



DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132 - 5190

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MCAS EL TORO
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May 1, 2003

Ms. Nicole Moutoux
U.S. Environmental Protection Agency
Mail Code STD-8-2, Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Mr. Rafat Abbasi
Office of Military Facilities
Department of Toxic Substances Control
5796 Corporate Avenue

Mr. John Broderick
California Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3339

Dear Fellow BRAC Cleanup Team (BCT) Members:

Enclosure (1) is forwarded for your review.

Please forward comments to me **no later than May 30, 2003.**

If you have any questions about this document, please contact Gordon Brown at (619) 532-0791, or me at (619) 532-0784.

Sincerely,

ANDY PISZKIN
BRAC Environmental Coordinator
By direction of the Commander

Enclosure: 1. Site 1 Investigation Derived Waste (IDW) Disposal Plan - Soil and Water,
MCAS El Toro

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MEMO

Date: May 1, 2003

To: Gordon Brown
cc.

From: Crispin Wanyoike

Re: Site 1 Investigation Derived Waste (IDW) Disposal Plan - Soil and Water

1.0 INTRODUCTION

This document presents the screening results and recommendations for disposal of investigation-derived waste (IDW) generated during drilling and sampling activities performed as part of the Phase II Remedial Investigation (RI) at Site 1, Former Marine Corps Air Station (MCAS) El Toro. The RI was performed under Contract Task Order (CTO) No. 0072 under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62742-94-D-0048.

Regulatory Authority

After MCAS El Toro was placed on the list of military facilities scheduled for closure under the Base Realignment and Closure (BRAC) Act, a BRAC Cleanup Team including representatives from SWDIV, USEPA, DTSC, and CRWQCB, was formed to oversee implementation of the Federal Facilities Agreement (FFA). The implementation of FFA included the following investigations and studies at various sites: an air quality solid waste assessment test (Air SWAT), a Phase I RI, a Phase II RI, and a feasibility study (FS).

Background

IRP Site 1 is located in the northeast portion of MCAS El Toro in the foothills of the Santa Ana Mountains. Site 1 is situated within a tributary canyon of Borrego Canyon Wash at elevations ranging from approximately 610 to 760 feet above mean sea level (MSL). Site 1 includes the Northern EOD Range (approximately 737,250 square feet) and the Southern EOD Range (approximately 721,600 square feet) (BNI 1995).

Training for EOD and detonation of munitions has been conducted at Site 1 since 1952 (BNI 1995). Use of the EOD Range has been discontinued with the closure of MCAS El Toro on 2 July 1999.

The majority of recent military EOD training took place at the Northern EOD Range, and EOD training by the Orange County Sheriff Department and federal agencies took place at the Southern EOD Range (BNI 1995). Several demolition pits, a range building, and a former observation bunker constructed from metal ammunition cans were reported to be present. Many of these metal cans were reported to be filled with the burned residue of disposed munitions such as cartridge-actuated devices and 20 millimeter (mm) ammunition (USACE 1998).

Military ordnance that was used at the site includes hand grenades, land mines, cluster bombs, smoke bombs, and rocket warheads. Civilian and commercial explosives, such as dynamite, and plastic and gelatinous explosives have been used at the EOD Range. Munitions were detonated in trenches and pits, which were continually filled with soil and then reexcavated. In 1982, approximately 2,000 gallons of sulfur

trioxide chlorosulfonic acid (FS smoke) were reportedly burned in trenches located in the northern portion of the site. An estimated 300,000 gallons of petroleum fuels were burned during disposal from 1952 through 1993 (JEG 1993).

