Previous

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Filtered & Unfiltered Metals	General chemistry*	Semi-VOC (CLP)	Pesticides	Ammonia - Nitrogen	COD/TOC/Phosphate	Silica/TSS/Color	Herbicides	REMARKS	PRESERVATIVE USED
18BGMW19E-001	2/6/96	1300		✓	H_2O		7	✓	✓	✓		✓					Refer to report	
13DBMW49-001	2/6/96	1015		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓		special detection	
13DBMW49-301	2/6/96	1015		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓		limits.	
15DBMW51-001	2/6/96	1530		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓			
18MCAS03-3-501	2/6/96	1410		✓	H_2O		7	✓	✓	✓	✓						Metals have been	
18MCAS03-3-001	2/6/96	1540		✓	H_2O		7	✓	✓	✓	✓						properly filtered	
18MCAS03-4-001	2/6/96	1340		✓	H_2O		6	✓	✓	✓							and preserved	
18MCAS03-5-001	2/6/96	1200		✓	H_2O		6	✓	✓	✓								
18MCAS03-6-001	2/6/96	1030		✓	H_2O		6	✓	✓	✓							NFESC we level	
18MCAS03-2-001	2/6/96	1725		✓	H_2O		7	✓	✓	✓	✓						D for all samples	
18MCAS03-1-001	2/6/96	1920		✓	H_2O		6	✓	✓	✓								
02DGMW60-301	2/6/96	1650		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓	✓		
02DGMW60-001	2/6/96	1640		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓	✓		
02DGMW59-001	2/6/96	1500		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓	✓		
02DGMW59-301	2/6/96	1510		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓	✓		

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	2/7/96 3:20PM				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2/7/96 3:20				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL courier - 5 coolers				* General chemistry includes chloride, nitrite/nitrate as N, sulfate, carbonate, bicarbonate, alkalinity, TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F'

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Filtered Metals	Unfiltered Metals	General Chemistry*	Semi-VOC (CLP)	Explosives (633)			REMARKS	PRESERVATIVE USED
APCL-TB	—	—		—	—		1	✓								Refer to comments	
01DGMW57-001	2/7/96	1020		✓	H_2O		8	✓	✓	✓	✓	✓	✓			on page 1 of 2.	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
	2/7/96 3:20				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
APCL	2/7/96 3:20				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
ARC Courier					

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961445
Collected by:
Collected on: 02/07/96

Received: 02/08/96
Extracted: 02/09,11-13/96
Tested: 02/09-03/01/96
Reported: 03/04/96

Sample Description: Groundwater
Project Description: MCAS EL TORO/6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP06A-001 96-01445-13	18BGMP06B-001 96-01445-15	18BGMP06C-001 96-01445-17
Alkalinity	310.1	mg/L	2	229	262	189
Bicarbonate	SM2320B	mg/L	2	280	319	230
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	66.0	68.0	85.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	1.4	0.7	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	552	685	593
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	136	168	141
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP06D-001 96-01445-19	18BGMP06E-001 96-01445-21	18BGMW24-001 96-01445-23
Alkalinity	310.1	mg/L	2	229	279	238
Bicarbonate	SM2320B	mg/L	2	280	340	290
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	278	268	53.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	16.0	29.0	12.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,150	1,440	718
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	320	637	222
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02UGMW25-001 96-01445-1	05DBMW41-001 96-01445-3	16DBMW52-001 96-01445-5
Alkalinity	310.1	mg/L	2	242	330	199
Bicarbonate	SM2320B	mg/L	2	296	403	243
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	30	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	262	99.0	180
Color, for drinking water	110.2	Color Unit	1	1	N.D.	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	38.0	17.0	28.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	N.D.	0.05	0.05
Silica (SiO_2) dissolved	370.1	mg/L	0.03	32.0	48.0	49.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,580	937	1,520
Solids, Total Suspended (TSS)	160.2	mg/L	4	N.D.	N.D.	13
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	508	211	559
Carbon, Total Organic (TOC)	415.1	mg/L	1	4	N.D.	2
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.

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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02UGMW25-001 96-01445-1	05DBMW41-001 96-01445-3	16DBMW52-001 96-01445-5
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02UGMW25-001 96-01445-1	05DBMW41-001 96-01445-3	16DBMW52-001 96-01445-5
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.
CLP: Organochlorine pesticides & PCB						
Aldrin	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
β-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
α-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endrin	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	N.D.	-
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	N.D.	-
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	N.D.	-

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02UGMW25-001 96-01445-1	05DBMW41-001 96-01445-3	16DBMW52-001 96-01445-5
Chlorinated herbicides						
2,4-D	8150	μg/L	10	N.D.	N.D.	-
2,4-DB	8150	μg/L	10	N.D.	N.D.	-
Dalapon (dichloroacetic acid)	8150	μg/L	10	N.D.	N.D.	-
Dicamba	8150	μg/L	2	N.D.	N.D.	-
Dichloroprop	8150	μg/L	2	N.D.	N.D.	-
Dinoseb (DNBP)	8150	μg/L	2	N.D.	N.D.	-
2,4,5-T	8150	μg/L	2	N.D.	N.D.	-
2,4,5-TP (Silvex)	8150	μg/L	2	N.D.	N.D.	-

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 16DBMW52-301 96-01445-7	16DBMW52-901 96-01445-8	16UGMW33-001 96-01445-11
Alkalinity	310.1	mg/L	2	202	N.D.	311
Bicarbonate	SM2320B	mg/L	2	246	N.D.	379
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.	-
Chloride Cl^- by IC	300.0	mg/L	0.2	182	N.D.	13.0
Color, for drinking water	110.2	Color Unit	1	1	N.D.	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	29.0	N.D.	8.6
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.05	N.D.	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	49.0	0.08	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,500	N.D.	589
Solids, Total Suspended (TSS)	160.2	mg/L	4	17	N.D.	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	568	N.D.	164
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	N.D.	-
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 16DBMW52-301 96-01445-7	16DBMW52-901 96-01445-8	16UGMW33-001 96-01445-11
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 16DBMW52-301 96-01445-7	16DBMW52-901 96-01445-8	16UGMW33-001 96-01445-11
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Naphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
Nitrobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
Phenanthrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Phenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 02UGMW25-001 96-01445-1	02UGMW25-001(U) 96-01445-2	05DBMW41-001 96-01445-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	280,000	279,000	112,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	61,000	61,000	33,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	994J	986J	2200J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	6
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	143,000	143,000	143,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 05DBMW41-001(U) 96-01445-4	16DBMW52-001 96-01445-5	16DBMW52-001(U) 96-01445-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	110,000	129,000	133,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	45
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	710
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	33,000	105,000	109,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	18
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	85	98
Potassium, K	CLP-Metal	µg/L	5000	2140J	3970J	3570J
Selenium, Se	CLP-Metal	µg/L	5	6	33	39
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	143,000	152,000	155,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 16DBMW52-301 96-01445-7	16DBMW52-901 96-01445-8	16DBMW52-301(U) 96-01445-9
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	119,000	N.D.	150,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	28
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	510
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	3
Magnesium, Mg	CLP-Metal	µg/L	5000	103,000	N.D.	121,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	40
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	72	N.D.	120
Potassium, K	CLP-Metal	µg/L	5000	3980J	N.D.	4100J
Selenium, Se	CLP-Metal	µg/L	5	36	N.D.	41
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	147,000	331J	170,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 16DBMW52-901(U) 96-01445-10	16UGMW33-001 96-01445-11	16UGMW33-001(U) 96-01445-12
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	N.D.	72,000	73,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	107
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	N.D.	47,000	47,000
Manganese, Mn	CLP-Metal	µg/L	15	33	N.D.	33
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	N.D.	3280J	3310J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	496J	86,000	87,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP06A-001 96-01445-13	18BGMP06A-001(U) 96-01445-14	18BGMP06B-001 96-01445-15
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	74,000	76,000	94,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	164	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	26,000	26,000	28,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	33
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3090J	3090J	2860J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	82,000	83,000	86,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	27	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP06B-001(U) 96-01445-16	18BGMP06C-001 96-01445-17	18BGMP06C-001(U) 96-01445-18
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	97,000	59,000	61,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	116
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	28,000	25,000	26,000
Manganese, Mn	CLP-Metal	µg/L	15	24	23	54
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2930J	2750J	2820J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	87,000	88,000	91,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP06D-001 96-01445-19	18BGMP06D-001(U) 96-01445-20	18BGMP06E-001 96-01445-21
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	184,000	186,000	247,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	56,000	56,000	80,000
Manganese, Mn	CLP-Metal	µg/L	15	16	16	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3180J	3180J	3600J
Selenium, Se	CLP-Metal	µg/L	5	23	28	28
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	146,000	146,000	152,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	27	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP06E-001(U) 96-01445-22	18BGMW24-001 96-01445-23	18BGMW24-001(U) 96-01445-24
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	255,000	87,000	79,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	20
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	780
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	84,000	45,000	40,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3740J	2980J	2800J
Selenium, Se	CLP-Metal	µg/L	5	27	39	39
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	158,000	79,000	73,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	20	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01445-25
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS EL TORO

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	FILTERED & UNFILTERED METALS	GENERAL CHEMISTRY *	SEMI-VOC (CLP)	PESTICIDES	COD/TOC/PHOSPHATE	SILICA/TSS/COLOR	HERBICIDES	REMARKS	PRESERVATIVE USED
16DBMW52-001	2-7-96	13:00		✓	H_2O	10	✓	✓	✓	✓		✓	✓		REFER TO PROJECT	
16DBMW52-301	2-7-96	13:25		✓	H_2O	10	✓	✓	✓	✓		✓	✓		SPECIFIC DETECTION	
16DBMW52-901	2-7-96	13:30		✓	H_2O	10	✓	✓	✓	✓		✓	✓		LIMITS	
056 DBMW41-001	2-7-96	10:00		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	✓		
18BGMP06A-001	2-7-96	11:30		✓	H_2O	6	✓	✓	✓						METALS HAVE BEEN PROPERLY	
18BGMP06B-001	2-7-96	13:10		✓	H_2O	6	✓	✓	✓						FILTERED AND PRESERVED	
18BGMP06C-001	2-7-96	14:10		✓	H_2O	6	✓	✓	✓							
18BGMP06D-001	2-7-96	16:05		✓	H_2O	6	✓	✓	✓						NFESC QC LEVEL D	
18BGMP06E-001	2-7-96	17:25		✓	H_2O	6	✓	✓	✓						FOR ALL SAMPLES	
16UGMW33-001	2-7-96	17:15		✓	H_2O	7	✓	✓	✓	✓						
02UGMW25-001	2-7-96	15:30		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	✓		
18BGMW24-001	2-7-96	14:10		✓	H_2O	6	✓	✓	✓							

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Russell	2/8/96 2:57PM				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Anita T. Moonlor	2/8/96 2:57P				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL COURIER 3 COOLERS				* GENERAL CHEMISTRY INCLUDES CHLORIDE, NITRITE/NITRATE, NH_3, SULFATE, CARBONATE, bicARBONATE, ALKALINITY, TDS.	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field File

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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961452
Collected by: ss
Collected on: 02/08-09/96

Received: 02/09/96
Extracted: 02/09,12-13/96
Tested: 02/09-03/04/96
Reported: 03/05/96

Sample Description: Groundwater
Project Description: 6206-009 MCAS EL TORO

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 16DGMW81-001 96-01452-1	07DGMW91-001 96-01452-2	19UGMW35-001 96-01452-3
Alkalinity	310.1	mg/L	2	184	227	157
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	0.2	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	225	277	191
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	261	212	132
Color, for drinking water	110.2	Color Unit	1	N.D.	N.D.	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	19.0	16.0	13.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.03	16.0	0.03
Silica (SiO_2) dissolved	370.1	mg/L	0.03	54.0	60.0	59.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,590	941	742
Solids, Total Suspended (TSS)	160.2	mg/L	4	6	N.D.	8
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	594	129	159
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	1	3
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	2	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	3	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 16DGMW81-001 96-01452-1	07DGMW91-001 96-01452-2	19UGMW35-001 96-01452-3
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	4	0.9J
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	62	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	-	-
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	-	-
Anthracene	CLP-SVOC	µg/L	10	N.D.	-	-
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	-	-
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	-	-
Carbazole	CLP-SVOC	µg/L	10	N.D.	-	-
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	-	-
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	-	-
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	-	-
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	-	-
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-	-
Chrysene	CLP-SVOC	µg/L	10	N.D.	-	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	-	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	-	-
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	-	-
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	-	-
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	-	-
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	-	-
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	-	-
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	-	-

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2,4-Dimethylphenol	CLP-SVOC	μg/L	10	N.D.	-	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-	-
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-	-
Fluoranthene	CLP-SVOC	μg/L	10	N.D.	-	-
Fluorene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachlorobutadiene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachloroethane	CLP-SVOC	μg/L	10	N.D.	-	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	N.D.	-	-
Isophorone	CLP-SVOC	μg/L	10	N.D.	-	-
2-Methylnaphthalene	CLP-SVOC	μg/L	10	N.D.	-	-
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	-
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	-
Naphthalene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	-	-
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	-	-
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	-	-
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	-	-
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	-	-
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	-	-
Phenol	CLP-SVOC	μg/L	10	N.D.	-	-
Pyrene	CLP-SVOC	μg/L	10	N.D.	-	-
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	-	-

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 19UGMW35-301 96-01452-4	02DGMW61-001 96-01452-5	05DGMW67-001 96-01452-7
Alkalinity	310.1	mg/L	2	154	287	326
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	188	351	398
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	135	39.0	114
Color, for drinking water	110.2	Color Unit	1	N.D.	N.D.	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	12.0	6.6	11.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.13	5.20	0.08
Silica (SiO_2) dissolved	370.1	mg/L	0.03	59.0	26.0	47.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	706	714	1,020
Solids, Total Suspended (TSS)	160.2	mg/L	4	5	N.D.	N.D.
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	159	212	267
Carbon, Total Organic (TOC)	415.1	mg/L	1	1	1	2
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	1	14	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 19UGMW35-301 96-01452-4	02DGMW61-001 96-01452-5	05DGMW67-001 96-01452-7
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 19UGMW35-301 96-01452-4	02DGMW61-001 96-01452-5	05DGMW67-001 96-01452-7
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	-	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	-	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	-	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	-	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	-	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	-	N.D.	N.D.
CLP: Organochlorine pesticides & PCB						
Aldrin	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
β-BHC	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
α-BHC	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
δ-BHC	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
α-Chlordane	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
γ-Chlordane	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
4,4'-DDD	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
4,4'-DDE	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
4,4'-DDT	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Dieldrin	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Endosulfan I	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
Endosulfan II	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Endosulfan sulfate	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Endrin	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Endrin aldehyde	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Endrin ketone	CLP-Pest	μg/L	0.10	-	N.D.	N.D.
Heptachlor	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
Heptachlor epoxide	CLP-Pest	μg/L	0.05	-	N.D.	N.D.
Methoxychlor	CLP-Pest	μg/L	0.50	-	N.D.	N.D.
Toxaphene	CLP-Pest	μg/L	5.0	-	N.D.	N.D.
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	-	N.D.	N.D.
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	-	N.D.	N.D.
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	-	N.D.	N.D.
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	-	N.D.	N.D.
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	-	N.D.	N.D.
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	-	N.D.	N.D.
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	-	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 19UGMW35-301 96-01452-4	02DGMW61-001 96-01452-5	05DGMW67-001 96-01452-7
Chlorinated herbicides						
2,4-D	8150	μg/L	10	-	N.D.	N.D.
2,4-DB	8150	μg/L	10	-	N.D.	N.D.
Dalapon (dichloroacetic acid)	8150	μg/L	10	-	N.D.	N.D.
Dicamba	8150	μg/L	2	-	N.D.	N.D.
Dichloroprop	8150	μg/L	2	-	N.D.	N.D.
Dinoseb (DNBP)	8150	μg/L	2	-	N.D.	N.D.
2,4,5-T	8150	μg/L	2	-	N.D.	N.D.
2,4,5-TP (Silvex)	8150	μg/L	2	-	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 17DGMW82-001 96-01452-11	18MCAS07-4-001 96-01452-13	18MCAS07-5-001 96-01452-15
Alkalinity	310.1	mg/L	2	272	214	365
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	0.2	-	-
Bicarbonate	SM2320B	mg/L	2	332	262	445
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	-	-
Chloride Cl^- by IC	300.0	mg/L	0.2	96.0	147	399
Color, for drinking water	110.2	Color Unit	1	1	-	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	1.1	N.D.	N.D.
Phosphorus, Orthophosphate	365.2	mg/L	0.01	25.0	-	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	47.0	-	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	767	779	1,870
Solids, Total Suspended (TSS)	160.2	mg/L	4	14	-	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	182	161	545
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	-	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 17DGMW82-001 96-01452-11	18MCAS07-4-001 96-01452-13	18MCAS07-5-001 96-01452-15
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	0.8J	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.	36	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 17DGMW82-001 96-01452-11	18MCAS07-4-001 96-01452-13	18MCAS07-5-001 96-01452-15
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	-	-
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	-	-
Anthracene	CLP-SVOC	µg/L	10	N.D.	-	-
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	-	-
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	-	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	-	-
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	-	-
Carbazole	CLP-SVOC	µg/L	10	N.D.	-	-
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	-	-
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	-	-
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	-	-
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	-	-
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-	-
Chrysene	CLP-SVOC	µg/L	10	N.D.	-	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	-	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	-	-
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	-	-
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	-	-
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	-	-
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	-	-
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	-	-
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	-	-
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	-	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	-	-
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	-	-
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	-	-
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	-	-
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	-
Fluorene	CLP-SVOC	µg/L	10	N.D.	-	-
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	-
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	-	-
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	-	-
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	-	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	-	-
Isophorone	CLP-SVOC	µg/L	10	N.D.	-	-
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	-	-

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 17DGMW82-001 96-01452-11	18MCAS07-4-001 96-01452-13	18MCAS07-5-001 96-01452-15
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	-
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	-
Naphthalene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	-	-
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	-	-
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	-	-
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	-	-
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	-	-
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	-	-
Phenol	CLP-SVOC	μg/L	10	N.D.	-	-
Pyrene	CLP-SVOC	μg/L	10	N.D.	-	-
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	-	-
CLP: Organochlorine pesticides & PCB						
Aldrin	CLP-Pest	μg/L	0.05	N.D.	-	-
β-BHC	CLP-Pest	μg/L	0.05	N.D.	-	-
α-BHC	CLP-Pest	μg/L	0.05	N.D.	-	-
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	-	-
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	-	-
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	-	-
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	-	-
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	-	-
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	-	-
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	-	-
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	-	-
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	-	-
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	-	-
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	-	-
Endrin	CLP-Pest	μg/L	0.10	N.D.	-	-
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	-	-
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	-	-
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	-	-
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	-	-
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	-	-
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	-	-
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	-	-
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	-	-

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 17DGMW82-001 96-01452-11	18MCAS07-4-001 96-01452-13	18MCAS07-5-001 96-01452-15
Chlorinated herbicides						
2,4-D	8150	μg/L	10	N.D.	-	-
2,4-DB	8150	μg/L	10	N.D.	-	-
Dalapon (dichloroacetic acid)	8150	μg/L	10	N.D.	-	-
Dicamba	8150	μg/L	2	N.D.	-	-
Dichloroprop	8150	μg/L	2	N.D.	-	-
Dinoseb (DNBP)	8150	μg/L	2	N.D.	-	-
2,4,5-T	8150	μg/L	2	N.D.	-	-
2,4,5-TP (Silvex)	8150	μg/L	2	N.D.	-	-

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS07-6-001 96-01452-17	18MCAS07-7-001 96-01452-19	18MCAS07-8-001 96-01452-21
Alkalinity	310.1	mg/L	2	279	272	210
Bicarbonate	SM2320B	mg/L	2	340	232	256
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	447	384	506
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	N.D.	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,990	1,480	2,320
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	706	630	858
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS07-6-001 96-01452-17	18MCAS07-7-001 96-01452-19	18MCAS07-8-001 96-01452-21
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	-	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS07-6-001 96-01452-17	18MCAS07-7-001 96-01452-19	18MCAS07-8-001 96-01452-21
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Naphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	µg/L	25	-	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	µg/L	25	-	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	µg/L	25	-	N.D.	N.D.
Nitrobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	-	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	-	N.D.	N.D.
Phenanthrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Phenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 16DGMW81-001 96-01452-1	07DGMW91-001 96-01452-2	19UGMW35-001 96-01452-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	196,000	146,000	109,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	95,000	43,000	34,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	19
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	110	270	270
Potassium, K	CLP-Metal	µg/L	5000	4760J	1930J	2320J
Selenium, Se	CLP-Metal	µg/L	5	107	N.D.	7
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	182,000	73,000	59,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 19UGMW35-301 96-01452-4	02DGMW61-001 96-01452-5	02DGMW61-001(U) 96-01452-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	111,000	130,000	129,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	35,000	30,000	30,000
Manganese, Mn	CLP-Metal	µg/L	15	20	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	280	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2390J	3510J	3570J
Selenium, Se	CLP-Metal	µg/L	5	8	57	46
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	60,000	60,000	61,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 05DGMW67-001 96-01452-7	05DGMW67-001(U) 96-01452-8	07DGMW91-001(U) 96-01452-9
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	149,000	150,000	147,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	31
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	380
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	43,000	44,000	44,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	280
Potassium, K	CLP-Metal	µg/L	5000	1950J	1960J	1950J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	116,000	116,000	74,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 16DGMW81-001(U) 96-01452-10	17DGMW82-001 96-01452-11	17DGMW82-001(U) 96-01452-12
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	195,000	72,000	77,000
Chromium, Cr	CLP-Metal	µg/L	10	30	N.D.	38
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	29
Iron, Fe	CLP-Metal	µg/L	100	230	N.D.	4,370
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	29
Magnesium, Mg	CLP-Metal	µg/L	5000	94,000	26,000	28,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	18	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	110	N.D.	51
Potassium, K	CLP-Metal	µg/L	5000	4720J	4310J	4450J
Selenium, Se	CLP-Metal	µg/L	5	105	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	183,000	151,000	149,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	40	120

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS07-4-001 96-01452-13	18MCAS07-4-001(U) 96-01452-14	18MCAS07-5-001 96-01452-15
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	11	11	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	98,000	97,000	281,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	125
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	24,000	24,000	76,000
Manganese, Mn	CLP-Metal	µg/L	15	170	160	340
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	100
Potassium, K	CLP-Metal	µg/L	5000	3730J	3500J	5,840
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	130,000	133,000	276,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	33	95	56

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS07-5-001(U) 96-01452-16	18MCAS07-6-001 96-01452-17	18MCAS07-6-001(U) 96-01452-18
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	273,000	279,000	280,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	136	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	72,000	78,000	79,000
Manganese, Mn	CLP-Metal	µg/L	15	328	355	355
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	96	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	4850J	7,220	6,210
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	243,000	261,000	266,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	110	94	160

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS07-7-001 96-01452-19	18MCAS07-7-001(U) 96-01452-20	18MCAS07-8-001 96-01452-21
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	208,000	301,000	308,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	710
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	59,000	85,000	81,000
Manganese, Mn	CLP-Metal	µg/L	15	230	388	1,300
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	77	98	670
Potassium, K	CLP-Metal	µg/L	5000	6,920	6,930	9,260
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	193,000	284,000	332,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	4,160	150	100

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS07-8-001(U) 96-01452-22	19UGMW35-001(U) 96-01452-23	19UGMW35-301(U) 96-01452-24
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	318,000	114,000	113,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	160	212
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	810	1,100	1,200
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	83,000	35,000	35,000
Manganese, Mn	CLP-Metal	µg/L	15	1,340	33	37
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	690	340	430
Potassium, K	CLP-Metal	µg/L	5000	9,560	2490J	2470J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	6	6
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	348,000	60,000	61,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	120	N.D.	N.D.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01452-25
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Filtered and Unfiltered Metals	General Chemistry	Semi-VOC (CLP)	Pesticides/Herbicides	Ammonia-N	COD/Total Phosphorus	Silica/TSS/Color	REMARKS	PRESERVATIVE USED
07DGMW11-001	2/13/96	1615		✓	H_2O		9	✓	✓	✓			✓	✓	✓	Refer to project specific	
19UGMW35-001	2/13/96	1235		✓	H_2O		9	✓	✓	✓			✓	✓	✓	detection limits	
19UGMW35-301	2/13/96	1245		✓	H_2O		9	✓	✓	✓			✓	✓	✓		
16DGMW81-001	2/13/96	0955		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓	Metals have been	
02DGMW61-001	2/13/96	1630		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓	previously filtered and	
18MCAS07-8-001	2/15/96	1010		✓	H_2O		7	✓	✓	✓	✓					preserved in the field.	
18MCAS07-7-001	2/15/96	1215		✓	H_2O		7	✓	✓	✓	✓						
18MCAS07-6-001	2/14/96	1405		✓	H_2O		6	✓	✓	✓						NFESC QC Level D	
18MCAS07-5-001	2/13/96	1535		✓	H_2O		6	✓	✓	✓						for all samples	
18MCAS07-4-001	2/13/96	1730		✓	H_2O		6	✓	✓	✓							
05DGMW67-001	2/14/96	0940		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓		
17DGMW82-001	2/15/96	1310		✓	H_2O		12	✓	✓	✓	✓	✓	✓	✓	✓		
APCL-TB	–	–		–	–		1	✓									

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	2/16/96 1410				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2/16/96 1410				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL courier				General chemistry, includes chloride, nitrite/nitrate as N, sulfate, carbonate, bicarbonate, alkalinity, TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

Applied P & Ch Laboratory
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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961462
Collected by: ss
Collected on: 02/09-12/96

Received: 02/12/96
Extracted: 02/13-14/96
Tested: 02/14-03/05/96
Reported: 03/07/96

Sample Description: Groundwater
Project Description: MCAS EL TORO/#6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW07-001 96-01462-1	18MCAS07-3-001 96-01462-3	19DGMW86-001 96-01462-4
Alkalinity	310.1	mg/L	2	262	212	178
Bicarbonate	SM2320B	mg/L	2	319	259	217
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	391	146	191
Nitrate/Nitrite	353.3	mg-N/L	0.1	15.0	5.5	12.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,450	743	911
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	209	166	222
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	40	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS-04-001 96-01462-6	18MCAS07-1-001 96-01462-8	18MCAS07-2-001 96-01462-10
Alkalinity	310.1	mg/L	2	210	326	208
Bicarbonate	SM2320B	mg/L	2	256	398	254
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	184	528	145
Nitrate/Nitrite	353.3	mg-N/L	0.1	8.6	35.0	7.3
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,020	2,430	778
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	248	598	171
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	5	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	2	N.D.	1
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS-04-001 96-01462-6	18MCAS07-1-001 96-01462-8	18MCAS07-2-001 96-01462-10
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	μg/L	10	N.D.	-	-
Acenaphthylene	CLP-SVOC	μg/L	10	N.D.	-	-
Anthracene	CLP-SVOC	μg/L	10	N.D.	-	-
Benz(a)anthracene	CLP-SVOC	μg/L	10	N.D.	-	-
Benzo(a)pyrene	CLP-SVOC	μg/L	10	N.D.	-	-
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	N.D.	-	-
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	N.D.	-	-
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	N.D.	-	-
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	N.D.	-	-
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	N.D.	-	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	N.D.	-	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	N.D.	-	-
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.	-	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	N.D.	-	-
Carbazole	CLP-SVOC	μg/L	10	N.D.	-	-
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	N.D.	-	-
4-Chloroaniline	CLP-SVOC	μg/L	10	N.D.	-	-
2-Chloronaphthalene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Chlorophenol	CLP-SVOC	μg/L	10	N.D.	-	-
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.	-	-
Chrysene	CLP-SVOC	μg/L	10	N.D.	-	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	N.D.	-	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	N.D.	-	-
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	N.D.	-	-
Dibenzofuran	CLP-SVOC	μg/L	10	N.D.	-	-
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	N.D.	-	-
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	N.D.	-	-
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	N.D.	-	-
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	N.D.	-	-
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	N.D.	-	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-	-
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-	-
Fluoranthene	CLP-SVOC	μg/L	10	N.D.	-	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS-04-001 96-01462-6	18MCAS07-1-001 96-01462-8	18MCAS07-2-001 96-01462-10
Fluorene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachlorobutadiene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	N.D.	-	-
Hexachloroethane	CLP-SVOC	μg/L	10	N.D.	-	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	N.D.	-	-
Isophorone	CLP-SVOC	μg/L	10	N.D.	-	-
2-Methylnaphthalene	CLP-SVOC	μg/L	10	N.D.	-	-
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	-
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	-
Naphthalene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	-
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	-	-
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	-	-
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	-	-
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	-	-
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	-	-
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	-	-
Phenol	CLP-SVOC	μg/L	10	N.D.	-	-
Pyrene	CLP-SVOC	μg/L	10	N.D.	-	-
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	-
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	-	-
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	-	-

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW07-001 96-01462-1	18MCAS07-3-001(U) 96-01462-2	18MCAS07-3-001 96-01462-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	332	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.

