RAB) TECHNICAL REVIEW SUBCOMMITTEE MEETING MINUTES FROM OCTOBER 27, 1999	ADMIN RECORD	003 BLDG. 296	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0010

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M60050 / 000410 NONE MM NONE 00004	04-19-2000 **11-19-1999** NONE	KENNEDY/JENKS CONSULTANTS R. OUELLETTE BECHTEL NATIONAL, INC. B. COLEMAN	RESTORATION ADVISORY BOARD (RAB) TECHNICAL REVIEW SUBCOMMITTEE MEETING MINUTES FROM SEPTEMBER 8, 1999	ADMIN RECORD	001 003 005 024 BLDG. 296	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0010
M60050 / 000411 NONE MM NONE 00004	04-19-2000 **11-19-1999** NONE	KENNEDY/JENKS CONSULTANTS R. OUELLETTE BECHTEL NATIONAL, INC. B. COLEMAN	RESTORATION ADVISORY BOARD (RAB) TECHNICAL REVIEW SUBCOMMITTEE MEETING MINUTES FROM APRIL 28, 1999	ADMIN RECORD	003 005	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0010
M60050 / 000354 NONE LTR NONE 00002	04-13-2000 **11-29-1999** NONE	EL TORO MASTER DEVELOPMNT PROG M. LAPIN NAVFAC - SOUTHWEST DIVISION D. GOULD	COMMENTS ON WORKING DRAFT FINAL RECORD OF DECISION (ROD) (REF. #75, 201, 215, 218, 330, 344, 345, 359, 424, 425)	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0009

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M60050 / 000350 NONE MM NONE 00152	04-13-2000 **12-01-1999** NONE	VARIOUS NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FROM THE DECEMBER 1, 1999 RESTORATION ADVISORY BOARD (RAB) MEETING (PORTIONS OF MAILING LIST ARE CONFIDENTIAL - RAB AGENDA & MEETING MINUTES FROM 9/29/99 CAN BE REFERENCED AT REF. #243)	ADMIN RECORD SENSITIVE	001 002 003 005 007 008 011 012 014 016 017 018 024 APHO 10 APHO 28 APHO 30 APHO 35 APHO 37 APHO 41 APHO 8 APHO 9 BLDG. 296 BLDG. 297 BLDG. 368 BLDG. 47 OU 1 OU 2A OU 2B OU 2C OU 3 OU 3B SWMU 46 UST 278 UST 298A UST 298B	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0009 30090141

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					UST 380		
					UST 388B		
					UST 390		
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					UST 637		
					UST 651		
					UST 673		
					UST 800		
					UST 891A		
					UST 891B		
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M60050 / 000233 NONE PLAN NONE 00146	12-27-1999 12-14-1999 NONE 03.3	MCAS EL TORO BCT VARIOUS AGENCIES	DRAFT BASE REALIGNMENT AND CLOSURE BUSINESS PLAN (REFERENCE AR #296 COMMENTS ON DRAFT BRAC BUSINESS PLAN, AR #311 - FINAL BRAC BUSINESS PLAN; AR #313 RESPONSE TO COMMENTS ON DRAFT BRAC BUSINESS PLAN)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0007 30090141

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M60050 / 000273 NONE CORRESP NONE 00008	03-15-2000 **12-15-1999** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD RAB, COMMITTEE CHAIRMAN G. HURLEY	RESPONSE TO RESTORATION ADVISORY BOARD (RAB) COMMITTEE CHAIRMAN COMMENTS DATED 11/2/99, TO THE BASE REALIGNMENT AND CLOSURE (BRAC) PLAN (REFERENCE AR #377 - COMMENTS BY TECHNICAL REVIEW COMMITTEE & AR #2392 BRAC CLEANUP PLAN)	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0008
M60050 / 000265 SWDIV SER 06CC.KF/0780 LTR NONE 00020	03-09-2000 **12-21-1999** NONE	NAVFAC - SOUTHWEST DIVISION D. SAKAMOTO DTSC, CYPRESS, CA J. SCANDURA	LAND USE COVENANT AGREEMENTS AND RECORDS OF DECISION (RODS). (WITH ENCLOSURES) - (RESPONSE TO 12/21/99 LETTER TO DTSC CAN BE REFERENCED AT REF. #349)	ADMIN RECORD INFO REPOSITORY	002 003 005 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0008

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M60050 / 001809 MISC NONE 00001	03-21-1997 **01-01-2000** NONE 10.1	NAVFAC - SOUTHWEST DIVISION ORANGE COUNTY HEALTH DEPT	RESPONSE TO COUNTY OF ORANGE HEALTH CARE AGENCY COMMENTS OF MARCH 14, 1988 ON THE VERIFICATION STEP PLAN OF ACTION FOR CONFIRMATION STUDY (SEE AR #1808)	ADMIN RECORD	001 005 007	FRC - PERRIS IMAGED TORO_012	181-06-0125 30090141	BOX 0042
M60050 / 000343 NONE LTR NONE 00001	04-12-2000 **01-04-2000** NONE	U.S. EPA, SAN FRANCISCO, CA G. KISTNER BL ASSOCIATES C. BENNETT	RESPONSE TO LETTER DATED 11/11/99 - REGARDING THE PROPOSED REMEDY FOR THE LANDFILLS AND SPECIFICALLY, THE PRESENCE OF RADIONUCLIDES IN AND AROUND THE LANDFILLS	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0009
M60050 / 000432 NONE MM NONE 00002	04-26-2000 **01-12-2000** NONE	KENNEDY/JENKS CONSULTANTS R. OUELLETTE NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) TECHNICAL REVIEW SUBCOMMITTEE MEETING MINUTES FROM JANUARY 12, 2000	ADMIN RECORD	002 005	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0010
M60050 / 000349 NONE LTR NONE 00002	04-13-2000 **01-18-2000** NONE	DTSC - CYPRESS J. SCANDURA NAVFAC - SOUTHWEST DIVISION D. SAKAMOTO	RESPONSE TO LETTER DATED 12/21/99 - REGARDING DTSC'S REQUIREMENTS FOR LAND USE COVENANTS AND PROPOSED LANGUAGE FOR RECORDS OF DECISION (ROD) AT NAVY BASES - (LETTER DATED 12/21/99 CAN BE REFERENCED AT REF. #265)	ADMIN RECORD INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0009

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M60050 / 000296 NONE LTR NONE 00008	04-04-2000 01-19-2000 NONE	COUNTY OF ORANGE M. LAPIN NAVFAC - SOUTHWEST DIVISION D. GOULD	COMMENTS ON THE DECEMBER 1999 DRAFT BASE REALIGNMENT AND CLOSURE BUSINESS PLAN (WITH ENCLOSURE) (REFERENCE AR #233 - DRAFT BRAC BUSINESS PLAN, AR #311 FINAL BRAC BUSINESS PLAN; AR #313 RESPONSE TO COMMENTS ON DRAFT BRAC BUSINESS PLAN)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0008

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M60050 / 000321 NONE LTR NONE 00005	04-10-2000 **01-24-2000** NONE	DTSC - CYPRESS T. CHESNEY NAVFAC - SOUTHWEST DIVISION D. GOULD	REVIEW OF THE DRAFT BASE REALIGNMENT AND CLOSURE (BRAC) BUSINESS PLAN, DATED DECEMBER 1999	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0009 30090141
M60050 / 000438 NONE MISC NONE 00004	04-26-2000 **01-26-2000** NONE	BL ASSOCIATES C. BENNETT NAVFAC - SOUTHWEST DIVISION	STUDY OF GROSS ALPHA RESPONSES IN THE AREA OF SITE 2 AND SITE 5 AND THE AREA BETWEEN	ADMIN RECORD	002 005 017	FRC - PERRIS IMAGED TORO_013	181-06-0125 BOX 0010 30090141

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M60050 / 000313 NONE LTR NONE 00016	04-07-2000 **02-18-2000** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD CRWQCB - RIVERSIDE P. HANNON	RESPONSES TO COMMENTS ON THE DRAFT BASE REALIGNMENT AND CLOSURE (BRAC) PLAN OF DECEMBER 1999 (REFERENCE AR #233 - 12/99 DRAFT BRAC BUSINESS PLAN; AR #296 - COMMENTS ON 12/99 DRAFT BRAC BUSINESS PLAN; & AR #311 - FINAL BRAC BUSINESS PLAN)	ADMIN RECORD	002 003 005 017 025 OU 2A OU 2B	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0008
M60050 / 000304 NONE RPT N62742-94-D-0048 00069	*04-05-2000* **03-01-2000** 00072	EARTH TECH, INC. VARIOUS AGENCIES	DRAFT TECHNICAL MEMORANDUM EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE. (ALSO ENCLOSED-COVER LETTER TO VARIOUS AGENCIES) [SEE AR #2732 - DHS COMMENTS]	ADMIN RECORD	001 002 003 005 017	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0008

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M60050 / 000311 SW8053 PLAN N68711-93-D-1459 00146	04-06-2000 **03-01-2000** DO 65	OHM REMEDIATION NAVFAC - SOUTHWEST DIVISION	BASE REALIGNMENT AND CLOSURE (BRAC) BUSINESS PLAN (REFERENCE AR #233 - DRAFT BRAC BUSINESS PLAN; AR #296 - COMMENTS ON DRAFT BRAC BUSINESS PLAN; AR #313 - RESPONSE TO COMMENTS ON DRAFT BRAC BUSINESS PLAN)	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 BLDG. 656 BLDG. 791 BLDG. 83 BLDG. 839 BLDG. 873 OU 1 OU 2 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0008 30090141

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M60050 / 000484 SWDIV SER 06CC.DG/194/195/19 6 LTR NONE 00008	07-14-2000 **03-17-2000** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD USEPA, DTSC, CRWQCB VARIOUS AGENCIES	LETTERS REQUESTING AN EXTENSION TO THE FEDERAL FACILITY AGGREEMENT (FFA) APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS FOR OPERABLE UNIT 2C (SEE AR #375 - EPA RESPONSE, #400 - DTSC RESPONSE))	ADMIN RECORD INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0011
M60050 / 000400 NONE LTR NONE 00002	04-18-2000 **03-24-2000** NONE	DTSC - CYPRESS J. SCANDURA NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO 3/17/00 REQUEST FOR EXTENSION TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE (SEE AR #484 - EXTENSION REQUEST)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0010
M60050 / 000375 NONE LTR NONE 00001	04-17-2000 **03-28-2000** NONE	U.S. EPA SAN FRANCISCO G. KISTNER NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO NAVY'S FEDERAL FACILITIES AGREEMENT (FFA) SCHEDULE EXTENSION REQUEST DATED 3/17/00 (SEE AR #484 - EXTENSION REQUEST)	ADMIN RECORD	003 005 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0010
M60050 / 000360 CTO-0200/0054 MM N68711-92-D-4670 00046	04-13-2000 **03-29-2000** 00200	BECHTEL NATIONAL INC NAVFAC - SOUTHWEST DIVISION R. SELBY	RESTORATION ADVISORY BOARD (RAB) MEETING AGENDA OF 29 MAR 2000 INCLUDES MEETING MINUTES OF 26 JAN 2002, MEETING MINUTES OF 27 OCT 1999, MEETING MINUTES OF 12 JAN 2000, VARIOUS HANDOUTS AND MAILING LIST (MAIL LIST PARTIALLY CONFIDENTIAL)	ADMIN RECORD SENSITIVE	001 002 003 005 017 BLDG. 242 BLDG. 243 OU 1	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0009

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M60050 / 000346 NONE MEMO NONE 00042	04-13-2000 **04-10-2000** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD NAVFAC - SOUTHWEST DIVISION	INCLUSION INTO THE ADMINISTRATIVE RECORD, THE MEMORANDUM OF AGREEMENT BETWEEN THE UNITED STATES DEPARTMENT OF THE NAVY AND THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL	ADMIN RECORD INFO REPOSITORY	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0009
M60050 / 002732 NONE MEMO NONE 00005	06-04-2002 **04-20-2000** NONE	DEPT. OF HEALTH SERVICES D. BAILEY DTSC - CYPRESS T. CHESNEY	COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE	ADMIN RECORD BASE	001 002 003 005 017 OU 1 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062

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M60050 / 000449 NONE MISC NONE 00114	06-26-2000 **05-01-2000** NONE	ROY F. WESTON, INC. B. CHRISTENSEN NAVFAC - SOUTHWEST DIVISION	FINAL HISTORICAL RADIOLOGICAL ASSESSMENT (HRA)	ADMIN RECORD INFO REPOSITORY	001 002 003 005 008 012 017 AOC 264 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 295 BLDG. 296 BLDG. 297 BLDG. 319 BLDG. 360 BLDG. 787	FRC - PERRIS IMAGED TORO_013	181-06-0125 30090141	BOX 0011
M60050 / 000454 CTO-0200/0075 MM N68711-92-D-4670 00046	06-29-2000 **05-31-2000** 00200	BECHTEL NATIONAL INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA AND PUBLIC NOTICE FOR 31 MAY 2000 MEETING & MINUTES AND ATTACHMENTS FROM THE 29 MAR 2000 RAB MEETING (INCLUDES MAILING LIST - PORTIONS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	002 003 005 007 014 016 017 018 024 BLDG. 295 BLDG. 296 BLDG. 297	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0011

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M60050 / 000531 NONE MISC NONE 00001	10-04-2000 **05-31-2000** NONE	RAB SUBCOMMITTEE CHAIR C. BENNETT NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) SUBCOMMITTEE REQUEST FOR HERB LEVINE, US EPA, TO ATTEND 5/31/00 RAB MEETING TO ANSWER QUESTIONS DURING THE REGULATORY AGENCY PORTION OF MEETING	ADMIN RECORD	001 002 005 018 024	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0012 30090141
M60050 / 000525 NONE XMTL NONE 00003	09-06-2000 **06-12-2000** NONE	NAVFAC - SOUTHWEST DIVISION L. HORNECKER VARIOUS BCT MEMBERS	PROPOSED WELL CONSTRUCTION PROCEDURES FOR REPLACEMENT MONITORING WELLS	ADMIN RECORD	003 005 012 024	FRC - PERRIS IMAGED TORO_014	181-06-0125 BOX 0012 30090141
M60050 / 002524 SW8664 MISC N68711-93-D-1459 00029	09-19-2001 **06-13-2000** DO 70	GEOVISION GEOPHYSICAL SERVICES NAVFAC - SOUTHWEST DIVISION L. HORNECKER	GEOPHYSICAL INVESTIGATION - AERIAL PHOTOGRAPHIC ANOMALY AREA 46 (PREPARED FOR OHM BY GEOVISION)	ADMIN RECORD BASE	005 APHO 46 OU 2C	FRC - PERRIS IMAGED TORO_019	181-06-0125 BOX 0058 30090141
M60050 / 000711 GS-10F-0227J RPT N68711-00-F-0102 01407	03-05-2001 **06-30-2000** NONE	CDM FEDERAL PROGRAMS CORP. D. BJOSTAD NAVFAC - SOUTHWEST DIVISION	GROUNDWATER MONITORING DATA SUMMARY REPORT - 1999 MONITORING ROUNDS 9, 10, & 11 (SEE AR #655 - EPA COMMENTS, #656 - CRWQCB COMMENTS, & #758 - DTSC COMMENTS)	ADMIN RECORD BASE	002 003 005 018 024	FRC - PERRIS IMAGED TORO_018	181-06-0125 BOX 0018 30090141

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M60050 / 000498 CTO-0200/0095 MISC N68711-92-D-4670 00041	08-03-2000 **07-19-2000** 00200	BECHTEL NATIONAL, INC. T. HEIRONIMUS NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA & PUBLIC NOTICE FOR THE 26 JUL 2000 MEETING. ALSO, INCLUDES RAB MEETING MINUTES & ATTACHMENTS FROM THE 31 MAY 2000 MEETING. (MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	001 002 003 005 012 016 017 018 024 BLDG. 1789 BLDG. 1803 BLDG. 307 BLDG. 787 OU 1 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141 BOX 0012
M60050 / 000551 NONE PLAN NONE 00249	10-18-2000 **07-24-2000** NONE	ROY F. WESTON, INC. B. CHRISTENSEN NAVFAC - SOUTHWEST DIVISION	DRAFT RADIOLOGICAL SURVEY PLAN - REVISION 1 DATED JULY 2000 INCLUDES TRANSMITTAL LETTER TO VARIOUS AGENCIES (SEE AR #2737 - LRA COMMENTS)	ADMIN RECORD INFO REPOSITORY	001 002 003 005 008 012 017 025 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 319 BLDG. 360 BLDG. 787	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141 BOX 0012

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M60050 / 000590 CTO-0200/0156-1 MM N68711-92-D-4670 00062	12-05-2000 **07-26-2000** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	FINAL MEETING MINUTES OF THE 07/26/00 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING (INCLUDES VARIOUS HANDOUTS)	ADMIN RECORD BASE	001 003 005 007 014 016 018 024 OU 1 OU 2	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0013
M60050 / 000517 FWSD-RAC-00-0743 & FWSD-RAC-00-0743-1 PLAN N68711-98-D-5713 00229	08-14-2000 **08-04-2000** 00022	FOSTER WHEELER ENVIRONMENTAL H. HAMPARSUMIAN NAVFAC - SOUTHWEST DIVISION	DRAFT PROJECT WORK PLAN - PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL, REVISION 1	ADMIN RECORD INFO REPOSITORY	001 003 005 024 BLDG. 296	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0012
M60050 / 003353 NONE CORRESP NONE 00003	10-26-2005 **08-18-2000** NONE	DTSC - CYPRESS T.M. CHESNEY BRAC D. GOULD	RESPONSE TO NAVY'S REQUEST TO EXPEDITE REVIEW OF DRAFT PROJECT WORK PLAN, REVISION 1 FOR PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL	ADMIN RECORD BASE	001 003 005	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 000649 NONE LTR NONE 00001	02-15-2001 **08-22-2000** NONE	CRWQCB - SANTA ANA J. BRODERICK MCAS EL TORO D. GOULD	CRWQCB HAS REVIEWED THE DRAFT PROJECT WORK PLAN, PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL AND HAS NO SIGNIFICANT COMMENTS (SEE AR #517 - DRAFT PROJECT PLAN)	ADMIN RECORD BASE	001 003 005	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0015