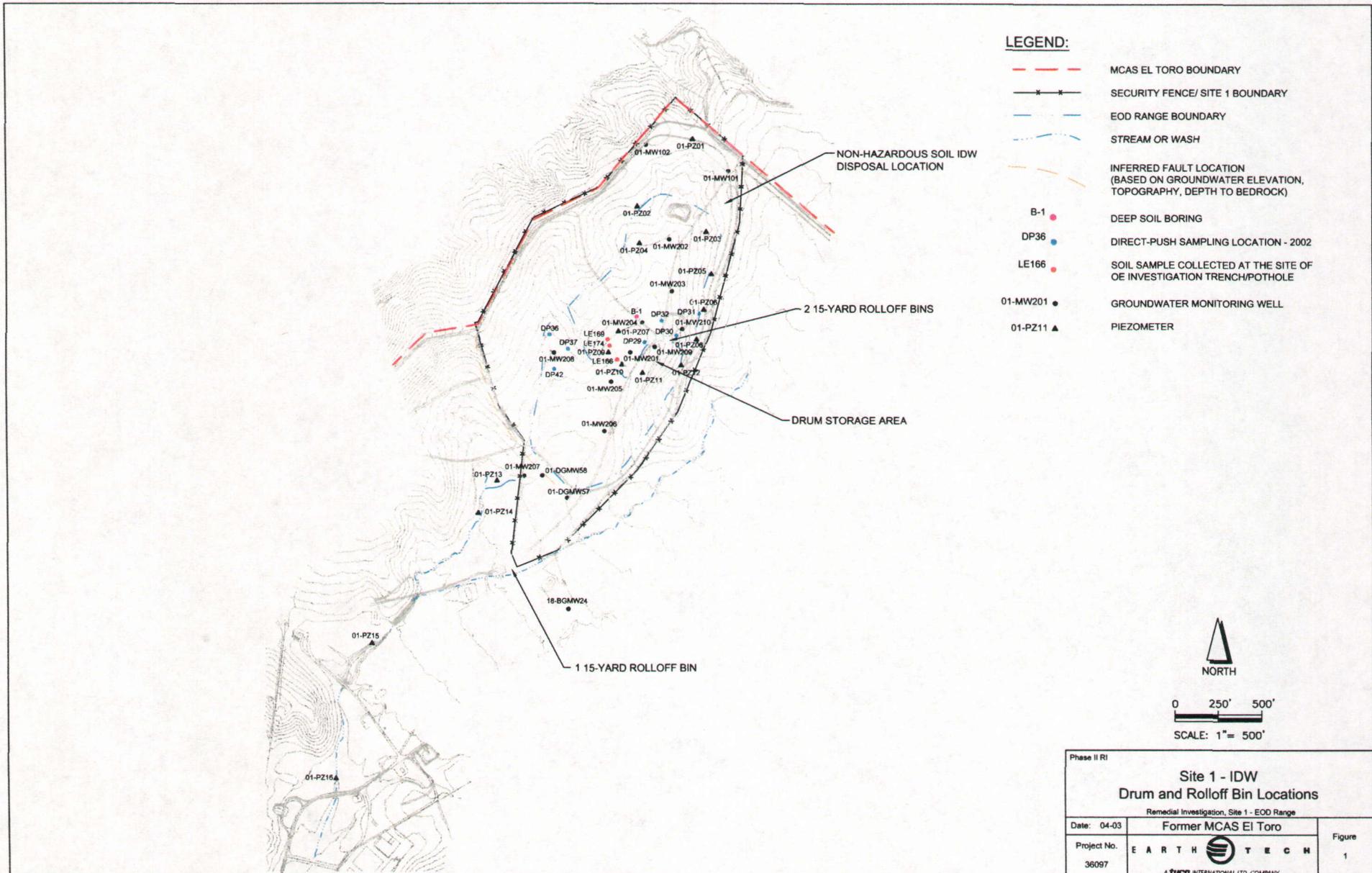
Past land use at the site was industrial. Although residential use exists in proximity to MCAS El Toro, there is no residential land use near Site 1. The site is currently fenced and locked, and unauthorized visitors are prohibited. Preliminary reuse scenarios proposed for Site 1 include transfer to the Federal Bureau of Investigation (FBI) for uses similar in nature to the past use for EOD training.

The purpose of the RI field investigation program for Site 1 was to further identify and characterize the potential impact to human health and the environment as a result of past operations at Site 1, such as EOD training, which also included the destruction of unserviceable ammunition. The RI field investigation was performed in accordance with the *Final RI Work Plan* (Earth Tech 2001). Figure 1 presents the sampling locations for the RI investigation. The RI investigation included the following activities:

1. Groundwater sampling of all existing 4-inch groundwater monitoring wells;
2. Soil sampling and analysis (shallow and subsurface) to evaluate the nature and extent of contamination within the Northern EOD Range and the Southern EOD Range, as well as to evaluate human health and ecological risk at Site 1;
3. Installation of three additional 4-inch groundwater monitoring wells in order to further evaluate the nature and extent of contamination in the central portion of Site 1;
4. Drilling of one soil boring (B-1) in a portion of Site 1 deemed to have significant hydrocarbon contamination;
5. Installation of piezometers (2-inch groundwater monitoring wells) in order to further delineate the extent of perchlorate contamination within the central portion and the northern portion of Site 1, as well as possible contamination downgradient from Site 1;
6. Groundwater sampling and analysis for perchlorate of all 2-inch piezometers, the three newly-installed 4-inch monitoring wells, as well as selected previously-installed 4-inch monitoring wells.