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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW07-001 96-01462-1	18MCAS07-3-001(U) 96-01462-2	18MCAS07-3-001 96-01462-3
Calcium, Ca	CLP-Metal	µg/L	5000	211,000	112,000	108,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	55,000	28,000	27,000
Manganese, Mn	CLP-Metal	µg/L	15	669	110	100
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	5,590	3030J	5,280
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	188,000	122,000	117,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	37	28

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DGMW86-001 96-01462-4	19DGMW86-001(U) 96-01462-5	18MCAS-04-001 96-01462-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	158,000	156,000	125,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	130	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	300	4,140	450
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	52,000	51,000	33,000
Manganese, Mn	CLP-Metal	µg/L	15	52	90	180
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	760	770	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3240J	3270J	2920J
Selenium, Se	CLP-Metal	µg/L	5	25	24	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	70,000	68,000	157,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	26	65

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS-04-001(U) 96-01462-7	18MCAS07-1-001 96-01462-8	18MCAS07-1-001(U) 96-01462-9
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	520	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	132,000	334,000	369,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	1,100	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	35,000	83,000	94,000
Manganese, Mn	CLP-Metal	µg/L	15	190	N.D.	38
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3270J	4370J	4820J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	24	27
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	166,000	240,000	281,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	90	98	110

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS07-2-001 96-01462-10	18MCAS07-2-001(U) 96-01462-11	18BGMW07-001(U) 96-01462-12
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	289	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	312
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	116,000	130,000	198,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	270	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	27,000	30,000	52,000
Manganese, Mn	CLP-Metal	µg/L	15	59	36	641
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3130J	3540J	5,180
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	104,000	120,000	172,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	37	150	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01462-13
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01462-13
Trichloroethene	CLP-VOC	$\mu g/L$	1	N.D.
Vinyl chloride	CLP-VOC	$\mu g/L$	1	N.D.
Xylenes (total)	CLP-VOC	$\mu g/L$	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J = Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206 - 009

PROJECT NAME: MCAS EL TORO

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	FILTERED MINERALS METALS	GENERAL CHEMISTRY*	SEMI VOCs (CLP)					REMARKS	PRESERVATIVE USED
18 BGMW 07-001	2-9-96	15:40		✓	H_2O	6	✓	✓	✓						REFER TO PROJECT	
18 MCAS 07-3-001	2-9-96	10:15		✓	H_2O	6	✓	✓	✓						SPECIFIC DETECTION	
18 MCAS 07-2-001	2-9-96	11:50		✓	H_2O	6	✓	✓	✓						LIMITS.	
18 MCAS-07-1-001	2-9-96	13:15		✓	H_2O	6	✓	✓	✓							
18 MCAS-04-001	2-9-96	15:00		✓	H_2O	7	✓	✓	✓	✓					METALS HAVE BEEN PROPERLY	
APCL - T.B.						1	✓								FILTERED AND PRESERVED	
19 DGMW 86-001	2-12-96	10:20		✓	H_2O	6	✓	✓	✓							
															NFESC Q.C. LEVEL D	
															FOR ALL	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Russell	2/12/96 3:10PM				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2/14/96 2:10				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL COURIER 2 COOLERS				*GENERAL CHEMISTRY INCLUDES CHLORIDE, NITRITE / NITRATE AS N, SULFATE, CARBONATE, BICARBONATE, ALKALINITY, TDS.	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961505
Collected by: ss
Collected on: 02/12-13/96

Received: 02/14/96
Extracted: 02/15-16/96
Tested: 02/15-03/05/96
Reported: 03/11/96

Sample Description: Groundwater
Project Description: MCAS EL TORO GWM/#6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 07DBMW71-001 96-01505-1	07DGMW70-001 96-01505-3
Alkalinity	310.1	mg/L	2	204	157
Bicarbonate	SM2320B	mg/L	2	249	191
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	245	235
Nitrate/Nitrite	353.3	mg-N-in-NO_3/L	0.1	14.0	22.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,010	1,070
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	118	219
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	2
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	3	6
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	9	1
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 07DGMW72-001 96-01505-5	18DGMW03C-001 96-01505-7	21UGMW37-001 96-01505-9
Alkalinity	310.1	mg/L	2	182	159	225
Ammonia (NH_4^+)	350.2	mg/L	0.2	0.3	-	-
Bicarbonate	SM2320B	mg/L	2	222	194	275
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	-	-
Chloride Cl^- by IC	300.0	mg/L	0.2	237	119	194
Color, for drinking water	110.2	Color Unit	1	1	-	-
Nitrate/Nitrite	353.3	mg-N-in-NO_3/L	0.1	17.0	14.0	18.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	N.D.	-	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	53.0	-	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	935	656	1,010
Solids, Total Suspended (TSS)	160.2	mg/L	4	5	-	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	71.0	99.0	192
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	-	-
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	2	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	3	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	4
Toluene	CLP-VOC	µg/L	1	4	10	12
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	49	N.D.	12
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 07DGMW72-001 96-01505-5	18DGMW03C-001 96-01505-7	21UGMW37-001 96-01505-9
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.	-
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.	-
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.	-
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.	-
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	-
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 07DGMW72-001 96-01505-5	18DGMW03C-001 96-01505-7	21UGMW37-001 96-01505-9
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Naphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	-
3-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	-
4-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	-
Nitrobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2-Nitrophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-
4-Nitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	-
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	-
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	N.D.	N.D.	-
Phenanthrene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Phenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-
Pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	-
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-

Component Analyzed	Method	Unit	CRDL	Analysis Result 07DBMW71-001 96-01505-1	07DBMW71-001(U) 96-01505-2	07DGMW70-001 96-01505-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 07DBMW71-001 96-01505-1	07DBMW71-001(U) 96-01505-2	07DGMW70-001 96-01505-3
Calcium, Ca	CLP-Metal	µg/L	5000	141,000	141,000	148,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	33	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	545	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	4
Magnesium, Mg	CLP-Metal	µg/L	5000	37,000	37,000	42,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	56	57	130
Potassium, K	CLP-Metal	µg/L	5000	2430J	2400J	2360J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	20
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	88,000	86,000	115,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 07DGMW70-001(U) 96-01505-4	07DGMW72-001 96-01505-5	07DGMW72-001(U) 96-01505-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	153,000	124,000	136,000
Chromium, Cr	CLP-Metal	µg/L	10	43	N.D.	22
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	440	N.D.	240
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	42,000	37,000	42,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	125	45	48
Potassium, K	CLP-Metal	µg/L	5000	2350J	2270J	3150J
Selenium, Se	CLP-Metal	µg/L	5	23	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	118,000	92,000	103,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	116	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18DGMW03C-001 96-01505-7	Analysis Result 18DGMW03C-001(U) 96-01505-8
CLP Metals (Full CLP 23 metals)					
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	97,000	99,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	29,000	29,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	67	69
Potassium, K	CLP-Metal	µg/L	5000	3640J	3610J
Selenium, Se	CLP-Metal	µg/L	5	7	9
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	84,000	85,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 21UGMW37-001 96-01505-9	Analysis Result 21UGMW37-001(U) 96-01505-10
CLP Metals (Full CLP 23 metals)					
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	169,000	165,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	22
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	250
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	49,000	48,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	490	460
Potassium, K	CLP-Metal	µg/L	5000	2880J	2840J
Selenium, Se	CLP-Metal	µg/L	5	10	9
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	105,000	103,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01505-11
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: EL TDRD GWM

SAMPLERS: (Signature) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	SVOC (CLP)	FILTERED & UNFILTERED METALS	GENERAL CHEMISTRY	AMMONIA-NITROGEN	COD/TOC/PHOSPHATE	SILICA/TSS/COLOR		REMARKS	PRESERVATIVE USED
18 DGMW 03C-001	2/12/96	1635		✓	H_2O			✓	✓	✓	✓					REFER TO PREVIOUSLY SENT PROJECT	
07 DGMW 72-001	2/13/96	1145		✓	H_2O			✓	✓	✓	✓	✓	✓	✓		SPECIFIC DETECTION LIMITS.	
21 UGMW 37-001	2/12/96	1145		✓	H_2O			✓		✓	✓						
07 DBMW 71-001	2/13/96	1400		✓	H_2O			✓		✓	✓					SAMPLES FOR METALS ANALYSIS HAVE	
07 DGMW 70-001	2/13/96	1710		✓	H_2O			✓		✓	✓					BEEN PROPERLY FILTERED & PRESERVED	
APCL TB								✓								IN THE FIELD. NO ADDITIONAL LAB	
																FILTERING REQUIRED.	
																NFESC LEVEL D FOR ALL SAMPLES	
																- NOTE SHORT HOLDING TIME FOR	
																PHOSPHATE AND COLOR.	
																- NOTE: ADDITIONAL VOLUME OF	
																SVOC FOR MS & MSD ANALYSIS	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Purnell	2/14/96 3:30PM				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2/14/96 3:30				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL COURIER				GEN CHEMISTRY - INCLUDES CHLORIDE, SULFATE, NITRATE / NITRITE AS N_2, CARBONATE, bi-CARBONATE AND ALKALINITY + TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961518
Collected by: ss
Collected on: 02/14-15/96

Received: 02/15/96
Extracted: 02/18-19/96
Tested: 02/15-03/05/96
Reported: 03/11/96

Sample Description: Groundwater
Project Description: MCAS EL TORO/#6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 12UGMW31-001 96-01518-12
Alkalinity	310.1	mg/L	2	195
Bicarbonate	SM2320B	mg/L	2	238
Carbonate	SM2320B	mg/L	2	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	181
Cyanide, Total	335.2	mg/L	0.02	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	26
Solids, Total Dissolved (TDS)	160.1	mg/L	10	944
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	190
CLP: VOC by GC/MS				
Acetone	CLP-VOC	µg/L	10	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	10	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	10	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	1	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	1	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.
2-Hexanone	CLP-VOC	µg/L	1	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	1	N.D.
Methylene chloride	CLP-VOC	µg/L	10	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	1
Toluene	CLP-VOC	µg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.
Trichloroethene	CLP-VOC	µg/L	1	12
Vinyl chloride	CLP-VOC	µg/L	1	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.

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APCL Analytical Report

Component Analyzed	Method [a]	Unit	CRDL (PQL)	Analysis Result 12UGMW31-001 96-01518-12
CLP: Semi-VOC by GC/MS [a]				
Acenaphthene	CLP-SVOC	μg/L	10	N.D.
Acenaphthylene	CLP-SVOC	μg/L	10	N.D.
Anthracene	CLP-SVOC	μg/L	10	N.D.
Benz(a)anthracene	CLP-SVOC	μg/L	10	N.D.
Benzo(a)pyrene	CLP-SVOC	μg/L	10	N.D.
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	N.D.
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	N.D.
Carbazole	CLP-SVOC	μg/L	10	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	N.D.
4-Chloroaniline	CLP-SVOC	μg/L	10	N.D.
2-Chloronaphthalene	CLP-SVOC	μg/L	10	N.D.
2-Chlorophenol	CLP-SVOC	μg/L	10	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.
Chrysene	CLP-SVOC	μg/L	10	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	N.D.
Dibenzofuran	CLP-SVOC	μg/L	10	N.D.
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	N.D.
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	N.D.
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	N.D.
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	N.D.
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.
Fluoranthene	CLP-SVOC	μg/L	10	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 12UGMW31-001 96-01518-12
Fluorene	CLP-SVOC	µg/L	10	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	N.D.
Naphthalene	CLP-SVOC	µg/L	10	N.D.
2-Nitroaniline	CLP-SVOC	µg/L	25	N.D.
3-Nitroaniline	CLP-SVOC	µg/L	25	N.D.
4-Nitroaniline	CLP-SVOC	µg/L	25	N.D.
Nitrobenzene	CLP-SVOC	µg/L	10	N.D.
2-Nitrophenol	CLP-SVOC	µg/L	10	N.D.
4-Nitrophenol	CLP-SVOC	µg/L	25	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	N.D.
Phenanthrene	CLP-SVOC	µg/L	10	N.D.
Phenol	CLP-SVOC	µg/L	10	N.D.
Pyrene	CLP-SVOC	µg/L	10	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	N.D.
Chlorinated herbicides				
2,4-D	8150	µg/L	10	N.D.
2,4-DB	8150	µg/L	10	N.D.
Dalapon (dichloroacetic acid)	8150	µg/L	10	N.D.
Dicamba	8150	µg/L	2	N.D.
Dichloroprop	8150	µg/L	2	N.D.
Dinoseb (DNBP)	8150	µg/L	2	N.D.
2,4,5-T	8150	µg/L	2	N.D.
2,4,5-TP (Silvex)	8150	µg/L	2	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 08DGMW73-001 96-01518-1	08DGMW74-001 96-01518-3
Alkalinity	310.1	mg/L	2	414	263
Ammonia (NH_4^+)	350.2	mg/L	0.2	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	505	320
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	264	191
Color, for drinking water	110.2	Color Unit	1	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	13.0	15.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.02	0.04
Silica (SiO_2) dissolved	370.1	mg/L	0.03	53.0	41.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,050	816
Solids, Total Suspended (TSS)	160.2	mg/L	4	N.D.	N.D.
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	92.0	65.0
Carbon, Total Organic (TOC)	415.1	mg/L	1	2	N.D.
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	2
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	5	5
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	0.9J
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	5	1
Toluene	CLP-VOC	µg/L	1	4	5
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	40	47
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 08DGMW73-001 96-01518-1	08DGMW74-001 96-01518-3
CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 08DGMW73-001 96-01518-1	08DGMW74-001 96-01518-3
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.
CLP: Organochlorine pesticides & PCB					
Aldrin	CLP-Pest	μg/L	0.05	N.D.	N.D.
β-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
α-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	N.D.
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	N.D.
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	N.D.
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	N.D.
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	N.D.
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	N.D.
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	N.D.
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	N.D.
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	N.D.
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	N.D.
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	N.D.
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 08UGMW29-001 96-01518-5	09DGMW75-001 96-01518-7	10DGMW77-001 96-01518-10
Alkalinity	310.1	mg/L	2	165	169	152
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	-	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	201	207	186
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	-	21	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	257	284	229
Color, for drinking water	110.2	Color Unit	1	-	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	19	26	16.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	-	0.15	0.04
Silica (SiO_2) dissolved	370.1	mg/L	0.03	-	52	53
Solids, Total Dissolved (TDS)	160.1	mg/L	10	988	1,340	1,220
Solids, Total Suspended (TSS)	160.2	mg/L	4	-	109	30
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	60.0	369	202
Carbon, Total Organic (TOC)	415.1	mg/L	1	-	N.D.	N.D.
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	1	1
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	2	N.D.
Toluene	CLP-VOC	μg/L	1	16	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	8	293	57
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 08UGMW29-001 96-01518-5	09DGMW75-001 96-01518-7	10DGMW77-001 96-01518-10
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	-	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	-	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	-	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	-	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	-	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	-	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	-	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	-	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	-	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	-	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	-	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	-	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	-	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	-	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 08UGMW29-001 96-01518-5	09DGMW75-001 96-01518-7	10DGMW77-001 96-01518-10
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	-	N.D.
Naphthalene	CLP-SVOC	μg/L	10	N.D.	-	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	-	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	-	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	-	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	-	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	-	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	-	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	-	N.D.
Phenol	CLP-SVOC	μg/L	10	N.D.	-	N.D.
Pyrene	CLP-SVOC	μg/L	10	N.D.	-	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	-	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	-	N.D.
CLP: Organochlorine pesticides & PCB						
Aldrin	CLP-Pest	μg/L	0.05	N.D.	-	-
β-BHC	CLP-Pest	μg/L	0.05	N.D.	-	-
α-BHC	CLP-Pest	μg/L	0.05	N.D.	-	-
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	-	-
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	-	-
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	-	-
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	-	-
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	-	-
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	-	-
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	-	-
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	-	-
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	-	-
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	-	-
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	-	-
Endrin	CLP-Pest	μg/L	0.10	N.D.	-	-
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	-	-
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	-	-
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	-	-
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	-	-
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	-	-
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	-	-
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	-	-
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	-	-
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	-	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 08DGMW73-001 96-01518-1	08DGMW73-001(U) 96-01518-2	08DGMW74-001 96-01518-3
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	117,000	125,000	102,000
Chromium	CLP-Metal	µg/L	10	N.D.	10	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	N.D.	210	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	32,000	33,000	28,000
Manganese	CLP-Metal	µg/L	15	17	19	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	180	190	76
Potassium	CLP-Metal	µg/L	5000	2500J	2690J	2460J
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	227,000	245,000	193,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 08DGMW74-001(U) 96-01518-4	08UGMW29-001 96-01518-5	08UGMW29-001(U) 96-01518-6
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	96,000	129,000	130,000
Chromium	CLP-Metal	µg/L	10	38	N.D.	59
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	470	N.D.	610
Lead	CLP-Metal	µg/L	3	N.D.	3	N.D.
Magnesium	CLP-Metal	µg/L	5000	27,000	40,000	40,000
Manganese	CLP-Metal	µg/L	15	N.D.	32	34
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	76	710	700
Potassium	CLP-Metal	µg/L	5000	2340J	3440J	3500J
Selenium	CLP-Metal	µg/L	5	N.D.	5	8
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	185,000	114,000	113,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 09DGMW75-001 96-01518-7	09DGMW75-001(U) 96-01518-8	10DGMW77-001 96-01518-10
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	225,000	216,000	181,000
Chromium	CLP-Metal	µg/L	10	N.D.	340	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	N.D.	4,160	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	6	3
Magnesium	CLP-Metal	µg/L	5000	65,000	62,000	54,000
Manganese	CLP-Metal	µg/L	15	36	66	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	380	390	61
Potassium	CLP-Metal	µg/L	5000	3520J	3390J	3880J
Selenium	CLP-Metal	µg/L	5	43	39	21
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	153,000	147,000	91,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 10DGMW77-001(U) 96-01518-11	12UGMW31-001 96-01518-12	12UGMW31-001(U) 96-01518-13
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	175,000	178,000	181,000
Chromium	CLP-Metal	µg/L	10	170	N.D.	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	1,900	N.D.	N.D.
Lead	CLP-Metal	µg/L	3	4	4	N.D.
Magnesium	CLP-Metal	µg/L	5000	53,000	53,000	54,000
Manganese	CLP-Metal	µg/L	15	29	N.D.	19
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	69	48	50
Potassium	CLP-Metal	µg/L	5000	3730J	3030J	3130J
Selenium	CLP-Metal	µg/L	5	22	7	9
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	87,000	83,000	87,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 09DGMW75-701 96-01518-9	APCL-TB 96-01518-14
CLP: VOC by GC/MS					
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	8	N.D.
Bromoform	CLP-VOC	μg/L	1	2	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	9	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	6	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.
J = Reported below PQL.
[a] Surrogate recovery is low for Phenol-d5 & Terphenyl-d14, same in re-analysis, matrix interference may be involved.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-001

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	SVOC (CLP)	Pesticides/Herbicides	General Chemistry	Pesticides (CLP)	Metals (CLP)	Ammonia Nitrogen	COD/Total Phosphorus	Silica/TSS/Sulfide	Total Cyanide (CLP)	REMARKS	PRESERVATIVE USED
08DGMW74-001	2/14/96	1410		✓	H_2O		11	✓	✓	✓	✓	✓		✓	✓	✓		Use CRDLs	
08DGMW73-001	2/14/96	1650		✓	H_2O		11	✓	✓	✓	✓	✓		✓	✓	✓			
08UGMW29-001	2/14/96	1015		✓	H_2O		8	✓	✓	✓	✓	✓						Samples for metals	
10DGMW77-001	2/14/96	1400		✓	H_2O		10	✓	✓	✓	✓			✓	✓	✓		analyses have been	
12UGMW31-001	2/14/96	1630		✓	H_2O		9	✓	✓	✓	✓		✓				✓	only filtered and	
09DGMW75-001	2/14/96	1030		✓	H_2O		9	✓		✓	✓			✓	✓	✓		preserved. No additional	
09DGMW75-701	2/15/96	0130		✓	H_2O		2	✓										lab filtering required.	
APCC-T3	-	-		-	-		1	✓											
																		NFESC QC level	
																		TD for all samples	
						CDM Federal													

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	2/15/96 1430				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	[illegible] 2:30				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCC courier				*General chemistry, includes chloride, sulfate, nitrate/nitrite as N, carbonate, bicarbonate, alkalinity, TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961530
Collected by: ss
Collected on: 02/15-16/96

Received: 02/16/96
Extracted: 02/19-20/96
Tested: 02/16-03/11/96
Reported: 02/23-27/96

Sample Description: Groundwater
Project Description: 6206-009 MCAS EL TORO

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 06UGMW28-001 96-01530-1	09DBMW45-001 96-01530-3
Alkalinity	310.1	mg/L	2	182	182
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	-	N.D.
Bicarbonate	SM2320B	mg/L	2	222	222
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	-	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	393	224
Color, for drinking water	110.2	Color Unit	1	-	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	18	19
Phosphorus, Orthophosphate	365.2	mg/L	0.01	-	N.D.
Silica (SiO_2) dissolved	370.1	mg/L	0.03	-	54
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,700	1,110
Solids, Total Suspended (TSS)	160.2	mg/L	4	-	6
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	345	205
Carbon, Total Organic (TOC)	415.1	mg/L	1	-	N.D.
CLP: VOC by GC/MS					
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	3
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	2
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	3

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 06UGMW28-001 96-01530-1	09DBMW45-001 96-01530-3
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	4
Toluene	CLP-VOC	µg/L	1	N.D.	8
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	19	679
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.
CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	-
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	-
Anthracene	CLP-SVOC	µg/L	10	N.D.	-
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	-
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	-
Carbazole	CLP-SVOC	µg/L	10	N.D.	-
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	-
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	-
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	-
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	-
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-
Chrysene	CLP-SVOC	µg/L	10	N.D.	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	-
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	-
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	-
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	-
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	-
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	-
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 06UGMW28-001 96-01530-1	09DBMW45-001 96-01530-3
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	N.D.	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	N.D.	-
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	N.D.	-
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-
Fluoranthene	CLP-SVOC	μg/L	10	N.D.	-
Fluorene	CLP-SVOC	μg/L	10	N.D.	-
Hexachlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
Hexachlorobutadiene	CLP-SVOC	μg/L	10	N.D.	-
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	N.D.	-
Hexachloroethane	CLP-SVOC	μg/L	10	N.D.	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	N.D.	-
Isophorone	CLP-SVOC	μg/L	10	N.D.	-
2-Methylnaphthalene	CLP-SVOC	μg/L	10	N.D.	-
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	-
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	-
Naphthalene	CLP-SVOC	μg/L	10	N.D.	-
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	-
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	-
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	-
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	-
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	-
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	-
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	-
Phenol	CLP-SVOC	μg/L	10	N.D.	-
Pyrene	CLP-SVOC	μg/L	10	N.D.	-
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	-
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 21DBMW56-001 96-01530-5	22DBMW47-001 96-01530-7
Alkalinity	310.1	mg/L	2	204	191
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	-	N.D.
Bicarbonate	SM2320B	mg/L	2	249	233
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	-	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	152	231
Color, for drinking water	110.2	Color Unit	1	-	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	28	17
Phosphorus, Orthophosphate	365.2	mg/L	0.01	-	0.01
Silica (SiO_2) dissolved	370.1	mg/L	0.03	-	55
Solids, Total Dissolved (TDS)	160.1	mg/L	10	798	1,180
Solids, Total Suspended (TSS)	160.2	mg/L	4	-	9
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	152	169
Carbon, Total Organic (TOC)	415.1	mg/L	1	-	N.D.
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	3
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	2
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	1
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	1	2
Toluene	CLP-VOC	µg/L	1	7	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	47	467
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 21DBMW56-001 96-01530-5	22DBMW47-001 96-01530-7
CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	μg/L	10	-	N.D.
Acenaphthylene	CLP-SVOC	μg/L	10	-	N.D.
Anthracene	CLP-SVOC	μg/L	10	-	N.D.
Benz(a)anthracene	CLP-SVOC	μg/L	10	-	N.D.
Benzo(a)pyrene	CLP-SVOC	μg/L	10	-	N.D.
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	-	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	-	N.D.
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	-	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	-	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	-	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	-	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	-	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	-	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	-	N.D.
Carbazole	CLP-SVOC	μg/L	10	-	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	-	N.D.
4-Chloroaniline	CLP-SVOC	μg/L	10	-	N.D.
2-Chloronaphthalene	CLP-SVOC	μg/L	10	-	N.D.
2-Chlorophenol	CLP-SVOC	μg/L	10	-	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	-	N.D.
Chrysene	CLP-SVOC	μg/L	10	-	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	-	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	-	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	-	N.D.
Dibenzofuran	CLP-SVOC	μg/L	10	-	N.D.
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	-	N.D.
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	-	N.D.
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	-	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	-	N.D.
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	-	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	-	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	-	N.D.
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	-	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	-	N.D.
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	-	N.D.
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	-	N.D.
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	-	N.D.
Fluoranthene	CLP-SVOC	μg/L	10	-	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 21DBMW56-001 96-01530-5	22DBMW47-001 96-01530-7
Fluorene	CLP-SVOC	μg/L	10	-	N.D.
Hexachlorobenzene	CLP-SVOC	μg/L	10	-	N.D.
Hexachlorobutadiene	CLP-SVOC	μg/L	10	-	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	-	N.D.
Hexachloroethane	CLP-SVOC	μg/L	10	-	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	-	N.D.
Isophorone	CLP-SVOC	μg/L	10	-	N.D.
2-Methylnaphthalene	CLP-SVOC	μg/L	10	-	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	-	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	-	N.D.
Naphthalene	CLP-SVOC	μg/L	10	-	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	-	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	-	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	-	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	-	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	-	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	-	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	-	N.D.
Phenol	CLP-SVOC	μg/L	10	-	N.D.
Pyrene	CLP-SVOC	μg/L	10	-	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	-	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	-	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	-	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 06UGMW28-001 96-01530-1	06UGMW28-001(U) 96-01530-2	09DBMW45-001 96-01530-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 06UGMW28-001 96-01530-1	06UGMW28-001(U) 96-01530-2	09DBMW45-001 96-01530-3
Calcium, Ca	CLP-Metal	µg/L	5000	269,000	286,000	196,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	61	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	430	N.D.
Lead, Pb	CLP-Metal	µg/L	3	4	10	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	72,000	79,000	56,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	260	280	N.D.
Potassium, K	CLP-Metal	µg/L	5000	4510J	5,010	3180J
Selenium, Se	CLP-Metal	µg/L	5	37	35	14
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	104,000	115,000	82,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	37	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 09DBMW45-001(U) 96-01530-4	21DBMW56-001 96-01530-5	21DBMW56-001(U) 96-01530-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	206,000	156,000	162,000
Chromium, Cr	CLP-Metal	µg/L	10	26	N.D.	20
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	230	N.D.	176
Lead, Pb	CLP-Metal	µg/L	3	N.D.	3	4
Magnesium, Mg	CLP-Metal	µg/L	5000	58,000	48,000	51,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	44	46	71
Potassium, K	CLP-Metal	µg/L	5000	3400J	2920J	3250J
Selenium, Se	CLP-Metal	µg/L	5	15	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	88,000	89,000	99,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 22DBMW47-001 96-01530-7	22DBMW47-001(U) 96-01530-8
CLP Metals (Full CLP 23 metals)					
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	N.D.
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.
Calcium, Ca	CLP-Metal	μg/L	5000	191,000	165,000
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	12
Cobalt, Co	CLP-Metal	μg/L	50	N.D.	N.D.
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	N.D.	114
Lead, Pb	CLP-Metal	μg/L	3	N.D.	N.D.
Magnesium, Mg	CLP-Metal	μg/L	5000	59,000	48,000
Manganese, Mn	CLP-Metal	μg/L	15	N.D.	N.D.
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	N.D.	N.D.
Potassium, K	CLP-Metal	μg/L	5000	3890J	3000J
Selenium, Se	CLP-Metal	μg/L	5	13	11
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	103,000	78,000
Thallium, Tl	CLP-Metal	μg/L	10	N.D.	N.D.
Vanadium, V	CLP-Metal	μg/L	50	N.D.	N.D.
Zinc, Zn	CLP-Metal	μg/L	20	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01530-9
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01530-9
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: NICAS CI Tors

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (EPA)	SVOC (EPA)	Filtered Metals (Total)	Unfiltered Metals (Total)	Anions (Cl, SO4, NO3)	Cyanide	Sulfide		REMARKS	PRESERVATIVE USED
21DBMW56-001	6/15/96	1425		✓	H_2O		6	✓		✓	✓					Refer to CROLS	
09DBMW45-001	6/15/96	1020		✓	H_2O		9	✓		✓	✓	✓	✓	✓			
22DBMW47-001	6/15/96	1600		✓	H_2O		10	✓	✓	✓	✓	✓	✓	✓		Water samples [illegible]	
06UBMW23-001	6/16/96	1000		✓	H_2O		7	✓	✓	✓	✓					Filtered and preserved in	
APCL-TB	-	-		-	-		1	✓								the field [illegible]	
																low filtering required.	
																NFESC [illegible]	
																for all samples	
																Note 4 [illegible]	
																[illegible]	
																[illegible]	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	[illegible]				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	6/16 1510				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL Courier				[illegible] chloride, sulfate, nitrate/nitrite as N, cyanide, [illegible] alkalinity, and TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961542
Collected by: ss
Collected on: 02/16-19/96

Received: 02/19/96
Extracted: 02/21-22/96
Tested: 02/20-03/11/96
Reported: 03/14/96

Sample Description: Groundwater
Project Description: MCAS EL TORO/#6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 19DGMW85-001 96-01542-9
Alkalinity	310.1	mg/L	2	180
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.
Bicarbonate	SM2320B	mg/L	2	220
Carbonate	SM2320B	mg/L	2	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	157
Color, for drinking water	110.2	Color Unit	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	12.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.07
Silica (SiO_2) dissolved	370.1	mg/L	0.03	56.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	922
Solids, Total Suspended (TSS)	160.2	mg/L	4	27
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	186
Carbon, Total Organic (TOC)	415.1	mg/L	1	2
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	2
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	4
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 19DGMW85-001 96-01542-9
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	5
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 12DBMW48-001 96-01542-1	18BGMW14-001 96-01542-3
Alkalinity	310.1	mg/L	2	191	152
Bicarbonate	SM2320B	mg/L	2	233	186
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	325	358
Cyanide, Total	335.2	mg/L	0.02	N.D.	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	25.0	19.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,660	1,320
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	405	130

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 12DBMW48-001 96-01542-1	18BGMW14-001 96-01542-3
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	7	N.D.
Toluene	CLP-VOC	µg/L	1	8	3
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	19	6
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 12DBMW48-001 96-01542-1	18BGMW14-001 96-01542-3
CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	-
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	-
Anthracene	CLP-SVOC	µg/L	10	N.D.	-
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	-
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	-
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	-
Carbazole	CLP-SVOC	µg/L	10	N.D.	-
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	-
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	-
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	-
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	-
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	-
Chrysene	CLP-SVOC	µg/L	10	N.D.	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	-
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	-
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	-
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	-
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	-
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	-
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	-
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	-
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	-
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	-
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	-
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	-

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 12DBMW48-001 96-01542-1	18BGMW14-001 96-01542-3
Fluorene	CLP-SVOC	µg/L	10	N.D.	-
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	-
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	-
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	-
Isophorone	CLP-SVOC	µg/L	10	N.D.	-
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	-
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	N.D.	-
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	N.D.	-
Naphthalene	CLP-SVOC	µg/L	10	N.D.	-
2-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	-
3-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	-
4-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	-
Nitrobenzene	CLP-SVOC	µg/L	10	N.D.	-
2-Nitrophenol	CLP-SVOC	µg/L	10	N.D.	-
4-Nitrophenol	CLP-SVOC	µg/L	25	N.D.	-
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	N.D.	-
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	N.D.	-
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	N.D.	-
Phenanthrene	CLP-SVOC	µg/L	10	N.D.	-
Phenol	CLP-SVOC	µg/L	10	N.D.	-
Pyrene	CLP-SVOC	µg/L	10	N.D.	-
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	N.D.	-
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	N.D.	-
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	N.D.	-
Chlorinated herbicides					
2,4-D	8150	µg/L	10	N.D.	-
2,4-DB	8150	µg/L	10	N.D.	-
Dalapon (dichloroacetic acid)	8150	µg/L	10	N.D.	-
Dicamba	8150	µg/L	2	N.D.	-
Dichloroprop	8150	µg/L	2	N.D.	-
Dinoseb (DNBP)	8150	µg/L	2	N.D.	-
2,4,5-T	8150	µg/L	2	N.D.	-
2,4,5-TP (Silvex)	8150	µg/L	2	N.D.	-

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW19D-001 96-01542-5	18BGMW23-001 96-01542-7
Alkalinity	310.1	mg/L	2	244	142
Bicarbonate	SM2320B	mg/L	2	298	173
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	179	177
Nitrate/Nitrite	353.3	mg-N/L	0.1	64.0	19.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	2,300	835
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	741	154

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW19D-001 96-01542-5	18BGMW23-001 96-01542-7
CLP: VOC by GC/MS					
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	8
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	6	6
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 12DBMW48-001 96-01542-1	12DBMW48-001(U) 96-01542-2	18BGMW14-001 96-01542-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	277,000	288,000	208,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	150	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	2,000	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	7	4
Magnesium, Mg	CLP-Metal	µg/L	5000	77,000	81,000	50,000
Manganese, Mn	CLP-Metal	µg/L	15	64	76	58
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	240	220	650
Potassium, K	CLP-Metal	µg/L	5000	3440J	3650J	3120J
Selenium, Se	CLP-Metal	µg/L	5	27	26	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	115,000	122,000	153,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	150	140	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW14-001(U) 96-01542-4	18BGMW19D-001 96-01542-5	18BGMW19D-001(U) 96-01542-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	198,000	292,000	294,000
Chromium, Cr	CLP-Metal	µg/L	10	79	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	610	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	3	5	6
Magnesium, Mg	CLP-Metal	µg/L	5000	48,000	159,000	156,000
Manganese, Mn	CLP-Metal	µg/L	15	54	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	620	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2960J	5,770	5,810
Selenium, Se	CLP-Metal	µg/L	5	N.D.	12	12
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	146,000	246,000	244,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	51	51

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW23-001 96-01542-7	18BGMW23-001(U) 96-01542-8	19DGMW85-001 96-01542-9
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	106,000	107,000	134,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	41	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	610	N.D.
Lead, Pb	CLP-Metal	µg/L	3	5	5	5
Magnesium, Mg	CLP-Metal	µg/L	5000	28,000	29,000	45,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	17	19
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	660
Potassium, K	CLP-Metal	µg/L	5000	3360J	3510J	3130J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	153,000	158,000	95,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	65

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DGMW85-001(U) 96-01542-10	19DGMW85-901 96-01542-11	19DGMW85-901(U) 96-01542-12
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	137,000	N.D.	N.D.
Chromium, Cr	CLP-Metal	µg/L	10	227	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	2,150	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	7	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	46,000	N.D.	N.D.
Manganese, Mn	CLP-Metal	µg/L	15	35	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	680	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3330J	N.D.	N.D.
Selenium, Se	CLP-Metal	µg/L	5	11	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	97,000	N.D.	N.D.
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	94	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DGMW85-901 96-01542-11	Analysis Result APCL-TB 96-01542-13
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DGMW85-901 96-01542-11	Analysis Result APCL-TB 96-01542-13
CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	μg/L	10	N.D.	-
Acenaphthylene	CLP-SVOC	μg/L	10	N.D.	-
Anthracene	CLP-SVOC	μg/L	10	N.D.	-
Benz(a)anthracene	CLP-SVOC	μg/L	10	N.D.	-
Benzo(a)pyrene	CLP-SVOC	μg/L	10	N.D.	-
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	N.D.	-
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	N.D.	-
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	N.D.	-
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	N.D.	-
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	N.D.	-
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	N.D.	-
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	N.D.	-
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.	-
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	N.D.	-
Carbazole	CLP-SVOC	μg/L	10	N.D.	-
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	N.D.	-
4-Chloroaniline	CLP-SVOC	μg/L	10	N.D.	-
2-Chloronaphthalene	CLP-SVOC	μg/L	10	N.D.	-
2-Chlorophenol	CLP-SVOC	μg/L	10	N.D.	-
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.	-
Chrysene	CLP-SVOC	μg/L	10	N.D.	-
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	N.D.	-
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	N.D.	-
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	N.D.	-
Dibenzofuran	CLP-SVOC	μg/L	10	N.D.	-
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	N.D.	-
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	N.D.	-
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	N.D.	-
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	N.D.	-
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	N.D.	-
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	N.D.	-
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	N.D.	-
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	-
Fluoranthene	CLP-SVOC	μg/L	10	N.D.	-

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DGMW85-901 96-01542-11	Analysis Result APCL-TB 96-01542-13
Fluorene	CLP-SVOC	μg/L	10	N.D.	-
Hexachlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
Hexachlorobutadiene	CLP-SVOC	μg/L	10	N.D.	-
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	N.D.	-
Hexachloroethane	CLP-SVOC	μg/L	10	N.D.	-
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	N.D.	-
Isophorone	CLP-SVOC	μg/L	10	N.D.	-
2-Methylnaphthalene	CLP-SVOC	μg/L	10	N.D.	-
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	-
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	-
Naphthalene	CLP-SVOC	μg/L	10	N.D.	-
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	-
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	-
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	-
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	-
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	-
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	-
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	-
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	-
Phenol	CLP-SVOC	μg/L	10	N.D.	-
Pyrene	CLP-SVOC	μg/L	10	N.D.	-
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	-
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	-
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	-

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported below PQL.

J = Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-[illegible]

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (8260)	SVOC (8270)	Metals (6010)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	REMARKS	PRESERVATIVE USED
18BGMW14-001	2/16/96	1355		✓	H_2O		6	✓			✓	✓					
19BGMW10D-001	[illegible]	[illegible]		✓	H_2O		6	✓			✓	✓					
12DBMW[illegible]	[illegible]	[illegible]		✓	H_2O		9	✓	✓	✓	✓	✓	✓				
11DBMW15-001	[illegible]	[illegible]		✓	H_2O		5	✓	✓		✓						
11DBMW15-001	[illegible]	[illegible]		✓	H_2O		9	✓			✓	✓		✓	✓	✓	
1[illegible]BMW23-001	2/16/96	1115		✓	H_2O		6	✓			✓	✓					
ACC TB	-	-			-		1	✓									

Relinquished by: (Signature) — Date / Time: 2/17/96

Received by: (Signature) — Date / Time: 2/17/96 [illegible]

Airbill No.: ACC Courier - 2 coolers

Relinquished by: (Signature) — Date / Time:

Received by: (Signature) — Date / Time:

Received for Laboratory by: (Signature) — Date / Time:

Relinquished by: (Signature) — Date / Time:

Received by: (Signature) — Date / Time:

Laboratory: [illegible] alkalinity and TDS

Distribution: Original Accompanies Shipments; Copy to Coordinator Field File

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961562
Collected by: ss
Collected on: 02/19/96

Received: 02/20/96
Extracted: XXXXXX
Tested: 02/21-03/11/96
Reported: 03/13/96

Sample Description: Groundwater
Project Description: 6206-009 MCAS EL TORO

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 07DBMW43-001 96-01562-1	18BGMW5D-001 96-01562-3
Alkalinity	310.1	mg/L	2	127	202
Bicarbonate	SM2320B	mg/L	2	154	246
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	141	281
Nitrate/Nitrite	353.3	mg-N/L	0.1	14.0	7.2
Solids, Total Dissolved (TDS)	160.1	mg/L	10	656	982
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	105	140
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	9
Toluene	CLP-VOC	µg/L	1	N.D.	3
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	3	14
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18DW135-001 96-01562-5	19DBMW54-001 96-01562-7
Alkalinity	310.1	mg/L	2	165	152
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	0.3
Bicarbonate	SM2320B	mg/L	2	201	186
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	416	126
Color, for drinking water	110.2	Color Unit	1	N.D.	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	27.0	12.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.02	0.09
Silica (SiO_2) dissolved	370.1	mg/L	0.03	49.0	56.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	2,350	742
Solids, Total Suspended (TSS)	160.2	mg/L	4	4	40
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	1,000	163
Carbon, Total Organic (TOC)	415.1	mg/L	1	1	1
CLP: VOC by GC/MS					
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	10	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	9	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	12	4
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DBMW54-001 96-01562-7	19DBMW54-001(U) 96-01562-8
CLP Metals (Full CLP 23 metals)					
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	430
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.
Calcium, Ca	CLP-Metal	μg/L	5000	114,000	115,000
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	281
Cobalt, Co	CLP-Metal	μg/L	50	N.D.	N.D.
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	N.D.	2,730
Lead, Pb	CLP-Metal	μg/L	3	6	10
Magnesium, Mg	CLP-Metal	μg/L	5000	35,000	35,000
Manganese, Mn	CLP-Metal	μg/L	15	N.D.	49
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	60	96
Potassium, K	CLP-Metal	μg/L	5000	2930J	3060J
Selenium, Se	CLP-Metal	μg/L	5	N.D.	N.D.
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	69,000	69,000
Thallium, Tl	CLP-Metal	μg/L	10	N.D.	N.D.
Vanadium, V	CLP-Metal	μg/L	50	N.D.	N.D.
Zinc, Zn	CLP-Metal	μg/L	20	22	66

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01562-9
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 07DBMW43-001 96-01562-1	07DBMW43-001(U) 96-01562-2	18BGMW5D-001 96-01562-3
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	93,000	97,000	141,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	585	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	45	N.D.
Iron, Fe	CLP-Metal	µg/L	100	119	4,810	N.D.
Lead, Pb	CLP-Metal	µg/L	3	4	10	4
Magnesium, Mg	CLP-Metal	µg/L	5000	24,000	24,000	36,000
Manganese, Mn	CLP-Metal	µg/L	15	44	160	20
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	670	882	130
Potassium, K	CLP-Metal	µg/L	5000	9,420	9,330	3200J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	76,000	73,000	132,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	58	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW5D-001(U) 96-01562-4	18DW135-001 96-01562-5	18DW135-001(U) 96-01562-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	139,000	311,000	318,000
Chromium, Cr	CLP-Metal	µg/L	10	43	N.D.	29
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	390	N.D.	320
Lead, Pb	CLP-Metal	µg/L	3	5	7	9
Magnesium, Mg	CLP-Metal	µg/L	5000	38,000	154,000	157,000
Manganese, Mn	CLP-Metal	µg/L	15	14J	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	160	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3320J	4440J	4610J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	116	129
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	141,000	195,000	199,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	27	37

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01562-9
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.:	PROJECT NAME:
[illegible]	MCAS El Toro

SAMPLERS: *(Signature)* [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (8240)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			REMARKS	PRESERVATIVE USED
19DBAW154-[illegible]	[illegible]	1330		✓	H_2O		9	✓	✓	✓	✓	✓	✓			[illegible]	
1-DBW135-[illegible]	[illegible]	1405		✓	H_2O		9	✓	✓	✓	✓	✓	✓				
22DBW143	[illegible]	1205		✓	H_2O		6	✓	✓	✓						[illegible]	
1-BW155-[illegible]	[illegible]	1330		✓	H_2O		10	✓	✓	✓						[illegible]	
APCC-T3	—	—		—	—		1	✓								[illegible]	
																[illegible]	
																[illegible]	
																[illegible]	
																[illegible]	
																NFESC QC level	
																[illegible]	
																[illegible]	
																[illegible]	
																phosphate and color	

Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time
[illegible]	4/24/96 2:50				
Received by: *(Signature)*	**Date / Time**	**Received by: *(Signature)***	**Date / Time**	**Received by: *(Signature)***	**Date / Time**
[illegible]	3/29/96 2:50				
Airbill No.		**Received for Laboratory by: *(Signature)***	**Date / Time**	**Laboratory**	
APCC courier				General chemistry, includes chloride, sulfate, nitrate/nitrite as N, carbonate, bicarbonate, alkalinity, and TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field File

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961634
Collected by: ss
Collected on: 02/21-26/96

Received: 02/27/96
Extracted: 02/28-29/96
Tested: 02/27-03/12/96
Reported: 03/14/96

Sample Description: Groundwater
Project Description: 6206-009 MCAS EL TORO

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18PS3-001 96-01634-9	18PS4-001 96-01634-11
Alkalinity	310.1	mg/L	2	195	208
Bicarbonate	SM2320B	mg/L	2	238	254
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	182	323
Nitrate/Nitrite	353.3	mg-N/L	0.1	7.8	9.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	825	1,130
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	123	126
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	2	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	3	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	9	6
Toluene	CLP-VOC	µg/L	1	5	4
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	11	7
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03DGMW64-001 96-01634-1	03DGMW65X-001 96-01634-3
Alkalinity	310.1	mg/L	2	292	333
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	356	407
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	139	138
Color, for drinking water	110.2	Color Unit	1	1	2
Nitrate/Nitrite	353.3	mg-N/L	0.1	7.0	9.5
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.18	0.22
Silica (SiO_2) dissolved	370.1	mg/L	0.03	46.0	52.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	847	794
Solids, Total Suspended (TSS)	160.2	mg/L	4	93	63
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	156	85.0
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	1
CLP: VOC by GC/MS					
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03DGMW64-001 96-01634-1	03DGMW65X-001 96-01634-3
CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	11	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03DGMW64-001 96-01634-1	03DGMW65X-001 96-01634-3
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.
CLP: Organochlorine pesticides & PCB					
Aldrin	CLP-Pest	μg/L	0.05	N.D.	N.D.
β-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
α-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	N.D.
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	N.D.
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	N.D.
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	N.D.
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	N.D.
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	N.D.
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	N.D.
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	N.D.
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	N.D.
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	N.D.
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	N.D.
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03DGMW64-001 96-01634-1	03DGMW65X-001 96-01634-3
Chlorinated herbicides					
2,4-D	8150	μg/L	10	N.D.	N.D.
2,4-DB	8150	μg/L	10	N.D.	N.D.
Dalapon (dichloroacetic acid)	8150	μg/L	10	N.D.	N.D.
Dicamba	8150	μg/L	2	N.D.	N.D.
Dichloroprop	8150	μg/L	2	N.D.	N.D.
Dinoseb (DNBP)	8150	μg/L	2	N.D.	N.D.
2,4,5-T	8150	μg/L	2	N.D.	N.D.
2,4,5-TP (Silvex)	8150	μg/L	2	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 04DBMW40-001 96-01634-5	04DGMW66-001 96-01634-7
Alkalinity	310.1	mg/L	2	279	251
Ammonia (NH_4^+-N)	350.2	mg/L	0.	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	340	306
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	149	121
Color, for drinking water	110.2	Color Unit	1	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	9.7	13.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.31	0.23
Silica (SiO_2) dissolved	370.1	mg/L	0.03	55.0	53.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	928	760
Solids, Total Suspended (TSS)	160.2	mg/L	4	1,050	158
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	171	103
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	N.D.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 04DBMW40-001 96-01634-5	04DGMW66-001 96-01634-7
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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CLP: Semi-VOC by GC/MS					
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.

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3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.
CLP: Organochlorine pesticides & PCB					
Aldrin	CLP-Pest	μg/L	0.05	N.D.	N.D.
β-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
α-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	N.D.
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	N.D.
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	N.D.
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	N.D.
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	N.D.
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	N.D.
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	N.D.
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	N.D.
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	N.D.
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	N.D.
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	N.D.
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	N.D.
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	N.D.
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	N.D.

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Chlorinated herbicides					
2,4-D	8150	μg/L	10	N.D.	N.D.
2,4-DB	8150	μg/L	10	N.D.	N.D.
Dalapon (dichloroacetic acid)	8150	μg/L	10	N.D.	N.D.
Dicamba	8150	μg/L	2	N.D.	N.D.
Dichloroprop	8150	μg/L	2	N.D.	N.D.
Dinoseb (DNBP)	8150	μg/L	2	N.D.	N.D.
2,4,5-T	8150	μg/L	2	N.D.	N.D.
2,4,5-TP (Silvex)	8150	μg/L	2	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 03DGMW64-001 96-01634-1	03DGMW64-001(U) 96-01634-2	03DGMW65X-001 96-01634-3 [a]
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	μg/L	200	N.D.	220	450
Antimony	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	μg/L	10	N.D.	N.D.	11
Barium	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	μg/L	5000	68,000	69,000	73,000
Chromium	CLP-Metal	μg/L	10	46	81	190
Cobalt	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	μg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	μg/L	100	1,500	2,270	5,370
Lead	CLP-Metal	μg/L	3	7	5	7
Magnesium	CLP-Metal	μg/L	5000	42,000	45,000	38,000
Manganese	CLP-Metal	μg/L	15	70	95	55
Mercury	CLP-Metal	μg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	μg/L	40	670	720	760
Potassium	CLP-Metal	μg/L	5000	4510J	4830J	4280J
Selenium	CLP-Metal	μg/L	5	6	N.D.	N.D.
Silver	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	μg/L	5000	187,000	202,000	188,000
Thallium	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	μg/L	20	89	42	71

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 03DGMW65X-001(U) 96-01634-4	04DBMW40-001 96-01634-5 [a]	04DBMW40-001(U) 96-01634-6
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	203	1,300	900
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	76,000	83,000	82,000
Chromium	CLP-Metal	µg/L	10	150	81	50
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	29	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	3,940	3,600	2,000
Lead	CLP-Metal	µg/L	3	5	8	8
Magnesium	CLP-Metal	µg/L	5000	37,000	41,000	40,000
Manganese	CLP-Metal	µg/L	15	130	120	110
Mercury	CLP-Metal	µg/L	0.2	N.D.	1.3	1.3
Nickel	CLP-Metal	µg/L	40	620	86	79
Potassium	CLP-Metal	µg/L	5000	4130J	4940J	4700J
Selenium	CLP-Metal	µg/L	5	N.D.	10	9
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	170,000	189,000	186,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	51	N.D.
Zinc	CLP-Metal	µg/L	20	44	210	210

Component Analyzed	Method	Unit	CRDL	Analysis Result 04DGMW66-001 96-01634-7	04DGMW66-001(U) 96-01634-8	18PS3-001 96-01634-9
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	620	410	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	95,000	96,000	110,000
Chromium	CLP-Metal	µg/L	10	547	370	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	28	N.D.
Iron	CLP-Metal	µg/L	100	3,980	3,940	N.D.
Lead	CLP-Metal	µg/L	3	5	6	4
Magnesium	CLP-Metal	µg/L	5000	33,000	33,000	30,000
Manganese	CLP-Metal	µg/L	15	24	53	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	110	130	N.D.
Potassium	CLP-Metal	µg/L	5000	3600J	3580J	2990J
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	104,000	105,000	114,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	62	100	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18PS3-001(U) 96-01634-10	18PS4-001 96-01634-11	18PS4-001(U) 96-01634-12
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	μg/L	5000	109,000	158,000	160,000
Chromium	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Cobalt	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	μg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	μg/L	100	N.D.	N.D.	N.D.
Lead	CLP-Metal	μg/L	3	5	5	6
Magnesium	CLP-Metal	μg/L	5000	31,000	41,000	41,000
Manganese	CLP-Metal	μg/L	15	N.D.	N.D.	N.D.
Mercury	CLP-Metal	μg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	μg/L	40	N.D.	N.D.	N.D.
Potassium	CLP-Metal	μg/L	5000	3100J	3460J	3470J
Selenium	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.
Silver	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	μg/L	5000	120,000	143,000	144,000
Thallium	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	μg/L	20	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01634-13
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	1
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01634-13
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported below PQL.

(a) Sample had already been preserved when received, some solid might be dissolved.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS EL TORO

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (GC/MS)	FILTERED/UNFILTERED METALS	GEN CHEM	AMMONIA/NITROGEN	COD/TOC/PHOSPHATE	SULFIDE/TSS/CYANIDE	SVOC	HERBICIDES	PESTICIDES	REMARKS	PRESERVATIVE USED
*04 DGMW 66-001	2/26	1740		✓	H_2O	14	✓	✓	✓	✓	✓	✓	✓	✓	✓	*LAB TO FILTER & PRESERVE	
*04 DBMW 40-001	2/26	1645		✓	H_2O	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	*LAB TO FILTER & PRESERVE	
*03 DGMW 65x-001	2/26	1300		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	*LAB TO FILTER & PRESERVE	
*03 DGMW 64-001	2/26	1020		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	*LAB TO FILTER & PRESERVE	
18 PS4-001	2/21	1625		✓	H_2O	6	✓	✓	✓								
18 PS3-001	2/22	1310		✓	H_2O	6	✓	✓	✓							- REFER TO PREVIOUSLY SENT POINT SPECIFIC DETECTION LIMITS - NFESC LEVEL D FOR ALL SAMPLES - ADDITIONAL VOLUME OF SVOC FOR MS & MSD ANALYSIS	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	2/27/96 2:30				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible] / PCL	/ / 2:30				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL Courier 3 Coolers				GEN CHEMISTRY - INCLUDES, CHLORIDE, SULFATE, NITRATE/NITRITE AS N, CARBONATE, BICARBONATE AND ALKALINITY & TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961654
Collected by: Pat. Russell
Collected on: 02/27/96

Received: 02/28/96
Extracted: 03/02-04/96
Tested: 02/29-03/13/96
Reported: 03/15/96

Sample Description: Groundwater
Project Description: MCAS EL TORO GWM/#6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03UGMW26-001 96-01654-3	05DGMW68-001 96-01654-5	20DBMW55-001 96-01654-9
Alkalinity	310.1	mg/L	2	268	307	124
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	327	374	152
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	103	112	332
Color, for drinking water	110.2	Color Unit	1	2	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	22.0	13.0	23.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.15	0.12	0.10
Silica (SiO_2) dissolved	370.1	mg/L	0.03	61.0	53.0	37.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	760	989	1,610
Solids, Total Suspended (TSS)	160.2	mg/L	4	132	39	70
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	117	258	511
Carbon, Total Organic (TOC)	415.1	mg/L	1	N.D.	N.D.	1
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03UGMW26-001 96-01654-3	05DGMW68-001 96-01654-5	20DBMW55-001 96-01654-9
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	0.6J	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	0.3J	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.	34
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03UGMW26-001 96-01654-3	05DGMW68-001 96-01654-5	20DBMW55-001 96-01654-9
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N,D.	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Naphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
Nitrobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
Phenanthrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Phenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
Pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 03UGMW26-001 96-01654-3	05DGMW68-001 96-01654-5	20DBMW55-001 96-01654-9
CLP: Organochlorine pesticides & PCB						
Aldrin	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
β-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
α-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
δ-BHC	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
α-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
γ-Chlordane	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
4,4'-DDD	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
4,4'-DDE	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
4,4'-DDT	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Dieldrin	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endosulfan I	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
Endosulfan II	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endosulfan sulfate	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endrin	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endrin aldehyde	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Endrin ketone	CLP-Pest	μg/L	0.10	N.D.	N.D.	-
Heptachlor	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
Heptachlor epoxide	CLP-Pest	μg/L	0.05	N.D.	N.D.	-
Methoxychlor	CLP-Pest	μg/L	0.50	N.D.	N.D.	-
Toxaphene	CLP-Pest	μg/L	5.0	N.D.	N.D.	-
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	N.D.	N.D.	-
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	N.D.	N.D.	-
Chlorinated herbicides						
2,4-D	8150	μg/L	10	N.D.	N.D.	-
2,4-DB	8150	μg/L	10	N.D.	N.D.	-
Dalapon (dichloroacetic acid)	8150	μg/L	10	N.D.	N.D.	-
Dicamba	8150	μg/L	2	N.D.	N.D.	-
Dichloroprop	8150	μg/L	2	N.D.	N.D.	-
Dinoseb (DNBP)	8150	μg/L	2	N.D.	N.D.	-
2,4,5-T	8150	μg/L	2	N.D.	N.D.	-
2,4,5-TP (Silvex)	8150	μg/L	2	N.D.	N.D.	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 01DGMW58-001 96-01654-1	19DBMW86-001 96-01654-7
Alkalinity	310.1	mg/L	2	227	208
Bicarbonate	SM2320B	mg/L	2	277	254
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	21.0	167
Nitrate/Nitrite	353.3	mg-N/L	0.1	11.0	15.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	404	920
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	23.0	193
CLP: VOC by GC/MS					
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	3
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 01DGMW58-001 96-01654-1	19DBMW86-001 96-01654-7
Nitroaromatics and Nitroamines					
4-Amino-2,6-dinitrotoluene	8330	µg/L	0.5	N.D.	-
2-Amino-4,6-dinitrotoluene	8330	µg/L	0.5	N.D.	-
1,3-Dinitrobenzene	8330	µg/L	0.5	N.D.	-
2,4-Dinitrotoluene	8330	µg/L	0.5	N.D.	-
2,6-Dinitrotoluene	8330	µg/L	0.5	N.D.	-
HMX	8330	µg/L	0.5	N.D.	-
Nitrobenzene	8330	µg/L	0.5	N.D.	-
2-Nitrotoluene	8330	µg/L	0.5	N.D.	-
3-Nitrotoluene	8330	µg/L	0.5	N.D.	-
4-Nitrotoluene	8330	µg/L	0.5	N.D.	-
RDX	8330	µg/L	0.5	N.D.	-
Tetryl	8330	µg/L	0.5	N.D.	-
1,3,5-Trinitrobenzene (TNB)	8330	µg/L	0.5	N.D.	-
2,4,6-Trinitrotoluene (TNT)	8330	µg/L	0.5	N.D.	-

Component Analyzed	Method	Unit	CRDL	Analysis Result 01DGMW58-001 96-01654-1	01DGMW58-001(U) 96-01654-2	03UGMW26-001 96-01654-3
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	12
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	81,000	82,000	78,000
Chromium	CLP-Metal	µg/L	10	13	11	110
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	184	340	1,300
Lead	CLP-Metal	µg/L	3	3	4	N.D.
Magnesium	CLP-Metal	µg/L	5000	11,000	13,000	36,000
Manganese	CLP-Metal	µg/L	15	18	51	17
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	110	110	62
Potassium	CLP-Metal	µg/L	5000	1750J	1750J	3340J
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	36,000	36,000	126,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	24	31	23

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 03UGMW26-001(U) 96-01654-4	05DGMW68-001 96-01654-5	05DGMW68-001(U) 96-01654-6
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	11	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	81,000	136,000	137,000
Chromium	CLP-Metal	µg/L	10	110	40	263
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	1,300	210	2,630
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	37,000	42,000	42,000
Manganese	CLP-Metal	µg/L	15	32	N.D.	37
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	66	110	130
Potassium	CLP-Metal	µg/L	5000	3420J	4010J	4050J
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	13,000	125,000	126,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	28	19J	45

Component Analyzed	Method	Unit	CRDL	Analysis Result 19DBMW86-001 96-01654-7	19DBMW86-001(U) 96-01654-8
CLP Metals (Full CLP 23 metals)					
Aluminum	CLP-Metal	µg/L	200	N.D.	910
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	141,000	145,000
Chromium	CLP-Metal	µg/L	10	11	85
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	210	2,540
Lead	CLP-Metal	µg/L	3	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	49,000	49,000
Manganese	CLP-Metal	µg/L	15	20	170
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	730	866
Potassium	CLP-Metal	µg/L	5000	3790J	3900J
Selenium	CLP-Metal	µg/L	5	19	18
Silver	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	75,000	74,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	17J	72

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 20DBMW55-001 96-01654-9	20DBMW55-001(U) 96-01654-10
CLP Metals (Full CLP 23 metals)					
Aluminum	CLP-Metal	μg/L	200	N.D.	N.D.
Antimony	CLP-Metal	μg/L	60	N.D.	N.D.
Arsenic	CLP-Metal	μg/L	10	N.D.	N.D.
Barium	CLP-Metal	μg/L	200	N.D.	N.D.
Beryllium	CLP-Metal	μg/L	5	N.D.	N.D.
Cadmium	CLP-Metal	μg/L	5	N.D.	N.D.
Calcium	CLP-Metal	μg/L	5000	179,000	174,000
Chromium	CLP-Metal	μg/L	10	38	372
Cobalt	CLP-Metal	μg/L	50	N.D.	N.D.
Copper	CLP-Metal	μg/L	25	N.D.	25
Iron	CLP-Metal	μg/L	100	280	3,190
Lead	CLP-Metal	μg/L	3	N.D.	5
Magnesium	CLP-Metal	μg/L	5000	89,000	86,000
Manganese	CLP-Metal	μg/L	15	31	55
Mercury	CLP-Metal	μg/L	0.2	N.D.	N.D.
Nickel	CLP-Metal	μg/L	40	510	530
Potassium	CLP-Metal	μg/L	5000	9,740	9,330
Selenium	CLP-Metal	μg/L	5	107	109
Silver	CLP-Metal	μg/L	10	N.D.	N.D.
Sodium	CLP-Metal	μg/L	5000	187,000	178,000
Thallium	CLP-Metal	μg/L	10	N.D.	N.D.
Vanadium	CLP-Metal	μg/L	50	N.D.	N.D.
Zinc	CLP-Metal	μg/L	20	100	170

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01654-11
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01654-11
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: EL TORO GWM

SAMPLERS: (Signature) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	Metals, Filtered & Preserved	Gen Chem	Ammonia/Nitrogen	COD/TOC/Phosphate	Silica/Fluoride	Pesticides (CLP)	SVOC's (CLP)	Herbicides (8150)	Explosives (8330)	REMARKS	PRESERVATIVE USED
*05DGMW68-001	2/27/96	1010		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	✓	✓		* LAB TO Filter & Preserve Metals	
*20DBMW55-001	2/27/96	1610		✓	H_2O	10	✓	✓	✓	✓	✓	✓					* LAB TO Filter & Preserve Metals	
*19DBMW86-001	2/27/96	1220		✓	H_2O	6	✓	✓	✓								* LAB TO Filter & Preserve Metals	
*03DGMW26-001	2/27/96	1515		✓	H_2O	12	✓	✓	✓		✓	✓	✓	✓	✓		* LAB TO Filter & Preserve Metals	
*01DGMW58-001	2/28/96	9:50		✓	H_2O	7	✓	✓	✓							✓	* LAB TO Filter & Preserve Metals	
APCL TB	–	–				1	✓											

- REFER TO PREVIOUSLY sent Project specific Detection Limits
- NFESC LEVEL D FOR All SAMPLES

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Russell	2/28/96 3:00				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2/28/96 3:00				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL Courier - 2 coolers				GENCHEMISTRY - Includes chloride, sulfate, nitrate/nitrite as N, carbonate, bi-carbonate alkalinity & TDS.	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

Applied P & Ch Laboratory
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APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Scheoder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961699
Collected by: Min
Collected on: 02/28-03/01/

