UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
EL TORO (SANTA ANA), CALIFORNIA 92709

IN REPLY REFER TO:
11000
1JG-E1
9 JUN 1987

From: Commanding General, Marine Corps Air Station El Toro
To: Commander, Western Division, Naval Facilities Engineering Command, P. O. Box 727, San Bruno, Ca 94066-0720 (Code 114)

Subj: FUEL CONTAMINATION SITE AT MCAS EL TORO

Ref: (a) CG MCAS EL TORO msg 092309Z Jun 87

Encl: (1) CG MCAS El Toro CA msg 191555Z May 87
(2) Laboratory Report, #2803-87, 2804-87, 2805-87
(3) CRWQCB ltr dtd 3 Jun 1987

1. As stated in reference (a), the enclosures are forwarded for your information.

J. H. APPLEGATE
By direction

Copy to:
CMC Washington DC (Code LFL)
✓CO, WESTNAVFACENGCOMBRO San Diego, CA (1141)

PRIORITY * U N C L A S S I F I E D * BACKROUND COPY
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PTTUZYUW RUWJG FA2179 1390800-UUUU--RUWFSUU.
ZNR UUUUU
P R 191555Z MAY 87
FM CG MCAS EL TORO CA//1JG//
TO COMDT COGARD WASHINGTON DC
CCGDELEVEN LONG BEACH CA
EPA SAN FRANCISCO CA
INFO CMC WASHINGTON DC//LFL//
COMCABWEST MCAS EL TORO CA
MCAS TUSTIN CA
CNO WASHINGTON DC
COMNAVSEASYSCOM WASHINGTON DC
COMNAVFACENGCOM ALEXANDRIA VA
WESTNAVFACENGCOMBRO SAN DIEGO CA
WESTNAVFACENGCOM SAN BRUNO CA
NEESA PORT HUENEME CA
ACCT NA-CNRF
BT
UNCLAS //N06280//
SUBJ FUEL SPILL REPORT. REPORT SYMBOL MC-6280-01
1. THE UNDERGROUND SPILLAGE/CONTAMINATION WAS DISCOVERED THE MORNING OF 4 MAY 1987.
2. 4 DAYS AFTER EXCAVATION WASTE JP-5 WAS DISCOVERED IN A HOLE DRILLED TO INSTALL TANK METERING DEVICES.
3 THE LOCATION OF THE HOLES ARE NEAR TWO STORAGE TANKS 169 & 170
[illegible]AS TUSTIN.
4. QUANTITY UNKNOWN WITH ABOUT 80 GALLONS OF FUEL AND GROUNDWATER REMOVED.
5. JP-5 IS THE APPARENT CONTAMINANT.
6. SAMPLES TAKEN EACH DAY.
7. NO VISIBLE POLLUTION ON SURFACE - UNDERGROUND - 12 FEET.
8. ACTION PLANNED ASITE ASSESSMENT TO DETERMINE SOURCE OF CONTAMINATION AND PROPOSED CORRECTIVE ACTIONS REQUIRED.
9. WEATHER DRY FOR PAST MONTH.
10. ESTIMATED GROUNDWATER FLOW RATE IS 1-5 FEET PER YEAR.
11. POTENTIALLY OVER SEVERAL YEARS/DECADES AGRICULTURAL GROUNDWATER MAY BECOME TAINTED.
12. POTENTIAL DANGER IS TO THE UNDERGROUND AQUIFIER.
13. EXACT CAUSE OF SPILLAGE IS UNKNOWN AT THIS TIME.
14. NO IMMEDIATE PHYSICAL ASSISTANCE REQUIRED AT THIS TIME.
15. TELEPHONE REPORT TO NRC WAS MADE ON 4 MAY 1987.
BT
#2179

NNNN

	A	I		A	I		A	I		A	I		A	I		A	I		A	I		A	I
ADJ			CDE			SCTY			G-4			COMP			G-3			H&HS			RCNR		
G-1			CP&L			SERV			ORD			ACCT			SOMS			RSU					
CHAP			INSP			SJA			FACM			DISB			SUPO			ROIC			S/S		
CIVP			JPAO			TRNG			SCE			CSMR			SFTY			MED			ALL		

ENCLOSURE (1)

QUALITY ASSURANCE LABORATORY

USMCAS EL TORO
ATT: BEVERLY VAN CLEEF
MCAS EL TORO
FAC MGMT DEPARTMENT
CODE 1 J.G. 20
SANTA ANA, CA 92709

Date of Report:	June 2, 1987
Date Sample Received:	May 14, 1987
Date Analysis Completed:	May 29, 1987
Analyzed By:	BW SS PN DW RG CS EA RS
Sample ID:	7 LIQUID 1 ELECTICAL BOX