The soil IDW was generated during three mobilizations: the installation of three 4-inch groundwater monitoring wells, the drilling of one soil boring, and the installation of sixteen 2-inch piezometers. The groundwater IDW was generated during the installation, development and sampling of the 4-inch groundwater monitoring wells and 2-inch piezometers, as well as decontamination during the drilling of the soil boring.

Figure 1: Site 1 IDW Drum and Roll-off Bin Locations



- LEGEND:**
- MCAS EL TORO BOUNDARY
 - x SECURITY FENCE/ SITE 1 BOUNDARY
 - EOD RANGE BOUNDARY
 - STREAM OR WASH
 - INFERRED FAULT LOCATION (BASED ON GROUNDWATER ELEVATION, TOPOGRAPHY, DEPTH TO BEDROCK)
 - B-1 DEEP SOIL BORING
 - DP36 DIRECT-PUSH SAMPLING LOCATION - 2002
 - LE166 SOIL SAMPLE COLLECTED AT THE SITE OF OE INVESTIGATION TRENCH/POTHOLE
 - 01-MW201 GROUNDWATER MONITORING WELL
 - ▲ 01-PZ111 PIEZOMETER

Phase II RI		
Site 1 - IDW		
Drum and Rolloff Bin Locations		
Remedial Investigation, Site 1 - EOD Range		
Date: 04-03	Former MCAS El Toro	
Project No. 36097		Figure 1
A INTERNATIONAL LTD. COMPANY		

2.0 WASTE GENERATION AND APPLICABLE REGULATORY REQUIREMENTS

The IDW soil and water will be placed, managed, labeled and inventoried in accordance with the following:

- USEPA Guide to Management of Investigation-Derived Waste, Publication: 9345.3-03FS. April 1992.
- California Code of Regulations, Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste.
- Resource Conservation and Recovery Act (RCRA) hazardous waste defined: USEPA, 40 CFR 261.3, et seq.
- RCRA generator of hazardous wastes requirements: USEPA, 40 CFR 262.1, et seq.
- CLEAN SOP 22, IDW Management (BNI 1999).

3.0 INVESTIGATION DERIVED WASTE

Drilling of 4-inch groundwater monitoring wells (01-MW208, 01-MW209, and 01-MW210), the soil borehole (B-1), groundwater sampling, and decontamination activities generated approximately 6.5 cubic yards of soil cuttings and 13 drums of water as IDW. The soil cuttings and water were placed in 55-gallon drums. The drilling of the piezometers generated three 15-cubic yard rolloff bins of soil. The number of IDW drums and their contents are presented in Table 1.

Table 1: Quantity of IDW Generated and Their Contents

Media	Generated by	Number of containers/Quantity of IDW
Soil	Soil cuttings from the drilling of 4-inch monitoring wells	Twenty-one 55-gallon drums/5.7 cubic yards of IDW soil
Soil	Soil cuttings from the drilling of one borehole	Three 55-gallon drums/0.8 cubic yards of IDW soil
Soil	Soil cuttings from the drilling of 2-inch piezometers	Three 15-cubic yard rolloff bins/45 cubic yards of IDW soil
Water	Decontamination water as a result of cleaning the drilling equipment, backhoe buckets, and water from well development and purging activity. Decontamination water as a result of groundwater sampling	Thirteen 55-gallon drums/715 gallons of IDW water

4.0 WASTE CHARACTERIZATION

Laboratory Analyses

Soil IDW from Installation of 4-inch Groundwater Monitoring Wells. During the drilling of the three groundwater monitoring wells (01-MW208, 01-MW209, and 01-MW210), soil samples were collected only for lithologic description. The samples were not submitted to an analytical laboratory for analysis. However, the three boreholes were drilled in areas where soil samples were collected during other tiers of the remedial investigation. Monitoring well 01-MW208 was drilled/installed near soil sampling locations DP36, DP37, and DP42 (see Figure 1). The samples were collected at depths of 1.5 feet and 5 feet below ground surface (bgs). Monitoring well 01-MW209 was drilled near soil sampling location DP29, and the locations of trenches from where the soil samples LE166, LE169, and LE174, were collected (see Figure 1). LE166,

LE169, and LE 174 were collected from Trench 13, Trench 20, and Trench 17, respectively. The samples were collected at depths of 1.5 feet to 5 feet bgs. Monitoring well 01-MW210 was installed near soil sampling locations DP30, DP31, and DP32 (see Figure 1). The samples were all collected at depths of 1.5 feet and 5 feet bgs.