Received: 03/04/96
Extracted: 03/04-06/96
Tested: 03/05-14/96
Reported: 03/16/96

Sample Description: MCAS EL TORO
Project Description: 6206-009 MCAS EL TORO

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW3A-001 96-01699-1	18BGMW3A-301 96-01699-3	18BGMW3B-001 96-01699-5
Alkalinity	310.1	mg/L	2	182	182	178
Bicarbonate	SM2320B	mg/L	2	222	222	217
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	122	106	94.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	13.6	14.3	13.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	657	663	602
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	122	109	107
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	3	3	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	1	1	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW3A-001 96-01699-1	18BGMW3A-301 96-01699-3	18BGMW3B-001 96-01699-5
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	μg/L	10	-	-	N.D.
Acenaphthylene	CLP-SVOC	μg/L	10	-	-	N.D.
Anthracene	CLP-SVOC	μg/L	10	-	-	N.D.
Benz(a)anthracene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(a)pyrene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	-	-	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	-	-	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	-	-	N.D.
Carbazole	CLP-SVOC	μg/L	10	-	-	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	-	-	N.D.
4-Chloroaniline	CLP-SVOC	μg/L	10	-	-	N.D.
2-Chloronaphthalene	CLP-SVOC	μg/L	10	-	-	N.D.
2-Chlorophenol	CLP-SVOC	μg/L	10	-	-	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	-	-	N.D.
Chrysene	CLP-SVOC	μg/L	10	-	-	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	-	-	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	-	-	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	-	-	N.D.
Dibenzofuran	CLP-SVOC	μg/L	10	-	-	N.D.
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	-	-	N.D.
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	-	-	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	-	-	13
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	-	-	N.D.
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	-	-	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	-	-	N.D.
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	-	-	N.D.
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	-	-	N.D.
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	-	-	N.D.
Fluoranthene	CLP-SVOC	μg/L	10	-	-	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW3A-001 96-01699-1	18BGMW3A-301 96-01699-3	18BGMW3B-001 96-01699-5
Fluorene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachlorobutadiene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachloroethane	CLP-SVOC	μg/L	10	-	-	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	-	-	N.D.
Isophorone	CLP-SVOC	μg/L	10	-	-	N.D.
2-Methylnaphthalene	CLP-SVOC	μg/L	10	-	-	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	-	-	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	-	-	N.D.
Naphthalene	CLP-SVOC	μg/L	10	-	-	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	-	-	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	-	-	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	-	-	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	-	-	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	-	-	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	-	-	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	-	-	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	-	-	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	-	-	N.D.
Phenol	CLP-SVOC	μg/L	10	-	-	N.D.
Pyrene	CLP-SVOC	μg/L	10	-	-	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	-	-	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	-	-	N.D.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW4A-001 96-01699-7	18BGMW5B-001 96-01699-9	18BGMW5C-001 96-01699-11
Alkalinity	310.1	mg/L	2	193	174	182
Bicarbonate	SM2320B	mg/L	2	235	212	222
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	119	114	133
Nitrate/Nitrite	353.3	mg-N/L	0.1	6.1	23.1	12.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	679	735	709
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	123	134	115

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW4A-001 96-01699-7	18BGMW5B-001 96-01699-9	18BGMW5C-001 96-01699-11
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	N.D.	2
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	1	2	1
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW4A-001 96-01699-7	18BGMW5B-001 96-01699-9	18BGMW5C-001 96-01699-11
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	μg/L	10	-	-	N.D.
Acenaphthylene	CLP-SVOC	μg/L	10	-	-	N.D.
Anthracene	CLP-SVOC	μg/L	10	-	-	N.D.
Benz(a)anthracene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(a)pyrene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	-	-	N.D.
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	-	-	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	-	-	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	-	-	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	-	-	N.D.
Carbazole	CLP-SVOC	μg/L	10	-	-	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	-	-	N.D.
4-Chloroaniline	CLP-SVOC	μg/L	10	-	-	N.D.
2-Chloronaphthalene	CLP-SVOC	μg/L	10	-	-	N.D.
2-Chlorophenol	CLP-SVOC	μg/L	10	-	-	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	-	-	N.D.
Chrysene	CLP-SVOC	μg/L	10	-	-	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	-	-	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	-	-	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	-	-	N.D.
Dibenzofuran	CLP-SVOC	μg/L	10	-	-	N.D.
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	-	-	N.D.
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	-	-	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	-	-	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	-	-	N.D.
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	-	-	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	-	-	N.D.
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	-	-	N.D.
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	-	-	N.D.
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	-	-	N.D.
Fluoranthene	CLP-SVOC	μg/L	10	-	-	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW4A-001 96-01699-7	18BGMW5B-001 96-01699-9	18BGMW5C-001 96-01699-11
Fluorene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachlorobutadiene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	μg/L	10	-	-	N.D.
Hexachloroethane	CLP-SVOC	μg/L	10	-	-	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	μg/L	10	-	-	N.D.
Isophorone	CLP-SVOC	μg/L	10	-	-	N.D.
2-Methylnaphthalene	CLP-SVOC	μg/L	10	-	-	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	-	-	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	-	-	N.D.
Naphthalene	CLP-SVOC	μg/L	10	-	-	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	-	-	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	-	-	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	-	-	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	-	-	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	-	-	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	-	-	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	-	-	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	-	-	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	-	-	N.D.
Phenol	CLP-SVOC	μg/L	10	-	-	N.D.
Pyrene	CLP-SVOC	μg/L	10	-	-	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	-	-	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	-	-	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	-	-	N.D.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW19A-001 96-01699-13	18BGMW19B-001 96-01699-15	18BGMW19C-001 96-01699-17
Alkalinity	310.1	mg/L	2	242	244	221
Bicarbonate	SM2320B	mg/L	2	296	298	269
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	91.1	87.9	227
Nitrate/Nitrite	353.3	mg-N/L	0.1	1.7	2.8	23.6
Solids, Total Dissolved (TDS)	160.1	mg/L	10	805	748	1,350
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	228	179	265

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW19A-001 96-01699-13	18BGMW19B-001 96-01699-15	18BGMW19C-001 96-01699-17
CLP: VOC by GC/MS						
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.	26	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.	3	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW19A-001 96-01699-13	18BGMW19B-001 96-01699-15	18BGMW19C-001 96-01699-17
CLP: Semi-VOC by GC/MS						
Acenaphthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	-	N.D	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	-	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	-	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	-	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	-	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	-	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW19A-001 96-01699-13	18BGMW19B-001 96-01699-15	18BGMW19C-001 96-01699-17
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	-	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	-	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	-	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	-	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	-	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	-	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	-	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	-	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	-	N.D.	N.D.
CLP: Organochlorine pesticides & PCB						
Aldrin	CLP-Pest	μg/L	0.05	-	-	N.D.
β-BHC	CLP-Pest	μg/L	0.05	-	-	N.D.
α-BHC	CLP-Pest	μg/L	0.05	-	-	N.D.
δ-BHC	CLP-Pest	μg/L	0.05	-	-	N.D.
γ-BHC (Lindane)	CLP-Pest	μg/L	0.05	-	-	N.D.
α-Chlordane	CLP-Pest	μg/L	0.05	-	-	N.D.
γ-Chlordane	CLP-Pest	μg/L	0.05	-	-	N.D.
4,4'-DDD	CLP-Pest	μg/L	0.10	-	-	N.D.
4,4'-DDE	CLP-Pest	μg/L	0.10	-	-	N.D.
4,4'-DDT	CLP-Pest	μg/L	0.10	-	-	N.D.
Dieldrin	CLP-Pest	μg/L	0.10	-	-	N.D.
Endosulfan I	CLP-Pest	μg/L	0.05	-	-	N.D.
Endosulfan II	CLP-Pest	μg/L	0.10	-	-	N.D.
Endosulfan sulfate	CLP-Pest	μg/L	0.10	-	-	N.D.
Endrin	CLP-Pest	μg/L	0.10	-	-	N.D.
Endrin aldehyde	CLP-Pest	μg/L	0.10	-	-	N.D.
Endrin ketone	CLP-Pest	μg/L	0.10	-	-	N.D.
Heptachlor	CLP-Pest	μg/L	0.05	-	-	N.D.
Heptachlor epoxide	CLP-Pest	μg/L	0.05	-	-	N.D.
Methoxychlor	CLP-Pest	μg/L	0.50	-	-	N.D.
Toxaphene	CLP-Pest	μg/L	5.0	-	-	N.D.
Aroclor-1016 (PCB-1016)	CLP-Pest	μg/L	1.0	-	-	N.D.
Aroclor-1221 (PCB-1221)	CLP-Pest	μg/L	2.0	-	-	N.D.
Aroclor-1232 (PCB-1232)	CLP-Pest	μg/L	1.0	-	-	N.D.
Aroclor-1242 (PCB-1242)	CLP-Pest	μg/L	1.0	-	-	N.D.
Aroclor-1248 (PCB-1248)	CLP-Pest	μg/L	1.0	-	-	N.D.
Aroclor-1254 (PCB-1254)	CLP-Pest	μg/L	1.0	-	-	N.D.
Aroclor-1260 (PCB-1260)	CLP-Pest	μg/L	1.0	-	-	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW3A-001 96-01699-1	18BGMW3A-001(U) 96-01699-2	18BGMW3A-301 96-01699-3
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	78,000	75,000	78,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	N.D.	175	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	24,000	23,000	24,000
Manganese	CLP-Metal	µg/L	15	42	45	40
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	150	160	150
Potassium	CLP-Metal	µg/L	5000	5,240	5,230	5,150
Selenium	CLP-Metal	µg/L	5	12	7	11
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	92,000	89,000	92,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	110	140	110

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW3A-301(U) 96-01699-4	18BGMW3B-001 96-01699-5	18BGMW3B-001(U) 96-01699-6
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	79,000	75,000	75,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.	13
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	136	N.D.	139
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	24,000	22,000	22,000
Manganese	CLP-Metal	µg/L	15	44	20	20
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	160	230	240
Potassium	CLP-Metal	µg/L	5000	5,390	3250J	3320J
Selenium	CLP-Metal	µg/L	5	10	6	7
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	92,000	78,000	78,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	130	130	140

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW4A-001 96-01699-7	18BGMW4A-001(U) 96-01699-8	18BGMW5B-001 96-01699-9
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	81,000	82,000	95,000
Chromium	CLP-Metal	µg/L	10	N.D.	47	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	N.D.	490	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	22,000	22,000	19,000
Manganese	CLP-Metal	µg/L	15	69	71	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	510	510	55
Potassium	CLP-Metal	µg/L	5000	3390J	3350J	3490J
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.	13
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	91,000	92,000	103,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	675	712	87

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW5B-001(U) 96-01699-10	18BGMW5C-001 96-01699-11	18BGMW5C-001(U) 96-01699-12
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	94,000	81,000	83,000
Chromium	CLP-Metal	µg/L	10	78	N.D.	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	540	N.D.	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	19,000	17,000	18,000
Manganese	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	56	300	300
Potassium	CLP-Metal	µg/L	5000	3660J	3630J	3480J
Selenium	CLP-Metal	µg/L	5	10	7	9
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	103,000	110,000	112,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	130	56	54

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW19A-001 96-01699-13	18BGMW19A-001(U) 96-01699-14	18BGMW19B-001 96-01699-15
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	104,000	98,000	87,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	36,000	35,000	32,000
Manganese	CLP-Metal	µg/L	15	N.D.	N.D.	70
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	N.D.	N.D.	150
Potassium	CLP-Metal	µg/L	5000	3820J	3740J	3560J
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.	10
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	101,000	97,000	98,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	51	59	390

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW19B-001(U) 96-01699-16	18BGMW19C-001 96-01699-17	18BGMW19C-001(U) 96-01699-18
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Barium	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.
Beryllium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Cadmium	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.
Calcium	CLP-Metal	µg/L	5000	93,000	162,000	161,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.	18
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron	CLP-Metal	µg/L	100	194	N.D.	177
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	33,000	66,000	66,000
Manganese	CLP-Metal	µg/L	15	76	N.D.	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	160	260	260
Potassium	CLP-Metal	µg/L	5000	3650J	5,450	5,470
Selenium	CLP-Metal	µg/L	5	9	53	57
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	101,000	147,000	149,000
Thallium	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Vanadium	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Zinc	CLP-Metal	µg/L	20	437	474	488

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01699-19
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	1	N.D.
Bromodichloromethane	CLP-VOC	μg/L	1	N.D.
Bromoform	CLP-VOC	μg/L	1	N.D.
Bromomethane	CLP-VOC	μg/L	10	N.D.
2-Butanone (MEK)	CLP-VOC	μg/L	10	N.D.
Carbon disulfide	CLP-VOC	μg/L	10	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	1	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	1	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	1	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	1	N.D.
1,1-Dichloroethene	CLP-VOC	μg/L	1	N.D.
cis-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	1	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	1	N.D.
cis-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
trans-1,3-Dichloropropene	CLP-VOC	μg/L	10	N.D.
Ethylbenzene	CLP-VOC	μg/L	1	N.D.
2-Hexanone	CLP-VOC	μg/L	10	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	μg/L	10	N.D.
Methylene chloride	CLP-VOC	μg/L	1	N.D.
Styrene	CLP-VOC	μg/L	10	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	μg/L	10	N.D.
Tetrachloroethene	CLP-VOC	μg/L	1	N.D.
Toluene	CLP-VOC	μg/L	1	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	1	N.D.
Trichloroethene	CLP-VOC	μg/L	1	N.D.
Vinyl chloride	CLP-VOC	μg/L	1	N.D.
Xylenes (total)	CLP-VOC	μg/L	1	N.D.

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS EL TORO

SAMPLERS: *(Signature)*

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	FILTERED/UNFILTERED	GEN CHEM	SVOC	PESTICIDES				REMARKS	PRESERVATIVE USED
18 BGMW19C-001	2/29	1950		✓	H_2O		8	✓	✓	✓	✓	✓				Refer to previously sent	
18 BGMW3B-001	2/29	1700		✓	H_2O		7	✓	✓	✓	✓					project specific detection	
18 BGMW4A-001	2/28	1815		✓	H_2O		6	✓	✓	✓						Limits	
18 BGMW5B-001	2/29	1045		✓	H_2O		6	✓	✓	✓							
18 BGMW5C-001	2/29	1115		✓	H_2O		7	✓	✓	✓	✓					NFESC Level D	
18 BGMW3A-001	2/29	1644		✓	H_2O		6	✓	✓	✓						FOR All SAMPLES	
18 BGMW3A-301	2/29	1649		✓	H_2O		6	✓	✓	✓							
18 BGMW19B-001	3/1/96	1305		✓	H_2O		7	✓	✓	✓	✓						
18 BGMW19A-001	3/1	1115		✓	H_2O		6	✓	✓	✓							
APCL T-B							1	✓									

Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time
Pat Russell	3/4/96 10:30AM				
Received by: *(Signature)*	**Date / Time**	**Received by: *(Signature)***	**Date / Time**	**Received by: *(Signature)***	**Date / Time**
[illegible]	3/4/96 10:30AM				
Airbill No.		**Received for Laboratory by: *(Signature)***	**Date / Time**	**Laboratory**	
APCL Courier 2 coolers				GEN CHEMISTRY: include Chloride, Sulfate, Nitrate / Nitrite as N, Carbonate, Bicarbonate and Alkalinity + TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961296
Collected by: ss
Collected on: 01/29/96

Received: 01/30/96
Extracted: XXXXXX
Tested: 01/30-02/15/96
Reported: 03/14/96

Sample Description: Water
Project Description: 6206-009 MCAS EL TORO

Analysis of Water Samples [a]

Component Analyzed	Method	Unit	PQL	Analysis Result 05UGMW27-001 96-01296-1
Gross Alpha	SM7110C	PCi/L		15.89±3.44
Gross Beta	900.0	PCi/L		2.55±1.93
Radon in Water	Liquid Scintillation	PCi/L		451±16
Strontium, Sr-90		PCi/L		-0.129±0.350

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.
[a] Subcontracted to Truesdail Lab.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-004

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	Radon (413)	Strontium (905)	Gross alpha (900)	Gross beta (900)					REMARKS	PRESERVATIVE USED
05UGMW27-001	1/27/96	1540		✓	H_2O		4	✓	✓	✓	✓					Note 24-hour holding time for radon	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	1/30/96 1155				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	1/30/96 0755				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
Truckload Lab					

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961459
Collected by:
Collected on: 01/30/96

Received: 01/31-02/15/96
Extracted: XXXXXX
Tested: 03/01/96
Reported: 03/14/96

Sample Description: Water
Project Description: 6206-009 MCAS El Toro

Analysis of Water Samples [a]

Component Analyzed	Method	Unit	PQL	Analysis Result 03DBMW39-001 96-01459-1	Analysis Result 04UGMW63-001 96-01459-2
Gross Alpha	SM7110C	PCi/L		14.74±3.34	14.41±3.31
Gross Beta	900.0	PCi/L		4.03±3.30	4.44±3.25
Radon in Water	Liquid Scintillation	PCi/L		657±23	613±21
Strontium, Sr-90		PCi/L		-0.184±0.298	-0.0462±0.317

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.
Subcontracted to Truesdail Lab.
[a] Subcontracted to Truesdail Lab.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	Radium (113)	Strontium (905)	Gross Alpha (900)	Gross Beta (900)					REMARKS	PRESERVATIVE USED
04UGMW63-001	1/31/96	1005		✓	H_2O		4	✓	✓	✓	✓					Note 24-hour	
03DBMW39-001	1/31/96	1210		✓	H_2O		4	✓	✓	✓	✓					holding time for radon	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Shed	1/31/96 [illegible]				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	1/31/96 0800				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
Transport Lab.					

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Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
CDM Federal Programs Corp.
Attention: Scott Schroeder
3760 Convoy St., Ste 210
San Diego CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961460
Collected by:
Collected on: 02/01/96

Received: 02/02/96
Extracted: XXXXXX
Tested: 02/02-15/96
Reported: 03/14/96

Sample Description: Water
Project Description: 6206-009 MCAS El Toro

Analysis of Water Samples [a]

Component Analyzed	Method	Unit	PQL	Analysis Result 13DGMW78-001 96-01460-1
Radon in Water	Liquid Scintillation	PCi/L		172±21
Strontium, Sr-90		PCi/L		-0.143±0.221

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported below PQL.
[a] Subcontracted to Truesdail Lab.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: NAS El Toro

SAMPLERS: (Signature) [illegible] Pat Purnell

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	ANALYSIS REQUIRED: Radon (C113)	ANALYSIS REQUIRED: Strontium (C115)								REMARKS	PRESERVATIVE USED
13DGMW78-001	2/1/96	1730		✓	H_2O		2	✓	✓									

CDM Email

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Purnell	2-2-96 8:40				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Conrad [illegible]	2-2-96 8:40				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
Trucksland Courier - Locker					

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Applied P & Ch Laboratory
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APCL Analytical Report

Submitted to:
CDM Federal Corp. (S.D.)
Attention: Scott Schroeder
3760 Convoy Street, Ste. #210
San Diego, CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-961818
Collected by: ss
Collected on: 02/26/96
Sample description:
Groundwater
Project: MCAS El Toro/#6206-009

Received : 02/27/96
Tested : 2/27-3/13/96
Reported : 03/27/96

Analysis of Groundwater

801-961818 Page 1 of 1

Component Analyzed	Method	Unit	PQL	Concentration			
				04DGMW66-001 96-1818-4	04DBMW40-001 96-1818-3	03DGMW65X-001 96-1818-2	03DGMW64-001 96-1818-1
Gross Alpha	SM7110C	pCi/L		2.78 ±1.54	15.23 ±3.19	15.56 ±3.23	11.14 ±2.76
Gross Beta	900.0	pCi/L		9.33 ±4.67	10.21 ±4.70	9.79 ±4.79	2.97 ±4.68
Strontium-90		pCi/L		0.001 ±0.267	0.008 ±0.280	-0.114 ±0.260	-0.129 ±0.270
Radon (Rn-222)	liq. scint.	pCi/L		401 ±18	330 ±16	553 ±18	724 ±21

PQL : Practical Quantitation Limit
All analyses subcontracted to Truesdail Lab.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CADHS ELAP CERTIFICATION NUMBER 1431

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6200-009

PROJECT NAME: ALCAS El Toro

SAMPLERS: (Signature) Scott Stanek

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	Radon	Strontium	Gross Alpha	Gross Beta					REMARKS	PRESERVATIVE USED
04DGMW66-001	2/26/96	1740		✓	H_2O		4	✓	✓	✓	✓					Note short holding	
04DBMW40-001	2/26/96	1645		✓	H_2O		4	✓	✓	✓	✓					time for radon.	
03DGMW65X-001	2/26/96	1300		✓	H_2O		4	✓	✓	✓	✓						
03DGMW64-001	2/26/96	1020		✓	H_2O		4	✓	✓	✓	✓						

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	2/27/96 8:50				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2-27-96 8:50				
Airbill No. Delivered to Truesdail Labs by CDM Federal		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	

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Applied P & Ch Laboratory
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APCL Analytical Report

Submitted to:
CDM Federal Corp. (S.D.)
Attention: Scott Schroeder
3760 Convoy Street, Ste. #210
San Diego, CA 92111
Tel: (619)268-3383 Fax: (619)268-9677

Service ID #: 801-962018
Collected by: ss
Collected on: 02/07/96
Sample description:
Groundwater
Project: MCAS El Toro; #6206-009

Received : 03/26/96
Tested : 3/21/96
Reported : 03/26/96

Analysis of Groundwater

Component Analyzed	Method	Unit	PQL	18BGMW03E-001 96-2018-32	14DGMW79-001 96-2018-25	14DGMW50-301 96-2018-24	14DGMW50-001 96-2018-23
				Concentration			
Strontium-90		pCi/L		-0.0606 ±.298	0.0173 ±0.267	0.0788 ±0.260	-0.126 ±0.257
Radon	Liq. Scint.	pCi/L		238 ±15	414 ±17	337 ±14	332 ±16

Component Analyzed	Method	Unit	PQL	13UGMW32-001 96-2018-22	16DBMW52-001 96-2018-27	16DBMW52-301 96-2018-28	16DBMW52-901 96-2018-29
Strontium-90 Sr		pCi/L		-0.102 ±0.250	-0.087 ±0.232	0.122 ±0.230	0.010 ±0.239
Radon	Liq. Scint.	pCi/L		387 ±17	390 ±15	451 ±18	27 ±10

Component Analyzed	Method	Unit	PQL	07DGMW91-001 96-2018-14	19UGMW35-301 96-2018-38	19UGMW35-001 96-2018-37	16DGMW81-001 96-2018-30
Strontium-90 Sr		pCi/L		-0.005 ±0.233	-0.216 ±0.253	-0.134 ±0.260	0.316 ±0.367
Radon	Liq. Scint.	pCi/L		375 ±17	435 ±19	409 ±18	404 ±18

Component Analyzed	Method	Unit	PQL	07DGMW72-001 96-2018-13	08DGMW74-001 96-2018-16	10DGMW77-001 96-2018-19	09DGMW75-001 96-2018-18
Strontium-90 Sr		pCi/L		-0.123 ±0.275	-0.075 ±0.254	0.410 ±0.324	-0.155 ±0.252
Radon	Liq. Scint.	pCi/L		401 ±18	218 ±13	362 ±14	543 ±17

Component Analyzed	Method	Unit	PQL	08DGMW73-001 96-2018-15	09DBMW45-001 96-2018-17	22DBMW47-001 96-2018-39	19DGMW85-001 96-2018-35
Strontium-90 Sr		pCi/L		-0.002 ±0.257	-0.081 ±0.252	0.071 ±0.236	0.012 ±0.268
Radon	Liq. Scint.	pCi/L		392 ±16	271 ±17	481 ±23	323 ±15

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APCL Analytical Report

Analysis of Groundwater

Component Analyzed	Method	Unit	PQL	Concentration			
				19DBMW54-001 96-2018-34	18DW135-001 96-2018-33	05DGMW68-001 96-2018-12	13DBMW49-301 96-2018-21
Strontium-90 Sr		pCi/L		-0.138 ±0.262	-0.113 ±0.247	-0.005 ±0.256	-0.374 ±313
Radon	Liq. Scint.	pCi/L		799 ±19	461 ±18	525 ±18	266 ±14

Component Analyzed	Method	Unit	PQL	13DBMW49-001 96-2018-20	15DBMW51-001 96-2018-26	02DGMW60-301 96-2018-6	02DGMW60-001 96-2018-5
Strontium-90 Sr		pCi/L		0.0061 ±0.268	0.0209 ±0.292	-0.103 ±0.286	0.102 ±0.378
Radon	Liq. Scint.	pCi/L		302 ±16	210 ±17	211 ±19	189 ±15
Gross Alpha	SM7110C	pCi/L		–	–	16.71 ±3.49	22.93 ±4.01
Gross Beta	900.0	pCi/L		–	–	0.33 ±5.21	-1.69 ±5.13

Component Analyzed	Method	Unit	PQL	02DGMW59-001 96-2018-3	02DGMW59-301 96-2018-4	05DBMW41-001 96-2018-10	02UGMW25-001 96-2018-8
Strontium-90 Sr		pCi/L		-0.0337 ±0.299	-0.0583 ±0.278	-0.027 ±0.231	-0.085 ±0.214
Radon	Liq. Scint.	pCi/L		144 ±16	151 ±15	305 ±15	450 ±19
Gross Alpha	SM7110C	pCi/L		9.01 ±2.71	10.16 ±2.84	26.37 ±4.27	12.94 ±3.13
Gross Beta	900.0	pCi/L		-0.97 ±5.10	0.26 ±5.22	9.30 ±4.86	1.35 ±4.16

Component Analyzed	Method	Unit	PQL	02DGMW61-001 96-2018-7	05DGMW67-001 96-2018-11	17DGMW82-001 96-2018-31	19DGMW86-001 96-2018-36
Strontium-90 Sr		pCi/L		-0.193 ±0.240	-0.076 ±0.265	0.055 ±0.270	-0.119 ±0.238
Radon	Liq. Scint.	pCi/L		715 ±22	198 ±12	303 ±16	468 ±17
Gross Alpha	SM7110C	pCi/L		23.91 ±4.09	22.11 ±3.95	4.59 ±2.13	–
Gross Beta	900.0	pCi/L		6.35 ±4.63	6.07 ±3.32	5.03 ±3.18	–

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Analysis of Groundwater

Component Analyzed	Method	Unit	PQL	Concentration 03UGMW26-001 96-2018-9	01DGMW57-001 96-2018-1	01DGMW58-001 96-2018-2
Strontium-90 Sr		pCi/L		-0.044 ±0.268	–	–
Radon	Liq. Scint.	pCi/L		356 ±17	–	–
Gross Alpha	SM7110C	pCi/L		3.77 ±2.00	3.93 ±2.03	6.06 ±2.34
Gross Beta	900.0	pCi/L		15.80 ±5.59	1.99 ±4.19	5.145 ±4.66

PQL : Practical Quantitation Limit
– : Analysis not requested.
SM : Standard Methods for Examination of Water and Waste Water.
N.D. : Not Detected or less than the quantitation limit.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: LUCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	ANALYSIS REQUIRED: Radon	ANALYSIS REQUIRED: Strontium							REMARKS	PRESERVATIVE USED
18BGMW03E-001	2/5/96	1110		✓	H_2O		2	✓	✓								
14DGMW79-001	2/5/96	1450		✓	H_2O		2	✓	✓								
14DGMW50-301	2/5/96	1715		✓	H_2O		2	✓	✓								
14DGMW50-001	2/5/96	1710		✓	H_2O		2	✓	✓								
13UGMW32-001	2/5/96	1745		✓	H_2O		2	✓	✓								

Duplicate

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	[illegible]				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	6/96 1130				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	

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CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	Radon	Strontium	Gross Alpha	Gross Beta					REMARKS	PRESERVATIVE USED
07DGMW91-001	2/8/96	1615		✓	H_2O		2	✓	✓								
19UGMW35-001	2/8/96	1235		✓	H_2O		2	✓	✓								
19UGMW35-301	2/8/96	1245		✓	H_2O		2	✓	✓								
16DGMW31-001	2/8/96	0955		✓	H_2O		2	✓	✓								
02DGMW61-001	2/8/96	1630		✓	H_2O		4	✓	✓	✓	✓						

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[signature]	2/9/96 0930				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[signature]					
Airbill No. To Transport Lab Delivered by CDM Federal		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	

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CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS EL TORO

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	RADON (913)	STRONTIUM (905)							REMARKS	PRESERVATIVE USED
OT DYSMIN TZ-001	2-13	11.45		✓	H_2O		2	✓	✓								
																NOTE 24 HOUR	
																HOLDING TIME	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Russell	2/14/14 7:55				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Angela Dunlap	2/14/14 0755				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
TRUESDAIL LAB					

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CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: [illegible]

SAMPLERS: (Signature) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	ANALYSIS REQUIRED								REMARKS	PRESERVATIVE USED
03DGMW74-001	2/14/96	1410		✓	H_2O		2	✓	✓							[illegible]	
10DGMW77-001	2/14/96	1400		✓	H_2O		2	✓	✓							[illegible]	
09DGMW75-001	2/14/96	1330		✓	H_2O		2	✓	✓							[illegible]	
08DGMW73-001	2/14/96	1650		✓	H_2O		2	✓	✓								

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
[illegible]	2/15/96 [illegible]				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible] Burke	2/15/96 0805				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
Transport [illegible]					

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CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.:	PROJECT NAME:
[illegible]	[illegible]

SAMPLERS: *(Signature)* [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	ANALYSIS REQUIRED: Radon	ANALYSIS REQUIRED: Strontium							REMARKS	PRESERVATIVE USED
09DBMW45-001	2/15/96	1020		✓	H_2O		2	✓	✓							[illegible]	
22DBMW47-001	2/15/96	1600		✓	H_2O		2	✓	✓							[illegible]	

Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time
Scott Schmeck	2/16/96 1030				
Received by: *(Signature)*	**Date / Time**	**Received by: *(Signature)***	**Date / Time**	**Received by: *(Signature)***	**Date / Time**
[illegible]	[illegible]				
Airbill No.		**Received for Laboratory by: *(Signature)***	**Date / Time**	**Laboratory**	
Transport Lab					

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CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.:	PROJECT NAME:
6306-001	MCAS El Toro

SAMPLERS: *(Signature)*

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	ANALYSIS REQUIRED: Radium	ANALYSIS REQUIRED: Sr-90							REMARKS	PRESERVATIVE USED
MDGAW135-001	1/9/96	1015		✓	H_2O		2	✓	✓							Note 24-hour	
MDBAW154-001	1/9/96	1330		✓	H_2O		2	✓	✓							holding time for	
MDW135-001	1/9/96	1415		✓	H_2O		2	✓	✓							radium	

Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time
[illegible]	2/2/96 [illegible]				
Received by: *(Signature)*	**Date / Time**	**Received by: *(Signature)***	**Date / Time**	**Received by: *(Signature)***	**Date / Time**
[illegible]	2/2/96 7:05				
Airbill No. Delivered to Transport Lab by CDM Federal		**Received for Laboratory by: *(Signature)***	**Date / Time**	**Laboratory**	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.:	PROJECT NAME:
6206.009	MCAS EL TORO

SAMPLERS: *(Signature)*

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	GROSS BETA	GROSS ALPHA							REMARKS	PRESERVATIVE USED
03UGMW26.001	2/27/90	1515		✓	H_2O		2	✓	✓								
05DGMW68.001	2/27/90	1010		✓	H_2O		2	✓	✓								
01DGMW58.001	2/26/90	0950		✓	H_2O		2	✓	✓								

CDM FEDERAL

Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time
[illegible]	2/29/90 07:30				
Received by: *(Signature)*	**Date / Time**	**Received by: *(Signature)***	**Date / Time**	**Received by: *(Signature)***	**Date / Time**
[illegible]	[illegible]				
Airbill No.		**Received for Laboratory by: *(Signature)***	**Date / Time**	**Laboratory**	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS EL TORO

SAMPLERS: (Signature) Scott Silcox

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	ANALYSIS REQUIRED: RADIUM (913)	STRONTIUM (905)							REMARKS	PRESERVATIVE USED
05 DGMW 68-001	2-27-96	1010		✓	H_2O		2	✓	✓							NOTE 24 HOUR	
03UGMW 26-001 ~~14 DGMW 56-001~~	2-27-96	1315 ~~1220~~		✓	H_2O		2	✓	✓							HOLDING TIME	
20 DGMW 55-001	2-27-96	1610		✓	H_2O		2	✓	✓								

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Russell	2/28/96				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
TRUESDAIL LAB					

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-001

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	Radon	Strontium	Gross Alpha	Gross Beta					REMARKS	PRESERVATIVE USED
13DBMW49-001	2/6/96	1015		✓	H_2O		2	✓	✓								
13DBMW49-301	2/6/96	1015		✓	H_2O		2	✓	✓								
15DBMW51-001	2/6/96	1530		✓	H_2O		2	✓	✓								
02DGMW60-301	2/6/96	1650		✓	H_2O		4	✓	✓	✓	✓						
02DGMW60-001	2/6/96	1640		✓	H_2O		4	✓	✓	✓	✓						
02DGMW59-001	2/6/96	1500		✓	H_2O		4	✓	✓	✓	✓						
02DGMW59-301	2/6/96	1510		✓	H_2O		4	✓	✓	✓	✓						

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schneider	2/7/96 1020				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	[illegible]				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
Truckload Lab Courier					

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F'

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	Radon	Strontium	Gross Alpha	Gross Beta					REMARKS	PRESERVATIVE USED
05DGMW67-001	2/9/96	0940		✓	H_2O	4	✓	✓	✓	✓						
17DGMW32-001	2/9/96	1310		✓	H_2O	4	✓	✓	✓	✓						

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schaub	2/11/96 1315				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
	2/9/96 13:15				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
Delivered to Truckwell Lab by CDM Federal					

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

CDM FEDERAL PROGRAMS CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6206-009

PROJECT NAME: MCAS EL TORO

SAMPLERS: *(Signature)*

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	RADON	STRONTIUM	GROSS ALPHA	GROSS BETA					REMARKS	PRESERVATIVE USED
16 DBMW52-001	2-7-96	1300		✓	H_2O		2	✓	✓								
16 DBMW52-301	2-7-96	1300		✓	H_2O		2	✓	✓								
16 DBMW52-901	2-7-96	1300		✓	H_2O		2	✓	✓								
05 DBMW41-001	2-7-96	1000		✓	H_2O		4	✓	✓	✓	✓						
02 UGMW25-001	2-7-96	1530		✓	H_2O		4	✓	✓	✓	✓						
01 DGMW57-001	2-7-96	1000		✓	H_2O		2			✓	✓						

Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time	Relinquished by: *(Signature)*	Date / Time
Pat Parrott	4/5/96 11:00				
Received by: *(Signature)*	**Date / Time**	**Received by: *(Signature)***	**Date / Time**	**Received by: *(Signature)***	**Date / Time**
Airbill No.		**Received for Laboratory by: *(Signature)***	**Date / Time**	**Laboratory**	
TRUESDAIL LAB COURIER		[illegible]	2/6/96 11:[illegible]		

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Files

APPENDIX F

WELL PURGING AND SAMPLING LOGS

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 01DGMW57 | SAMPLE NO.: 01DGMW57-001

START (Date): 2/7/96 (Time): ~~0955~~ 1000 | END (Date): 2/7/96 (Time): 1030

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Clear, mod. breeze, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sampling tube

OVM READING: ——— | ORIG. DTW: 48.32 | FINAL DTW: 62.34

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

88 - 48.32 = 39.68 x 26.19 Gal./Csg Vol. x 3 Csg. Vol. = 78.57 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 6 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1003	3	18	21.9	7.12	0.805	-10	9.93	235	No	ΔTW = 55.62
1006	6	36	22.1	7.15	0.803				No	
1009	9	54	22.3	7.11	0.834				No	ΔTW = 58.37
1012	12	72	22.3	7.14	0.817				No	
1015	15	~~100%~~	22.1	7.15	0.799	-10	9.96	235	No	ΔTW = 62.34

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)

Unfiltered Metals (X) Pesticides ( ) Herbicides ( )

Gross Alpha/Beta (X) General Chemistry (X) ~~Treatability Parameters~~ Explosives (X)

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 -009

TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( ) Hand Bail Team

PURGING LOG

WELL NO.: 01DGMW58

SAMPLE NO.: 01DGMW58-001

START (Date): 2/28/96 (Time): 0835

END (Date): 2/28/96 (Time): 0940

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( )

WEATHER: Sunny ~ 55°F

FIELD PERSONNEL'S NAME(S): J. Schroeder

REFERENCE POINT OF DEPTH MEASUREMENT: N Side TOC

OVM READING: —— ORIG. DTW: 40.88 FINAL DTW: 40.88

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer (✓) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

82 - 40.9 = 41 x 27 Gal./Csg Vol. x 3 Csg. Vol. = 81 Gal.