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M60050 / 002527 SW7997.01 RPT N68711-93-D-1459 00200	09-19-2001 **08-24-2000** DO 70	OHM REMEDIATION D. RAWAL NAVFAC - SOUTHWEST DIVISION	SUMMARY REPORT - AERIAL PHOTOGRAPH ANOMALY AREA 5, APHO 31, APHO 43, APHO 66, APHO 67, AND APHO 68 (SEE AR #565 - REVISION 2)	ADMIN RECORD BASE	005 APHO 31 APHO 43 APHO 66 APHO 67 APHO 68 AREA 5 OU 2C	SOUTHWEST DIVISION - BLDG. 1 TO BE DELETED BOX 5 OF 15		
M60050 / 000521 SW8998 LTR N68711-93-D-1459 00004	09-05-2000 **08-28-2000** DO 65	OHM REMEDIATION SERVICES W. SEDLAK NAVFAC - SOUTHWEST DIVISION L. HORNECKER	LETTER STATING THAT OHM WILL MODIFY THEIR PRACTICES REGARDING DISPOSAL OF NON-HAZARDOUS SOIL GENERATED FROM CERCLA-RELATED SITES OR ACTIVITIES	ADMIN RECORD INFO REPOSITORY	005	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0012
M60050 / 000547 NONE LTR NONE 00004	10-04-2000 **08-30-2000** NONE	DTSC - CYPRESS T. CHESNEY NAVFAC - SOUTHWEST DIVISION D. GOULD	DTSC LETTER STATING THAT COMMENTS ON THE PROPOSED WELL CONSTRUCTION PROCEDURES FOR REPLACEMENT MONITORING WELLS HAVE BEEN ADEQUATELY ADDRESSED AND THEY AGREE WITH THE CONSTRUCTION OF THE 15 NEW WELLS IDENTIFIED IN PREVIOUS TRANSMITTALS	ADMIN RECORD INFO REPOSITORY	003 005 024 OU 1 OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0012
M60050 / 000548 NONE LTR NONE 00003	10-04-2000 **08-30-2000** NONE	DTSC - CYPRESS T. CHESNEY NAVFAC - SOUTHWEST DIVISION D. GOULD	DTSC AGREES WITH PROPOSAL TO REPLACE TEN GROUNDWATER MONITORING WELLS, IN ACCORDANCE WITH TRANSMITTAL OF 5/19/00	ADMIN RECORD INFO REPOSITORY	003 005 024 OU 1 OU 2C	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0012

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M60050 / 002737 NONE LTR NONE 00014	06-04-2002 **08-31-2000** NONE	LOCAL REDEVELOPMENT AUTHORITY R. RICHARDSON MCAS EL TORO D. GOULD	COMMENTS ON THE DRAFT RADIOLOGICAL SURVEY PLAN (SEE AR #551 - PLAN)	ADMIN RECORD BASE	001 002 003 005 017 BLDG. 296 BLDG. 297 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062
M60050 / 001013 NONE LTR NONE 00002	03-29-2001 **09-07-2000** NONE	CA INTEGRATED WASTE MANAGEMENT M. WOCHNICK MCAS EL TORO D. GOULD	CIWMB COMMENTS ON THE DRAFT PROJECT WORK PLAN - PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL, REVISION 1 (SEE AR #517 - WORK PLAN)	ADMIN RECORD BASE	001 003 005	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0025
M60050 / 003352 NONE COMMENTS NONE 00020	10-26-2005 **09-11-2000** NONE	DTSC - CYPRESS T.M. CHESNEY BRAC D. GOULD	COMMENTS ON DRAFT PROJECT WORK PLAN, REVISION 1 FOR PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL (INCLUDES COMMENTS FROM HUMAN AND ECOLOGICAL RISK DIVISION [HERD] DATED 9/05/00)	ADMIN RECORD BASE	001 003 005	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 000656 NONE LTR NONE 00002	02-15-2001 **09-18-2000** NONE	CRWQCB - SANTA ANA J. BRODERICK MCAS EL TORO D. GOULD	CRWQCB COMMENTS ON THE GROUNDWATER MONITORING DATA SUMMARY REPORT, 1999 MONITORING ROUNDS 9, 10, & 11 (SEE AR #711 - GROUNDWATER REPORT)	ADMIN RECORD BASE	002 003 005 017 018 024	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0016
M60050 / 000537 NONE MM NONE 00004	10-04-2000 **09-25-2000** NONE	RAB SUBCOMMITTEE CHAIR C. BENNETT NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) REVIEW COMMITTEE (RAB SUBCOMMITTEE) MAIN AGENDA ISSUES SINCE 7/26/00	ADMIN RECORD	002 005 012 016 OU 3	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0012

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M60050 / 000589 CTO-0200/0155-1 MM N68711-92-D-4670 00098	12-05-2000 **09-27-2000** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	FINAL MEETING MINUTES OF THE 9/27/00 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING (INCLUDES VARIOUS HANDOUTS)	ADMIN RECORD BASE	001 003 005 007 014 016 017 018 024 BLDG. 360 OU 1 OU 2	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0013
M60050 / 000603 NONE MISC NONE 00157	12-21-2000 **09-27-2000** NONE	RESTORATION ADVISORY BOARD NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS - RESTORATION ADVISORY BOARD (RAB) MEETING DATED 9/27/00 INCLUDES AGENDA AND PUBLIC NOTICE, RAB MEETING MINUTES FROM 7/26/00, RAB SUBCOMMITTEE MEETING MINUTES FROM 6/28/00 AND 05/10/00 (CORRECTED), HANDOUTS, AND LETTERS	ADMIN RECORD SENSITIVE	001 002 003 005 007 014 016 017 018 024 OU 1 OU 3	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0014
M60050 / 000552 FWSD-RAC-01-0019 & SWDIV SER 06CC.DG/865 MISC N68711-98-D-5713 00040	10-18-2000 **10-06-2000** 00022	FOSTER WHEELER H. HAMPARSUMIAN VARIOUS AGENCIES	RESPONSE TO VARIOUS AGENCY COMMENTS ON DRAFT PROJECT WORK PLAN, PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL [INCLUDES TRANSMITTAL LETTER] (SEE AR #517 - WORK PLAN)	ADMIN RECORD BASE INFO REPOSITORY	001 003 005	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0012

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M60050 / 000658 NONE MEMO NONE 00002	02-15-2001 **10-19-2000** NONE	DEPT. OF HEALTH SERVICES D. BAILEY DTSC - CYPRESS T. CHESNEY	DHS COMMENTS ON DRAFT PROJECT WORK PLAN - PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL, REVISION 1 (SEE AR #517 - DRAFT WORK PLAN)	ADMIN RECORD BASE	001 003 005	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0016
M60050 / 003351 NONE COMMENTS NONE 00005	10-26-2005 **10-23-2000** NONE	USEPA - SAN FRANCISCO G. KISTNER BRAC D. GOULD	COMMENTS ON DRAFT PROJECT WORK PLAN, AND DEBRIS DISPOSAL	ADMIN RECORD BASE	001 003 005	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 000613 NONE PLAN NONE 00327	01-04-2001 **11-13-2000** NONE	ROY F. WESTON, INC. B. CHRISTENSEN NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL RADIOLOGICAL SURVEY PLAN - REVISION 2 DATED NOVEMBER 2000 INCLUDES RESPONSE TO COMMENTS ON THE DRAFT RADIOLOGICAL SURVEY PLAN (*SEE COMMENTS) {SEE AR #675 - DHS COMMENTS & #981 - LRA COMMENTS}	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 012 017 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 319 BLDG. 360 BLDG. 787	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0014

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M60050 / 000583 CTO-0200/0164 MM N68711-92-D-4670 00031	11-27-2000 **11-29-2000** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA AND PUBLIC NOTICE FOR 29 NOV 2000 MEETING & MINUTES AND ATTACHMENTS FROM THE 27 SEP 2000 RAB MEETING (CONTAINS CONFIDENTIAL MAILING LIST)	ADMIN RECORD BASE SENSITIVE	001 003 005 007 014 016 018 024 025 BLDG. 296 BLDG. 297 BLDG. 360 OU 1 OU 2A	FRC - PERRIS IMAGED TORO_014	181-06-0125 30090141	BOX 0013
M60050 / 000621 CTO-0200/0183 MM N68711-92-D-4670 00075	01-10-2001 **11-29-2000** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	FINAL MEETING MINUTES FROM THE BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING INCLUDES AGENDA, OVERHEAD PROJECTIONS, PHOTOGRAPHS, AND VARIOUS ATTACHMENTS	ADMIN RECORD BASE	001 003 008 011 012 016 018 024 ANOMALY AREA 3 BLDG. 307	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0014
M60050 / 000836 NONE PLAN N62742-94-D-0048 00055	03-26-2001 **12-01-2000** 00072	EARTH TECH, INC C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	DRAFT WORK PLAN, PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE. (SEE AR #700 & #702 - COMMENTS BY DTSC AND DTSC - ENVIRON. MGMT BRANCH & AR #1266 - COMMENTS BY CRWQCB)	ADMIN RECORD BASE	001 002 003 005 017 024	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0021

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M60050 / 001110 NONE LTR NONE 00008	03-29-2001 **12-01-2000** NONE	DTSC - CYPRESS T. CHESNEY & J. KIM MCAS EL TORO D. GOULD	REVIEW OF THE RESPONSE TO COMMENTS ON THE DRAFT PROJECT WORK PLAN - PRE-DESIGN ACTIVITIES AND DEBRIS DISPOSAL, REVISION 1 (SEE AR #517 - DOCUMENT & #552- RESPONSE TO COMMENTS)	ADMIN RECORD BASE	001 003 005 024 OU 2A OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0026
M60050 / 000608 SWDIV SER 06CC.DG/1028 LTR NONE 00004	12-27-2000 **12-15-2000** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD DTSC, REGION 4 J. SCANDURA	REQUEST FOR A CHANGE TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE WITH A 5-MONTH EXTENSION FOR SUBMITTAL OF DRAFT FINAL RECORD OF DECISION (SEE AR #674 - RESPONSE FROM US EPA, #678 - RESPONSE FROM DTSC & #686 - RESPONSE FROM CRWQCB)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0014
M60050 / 000618 FWSD-RAC-01-0065 PLAN N68711-98-D-5713 00194	01-10-2001 **12-18-2000** 00022	FOSTER WHEELER H. HAMPARSUMIAN NAVFAC - SOUTHWEST DIVISION	FINAL WORK PLAN, REV. 0 - PAVEMENT DEMOLITION ACTIVITIES AT THE ORIGINAL LANDFILL AND METALLIC DEBRIS DISPOSAL AT THE FORMER EXPLOSIVE ORDNANCE DISPOSAL RANGE (SEE AR #1109 - COMMENTS FROM DTSC)	ADMIN RECORD BASE INFO REPOSITORY	001 003	FRC - PERRIS IMAGED TORO_015	181-06-0125 30090141	BOX 0014
M60050 / 000674 NONE LTR NONE 00001	02-21-2001 **12-18-2000** NONE	US EPA - SAN FRANCISCO G. KISTNER MCAS EL TORO D. GOULD	RESPONSE TO LETTER REQUESTING 5-MONTH EXTENSION FOR SUBMISSION OF THE FINAL RECORD OF DECISION - REQUEST WAS GRANTED (SEE AR #608 - ORIGINAL REQUEST)	ADMIN RECORD BASE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0016
M60050 / 000678 NONE LTR NONE 00003	02-21-2001 **12-21-2000** NONE	DTSC - CYPRESS J. SCANDURA MCAS EL TORO D. GOULD	RESPONSE TO REQUEST FOR 5-MONTH EXTENSION OF DEADLINE FOR DRAFT FINAL RECORD OF DECISION - REQUEST WAS GRANTED (SEE AR #608 - REQUEST LETTER)	ADMIN RECORD BASE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0016

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M60050 / 000700 NONE LTR NONE 00004	02-22-2001 **12-21-2000** NONE	DTSC - CYPRESS T. CHESNEY MCAS EL TORO D. GOULD	DTSC COMMENTS ON THE DRAFT WORK PLAN, PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (SEE AR #836 - DRAFT WORK PLAN)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 024 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0017
M60050 / 000702 NONE MEMO NONE 00004	02-22-2001 **12-22-2000** NONE	ENVIRONMENTAL MGMT. BRANCH D. BAILEY DTSC - CYPRESS T. CHESNEY	DHS COMMENTS ON THE DRAFT WORK PLAN, PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (SEE AR #836 - DRAFT WORK PLAN)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 024 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0018

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M60050 / 000637 GS-10F-0227J RPT N68711-00-F-0102 00569	01-24-2001 **01-12-2001** NONE	CDM FEDERAL PROGRAMS CORP. R. CLIFFORD NAVFAC - SOUTHWEST DIVISION	DRAFT GROUNDWATER MONITORING REPORT - JUNE 2000 MONITORING ROUND 12 (SEE AR #2742 - DTSC COMMENTS & #2743 - CRWQCB COMMENTS)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 007 014 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3B	FRC - PERRIS IMAGED TORO_017	181-06-0125 BOX 0014 30090141
M60050 / 000627 CTO-0200/0188 MISC N68711-92-D-4670 00032	01-18-2001 **01-18-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER INCLUDING AGENDA & PUBLIC NOTICE FOR 31 JAN 2001 MEETING, MINUTES FROM 29 NOV 2000 MEETING, SUBCOMMITTEE MINUTES OF 29 NOV 2000 & 25 OCT 2000 & MAILING LIST (PARTS OF MAIL LIST IS CONFIDENTIAL)	ADMIN RECORD BASE SENSITIVE	001 002 003 005 007 012 014 016 017 018 024 OU 1 OU 2 OU 3	FRC - PERRIS IMAGED TORO_015	181-06-0125 BOX 0014 30090141

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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)	
M60050 / 000961 NONE LTR NONE 00005	03-29-2001 **01-22-2001** NONE	DTSC - CYPRESS T. CHESNEY MCAS EL TORO D. GOULD	DTSC COMMENTS ON THE DRAFT BASE REALIGNMENT AND CLOSURE (BRAC) BUSINESS PLAN, DATED DECEMBER 2000 (SEE AR #233 - BUSINESS PLAN)	ADMIN RECORD BASE INFO REPOSITORY	002 005 008 016 017 018 024 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 787 OU 2A OU 2B OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0024
M60050 / 000686 NONE LTR NONE 00001	02-21-2001 **01-24-2001** NONE	CRWQCB - RIVERSIDE J. BRODERICK MCAS EL TORO D. GOULD	CONCURRENCE WITH 5-MONTH EXTENSION FOR SUBMITTAL OF THE DRAFT FINAL RECORD OF DECISION (SEE AR #608 - REQUEST LETTER)	ADMIN RECORD BASE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0017
M60050 / 000852 SWDIV SER 06CC.DG/0140 PLAN N62742-94-D-0048 00062	03-26-2001 **01-29-2001** 00072	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	WORK PLAN, PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (INCLUDES TRANSMITTAL LETTER FROM D. GOULD)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 024	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0021

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M60050 / 000859 SWDIV SER 06CC.DG/0142 PLAN NONE 00331	03-27-2001 **01-29-2001** NONE	ROY F. WESTON, INC. B. CHRISTENSEN NAVFAC - SOUTHWEST DIVISION	FINAL RADIOLOGICAL SURVEY PLAN, REV. 3 - INCLUDES RESPONSE TO AGENCY COMMENTS ON THE DRAFT FINAL RADIOLOGICAL SURVEY PLAN (DHS, US EPA & EL TORO LRA COMMENTS ON THE DRAFT FINAL) [INCLUDES SWDIV TRANSMITTAL LETTER] {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 012 017 025 ANOMALY AREA 3 APHO 38 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 295 BLDG. 319 BLDG. 360 BLDG. 787	FRC - PERRIS IMAGED TORO_025	181-06-0125 BOX 0022 30090141

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M60050 / 000963 NONE MISC NONE 00160	03-29-2001 **01-31-2001** NONE	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FROM THE JANUARY 31, 2001 RESTORATION ADVISORY BOARD MEETING INCLUDING: RAB MEETING AGENDA/PUBLIC NOTICE, MEETING MINUTES FROM THE 11/29/00 RAB MEETING, RAB MEETING SCHEDULE, VARIOUS HANDOUTS	ADMIN RECORD BASE SENSITIVE	001 002 003 005 007 008 012 014 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0024
M60050 / 000978 CTO-0200/0208 MM N68711-92-D-4670 00060	03-29-2001 **01-31-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	31 JANUARY 2001 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE	001 002 003 005 007 011 014 016 017 018 024 ANOMALY AREA 3 APHO 44	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0024

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M60050 / 002829 SWDIV SER 06CC.DG/0155 MISC NONE 00013	11-19-2002 **02-07-2001** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD US EPA, SF & VARIOUS N. MOUTOUX & DISTRIBUTION	TRANSMITTAL OF THE GROUNDWATER MONITORING PROGRAM ROUND 13 POINT PAPER (SEE AR #2744 - CRWQCB COMMENTS)	ADMIN RECORD BASE	001 002 003 005 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0065
M60050 / 001109 NONE LTR NONE 00003	03-29-2001 **02-08-2001** NONE	DTSC - CYPRESS T. CHESNEY MCAS EL TORO D. GOULD	DTSC IS SATISFIED PREVIOUS COMMENTS HAVE BEEN ADEQUATELY ADDRESSED IN THE FINAL WORK PLAN, PAVEMENT DEMOLITION ACTIVITIES AT THE ORIGINAL LANDFILL AND METALLIC DEBRIS DISPOSAL AT THE FORMER EXPLOSIVE ORDNANCE DISPOSAL RANGE (SEE AR #618 - FINAL WORK PLAN)	ADMIN RECORD BASE INFO REPOSITORY	001 003 OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0026
M60050 / 001266 NONE LTR NONE 00001	03-29-2001 **02-16-2001** NONE	CRWQCB - RIVERSIDE J. BRODERICK MCAS EL TORO D. GOULD	CRWQCB HAS NO SIGNIFICANT COMMENTS ON THE DRAFT WORK PLAN, PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (SEE AR #836 - DRAFT WORK PLAN)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0031
M60050 / 000763 NONE LTR NONE 00004	03-26-2001 **02-26-2001** NONE	DTSC - CYPRESS T. CHESNEY MCAS EL TORO D. GOULD	DTSC COMMENTS ON THE SUMMARY REPORT FOR AERIAL PHOTOGRAPH ANOMALY APHO 46, DATED SEPTEMBER 14, 2000	ADMIN RECORD BASE INFO REPOSITORY	005 OU 2C	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0020