ANALYSES--RESULTS

ANALYSES	UNITS	2798-87 LIQUID ET001 5/13/87	2799-87 LIQUID ET002 5/13/87	2800-87 ELECT.BOX BALAST	2801-87 LIQUID SANATARY SEWER	2802-87 LIQUID ET004 5/13/87	2803-87 LIQUID TV 5/14/87 TANK 16?
PHENOLS	MG/L					0.007	
TDS	MG/L					[illegible]	
TSS	MG/L				450	[illegible]	
ANTIMONY	MG/L						
BERYLLIUM	MG/L						
CADMIUM	MG/L						
CHROMIUM	MG/L						
COPPER	MG/L						
LEAD	MG/L						
NICKEL	MG/L						
SILVER	MG/L						
THALLIUM	MG/L						
ZINC	MG/L						
ARSENIC	MG/L						
MERCURY	MG/L						
SELENIUM	MG/L						
BOD	MG/L				284		
CONDUCTIVITY	MG/L				1255	1160	
G & O	MG/L	6.2	10.4			1.5	
MBAS	MG/L					.23	
PH	UNITS				7.22	7.59	
TEH	MG/L					<.005	
FID SCAN							CONTAINS JET FUEL

TEH - TOTAL EXTRACTABLE HYDROCARBONS
TEH - ANALYZED BY METHOD 8015, EXTRACTED BY MODIFIED 5020

Mailing Address:
P.O. Box 22567
San Diego, CA 92122

San Diego
6555 Nancy Ridge Dr., Suite 300
San Diego, CA 92121
(619) 566-1060

Arizona
6201 E. Calle Rosa
Scottsdale, AZ 85251
(602) 468-0691

ENCLOSURE (2)

ANALYSES	UNITS	2804-87 LIQUID TV 5/5/87 TANK 170	2805-87 LIQUID TV 5/13/87 TANK 170
PHENOLS	MG/L		
TDS	MG/L		
TSS	MG/L		
ANTIMONY	MG/L	<0.050	<0.050
BERYLLIUM	MG/L	<0.001	<0.001
CADMIUM	MG/L	<0.008	<0.008
CHROMIUM	MG/L	0.013	0.016
COPPER	MG/L	0.827	0.084
LEAD	MG/L	0.034	0.037
NICKEL	MG/L	0.021	<0.010
SILVER	MG/L	<0.04	<0.04
THALLIUM	MG/L	<0.050	<0.050
ZINC	MG/L	0.081	0.237
ARSENIC	MG/L	<0.050	<0.050
MERCURY	MG/L	<0.002	0.002
SELENIUM	MG/L	<0.050	<0.050
BOD	MG/L		
CONDUCTIVITY	MG/L		
O & G	MG/L		
MBAS	MG/L		
PH	UNITS		
TEH	MG/L		
FID SCAN			

TEH - TOTAL EXTRACTABLE HYDROCARBONS
TEH - ANALYZED BY METHOD 8015, EXTRACTED BY MODIFIED 5020

Peter T.L. Shen
Laboratory Director

MCAS EL TORO
EPA METHAOD 8080
ORGANOCHLORINE PESTICIDES AND PCBs
SAMPLE TYPE - LIQUID

ANALYSIS	DET.LIM. ug/l	2804-87 TV 5/5/87 TANK 170 ug/l	2805-87 TV 5/13/87 TANK 170 ug/l
ALDRIN	0.004	ND	ND
ALPHA-BHC	0.004	ND	ND
BETA-BHC	0.006	ND	ND
SIGMA-BHC	0.009	ND	ND
GAMA-BHC(LINDANE)	0.004	ND	ND
CHLORDANE	0.014	ND	ND
4,4' - DDD	0.012	ND	ND
4,4' - DDE	0.004	ND	ND
4,4' - DDT	0.012	ND	ND
DIELDRIN	0.002	ND	ND
ENDOSULFAN I	0.014	ND	ND
ENDOSULFAN II	0.004	ND	ND
ENDOSULFAN SULFATE	0.066	ND	ND
ENDRIN	0.006	ND	ND
ENDRIN ALDEHYDE	0.023	ND	ND
HEPTACHLOR	0.004	ND	ND
HEPTACHLOR EPOXIDE	0.063	ND	ND
METHOXYCHLOR	0.176	ND	ND
TOTAL PCBs	0.065	ND	ND