PURGE WATER CONTAINERIZED? YES

AVERAGE PURGE RATE: gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	COMMENT Bubbles/Comments
0840	5	8	16.8	6.70	.551	2	7.45		No / Clear
0848	13	18	18.0	7.27	.531	80	8.36		No / Light Silt
0900	25	33	18.2	7.52	.531	86	8.93		" "
0905	30	40	17.0	7.54	.530	87	9.24		" "
0910	35	46	17.0	7.56	.521	88	9.50		" "
0920	45	55	17.1	7.54	.522	86	9.51		" "
0925	50	63	17.0	7.55	.523	87	9.49		" "
0930	55	70	17.2	7.56	.522	87	9.48		" "
Duplicate		—	17.0	7.56	.523	86	9.49		" "
0935	60	76	16.9	7.54	.521	85	9.50		" "
0940	65	83	17.0	7.55	.522	86	9.49		" "

Air Entrainment Survey ( ) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp Bailer (Teflon)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)

Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )

Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters ( )

COMMENT: Sample time 0950

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 02DGMW59 | SAMPLE NO.: 02DGMW59-001

START (Date): 2/6/96 (Time): 1424 | END (Date): 2/6/96 Time): 1520

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Clear, calm, 80°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 51.22 | FINAL DTW: 79.51

PURGE METHOD: Packers ( ) Multiple Port ( ) ~~Teflon Bailer~~ ( ) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

94 - 51.22 = 42.78 x 38.23 Gal./Csg Vol. x 3 Csg. Vol. = 84.70 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 7 gpm @ 375 Hz

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1426	2	14	20.3	7.01	1.26	3	14.59	250	No	
1429	5	35	20.2	7.01	1.39				No	DTW=82.24'
1430	6	42							No	Cut flow to 1.5gpm at 300 Hz
1434	10	48	21.4	7.15	1.43				No	DTW=83.28' bottomed
1439	15	56	20.9	7.19	1.42				No	DTW=81.32'
1444	20	64	20.9	7.15	1.42				No	Flow=3gpm
1448	24	76	20.7	7.16	1.41				No	DTW=80.74
1451	27	85	20.8	7.18	1.41	-10	11.90	245	No	DTW=79.51

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Bailer~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT: Duplicate # 02DGMW59-301 collected at 1510

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 02DGMW60 | SAMPLE NO.: 02DGMW60-001

START (Date): 2/6/95 (Time): 1614 | END (Date): 2/6/96 (Time): 1700

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Clear, calm, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sampling tube

OVM READING: — | ORIG. DTW: 63.32 | FINAL DTW: 79.89

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

105 - 63.32 = 41.68 x 27.51 Gal./Csg Vol. x 3 Csg. Vol. = 82.53 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1618	4	20	22.5	6.99	1.30	-10	9.92	255	No	
1621	7	35	22.4	6.93	1.35				No	DTW = 75.04
1624	10	50	22.5	6.87	1.48				No	DTW = 77.58
1628	14	70	22.3	6.85	1.52				No	
1631	17	85	22.4	6.86	1.54	-10	9.11	260	No	DTW = 79.89

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT: Collected duplicate #02DGMW60-201 at 1650

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 02DGMW61 | SAMPLE NO.: 02DGMW61

START (Date): 2/8/96 (Time): 1558 | END (Date): Time): 1640

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER Clear, calm, 80°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tape.

OVM READING: — | ORIG. DTW: 41.78 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME						
			4" - 0.66					
			5" - 0.93					
			6" - 1.50					
105	41.78	= 63.22	x	41.73	Gal./Csg Vol.	x	3 Csg. Vol.	= 125.18 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 7 gpm @ 375 ml

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1601	3	21	23.6	7.12	~~12.25~~ 1.05	-10	12.25	240	No	
1604	6	42	23.0	7.05	1.01				Yes	DTW=63.02
1607	9	63	22.6	7.04	1.02				Yes	
1610	12	84	22.5	7.03	1.02				No	DTW=70.22
1613	15	105	22.4	7.01	1.02				No	
1616	18	126	22.4	6.99	1.02	-10	10.58	250	No	DTW=81.96

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Bailer~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 02UGMW25 | SAMPLE NO.: 02UGMW25-001

START (Date): 2/7/96 (Time): 1508 | END (Date): 2/7/96 (Time): 1540

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Partly cloudy, 14, SW breeze, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: _____ | ORIG. DTW: 30.72 | FINAL DTW: 39.54

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

80 - 30.72 = 49.28 x 32.52 Gal./Csg Vol. x 3 Csg. Vol. = 97.57 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 8 gpm @ 37.5 1/2

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1510	2	16	19.1	7.57	2.24	-10	15.09	240	No	
1513	5	40	18.8	7.24	2.19				Yes	DTW = 37.44
1516	8	64	18.4	7.15	2.22				Yes	
1519	11	88	18.2	7.12	2.21				Yes	DTW = 38.01
1522	14	112	18.0	7.16	2.20	-10	14.96	240	Yes	DTW = 39.54

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO: 6206-009 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( )

PURGING LOG — Quik-E-Bailer Team

WELL NO: 03UGMW26 | SAMPLE NO: 03UGMW26-001

START Date: 2/27/96 Time: 1320 | END Date: 2/27/96 Time:

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" ( ) | WEATHER: Overcast ~ 54°F

FIELD PERSONNEL'S NAME(S): S. Schroeder w/ Holguin Fahan and Assoc.

REFERENCE POINT OF DEPTH MEASUREMENT:

OVM READING: | ORIG. DTW: 219.68 | FINAL DTW: 219.67

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

275 - 219.68 = 55.32 x 51.4 Gal./Csg Vol. x 3 Csg. Vol. = 154.3 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 1.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTU)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1325	5	7	22.3	7.19	1.03	50	6.60		No	Clear
1350	30	40	22.1	7.20	1.05	40	6.67		No	"
1400	40	55	21.9	7.27	1.07	40	6.40		No	Light silt
1415	55	78	21.7	7.17	1.04	35	6.36		No	Clear
1425	65	90	21.4	7.17	1.04	30	6.49		No	"
Duplicate	—		21.7	7.18	1.04	30	6.48		Duplicate	
1440	80	110	21.8	7.20	1.01	75	6.53		No	Light silt
1450	90	128	21.9	7.21	1.02	74	6.51		No	" "
1455	95	135	21.7	7.23	1.03	75	6.52		No	" "
1510	110	154	21.7	7.22	1.02	74	6.52		No	" "

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp. Bailer (Teflon)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Sample time 1515

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 03DBMW39 | SAMPLE NO.: 03DBMW39-001

START (Date): 1/30/96 (Time): 1140 | END (Date): 1/30/96 (Time): 1220

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Overcast, calm, 60F

FIELD PERSONNEL'S NAME(S): Sat Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 229.02 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50

275 - 229.02 = 45.98 x 42.76 Gal./Csg Vol. x 3 Csg. Vol. = 128.28 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~(umhos/cm)~~ mS/cm	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1144	4	16	22.8	7.20	1.22	-10	7.54	95	Yes	
1150	10	40	23.8	7.21	1.22				Yes	DTW=235.60
1155	15	60	24.5	7.20	1.22				Yes	
1200	20	80	24.6	7.21	1.22				Yes	DTW=236.16
1205	25	100	24.8	7.21	1.22	-10	7.42	125	Yes	DTW=236.32

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Bladder~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 - 009 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( )

PURGING LOG — Quik-E-Bailer Team

WELL NO: 03DGMW64 | SAMPLE NO: 03DGMW64-001

START Date: 2/26/96 Time: 0750 | END Date: 2/26/96 Time: 1010

WELL CASING DIAMETER: 2" ( ) 4" ( ) 6" (✓) | WEATHER: Partly cloudy ~ 55°F

FIELD PERSONNEL'S NAME(S): S. Schroeder / Holguin Fahan & Assoc. (Rob & Tom)

REFERENCE POINT OF DEPTH MEASUREMENT: N side TOC

OVM READING: — | ORIG. DTW: 230.46 | FINAL DTW: 230.46

PURGE METHOD: Packers ( ) Multiple Port ( ) ~~Teflon~~ Bailer (✓) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME		
			4" - 0.66	
			6" - 0.93	
			6" - 1.50	
290 -	230.46 =	59.5 x	55.3 Gal./Csg Vol.	x 3 Csg. Vol. = 165.9 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 1 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP (oF)	pH (s.u.)	COND. (umhos/cm)	TURB. (NTU)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0810	20	20	21.8	6.34	2.05	215	6.46		No	Silty
0840	50	50	21.4	7.69	1.98	293	7.48		"	"
0850	60	60	20.5	7.59	1.31	290	7.78		"	"
0900	70	70	22.7	7.65	1.90	82	7.14		"	clear, light silt
0910	80	80	22.9	7.62	1.89	80	7.12		"	clear, " "
DUPLICATE		-	22.8	7.62	1.89	80	7.11		—	Duplicate
0920	90	90	21.9	7.45	1.83	31	6.52		"	clear
0930	100	100	21.6	7.85	1.87	31	7.00		"	clear
0940	110	110	21.4	7.77	1.88	30	7.08		"	clear
0955	125	130	21.4	7.78	1.88	29	7.01		"	clear
1010	140	150	21.3	7.77	1.87	30	7.00		"	clear

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp. Bailer (✓) (Teflon)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Sample time 10:20

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 - 009 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( )

PURGING LOG — Quik-E-Bailer Team

WELL NO.: 03DGMW65X | SAMPLE NO.: 03DGMW65X-001

START Date: 2/26/96 Time: 1050 | END Date: 2/26/96 Time: 1250

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Partly Cloudy 60°F

FIELD PERSONNEL'S NAME(S): S. Schroeder / Holguin Fahan & Assoc.

REFERENCE POINT OF DEPTH MEASUREMENT: N Side TOC

OVM READING: — | ORIG. DTW: 222.70 | FINAL DTW: 222.72

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer (✓) Submersible Grundfos Pump ( )

MEASURED WELL TO	ORIGINAL DTW	CASING VOLUME				
			4" - 0.66 5" - 0.93 6" - 1.50			
275 -	222.7 =	52.3	x 4.86	Gal./Csg Vol.	x 3 Csg. Vol.	= 145.9 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 1 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTU)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1100	10	10	22.9	7.51	1.85	96	8.27		No	Silty
1120	30	30	21.3	7.67	1.83	189	7.50		No	Silty
1135	45	45	21.1	7.60	1.80	122	7.26		No	Light silt
1150	60	60	21.1	7.60	1.82	130	7.21		No	Light silt
1200	70	70	17.7	7.58	1.75	28	8.66		No	Clear
1210	80	80	21.1	7.68	1.78	50	6.60		No	Light silt
1220	90	90	21.0	7.69	1.77	30	6.68		No	Clear
1230	100	100	21.1	7.67	1.78	30	6.64		No	Clear
Duplicate		—	21.0	7.68	1.78	29	6.64		Dup	—
1250	120	130	21.0	7.67	1.79	30	6.63		No	Clear

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp. Bailer (✓) (Teflon)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Sample time 1300

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO 6206 - 009 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( )

PURGING LOG

Quik-E-Bailer Team

WELL NO 04DBMW40 | SAMPLE NO 04DBMW40-001

START Date: 2/26/96 Time: 1430 | END Date: 2/26/96 Time: 1630

WELL CASING DIAMETER: 2" ( ) 4" (✓) 6" ( ) | WEATHER Partly Cloudy 50°F

FIELD PERSONNEL'S NAME(S): S Schroeder / Holguin Fahan & Assoc.

REFERENCE POINT OF DEPTH MEASUREMENT: N Side TOC

OVM READING: — | ORIG. DTW: 211.14 | FINAL DTW: 211.14

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer (✓) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

265 - 211.14 = 53.8 x 35.5 Gal./Csg Vol. x 3 Csg. Vol. = 106.6 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 1 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTU)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1445	15	15	20.3	7.30	1.90	29	6.92		No	Light silt
500	30	30	20.5	7.31	1.94	50	6.98		No	" "
1515	45	45	20.3	7.46	1.92	27	6.20		No	" "
1525	55	55	20.7	7.34	1.95	306	6.57		No	Silty
Duplicate		—	20.9	7.35	1.75	300	6.57		—	—
1540	70	70	21.0	7.45	1.98	150	7.00		No	Silty
1555	85	85	21.1	7.42	1.92	152	6.44		No	"
1610	100	100	21.3	7.44	1.93	151	6.42		No	"
1620	110	110	21.5	7.45	1.94	149	6.43		No	"
1630	120	120	21.4	7.44	1.95	149	6.42		No	"

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp Bailer (✓) (Teflon)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT Sample time 1645

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 - 009 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( )

PURGING LOG — Quik-E-Bailer Team

WELL NO: 04DGMW66 | SAMPLE NO: 04DGMW66-001

START Date: 2/26/96 Time: 1440 | END Date: 2/26/96 Time: 1720

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Partly Cloudy 50°F

FIELD PERSONNEL'S NAME(S):

REFERENCE POINT OF DEPTH MEASUREMENT: N Side TOC

OVM READING: — | ORIG. DTW: 211.91 | FINAL DTW: 211.91

PURGE METHOD: Packers ( ) Multiple Port ( ) ~~Teflon~~ Bailer (✓) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50					
295	- 211.91	= 83.1	x	77.3 Gal./Csg Vol.	x	3 Csg. Vol.	=	231.8 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 1 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTU)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1450	10	10	20.6	7.63	1.74	108	7.02		No	Silty
1515	35	35	20.8	7.53	1.64	20	7.06		No	clear
1545	65	65	20.7	7.71	1.63	57	6.36		No	Light silt
1615	95	95	20.9	7.45	1.62	46	6.25		No	" "
Duplicate	—		20.9	7.46	1.62	48	6.25		TNP	—
1625	105	105	20.7	7.45	1.61	46	6.23		No	" "
1635	115	115	20.7	7.48	1.64	43	6.19		No	" "
1650	130	140	21.0	7.50	1.63	40	6.18		No	" "
1720	160	170	21.0	7.52	1.63	38	6.17		No	" "

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp Bailer (✓) (Teflon)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Sample Time 1740

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 04UGMW63 | SAMPLE NO.: 04UGMW63-001

START (Date): 1/30/96 (Time): 0920 | END (Date): 1/30/96 (Time): 1015

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Overcast, calm, 55°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 212.31 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 ~~5" - 0.93~~ 6" - 1.50					
280	- 212.31	= 67.69	x 62.95	Gal./Csg Vol.	x 3 Csg. Vol.	= 188.86	Gal.	

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~umhos/cm~~ mS/cm	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
924	4	12	22.7	7.05	1.38	-10	6.70	200	Yes	Red, slightly cloudy
130	10	30	23.5	7.10	1.37				Yes	DTW=214.40
0940	20	60	23.7	7.08	1.36				Yes	
0950	30	90	23.8	7.09	1.34				Yes	DTW=214.58
1000	40	120	24.0	7.07	1.33	187	6.60	190	Yes	DTW=215.60

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Bailer~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 09DBMW41 | SAMPLE NO.: 09DBMW41-001

START (Date): 2/7/96 (Time): 0903 | END (Date): 2/7/96 (Time): 1011

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (70s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 162.82 | FINAL DTW: 162.88

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

227 - 162.82 = 64.18 x 42.36 Gal./Csg Vol. x 3 Csg. Vol. = 127 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0907	6	18	22.0	6.60	1.32	0	6.83		no	clear
0911	10	30	22.2	6.78	1.31	0	6.53		"	"
0915	14	42	22.4	6.82	1.30	0	6.48		"	"
0919	18	54	22.5	6.83	1.28	0	6.64		"	"
0923	22	66	22.5	6.84	1.31	0	6.89		"	"
0952	26	78	22.5	6.84	1.34	0	6.76		"	"
0959	30	90	22.5	6.84	1.30	0	6.81		"	"
1003	34	102	22.5	6.84	1.31	0	6.83		"	"
1007	38	114	22.5	6.84	1.31	0	6.93		"	"
1011	42	128	22.5	6.84	1.31	0	6.94	250	"	"
duplicate			22.6	6.83	1.31	0	6.91	250	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

.L NO.: 05DGMW67 | SAMPLE NO.: 05DGMW67-001

START (Date): 2/9/96 (Time): 0856 | END (Date): 2/9/96 (Time): 0950

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Foggy, calm, 60°F

FIELD PERSONNEL'S NAME(S): Scott Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sampling tube

OVM READING: — | ORIG. DTW: 166.26 | FINAL DTW: 166.60

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50

232 - 166.26 = 65.74 x 61.14 Gal./Csg Vol. x 3 Csg. Vol. = 183 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm @ 325

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
903	7	28	20.7	7.02	1.41	-10	7.53	195	No	DTW=167.73
913	17	68	20.9	7.01	1.40				Yes	DTW=166.60
0918	22	88	20.8	7.03	1.40				Yes	
0923	27	108	20.7	7.02	1.40				Yes	DTW=166.60
0928	32	128	20.9	7.04	1.40				No	DTW=166.60
0933	37	148	20.9	7.03	1.40	-10	7.49	245	No	DTW=166.60

Air Entrainment Survey ( ) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 - 009 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump ( )

PURGING LOG — Quik-E-Bailer Team

WELL NO: 05DGMW68 | SAMPLE NO: 05DGMW68-001

START Date: 2/27/96 Time: 0820 | END Date: 2/27/96 Time: 1000

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Sunny, ~60F

FIELD PERSONNEL'S NAME(S): S. Schroeder w/ Holguin Fahan & Assoc.

REFERENCE POINT OF DEPTH MEASUREMENT: N Side TOC

OVM READING: — | ORIG. DTW: 168.11 | FINAL DTW: 168.11

PURGE METHOD: Packers ( ) Multiple Port ( ) ~~Teflon~~ Bailer (✓) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50					
215	- 168.11	= 46.9	x	43.6 Gal./Csg Vol.	x	3 Csg. Vol.	=	130.8 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 1.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0830	10	15	19.4	6.29	1.00	15	6.84		No	Clear
0840	20	30	19.8	6.92	1.05	50	7.09		No	Silty
0850	30	45	19.7	7.10	1.21	50	7.22		No	"
Duplicate		—	20.0	7.11	1.19	48	7.20		Dup	—
0900	40	55	21.0	7.12	1.22	45	7.51		No	Silty
0910	50	70	21.0	7.14	1.22	46	7.65		No	Silty
0920	60	85	20.9	7.15	1.24	50	7.97		No	Silty
0930	70	95	20.7	7.17	1.25	50	7.84		No	Silty
0940	80	110	20.6	7.17	1.26	49	7.96		No	Silty
0950	90	125	20.7	7.16	1.26	48	7.97		No	Silty
1000	100	135	20.9	7.16	1.26	49	7.98		No	Silty

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( ) Disp. Bailer (✓) Teflon

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides (✓)
Gross Alpha/Beta (✓) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Sample time 1010

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 05UGMW27 | SAMPLE NO.: 05UGMW27-001

START (Date): 1/29/96 (Time): 1505 | END (Date): 1/29/96 (Time): 1555

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Partly cloudy, lt. SW breeze, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube.

OVM READING: ——— | ORIG. DTW: 169.72 | FINAL DTW: 170.32

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 ~~5" - 0.93~~ 6" - 1.50					
243	- 169.72	= 73.28	x	68.15 Gal./Csg Vol.	x	3 Csg. Vol.	=	204.45 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (~~umhos/cm~~ mS/cm)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
509	4	20	21.2	7.26	1.27	13	9.56	155	No	DTW=170.42
1520	15	75	22.0	7.25	1.27				No	DTW=170.26
1525	20	100	22.1	7.24	1.28				No	
1530	25	125	22.1	7.24	1.28				No	
1535	30	150	22.0	7.25	1.28	5	9.78	95	No	DTW=170.32

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) [redacted] Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 06DGMW69 | SAMPLE NO.: 06DGMW69

START (Date): 2/2/96 (Time): 1522 | END (Date): 2/2/96 (Time): 1602

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy (Sunny (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 133.77 | FINAL DTW: 134.0

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50				
195	- 133.77	= 61.23	x 40.41	Gal./Csg Vol.	x 3 Csg. Vol.	= 121	Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1526	4	12	23.2	6.66	1.48	4	6.31		yes	silty
1530	8	24	23.6	6.65	1.46	4	6.22		"	"
1534	12	36	23.8	6.63	1.47	3	6.37		"	"
1538	16	48	23.7	6.63	1.44	3	6.38		"	"
1542	20	60	23.7	6.66	1.45	4	6.31		"	cloudy
1546	24	72	23.9	6.60	1.45	4	6.20		"	"
1550	28	84	23.6	6.63	1.45	4	6.28		"	"
1554	32	96	23.8	6.63	1.46	4	6.27		"	clear
1558	36	108	24.0	6.62	1.47	5	6.24		"	"
1602	40	120	24.0	6.63	1.44	4	6.20	205	"	"
Duplicate			24.0	6.60	1.44	4	6.18	205	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (X) Dedicated Pump ( )

PURGING LOG

WELL NO.: 06UGMW28 | SAMPLE NO.: 06UGMW28-001

START (Date): 2-15-96 (Time): 0920 | END (Date): 2-16-96 (Time): 1000

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" ( ) | WEATHER: Clear

FIELD PERSONNEL'S NAME(S): Mike Oliphant

REFERENCE POINT OF DEPTH MEASUREMENT: toc

OVM READING: 0 | ORIG. DTW: 138.91 | FINAL DTW: 139.01

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

185 - 138.91 = 46.09 x 30.42 Gal./Csg Vol. x 3 Csg. Vol. = 91.25 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0925	0	0	—	—	~~1.98~~	~~188~~	~~8.02~~	—	—	—
0928	3	9	25.0	6.83	1.98	188	8.02	230	N	
0931	3	18	25.3	6.81	2.01	139	7.80	220	N	
0934	3	27	25.5	6.81	2.04	104	7.69	205	N	
0937	3	36	25.5	6.80	2.00	82	7.50	165	N	
0940	3	45	25.3	6.85	2.02	42	7.44	175	N	
0943	3	54	25.3	6.86	2.04	21	7.22	165	N	
0946	3	63	25.7	6.81	2.00	16	7.17	160	N	
0949	3	72	25.8	6.79	2.03	12	7.27	150	N	
0952	3	81	25.8	6.79	2.02	11	7.40	165	N	
0956	4	93	25.9	6.79	2.03	9	7.33	160	N	

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (X) Dedicated Pump ( )

PURGING LOG

WELL NO: 07DBMW43 | SAMPLE NO.: 07DBMW43-001

START (Date): 2/19/96 (Time): ~~10~~ 1520 | END (Date): 2/19/96 (Time): 1705

WELL CASING DIAMETER: ~~2" ( ) 4" ( )~~ 4" (X) 5" ( ) | WEATHER: Overcast

FIELD PERSONNEL'S NAME(S): Mike Oliphant

REFERENCE POINT OF DEPTH MEASUREMENT: TOC

OVM READING: 0 | ORIG. DTW: 112.55 | FINAL DTW: 121.77

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 (circled) 5" - 0.93 6" - 1.50				
195	-	112.55	=	82.45	x	54.42 Gal./Csg Vol.	x	3 Csg. Vol.	=	163.25 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1530	0	0	—	—	—	—	—	—	—	—
1540	10	20	23.7	7.32	.778	29	8.14	220	N	
1550	10	40	26.1	7.36	.811	35	7.36	210	N	
1600	10	60	26.4	7.24	.778	32	7.25	210	N	
1610	10	80	26.3	7.24	.793	37	7.35	215	N	
1620	10	100	25.2	7.17	.809	36	7.59	215	N	
1630	10	120	25.1	7.07	.951	54	7.96	220	N	
1640	10	140	23.9	6.97	.905	67	7.41	225	N	
1645	5	150	23.9	6.94	.901	74	7.26	220	N	
1650	5	160	24.3	7.02	.893	73	7.21	220	N	
1656	6	172	24.8	7.01	.897	67	7.09	220	N	

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

NO.: 07DBMW71 | SAMPLE NO.: 07DBMW71-001

(Date): 2/13/96 (Time): 1306 | END (Date): 2/13/96 (Time): 1350

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (90s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 109.21 | FINAL DTW: 109.31

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

160 - 109.21 = 50.79 x 33.52 Gal./Csg Vol. x 3 Csg. Vol. = 100 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1310	4	10	24.5	6.79	1.36	0	7.13		no	clear
4	8	20	24.5	6.71	1.35	0	7.07		"	"
1318	12	30	24.4	6.71	1.34	0	7.51		"	"
1322	16	40	24.4	6.70	1.36	0	8.05		"	"
1326	20	50	24.5	6.70	1.36	0	8.08		"	"
1330	24	60	24.5	6.69	1.35	0	8.81		"	"
1334	28	70	24.5	6.69	1.36	0	8.74		"	"
1338	32	80	24.5	6.71	1.36	0	9.03		"	"
1342	36	90	24.5	6.72	1.35	0	9.19		"	"
1350	40	100	24.5	6.71	1.35	0	9.28	235	"	"
duplicate			24.5	6.69	1.35	0	9.37	235	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)

Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )

Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

MENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 07DBMW100 | SAMPLE NO.: 07DBMW100-001

START (Date): 1/31/96 (Time): 0918 | END (Date): 1/31/96 (Time): 0958

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Overcast, raining, lt. breeze, 60°F

FIELD PERSONNEL'S NAME(S): Scot Matthews

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 104.58 | FINAL DTW: 106.58

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

176 - 104.58 = 71.42 x 47.14 Gal./Csg Vol. x 3 Csg. Vol. = 141.4 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 8/2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (~~umhos/cm~~ mS/cm)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0920	2	16	21.6	6.42	1.11	-10	7.69	228	Yes	
0925	7	56	22.9	6.72	1.07				Yes	DTW=112.98
0928	10	80	~~22.7~~	~~6.74~~	~~1.07~~				Yes	Choked flow to 2gpm
0931	13	86	22.7	6.74	1.07				Yes	DTW=106.64
0936	18	96	23.3	6.76	1.07				Yes	
0939	21	102	22.7	6.77	1.07				Yes	DTW=106.50
0943	25	110	23.4	6.76	1.07	-10	6.82	230	Yes	DTW=106.58

Air Entrainment Survey (X) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters (X)

COMMENT: Located inside E end of large green tent.