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M60050 / 000981 NONE LTR NONE 00002	03-29-2001 **02-26-2001** NONE	COUNTY OF ORANGE - LRA G. SIMON MCAS EL TORO D. GOULD	LOCAL REDEVELOPMENT AUTHORITY DOES NOT BELIEVE THAT SUBMITTING FURTHER COMMENTS ON THE FINAL RADIOLOGICAL SURVEY PLAN WOULD BE PRODUCTIVE OR APPROPRIATE AT THIS TIME (SEE AR #613 - DRAFT FINAL SURVEY, #675 - COMMENTS ON DRAFT FINAL & #859 - FINAL SURVEY)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 012 017 025 ANOMALY AREA 3 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 295 BLDG. 319 BLDG. 360 BLDG. 787	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0024
M60050 / 002742 NONE LTR NONE 00006	06-05-2002 **02-26-2001** NONE	DTSC - CYPRESS T. CHESNEY MCAS EL TORO D. GOULD	COMMENTS ON THE DRAFT GROUNDWATER MONITORING REPORT - JUNE 2000 MONITORING ROUND 12 (SEE AR #637 - MONITORING REPORT)	ADMIN RECORD BASE	002 003 005 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062

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M60050 / 002864 NONE PLAN NONE 00165	11-20-2002 03-01-2001 NONE	NAVFAC - SOUTHWEST DIVISION NAVFAC - SOUTHWEST DIVISION	FINAL BASE REALIGNMENT AND CLOSURE BUSINESS PLAN	ADMIN RECORD	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 023 024 025 ANOMALY AREA 3 APHO 38 BLDG. 243 BLDG. 296 BLDG. 297 BLDG. 319 BLDG. 360 BLDG. 656 BLDG. 791	FRC - PERRIS IMAGED TORO_022	181-06-0125 BOX 0065 30090141

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					BLDG. 83 BLDG. 839 BLDG. 873 MSC R1 OU 1 OU 2A OU 2B OU 2C OU 3 TANK FARM 555 UST 364A UST GROUP 651			
M60050 / 002743 NONE LTR NONE 00002	06-05-2002 03-15-2001 NONE	CRWQCB - RIVERSIDE J. BRODERICK MCAS EL TORO D. GOULD	COMMENTS ON THE DRAFT GROUNDWATER MONITORING REPORT - JUNE 2000 MONITORING ROUND 12 (SEE AR #637 - MONITORING REPORT)	ADMIN RECORD BASE	002 003 005 017 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062

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M60050 / 000766 CTO-0200/0204 MISC N68711-92-D-4670 00034	03-26-2001 **03-21-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA & PUBLIC NOTICE FOR 21 MAR 2001 MEETING, AND MINUTES & ATTACHMENTS FROM THE 31 JAN 2001 RAB MEETING (INCLUDES MAILING LIST AND SIGN-IN, PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL)	ADMIN RECORD BASE SENSITIVE	001 002 003 005 016 017 018 024 ANOMALY AREA 3 APHO 38 APHO 44 APHO 46 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 295 BLDG. 319 BLDG. 360 BLDG. 787	FRC - PERRIS IMAGED TORO_018	181-06-0125 BOX 0020 30090141
M60050 / 001521 CTO-0200/0224 MM N68711-92-D-4670 00044	04-26-2001 **03-21-2001** 00200	BECHTEL NATIONAL, INC. B. COLEMAN NAVFAC - SOUTHWEST DIVISION	BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE	001 002 003 005 011 016 017 024 ANOMALY AREA 3 BLDG. 307 OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 BOX 0036 30090141

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M60050 / 002744 NONE LTR NONE 00001	06-05-2002 **03-22-2001** NONE	CRWQCB - RIVERSIDE J. BRODERICK MCAS EL TORO D. GOULD	WATER BOARD HAS NO SIGNIFICANT COMMENTS ON THE GROUNDWATER MONITORING PROGRAM ROUND 13 POINT PAPER. (SEE AR #2829 - POINT PAPER)	ADMIN RECORD BASE	001 002 003 005 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062
M60050 / 001366 FWSD-RAC-01-0498 RPT N68711-98-D-5713 00039	04-17-2001 **04-06-2001** 00022	FOSTER WHEELER H. HAMPARSUMIAN NAVFAC - SOUTHWEST DIVISION	DRAFT PROJECT CLOSEOUT REPORT, REV. 0 - PAVEMENT DEMOLITION ACTIVITIES AT INSTALLATION RESTORATION (IR) SITE 3, AND METALLIC DEBRIS REMOVAL	ADMIN RECORD BASE INFO REPOSITORY	001 003 OU 2C OU 3	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0032
M60050 / 003489 NONE CORRESP NONE 00004	05-05-2006 **05-08-2001** NONE	DTSC - CYPRESS T. CHESNEY CITY OF IRVINE D. JUNG	DTSC RESPONSE TO CITY OF IRVINE LETTER DATED 08 MARCH 2001 EXPLAINING THE POTENTIAL USE RESTRICTIONS ASSOCIATED WITH LANDFILL SITES (INCLUDES CIWMB LETTER DATED 04/16/01)	ADMIN RECORD BASE	002 003 005 017	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 002429 SWDIV SER 06CC.DG/0521 LTR NONE 00004	06-20-2001 **05-15-2001** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD US EPA, DTSC, CRWQCB MOUTOUX, SCANDURA, HANNON	REQUEST FOR SIX MONTH EXTENSION TO THE FEDERAL FACILITY AGREEMENT FOR SUBMITTAL OF THE DRAFT FINAL ROD FOR THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL (SEE AR #2426 - RESPONSE TO THIS LETTER)	ADMIN RECORD	003 005 ANOMALY AREA 3 APHO 46 OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0055

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M60050 / 002426 NONE LTR NONE 00004	06-04-2001 **05-18-2001** NONE	DTSC - CYPRESS J. SCANDURA NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO REQUEST FOR EXTENSION TO FEDERAL FACILITY AGREEMENT FOR A DRAFT FINAL RECORD OF DECISION FOR THE ORIGINAL AND PERIMETER ROAD LANDFILLS - DTSC GRANTS EXTENSION (SEE AR #2429 - ORIGINAL LETTER)	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 APHO 46 OU 2C	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0054
M60050 / 001739 CTO-0200/0232 MM N68711-92-D-4670 00034	05-17-2001 **05-30-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA & PUBLIC NOTICE AND MINUTES AND ATTACHMENTS FROM 21 MAR 2001 RAB MEETING (CONTAINS MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY SENSITIVE	001 002 003 005 017 018 024 BLDG. 307 TANK FARM 555	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0041
M60050 / 002438 CTO-0200/0245 MM N68711-92-D-4670 00086	06-25-2001 **05-30-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES INCLUDING VARIOUS HANDOUTS AND SITE UPDATES	ADMIN RECORD BASE	001 002 003 005 008 011 012 016 017 018 ANOMALY AREA 3 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0055

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M60050 / 002439 NONE MM N68711-92-D-4670 00236	06-25-2001 **05-30-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FROM THE 30 MAY 2001, RESTORATION ADVISORY BOARD (RAB) MEETING, INCLUDING MINUTES AND VARIOUS HANDOUTS (PORTION OF SIGN-IN SHEETS ARE CONFIDENTIAL)	ADMIN RECORD BASE SENSITIVE	001 002 003 005 016 017 018 024 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_017	181-06-0125 30090141	BOX 0055
M60050 / 002415 CTO-0200/0228 MM N68711-92-D-4670 00043	05-04-2001 **05-31-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	FINAL - BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) 31 MAY 2000 MEETING MINUTES (INCLUDES 3 ATTACHS - RADIONUCLIDE UPDATE BRIEF DTD 3/31/00, CAL. DHS FLOW CHART FOR RADIONUCLIDE ANALYSES; AND MAGAZINE ROAD LANDIFILL BOUNDARY)	ADMIN RECORD INFO REPOSITORY	001 002 003 005 007 008 011 012 014 016 017 018 024 OU 1 OU 2A UST 651 GROUP UST 651-1 UST 651-2 UST 651-3 UST 651-4	FRC - PERRIS IMAGED TORO_018	181-06-0125 30090141	BOX 0054

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M60050 / 002565 GS-10F-0227J RPT N68711-00-F-0102 00756	10-30-2001 **06-26-2001** NONE	CDM FEDERAL PROGRAMS R. CLIFFORD NAVFAC - SOUTHWEST DIVISION	FINAL GROUNDWATER MONITORING REPORT JUNE 2000 MONITORING ROUND 12 (INCLUDES TRANSMITTAL LETTER TO REGULATORS AND RAB MEMBER WITH ONE CONFIDENTIAL ADDRESS)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005 017 018 024 OU 1 OU 2A OU 2B OU 2C	FRC - PERRIS IMAGED TORO_019	181-06-0125 BOX 0059 30090141
M60050 / 002445 NONE RPT N62742-94-D-0048 00250	07-12-2001 **07-05-2001** 00072	EARTH TECH, INC. D. SWENSSON NAVFAC - SOUTHWEST DIVISION	DRAFT TECHNICAL MEMORANDUM PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (SEE AR #2550 - DTSC COMMENTS & #2748 - EPA COMMENTS)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 004 005 017 024 OU 2A OU 2B OU 2C OU 3 OU 3B	SOUTHWEST DIVISION - BLDG. 1 PROBLEM FILE CABINET	

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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)	
M60050 / 002491 NONE MISC NONE 00180	09-04-2001 **07-25-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FROM THE RESTORATION ADVISORY BOARD (RAB) MEETING INCLUDING AGENDA AND PUBLIC NOTICE, MINUTES AND ATTACHMENTS FROM 5/30/01 MEETING, SUBCOMMITTEE HANDOUTS & LETTERS, LETTERS FROM VARIOUS REGULATORY AGENCIES	ADMIN RECORD BASE	001 002 003 005 016 017 018 024 BLDG. 307 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_019	181-06-0125 30090141	BOX 0057
M60050 / 002550 NONE LTR NONE 00005	10-17-2001 **08-13-2001** NONE	DTSC - CYPRESS T. CHESNEY NAVFAC - SOUTHWEST DIVISION D. GOULD	COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (SEE AR #2445 - TECH MEMO & #2587 - RESPONSE TO COMMENTS)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0059
M60050 / 002748 NONE LTR NONE 00002	06-05-2002 **08-14-2001** NONE	US EPA - SAN FRANCISCO N. MOUTOUX MCAS EL TORO D. GOULD	COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE (SEE AR #2445 - TECH MEMO)	ADMIN RECORD BASE	001 002 003 005 017 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0062

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M60050 / 002534 CTO-0200/0278 MISC N68711-92-D-4670 00026	09-19-2001 **09-19-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER; INCLUDES. AGENDA & PUBLIC NOTICE FOR 19 SEP 2001 MEETING, AND MINUTES AND ATTACHMENTS FROM 25 JUL 2001 MEETING (CONTAINS MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL)	ADMIN RECORD BASE SENSITIVE	001 002 003 004 005 008 012 017 024 025 ANOMALY AREA 3 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 319 BLDG. 360 BLDG. 787 HANGAR 295 OU 1 OU 2A OU 2B OU 2C OU 3 OU 3B	FRC - PERRIS IMAGED TORO_020	181-06-0125 BOX 0059 30090141

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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)	
M60050 / 002566 CTO-0200/0319 MISC N68711-92-D-4670 00186	10-31-2001 **09-19-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) PUBLIC INFORMATION MATERIALS, INCLUDES: AGENDA & PUBLIC NOTICE FOR 19 SEP 2001 MEETING, MEETNG MINUTES AND ATTACHMENTS FROM 25 JUL 2001 MEETING & REGULATORY AGENCY COMMENTS AND LETTERS	ADMIN RECORD BASE INFO REPOSITORY	002 003 005 008 016 BLDG. 296 BLDG. 307 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0059
M60050 / 002582 CTO-0200/0329 MM N68711-92-D-4670 00070	12-11-2001 **09-19-2001** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	19 SEPTEMBER 2001 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE	001 002 003 008 011 012 016 017 024 BLDG. 242 BLDG. 307 BLDG. 319 BLDG. 360 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0060

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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
M60050 / 002957 GS-10F-0227J & SWDIV SER 06CC.DG/1117 RPT N68711-00-F-0102 00648	04-08-2003 **10-22-2001** NONE	CDM, FEDERAL PROGRAMS CORP. S. THIBEAULT NAVFAC - SOUTHWEST DIVISION	FINAL GROUNDWATER MONITORING REPORT FEBRUARY 2001 MONITORING ROUND 13 - INCLUDES SWDIV TRANSMITTAL LETTER BY DEAN GOULD WITH CONFIDENTIAL DISTRIBUTION LIST	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 004 005 006 008 009 010 011 012 013 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_024	181-06-0125 BOX 0067 30090141
M60050 / 002576 SWDIV SER 06CC.DG/1203 LTR NONE 00016	11-27-2001 **11-14-2001** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD DTSC, CRWQCB, US EPA VARIOUS REGULATORS	REQUEST TO EXTEND THE FEDERAL FACILITY AGREEMENT SCHEDULE FOR THE OPERABLE UNIT 2C RECORD OF DECISION BY THREE MONTHS (SEE AR #2767 - EPA RESPONSE & #2769 - DTSC RESPONSE)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_020	181-06-0125 BOX 0060 30090141

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M60050 / 002767 NONE LTR NONE 00002	07-01-2002 **11-15-2001** NONE	US EPA - SAN FRANCISCO N. MOUTOUX NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO REQUEST TO EXTEND THE FEDERAL FACILITY AGREEMENT SCHEDULE FOR THE OPERABLE UNIT 2C RECORD OF DECISION BY THREE MONTHS - EPA GRANTS REQUEST (SEE AR #2576 - REQUEST)	ADMIN RECORD BASE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0063
M60050 / 002769 NONE LTR NONE 00003	07-01-2002 **11-26-2001** NONE	DTSC - CYPRESS J. SCANDURA NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO REQUEST TO EXTEND THE FEDERAL FACILITY AGREEMENT SCHEDULE FOR THE OPERABLE UNIT 2C RECORD OF DECISION BY THREE MONTHS - DTSC GRANTS REQUEST (SEE AR #2576 - REQUEST)	ADMIN RECORD BASE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0063
M60050 / 002605 CTO-0200/0357 MM N68711-92-D-4670 00086	02-13-2002 **11-28-2001** 00200	BECHTEL NATIONAL, INC. B. COLEMAN NAVFAC - SOUTHWEST DIVISION	28 NOVEMBER 2001 FINAL BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE	001 002 003 005 008 011 012 016 017 024 BLDG. 1789 BLDG. 1803 BLDG. 242 BLDG. 243 BLDG. 244 BLDG. 307 BLDG. 319 BLDG. 360 BLDG. 787 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0060

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M60050 / 002588 NONE RPT N62742-94-D-0048 00346	12-13-2001 **12-01-2001** 00072	EARTH TECH, INC. D. SWENSSON NAVFAC - SOUTHWEST DIVISION	FINAL TECHNICAL MEMORANDUM PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL (EOD) RANGE [INCLUDES SWDIV TRANSMITTAL LETTER]	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 004 005 017 018 024 OU 1 OU 2B OU 2C OU 3 OU 3B	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0073
M60050 / 002587 SWDIV SER 06CC.DG/1292 MISC N62742-94-D-0048 00012	12-13-2001 **12-07-2001** 00072	NAVFAC - SOUTHWEST DIVISION D. GOULD DTSC, CRWQCB, & US EPA CHESNEY, HANNON, & MOUTOUX	TRANSMITTAL OF COMPILED RESPONSE TO COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL RANGE {COMMENTS BY DHS, LRA, EPA} (SEE AR #2550 - COMMENTS)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 004 005 017 024 OU 2B OU 2C OU 3 OU 3B	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0060
M60050 / 002589 3088.0 MEMO N62474-98-D-2076 00151	12-13-2001 **12-10-2001** 00073	IT CORPORATION D. RAWAL NAVFAC - SOUTHWEST DIVISION L. HORNECKER	TECHNICAL MEMORANDUM - GROUNDWATER ELEVATION INFORMATION FROM SELECTED WELLS	ADMIN RECORD BASE INFO REPOSITORY	001 002 005 009 017 018 OU 1 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0060