Peter T.L. Shen
Laboratory Director

MCAS EL TORO
EPA METHOD 624
PURGEABLES
SAMPLE TYPE - LIQUID

ANALYSIS	DET. LIMIT ug/l	2804-87 TV 5/5/87 TANK 170 ug/l	2805-87 TV 5/13/87 TANK 170 ug/l
1,2-DICHLOROBENZENE	30	ND	ND
1,3-DICHLOROBENZENE	30	ND	ND
1,4-DICHLOROBENZENE	30	ND	ND
2-CHLOROETHYLVINYL ETHER	30	ND	ND
1,1,1-TRICHLOROETHANE	3.2	ND	ND
1,1,2,2-TETRACHLOROETHANE	6.9	ND	ND
1,1,2-TRICHLOROETHANE	4	ND	ND
1,1-DICHLOROETHANE	4.7	ND	ND
1,1-DICHLOROETHENE	2.8	ND	ND
1,2-DICHLOROETHANE	2.8	ND	ND
1,2-DICHLOROPROPANE	6	ND	ND
BENZENE	4.4	ND	ND
BROMODICHLOROMETHANE	2.2	ND	ND
BROMOFORM	4.7	ND	ND
BROMOMETHANE	30	ND	ND
CARBON TETRACHLORIDE	2.8	ND	ND
CHLOROBENZENE	6	ND	ND
CHLOROETHANE	30	ND	ND
CHLOROFORM	1.6	ND	ND
CHLOROMETHANE	30	ND	ND
DIBROMOCHLOROMETHANE	3.1	ND	ND
ETHYL BENZENE	7.2	160	ND
METHYLENE CHLORIDE	2.8	ND	180
TETRACHLOROETHENE	4.1	ND	ND
TOLUENE	6	ND	ND
TRICHLOROETHENE	1.9	ND	ND
TRICHLOROFLUOROMETHANE	30	ND	ND
VINYL CHLORIDE	30	ND	ND
cis-1,3-DICHLOROPROPENE	5	ND	ND
trans-1,2-DICHLOROETHENE	1.6	ND	ND
trans-1,3-DICHLOROPROPENE	30	ND	ND

ND - NONE DETECTED

PETER T.L. SHEN
LABORATORY DIRECTOR

MCAS EL TORO
EPA METHOD 625
BASE/NEUTRAL EXTRACTABLES
SAMPLE FORM - LIQUID
METHOD 625

ANALYSIS	DETECTION LIMIT ug/l	2804-87 TV 5/5/87 TANK 170 ug/l	2805-87 TV 5/13/87 TANK 170 ug/l
1,4-DICHLOROBENZENE	4.4	ND	ND
2-CHLORONAPHTHALENE	1.9	ND	ND
4-CHLOROPHENYL PHENYL ETHER	4.2	ND	ND
1,2,4-TRICHLOROBENZENE	1.9	ND	ND
1,2-DICHLOROBENZENE	1.9	ND	ND
1,3-DICHLOROBENZENE	1.9	ND	ND
2,4-DINITROTOLUENE	5.7	ND	ND
2,6-DINITROTOLUENE	1.9	ND	ND
3,3'-DICHLOROBENZIDINE	16.5	ND	ND
4,4'-DDD	2.8	ND	ND
4,4'-DDE	5.6	ND	ND
4,4'-DDT	4.7	ND	ND
ACENAPHTHENE	1.9	ND	ND
ACENAPHTHYLENE	3.5	ND	ND
ALDRIN	1.9	ND	ND
ANTHRACENE	1.9	ND	ND
BENZIDINE	44.0	ND	ND
BENZO(A)ANTHRACENE	7.8	ND	ND
BENZO(A)PYRENE	2.5	ND	ND
BENZO(B)FLUORANTHENE	4.8	ND	ND
BENZO(G,H,I)PERYLENE	4.1	ND	ND
BENZO(K)FLUORANTHENE	2.5	ND	ND
BENZYL BUTYL PHTHALATE	2.5	ND	ND
BIS(2-CHLOROETHOXY)METHANE	5.3	ND	ND
BIS(2-CHLOROETHYL)ETHER	5.7	ND	ND
BIS(2-CHLOROISOPROPYL)ETHER	5.7	ND	ND
BIS(2-ETHYLHEXYL)PHTHALATE	2.5	ND	ND
CHLORDANE	10	ND	ND
CHRYSENE	2.5	ND	ND
DI-N-BUTYL PHTHALATE	2.5	ND	ND
DI-N-OCTYL PHTHALATE	2.5	ND	ND
DIBENZO(A,H)ANTHRACENE	2.5	ND	ND
DIELDRIN	2.5	ND	ND
DIETHYL PHTHALATE	1.9	ND	ND
DIMETHYL PHTHALATE	1.6	ND	ND