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 07DGMW70 | SAMPLE NO.: 07DGMW70-001

(Date): 2/13/96 (Time): 1615 | END (Date): 2/13/96 (Time): 1655

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy / Sunny (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 122.04 | FINAL DTW: 122.06

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

170 - 122.04 = 47.96 x 31.65 Gal./Csg Vol. x 3 Csg. Vol. = 95 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1619	4	10	24.3	6.98	1.52	0	8.81		no	silty
1623	8	20	24.3	6.76	1.54	0	8.04		"	"
1627	12	30	24.3	6.73	1.53	0	7.97		"	"
1631	16	40	24.3	6.73	1.51	0	7.90		"	"
1635	20	50	24.1	6.73	1.50	0	7.85		"	clear
1639	24	60	24.0	6.73	1.50	0	7.84		"	"
1643	28	70	24.1	6.73	1.50	0	7.85		"	"
1647	32	80	24.1	6.72	1.50	0	7.80		"	"
1651	36	90	24.1	6.74	1.49	0	7.82		"	"
1655	40	100	24.1	6.73	1.48	0	7.87	245	"	"
Duplicate			24.1	6.73	1.48	0	7.89	245	"	"

Air Entrainment Survey (✓) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 070BMW72 | SAMPLE NO.: 070BMW72-001

START (Date): 2/13/96 (Time): 0945 | END (Date): 2/13/96 (Time): 1125

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: - | ORIG. DTW: 102.70 | FINAL DTW: 102.78

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME						
		4" - 0.66						
		5" - 0.93						
		6" - 1.50						
155	- 102.70	= 52.3	x	34.52 Gal./Csg Vol.	x	3 Csg. Vol.	=	104 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0950	5	10	24.4	6.24	1.32	0	8.06		no	slightly cloudy
0955	10	20	24.4	6.54	1.29	0	8.11		"	"
1000	15	30	24.3	6.64	1.29	0	7.93		"	clear
1025	20	40	24.3	6.64	1.29	0	7.74		"	"
1050	25	50	24.3	6.65	1.28	0	7.85		"	"
1055	30	60	24.4	6.67	1.29	0	7.89		"	"
1100	35	70	24.5	6.66	1.28	0	7.99		"	"
1105	40	80	24.5	6.66	1.29	0	8.11		"	"
1110	45	90	24.5	6.66	1.29	0	8.13		"	"
1125	52	104	24.5	6.65	1.29	0	8.17	220	"	"
Duplicate			24.5	6.64	1.29	0	8.17	220	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Collected 4 SVOC bottles

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 07DGMW91 | SAMPLE NO.: 07DGMW91-001

START (Date): 2/8/96 (Time): 1527 | END (Date): 2/8/96 (Time): 1557

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy / Sunny (90°c)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 102.7 | FINAL DTW: 102.76

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50				
155	- 102.7	= 52.3	x 34.52	Gal./Csg Vol.	x 3 Csg. Vol.	= 104	Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
30	3	10.5	24.2	6.93	1.24	0	7.18		yes	clear
1533	6	21	24.0	6.65	1.25	0	7.18		"	"
1536	9	31.5	24.0	6.65	1.27	0	7.12		"	"
1539	12	42	24.0	6.65	1.28	0	7.12		"	"
1542	15	52.5	23.9	6.66	1.29	0	7.15		"	"
1545	18	63	24.0	6.64	1.29	0	7.15		"	"
1548	21	73.5	24.00	6.64	1.29	0	7.11		"	"
1551	24	84	23.9	6.65	1.30	0	7.13		"	"
1554	27	94.5	23.8	6.64	1.30	0	7.12		"	"
1557	30	105	23.8	6.64	1.31	0	7.13	200	"	"
Duplicate			23.9	6.63	1.30	0	7.10	200	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 08DGMW73 | SAMPLE NO.: 08DGMW73-001

START (Date): 2/14/96 (Time): 1558 | END (Date): 2/14/96 (Time): 1628

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny / Clear (90s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of ToC

OVM READING: | ORIG. DTW: 83.72 | FINAL DTW: 83.74

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		(2" - 0.66) 5" - 0.93 6" - 1.50				
135	-	83.72	=	51.28	x	33.85	Gal./Csg Vol.	x	3 Csg. Vol.	= 102 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1601	3	10.5	23.2	6.81	1.61	0	8.55		no	clear
1604	6	21	23.5	6.81	1.61	0	8.27		"	"
1607	9	31.5	23.4	6.82	1.61	0	8.36		"	"
1610	12	42	23.4	6.82	1.61	0	8.37		"	"
1613	15	52.5	23.3	6.81	1.61	0	8.23		"	"
1616	18	63	23.2	6.81	1.61	0	8.07		"	"
1619	21	73.5	23.3	6.81	1.62	0	8.20		"	"
1622	24	84	23.2	6.80	1.62	0	8.21		"	"
1625	27	94.5	23.2	6.82	1.62	0	8.10		"	"
1628	30	105	23.2	6.81	1.62	0	8.11		"	"
Duplicate			23.3	6.79	1.62	0	8.06		"	"

Air Entrainment Survey (✓) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 080GMW74 | SAMPLE NO.: 080GMW74-001

(Date): 2/14/96 (Time): 1320 | END (Date): 2/14/96 (Time): 1353

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny/clear (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of ToC

OVM READING: | ORIG. DTW: 84.99 | FINAL DTW: 85.00

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 (circled)				
						5" - 0.93				
						6" - 1.50				
135	-	84.99	=	50.01	x	33.01 Gal./Csg Vol.	x	3 Csg. Vol.	=	99 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1326	6	18	24.1	7.06	1.29	0	8.65		no	clear
9	9	27	23.8	6.99	1.28	0	8.50		"	"
1332	12	36	23.9	6.98	1.28	0	8.26		"	"
1335	15	45	23.8	6.95	1.29	0	8.29		"	"
1338	18	54	23.8	6.97	1.29	0	8.27		"	"
1341	21	63	23.9	6.96	1.29	0	8.33		"	"
1344	24	72	23.8	6.97	1.28	0	8.25		"	"
1347	27	81	23.8	6.95	1.29	0	8.22		"	"
1350	30	90	23.8	6.96	1.28	0	8.16		"	"
1353	33	99	23.8	6.95	1.29	1	8.24	235	"	"
Duplicate			23.9	6.96	1.28	1	8.26	235	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 08UGMW29 | SAMPLE NO.: 08UGMW29-001

START (Date): 2/14/96 (Time): 0905 | END (Date): 2/14/96 (Time): 0914

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny / Clear (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 86.75 | FINAL DTW: 99.49

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 5" - 0.93 6" - 1.50				
140	-	86.75	=	53.25	x	35.15	Gal./Csg Vol.	x	3 Csg. Vol.	= 105 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0908	3	10.5	22.4	6.90	1.27	0	7.96		no	cloudy
0911	6	21	22.9	6.87	1.27	14	7.90		"	"
0914	9	31.5	23.4	6.89	1.30	8	8.11		"	clear
	12	42	slowly							
	15	52.5								
	18	63								
	21	73.5								
	24	84								
	27	94.5								
	30	105								
duplicate										

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT: ~~Purge slowly at~~ Purge slow!

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

NO.: 09DBMW45 | SAMPLE NO.: 09DBMW45-001

START (Date): 2/15/96 (Time): 0939 | END (Date): 2/15/96 Time: 1008

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy / Foggy (60s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 118.44 | FINAL DTW: 118.44

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

162 - 118.44 = 43.56 x 28.75 Gal./Csg Vol. x 3 Csg. Vol. = 86 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0941	2	6	22.6	5.81	1.49	243	6.97		no	clear
944	5	15	23.2	6.20	1.49	226	6.86		"	"
0947	8	24	23.2	6.32	1.48	244	6.87		"	"
0950	11	33	23.1	6.35	1.48	259	6.90		"	"
0953	14	42	23.2	6.35	1.49	280	6.86		"	"
0956	17	51	23.2	6.37	1.49	269	7.01		"	"
0959	20	60	23.4	6.36	1.49	266	6.94		"	"
1002	23	69	23.4	6.38	1.49	277	7.10		"	"
1005	26	78	23.4	6.42	1.49	269	7.10		"	"
1008	29	87	23.4	6.38	1.49	257	7.14		"	"
Duplicate			23.5	6.39	1.49	241	7.11		"	"

Air Entrainment Survey (✓) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( )

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (X) Dedicated Pump ( )

PURGING LOG

WELL NO.: 09DGMW75 | SAMPLE NO.: 09DGMW75-001

START (Date): 2-14-96 (Time): 0927 | END (Date): 2-14-96 (Time): 1030

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Clear

FIELD PERSONNEL'S NAME(S): Mike Oliphant

REFERENCE POINT OF DEPTH MEASUREMENT: TOC

OVM READING: Ø | ORIG. DTW: 112.20 | FINAL DTW: 112.46

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

159' - 112.20 = 46.80 x 30.89 Gal./Csg Vol. x 3 Csg. Vol. = 92.66 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0945	0	0	—	—	—	—	—	—	—	—
0948	3	9	22.7	6.42	1.99	999	9.24	140	N	
0951	3	18	24.1	6.75	1.91	999	8.46	145	N	
0954	3	27	24.2	6.87	1.87	744	8.45	140	N	
0957	3	36	24.4	6.89	1.82	3	8.35	140	N	
1000	3	45	24.6	6.84	1.82	4	8.47	140	N	
1003	3	54	24.5	6.79	1.86	-10	8.97	145	N	
1006	3	63	25.1	6.77	1.82	238	8.84	140	N	
1009	3	72	25.1	6.86	1.82	84	8.78	140	N	
1012	3	81	25.1	6.90	1.77	73	8.69	145	N	
1017	5	96	25.2	6.93	1.78	52	8.62	140	N	

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( )

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (X) Dedicated Pump ( )

PURGING LOG

WELL NO.: 10DGMW77 | SAMPLE NO.: 10DGMW77-001

(Date): 2-14-96 (Time): 1300 | END (Date): 2-14-96 (Time): 1400

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: clear

FIELD PERSONNEL'S NAME(S): Mike Oliphant

REFERENCE POINT OF DEPTH MEASUREMENT: TOC

OVM READING: Ø | ORIG. DTW: 104.78 | FINAL DTW: 105.21

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

175 ~~154~~ - 104.78 = 70.22 x 4.34 Gal./Csg Vol. x 3 Csg. Vol. = 139.03 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1310	0	0	–	–	–	–	–	–	–	–
5	5	15	25.6	6.89	1.32	20	8.36	145	N	
30	15	60	25.0	7.04	1.35	-10	8.18	165	N	
1335	5	75	25.0	7.04	1.35	5	8.13	175	N	
1340	5	90	25.2	7.00	1.40	-10	7.61	205	N	
1345	5	105	25.2	7.01	1.46	-10	7.68	185	N	
1348	3	114	25.3	6.96	1.37	-10	7.70	170	N	
1351	3	123	25.4	6.96	1.38	-10	7.82	180	N	
1354	3	132	25.0	7.07	1.41	-10	7.70	185	N	
1356	2	138	25.5	7.04	1.36	-10	7.62	180	N	
1358	2	144	25.5	6.94	1.41	-10	7.77	185	N	

Air Entrainment Survey ( ) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 12DBMW48 | SAMPLE NO.: 12DBMW48-001

START (Date): 2/16/96 (Time): 0959 | END (Date): 2/16/96 Time): 1027

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (70s)

FIELD PERSONNEL'S NAME(S): MO

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 90.49 | FINAL DTW: 90.51

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

140 - 90.49 = 49.51 x 32.68 Gal./Csg Vol. x 3 Csg. Vol. = 98 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1000	1	3.5	22.1	6.12	2.11	0	7.26		yes	silty
1003	4	14	22.2	6.44	2.16	0	7.27		"	"
1006	7	24.5	22.6	6.56	2.13	0	7.20		"	"
1009	10	35.0	22.7	6.66	2.13	0	7.35		"	"
1012	13	45.5	22.9	6.66	2.11	6	7.25		"	"
1015	16	56	22.9	6.68	2.13	0	7.30		"	"
1018	19	66.5	23.1	6.68	2.11	39	7.27		"	"
1021	22	77	23.1	6.68	2.12	0	7.32		"	clear
1024	25	87.5	23.0	6.71	2.11	0	7.34		"	"
1027	28	98	23.2	6.69	2.12	0	7.40	255	"	"
Duplicate			23.2	6.68	2.12	0	7.34	255	"	"

Air Entrainment Survey (✓) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides (✓)
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT: Cyanide sample collected

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (X) Dedicated Pump ( )

PURGING LOG

WELL NO.: 12UGMW31 | SAMPLE NO.: 12UGMW31-001

START (Date): 2-14-96 (Time): 1542 | END (Date): 2-14-96 (Time): 1630

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Clear

FIELD PERSONNEL'S NAME(S): Mike Oliphant

REFERENCE POINT OF DEPTH MEASUREMENT: TOC

OVM READING: 0 | ORIG. DTW: 96.24 | FINAL DTW: 97.42

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

150 - 96.24 = 53.76 x 35.48 Gal./Csg Vol. x 3 Csg. Vol. = 106.44 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1550	6	-	-	-	-	-	-	-	-	
1555	5	15	25.6	7.13	1.31	-10	9.11	175	N	
1600	5	30	25.0	7.01	1.34	-10	8.05	215	N	
1602	2	36	25.2	6.94	1.36	<10	8.01	220	N	
1604	2	42	25.1	6.93	1.35	-10	7.96	220	N	
1610	6	60	25.2	6.93	1.34	-10	7.91	220	N	
1615	5	75	25.0	6.99	1.32	-10	7.60	235	N	
1617	2	81	25.1	6.94	1.36	-10	7.69	230	N	
1618	1	84	25.1	6.93	1.34	-10	7.67	235	N	
1623	5	99	25.4	6.89	1.34	-10	7.55	230	N	
1626	~~4~~ 3	108	25.3	6.90	1.35	-10	7.60	235	N	

Air Entrainment Survey ( ) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides (X)
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 13DBMW49 | SAMPLE NO.: 13DBMW49-001

START (Date): 2/6/96 Time): 0927 | END (Date): 2/6/96 Time): 0957

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Foggy (60s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 128.78 | FINAL DTW: 128.87

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	(4" - 0.66) 5" - 0.93 6" - 1.50				
187	- 128.78	= 58.22	x 38.43	Gal./Csg Vol.	x 3 Csg. Vol.	= 115	Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0930	3	12	23.6	6.51	2.42	0	7.09		~~yes~~	cloudy
0933	6	24	23.6	6.64	2.44	298	7.39		"	"
0936	9	36	23.6	6.64	2.43	223	6.88		"	clear
0939	12	48	23.5	6.70	2.43	199	7.19		"	"
0942	15	60	23.7	6.71	2.42	189	7.11		"	"
0945	18	72	23.8	6.70	2.43	46	7.14		"	"
0948	21	84	23.8	6.67	2.43	32	7.16		"	"
0951	24	96	24.1	6.64	2.42	34	7.08		"	"
0954	27	108	24.1	6.67	2.43	39	7.05		"	"
0957	30	120	24.1	6.70	2.41	39	7.07	250	"	"
duplicate			24.1	6.72	2.40	38	7.06	250	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 13DGMW78 | SAMPLE NO.: 13DGMW78

START (Date): 2/1/96 (Time): 1654 | END (Date): 2/1/96 Time): 1717

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 125.90 | FINAL DTW: 125.95

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50				
192	- 125.90	= 46.1	x	30.426 Gal./Csg Vol.	x	3 Csg. Vol.	= 91 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
59	5	20	23.4	6.60	2.92	7	7.42		no	clear
1701	7	28	23.7	6.56	2.75	8	7.06		"	"
1703	9	36	23.7	6.54	2.69	8	7.01		"	"
1705	11	44	23.6	6.53	2.63	29	7.09		"	"
1707	13	52	23.4	6.51	2.59	0	7.02		"	"
1709	15	60	23.6	6.52	2.57	8	6.85		"	"
1711	17	68	23.7	6.51	2.57	8	6.85		"	"
1713	19	76	23.8	6.50	2.55	8	6.93		"	"
1715	21	84	23.9	6.52	2.55	8	6.99		"	"
1717	23	92	23.9	6.52	2.55	9	7.00		"	"
Duplicate			23.9	6.50	2.55	9	6.98			

Air Entrainment Survey (✓) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 13UGMW32 ~~[illegible]~~ | SAMPLE NO.: 13UGMW32-001

START (Date): 2/5/96 (Time): 1655 | END (Date): 2/5/96 (Time): 1725

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (70s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 134.47 | FINAL DTW: 156.54

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50					
189	- 134.47	= 54.53	x 35.99	Gal./Csg Vol.	x 3 Csg. Vol.	= 108	Gal.	

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1658	3	10.5	24.2	6.73	1.74	2	11.66		no	clear
1701	6	21	24.4	6.70	1.61	2	11.79		"	"
1704	9	31.5	24.7	6.71	1.61	1	12.10		"	"
1707	12	42	24.7	6.72	1.60	1	12.07		"	"
1710	15	52.5	24.8	6.70	1.63	1	12.17		"	"
1713	18	63	24.9	6.72	1.61	2	12.33		"	"
1716	21	73.5	24.9	6.71	1.62	2	12.29		"	"
1719	24	84	24.9	6.68	1.61	1	12.21		"	"
1722	27	94.5	24.9	6.68	1.63	1	12.10		"	"
1725	30	105	24.8	6.67	1.63	0	11.49	240	"	"
Duplicate			24.8	6.67	1.63	0	11.98	240		

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 14DGMW50 | SAMPLE NO.: 14DGMW50-001

START (Date): 2/5/96 (Time): 1648 | END (Date): 2/5/96 (Time): 1710

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Partly cloudy, mod SW breeze, 70°F.

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 120.04 | FINAL DTW: 133.62

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME				
			1" - 0.66			
			5" - 0.93			
			6" - 1.50			
165	120.04	= 44.96	x 29.67	Gal./Csg Vol.	x 3 Csg. Vol.	= 89.02 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 6 gpm @ 375 Hz

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1650	2	12	23.7	6.82	2.36	-10	8.49	240	No	
1653	5	30	23.9	6.81	2.37				Yes	DTW=124.26
1656	8	48	23.9	6.86	2.35				No	
1659	11	66	23.9	6.83	2.38				No	DTW=130.46
1702	14	84	23.8	6.80	2.41				No	
1705	17	102	24.0	6.79	2.41	-10	8.28	240	No	DTW=133.62

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters (X)

COMMENT: Duplicate sample #14DGMW50-301 collected at 1715.

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 14DGMW79 | SAMPLE NO.: 14DGMW79-001

START (Date): 2/5/96 (Time): 1429 | END (Date): 2/5/96 (Time): ~~1430~~ 1500

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Partly cloudy, 14.5 breeze, 70°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 118.33 | FINAL DTW: 122.31

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME						
			4" - 0.66					
			5" - 0.93					
			6" - 1.50					
163	118.33	= 44.67	x	29.48	Gal./Csg Vol.	x 3 Csg. Vol.	=	88.45 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 6 gpm @ 375 ft

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1432	3	18	24.6	6.78	2.62	-10	10.29	250	No	
1435	6	36	24.4	6.73	2.63				No	DTW=137.72
1438	9	54	24.5	6.70	2.63				No	
1441	12	72	24.4	6.72	2.65				No	DTW=145.06
1444	15	90	24.2	6.71	2.68	-10	9.20	250	No	DTW=150.04

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Bailer~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

L NO.: 15DBMW51 | SAMPLE NO.: 15DBMW51-001

START (Date): 2/6/96 (Time): 1445 | END (Date): 2/6/96 (Time): 1525

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 119.88 | FINAL DTW: 152.0

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

170 - 119.88 = 50.12 x 33.08 Gal./Csg Vol. x 3 Csg. Vol. = 99 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 2.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1449	4	10	24.9	6.62	4.83	0	8.00		no	clear
53	8	20	24.9	6.59	4.89	0	7.83		"	"
1457	12	30	24.8	6.58	4.99	0	7.51		"	"
1501	16	40	24.8	6.57	4.84	0	7.43		"	"
1505	20	50	24.9	6.59	4.92	0	7.09		"	"
1509	24	60	24.8	6.58	4.58	0	7.17		"	"
1513	28	70	24.8	6.58	4.57	0	7.10		"	"
1517	32	80	24.9	6.58	4.49	0	7.22		"	"
1521	36	90	24.8	6.58	4.55	0	7.30		"	"
1525	40	100	24.8	6.57	4.95	0	7.29	255	"	"
Duplicate			24.9	6.56	4.95	0	7.32	255	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 160BMW52 | SAMPLE NO.: 160BMW52-001

START (Date): 2/7/96 (Time): 1221 | END (Date): 2/7/96 (Time): 1259

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 170.30 | FINAL DTW: 170.82

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50				
227	170.30	= 56.7	x	37.422 Gal./Csg Vol.	x	3 Csg. Vol.	= 112 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1225	4	12	26.0	7.28	1.93	0	7.14		yes	clear
1229	8	24	25.7	7.31	1.91	0	7.52		"	"
1233	12	36	25.7	7.31	1.90	0	7.51		"	"
1237	16	48	25.8	7.29	1.91	0	7.52		"	"
1241	20	60	25.8	7.29	1.90	0	7.57		"	"
1245	24	72	25.8	7.32	1.90	0	7.46		"	"
1249	28	84	25.8	7.31	1.88	0	7.58		"	"
1253	32	96	25.7	7.28	1.89	0	7.59		"	"
1257	36	108	25.8	7.25	1.87	0	7.67		"	"
1259	38	112	25.8	7.21	1.86	0	7.75		"	"
Duplicate			25.9	7.20	1.85	0	7.81		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT: Air Contaminant Blanks collected. (160BMW52-901)
Duplicates collected (160BMW52-301)

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

LL NO.: 16DGMW81 | SAMPLE NO.: 16DGMW81-001

START (Date): 2/8/96 (Time): 0912 | END (Date): 2/8/96 (Time): 0942

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Clear / Sunny (80s)

FIELD PERSONNEL'S NAME(S): M.D

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 165.38 | FINAL DTW: 165.65

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	(4" - 0.66) 5" - 0.93 6" - 1.50					
221	- 165.38	=	55.62	x	3 0.71 Gal./Csg Vol.	x	3 Csg. Vol.	= 110 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
915	3	10.5	23.6	6.85	2.14	0	6.76		~~yes~~	clear
0918	6	21	24.0	6.84	2.14	4	6.64		"	"
0921	9	31.5	24.4	6.82	2.14	13	6.78		"	"
0924	12	42	24.2	6.81	2.14	18	7.05		"	"
0927	15	52.5	24.5	6.80	2.15	26	6.98		"	"
0930	18	63	24.6	6.80	2.14	54	6.93		"	"
0933	21	73.5	24.6	6.82	2.13	53	7.00		"	"
0936	24	84	24.6	6.81	2.14	45	6.99		"	"
0939	27	94.5	24.6	6.82	2.14	14	6.92		"	"
0942	30	105	24.7	6.80	2.15	8	6.87		"	"
Duplicate			24.7	6.81	2.15	8	6.75		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 16UGMW33 | SAMPLE NO.: 16UGMW33

START (Date): 2/7/96 (Time): 1623 | END (Date): 2/7/96 (Time): 1653

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 172.35 | FINAL DTW: 187.02

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 5" - 0.93 6" - 1.50				
225	-	172.35	=	52.65	x	34.75	Gal./Csg Vol.	x	3 Csg. Vol.	= 104 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1626	3	10.5	25.5	7.06	0.840	0	7.55		no	clear
1629	6	21	24.7	6.99	0.865	0	7.70		"	"
1632	9	31.5	24.7	6.98	0.866	0	7.67		"	"
1635	12	42	24.6	6.99	0.867	15	7.45		"	"
1638	15	52.5	24.6	6.96	0.866	0	7.33		"	"
1641	18	63	24.5	6.98	0.868	0	7.13		"	"
1644	21	73.5	24.5	6.96	0.866	1	7.31		"	"
1647	24	84	24.5	6.94	0.866	0	7.20		"	"
1650	27	94.5	24.5	6.94	0.867	1	7.11		"	"
1653	30	105	24.5	6.94	0.866	1	7.07	240	"	"
Duplicate			24.5	6.93	0.867	1	7.07	240	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

L NO.: 17DGMW82 | SAMPLE NO.: 17DGMW82-001

START (Date): 2/9/96 (Time): 1150 | END (Date): 2/9/96 Time): 1320

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Partly cloudy, calm, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of Sounding tube.

OVM READING: — | ORIG. DTW: 192.04 | FINAL DTW: 230.92

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50

260 - 192.04 = 67.96 x 63.20 Gal./Csg Vol. x 3 Csg. Vol. = 189.61 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1152	2	8	23.1	7.22	1.11	-10	11.05	50	Yes	
1200	10	40	24.8	7.14	1.10				Yes	DTW=241.72
1210	20	80	24.9	7.19	1.11				Yes	
1220	30	120	25.2	7.24	1.12				Yes	Well purged dry
1306	31	123	24.8	7.23	1.11	-10	10.77		Yes	DTW=230.92

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides (X) Herbicides (X)
Gross Alpha/Beta (X) General Chemistry (X) Treatability Parameters (X)

MMENT:

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El Toro Location 18 BGMP06A Depth 447' Date 2/7/96
Drillhole No. MW6 Sampling Zone No. Zone A Starting Time 1020 Finishing Time 1140
Technicians Mike Olipolmat
Water Level Inside MP Casing (Beginning of Session) 95.50 (End of Session) 95.75
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	171.61	✓	188.80	✓	✓	✓	171.41	1l	
2	✓	✓	✓	✓	✓	✓	171.37	✓	188.81	✓	✓	✓	171.36	1l	
3	✓	✓	✓	✓	✓	✓	171.42	✓	188.83	✓	✓	✓	171.34	1l	
4	✓	✓	✓	✓	✓	✓	171.37	✓	188.83	✓	✓	✓	171.31	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1035	21.3	7.28	0.791	-10	8.27	210	/
1135	22.2	7.84	0.792	-9	8.04	220	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BGMP06B-001 Depth 384 Date 2/7/96

Drillhole No. MW6 Sampling Zone No. Zone B Starting Time 1200 Finishing Time 1320

Technicians Mike Olphant

Water Level Inside MP Casing (Beginning of Session) 95.75 (End of Session) 95.95

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	142.99	✓	152.50	✓	✓	✓	142.96	1l	
2	✓	✓	✓	✓	✓	✓	142.99	✓	152.55	✓	✓	✓	142.99	1l	
3	✓	✓	✓	✓	✓	✓	143.05	✓	152.51	✓	✓	✓	142.94	1l	
4	✓	✓	✓	✓	✓	✓	142.97	✓	152.49	✓	✓	✓	142.94	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1215	22.8	7.83	0.91	-7	9.18	255	/
1315	22.7	.70	0.92	-10	9.51	240	/

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El Toro Location 18BGMP06C-001 Depth 299 Date 2/7/96
Drillhole No. MW 6 Sampling Zone No. Zone C Starting Time 1330 Finishing Time 1450
Technicians Mike Oliphant
Water Level Inside MP Casing (Beginning of Session) 95.95 (End of Session) 96.15
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	105.84	✓	121.21	✓	✓	✓	105.99	1l	
2	✓	✓	✓	✓	✓	✓	105.84	✓	121.21	✓	✓	✓	105.99	1l	
3	✓	✓	✓	✓	✓	✓	105.84	✓	121.19	✓	✓	✓	106.01	1l	
4	✓	✓	✓	✓	✓	✓	105.84	✓	121.21	✓	✓	✓	105.99	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1345	22.1	8.00	0.775	-10	9.64	10	/
1445	22.9	8.02	0.787	-10	10.08	55	/

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS EL TORO Location 18BGMP06D-001 Depth 172 Date 2/7/96

Drillhole No. MW 6 Sampling Zone No. Zone D Starting Time 1500 Finishing Time 1615

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 96.15 (End of Session) 96.40

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	50.99	✓	69.65	✓	✓	✓	50.57	1l	
2	✓	✓	✓	✓	✓	✓	50.65	✓	69.75	✓	✓	✓	50.62	1l	
3	✓	✓	✓	✓	✓	✓	50.62	✓	69.77	✓	✓	✓	50.59	1l	
4	✓	✓	✓	✓	✓	✓	50.62	✓	69.75	✓	✓	✓	50.59	1l	
5	✓	✓	✓	✓	✓	✓	50.67	✓	69.77	✓	✓	✓	50.57	1l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.u.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1510	23.8	7.51	1.73	-10	10.05	165	
1610	23.3	47	1.74	-10	10.57	19	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BGMP06E-001 Depth 108' Date 2/7/96

Drillhole No. MW6 Sampling Zone No. Zone E Starting Time 1630 Finishing Time 1735

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 96.40 (End of Session) 96.51

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	23.00	✓	40.86	✓	✓	✓	23.09	1l	
2	✓	✓	✓	✓	✓	✓	23.04	✓	40.92	✓	✓	✓	23.09	1l	
3	✓	✓	✓	✓	✓	✓	23.07	✓	40.97	✓	✓	✓	23.11	1l	
4	✓	✓	✓	✓	✓	✓	23.07	✓	40.92	✓	✓	✓	23.10	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1640	24.0	7.35	2.19	-10	11.43	235	
1730	22.9	7.32	2.17	-10	10.40	200	

Westbay

Groundwater Sampling

Field Data Sheet

Project El Toro G.W. Location MW-8/18BGMP08A Depth 71' Date 1/15/96

Drillhole No. _____ Sampling Zone No. A Starting Time 1400 Finishing Time 1700

Technicians Michael Oliphant / Scott Schroeder

Water Level Inside MP Casing (Beginning of Session) Time 1418 / 38.01 (End of Session) Time 1701 / 38.00

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	31.67	✓	26.47	✓	✓	✓ ~~31.65~~	31.65	2l	
2	✓	✓	✓	✓	✓	✓	31.65	✓	26.43	✓	✓	✓	31.63	1.5l	
3	✓	✓	✓	✓	✓	✓	31.63	✓	26.45	✓	✓	✓	31.60	1.5l	
4	✓	✓	✓	✓	✓	✓	31.61	✓	26.45	✓	✓	✓	31.60	2.0l	
5	✓	✓	✓	✓	✓	✓	31.59	✓	26.47	✓	✓	✓	31.57	1.5l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1418/ pH = 7.02; COND. = 209 mScm; TURB. = 10 NTU; DO = 10.02 mg; Temp = 20.7°C
ORP = 200 mV
1650/ pH = 7.14 COND = 208 mScm; TURB = 10 NTU; DO = 10 mg
Temp = 20.6 ; ORP = 145 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18 BGMP08B Depth 130' Date 1/16/96

Drillhole No. MW-8 Sampling Zone No. Zone 2 #47 Starting Time 0956 Finishing Time 1208

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 38.00 (End of Session) 38.27

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	57.66	✓	53.62	✓	✓	✓	57.64	1 l	
2	✓	✓	✓	✓	✓	✓	57.66	✓	53.62	✓	✓	✓	57.64	1 l	
3	✓	✓	✓	✓	✓	✓	57.64	✓	53.62	✓	✓	✓	57.57	1 l	
4	✓	✓	✓	✓	✓	✓	57.62	✓	53.60	✓	✓	✓	57.62	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : 4

Field Determinations (Appearance, pH, S.C., etc.) 1026/ pH=6.66; COND = 122; TURB = 10 NTU; DO 8.77 mg; 19.7°C; ORP = 250 mV
1150/ pH=7.19; COND = 111; TURB = 18 NTU; DO = 8.89 mg; 20.3°C ORP = 90 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BGMP08C Depth 300' Date 1/16/96