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M60050 / 003532 NONE COMMENTS NONE 00001	05-16-2006 **12-13-2001** NONE	U.S. EPA - SAN FRANCISCO N. MOUTOUX BRAC PMO WEST D. GOULD	REVIEW AND CONCURRENCE ON NAVY'S RESPONSE TO COMMENTS ON PRE-DESIGN ACTIVITIES FOR SITES 3 AND 5	ADMIN RECORD BASE	003 005	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 003504 NONE CORRESP NONE 00003	05-05-2006 **12-14-2001** NONE	DTSC - CYPRESS T. CHESNEY BRAC PMO WEST D. GOULD	REVIEW OF THE RESPONSE TO COMMENTS ON DRAFT PROJECT WORK PLAN (WP) FOR PRE-DESIGN ACTIVITIES AT OPERABLE UNIT (OU) 2C	ADMIN RECORD BASE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 002595 SWDIV SER 06CC.KO/1363 PLAN N62742-94-D-0048 00089	01-09-2002 **01-04-2002** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	DRAFT HEALTH AND SAFETY PLAN - REMOVAL SITE EVALUATION ANOMALY AREA 3 (INCLUDES SWDIV TRANSMITTAL LETTERS WITH SOME CONFIDENTIAL ADDRESSES)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 ANOMALY AREA 3 OU 2C	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0060
M60050 / 002594 SWDIV SER 06CC.KO/1363 RPT N62742-94-D-0048 00122	01-09-2002 **01-07-2002** 00078	EARTH TECH, INC. E. VEDAGIRI NAVFAC - SOUTHWEST DIVISION	DRAFT WORK PLAN REMOVAL SITE EVALUATION ANOMALY AREA 3 (INCLUDES SWDIV TRANSMITTAL LETTERS TO REGULATORS WITH A CONFIDENTIAL ADDRESS)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 ANOMALY AREA 3 OU 2C	FRC - PERRIS IMAGED TORO_026	181-06-0125 30090141	BOX 0060
M60050 / 002833 NONE MISC NONE 00002	11-19-2002 **01-18-2002** NONE	DEPARTMENT OF HEALTH SERVICES D. BAILEY DTSC - CYPRESS T. CHESNEY	REVIEW OF THE RESPONSE TO COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM PHASE II EVALUATION OF RADIONUCLIDES IN GROUNDWATER AT FORMER LANDFILL SITES AND THE EXPLOSIVE ORDNANCE DISPOSAL RANGE - DHS STATES THAT THEIR COMMENTS HAVE BEEN ADEQUATELY ADDRESSED	ADMIN RECORD BASE	001 002 003 004 005 017 024 OU 2A OU 2B OU 2C OU 3 OU 3B	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0065

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M60050 / 002601 CTO-0200/0343 MISC N68711-92-D-4670 00034	01-17-2002 01-30-2002 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA AND PUBLIC NOTICE AND MINUTES AND ATTACHMENTS FROM THE 28 NOV 2001 RAB MEETING (CONTAINS MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 004 005 007 008 011 012 017 024 025 ANOMALY AREA 3 BLDG. 307 OU 2A OU 2B OU 2C OU 3 OU 3B	FRC - PERRIS IMAGED TORO_020	181-06-0125 BOX 0060 30090141

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M60050 / 002607 CTO-0200/0360 MISC N68711-92-D-4670 00188	03-07-2002 **01-30-2002** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) PUBLIC INFORMATION MATERIALS - INCLUDES AGENDA, PUBLIC NOTICE AND MINUTES FROM 19 SEP 2001 MEETING, AGENCY COMMENTS & LETTERS, VARIOUS PRESENTATION AND INFORMATION MATERIALS	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 016 017 ANOMALY AREA 3 BLDG. 1789 BLDG. 1803 BLDG. 307 BLDG. 319 BLDG. 360 BLDG. 787 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0060
M60050 / 002611 CTO-0200/0370 MM N68711-92-D-4670 00064	04-03-2002 **01-30-2002** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	30 JANUARY 2002 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD	001 002 003 005 016 017 ANOMALY AREA 3 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 30090141	BOX 0061

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M60050 / 002604 FWSD-RAC-02-0466 RPT N68711-98-D-5713 00039	02-07-2002 **02-04-2002** 00022	FOSTER WHEELER H. HAMPARSUMIAN NAVFAC - SOUTHWEST DIVISION	FINAL CLOSEOUT REPORT - PAVEMENT DEMOLITION ACTIVITIES AT THE EXPLOSIVE ORDNANCE DISPOSAL RANGE AND THE ORIGINAL LANDFILL	ADMIN RECORD BASE INFO REPOSITORY	001 003	FRC - PERRIS IMAGED TORO_020	181-06-0125 BOX 0060 30090141
M60050 / 002608 GS-10F-0227J & SWDIV SER 06CC/0152 RPT N68711-00-F-0102 00865	03-07-2002 **02-14-2002** NONE	CDM FEDERAL PROGRAMS S. THIBEAULT NAVFAC - SOUTHWEST DIVISION	FINAL GROUNDWATER MONITORING REPORT SEPTEMBER 2001 MONITORING ROUND 14 [INCLUDES SWDIV TRANSMITTAL LETTER BY D. GOULD]	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 011 012 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_026	181-06-0125 BOX 0061 30090141
M60050 / 002609 SWDIV SER 06CC.DG/0153 LTR NONE 00014	03-07-2002 **02-15-2002** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD DTSC, CRWQCB, US EPA CHESNEY,HANNON,MOUTOUX,SCANDUR	REQUEST FOR EIGHT MONTH EXTENSION TO THE FEDERAL FACILITY AGREEMENT FOR SUBMITTAL OF THE DRAFT FINAL RECORD OF DECISION FOR THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL (SEE AR #2773 - EPA RESPONSE)	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 OU 2C	FRC - PERRIS IMAGED TORO_020	181-06-0125 BOX 0061 30090141

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M60050 / 002773 NONE LTR NONE 00002	07-01-2002 **02-21-2002** NONE	US EPA - SAN FRANCISCO N. MOUTOUX NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO REQUEST FOR EIGHT MONTH EXTENSION FOR SUBMITTAL OF THE DRAFT FINAL RECORD OF DECISION FOR THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL - EPA WOULD LIKE TO DISCUSS CONCERNS REGARDING PROCESSES AND SCHEDULES BEFORE GRANTING REQUEST	ADMIN RECORD BASE	003 005 ANOMALY AREA 3 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0063
M60050 / 002834 NONE LTR NONE 00004	11-19-2002 **02-22-2002** NONE	DTSC - CYPRESS J. SCANDURA NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO REQUEST FOR EIGHT MONTH EXTENSION TO THE FEDERAL FACILITY AGREEMENT FOR SUBMITTAL OF THE DRAFT FINAL RECORD OF DECISION FOR THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL - DTSC DENIES REQUEST (SEE AR #2609 - REQUEST)	ADMIN RECORD BASE SENSITIVE	003 005 ANOMALY AREA 3 APHO 46 MSCR 2 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0065
M60050 / 002612 NONE RPT N62742-94-D-0048 00090	04-03-2002 **03-01-2002** 00078	EARTH TECH, INC. NAVFAC - SOUTHWEST DIVISION	HEALTH AND SAFETY PLAN FOR THE PRE-DESIGN INVESTIGATION AT OPERABLE UNIT 2C - THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_026	181-06-0125 30090141	BOX 0061
M60050 / 002613 NONE RPT N62742-94-D-0048 00122	04-04-2002 **03-22-2002** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	FINAL WORK PLAN PRE-DESIGN INVESTIGATION AT OPERABLE UNIT 2C - THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0061

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M60050 / 002614 CTO-0200/0371 MISC N68711-92-D-4670 00035	04-04-2002 **03-27-2002** 00200	BECHTEL NATIONAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER - INCLUDES AGENDA AND PUBLIC NOTICE FOR THE 27 MAR 2002 MEETING WITH MINUTES AND ATTACHMENTS FROM THE 30 JAN 2002 RAB MEETING	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005 016 017 018 024 ANOMALY AREA 3 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_020	181-06-0125 BOX 0061 30090141
M60050 / 002631 CTO-0038/0014 MISC N68711-95-D-7526 00190	05-21-2002 **03-27-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS INCLUDING: RESTORATION ADVISORY BOARD MEETING AGENDA & PUBLIC NOTICE FROM 27 MARCH 2002 MEETING; MINUTES FROM THE 30 JANUARY 2002 RAB MEETING; INFORMATION SHEETS, VARIOUS REGULATORY AGENCY LETTERS, & PRESENTATION MATERIALS	ADMIN RECORD BASE SENSITIVE	001 002 003 005 016 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_023	181-06-0125 BOX 0061 30090141

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M60050 / 002825 CTO-0038/0007 & 0007-1 MM N68711-95-D-7526 00093	10-17-2002 **03-27-2002** 00038	BECHTEL ENVIRONMENTAL, INC. B. COLEMAN NAVFAC - SOUTHWEST DIVISION	MINUTES OF THE BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING INCLUDES PRESENTATION MATERIALS	ADMIN RECORD BASE	001 002 003 005 016 017 018 024 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0065
M60050 / 002798 SWDIV SER 06CH.DG/0424 CORRESP NONE 00009	08-28-2002 **04-26-2002** NONE	NAVFAC - SOUTHWEST DIVISION D. GOULD DTSC, CRWQCB, US EPA CHESNEY, HANNON, MOUTOUX	REQUEST FOR A CHANGE TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE WITH A 9-MONTH EXTENSION FOR SUBMITTAL OF THE DRAFT FINAL RECORD OF DECISION FOR OPERABLE UNIT 2C IN ORDER TO INCORPORATE FINDINGS FOR ANOMALY AREA 3, APHO 46, AND MSCR 2	ADMIN RECORD BASE	003 005 ANOMALY AREA 3 APHO 46 MSCR 2 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0064
M60050 / 002891 NONE CORRESP NONE 00002	12-12-2002 **05-07-2002** NONE	U.S. EPA - SAN FRANCISCO N. MOUTOUX NAVFAC - SOUTHWEST DIVISION D. GOULD	RESPONSE TO REQUEST FOR A CHANGE TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE WITH A 9-MONTH EXTENSION FOR SUBMITTAL OF THE DRAFT FINAL RECORD OF DECISION IN ORDER TO INCORPORATE FINDINGS	ADMIN RECORD BASE	003 005 ANOMALY AREA 3 APHO 46 MSCR 2 OU 2C	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141	BOX 0065
M60050 / 003510 NONE CORRESP NONE 00003	05-05-2006 **05-20-2002** NONE	DTSC - CYPRESS J. SCANDURA BRAC PMO WEST D. GOULD	DTSC CONCURRENCE WITH THE PROPOSED EXTENSION TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE FOR OPERABLE UNIT (OU) 2C	ADMIN RECORD BASE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1		

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M60050 / 002759 CTO-0038/0018 MM N68711-95-D-7526 00034	06-06-2002 **05-29-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD MEETING MAILER - RAB MEETING AGENDA AND PUBLIC NOTICE WITH MINUTES AND SIGN-IN SHEETS FROM THE 27 MARCH 2002 MEETING (CONTAINS MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 011 016 017 018 024 025 ANOMALY AREA 3 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141 BOX 0063
M60050 / 002792 CTO-0038/0045 MTG MINS N68711-95-D-7526 00159	08-27-2002 **05-29-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FOR THE 29 MAY 2002 RESTORATION ADVISORY BOARD MEETING AGENDA & PUBLIC NOTICE, MINUTES FROM THE 27 MARCH 2002 RAB MEETING; INFORMATION SHEETS; VARIOUS REGULATORY AGENCY LETTERS, & PRESENTATION MATERIALS	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_026	181-06-0125 30090141 BOX 0064

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M60050 / 002826 CTO-0038/0074 & 0074-1 MM N68711-95-D-7526 00092	10-18-2002 **05-29-2002** 00038	BECHTEL ENVIRONMENTAL, INC. B. COLEMAN NAVFAC - SOUTHWEST DIVISION	MINUTES OF BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING WITH ATTACHMENTS	ADMIN RECORD BASE	001 002 003 005 016 017 018 024 BLDG. 307 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0065
M60050 / 002789 NONE PLAN N62742-94-D-0048 00133	08-27-2002 **07-01-2002** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	FINAL WORK PLAN PRE-DESIGN INVESTIGATION AT OPERABLE UNIT 2C, LANDFILL SITES 3 AND 5 [INCLUDES SAMPLIN AND ANALYSIS PLAN AND SWDIV TRANSMITTAL LETTER FROM D. GOULD]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0064
M60050 / 002790 NONE PLAN N62742-94-D-0048 00089	08-27-2002 **07-01-2002** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	FINAL HEALTH AND SAFETY PLAN FOR THE PRE-DESIGN INVESTIGATION AT OPERABLE UNIT 2C - THE ORIGINAL LANDFILL AND THE PERIMETER ROAD LANDFILL [INCLUDES SWDIV TRANSMITTAL LETTER FROM D. GOULD]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 APHO 46 MSCR2 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0064

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M60050 / 002820 CTO-0038/0070 MISC N68711-95-D-7526 00177	10-17-2002 **07-31-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FOR THE 31 JULY 2002 RESTORATION ADVISORY BOARD MEETING [INCLUDES AGENDA, MINUTES, VARIOUS HANDOUTS, 29 MAY 2002 AND 27 MARCH 2002 RAB SUBCOMMITTEE MEETING MINUTES, GUIDANCE DOCUMENTS AND PRESENTATION MATERIALS	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 016 017 018 024 BLDG. 435 OU 1 OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0064
M60050 / 002812 NONE PLAN N62742-94-D-0048 00088	09-11-2002 **08-26-2002** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	FINAL HEALTH AND SAFETY PLAN - REMOVAL SITE EVALUATION ANOMALY AREA 3	ADMIN RECORD BASE INFO REPOSITORY	003 ANOMALY AREA 3 OU 2C	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0064
M60050 / 002811 NONE RPT N62742-94-D-0048 00162	09-11-2002 **08-27-2002** 00078	EARTH TECH, INC. E. VEDAGIRI NAVFAC - SOUTHWEST DIVISION	FINAL WORK PLAN REMOVAL SITE EVALUATION ANOMALY AREA 3 - INCLUDES SAMPLING AND ANALYSIS PLAN	ADMIN RECORD BASE INFO REPOSITORY	003 ANOMALY AREA 3 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0064

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M60050 / 000373 CTO-0038/0086 MISC N68711-95-D-7526 00211	11-20-2002 **09-25-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS: RESTORATION ADVISORY BOARD MEETING AGENDA & PUBLIC NOTICE FOR 25 SEPTEMBER 2002, MINUTES AND MATERIALS FROM 31 JULY 2002 MEETING, PRESENTATION OF PROPOSED PLAN FOR SITE 16, VARIOUS PRESENTATION MATERIALS, AND HANDOUTS	ADMIN RECORD BASE SENSITIVE	001 002 003 005 008 012 016 017 024 025 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0010
M60050 / 002861 CTO-0038/0083 & 0083-1 MM N68711-95-D-7526 00080	11-20-2002 **11-11-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	MINUTES FROM THE 31 JULY 2002 BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING W/ATTACHMENTS	ADMIN RECORD BASE	001 002 003 005 008 011 012 016 017 018 024 ANOMALY AREA 3 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_021	181-06-0125 30090141	BOX 0065

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M60050 / 002906 NONE CORRESP NONE 00002	01-27-2003 **11-26-2002** NONE	US EPA - SAN FRANCISCO N. MOUTOUX NAVFAC - SOUTHWEST DIVISION D. GOULD	EPA RESPONSE TO NAVY'S REQUEST FOR AN EXTENSION TO THE FEDERAL FACILITIES AGREEMENT SCHEDULE TO SUBMIT A REVISED DRAFT RECORD OF DECISION (ROD) FOR SITES 3 AND 5 TO AUGUST 19, 2003	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 BOX 0066 30090141
M60050 / 002911 CTO-0038/0101 MISC N68711-95-D-7526 00009	01-27-2003 **12-01-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	DRAFT ENVIRONMENTAL CLEANUP FACT SHEET	ADMIN RECORD BASE	001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020 021 022 024 025 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_022	181-06-0125 BOX 0066 30090141

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M60050 / 002903 CTO-0038/0092 MISC N68711-95-D-7526 00027	12-12-2002 **12-04-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD MEETING MAILER - RAB MEETING AGENDA & PUBLIC NOTICE FOR 4 DECEMBER 2002 MEETING AND MINUTES & ATTACHMENTS FROM THE 25 SEPTEMBER 2002 MEETING (INCLUDES MAILING LIST AND SIGN-IN SHEETS PORTIONS OF WHICH ARE CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 016 017 018 024 OU 1 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141 BOX 0066
M60050 / 002921 CTO-0038/0116 MISC N68711-95-D-7526 00143	01-30-2003 **12-04-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS FROM THE RESTORATION ADVISORY BOARD MEETING HELD ON DECEMBER 04, 2002 - INCLUDES AGENDA, MEETING MINUTES FROM THE 25 SEPTEMBER 2002 MEETING AND VARIOUS HANDOUTS (PORTION OF SIGN-IN SHEETS IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005 017	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141 BOX 0066
M60050 / 002945 CTO-0038/0114 MM N68711-95-D-7526 00046	03-20-2003 **12-04-2002** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	04 DECEMBER 2002 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 018 024	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141 BOX 0066
M60050 / 003522 NONE CORRESP NONE 00003	05-15-2006 **12-20-2002** NONE	DTSC - CYPRESS J. SCANDURA BRAC PMO WEST A. PISZKIN	DTSC CONCURRENCE AND APPROVAL OF THE EXTENSION REQUEST FOR CHANGES TO THE FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE FOR OPERABLE UNIT (OU) 2C, SITES 3 AND 5	ADMIN RECORD BASE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 002922 NONE RPT N62474-94-D-0048 00044	01-30-2003 **01-01-2003** 00078	EARTH TECH, INC. NAVFAC - SOUTHWEST DIVISION	DRAFT TECHNICAL MEMORANDUM SUMMARY REPORT FOR APHO 46 AND MSC R2	ADMIN RECORD BASE INFO REPOSITORY	003 005 APHO 46 MSCR 2 OU 2	FRC - PERRIS IMAGED TORO_023	181-06-0125 30090141	BOX 0066
M60050 / 002924 GEOFON REF. NO. 04-4432.10 MISC N68711-02-F-8210 00038	02-05-2003 **01-13-2003** NONE	GEOFON, INC. NAVFAC - SOUTHWEST DIVISION	INFORMATION PACKAGE FOR REMOVAL AND DISPOSAL OF SEDIMENTS AND CLEANING OF A BATTERY ACID NEUTRALIZING CHAMBER AT BUILDING 392 (INCLUDES SWDIV TRANSMITTAL LETTER FROM L. HORNECKER)	ADMIN RECORD BASE INFO REPOSITORY	003 BLDG. 392	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0066
M60050 / 002908 CTO-0038/0112 MM N68711-95-D-7526 00026	01-27-2003 **01-29-2003** 00038	BECHTEL ENVIRONMENTAL, INC. RESTORATION ADVISORY BOARD	RESTORATION ADVISORY BOARD MEETING MAILER - INCLUDES RAB MEETING AGENDA, PUBLIC NOTICE FOR 29 JANUARY 2003 MEETING, AND MINUTES FROM THE 04 DECEMBER 2002 MEETING [PORTION OF MAILING LIST IS CONFIDENTIAL]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005 008 011 012 016 017 024 025 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141	BOX 0066