Analytical results for the soil samples being used as surrogates for the soil contained within drums were from samples collected near ground surface, and not at significant depth. Due to this, the analytical results represent higher contaminant levels than might be encountered in the soil actually contained within the drums. Since the drums contain soil from depths of up to 70 feet bgs. The soil samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), perchlorate, petroleum hydrocarbons, explosives, and metals. The analytical results were evaluated and maximum detected compounds were then compared to MCAS El Toro background concentrations, USEPA Region 9 Preliminary Remediation Goals (PRGs), total threshold limit concentrations (TTLCs), ten times soluble threshold limit concentrations (STLC x 10), and twenty times the toxicity characteristic leaching procedure limits (TCLP x 20). A summary of the analytical results and the screening is presented in Table 2.

Table 2: Summary of Detected Analytes and Comparison to Regulatory Threshold Concentrations – 4-inch Groundwater Monitoring Well Installation (01-MW208, 01-MW209, and 01-MW210)

Analyte	Maximum Detected Concentration	Former MCAS El Toro Background Concentrations (0.95 Quantile)	Residential Preliminary Remediation Goals (PRGs)	TTLCs	(STLC) x 10	(TCLP) x 20*
Volatile Organic Compounds (µg/kg)						
2-Butanone	9 J	-	7,300,000	-	-	-
2-Hexanone	50 J	-	-	-	-	-
Semivolatile Organic Compounds (µg/kg)						
Di-n-butyl Phthalate	69 J	-	-	-	-	-
Metals (mg/kg)						
Aluminum	11,500	14,800	76,000	-	-	-
Arsenic	0.96	6.86	0.39	500	50	100
Barium	49.4	173	5,400	10,000	1000	2,000
Beryllium	0.38 J	0.669	150	75	7.5	-
Cadmium	6.8	2.35	37	100	10	20
Calcium	71,000	46,000	-	-	-	-
Chromium	6.4	26.9	211	500	50	100
Cobalt	2	6.98	903	8,000	800	-
Copper	375	10.5	3,129	2,500	250	-
Iron	5,950	18,400	23,463	-	-	-
Lead	32.8	15.1	150	1,000	50	100
Magnesium	2,040 J	8,370	-	-	-	-
Manganese	164	291	1,762	-	-	-
Mercury	1.5	0.22	23.5	20	2	4
Nickel	2.8	15.3	1,564	2,000	200	-
Potassium	863 J	4,890	-	-	-	-
Selenium	0.16	0.32	391	100	10	20
Sodium	181	405	-	-	-	-
Vanadium	14.6	71.8	547	2,400	240	-
Zinc	1,530	77.9	23,463	5,000	2500	-
Petroleum Hydrocarbons (PHC) (mg/kg)						
Motor Oils	24	-	-	-	-	-
PHC as Diesel Fuel	110	-	-	-	-	-
PHC as Gasoline	0.1 J	-	-	-	-	-

Notes:

TCLP = toxicity characteristic leaching procedure

TTLC = total threshold limit concentration

STLC = soluble threshold limit concentration

- = not established

J = indicates an estimated value

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Bold indicates concentrations above MCAS El Toro Background concentration.

Bold in highlighted cell indicates concentration above 10 times STLC value.

* = Criteria for IDW soil based on the extraction methodology for the TCLP, where the weight of the extraction fluid is equal to 20 times the weight of the solid sample. Therefore, the derived criterion for waste is equivalent to 20 times the regulatory level for TCLP.