Drillhole No. MW 8 Sampling Zone No. Zone 3 (26) Starting Time 1312 Finishing Time ~~1445~~ 1545

Technicians Michael Oliphant

Water Level Inside MP Casing (Beginning of Session) 38.27 (End of Session) 38.86

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	131.46	✓	125.17	✓	✓	✓	131.31	1.0	
2	✓	✓	✓	✓	✓	✓	131.26	✓	125.17	✓	✓	✓	131.25	1.0	
3	✓	✓	✓	✓	✓	✓	131.26	✓	125.20	✓	✓	✓	131.21	1.0	
4	✓	✓	✓	✓	✓	✓	131.21	✓	125.17	✓	✓	✓	131.19	1.0	
5	✓	✓	✓	✓	✓	✓	131.16	✓	125.17	✓	✓	✓	131.16	1.0	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1339 pH=7.20, COND 1.13 mS/cm; TURB 10NTU; DO=8.92 mg; 21.0°C; ORP=200 mV

1541 pH=7.45 COND= [illegible] mS/cm; TURB=10NTU; DO=9.07 mg; Temp=20.1°C; ORP=90 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BGMP08D Depth 442' Date 1/17/96

Drillhole No. MW-8 Sampling Zone No. Zone 4 Starting Time 0909 Finishing Time 1117

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 38.81 (End of Session) 38.41

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Ambient 14.39 / 16.39 °C

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	192.68	✓	185.64	✓	✓	✓	192.70	1 l	
2	✓	✓	✓	✓	✓	✓	192.68	✓	185.71	✓	✓	✓	192.65	1 l	
3	✓	✓	✓	✓	✓	✓	192.66	✓	185.66	✓	✓	✓	192.65	1 l	
4	✓	✓	✓	✓	✓	✓	192.61	✓	185.66	✓	✓	✓	192.60	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 0947/ pH=7.22; cond=143 mS/cm; 10 NTU; DO=7.84 mg; 19.5°C; ORP=225 mV
1112/ pH=7.82; cond.=140 mS/cm; TURB=10 NTU; DO=7.04 mg
Temp=19.5°C; ORP=235 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BGMP09A-001 Depth 457' Date 1/31/96

Drillhole No. MW9 Sampling Zone No. Zone 6 Starting Time 1215 Finishing Time 1340

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 64.90 (End of Session) 65.00

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	187.51	✓	191.03	✓	✓	✓	187.40	1l	
2	✓	✓	✓	✓	✓	✓	187.47	✓	191.02	✓	✓	✓	187.44	1l	
3	✓	✓	✓	✓	✓	✓	187.54	✓	190.94	✓	✓	✓	187.39	1l	
4	✓	✓	✓	✓	✓	✓	187.41	✓	190.90	✓	✓	✓	187.42	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1236	19.7	~~9.1~~	3.91	-5	—	10	—
1335	19.2	—	3.86	-0	—	15	

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El Toro Location 18BGMP09B-001 Depth 377' Date 1/31/96
Drillhole No. MW 9 Sampling Zone No. Zone 5 Starting Time 1400 Finishing Time 1530
Technicians Mike Olphant
Water Level Inside MP Casing (Beginning of Session) 65.00 (End of Session) 65.23
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	153.03	✓	157.42	✓	✓	✓	153.07	1 l	
2	✓	✓	✓	✓	✓	✓	153.03	✓	157.22	✓	✓	✓	153.08	1 l	
3	✓	✓	✓	✓	✓	✓	153.00	✓	157.40	✓	✓	✓	153.04	1 l	
4	✓	✓	✓	✓	✓	✓	153.09	✓	157.42	✓	✓	✓	153.02	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1410	20.4	—	1.97	-10	—	230	—
1520	19.6	—	1.93	-10	—	250	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18B6MP09C-001 Depth 273 Date 2/1/96

Drillhole No. MW 9 Sampling Zone No. Zone 4 Starting Time 1600 Finishing Time 1810

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 65.02 (End of Session) 64.94

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	107.42	✓	112.90	✓	✓	✓	107.37	1 l	
2	✓	✓	✓	✓	✓	✓	107.42	✓	112.90	✓	✓	✓	107.35	1 l	
3	✓	✓	✓	✓	✓	✓	107.41	✓	112.89	✓	✓	✓	107.35	1 l	
4	✓	✓	✓	✓	✓	✓	107.33	✓	112.88	✓	✓	✓	107.35	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1630	20.4	78	1.09	-5	8.45	220	—
1740	20.1	09	1.12	-5	8.51	240	—

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El TORO Location 18BGMP09D-001 Depth 226 Date 2/2/96
Drillhole No. MW9 Sampling Zone No. Zone 3 Starting Time 0915 Finishing Time 1030
Technicians Mike Oliphant
Water Level Inside MP Casing (Beginning of Session) 67.18 (End of Session) 67.22
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	86.21	✓	92.30	✓	✓	✓	86.22	1l	
2	✓	✓	✓	✓	✓	✓	86.17	✓	92.32	✓	✓	✓	86.21	1l	
3	✓	✓	✓	✓	✓	✓	86.20	✓	92.30	✓	✓	✓	86.19	1l	
4	✓	✓	✓	✓	✓	✓	84.17	✓	92.27	✓	✓	✓	86.17	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
0940	18.9	~~1.21~~	1.21	9	8.33	215	
		6.75					
1025	20.2	7.32	1.17	2	8.31	265	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18BGMP09E-001 Depth 137' Date 2/2/96

Drillhole No. MW 9 Sampling Zone No. Zone 2 Starting Time 1045 Finishing Time 1140

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 67.32 (End of Session) 67.43

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	47.55	✓	53.06	✓	✓	✓	47.47	1l	
2	✓	✓	✓	✓	✓	✓	47.55	✓	53.04	✓	✓	✓	47.42	1l	
3	✓	✓	✓	✓	✓	✓	47.55	✓	53.06	✓	✓	✓	47.45	1l	
4	✓	✓	✓	✓	✓	✓	47.43	✓	52.99	✓	✓	✓	47.40	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1050	19.0	7.06	1.40	4	8.94	270	
1135	20.1	7.1	1.48	1	8.75	295	

Pg-___

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BGMP09F-001 Depth 62' Date 2/2/96

Drillhole No. MW 9 Sampling Zone No. Zone 1 Starting Time 1200 Finishing Time 1320

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 67.43 (End of Session) 67.43

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	14.72	✓	20.55	✓	✓	✓	14.77	1/2 l	
2	✓	✓	✓	✓	✓	✓	14.70	✓	20.55	✓	✓	✓	14.70	1/2 l	
3	✓	✓	✓	✓	✓	✓	14.62	✓	20.52	✓	✓	✓	14.67	1/2 l	
4	✓	✓	✓	✓	✓	✓	14.58	✓	20.55	✓	✓	✓	14.65	1/2 l	
5	✓	✓	✓	✓	✓	✓	14.48	✓	20.52	✓	✓	✓	14.62	1/2 l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1210	19.4	7.88	1.66	2	9.06	270	
1315	19.3	7.99	1.68	3	9.28	265	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS EL TORO Location 18BGMP10-A-001 Depth 1006' Date 11/19/96

Drillhole No. MW10 Sampling Zone No. F Starting Time 1203 Finishing Time 1445

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 6.05 (End of Session) 10.88

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	449.60	✓	439.41	✓	✓	✓	449.61	1 l	WATER INSIDE mp casing
2	✓	✓	✓	✓	✓	✓	449.54	✓	439.42	✓	✓	✓	449.56	1 l	poured out while cable
3	✓	✓	✓	✓	✓	✓	449.46	✓	439.42	✓	✓	✓	449.50	1 l	was payed out.
4	✓	✓	✓	✓	✓	✓	449.43	✓	439.41	✓	✓	✓	449.42	1 l	(Freeseal and plunger lost 1st Run)
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : 4 l

Field Determinations (Appearance, pH, S.C., etc.) 1230 / pH = 8.49 ; COND = 0.96 mScm; TURB = 0 NTU; Temp = 19.5°C ; DO - 8.85 mg ORP = -40 mV (OFFSCALE)

1440 / pH = 8.5 COND = 0.96 mScm ; TURB = 0 NTU ; Temp = 18. DO = 9.46 mg ; ORP = -40 mV. (OFFSC.)

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18 BGMP10 B-081 Depth 889 Date 1/23/96

Drillhole No. MW10 Sampling Zone No. ZONE E Starting Time 0930 Finishing Time 1225

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 10.82 (End of Session) 12.02

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Ambient 14.77 / 9.44 °C

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	398.84 ~~389.84~~	✓	393.25	✓	✓	✓	398.73 ~~388.73~~	1l	
2	✓	✓	✓	✓	✓	✓	398.84	✓	393.30	✓	✓	✓	398.81	1l	
3	✓	✓	✓	✓	✓	✓	398.87	✓	393.32	✓	✓	✓	398.84	1l	
4	✓	✓	✓	✓	✓	✓	398.78	✓	393.31	✓	✓	✓	398.81	1l	
5	✓	✓	✓	✓	✓	✓	398.71	✓	393.31	✓	✓	✓	398.72	1l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 0930 / pH=7.00 ; COND = .829 mS/cm; TURB = 1 NTU; DO = 9.67 mg; Temp 17.3°C; ORP = -15 mV

1220 / pH=7.53; cond = .804 mS/cm; Turb = 8 NTU; DO = 8.88 mg; Temp = 18.5°C; ORP -35 mV

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El TORO Location 18BGMP10C-001 Depth 754' Date 1/23/96
Drillhole No. MW10 Sampling Zone No. Zone D Starting Time 1245 Finishing Time 1457
Technicians Mike Oliphant
Water Level Inside MP Casing (Beginning of Session) 12.02 (End of Session) 12.66
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan
Ambient /16.14 °C

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	340.38	✓	337.76	✓	✓	✓	340.41	1L	
2	✓	✓	✓	✓	✓	✓	340.36	✓	337.81	✓	✓	✓	340.31	1L	
3	✓	✓	✓	✓	✓	✓	340.27	✓	337.79	✓	✓	✓	340.26	1L	
4	✓	✓	✓	✓	✓	✓	340.32	✓	337.83	✓	✓	✓	340.33	1L	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1245 / pH = 8.35; COND. 553; Turb = 0 NTU; DO = 8.94 mg; Temp = 19.8°C; ORP = -40 m
1453 / pH = 8.30; COND. 549; Turb = 8 NTU; DO = 8.82 mg; Temp = 18.1°C; ORP = -40 m

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18BGMP10D-001 Depth 568' Date 11/23/96

Drillhole No. MW10 Sampling Zone No. zone C Starting Time 1515 Finishing Time

Technicians Mike Olphant

Water Level Inside MP Casing (Beginning of Session) 12.66 (End of Session) 12.14

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	258.33	✓	255.96	✓	✓	✓	258.33	1l	
2	✓	✓	✓	✓	✓	✓	258.35	✓	255.98	✓	✓	✓	258.32	1l	
3	✓	✓	✓	✓	✓	✓	258.31	✓	255.97	✓	✓	✓	258.31	1l	
4	✓	✓	✓	✓	✓	✓	258.25	✓	256.01	✓	✓	✓	258.24	1l	
5	✓	✓	✓	✓	✓	✓	258.27	✓	256.01	✓	✓	✓	258.22	1l	
6	✓	✓	✓	✓	✓	✓	258.20	✓	256.03	✓	✓	✓	258.25	1l	
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1515/ pH = 7.18; cond = .635 mSem; Turb = 8 NTU; DO = 8.8 mg; Temp = 18.1°C; ORP = 60 mV

1715/ pH = 7.21; cond = .639 mSem; Turb. 0 NTU; DO = 8.8 mg; Temp = 16.7°C; ORP = 5 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18B6MP10E-001 Depth 432' Date 1/24/96

Drillhole No. MW10 Sampling Zone No. Zone 13 Starting Time 0816 Finishing Time 0945

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 15.42 (End of Session) 15.85

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Ambient 9.10 °C

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	198.41	✓	202.6	✓	✓	✓	198.~~57~~ 42	1 l	
2	✓	✓	✓	✓	✓	✓	198.42	✓	202.12	✓	✓	✓	198.41	1 l	
3	✓	✓	✓	✓	✓	✓	198.45	✓	202.09	✓	✓	✓	198.36	1 l	
4	✓	✓	✓	✓	✓	✓	198.32	✓	202.09	✓	✓	✓	198.31	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 0816/ pH=7.12; cond=.744 mS/cm; Turb.=9NTU; DO=7.64 mg; Temp=17.5°C; ORP=-25 mV

0945/ pH=7.38; cond .77 mS/cm; Turb=3 NTU; DO=10.72 mg; Temp=18.3° ORP= 10 m

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18BCMP10F-001 Depth 221 Date 1/24/96

Drillhole No. MW10 Sampling Zone No. Zone A Starting Time 1010 Finishing Time 1115

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 15.85 (End of Session) 16.20

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	107.00	✓	116.59	✓	✓	✓	106.91	1 l	
2	✓	✓	✓	✓	✓	✓	106.84	✓	116.56	✓	✓	✓	106.86	1 l	
3	✓	✓	✓	✓	✓	✓	106.79	✓	116.54	✓	✓	✓	106.82	1 l	
4	✓	✓	✓	✓	✓	✓	106.82	✓	116.60	✓	✓	✓	106.79	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1020 / pH = 7.05 ; cond = 1.62 mScm; Turb = 2 NTU; DO = 12.20 mg; Temp = 20.7°C
ORP = 175 mV

1110 / pH = 7.07 ; cond = 1.63 mScm; Turb = 3 NTU; DO = 12.61 mg; Temp = 20.7°C
ORP = 205 mV

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW01A | SAMPLE NO.: 18BGMW01A-001

START (Date): 1/24/96 (Time): 1518 | END (Date): 1/26/96 (Time): 1515

WELL CASING DIAMETER: 2" ( ) 4" (SW) 5" (X) | WEATHER: Clear, lt. S breeze, 70°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ____ | ORIG. DTW: 217.78 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50
491	217.78	273.22	254.09 Gal./Csg Vol.
Packer →	462	29	26.97

x 3 Csg. Vol. = 762.28 Gal.
80.91

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4/2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1528	10	40	24.0	7.15	1.98	162	8.64	OR	No	DTW > 273
1538	20	80	24.9	7.10	1.97				No	
1548	40	160	24.9	7.09	1.97				No	
1608	50	200	25.2	7.06	1.99				No	Stopped pump
1642	60	240	24.5	7.06	2.01				No	Started pump at 1633.
~~1702~~	~~80~~	~~320~~	(SW)							
1758	76	304								Purged dry. Shut off
0857	76	304	22.0	6.82	1.93				No	Began pumping. Flow: 2 gpm
0917	96	344	24.5	7.02	1.91				No	
0937	116	384	24.7	6.99	1.89				No	Shut off at 0938. Flow down to 1/4 gpm.
1/26/96 1453	116	384	23.7	7.04	1.92	10	8.78	OR	No	DTW > 300'

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
(SW) Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: ~~Sounding tube obstructed at 273'~~

Duplicate # 18BGMW01A-301 collected at 1510

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW01B ~~-001~~ | SAMPLE NO.: 18BGMW01B-001

START (Date): 1/23/96 (Time): 1542 | END (Date): 1/24/96 (Time): 1050

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear, clm, 70°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 204.08 | FINAL DTW: 283.28

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME			
		4" - 0.66			
		5" - 0.93			
		6" - 1.50			
421	204.08 =	216.92 x	201.74 Gal./Csg Vol.	x 3 Csg. Vol.	= 605.21 Gal.
Packer →	392	29	26.97		80.91

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME (min)	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1048	6	24	23.3	7.46	1.05	10	6.01	OR	No	DTW=225.74
1602	20	80	24.1	7.27	1.03				No	DTW=261.64
1607	25	~~60~~ 100								Shut pump off
0815	30	120	22.5	7.21	1.09				NO	DTW=233.56 Began pumping @ 0815
0825	40	160	24.2	7.26	1.08				No	DTW=259.76
0840	55	220	24.8	7.30	1.08				No	DTW=276.08
0855	70	280	25.5	7.32	1.08				No	DTW=284.04
0910	85	340	25.8	7.32	1.08				No	DTW=288.63 Stopped pump
1005	95	380	25.4	7.36	1.10				No	DTW=263.22 Began pumping at 0955
1020	110	440	26.2	7.36	1.08				No	DTW=278.28
1030	120	480	26.0	7.34	1.08				No	DTW=283.74
1035	125	500	26.5	7.36	1.08	109	9.01	215	No	DTW=283.28

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW01C | SAMPLE NO.: 18BGMW01C-001

START (Date): 1/23/96 (Time): 1434 | END (Date): 1/23/96 (Time): 1505

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear, calm, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: | ORIG. DTW: 203.34 | FINAL DTW: 209.17

PURGE METHOD: Packers (X) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME			
		4" - 0.66			
		5" - 0.93			
		6" - 1.50			
385	203.34	= 152	x ~~122.8~~ 141.4 Gal./Csg Vol.	x 3 Csg. Vol.	= ~~369~~ 424 Gal.
Packer →	326	29	27.0		81

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1439	5	20	24.4	7.23	1.05	10	5.50	105	Yes	DTW = 209.36
1444	10	40	24.6	7.22	1.05				Yes	DTW = 209.22
1449	15	60	25.0	7.17	1.05				Yes	DTW = 209.18
1452	18	72	25.0	7.18	1.05				Yes	DTW = 209.19
1455	21	84	25.2	7.16	1.05	10	6.73	175	Yes	DTW = 209.17

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer (X) Westbay ( ) Portable Pump ( )

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW01D | SAMPLE NO.: 18BGMW01D-001

START (Date): 1/23/96 (Time): 1128 | END (Date): 1/23/96 (Time): 1220

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear, calm, 75°F

FIELD PERSONNEL'S NAME(S): Scott Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sampling tube

OVM READING: — | ORIG. DTW: 205.79 | FINAL DTW: 208.83

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50

267 - 205.79 = 61.21 x 56.95 Gal./Csg Vol. x 3 Csg. Vol. = 170.79 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1132	4	16	23.0	6.98	1.09	10	8.14	220	No	Cloudy
1138	10	40	24.2	7.03	1.17				Yes	DTW=208.30, clear
1148	20	80	24.6	7.06	1.24				Yes	DTW=208.48
1158	30	120	24.9	7.01	1.25				Yes	DTW=208.51
1208	40	160	25.0	7.02	1.27				Yes	DTW=208.60
1213	45	180	25.0	7.01	1.28	10	8.33	230	Yes	DTW=208.83

Air Entrainment Survey ( ) | Field Blanks (X)

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Peristaltic~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Collected Field Blank #18BGMW01D-901 at 1204.

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 18BGMW1E | SAMPLE NO.: 18BGMW1E-001

START (Date): 2/5/96 (Time): 1456 | END (Date): 2/5/96 (Time): 1516

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (70s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of ToC

OVM READING: | ORIG. DTW: 205.97 | FINAL DTW: 206.15

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME		
			4" - 0.66	
			5" - 0.93	
			6" - 1.50	
230	205.97	= 24.03	x 15.86 Gal./Csg Vol.	x 3 Csg. Vol. = 48 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 2.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1458	2	5	23.8	6.84	1.21	1	11.78		no	clear
1500	4	10	24.1	6.83	1.19	1	11.63		"	"
1502	6	15	24.3	6.83	1.19	2	11.54		"	"
1504	8	20	24.3	6.82	1.12	1	11.77		"	"
1506	10	25	24.6	6.80	1.19	1	11.32		"	"
1508	12	30	24.6	6.81	1.17	2	11.31		"	"
1510	14	35	24.7	6.79	1.22	1	11.13		"	"
1512	16	40	24.8	6.80	1.20	2	11.28		"	"
1514	18	45	24.9	6.80	1.21	1	11.29		"	"
1516	20	50	24.8	6.79	1.19	1	11.30	210	"	"
Duplicate			24.8	6.79	1.20	1	11.33	210	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( )

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW02A | SAMPLE NO.: 18BGMW02A-001

START (Date): 1/18/96 (Time): 1715 | END (Date): 1/19/96 (Time): 0945

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear, calm, 65°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 164.04 | FINAL DTW: > 300 ft.

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50				
487	164.04	= 322.96	x 300.35 Gal./Csg Vol.	x 3 Csg. Vol.	= 901.06 Gal.		

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
17	2	8	23.5	7.58	0.862	2	6.53	OR	Yes	
125	10	40	23.8	7.54	0.862				No	DTW=234.52
1735	20	80	23.9	7.51	0.872				No	DTW=279.46
1745	30	120	24.9	7.49	0.872				No	DTW=299.50
1755	40	160	25.0	7.50	0.871				No	
1805	50	200	24.7	7.50	0.866				No	Shut pump off
0845										Begin pumping. DTW= 199.8
0850	55	220	23.2	7.35	0.951	168	8.82	OR	No	
0900	65	260	24.3	7.43	0.925				No	DTW=267.88'
0910	75	300	24.9	7.44	0.925				No	DTW > 300 ft
0920	85	340	25.2	7.42	0.91				No	
0930	95	380	25.5	7.43	0.92	5	8.16		No	DTW > 300 ft
0945	110	400								Shut pump off

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Peristaltic~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides (X)
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW2C | SAMPLE NO.: 18BGMW2C-001

START (Date): 1/18/96 (Time): 1350 | END (Date): 1/18/96 Time): 1600

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear, lt. W breeze, 75°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 164.62 | FINAL DTW: 265.10

PURGE METHOD: ~~Packers (X)~~ Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL ~~DTW~~ Packer depth	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50	
Water w/o packer → ~~383~~	164.62 354	218.38 29	203.09 26.97 Gal./Csg Vol.	609.28

= 29 x 26.97 Gal./Csg Vol. x 3 Csg. Vol. = 80.91 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1358	8	40	24.6	7.19	0.899	4	7.74	285	No	
1403	13	65	24.9	7.24	0.892				No	DTW = 219.68
1408	18	90	25.0	7.25	0.885				No	
1418	28	140	25.6	7.26	0.888				No	DTW = 246.48
1428	38	190	26.1	7.26	0.886				No	DTW = 260.68
1430	40	200								Shut down to empty tank.
1522	40	200								DTW = 188.08 Began pumping
1524	42	210	25.0	7.27	0.887				No	
1529	47	235	25.3	7.28	0.887				No	DTW = 220.44
1539	57	285	25.4	7.27	0.889				No	DTW = 251.08
1549	67	335	25.4	7.27	0.890	10	6.62	315	No	

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: ~~Packer (X)~~ Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)

Unfiltered Metals (X) Pesticides ( ) Herbicides ( )

Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Packer pressure = 110psi

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW2D | SAMPLE NO.: 18BGMW2D-001

START (Date): 1/17/96 (Time): 1145 | END (Date): 1/17/96 (Time): 1615

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear, calm, 70°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 166.10 | FINAL DTW: 283.67

PURGE METHOD: Packers (X) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump ( )

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 5" - 0.93 6" - 1.50				
Packer – 319	-	290 166.10	=	29 152.90	x	26.97 142.20 Gal./Csg Vol.	x	3 Csg. Vol.	=	80.91 426.59 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1200	15	75	25.5	7.26	0.92	10	9.49	125	No	DTW=279.80
1210	25	125	25.2	7.35	0.935				No	→
1215	30	150							No	Stopped pump - dry
1219	30	150	23.4	7.44	0.941				No	DTW=239.84. Restarted
1524	35	175	24.7	7.28	0.929				No	
1529	40	200	25.2	7.27	0.932	10	5.60	305	No	
1534	45	225	25.3	7.27	0.935	10	5.44	295	No	
1535	46	230								Stopped pump.
1600	46	230	24.6	7.27	0.934	10	5.17	305	No	Restarted pump for sampling

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer (X) Westbay ( ) Portable Pump ( )

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Packer pressure = 58.98 psi
Duplicate sample #18BGMW2D-301

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW02E | SAMPLE NO.: 18BGMW02E-001

START (Date): 2/1/96 (Time): 1440 | END (Date): 2/1/96 (Time): ~~1425~~ 1630

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Overcast, drizzle, calm, 60°F.

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sampling tube.

OVM READING: ——— | ORIG. DTW: 169.10 | FINAL DTW: 177.96

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME					
			4" - 0.66 5" - 0.93 6" - 1.50				
338	169.10	= 168.9	x	157.08 ~~[illegible]~~ Gal./Csg Vol.	x 3 Csg. Vol.	=	471.23 ~~[illegible]~~ Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm @ 385 Hz.

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~(umhos/cm)~~ mS/cm	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1444	4	20	22.6	7.00	1.14	572	6.96	220	Yes	Water red, [illegible]
1450	10	50	22.7	6.90	1.14				Yes	DTW=176.98
1500	20	100	23.2	6.87	1.16				Yes	DTW=177.50
1510	30	150	23.6	6.91	1.15				Yes	DTW=177.70
1520	40	200	23.6	6.90	1.16				Yes	DTW=177.72 Pump o
1543	40	200	22.3	6.93	1.17				Yes	Started pump. DTW=169.=
1553	50	250	23.2	6.88	1.16				Yes	DTW=177.52
1603	60	300	23.4	6.88	1.16				Yes	DTW=177.90
1613	70	350	23.5	6.87	1.16				Yes	DTW=177.94
1616	75	375	23.6	6.86	1.16	-10	6.79	155	Yes	DTW=177.96 Stopped pump to lagoon

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Permeable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW3A | SAMPLE NO.: 18BGMW3A-001

START (Date): 2/29/96 (Time): 1410 | END (Date): 2/29/96 (Time): 1600

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Sunny (70s)

FIELD PERSONNEL'S NAME(S): Min Davis / Brian Trinh

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of ToC

OVM READING: | ORIG. DTW: 107.59 | FINAL DTW: 107.65

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

395 - 107.59 = 287.41 x 267.29 Gal./Csg Vol. x 3 Csg. Vol. = 802 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles observed? (yes/no)	COMMENT
1428	18	81	25	7.48	0.777	0	9.02		no	clear
1446	36	162	24.9	7.20	0.835	0	8.35		"	"
1504	54	243	25.1	7.24	0.905	0	7.95		"	"
1522	72	324	25.2	7.19	0.950	9	7.94		"	"
1500	90	405	25.3	7.14	0.944	0	7.90		"	"
duplicate			25.3	7.16	0.941	0	7.90		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT: duplicate samples 18BGMW3A-301 collected.

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW3B | SAMPLE NO.: 18BGMW3B-001

START (Date): 2/29/96 (Time): 1415 | END (Date): 2/29/96 (Time): 1635

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: (Sunny) 70s

FIELD PERSONNEL'S NAME(S): Min Davis / Brian Trinh

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING:- | ORIG. DTW: 104.25 | FINAL DTW: 104.30

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50

305 - 104.25 = 200.75 x 186.70 Gal./Csg Vol. x 3 Csg. Vol. = 560 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1443	28	56	25.0	7.08	0.725	0	8.34		no	clear
1511	56	112	25.1	6.99	0.865	0	8.06		"	"
1539	84	168	25.1	6.97	0.868	0	8.05		"	"
1607	112	224	25.0	7.02	0.870	0	7.99		"	"
1635	140	280	25.0	7.00	0.875	0	7.96		"	"
Duplicate			25.0	7.00	0.872	0	7.98		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW03C | SAMPLE NO.: 18BGMW03C-001

START (Date): 2/12/96 (Time): 1351 | END (Date): 2/12/96 (Time): 1620

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Rain (60s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of ToC

OVM READING: | ORIG. DTW: 103.51 | FINAL DTW: 103.61

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50

247 - 103.51 = 143.49 x 133.45 Gal./Csg Vol. x 3 Csg. Vol. = 400 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1401	10	40	23.2	8.22	0.469	0	8.84		no	clear
1411	20	80	23.8	8.32	0.457	0	9.12		no	"
1421	30	120	24.0	8.09	0.614	0	8.47		"	"
1431	40	160	24.1	7.52	0.799	0	8.28		"	"
1441	50	200	24.1	6.74	0.888	0	8.41		"	"
1540	60	240	24.1	6.71	0.840	3	9.19		"	"
1550	70	280	24.1	6.73	0.900	1	8.99		"	"
1600	80	320	24.2	6.72	0.912	0	8.95		"	"
1610	90	360	24.2	6.71	0.905	0	8.85		"	"
1620	100	400	24.1	6.70	0.900	0	8.80	245	"	"
Duplicate			24.2	6.69	0.900	0	8.99	245	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW03E | SAMPLE NO.: 18BGMW03E-001

START (Date): 2/5/96 (Time): 1042 | END (Date): 2/5/96 (Time): 1120

WELL CASING DIAMETER: 2" ( ) 4" (X) 6" ( ) | WEATHER: Partly cloudy, calm, 70°F

FIELD PERSONNEL'S NAME(S): Scott Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube.

OVM READING: — | ORIG. DTW: 107.09 | FINAL DTW: 154.52

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) ~~Submersible~~ Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

169 - 107.09 = 61.91 x 0.66 Gal./Csg Vol. x 3 Csg. Vol. = 122.58 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1043	1	5	23.1	5.95	1.46	319	8.93	180	No	
1047	5	25	23.7	6.84	1.30				Yes	DTW=134.90
1052	10	50	24.3	7.16	1.30				No	DTW=147.78
1057	15	75	24.1	7.18	1.29				No	
1102	20	100	25.0	7.10	1.30				No	DTW=150.46
1105	23	115	25.1	7.05	1.29				No	
1108	26	130	~~24.5~~ 25.1	7.01	1.30	-10	8.87	240	No	DTW=154.52

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Peristaltic~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters (X)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW4A | SAMPLE NO.: 18BGMW4A-001

START (Date): 2/28/96 (Time): ~~1630~~ ~~1712~~ 1630 | END (Date): 2/28/96 (Time): 1800

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Sunny (60s)

FIELD PERSONNEL'S NAME(S): Min Davis / Brien Bao Trinh

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 83.97 | FINAL DTW: 84.07

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW		CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50				
311	83.97	=	227.03	x	211.14 Gal./Csg Vol.	x	3 Csg. Vol.	= 633 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME 1712	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles observed? (yes/no)	COMMENT
~~1646~~	16	64	23.2	6.26	0.958	0	7.72		no	clear
1728	32	128	23.3	6.67	0.948	0	7.12		"	"
1744	48	192	23.5	6.68	0.959	20	7.03		"	"
1800	64	256	23.4	6.68	0.957	0	6.80		"	"
Duplicate			23.5	6.67	0.957	0	6.87		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW04B | SAMPLE NO.: 18BGMW04B-001

START (Date): 1/19/96 (Time): 1518 | END (Date): 1/19/96 (Time): 1600

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Partly cloudy, mod SW breeze, 75°F

FIELD PERSONNEL'S NAME(S): Scot Martin's

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tubes

OVM READING: — | ORIG. DTW: 81.70 | FINAL DTW: 82.30

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME				
			4" - 0.66			
			5" - 0.93			
			6" - 1.50			
215 -	81.70 =	133.30 x	87.98 Gal./Csg Vol.	x 3 Csg. Vol.	=	263.95 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 8 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1520	2	16	22.8	7.05	1.24	20	10.80	175	Yes	
1528	10	80	22.9	7.01	1.37				Yes	DTW=84.54
1533	15	120	22.9	7.01	1.59				Yes	DTW=84.78
1538	20	160	23.0	7.00	1.40	144	9.51	195	Yes	DTW=84.92

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Peristaltic~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Collected Duplicate # 18BGMW04B-301 at 1605

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW05A | SAMPLE NO.: 18BGMW05A-001

START (Date): 1/26/96 (Time): 0845 | END (Date): 1/26/96 (Time): 1410

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Partly cloudy, clm, 60°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube.