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M60050 / 002948 SWDIV SER 06CC.MS/0439 RPT N68711-00-D-0004 01026	04-08-2003 **02-07-2003** DO 006	CDM FEDERAL PROGRAMS, CORP. R. CLIFFORD NAVFAC - SOUTHWEST DIVISION	FINAL GROUNDWATER MONITORING REPORT SEPTEMBER 2002 MONITORING ROUND 16 (PORTION OF MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 004 005 006 008 009 010 011 012 013 015 016 017 019 020 021 022 024 OU 1 OU 2 OU 2A OU 2B OU 2C OU 3	FRC - PERRIS IMAGED TORO_024	181-06-0125 30090141	BOX 0067
M60050 / 002933 NONE MISC NONE 00005	03-12-2003 **02-11-2003** NONE	DTSC - CYPRESS M. ALONZO MCAS EL TORO A. PISZKIN	RESPONSE TO DTSC COMMENTS FOR THE ADDENDUM TO SUMMARY REPORT - AERIAL PHOTOGRAPH ANOMALY AREA 5; APHO 31, APHO 43, APHO 66, APHO 67, AND APHO 68	ADMIN RECORD BASE INFO REPOSITORY	005 APHO 31 APHO 43 APHO 66 APHO 67 APHO 68	FRC - PERRIS IMAGED TORO_022	181-06-0125 30090141	BOX 0066

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M60050 / 002970 SWDIV SER 06CC.AP/0713 RPT N62742-94-D-0048 00707	05-15-2003 **04-01-2003** 00104	EARTH TECH, INC NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL ENVIRONMENTAL BASELINE SURVEY [INCLUDES SWDIV TRANSMITTAL LETTER BY A. PISZKIN] (PORTION OF MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 004 005 006 007 008 009 010 011 012 013 014 015 016 018 019 020 021 022 023 024 025	FRC - PERRIS IMAGED TORO_026	181-06-0125 BOX 0067 30090141
M60050 / 003007 CTO-0038/0194 MISC N68711-95-D-7526 00009	10-15-2003 **04-01-2003** 00038	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	FACT SHEET: DRAFT FINAL CLOSURE OF INACTIVE LANDFILLS	ADMIN RECORD BASE	001 002 003 005 008 011 012 016 017 018 024	FRC - PERRIS IMAGED TORO_024	181-06-0125 BOX 0068 30090141

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M60050 / 003606 NONE COMMENTS NONE 00014	07-14-2006 **04-11-2003** NONE	DTSC - CYPRESS T. CHESNEY BRAC PMO WEST A. PISZKIN	REVIEW AND COMMENTS ON THE DRAFT ENVIRONMENTAL BASELINE SURVEY (EBS)	ADMIN RECORD BASE	003 005 008 012 019	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 002963 NONE MISC NONE 00029	05-08-2003 **04-24-2003** NONE	NAVFAC - SOUTHWEST DIVISION L. HORNECKER DTSC - CYPRESS T. CHESNEY	INFORMATION PACKAGE ON THE AERIAL PHOTOGRAPH ANOMALY APHO 118 (SAIC 413)	ADMIN RECORD BASE INFO REPOSITORY	005 APHO 118 AREA 5 SAIC 413	SOUTHWEST DIVISION - BLDG. 1 PROBLEM FILE CABINET		
M60050 / 002996 SWDIV SER 06CC.AP/1091 RPT N68711-00-D-0004 00419	08-06-2003 **07-25-2003** DO 006	CDM FEDERAL PROGRAMS CORP. R. CLIFFORD NAVFAC - SOUTHWEST DIVISION R. CLIFFORD	FINAL GROUNDWATER MONITORING REPORT MARCH 2003 MONITORING ROUND 17 [INCLUDES SWDIV TRANSMITTAL LETTER BY A. PISZKIN] (PORTION OF MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 016 017 018 024	FRC - PERRIS IMAGED TORO_024	181-06-0125 30090141	BOX 0068
M60050 / 002999 SWDIV SER 06CC.AP/1127 RPT N62742-94-D-0048 00397	08-20-2003 **08-01-2003** 00078	EARTH TECH, INC. M. MILLETT NAVFAC - SOUTHWEST DIVISION	DRAFT PRE-DESIGN INVESTIGATION TECHNICAL MEMORANDUM FOR THE LANDFILL SITES {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_024	181-06-0125 30090141	BOX 0068
M60050 / 003179 NONE LTR NONE 00006	10-15-2004 **08-04-2003** NONE	DOI - CARLSBAD A. YUEN NAVFAC - SOUTHWEST DIVISION A. PISZKIN	COMMENTS ON THE DRAFT SCREENING ECOLOGICAL RISK ASSESSMENT (DOCUMENT WAS NOT SUBMITTED TO ADMINISTRATIVE RECORDS)	ADMIN RECORD BASE INFO REPOSITORY	003 ANOMALY AREA 3	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0072

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M60050 / 003002 SWDIV SER 06CC.AP/1201 LTR NONE 00007	09-08-2003 **08-19-2003** NONE	NAVFAC - SOUTHWEST DIVISION A. PISZKIN VARIOUS AGENCIES	LETTER REQUESTING AN EXTENSION TO THE FEDERAL FACILITY AGREEMENT APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS	ADMIN RECORD BASE INFO REPOSITORY	003 APHO 46 OU 2	FRC - PERRIS IMAGED TORO_024	181-06-0125 30090141	BOX 0068
M60050 / 003107 NONE MISC NONE 00005	07-15-2004 **08-27-2003** NONE	DTSC - CYPRESS J. SCANDURA BRAC - IRVINE F. PISZKIN	REVIEW OF AND CONCURRENCE ON THE FEDERAL FACILITY AGREEMENT (FFA) EXTENSION REQUEST	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0070
M60050 / 003108 NONE MISC NONE 00002	07-15-2004 **08-28-2003** NONE	U.S. EPA - SAN FRANCISCO N. MOUTOUX BRAC - IRVINE F. PISZKIN	REVIEW OF AND CONCURRENCE ON THE REQUESTED EXTENSION TO SUBMIT THE THE DRAFT RECORD OF DECISION (ROD) ON FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0070
M60050 / 003110 NONE CORRESP NONE 00001	07-15-2004 **09-02-2003** NONE	CRWQCB - SANTA ANA J. BRODERICK BRAC - IRVINE F. PISZKIN	NO COMMENTS AND CONCURRENCE ON FEDERAL FACILITY AGREEMENT (FFA) EXTENSION REQUEST	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0070

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M60050 / 003011 NONE RPT N62474-94-D-0048 00742	10-23-2003 **09-05-2003** 00104	EARTH TECH, INC. D. JURY NAVFAC - SOUTHWEST DIVISION	FINAL ENVIRONMENTAL BASELINE SURVEY [CD COPY ENCLOSED]	ADMIN RECORD BASE INFO REPOSITORY	003 004 005 006 007 008 009 010 011 012 013 014 015 016 018 019 020 021 022 024 025	FRC - PERRIS IMAGED TORO_024	181-06-0125 30090141	BOX 0069
M60050 / 003111 NONE MISC NONE 00001	07-15-2004 **09-05-2003** NONE	CRWQCB - SANTA ANA J. BRODERICK BRAC - IRVINE F. PISZKIN	REVIEWED AND NO COMMENTS ON THE DRAFT SAMPLING AND ANALYSIS PLAN AMENDMENT NUMBER 1, PRE-DESIGN INVESTIGATION	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0070
M60050 / 003639 NONE COMMENTS NONE 00001	07-17-2006 **09-10-2003** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC PMO WEST A. PISZKIN	REVIEW AND COMMENTS ON THE FINAL GROUNDWATER MONITORING REPORT, MARCH 2003, MONITORING ROUND 17	ADMIN RECORD BASE	002 003 005 017	SOUTHWEST DIVISION - BLDG. 1		

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M60050 / 002989 SWDIV SER 06C.AP/1349 RPT N62742-94-D-0048 00025	07-25-2003 **10-01-2003** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	FINAL SAMPLING AND ANALYSIS PLAN AMENDMENT NUMBER 1, PRE-DESIGN INVESTIGATION, OPERABLE UNIT (OU) 2C, LANDFILL SITES 3 AND 5 [INCLUDES SWDIV TRANSMITTAL LETTER BY A. PISZKIN] {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 BOX 0068 30090141
M60050 / 003113 NONE CORRESP NONE 00011	07-15-2004 **10-01-2003** NONE	DTSC - CYPRESS R. ABBASI BRAC - IRVINE F. PISZKIN	REVIEW AND COMMENTS ON THE DRAFT PRE-DESIGN INVESTIGATION TECHNICAL MEMORANDUM	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 BOX 0070 30090141
M60050 / 003114 NONE CORRESP NONE 00004	07-15-2004 **10-02-2003** NONE	U.S. EPA - SAN FRANCISCO N. MOUTOUX BRAC - IRVINE F. PISZKIN	COMMENTS AND NON-CONCURRENCE ON THE DRAFT PRE-DESIGN INVESTIGATION TECHNICAL MEMORANDUM	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 BOX 0070 30090141
M60050 / 003095 NONE MISC NONE 00001	07-14-2004 **10-17-2003** NONE	CRWQCB - SANTA ANA J. BRODERICK BRAC F. PISZKIN	CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (CRWQCB) COMMENTS ON DRAFT PRE-DESIGN INVESTIGATION TECHNICAL MEMORANDUM	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_027	181-06-0125 BOX 0070 30090141
M60050 / 003038 CTO-0060/0045 MM N68711-95-D-7526 00005	01-13-2004 **11-06-2003** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	06 NOVEMBER 2003 FINAL BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_027	181-06-0125 BOX 0069 30090141
M60050 / 003667 NONE COMMENTS NONE 00002	07-25-2006 **11-06-2003** NONE	U.S. EPA - SAN FRANCISCO N. MOUTOUX BRAC PMO WEST A. PISZKIN	REVIEW AND COMMENTS ON THE DRAFT FINAL FINDING OF SUITABILITY TO LEASE (FOSL)	ADMIN RECORD BASE	003 016	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003039 CTO-0060/0046 MM N68711-95-D-7526 00006	01-13-2004 **11-13-2003** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	13 NOVEMBER 2003 FINAL BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	002 003 005 017	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0069
M60050 / 003040 CTO-0060/0047 MTG MINS N68711-95-D-7526 00005	01-13-2004 **11-20-2003** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	20 NOVEMBER 2003 FINAL BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	003 005	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0069
M60050 / 003021 NONE MM NONE 00020	12-03-2003 **12-03-2003** NONE	NAVFAC - SOUTHWEST DIVISION RAB MEMBERS	PUBLIC INFORMATION MEETING MAILER FOR THE 03 DECEMBER 2003 RESTORATION ADVISORY BOARD MEETING - INCLUDES AGENDA, PUBLIC NOTICE, MEETING MINUTES FROM 24 SEPTEMBER 2003 MEETING AND VARIOUS HANDOUTS (PORTION OF MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 008 011 012 016 017 018	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0069
M60050 / 003041 SWDIV SER 06CC.AP/0007 PLAN N62742-94-D-0048 00053	01-22-2004 **01-01-2004** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	DRAFT SAMPLING AND ANALYSIS PLAN AMENDMENT 2, OPERABLE UNIT (OU) 2C, LANDFILL SITES 3 AND 5 - [INCLUDES SWDIV TRANSMITTAL LETTER BY C. ARNOLD], (PORTION OF MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0069

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M60050 / 003083 CTO-0060/0088 MTG MINS N68711-95-D-7526 00006	05-26-2004 **01-07-2004** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION C. SON	07 JANUARY 2004 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 012 017 024	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0070
M60050 / 003084 CTO-0060/0089 MTG MINS N68711-95-D-7526 00019	05-26-2004 **01-28-2004** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION C. SON	28 JANUARY 2004 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES, DOCUMENT LIST, SCHEDULE	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 016 017	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0070
M60050 / 003050 SWDIV SER 06CC.AP/0233 RPT N62742-94-D-0048 00064	03-17-2004 **02-01-2004** 00078	EARTH TECH, INC. C. WANYOIKE NAVFAC - SOUTHWEST DIVISION	FINAL SAMPLING AND ANALYSIS PLAN (SAP) OPERABLE UNIT (OU) 2C, LANDFILL SITES 3 AND 5, AMENDMENT 2 [INCLUDES SWDIV TRANSMITTAL LETTER BY F. PISZKIN]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0069
M60050 / 003129 NONE LTR NONE 00001	08-09-2004 **02-04-2004** NONE	CRWQCB - SANTA ANA J. BRODERICK BRAC - IRVINE F. PISZKIN	NO COMMENTS ON DRAFT SAMPLING AND ANALYSIS PLAN, AMENDMENT NUMBER 2	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0071
M60050 / 003130 NONE CORRESP NONE 00001	08-09-2004 **02-10-2004** NONE	CALIFORNIA INTEGRATED WASTE M. WOCHNICK BRAC - IRVINE A. PISZKIN	APPROVAL OF WORK PLAN ON PROPOSED IN-WASTE LANDFILL GAS INVESTIGATION (WORK PLAN WAS NOT SUBMITTED TO ADMINISTRATIVE RECORDS)	ADMIN RECORD BASE INFO REPOSITORY	003 005	FRC - PERRIS IMAGED TORO_028	181-06-0125 30090141	BOX 0071

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M60050 / 003047 CTO-0060/0055 MTG MINS N68711-95-D-7526 00024	02-26-2004 **02-13-2004** 00060	BECHTEL ENVIRONMENTAL, INC. T. HEIRONIMUS NAVFAC - SOUTHWEST DIVISION C. SON	03 DECEMBER 2003 BASE REALIGNMENT AND CLOSURE (BRAC) CLEAN TEAM (BCT) MEETING MINUTES	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 BLDG. 83	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0069
M60050 / 003815 NONE COMMENTS NONE 00006	11-21-2006 **02-13-2004** NONE	DTSC - CYPRESS M. ALONZO BRAC PMO WEST A. PISZKIN	REVIEW AND COMMENTS ON THE DRAFT SAMPLING AND ANALYSIS PLAN (SAP) AMENDMENT NO. 2, LANDFILL SITES (INCLUDES COMMENTS BY GSU, DATED 02/04/04)	ADMIN RECORD BASE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1		
M60050 / 003077 0073 MTG MINS N68711-95-D-7526 00009	05-03-2004 **02-18-2004** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	18 FEBRUARY 2004 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES, DRAFT RESPONSE TO REVIEW COMMENTS AND LIST OF DOCUMENTS DISCUSSED	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0070
M60050 / 003082 0080 MM N68711-95-D-7526 00027	05-24-2004 **03-31-2004** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION C. SON	RESTORATION ADVISORY BOARD (RAB) MEETING MAILER, MEETING AGENDA AND PUBLIC NOTICE FOR 26 MAY 2004, RAB MEEETING MINUTES, ATTACHMENTS FROM THE 31 MARCH 2004 MEETING, DATED MAY 2004, REVISION 0, [PORTION OF MAILING LIST IS CONFIDENTIAL]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 003 005 011	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0070

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M60050 / 003115 CTO-0060/0102 MM N68711-95-D-7526 00026	07-15-2004 **05-26-2004** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	PUBLIC INFORMATION MATERIALS PACKAGE FOR THE 28 JULY 2004 RESTORATION ADVISORY BOARD (RAB) MEETING - INCLUDES 7/28/04 AGENDA AND PUBLIC NOTICE, 5/26/04 MEETING MINUTES AND VARIOUS HANDOUTS {PORTION OF MAILING LIST AND SIGN-IN SHEET IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 008 012 016 017 018 024	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0070
M60050 / 003162 CTO-0060/0128 MM N68711-95-D-7526 00048	09-10-2004 **05-26-2004** 00060	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	26 MAY 2004 BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES MATERIALS [INCLUDES AGENDA AND VARIOUS HANDOUTS]	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 011 016 018 024	FRC - PERRIS IMAGED TORO_026	181-06-0125 30090141	BOX 0071
M60050 / 003173 SER 06CC.AP/0665 LTR NONE 00013	10-07-2004 **06-24-2004** NONE	NAVFAC - SOUTHWEST DIVISION A. PISZKIN VARIOUS AGENCIES	PROPOSED LANDFILL GAS CONTROL MEASURES AND POSTCLOSURE LAND USE AT INSTALLATION RESTORATION SITE 3, SITE 5, AND ANOMALY AREA 3 {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 ANOMALY AREA 3	FRC - PERRIS IMAGED TORO_025	181-06-0125 30090141	BOX 0071
M60050 / 003116 SWDIV SER 06CC.AP/0732 CORRESP NONE 00003	07-21-2004 **07-14-2004** NONE	NAVFAC - SOUTHWEST DIVISION F. PISZKIN DTSC - CYPRESS T. MAHMOUD	RESPONSE TO COMMENTS ON THE REQUESTED CLARIFICATIONS REGARDING PROPOSED LANDFILL GAS CONTROL MEASURES AND POSTCLOSURE LAND USE AT INSTALLATION RESTORATION PROGRAM (IRP) {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 ANOMALY AREA 3	FRC - PERRIS IMAGED TORO_027	181-06-0125 30090141	BOX 0070