Soil IDW from Installation of Soil Borehole B-1. Borehole B-1 was drilled to a depth of 35 feet bgs. Samples were collected every 5 feet and submitted for analysis. All samples were analyzed for VOCs, SVOCs, perchlorate, petroleum hydrocarbons, explosives, and metals. The analytical results were evaluated and maximum detected compounds were then compared to MCAS El Toro background concentrations, USEPA Region 9 PRGs, TTLCs, STLC x 10, and TCLP x 20. A summary of the analytical results and the screening is presented in Table 3.

Table 3: Summary of Detected Analytes and Comparison to Regulatory Threshold Concentrations – Soil Boring B-1

Analyte	Maximum Detected Concentration	Former MCAS El Toro Background Concentration (0.95 Quantile)	Residential Preliminary Remediation Goals (PRGs)	TTLCs	(STLC) x 10	(TCLP) x 20*
Volatile Organic Compounds (µg/kg)						
Ethylbenzene	2,600 J	-	8,900	-	-	-
Toluene	440 J	-	520,000	-	-	-
Total Xylenes	17,000 J	-	280,000	-	-	-
Semivolatile Organic Compounds (µg/kg)						
2-Methylnaphthalene	75,000	-	-	-	-	-
Naphthalene	46,000	-	-	-	-	-
Explosives (µg/kg)						
2,4,6-Trinitrotoluene	7,860	-	16,000	-	-	-
HMX	1,400	-	3,100,000	-	-	-
RDX	14,000	-	4,420	-	-	-
Metals (mg/kg)						
Aluminum	5,030 J	14,800	76,000	-	-	-
Arsenic	1	6.86	0.39	500	50	100
Barium	37.9	173	5,400	10,000	1000	2,000
Beryllium	0.75	0.669	150	75	7.5	-
Cadmium	0.15	2.35	37	100	10	20
Calcium	36,800	46,000	-	-	-	-
Chromium	3.3	26.9	211	500	50	100
Cobalt	1.9	6.98	903	8,000	800	-
Copper	37.6	10.5	3,129	2,500	250	-
Iron	3,250	18,400	23,463	-	-	-
Lead	4.2	15.1	150	1,000	50	100
Magnesium	1,180	8,370	-	-	-	-
Manganese	104	291	1,762	-	-	-
Mercury	0.53	0.22	23.5	20	2	4
Nickel	1.6	15.3	1,564	2,000	200	-
Potassium	1,440	4,890	-	-	-	-
Selenium	0.26 J	0.32	391	100	10	20
Sodium	1,810 J	405	-	-	-	-

Analyte	Maximum Detected Concentration	Former MCAS El Toro Background Concentration (0.95 Quantile)	Residential Preliminary Remediation Goals (PRGs)	TTLCs	(STLC) x 10	(TCLP) x 20*
Vanadium	6	71.8	547	2,400	240	-
Zinc	9.8 J	77.9	23,463	5,000	2500	-
Petroleum Hydrocarbons (PHC) (mg/kg)						
PHC as diesel	19,000	-	-	-	-	-
PHC as Gasoline	710 J	-	-	-	-	-

Notes:

TCLP = toxicity characteristic leaching procedure

TTLC = total threshold limit concentration

STLC = soluble threshold limit concentration

- = not established

J = indicates an estimated value

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Bold indicates concentrations above MCAS El Toro Background concentration.

Italics indicates concentrations above USEPA Region 9 residential PRGs and MCAS El Toro background concentrations (if applicable).

* = Criteria for IDW soil based on the extraction methodology for the TCLP, where the weight of the extraction fluid is equal to 20 times the weight of the solid sample. Therefore, the derived criterion for waste is equivalent to 20 times the regulatory level for TCLP.

Soil IDW from Installation of 2-inch Piezometers. Six soil samples were collected at different locations within each of the three rolloff bins (MV1-172, MV1-110, MV1-213) and were composited into one sample. Three composite soil samples (LE264, LE265, and LE266) thus obtained were analyzed for perchlorate, explosives, petroleum hydrocarbons, and metals. The analytical results were evaluated and maximum detected compounds were then compared to MCAS El Toro background concentrations, USEPA Region 9 PRGs, TTLCs, STLC x 10, and TCLP x 20. A summary of the analytical results and the screening is presented in Table 4.