MCAS EL TORO
METHOD 625

	DETECTION LIMIT ug/l	2804-87 TV 5/587 TANK 170 ug/l	2805-87 TV 5/13/87 TANK 170 ug/l
ENDOSULFAN II	10	ND	ND
ENDOSULFAN I	10	ND	ND
ENDOSULFATE	5.6	ND	ND
ENDRIN ALDEHYDE	10	ND	ND
ENDRIN	10	ND	ND
FLUORANTHENE	2.2	ND	ND
FLUORENE	1.9	ND	ND
HEPTACHLOR	1.9	ND	ND
HEPTACHLOR EPOXIDE	2.2	ND	ND
HEXACHLOROBENZENE	1.9	ND	ND
HEXACHLOROCYCLOPENTADIENE	10	ND	ND
HEXACHLOROETHANE	1.6	ND	ND
HEXACHLORROBUTADIENE	0.9	ND	ND
INDENO(1,2,3-CD)PYRENE	3.7	ND	ND
ISOPHORONE	2.2	ND	ND
N-NITROSODI-N-PROPYLAMINE	10	ND	ND
N-NITROSODIMETHYLAMINE	10	ND	ND
N-NITROSODIPHENYLAMINE	1.9	ND	ND
NAPHTHALENE	1.6	ND	ND
NITROBENZENE	1.9	ND	ND
PCB 1016	10	ND	ND
PCB 1221	10	ND	ND
PCB 1242	10	ND	ND
PCB 1248	10	ND	ND
PCB 1260	10	ND	ND
PCB-1221	30.0	ND	ND
PCB-1254	36.0	ND	ND
PHENANTHRENE	5.4	ND	ND
PYRENE	1.9	ND	ND
TOXAPHENE	10	ND	ND
beta BHC	10	ND	ND
beta-BHC	10	ND	ND
gamma BHC	10	ND	ND
4-CHLORO-3-METHYLPHENOL	3.0	ND	ND
2-CHLOROPHENOL	3.3	ND	ND
2,4-DICHLOROPHENOL	2.7	ND	ND
2,4-DIMETHYLPHENOL	2.7	ND	ND
2,4-DINITROPHENOL	42	ND	ND
2-METHYL-4,6-DINITROPHENOL	24	ND	ND
2-NITROPHENOL	2.4	ND	ND
4-NITROPHENOL	2.4	ND	ND
PENTACHLOROPHENOL	3.6	ND	ND
PHENOL	1.5	ND	ND
2,4,6-TRICHLOROPHENOL	2.7	ND	ND

ND - NONE DETECTED

PETER Y.L. SHEN
LABORATORY DIRECTOR

STATE OF CALIFORNIA

GEORGE DEUKMEJIAN, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
6809 INDIANA AVENUE, SUITE 200
RIVERSIDE, CALIFORNIA 92506
TELEPHONE: (714) 782-4130

June 3, 1987

Capt. S. R. Holm, Jr., CEC, USN
Director, Facilities Management
Marine Corps Air Station El Toro (JA)
Santa Ana, CA 92709-5001

JET FUEL LEAK AT MCAS TUSTIN

Dear Captain Holm:

On May 4, 1987, your office reported to us that a layer of free jet fuel (JP-5) floating on ground water had been identified at the Marine Corps Air Station in Tustin. The fuel was reportedly discovered in the course of excavation work being conducted adjacent to aboveground jet fuel tanks at the facility.

During a May 20, 1987, meeting between LTJG Cheryl Churchman of your staff and Kurt Berchtold of this office, the status of your investigations into this problem was discussed. Based on those discussions, it is our understanding that work to date has focused on identifying the source of the leakage; however, these investigations have not yet identified the source. If it is determined in the course of this work that the source of the contamination is a past leak, the future investigation and cleanup of this problem will apparently be addressed as part of the Navy Assessment and Control of Installation Pollutants (NACIP) Program.

However, it is also our understanding that regardless of whether or not future work is conducted as part of the NACIP Program, current plans are that assessment work to determine the extent of jet fuel present at the site will not be initiated for approximately six months. This is unacceptable. We request that you accelerate your investigation of the extent of this problem, and that you submit a plan of action and time schedule for this investigation by June 24, 1987. Failure to submit or follow an appropriate time schedule will result in issuance of a Cleanup and Abatement Order by this office, requiring timely investigation and cleanup of all jet fuel contamination.

If you have any questions in this matter, please contact me or Mr. Berchtold of our Pollutant Investigation Section.

Sincerely,

JAMES R. BENNETT
Executive Officer

cc: John Hills, Orange County Health Care Agency
James Reilly, Orange County Water District
James McNally, Department of Health Services

KVB:kyb

ENCLOSURE (3)