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M60050 / 003255 NONE RPT N68711-00-D-0004 00300	04-13-2005 **08-31-2004** 00006	CDM FEDERAL PROGRAMS CORP. R. CLIFFORD NAVFAC - SOUTHWEST DIVISION	MARCH 2004 FINAL GROUNDWATER MONITORING REPORT ROUND 19 [INCLUDES SWDIV TRANSMITTAL LETTER BY A. PIZKIN] {PORTION OF MAILING LIST IS CONFIDENTIAL; CD COPY ENCLOSED}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 016 017 018 024	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003168 2014 & SWDIV SER BPMOW.DAG/0239 RPT N68711-01-D-6010 00400	09-23-2004 **12-01-2004** DO 0002	WESTON SOLUTIONS, INC. NAVFAC - SOUTHWEST DIVISION	DRAFT RADIOLOGICAL RELEASE REPORT FOR INSTALLATION RESTORATION PROGRAM (IRP) SITES 3 AND 5 (INCLUDING AERIAL PHOTOGRAPH ANOMALY [APHO] 46), ANOMALY AREA 3, AND BUILDING 244	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003211 NONE MTG MINS N68711-00-D-0004 00023	12-08-2004 **12-01-2004** DO 0069	NAVFAC - SOUTHWEST DIVISION	01 DECEMBER 2004 72ND RESTORATION ADVISORY BOARD (RAB) MEETING MATERIALS - INCLUDES AGENDA, PUBLIC NOTICE, 09/29/04 MEETING MINUTES, SIGN IN SHEET {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 008 012 017 025	FRC - PERRIS IMAGED TORO_028	181-06-0125 BOX 0072 30090141
M60050 / 003303 126463/002/2.7 MTG MINS N68711-00-D-0004 00025	08-15-2005 **12-09-2004** 00069	CDM NAVFAC - SOUTHWEST DIVISION	09 DECEMBER 2004 FINAL BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES - INCLUDES VARIOUS HANDOUTS	ADMIN RECORD BASE INFO REPOSITORY	001 003 005 AA 3 HANGER 296 HANGER 297	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003709 NONE COMMENTS NONE 00001	08-29-2006 **01-31-2005** NONE	U.S. EPA - SAN FRANCISCO R. MUZA BRAC PMO WEST A. PISZKIN	REVIEW AND NO COMMENTS ON THE DRAFT RADIOLOGICAL RELEASE REPORT	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003740 NONE COMMENTS NONE 00007	09-07-2006 **02-09-2005** NONE	DTSC - CYPRESS T. MAHMOUD BRAC A. PISZKIN	REVIEW AND COMMENTS ON DRAFT RADIOLOGICAL RELEASE REPORT (INCLUDES COMMENTS BY D. BAILEY OF DHS - CA, DATED 8 FEBRUARY 2005)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 ANOMALY AREA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003741 NONE COMMENTS NONE 00001	09-07-2006 **02-15-2005** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC A. PISZKIN	REVIEW AND NO COMMENTS ON DRAFT RADIOLOGICAL RELEASE REPORT	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003238 NONE RPT N62742-94-D-0048 00700	03-09-2005 **02-28-2005** 00078	EARTH TECH, INC. M. MILLETT NAVFAC - SOUTHWEST DIVISION	TECHNICAL MEMORANDUM FOR THE PRE-DESIGN INVESTIGATION [CD COPY ENCLOSED]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003239 SWDIV SER BPMOW.FAP/0492 RPT N62742-94-D-0048 00250	03-10-2005 **03-01-2005** 00078	EARTH TECH, INC. NAVFAC - SOUTHWEST DIVISION	DRAFT FEASIBILITY STUDY (FS) ADDENDUM (INCLUDES SWDIV TRANSMITTAL LETTER BY A. PISZKIN) [SEE AR #1990 - DRAFT FINAL PHASE II FS REPORT FOR SITE 3, AR #1991 - DRAFT FINAL PHASE II FS REPORT FOR SITE 5, {SEE COMMENTS}	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003759 NONE COMMENTS NONE 00003	09-22-2006 **04-04-2005** NONE	DTSC - CYPRESS F. CHENG BRAC PMO WEST A. PISZKIN	REVIEW AND COMMENT ON THE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR FEASIBILITY STUDY (FS) ADDENDUM	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003270 SWDIV SER BPMOW.CPA/0601 CORRESP NONE 00014	05-19-2005 **04-06-2005** NONE	NAVFAC - SOUTHWEST DIVISION F. PISZKIN DTSC - CYPRESS F. CHENG	ADDITIONAL COPIES OF THE DRAFT FEASIBILITY STUDY ADDENDA'S EXECUTIVE SUMMARIES AND THE ANALYSIS OF REMEDIAL ALTERNATIVE TABLES FOR THE REVIEW AND IDENTIFICATION OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARAR)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005 OU 2B OU 2C	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003763 NONE CORRESP NONE 00002	09-22-2006 **04-15-2005** NONE	DTSC - CYPRESS F. CHENG BRAC PMO WEST A. PISZKIN	LETTER REQUESTING FOR EXTENSION OF DEADLINE FOR THE SUBMISSION OF FORMAL COMMENTS ON THE DRAFT FEASIBILITY STUDY (FS) ADDENDA	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003269 SWDIV SER BPMOW.FAP/0660 CORRESP NONE 00006	05-16-2005 **04-26-2005** NONE	NAVFAC - SOUTHWEST DIVISION F. PISZKIN VARIOUS AGENCIES	REQUEST FOR AN EXTENSION ON THE DRAFT PROPOSED PLAN FOR THE LANDFILL [INCLUDES APPENDIX A SCHEDULE]{PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003771 NONE COMMENTS NONE 00001	09-25-2006 **04-28-2005** NONE	U.S. EPA - SAN FRANCISCO R. MUZA BRAC PMO WEST A. PISZKIN	REVIEW AND APPROVAL OF THE FEDERAL FACILITY AGREEMENT (FFA) APPENDIX A EXTENSION REQUEST FOR THE DRAFT PROPOSED PLAN FOR THE LANDFILL	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003265 CTO-062/00/0080 & SWDIV SER BPMOW.FAP/0680 RPT N68711-95-D-7526 00023	05-12-2005 **05-01-2005** 00062	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST DIVISION	DRAFT PROPOSED PLAN FOR CLOSURE OF TWO INACTIVE LANDFILLS [INCLUDES SWDIV TRANSMITTAL LETTER BY F. PISZKIN] {PORTION OF MAILING LIST IS CONFIDENTIAL}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003371 NONE COMMENTS NONE 00001	10-26-2005 **05-03-2005** NONE	CRWQCB, RIVERSIDE J. BRODERICK BRAC F.A. PISZKIN	COMMENTS ON THE TECHNICAL MEMORANDUM, PRE-DESIGN INVESTIGATION,	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003365 NONE COMMENTS NONE 00006	10-26-2005 **05-04-2005** NONE	USEPA, SAN FRANCISCO R. MUZA BRAC F.A. PISZKIN	COMMENTS ON THE DRAFT FEASIBILITY STUDY ADDENDUM (FSA),	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003366 NONE CORRESP NONE 00015	10-26-2005 **05-11-2005** NONE	DTSC - CYPRESS F. CHENG BRAC F.A. PISZKIN	TRANSMITTAL OF REQUESTED APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENT (CARARS) AND COMMENTS ON THE DRAFT FEASIBILITY STUDY ADDENDUM (WITH ENCLOSURE)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003367 NONE COMMENTS NONE 00003	10-26-2005 **05-11-2005** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC F.A. PISZKIN	COMMENTS ON THE DRAFT FEASIBILITY STUDY ADDENDUM	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003377 NONE CORRESP NONE 00040	10-26-2005 **05-23-2005** NONE	DTSC - CYPRESS F. CHENG BRAC F.A. PISZKIN	TRANSMITTAL OF APPLICABLE OR REVELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE DRAFT FEASIBILITY STUDY ADDENDUM, (WITH ENCLOSURE)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003376 NONE COMMENTS NONE 00003	10-26-2005 **06-01-2005** NONE	USEPA - SAN FRANCISCO R. MUZA BRAC F.A. PISZKIN	COMMENTS ON THE DRAFT PROPOSED PLAN	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003385 NONE COMMENTS NONE 00003	10-27-2005 **06-07-2005** NONE	DTSC - CYPRESS F. CHENG BRAC F.A. PISZKIN	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (PORTION OF MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003389 NONE COMMENTS NONE 00003	10-27-2005 **07-06-2005** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC F.A. PISZKIN	COMMENTS ON DRAFT PROPOSED PLAN FOR CLOSURE OF TWO INACTIVE LANDFILLS	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003331 BRAC SER BPMOW.RJP/1238 CORRESP NONE 00011	10-07-2005 **09-20-2005** NONE	BRAC D. NEWTON VARIOUS AGENCIES	REQUEST FOR AN EXTENSION TO THE FEDERAL FACILITY AGREEMENT (FFA) APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS (W/ ENCLOSURES)	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 ANOMALY AREA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003341 NONE CORRESP NONE 00002	10-24-2005 **09-27-2005** NONE	USEPA - SAN FRANCISCO R. MUZA BRAC D. NEWTON	RESPONSE TO FEDERAL FACILITY AGREEMENT (FFA) APPENDIX A SCHEDULE AND EXTENSION REQUEST	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 AA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003346 NONE CORRESP NONE 00003	10-24-2005 **10-06-2005** NONE	DTSC - CYPRESS J. SCANDURA BRAC D. NEWTON	RESPONSE TO FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE EXTENSION REQUEST (A PORTION OF THE MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 AA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003407 NONE LTR NONE 00004	11-15-2005 **10-20-2005** NONE	DTSC - CYPRESS F. CHENG BRAC D. NEWTON	TRANSMITTAL OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR DRAFT FEASIBILITY STUDY ADDENDUM, OPERABLE UNIT (OU) 2C, LANDFILL SITES 3 & 5 (W/ ENCLOSURES) [PORTION OF MAILING LIST IS CONFIDENTIAL]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003406 NONE COMMENTS NONE 00008	11-15-2005 **10-27-2005** NONE	DTSC - CYPRESS F. CHENG BRAC D. NEWTON	TRANSMITTAL OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR OPERABLE UNIT (OU) 2B, SITE 2 GROUNDWATER, OPERABLE UNIT (OU) 2C, LANDFILL SITES 3 & 5 (W/ ENCLOSURES) [THIS LETTER SUPERSEDES THE DTSC'S 10/20/05 ARARS TRANSMITTAL LETTER]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005 OU 2B OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003409 BRAC SER BPMOW.CPA/1385 LTR NONE 00005	11-22-2005 **11-10-2005** NONE	BRAC D. NEWTON NAVFAC - SOUTHWEST DIVISION VARIOUS AGENCIES	LETTER TO REQUEST FOR EXTENSION TO THE FEDERAL FACILITY AGREEMENT (FFA) APPENDIX A SCHEDULE FOR PRIMARY DOCUMENTS	ADMIN RECORD BASE INFO REPOSITORY	002 003 005	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003433 NONE CORRESP NONE 00002	12-30-2005 **11-17-2005** NONE	USEPA - SAN FRANCISCO R. MUZA BRAC D. NEWTON	AGENCY DOES NOT CONCUR WITH FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE EXTENSION REQUEST	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	002 003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003464 BRAC SER BPMOW.CA/0172 LTR NONE 00012	03-14-2006 **02-27-2006** NONE	BRAC D. GOULD VARIOUS AGENCIES	UPDATE ON THE FEDERAL FACILITY AGREEMENT APPENDIX A SCHEDULE EXTENSION REQUEST FOR INSTALLATION RESTORATION PROGRAM (IRP) SITES AND ANOMALY AREA 3	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 012 AREA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003481 NONE COMMENTS NONE 00002	04-03-2006 **03-02-2006** NONE	US EPA R. MUZA BRAC PMOW WEST D. NEWTON	UPDATE AND COMMENTS ON THE FEDERAL FACILITY AGREEMENT (FFA) APPENDIX A SCHEDULE AND EXTENTION REQUEST	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 012 AA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003482 NONE COMMENTS NONE 00003	04-03-2006 **03-06-2006** NONE	DTSC - CYPRESS J. SCANDURA BRAC PMOW WEST D. NEWTON	COMMENTS ON FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE EXTENSION REQUEST FOR INSTALLATION RESTORATION PROGRAM (IRP) SITES	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 012 AA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003576 NONE COMMENTS NONE 00001	06-13-2006 **04-25-2006** NONE	CRWQCB - RIVERSIDE P. HANNON BRAC PMO WEST D. NEWTON	REVIEW AND NO COMMENTS ON THE DRAFT FINAL SOIL REMOVAL REPORT	ADMIN RECORD BASE INFO REPOSITORY	003 012 OU 1B	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003569 BRAC SER BPMOW.JTC/0479 CORRESP NONE 00002	06-01-2006 **05-30-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF FINAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2005 MONITORING ROUND 22 (W/OUT ENCLOSURE) {PORTION OF MAILING LIST IS CONFIDENTIAL} [SEE AR# 3570 - FINAL GROUNDWATER MONITORING REPORT]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 016 017 018 024	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003570 7506 AND 7591 RPT N68711-00-D-0004 00200	06-01-2006 **05-31-2006** 00084	CDM FEDERAL PROGRAMS CORP. BRAC PMO WEST	FINAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2005 MONITORING ROUND 22 (INCLUDES REPLACEMENT PAGES AND CD COPY OF APPENDICES C, D, AND E) [SEE AR# 3569 AND AR# 3776 - BRAC TRANSMITTAL LETTERS BY D. NEWTON] {SEE COMMENTS}	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 016 017 018 024	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003652 NONE COMMENTS NONE 00002	07-17-2006 **06-12-2006** NONE	U.S. EPA - SAN FRANCISCO R. MUZA BRAC PMO WEST D. NEWTON	REVIEW AND CONCURRENCE WITH THE FEDERAL FACILITY AGREEMENT (FFA) EXTENSTION REQUEST FOR THE DRAFT REMEDIAL INVESTIGATION REPORT	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017 ANOMALY AREA 3	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003679 N62742-94-D-0048 RPT NONE 00150	07-26-2006 **07-01-2006** 00078	NAFAC - SOUTHWEST BRAC PMO WEST	DRAFT FINAL FEASIBILITY STUDY ADDENDUM (SEE AR #3678 - BRAC TRANSMITTAL LETTER BY D. NEWTON) [SEE AR #1990 - DRAFT FINAL PHASE II FS REPORT FOR SITE 3, AR #1991 - DRAFT FINAL PHASE II FS REPORT FOR SITE 5, {SEE COMMENTS}	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003678 BRAC SER BPMOW.RJP/0647 CORRESP NONE 00002	07-26-2006 **07-24-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF DRAFT-FINAL FEASIBILITY STUDY (FS) ADDENDUM (W/OUT ENCLOSURE) [SEE AR #3679 - DRAFT FINAL FS ADDENDUM]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003690 PROJECT NO. 2014 RPT N68711-01-D-6010 00250	08-07-2006 **08-01-2006** 00002	WESTON SOLUTIONS INC. BRAC PMO WEST	DRAFT FINAL RADIOLOGICAL RELEASE REPORT (SEE AR #3689 - BRAC PMO WEST TRANSMITTAL LETTER BY D. NEWTON)	ADMIN RECORD BASE INFO REPOSITORY	003 005 APHO 46 AREA 3 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003694 2011 RPT N68711-01-D-6010 00050	08-11-2006 **08-01-2006** DO 0002	WESTON SOLUTIONS, INC. BRAC PMO WEST	FINAL RADIOLOGICAL RELEASE REPORT, FORMER SITES OF THE SUSPECTED RADIUM PLAQUE ADAPTOMETER BUILDING AND AIRCRAFT PARTS YARD	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 008 012 017 025	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003689 BRAC SER BPMOW.JTC/0669 CORRESP NONE 00003	08-07-2006 **08-02-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF DRAFT FINAL RADIOLOGICAL RELEASE REPORT FOR ORIGINAL LANDFILL, PERIMETER LANDFILL AND AERIAL PHOTOGRAPH ANOMALY (APHO) (W/OUT ENCLOSURE) [PORTION OF MAILING LIST IS CONFIDENTIAL] {SEE AR #3690 - DRAFT FINAL RADIOLOGICAL RELEASE REPORT}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 APHO 46 AREA 3 BUILDING 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003713 NONE COMMENTS NONE 00002	08-29-2006 **08-18-2006** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC PMO WEST D. NEWTON	REVIEW AND COMMENTS ON THE FINAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2005 MONITORING ROUND 22	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 016 017 018 024	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003742 NONE COMMENTS NONE 00001	09-07-2006 **08-24-2006** NONE	USEPA - SAN FRANCISCO R. MUZA BRAC PMO WEST D. NEWTON	REVIEW AND CONCURRENCE WITH DRAFT FINAL RADIOLOGICAL RELEASE REPORT	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003774 NONE COMMENTS NONE 00002	09-25-2006 **08-25-2006** NONE	U.S. EPA - SAN FRANCISCO R. MUZA BRAC PMO WEST D. NEWTON	REVIEW AND COMMENT ON THE DRAFT FINAL FEASIBILITY STUDY ADDENDUM (FSA)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003721 BRAC SER BPMOW.RJP/0743 CORRESP NONE 00006	09-06-2006 **08-29-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE EXTENSION REQUEST (W/ ENCLOSURES)	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003758 NONE COMMENTS NONE 00007	09-22-2006 **09-12-2006** NONE	DTSC - CYPRESS S. HAKIM BRAC PMO WEST D. NEWTON	REVIEW AND COMMENTS ON THE DRAFT FINAL FEASIBILITY STUDY (FS) ADDENDUM	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003937 BRAC SER BPMOW.GWC/0810 CORRESP NONE 00003	03-15-2007 **09-27-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF FINAL GROUNDWATER MONITORING REPORT, MARCH 2006 MONITORING ROUND 23 (W/OUT ENCLOSURE) [SEE AR #3938 - FINAL GROUNDWATER MONITORING REPORT] {PORTION OF THE MAILING LIST IS SENSITIVE}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 017	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003938 7592 RPT N68711-00-D-0004 00650	03-15-2007 **09-27-2006** 00084	CDM L. DAVIDSON BRAC PMO WEST	FINAL GROUNDWATER MONITORING REPORT, MARCH 2006 MONITORING ROUND 23 (CD COPY OF APPENDIX B ENCLOSED) [SEE AR #3937 - BRAC PMO WEST TRANSMITTAL LETTER OF D. NEWTON]	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 016 017 018 024	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003797 NONE COMMENTS NONE 00001	11-14-2006 **10-23-2006** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC PMO WEST D. NEWTON	REVIEW AND NO COMMENTS ON THE DRAFT FINAL RADIOLOGICAL RELEASE REPORT FOR SITES 3, 5, AERIAL PHOTOGRAPH ANOMALY SITE 46, ANOMALY AREA 3, AND BUILDING 244; CRWQCB CONCURS WITH THE CONCLUSIONS AND RECOMMENDATIONS	ADMIN RECORD BASE INFO REPOSITORY	003 005 ANOMALY AREA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003856 BRAC SER BPMOW.RP/0173 CORRESP NONE 00007	12-14-2006 **11-30-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	FEDERAL FACILITY AGREEMENT (FFA) SCHEDULE EXTENSION REQUEST (INCLUDES FFA AGREEMENT APPENDIX A SUBMITTAL MIILESTONES AND SITE 3 AND 5 PROJECT SCHEDULE) [PORTION OF THE MAILING LIST IS SENSITIVE]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003858 2014 RPT N68711-01-D-6010 00165	12-14-2006 **12-01-2006** 00002	WESTON SOLUTIONS, INC. BRAC PMO WEST	FINAL RADIOLOGICAL RELEASE REPORT FOR INSTALLATION RESTORATION PROGRAM SITES 3 AND 5, AERIAL PHOTOGRAPH ANOMALY (APHO) SITE 46, ANOMALY AREA 3, AND BUILDING 244 (SEE AR #3857 - BRAC PMO WEST TRANSMITTAL LETTER BY D. NEWTON)	ADMIN RECORD BASE INFO REPOSITORY	003 005 AA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003863 NONE RPT N62742-94-D-0048 00200	12-29-2006 **12-01-2006** 00078	EARTH TECH, INC. BRAC PMO WEST	FINAL FEASIBILITY STUDY (FS) ADDENDUM [SEE AR# 3862 - BRAC TRANSMITTAL LETTER BY D. NEWTON, AR# 3239 - DRAFT FS ADDENDUM, AR# 3679 - DRAFT FINAL FS ADDENDUM, AR# 1990 - DRAFT FINAL PHASE II FS REPORT, AR# 1991 - DRAFT FINAL PHASE II FS REPORT]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003865 NONE RPT NONE 00025	01-05-2007 **12-01-2006** NONE	BRAC PMO WEST BRAC PMO WEST	DRAFT FINAL PROPOSED PLAN (PP), CLOSURE OF TWO INACTIVE LANDFILLS (INCLUDES RESPONSE TO COMMENTS ON DRAFT PP) [SEE AR #3864 - BRAC PMO WEST TRANSMITTAL LETTER BY D. NEWTON]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003857 BRAC SER BPMOW.JTC/0182 CORRESP NONE 00002	12-14-2006 **12-05-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF FINAL RADIOLOGICAL RELEASE REPORT FOR INSTALLATION RESTORATION PROGRAM (IRP) SITE 3, ORIGINAL LANDFILL; IRP SITE 5,PERIMETER ROAD LANDFILL; AERIAL PHOTOGRAPH ANOMALY (APHO)SITE 46; ANOMALY AREA 3; AND BUILDING 244 [SEE COMMENTS]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 AA 3 APHO 46 BLDG. 244	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003862 BRAC SER BPMOW.RP/0220 CORRESP NONE 00002	12-29-2006 **12-21-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF FINAL FEASIBILITY STUDY (FS) ADDENDUM (W/OUT ENCLOSURE) [SEE AR# 3863 - FINAL FEASIBILITY STUDY ADDENDUM]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003864 BRAC SER BPMOW.RP/0221 CORRESP NONE 00003	01-05-2007 **12-21-2006** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF DRAFT FINAL PROPOSED PLAN (PP) [W/OUT ENCLOSURE] {SEE AR #3865 - DRAFT FINAL PP}	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003892 CTO-0062/0162 RPT N68711-95-D-7526 00020	01-29-2007 **01-01-2007** 00062	BECHTEL ENVIRONMENTAL, INC. NAVFAC - SOUTHWEST	FINAL PROPOSED PLAN (PP) FOR CLOSURE OF TWO INACTIVE LANDFILLS (SEE AR #3891 - BRAC PMO WEST TRANSMITTAL LETTER BY D. NEWTON)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003891 BRAC SER BPMOW.RP/0262 CORRESP NONE 00004	01-29-2007 **01-18-2007** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF FINAL PROPOSED PLAN (PP), OPERABLE UNIT (OU), INSTALLATION RESTORATION PROGRAM (IRP) [W/OUT ENCLOSURE] {SEE AR #3892 - FINAL PP} (PORTION OF THE MAILING LIST IS SENSITIVE)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003942 DO 0069, FILE NO. 126463-003/3.18 PUB NOTICE N68711-00-D-0004 00025	03-23-2007 **01-31-2007** 00069	OZ COURT REPORTING BROWN AND CALDWELL BOB COLEMAN	31 JANUARY 2007 PUBLIC MEETING TRANSCRIPT FOR THE PROPOSED PLAN FOR INSTALLATION RESTORATION SITES	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003943 FILE NO. 126463/003/3.20 MM N68711-00-D-0004 00045	03-29-2007 **01-31-2007** DO 0069	BROWN AND CALDWELL B. COLEMAN BRAC PMO WEST	31 JANUARY 2007 PROPOSED PLAN PUBLIC MEETING INFORMATION MATERIALS (INCLUDES AGENDA, 1/31/2007 MEETING MINUTES, PUBLIC NOTICE, AND VARIOUS HANDOUTS)	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	