Table 4: Summary of Detected Analytes and Comparison to Regulatory Threshold Concentrations – 2-inch Peizometer Installation

Analyte	Maximum Detected Concentration	Former MCAS El Toro Background Concentration (0.95 Quantile)	Residential Preliminary Remediation Goals (PRGs)	TTLCs	(STLC) x 10	(TCLP) x 20*
Metals (mg/kg)						
Aluminum	8,620	14,800	76,000	-	-	-
Arsenic	2.9	6.86	0.39	500	50	100
Barium	64.6	173	5,400	10,000	1000	2,000
Beryllium	0.22 J	0.669	150	75	7.5	-
Cadmium	1.1	2.35	37	100	10	20
Calcium	14,000	46,000	-	-	-	-
Chromium	107	26.9	211	500	50	100
Cobalt	3.4	6.98	903	8,000	800	-
Copper	5.3	10.5	3,129	2,500	250	-
Iron	7,750	18,400	23,463	-	-	-
Lead	2.0	15.1	150	1,000	50	100
Magnesium	3,520	8,370	-	-	-	-
Manganese	97.7	291	1,762	-	-	-
Nickel	9.6	15.3	1,564	2,000	200	-
Potassium	1,350	4,890	-	-	-	-
Selenium	0.34 J	0.32	391	100	10	20
Sodium	48.5 J	405	-	-	-	-
Vanadium	27.7	71.8	547	2,400	240	-

Analyte	Maximum Detected Concentration	Former MCAS El Toro Background Concentration (0.95 Quantile)	Residential Preliminary Remediation Goals (PRGs)	TTLCs	(STLC) x 10	(TCLP) x 20*
Zinc	24.2	77.9	23,463	5,000	2500	-
Petroleum Hydrocarbons (PHC) (mg/kg)						
PHC as Gasoline	20 J	-	-	-	-	-

Notes:

TCLP = toxicity characteristic leaching procedure

TTLC = total threshold limit concentration

STLC = soluble threshold limit concentration

- = not established

J = indicates an estimated value

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Bold indicates concentrations above MCAS El Toro Background concentration.

Italics indicates concentrations above USEPA Region 9 residential PRGs.

Bold in highlighted cell indicates concentration above 20 times TCLP limit, and 10 times STLC limit. However, an STLC test was performed on the sample for chromium VI and total chromium. Results indicated chromium VI and total chromium values less than 5 mg/L, indicating that the soil is not classified as California-Designated Hazardous Waste.

* = Criteria for IDW soil based on the extraction methodology for the TCLP, where the weight of the extraction fluid is equal to 20 times the weight of the solid sample. Therefore, the derived criterion for waste is equivalent to 20 times the regulatory level for TCLP.

Liquid IDW From Decontamination, Well Development, Purging, and Groundwater Sampling. Since the liquid IDW that is stored in the drums was produced during the installation, development and sampling of various groundwater monitoring wells, the analytical results of the groundwater samples collected during the past year were used to characterize the drums. All samples were evaluated and maximum detected concentrations from all collected samples were used to evaluate the water in the drums. All samples were analyzed for VOCs, SVOCs, perchlorate, petroleum hydrocarbons, explosives, and metals. The analytical results were evaluated and maximum detected compounds were then compared to maximum contaminant levels (MCLs), TCLP values, and STLC values. A summary of the analytical results and the screening is presented in Table 5.

Table 5: Summary of Detected Analytes and Comparison to Regulatory Threshold Concentrations – Groundwater Sampling

Analyte	Maximum Detected Concentration	Regulatory Threshold Concentrations	Toxicity Characteristic Leaching Potential (TCLP)	Soluble Threshold Limit Concentration (STLC)
Volatile Organic Compounds (µg/L)				
Benzene	0.4 J	1 ^a	500	-
cis-1,2-Dichloroethene	1	6 ^a	-	-
Ethylbenzene	3.6	680	-	-
Methylene Chloride	228	5	-	-
Toluene	0.8 J	150 ^a	-	-
Trichloroethene (TCE)	27	5	500	204,000
Total Xylenes	4.9	1,750 ^a	-	-
General Chemistry (µg/L)				
Perchlorate	343	4 ^c	-	-
Metals (µg/L)				
Aluminum	102	1,000 ^a	-	-
Antimony	2.1 J	6	-	15,000
Arsenic	4.4	50 ^a	5,000	5,000
Barium	110	1,000 ^a	100,000	100,000
Beryllium	0.14 J	4	-	750
Cadmium	0.77 J	5	1,000	1,000
Calcium	166,000	-	-	-

Table 5: Summary of Detected Analytes and Comparison to Regulatory Threshold Concentrations – Groundwater Sampling