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M60050 / 003923 NONE COMMENTS NONE 00001	03-05-2007 **02-09-2007** NONE	COMMUNITY MEMBER L. LAVEN BRAC D. NEWTON	REVIEW AND COMMENTS ON PROPOSED PLANS AT LANDFILL SITES (PORTION OF THE DOCUMENT IS SENSITIVE)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003924 NONE COMMENTS NONE 00001	03-05-2007 **02-10-2007** NONE	COMMUNITY MEMBER L. LAVEN BRAC D. NEWTON	SUMMARY ON GNAT CATCHER (PORTION OF THE DOCUMENT IS SENSITIVE)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003925 NONE COMMENTS NONE 00001	03-05-2007 **02-14-2007** NONE	VARIOUS AGENCIES BRAC D. NEWTON	REVIEW AND COMMENTS ON PROPOSED PLAN FOR INSTALLATION RESTORATION PROGRAM (IRP)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003928 NONE COMMENTS NONE 00002	03-05-2007 **02-20-2007** NONE	DTSC - CYPRESS M. ALONZO BRAC D. NEWTON	REVIEW AND CONCURRENCE ON FINAL FEASIBILITY STUDY (FS) ADDENDUM [PORTION OF THE MAILING LIST IS SENSITIVE]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004039 BRAC SER BPMOW.CPA/0417 CORRESP NONE 00003	08-29-2007 **03-12-2007** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES VARIOUS MEMBERS	FEDERAL FACILITY AGREEMENT SCHEDULE EXTENSION REQUEST INSTALLATION RESTORATION PROGRAM (IRP) [W/ENCLOSURE FEDERAL FACILITY AGREEMENT APPENDIX A SUBMITTAL MILESTONES (MARCH 2007)	ADMIN RECORD BASE INFO REPOSITORY	003 005 018 024	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003983 NONE CORRESP NONE 00003	05-29-2007 **03-19-2007** NONE	DTSC - CYPRESS J. SCANDURA BRAC PMO WEST D. NEWTON	APPROVAL AND AGREEMENT OF EXTENSION REQUEST FOR THE SUBMITTAL SCHEDULE OF INSTALLATION RESTORATION PROGRAM REPORT FOR THE FORMER EXPLOSIVE ORDNANCE DISPOSAL TRAINING RANGE	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 018 024	SOUTHWEST DIVISION - BLDG. 1	

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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
M60050 / 003947 CTO-0062/0166 RPT N68711-95-D-7526 00200	04-04-2007 **04-01-2007** 00062	BECHTEL ENVIRONMENTAL, INC. T. HEIRONIMUS NAVFAC - SOUTHWEST	REVISED DRAFT RECORD OF DECISION (ROD) [SEE AR #3946 - BRAC PMO WEST TRANSMITTAL LETTER BY D. NEWTON]	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003946 BRAC SER BPMOW.JTC/0456 CORRESP NONE 00002	04-04-2007 **04-02-2007** NONE	BRAC PMO WEST D. NEWTON VARIOUS AGENCIES	TRANSMITTAL OF REVISED DRAFT RECORD OF DECISION (ROD) [W/OUT ENCLOSURE] {SEE AR #3947 - REVISED DRAFT RECORD OF DECISION} (PORTION OF MAILING LIST IS SENSITIVE)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 003999 NONE CORRESP NONE 00004	07-25-2007 **06-01-2007** NONE	US ENVIORNMENTAL PROTECTION AGENCY R. MUZA BRAC PMO WEST R. WEISSENBORN	REVIEW AND COMMENTS ON DRAFT RECORD OF DECISION (ROD) FOR INSTALLATION RESTORATION PROGRAM (IRP) (W/ ENCLOSURE)	ADMIN RECORD BASE INFO REPOSITORY	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004034 NONE COMMENTS NONE 00001	08-27-2007 **06-11-2007** NONE	CRWQCB - RIVERSIDE J. BRODERICK BRAC PMO WEST R. WEISSENBORN	REVIEW AND NO COMMENTS ON THE DRAFT 2006 ANNUAL GROUNDWATER MONITORING REPORT	ADMIN RECORD BASE INFO REPOSITORY	001 002 003 005 017	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004003 NONE RESPONSE NONE 00002	07-25-2007 **06-18-2007** NONE	DTSC - CYPRESS J. SCANDURA BRAC PMO WEST R. WEISSENBORN	REQUEST A 45 DAY EXTENSION TO SUBMIT COMMENTS ON THE REVISED DRAFT RECORD OF DECISION (ROD), INSTALLATION RESTORATION PROGRAM (IRP) (PORTIONS OF THE MAILING LIST IS SENSITIVE)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004011 NONE COMMENTS NONE 00004	07-30-2007 **06-26-2007** NONE	DTSC - CYPRESS Q. THAN BRAC PMO WEST R. WEISSENBORN	REVIEW AND COMMENTS ON THE REVISED DRAFT RECORD OF DECISION (ROD) FOR INSTALLATION RESTORATION PROGRAM (IRP) [PORTION OF THE MAILING LIST IS SENSATIVE]	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	003 005	SOUTHWEST DIVISION - BLDG. 1	

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UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
M60050 / 004023 NONE COMMENTS NONE 00005	08-09-2007 **07-18-2007** NONE	CALIFORNIA DEPARTMENT OF PUBLIC HEALTH P. LEINWANDER DTSC - CYPRESS Q. THAN	REVIEW AND COMMENTS ON THE REVISED DRAFT RECORD OF DECISION (SEE AR #4024 - REQUEST FOR RESPONSES TO CA DEPT OF HEALTH'S COMMENTS)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004024 NONE CORRESP NONE 00001	08-09-2007 **07-19-2007** NONE	DTSC - CYPRESS Q. THAN BRAC PMO WEST R. WEISSENBORN	ELECTRONIC MAIL REQUESTING RESPONSES TO CA DEPT OF HEALTH'S COMMENTS ON THE REVISED DRAFT RECORD OF DECISION (SEE AR #4023 - CA DEPT OF HEALTH'S COMMENTS)	ADMIN RECORD BASE INFO REPOSITORY	003 005 OU 2C	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004056 NONE CORRESPONDENCE NONE 00002	09-07-2007 **07-27-2007** NONE	DTSC - CYPRESS Q. THAN BRAC PMO WEST R. WEISSENBORN	REVIEW AND NO COMMENTS ON THE DRAFT 2006 ANNUAL GROUNDWATER MONITORING REPORT (PORTION OF THE MAILING LIST IS SENSITIVE)	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 017	SOUTHWEST DIVISION - BLDG. 1	
M60050 / 004059 BRAC BPMOW.RLC/0851 CORRESPONDENCE NONE 00005	09-26-2007 **09-20-2007** NONE	BRAC PMO WEST R. WEISSENBORN VARIOUS AGENCIES	TRANSMITTAL OF THE FINAL 2006 ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2007, MONITORING ROUNDS 23 AND 24 (W/OUT ENCLOSURE) [SEE AR # 4060 - FINAL 2006 GROUNDWATER MONITORING REPORT] {PORTION OF THE MAILING LIST IS SENSITIVE}	ADMIN RECORD BASE INFO REPOSITORY SENSITIVE	001 002 003 005 017	SOUTHWEST DIVISION - BLDG. 1	

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ATTACHMENT B

TRANSCRIPT FROM PUBLIC MEETING

FORMER MARINE CORPS AIR STATION, EL TORO

PUBLIC MEETING

JANUARY 31, 2007

6:30 P.M.

PROPOSED PLAN

INSTALLATION RESTORATION SITES 3 AND 5

IRVINE CITY HALL

IRVINE, CALIFORNIA

REPORTED BY: LAURA MAES-DUNNE, CSR NO. 9836

CERTIFIED

COPY

COURT REPORTING

910 W. SAN MARCOS BOULEVARD, SUITE 202
SAN MARCOS, CALIFORNIA 92078
PHONE 760.744.0705 FAX 760.744.0484

1 PUBLIC MEETING

2 JANUARY 31, 2007

3

4 MR. NEWTON: All right. Thank you everybody
5 for coming. We're going to get started for the Sites 3
6 and 5 Proposed Plan Public Meeting.
7 We are on the record.
8 The agenda for tonight, we're going to meet the
9 Navy and the regulatory representatives, they are here
10 this evening.
11 I would like to point out Mr. Richard Muza with
12 the U.S. EPA. Mr. John Brodrick with the Regional Water
13 Quality Control Board, Santa Ana region; in the back.
14 And Mr. Than with the Department of Toxic Substance
15 Control; there you are.
16 And additionally, we also have the Public
17 Participation Specialist from DTSC Mr. Tim Chauvel. And
18 Viola Copper with EPA, she's the Community Relations
19 Public Specialist; over there.
20 We're going to do a Proposed Plan summary. We
21 are going to answer clarifying questions and then we
22 will open it up to public comment.
23 Thank you for attending the Public Meeting for
24 the Installation Restoration Program, Sites 3 and 5
25 Proposed Plan. We are on the record.

1 My name is Darren Newton, I am the BRAC
2 Environmental Coordinator for Former MCAS El Toro.
3 I will provide an overview of the Navy's
4 Installation Restoration Program. After the
5 Installation Restoration Program overview, Mr. Richard
6 Pribyl will present a summary of the Proposed Plan for
7 Installation Restoration Sites 3 and 5.
8 After the presentation of the Proposed Plan,
9 the Navy will answer clarifying questions on the
10 materials presented. For example, clarification of the
11 terms that may be used in the Proposed Plan, such as,
12 "bank cubic yards," that would be cubic yards that are
13 in place.
14 Please hold other questions or comments for the
15 formal comment portion of this meeting. The Navy will
16 not address your comments or questions now; however,
17 they will be addressed in responsiveness summary and
18 documented in the Record of Decision. And that allows
19 the Navy ample time to research and provide thorough
20 responses to your questions.
21 Tonight we're focused on IR Site 3, the
22 Original Landfill; and Site 5, the Perimeter Road
23 Landfill. However, it is important to generally
24 describe the Installation Restoration Program so that
25 you may better understand the current phase of Sites 3

1 and 5 in the overall process.

2 For the BRAC PMO West, I'm the appointed BRAC

3 Environmental Coordinator for El Toro. I have the

4 responsibility and the authority to conduct the

5 Installation Restoration Program.

6 I am also and Navy's representative on the BRAC

7 Cleanup Team, or commonly known as the BTC. The team is

8 composed of the Navy as well as the regulatory agencies,

9 that's the U.S. EPA, the Department of Toxic Substance

10 Control and the Regional Quality Water Control Board,

11 working collaboratively towards completing the IR

12 Program and satisfying the necessary regulatory

13 requirements.

14 The purpose of the Navy's IR Program is to

15 identify, investigate, assess, characterize and cleanup

16 hazardous substances. To reduce the risk to human

17 health and the environment from past waste disposal

18 operations and hazardous material spills.

19 Additional purpose of the program, is to be

20 consistent with the Comprehensive Environmental Response

21 Compensation Liability Act, CERCLA. And CERCLA is

22 sometimes known as SuperFund in the commercial sector.

23 To reach the goal of moving all sites to closure.

24 The CERCLA process is comprised of multiple

25 steps. The first step is the preliminary assessment

1 site inspection, which is generally a site discovery
2 phase. Involves interviews, records research and
3 initial media sampling.
4 The Remedial Investigation Feasibility Study
5 phase includes, detailed investigation and
6 characterization of a site, as well as the analysis of
7 alternatives for cleanup.
8 The Proposed Plan -- and that's where we are
9 now -- is the presentation of the proposed alternative
10 to the public for a period of comment.
11 And then the Record of Decision, documents the
12 selected alternative.
13 Prior to selecting the alternative, the Navy
14 considers comments from the public. The Record of
15 Decision includes a responsiveness summary, which
16 addresses comments from the public comment period.
17 The Installation Restoration Program for Former
18 MCAS El Toro, at a glance, there are 25 IR Sites listed
19 in the program. El Toro was listed on the National
20 Priorities List by the U.S. EPA, and the U.S. EPA is the
21 lead regulatory agency.
22 The Navy has entered into a Federal Facilities
23 Agreement between the Navy and the regulatory agencies,
24 or the BCT.
25 And Appendix A of the Federal Facilities

1 Agreement is a schedule of submittals or milestones for
2 all MCAS El Toro IR sites.
3 And we update that annually and periodically.
4 The BCT meets bi-monthly -- at least
5 bi-monthly -- and members of the BCT are present this
6 evening.
7 Appendix A is a road map that details the
8 schedules and milestones for each of the Installation
9 Restoration Program sites.
10 The comment period for this Proposed Plan is
11 January 22nd through February 21st.
12 My address, as well as those regulatory agency
13 project contacts are clearly shown in the Proposed Plan
14 on Page 19.
15 Page 19 is the back page of the Proposed Plan,
16 and your project contacts are listed here.
17 After the Record of Decision, the Navy will
18 prepare a remedial design and conduct a remedial action,
19 or the cleanup.
20 Mr. Richard Pribyl will now present a summary
21 of the Proposed Plan for Sites 3 and 5.
22 Please hold your questions or comments for the
23 formal comment period portion of this meeting.
24 The Navy will not address your comments or
25 questions now, but they will be addressed in the

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1 responsiveness summary in the Record of Decision.
2 Richard.
3
4 PRESENTATION
5 BY MR. RICHARD PRIBYL
6
7 MR. PRIBYL: Thank you, Darren.
8 Good evening, everyone. My name is Richard
9 Pribyl, and I am the Navy's Project Manager for Sites 3
10 and 5 at MCAS El Toro. And I work out of San Diego,
11 BRAC Program Management Office West.
12 Tonight's presentation summarizes the Proposed
13 Plan and Preferred Remedies for Sites 3 and 5.
14 The Navy proposes to construct new covers for
15 the inactive landfills at Sites 3 and 5. The new covers
16 would meet the state and federal applicable or relevant
17 and appropriate requirements for the closure of
18 landfills.
19 The focus of tonight's presentation is to
20 present the summary of the Proposed Plan and provide an
21 opportunity for the community to provide comments on the
22 Proposed Plan.
23 Additionally, written comments will be accepted
24 during the 30-day comment period, which extends until
25 February 21st, 2007.

1 The Navy will provide written responses to all
2 comments received tonight, as well as written comments
3 submitted during the comment period.
4 All comments and responses will be memorialized
5 in the ROD. The draft ROD is currently planned for
6 release in mid March of this year.
7 The Proposed Plan includes a variety of
8 elements, including: Site background investigations,
9 results of environmental investigations, current
10 conditions of Sites 3 and 5 landfills and development of
11 remedial alternatives.
12 These elements summarize the basis for the
13 selection of the Preferred Remedy, which is identified
14 as Alternative 4d.
15 The Proposed Plan also provides a means for the
16 public to provide input into the selection process and
17 outlines our next steps.
18 This map from Page 3 of the Proposed Plan,
19 shows the locations of Sites 3 and 5 in relation to the
20 former station.
21 The two insets on the map provide a magnified
22 view of the current configuration of each landfill.
23 Both landfills have been inactive and have not received
24 any waste for almost 40 years.
25 This close-up of Site 3 shows the project

1 boundary and the various waste accumulation areas.
2 Site 3 encompasses approximately 11 acres and
3 is situated between Irvine Boulevard and North Marine
4 Way. And as you can see on the figure, the Agua Chinon
5 Wash divides the site into two distinct areas.
6 Also noting at the top of the figure where the
7 former incinerator, that was used to burn waste for
8 consolidation at the site, is located.
9 Wastes were burned in the former incinerator
10 area to reduce volume and then placed in trenches and
11 covered with soil.
12 The Navy completed record searches and
13 interviews with former employees to help determine the
14 potential waste types, which may have included: Metals,
15 incinerator ash, solvents, paint residues, hydraulic
16 fluids, engine coolants, construction debris, oily
17 waste, municipal solid waste and various inert solid
18 waste.
19 This close-up of Site 5 shows the project
20 boundary and the waste accumulation area located near
21 the existing golf course.
22 Site 5 encompasses approximately 1.8 acres and
23 is located in the eastern portion of the former station
24 near the foothills of the Santa Ana Mountains.
25 Wastes were typically burned to reduce volume

1 and then covered with soil.

2 The Navy completed record searches and

3 interviews with former employees to help determine the

4 potential waste types, which may have included:

5 Burnable trash, municipal solid waste, cleaning fluids,

6 scrap metals, paint residues, fuels, oils and solvents.

7 Sites 3 and 5 have undergone extensive

8 evaluation to determine the most protective and viable

9 alternatives for each landfill closure.

10 The principal supporting documents included in

11 this process include: The Draft Final Remedial

12 Investigation Report in April of 1997, the Draft Final

13 Feasibility Study Report in September of 1997, the 1998

14 Proposed Plan in June of 1998, the Draft Record of

15 Decision in March of 1999, Final Historical Radiological

16 Assessment in May of 2000, Final Feasibility Study

17 Addendum in December of 2006 -- which includes

18 information from the 2004 Supplemental Site

19 Characterization that was completed -- Final

20 Radiological Release Report in December 2006 and the

21 2007 Proposed Plan in January of 2007, which is what

22 we're discussing here tonight.

23 A remedial investigation -- or RI -- was

24 conducted in 1996 and documented in 1997, to evaluate

25 the nature and extent of contamination at the sites and

1 to estimate the potential risks to human health and the
2 environment associated with each landfill.
3 The RI included analyses of air, soil gas,
4 soil, surface water and groundwater, to support the site
5 evaluation.
6 The RI air sampling results did not identify
7 any localized concentrated sources of landfill gases.
8 Air and soil gas sampling confirmed that landfill gas
9 controls are not needed, due to the low concentrations
10 of VOCs present.
11 The soil sampling indicated the presence of
12 VOCs, semivolatile organic compounds -- or SVOCs --
13 petroleum hydrocarbons and metals.
14 The groundwater well installation and
15 subsequent sampling and analysis supported that metals
16 are present as a part of the natural ambient conditions
17 at the site.
18 And finally, without further action by the
19 Navy, Sites 3 and 5 would present potential risks to
20 human health and the environment.
21 The 1997 Feasibility Study presented remedial
22 action objectives developed during the RI that were used
23 to develop the six potential remedial alternatives for
24 Sites 3 and 5.
25 The U.S. EPA's presumptive remedy approach,

1 which has been used at landfills around the country,
2 guided this development of these remedial alternatives
3 during the FS process.
4 The remedy of landfill capping, institutional
5 controls and long-term monitoring, framed five
6 alternatives, some with optional components.
7 The "No Action" alternative was used as a
8 baseline, as required, for the other five alternatives.
9 Excavation and off-site disposal was not
10 economically feasible and was screened out.
11 The 1998 Proposed Plan presented the results of
12 the development and evaluation of remedial alternatives
13 conducted during the FS.
14 It also identified the preferred remedy for
15 closure of Sites 3 and 5, and described the basis for
16 the preferred alternative.
17 A public meeting was held in 1998 and oral and
18 written comments were received during the public comment
19 period.
20 The 1999 Draft Record of Decision identified
21 Alternative 4d, a single-barrier cap with a flexible
22 membrane liner and institutional controls and
23 monitoring, as the preferred remedy for the closure of
24 Sites 3 and 5.
25 Now, for clarification, on Page 4 of the

1 Proposed Plan, the selected remedy should be Alternative
2 4d as just discussed, not Alternative 3, the
3 single-layer soil cap.
4 Radiological evaluations were conducted in
5 2000, 2001 and in 2004.
6 In order to assess and identify potential,
7 likely or known radioactive source material or
8 contamination, a historical radiological assessment --
9 or HRA -- was conducted in 2000. The HRA used
10 information from record searches and interviews with
11 former personnel that identified sites needing further
12 evaluation to be protective of human health and the
13 environment.
14 The HRA identified Radium-226 as a chemical of
15 potential concern, due to its use in luminescent paints,
16 aircraft dials, gauges and other equipment.
17 Further investigation of Sites 3 and 5
18 consisting of state-of-art radiological scans of the
19 entire surface and soil sampling, were conducted in
20 accordance with the guidelines in a Multi-Agency
21 Radiation Survey and Site Investigation Manual, used by
22 the Nuclear Regulatory Commission, the Department of
23 Energy, the Department of Defense and the U.S. EPA.
24 Naturally occurring radiological levels at the
25 former station were measured and soil samples were

1 collected from the non-impacted reference areas.
2 Statistical analysis performed on the survey and
3 sampling data from each site, supported that
4 radiological levels in surface soils were consistent
5 with site background.
6 A Feasibility Study addendum was developed that
7 modified and reevaluated remedial alternatives for Sites
8 3 and 5, previously evaluated in the Draft Final Phase
9 II Feasibility Study Reports for Sites 3 and 5, which
10 was released in September of 1997.
11 In this addendum the Navy presented a
12 supplemental site characterization and new information
13 was incorporated into the revised FS. These changes
14 included a revision of the remedial action objectives
15 previously developed for Sites 3 and 5.
16 Characterization activities included, trenching
17 and soil gas sampling, installation and sampling of
18 perimeter landfill gas -- or soil gas -- monitoring
19 wells.
20 As a result of the additional characterization
21 activities, the Navy was able to refine the landfill
22 boundaries and estimated quantity of waste.
23 Site 3 has approximately 30,000 bank cubic
24 yards of waste and Site 5 has approximately 18,000 bank
25 cubic yards of waste.

1 Both estimates represent reductions from
2 previous waste volume estimates.
3 Other important findings included that the
4 methane concentrations reported would not typically
5 require landfill gas controls, and that groundwater does
6 not require any cleanup; only monitoring is necessary.
7 The remedial action objectives presented in the
8 FS addendum included: Protect human health by
9 minimizing the potential for direct contact with
10 landfill wastes, control run-off and erosion, minimize
11 infiltration and potential contaminant leaching to
12 groundwater, minimize the potential for landfill gas to
13 migrate to and beyond the 100-foot buffer zone
14 established for Sites 3 and 5 and minimize the potential
15 for surface waters in the wash from contacting the
16 landfill wastes.
17 This is only applicable for Site 3.
18 This slide shows a detailed list of six
19 remedial alternatives evaluated for Sites 3 and 5.
20 Three of those remedial alternatives include
21 options for the type of cap for the landfills, as seen
22 in the slide.
23 All of the alternatives, except Alternative 1,
24 which is "No Action," include four key components to
25 address potential landfill gas migration.

1 1, an active landfill gas collection system and
2 passive vent system.
3 2, passive gas control trenches installed
4 within the monitoring zone.
5 3, California Integrated Waste Management
6 monitoring protocol would be implemented within 50 feet
7 of the waste boundary.
8 And, 4, land use restrictions would be
9 implemented within 100 feet of the waste boundary,
10 including a 50-foot compliance monitoring zone, plus
11 another 50 feet as an additional buffer.
12 More specific information can be found on
13 Page 8 of the Proposed Plan.
14 The six remedial alternatives were evaluated
15 using the nine required criteria in the Federal National
16 Oil and Hazardous Substances Pollution Contingency
17 Plan -- or the NCP. They are divided into three
18 categories: Threshold criteria, primary balancing
19 criteria and modifying criteria.
20 The threshold criteria include the overall
21 protection of human health and the environment, and
22 compliance with applicable or relevant and appropriate
23 requirements -- or ARARs.
24 The primary balancing criteria include long
25 term effectiveness and permanence, reduction of

1 toxicity, mobility -- or volume through treatment --
2 short term effectiveness, implementability and cost.
3 Modifying criteria include state and community
4 acceptance.
5 In this slide you will see Table 3 from Page 14
6 in the Proposed Plan, which graphically summarizes the
7 analysis of alternatives for Sites 3 and 5.
8 The preferred remedy is chosen based upon the
9 highest performance in satisfying the nine criteria
10 listed on the previous slide. Based on the criteria and
11 all supporting investigations, Alternative 4d,
12 single-barrier cap with a flexible membrane liner and
13 institutional controls and motioning, is the preferred
14 remedy.
15 Alternative 4d consists of a single-barrier cap
16 to minimize water infiltration and leachate migration,
17 constructed on top of the existing soil. A thorough
18 description is presented on Pages 11 and 12 of
19 the Proposed Plan.
20 The cap would consist of a soil foundation
21 layer, a cap with a synthetic flexible membrane plastic
22 liner and then covered with a top soil layer to support
23 vegetation.
24 Prior to the installation of the cap at Site 3,
25 the Navy would consolidate wastes from the former

1 incinerator area and Waste Areas B through F, into the
2 primary waste consolidation area at this site.
3 Consolidation of wastes is not required for Site 5.
4 Passive and active landfill gas control systems
5 would also be installed and institutional controls would
6 be implemented. The institutional controls will include
7 land use restrictions to protect the integrity of the
8 remedy.
9 Environmental monitoring would be conducted for
10 up to 30 years for landfill gas and groundwater to
11 assess changes in locations or concentrations of
12 contaminants.
13 Visual inspection and necessary maintenance
14 would be conducted in order to protect the integrity of
15 the remedy.
16 Here is a drawing of Alternative 4 as shown on
17 Page 11 in the Proposed Plan. As you can see, three
18 additional layers will be included on top of the
19 existing soil cover. The barrier layers listed below
20 the figure, are the choices for what to use above the
21 foundation layer and below the future vegetative soil
22 layer.
23 The preferred remedy, Alternative 4d, would use
24 a synthetic flexible membrane liner made of either high-
25 or low-density polyethylene plastic sheeting, instead of

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1 the clay layers. This would avoid the potential for
2 clay layers to dry out. Research has shown and
3 supported that flexible membrane liners outperform the
4 other barrier layer options identified in semi-arid
5 environments, like we have at Sites 3 and 5.
6 This slide shows a conceptual drawing of the
7 Site 3 landfill as shown on Page 15 of the Proposed
8 Plan.
9 Shown are the estimated boundaries of the
10 landfill caps, along with other components of the
11 preferred remedy. At Site 3, landfill wastes from
12 defined waste areas -- shown at the beginning of the
13 presentation -- would be consolidated under this cap.
14 Other components of the preferred remedy shown,
15 are the 100-foot buffer zone -- which is comprised of
16 the 50-foot compliance zone and then 50-foot buffer
17 zone -- landfill gas monitoring control systems,
18 existing soil gas wells, lysimeters and groundwater
19 monitoring wells -- which would be used to monitor the
20 environmental conditions at the sites.
21 The preferred remedy would also include
22 institutional controls, monitoring and maintenance to
23 protect the integrity of the landfill caps and
24 associated components of the remedy.
25 And then just for everybody's reference, if you

are on Page 15, that key also applies to the previous slide. So the legend is the same for both figures.

This provides a conceptual drawing of Site 5, the perimeter road landfill. Also on Page 15.

Unlike Site 3, the consolidation of wastes would not be necessary at Site 5.

Shown on the slide are the estimated boundaries of the landfills caps, along with the previously described 100-foot buffer zone, landfill gas monitoring and control systems, existing soil gas wells, lysimeters and groundwater wells.

The preferred remedy would also include institutional controls, monitoring and maintenance to protect the integrity of the landfill caps and associated components of the remedy.

You may go to either of these two locations to review the previous investigation reports cited in this presentation or to obtain additional information.

The Heritage Park Regional Library is the location of the MCAS El Toro information repository, and the administrative record files are located at the BRAC office on the former MCAS El Toro with Ms. Marge Flesch.

Thank you for your time and attention this evening. This concludes my presentation.

MR. NEWTON: Thank you, Rich.

1 CLARIFYING QUESTIONS

2

3 MR. NEWTON: Before we open for formal comment,
4 are there any clarifying questions on the Proposed Plan
5 Summary that were just presented? For example, with the
6 terms that were presented, such as "bank cubic yards"?
7 Bank cubic yards are cubic yards in place.
8 Please hold your questions or comments until
9 the formal comment period, but are there any clarifying
10 questions at this time?
11 To make your comments, you may make your
12 comments individually to the court reporter, if you
13 like.
14 You can submit your comments in writing, and we
15 do have a form provided and you can put it in the box,
16 if you like.
17 Or you can wait for the microphone to reach
18 you. Bob will be walking around with the microphone.
19 You may state your name and your affiliation and provide
20 your comment or question.
21 Do we have any questions or comments?
22 (No Questions.)
23 MR. NEWTON: All right. I wasn't expecting
24 that.
25 You may send your written comments via postal

1 mail to the address provided here. It's also on Page 19
2 of the Proposed Plan.
3 You may also fax your comments to myself,
4 Darren Newton, at (949) 726-6586. Or you may also
5 e-mail them to me, and my e-mail address is on Page 19
6 of the Proposed Plan.
7 All written comments may be received no later
8 than February 21st, 2007.
9 This does conclude the Public Meeting portion
10 of IRS Sites 3 and 5.
11 We do have the public meeting portion for 6:30
12 to 7:30. We are on the record and we are advertised to
13 7:30.
14 At this time if there are no comments on the
15 Proposed Plan, we would like to keep the meeting open
16 but go off the record until somebody has a question.
17 If you have a question, please let us know, we
18 will go back on the record.
19 We are off the record until 7:30.
20 All right. Thank you all very much.
21 (Recess taken.)
22
23 CONCLUSION OF PUBLIC MEETING
24
25 MR. NEWTON: It is now 7:30. This concludes

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1 the public meeting for portion for the IRS Site 3 and 5
2 Proposed Plan public meeting for former MCAS El Toro and
3 we are off the record.
4 Thank you.
5 (At 7:30 p.m. the Public Meeting
6 was concluded.)
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STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN DIEGO)

I, Laura Maes-Dunne, a Certified Shorthand Reporter for the State of California, do hereby certify:

That the foregoing public meeting was taken before me at the time and place therein named; that said public meeting reported by me in shorthand was later transcribed under my direction into print by means of computer-assisted transcription, and the foregoing pages are a full, true and correct record of the public meeting adduced at the aforementioned time and place.

And I further certify that I am a disinterested person and am in no way interested in the outcome of said action, or connected with or related to any of the parties in said action.

IN WITNESS WHEREOF, I have subscribed my hand this 13th day of March, 2007.

LAURA MAES-DUNNE, CSR NO. 9836

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