Analyte	Maximum Detected Concentration	Regulatory Threshold Concentrations	Toxicity Characteristic Leaching Potential (TCLP)	Soluble Threshold Limit Concentration (STLC)
Chromium	157	50 ^a	5,000	5,000
Cobalt	6.3	-	-	80,000
Copper	17	-	-	25,000
Iron	1,610	300 ^b	-	-
Lead	9.2	-	5,000	5,000
Magnesium	38,800	-	-	-
Manganese	260	50 ^b	-	-
Mercury	0.5	2	4	4
Nickel	1,300	100	-	20,000
Potassium	5,100 J	-	-	-
Selenium	29.9	50	1,000	1,000
Silver	0.39 J	100 ^b	5,000	5,000
Sodium	79,700	-	-	-
Thallium	4.1	2	-	7,000
Vanadium	15.5	-	-	24,000
Zinc	83	5,000 ^b	-	-
Petroleum Hydrocarbons (PHC) (µg/L)				
Motor Oils	0.1	-	-	-
PHC as diesel	0.07 J	-	-	-
PHC as gasoline	0.04 J	-	-	-

Notes:

- = not established

J = indicates an estimated value

µg/L = micrograms per liter

^aValue represents the more stringent of the Federal and California Maximum Contaminant Levels (MCLs).

^bValue represents the secondary MCL (odor, taste).

^cperchlorate regulatory value is an action level.

Bold indicates concentrations above regulatory threshold.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Soil IDW From 4-inch Groundwater Monitoring Wells. The soil IDW is classified as non-hazardous based on comparison of analytical results with regulatory thresholds (TCLP, TTLC, and STLC values). The concentration of copper (375 µg/kg) in one sample exceeded 10 times the STLC value, however the detected concentrations of copper in all other samples were between 0.91 to 15.7 mg/kg, which are very low compared to the STLC for copper, and lower than the station-wide averages. Additionally, the soil samples used to characterize the contents of the drums were collected at depths of 1.5 feet to 5 feet below ground surface and are overly conservative. Soil actually contained in the drums was primarily from greater depths, and metals concentrations are generally lower at depth than at the surface. Therefore, based on this evaluation, placing and spreading of soil cuttings at Site 1 is recommended (see Figure 1 for location).

Soil IDW From Soil Borehole B-1. The soil IDW is classified as non-hazardous based on comparison of analytical results with regulatory thresholds (TCLP, TTLC, and STLC values). However, the soil contains several explosive compounds (2,4,6-trinitrotoluene, HMX, and RDX). Concentrations of RDX exceeded the USEPA Region 9 residential PRG value of 4,420 ug/kg. Therefore, it is recommended that this soil be disposed of offsite as non-hazardous waste.

Soil IDW from Installation of 2-inch Piezometers. The comparison of analytical results with regulatory thresholds (TCLP, TTLC and STLC values) showed that all the chemicals were below the 20 times TCLP values, and 10 times STLC values, except chromium. Chromium exceeded 20 times the TCLP value and 10 times the STLC value in one composite sample (LE-264) taken from rolloff bin, MV1-172. To assess if the soil from one rolloff bin, MV1-172, exhibits the characteristics of California-regulated, non-RCRA hazardous waste, a TCLP test was performed on the sample, and the leachate was analyzed for chromium VI and total chromium. Results of the analysis indicated values for both chromium VI and total chromium less than the regulatory threshold of 5 mg/L. Therefore, the soil from the rolloff bin is classified as non-hazardous, and it is recommended that the soil be placed and spread at Site 1 (see Figure 1 for location).

Since none of the analytes exceeded that regulatory threshold for RCRA, or California-regulated, non-RCRA hazardous waste in the samples (LE265 and LE266) taken from rolloff bins MV1-110 and MV1-213, it is recommended that soil from these rolloff bins be placed and spread at Site 1 (see Figure 1 for location).

Liquid IDW. Rather than characterizing each of the 23 drums containing liquid IDW, the analytical results of groundwater samples collected within the past year were used to characterize the liquid for disposal. Maximum concentrations for all detected analytes were compared to regulatory thresholds. Based on the results, the groundwater was characterized as non-hazardous. However, since the groundwater contains perchlorate, it is recommended that the groundwater be disposed off-site as non-hazardous waste.

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4.0

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