OVM READING: — | ORIG. DTW: 84.98 | FINAL DTW: >300'

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 ~~5" - 0.93~~ 6" - 1.50				
487	84.98	= 402.02	x 373.88 Gal./Csg Vol.	x 3 Csg. Vol.	= 1121.64 Gal.		
Packer →	458	29	26.97		80.91		

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (~~mmhos/cm~~) mS/cm	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0848	3	15	21.5	7.20	5.06	130	7.34	OR	No	DTW=131.25'
0900	15	75	23.4	7.55	5.02				No	DTW=192.58'
0920	35	175	24.4	7.59	5.03				No	DTW=258.30'
1045	60	300	25.0	7.63	5.04				No	Pump off at 0925, on at 1 DTW=254.80
1055	70	350	25.9	7.60	5.02				No	DTW>300ft
1105	80	~~0350~~ 400	26.5	7.57	4.82				No	DTW>300ft Flow down to 2gpm. Pump off at 1140
1140	115	400								Pump on at 1240. DTW>300
1320	155	450	26.1	7.45	4.05				No	DTW>300
1330	165	460	26.2	7.39	3.82				No	DTW>300
1335	170	465	26.2	7.36	3.73				No	DTW>300
1340	175	470	26.1	7.37	3.70	9	7.48	OR	No	DTW>300

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Submersible~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Well cluster is located approx. 75ft. WNW of vehicle washing bays, 10ft. S of concrete parking slab.

Duplicate # 18BGMW05A-301 collected at 1405

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW05B | SAMPLE NO.: 18BGMW05B-001

START (Date): 2/29/96 (Time): 0920 | END (Date): 2/29/96 (Time): 1035

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Sunny (60s) ~~Sunny (80s)~~

FIELD PERSONNEL'S NAME(S): Min Davis / Brian Trish

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 81.38 | FINAL DTW: 81.52

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50
		264.62	

346 - 81.38 = ~~[illegible]~~ x 246 Gal./Csg Vol. x 3 Csg. Vol. = 738 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles observed? (yes/no)	COMMENT
0935	15	75	22.4	6.25	0.693	0	7.39		no	clear
0950	30	150	23.3	6.68	0.953	0	6.87		"	"
1005	45	225	24.2	6.88	1.02	0	7.57		"	"
1020	60	300	24.9	6.84	1.04	0	7.76		"	"
1035	75	375	25.1	6.92	1.06	0	8.06		"	"
Complete			25.2	6.92	1.08	0	8.06		"	"

Air Entrainment Survey ( ) (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW05C | SAMPLE NO.: 18BGMW05C

START (Date): 1/25/96 (Time): 1638 | END (Date): (Time):

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Partly cloudy, calm, 70°F

FIELD PERSONNEL'S NAME(S): Scot Martin's

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 80.52 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump ( )

MEASURED WELL TD	ORIGINAL DTW		CASING VOLUME		4" - 0.66 5" - 0.93 6" - 1.50				
250	80.52	=	169.48	x	157.62 Gal./Csg Vol.	x	3 Csg. Vol.	=	472.85 Gal.
Packer	221		29		26.97				80.91

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 8 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~mmhos/cm~~ mS/cm	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
:41	3	24	22.9	7.19	1.08	7	8.43	170	No	DTW=84.90
.044	6	~48				No discharge.				DTW=81.14. Pump

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump ( )

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Pump just working at about 50gal

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW5D | SAMPLE NO.: 18BGMW5D-00

START (Date): 2/19/96 (Time): 1635 | END (Date): 2/19/96 (Time): 1723

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" ( ) 6" (✓) | WEATHER: Cloudy / Rain (60s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 81.78 | FINAL DTW: 81.90

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 5" - 0.93 6" - 1.50				
138	-	81.78	=	56.22	x	84.33	Gal./Csg Vol.	x	3 Csg. Vol.	= 253 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1641	6	24	22.4	6.67	1.43	36	8.28		no	silty
1647	12	48	22.7	6.54	1.43	0	8.14		"	cloudy
1653	18	72	22.7	6.56	1.44	52	8.10		"	"
1659	24	96	22.8	6.54	1.47	0	8.19		"	"
1705	30	120	22.8	6.55	1.48	37	8.22		"	clear
1711	36	144	22.8	6.54	1.48	40	8.21		"	"
1717	42	168	22.9	6.53	1.48	38	8.26		"	"
1723	48	192	22.9	6.52	1.48	41	8.25	150	"	"
duplicate			22.9	6.51	1.48	41	8.23	150	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

NO.: 18BGMW07 | SAMPLE NO.: 18BGMW07-001

START (Date): 2/9/96 (Time): 1516 | END (Date): 2/9/96 (Time): 1545

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Partly cloudy, 14.5 breeze, 75°F

FIELD PERSONNEL'S NAME(S): Scot Matthews

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 21.68 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

70 - 21.68 = 48.32 x 3.89 Gal./Csg Vol. x 3 Csg. Vol. = 95.67 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 6 gpm @ 350 Hz

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1519	3	18	20.5	6.63	1.53	-10	9.66	235	No	
22	6	36	20.5	6.64	1.76				No	DTW=22.52
1525	9	54	20.5	6.64	1.90				No	
1528	12	72	20.3	6.65	1.98				No	DTW=22.44
1531	15	90	20.4	6.67	2.02	-10	8.37	240	No	DTW=22.42

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Peristaltic Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 18BGMW12 | SAMPLE NO.: 18BGMW12-001

START (Date): 2/2/96 (Time): 1220 | END (Date): 2/2/96 (Time): 1250

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy / Sunny (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 155.27 | FINAL DTW: 186.80

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

~~155~~ 210 - 155.27 = 54.73 x 36.12 Gal./Csg Vol. x 3 Csg. Vol. = 108 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1223	3	10.5	24.4	6.84	1.86	4	6.02		no	cloudy
1226	6	21	24.4	6.62	0.874	4	6.00		"	"
1229	9	31.5	24.6	6.64	1.04	3	5.83		"	"
1232	12	42	24.4	6.70	1.35	4	6.02		"	"
1235	15	52.5	24.4	6.78	1.70	4	6.29		"	"
1238	18	63	24.6	6.83	1.95	4	6.29		"	"
1241	21	73.5	24.8	6.87	2.10	3	6.35		"	"
1244	24	84	24.9	6.93	2.31	1	6.32		"	"
1247	27	94.5	24.9	6.91	2.35	2	6.33		"	"
1250	30	105	25.0	6.89	2.37	3	6.29	.10	"	"
Duplicate			25.1	6.82	2.37	4	6.25	10	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW14 | SAMPLE NO.: 18BGMW14-001

START (Date): 2/16/96 (Time): 1300 | END (Date): 2/16/96 (Time): 1328

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny (80s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 69.95 | FINAL DTW: 69.98

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME				
			4" - 0.66			
			5" - 0.93			
			6" - 1.50			
120 -	69.95 =	50.05 x	33.03 Gal./Csg Vol.	x 3 Csg. Vol.	= 99 Gal.	

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1301	1	3.5	22.8	6.62	1.75	0	9.99		no	clear
1304	4	14	22.6	6.47	1.74	0	9.96		"	"
1307	7	24.5	22.5	6.47	1.72	0	9.90		"	"
1310	10	35	22.5	6.44	1.73	0	9.87		"	"
1313	13	45.5	22.4	6.44	1.73	0	9.87		"	"
1316	16	56	22.4	6.43	1.73	0	9.77		"	"
1319	19	66.5	22.4	6.44	1.74	0	9.79		"	"
1322	22	77	22.4	6.43	1.73	0	9.77		"	"
1325	25	87.5	22.4	6.43	1.73	0	9.73		"	"
1328	28	98	22.4	6.42	1.72	0	9.69	160	"	"
Duplicate			22.5	6.41	1.72	0	9.64	160	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 18BGMW15 | SAMPLE NO.: 18BGMW15-001

START (Date): 2/2/96 (Time): 0913 | END (Date): 2/2/96 (Time): 0943

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy/Sunny (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of ToC

OVM READING: | ORIG. DTW: 165.79 | FINAL DTW: 180.75

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	(4" - 0.66) 5" - 0.93 6" - 1.50				
220	- 165.79	= 54.21	x 35.78	Gal./Csg Vol.	x 3 Csg. Vol.	= 107	Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0916	3	10.5	23.2	6.43	2.69	4	7.23		no	clear
0919	6	21	23.2	6.89	2.46	19	7.28		"	"
0922	9	31.5	23.3	6.95	2.40	12	7.24		"	"
0925	12	42	23.3	6.98	2.37	3	7.30		"	"
0928	15	52.5	23.3	6.99	2.36	0	7.21		"	"
0931	18	63	23.5	6.97	2.37	1	7.06		"	"
0934	21	73.5	23.6	6.96	2.39	3	6.91		"	"
0937	24	84	23.6	6.93	2.42	3	6.79		"	"
0940	27	94.5	23.7	6.93	2.44	2	6.77		"	"
0943	30	105	23.7	6.92	2.46	3	6.95	245	"	"
Duplicate			23.8	6.91	2.48	5	6.91	245	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW16 | SAMPLE NO.: 18BGMW16-001

START (Date): 1/19/96 (Time): 1105 | END (Date): 1/19/96 (Time): 1150

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Overcast, calm, 55°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 217.68 | FINAL DTW: 218.58

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50				
268	- 217.68	= 50.32	x 46.80	Gal./Csg Vol.	x 3 Csg. Vol.	= 140.39	Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
10	5	20	23.6	6.89	1.49	58	8.92	60	No	Amber color
1115	10	40	24.1	7.04	1.49				No	
1120	15	~~80~~ 60	24.5	7.01	1.50				No	water clear DTW=218.54
1125	20	~~120~~ 80	24.8	7.08	1.49				No	
1130	25	100	24.7	7.03	1.50	68	7.62	80	No	DTW=218.58
1150	45	180								Shut pump off

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides (X)
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW17 | SAMPLE NO.: 18BGMW17-001

START (Date): 1/29/96 (Time): 0840 | END (Date): 1/29/96 Time): 1015

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Overcast, calm, 60°F

FIELD PERSONNEL'S NAME(S): Scott Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: — | ORIG. DTW: 140.08 | FINAL DTW: 144.32

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME						
			4" - 0.66					
			5" - 0.93					
			6" - 1.50					
260	- 140.08	= 119.92	x	111.53 Gal./Csg Vol.	x	3 Csg. Vol.	=	334.58 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~(umhos/cm)~~ mS/cm	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0843	3	15	21.0	6.78	1.25	292	7.25	155	No	
0855	15	75	22.0	7.12	1.23				No	DTW = 148.30
0910	30	150	22.1	7.13	1.24				No	DTW = 149.62. Pump off @ 0915
0950	45	225	22.4	7.14	1.24				No	Pump on @ 0945. DTW = 144
1000	55	275	22.5	7.15	1.24				No	
1005	60	300	22.8	7.13	1.25	122	8.44	90	No	DTW = 144.32

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Peristaltic~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 18BGMW18 | SAMPLE NO.: 18BGMW18-001

START (Date): 2/5/96 (Time): 1238 | END (Date): 2/5/96 (Time): 1308

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny/Cloudy (70s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 131.41 | FINAL DTW: 142.31

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME					
			4" - 0.66				
			5" - 0.93				
			6" - 1.50				
185	131.41	= 53.59	x	35.37 Gal./Csg Vol.	x	3 Csg. Vol.	= 106 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
41	3	10.5	23.5	6.97	1.44	2	11.14		~~yes~~	clear
1244	6	21	23.5	6.96	1.42	2	11.21		"	"
1247	9	31.5	23.5	6.97	1.43	2	11.13		"	"
1250	12	42	23.5	6.98	1.41	2	11.07		"	"
1253	15	52.5	23.3	6.94	1.41	2	11.16		"	"
1256	18	63	23.4	6.93	1.44	2	11.00		"	"
1259	21	73.5	23.5	6.93	1.46	2	11.31		"	"
1302	24	84	23.6	6.92	1.46	2	11.16		"	cloudy
1305	27	94.5	23.6	6.91	1.48	2	11.12		"	"
1308	30	105	23.6	6.91	1.48	2	11.14	245	"	"
Duplicate			23.6	6.91	1.49	2	11.15	245	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW19A | SAMPLE NO.: 18BGMW19A-001

START (Date): 3/1/96 (Time): 0900 | END (Date): 3/1/96 Time: 1100

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" ✓ | WEATHER: Cloudy / sunny (60s) → sunny (80s)

FIELD PERSONNEL'S NAME(S): Min Davis / Brian Trinh

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 90.32 | FINAL DTW: 90.26

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 5" - 0.93 6" - 1.50				
473	-	90.32	=	382.68	x	356	Gal./Csg Vol.	x	3 Csg. Vol.	= 1068 Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 4.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0924	24	108	23.0	6.28	1.16	~~468~~ 0	7.69		no	Clear
0948	48	216	24.0	6.90	1.14	0	7.68		"	"
1012	72	324	25.3	6.91	1.14	0	7.72		"	"
1036	96	432	25.5	6.93	1.14	0	7.65		"	"
1100	120	540	26.0	6.84	1.13	0	7.67		"	"
Duplicate			26.1	6.84	1.13	0	7.65		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW19B | SAMPLE NO.: 18BGMW19B-001

START (Date): 3/1/96 (Time): 0905 | END (Date): 3/1/96 Time: 1255

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓) | WEATHER: Cloudy / sunny (60s) → sunny (80s)

FIELD PERSONNEL'S NAME(S): Min Davis / Brian Trinh

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 91.90 | FINAL DTW: ~~[illegible]~~ 91.90

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50
425	91.90	333.1	309.18 Gal./Csg Vol.

= 333.1 x 309.18 Gal./Csg Vol. x 3 Csg. Vol. = 929 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
951	46	92	23.0	6.89	1.05	~~87~~ 95	7.73		no	Clear
237	92	184	25.6	7.15	1.06	23	7.84		"	"
1123	138	276	26.0	7.18	1.07	8	7.74		"	"
1209	184	368	25.7	7.14	1.06	0	7.80		"	"
1255	230	460	25.3	7.10	1.06	0	7.77		"	"
Duplicate			25.4	7.10	1.06	0	7.77		"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206

TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW19C

SAMPLE NO.: 18BGMW19C

START (Date): 2/29/96 (Time): 1830

END (Date): 2/29/96 (Time): 1930

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (✓)

WEATHER: Cloudy (60s)

FIELD PERSONNEL'S NAME(S): Min Davis / Brian Trinh

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING:

ORIG. DTW: 90.57

FINAL DTW: 90.99

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50

282 . 90.57 = 191.43 x 1.78 Gal./Csg Vol. x 3 Csg. Vol. = 534 Gal.

PURGE WATER CONTAINERIZED? YES

AVERAGE PURGE RATE: 4.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles observed? (yes/no)	COMMENT
1842	12	54	22.8	7.04	1.82	0	8.99		no	clear
1854	24	108	23.2	7.03	1.85	0	8.85		"	"
1906	36	162	23.5	6.94	1.85	0	8.82		"	"
1918	48	216	23.9	6.89	1.85	0	8.65		"	"
1930	60	270	23.7	6.90	1.85	0	8.80		"	"
Duplicate			23.8	6.91	1.85	0	8.82		"	"

Air Entrainment Survey (✓) Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)

Unfiltered Metals (✓) Pesticides (✓) Herbicides ( )

Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (X) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW19D | SAMPLE NO.: 18BGMW19D-001

(Date): 2/16/96 (Time): 1130 | END (Date): 2/16/96 Time): 1405

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER: Clear

FIELD PERSONNEL'S NAME(S): Mike Oliphant

REFERENCE POINT OF DEPTH MEASUREMENT: TOC

OVM READING: 0 | ORIG. DTW: 90.85 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50

175 - 90.85 = 84.15 x 78.26 Gal./Csg Vol. x 3 Csg. Vol. = 234.78 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1200	0	0	—	—	—	—	—	—	—	
12	12	24	25.4	6.91	2.32	3	9.18	225	N	
24	12	48	25.1	6.93	2.33	11	9.15	225	N	
1236	12	72	25.0	6.91	2.33	1	9.06	225	N	
1248	12	96	25.0	6.91	2.33	1	8.90	225	N	
1300	12	120	25.0	6.93	2.33	-2	8.76	220	N	
1312	12	144	24.8	6.91	2.35	-1	8.67	220	N	
1324	12	168	24.9	6.91	2.35	2	8.63	220	N	
1336	12	192	24.9	6.91	2.35	3	8.59	225	N	
1348	12	216	25.1	6.97	2.41	-5	8.41	215	N	
1400	12	240	25.0	6.93	2.41	-7	8.39	205	N	

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (✓)

PURGING LOG

WELL NO.: 18BGMW19E | SAMPLE NO.: 18BGMW19E-001

START (Date): 2/6/96 (Time): 1229 | END (Date): 2/6/96 (Time): 1259

WELL CASING DIAMETER: 2" ( ) 4" (✓) 6" ( ) | WEATHER: Sunny (70s)

FIELD PERSONNEL'S NAME(S): MAD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 91.47 | FINAL DTW: 114.62

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

143 - 91.47 = 51.53 x 34.01 Gal./Csg Vol. x 3 Csg. Vol. = 102 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1232	3	10.5	22.6	6.73	2.28	0	8.27		no	clear
1235	6	21	22.6	6.77	2.27	0	7.86		"	"
1238	9	31.5	22.7	6.73	2.29	0	7.89		"	"
1241	12	42	22.7	6.76	2.30	0	7.92		"	"
1244	15	52.5	22.8	6.77	2.29	0	7.81		"	"
1247	18	63	22.9	6.76	2.28	0	7.72		"	"
1250	21	73.5	22.8	6.74	2.29	0	7.70		"	"
1253	24	84	22.8	6.72	2.30	0	7.67		"	"
1256	27	94.5	22.7	6.72	2.30	0	7.69		"	"
1259	30	105	22.8	6.75	2.27	0	7.74	255	"	"
Duplicate			22.8	6.74	2.27	0	7.70	255	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides (✓) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

.L NO.: 18BG-MW22 | SAMPLE NO.: 18BG-MW22-001

START (Date): 1/22/96 (Time): 1735 | END (Date): 1/22/96 (Time): 1827

WELL CASING DIAMETER: 2" ( ) 4" ( ) 5" (X) | WEATHER Clear, calm, 55°F

FIELD PERSONNEL'S NAME(S): Scot Martin's

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 234.70 | FINAL DTW: 235.09

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 5" - 0.93 6" - 1.50

292 - 234.70 = 57.30 x 5.28 Gal./Csg Vol. x 3 Csg. Vol. = 159.87 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
740	5	10	21.7	7.19	1.27	33	6.76	110	No	Cloudy
150	25	30	22.7	7.33	1.28				No	Clear
1800	25	50	23.5	7.33	1.27				No	
1810	35	70	23.5	7.33	1.27				No	
1815	40	80	23.7	7.34	1.27	10	5.82	160	No	

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18BGMW23 | SAMPLE NO.: 18BGMW23-001

START (Date): 2/19/96 (Time): 1012 | END (Date): 2/19/96 (Time): 1052

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy/Sunny (70s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 28.55 | FINAL DTW: 28.70

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD		ORIGINAL DTW		CASING VOLUME		4" - 0.66 (circled) 5" - 0.93 6" - 1.50				
109	-	28.55	=	80.45	x	53.1	Gal./Csg Vol.	x	3 Csg. Vol.	= 159 Gal.

PURGE WATER CONTAINERIZED? YES (circled) | AVERAGE PURGE RATE: 4 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1016	4	16	21.3	6.31	1.25	39	8.90		~~yes~~	silty
1020	8	32	21.4	6.53	1.24	37	8.89		"	"
1024	12	48	21.4	6.60	1.24	36	8.91		"	cloudy
1028	16	64	21.4	6.66	1.23	39	8.88		"	"
1032	20	80	21.4	6.69	1.23	39	8.88		"	clear
1036	24	96	21.3	6.67	1.23	39	8.82		"	"
1040	28	112	21.4	6.67	1.22	39	8.83		"	"
1044	32	128	21.4	6.69	1.23	39	8.85		"	"
1048	36	144	21.4	6.69	1.23	39	8.84		"	"
1052	40	160	21.4	6.66	1.22	39	8.82	215	"	"
Duplicate			21.4	6.66	1.22	39	8.79	215	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW24 | SAMPLE NO.: 18BGMW24-001

START (Date): 2/7/96 (Time): 1345 | END (Date): 2/7/96 (Time): 1420

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Clear, calm, 80°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of sounding tube

OVM READING: ——— | ORIG. DTW: 48.32 | FINAL DTW: 52.51

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME		
		4" - 0.66		
		5" - 0.93		
		6" - 1.50		
76	~~34.38~~ 34.38	~~27.68~~ 41.62	~~18.27~~ 27.47	82.41

76 - ~~34.38~~ 34.38 = ~~27.68~~ 41.62 x ~~18.27~~ 27.47 Gal./Csg Vol. x 3 Csg. Vol. = ~~54.81~~ 82.41 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 7 gpm @ 375 ft

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1347	2	14	22.2	7.26	1.00	-10	12.05	230	No	
1350	5	35	21.9	7.28	1.00				Yes	DTW=39.98
1353	8	56	21.8	7.28	1.01				No	
1356	11	77	21.9	7.28	1.00				No	DTW=47.34
1359	14	98	21.7	7.27	1.00	1	11.69	240	No	DTW=52.51

Air Entrainment Survey ( ) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Portable~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA ( ) Filtered Metals (X)

Unfiltered Metals (X) Pesticides ( ) Herbicides ( )

Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

MMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump ( ) Dedicated Pump (X)

PURGING LOG

WELL NO.: 18BGMW101 | SAMPLE NO.: 18BGMW101-001

START (Date): 1/29/96 (Time): 1115 | END (Date): 1/29/96 (Time): 1155

WELL CASING DIAMETER: 2" ( ) 4" (X) 5" ( ) | WEATHER: Partly cloudy, calm, 70°F

FIELD PERSONNEL'S NAME(S): Scot Mathis

REFERENCE POINT OF DEPTH MEASUREMENT: Top of Sounding tube

OVM READING: — | ORIG. DTW: 80.78 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (X)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME					
		4" - 0.66					
		~~0.83~~ 6" - 1.50					
135	- 80.78	= 54.22	x	35.79 Gal./Csg Vol.	x	3 Csg. Vol.	= 107.36 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 8/3 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~(umhos/m)~~ mS/cm	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1118	3	24	22.1	7.00	2.12	34	8.25	180	Yes	DTW=83.16'
1120	5	40	22.5	6.96	2.12				No	
1125	10	80	22.7	7.00	2.14				No	DTW=83.44
1128	13	104								Reduced flow to 3gpm
1130	15	110	22.9	6.94	2.12				No	
1135	20	125	23.0	6.96	2.15	84	8.92	105	No	DTW=81.48

Air Entrainment Survey (X) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) ~~Bailer~~ Pump (X)

LAB ANALYSES: VOA (X) SVOA (X) Filtered Metals (X)
Unfiltered Metals (X) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (X) Treatability Parameters ( )

COMMENT: Very fine bubbles observed in discharge at both 8gpm & 3gpm.

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO. 180W135 | SAMPLE NO.: 180W135-001

START (Date): 2/19/96 (Time): 1342 | END (Date): 2/19/96 (Time): 1400

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy/windy (60s)

FIELD PERSONNEL'S NAME(S): MD

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING:- | ORIG. DTW: 117.06 | FINAL DTW: 117.08

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50				
135	- 117.06	= 17.94	x 11.84	Gal./Csg Vol.	x 3 Csg. Vol.	= 36	Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 2 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.u.)	COND. (umhos/m)	TURB. (NTU)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1343	1	2	23.7	6.76	2.62	40	7.88		no	clear
1344	2	4	23.8	6.67	2.67	39	7.79		"	"
1346	4	8	23.9	6.65	2.70	5	7.80		"	"
1348	6	12	24.0	6.64	2.75	6	7.67		"	"
1350	8	16	24.0	6.64	2.79	38	7.69		"	"
1352	10	20	24.1	6.64	2.83	40	7.61		"	"
1354	12	24	24.0	6.65	2.85	41	7.49		"	"
1356	14	28	24.1	6.64	2.87	40	7.53		"	"
1358	16	32	24.1	6.65	2.88	39	7.50		"	"
1400	18	36	24.1	6.64	2.87	39	7.50	250	"	"
Duplicate			24.1	6.62	2.87	39	7.52	250	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA ( ) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters (✓)

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18DW250 | SAMPLE NO.: 18DW250 - 001

START (Date): 1/31/96 (Time): 0919 | END (Date): 1/31/96 (Time): 1120

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Rainy (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 115.65 | FINAL DTW:

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME					
			4" - 0.66				
			5" - 0.93				
			6" - 1.50				
254 -	115.65 =	138.35 x	91.311 Gal./Csg Vol.	x 3 Csg. Vol.	= 274 Gal.		

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 2.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (umhos/m)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
0930	11	27.5	22.2	6.48	1.04	0	7.68		no	clear
0941	22	55	22.3	6.73	1.04	31	7.51		"	"
0952	33	82.5	22.4	6.83	1.04	1	7.40		"	"
1003	44	110	22.5	6.86	1.05	31	7.41		"	"
1014	55	137.5	22.7	6.86	1.05	0	7.39		"	"
1025	66	165	22.9	6.86	1.04	0	7.33		"	"
1036	77	192.5	22.9	6.88	1.04	0	7.34		"	"
1058	88	220	23.0	6.87	1.04	1	7.36		"	"
1109	99	247.5	23.0	6.90	1.04	0	7.40		"	"
1120	110	275	23.1	6.91	1.05	0	7.42	75	"	"
Duplicate			23.1	6.90	1.05	0	7.39	75	"	"

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

LL NO.: 180W350 | SAMPLE NO.: 180W350-001

START (Date): 1/29/96 (Time): 0925 | END (Date): 1/29/96 (Time): 1216

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny/Cloudy (60s)

FIELD PERSONNEL'S NAME(S): M. Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 114.78 | FINAL DTW: 115.51

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	
			4" - 0.66
			5" - 0.93
			6" - 1.50

350 - 114.78 = 235.22 x 155.25 Gal./Csg Vol. x 3 Csg. Vol. = 466 Gal.

PURGE WATER CONTAINERIZED? YES | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~(umhos/cm)~~ (mS/cm)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
941	16	56	23.0	6.21	0.562	25	7.44		no	clear
954	29	101.5	24.0	7.38	0.640	29	7.27		no	clear
1023	42	147	24.3	7.03	0.966	37	7.12		no	clear
1036	55	192.5	24.5	7.01	0.983	39	7.02		no	silty
1049	68	238	24.6	7.01	0.984	62	7.00		no	silty
1102	81	283.5	24.7	7.02	0.983	37	7.05		no	slightly silty
1117	94	329	24.8	7.01	0.975	31	7.48		no	slightly silty
1130	107	374.5	24.9	7.02	0.982	7	7.44		no	slightly silty
1203	120	420	25.1	7.00	0.978	49	7.38		no	slightly silty
1216	133	465.5	25.2	7.01	0.985	36	7.44	125	no	slightly silty
Duplicate			25.3	7.01	0.980	36	7.44	125		

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

WELL NO.: 18DW 450 | SAMPLE NO.: 18DW450-001

START (Date): 1/29/96 (Time): 1440 | END (Date): 1/29/96 (Time): 1810

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Sunny/Cloudy (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 113.81 | FINAL DTW: 114.21

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME	4" - 0.66 / 5" - 0.93 / 6" - 1.50				
454	113.81	= 340.19	x 224.53 Gal./Csg Vol.	x 3 Csg. Vol.	= 674 Gal.		

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3.5 gpm

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. (~~umhos/cm~~ mS/cm)	TURB. (NTa)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
1501	21	73.5	24.0	7.64	0.715	80	7.80		no	clear
1520	40	140	24.2	7.30	0.780	31	8.05		no	clear
1539	59	206.5	24.4	7.23	0.800	29	7.79		no	clear
1602	78	273	24.6	7.01	1.03	47	7.80		no	clear
1621	97	339.5	24.8	7.02	1.04	31	8.05		no	clear
1640	116	406	24.0	7.01	1.04	0	7.90		no	clear
1707	135	472.5	24.7	6.99	1.00	0	7.81		no	clear
1726	154	539	24.8	6.99	1.05	0	7.88		no	clear
1745	173	605.5	24.8	6.99	1.05	0	8.01		no	clear
1810	192	672	24.8	6.99	1.04	0	8.09	145	no	clear
Duplicate			24.8	6.99	1.03	0	8.09	145	no	clear

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

COMMENT:

MARINE CORPS EL TORO GROUNDWATER MONITORING WELL PURGING AND SAMPLING LOG

PROJECT NO.: 6206 | TEAM: Westbay ( ) 2" Pump (✓) Dedicated Pump ( )

PURGING LOG

L NO.: 18DW540 | SAMPLE NO.: 18DW540-WC1

START (Date): 1/30/96 (Time): 0844 | END (Date): 1/30/96 (Time): 1930

WELL CASING DIAMETER: 2" ( ) 4" (✓) 5" ( ) | WEATHER: Cloudy (60s)

FIELD PERSONNEL'S NAME(S): Min Davis

REFERENCE POINT OF DEPTH MEASUREMENT: N. side of TOC

OVM READING: | ORIG. DTW: 114.16 | FINAL DTW: 115.57

PURGE METHOD: Packers ( ) Multiple Port ( ) Teflon Bailer ( ) Submersible Grundfos Pump (✓)

MEASURED WELL TD	ORIGINAL DTW	CASING VOLUME						
			4" - 0.66					
			5" - 0.93					
			6" - 1.50					
541	114.16	= 426.84	x	281.71	Gal./Csg Vol.	x 3 Csg. Vol.	= 845	Gal.

PURGE WATER CONTAINERIZED? (YES) | AVERAGE PURGE RATE: 3.5 gpm / for first 2 readings. 1.67 gpm / for next 8 readings.

ACTUAL TIME	ELAPSED TIME	VOLUME PURGED (gal.)	TEMP. (oF)	pH (s.a.)	COND. ~~(umhos/cm)~~ (mS/cm)	TURB. (NTu)	DISSOLVED OXYGEN (mg/l)	REDOX (mV)	Air Bubbles Observed? (yes/no)	COMMENT
909	25	87.5	25.0	6.75	1.04	76	6.77		no	silty
933	49	171.5	25.1	6.97	1.04	67	6.73		no	silty
1110	109 ~~73~~	255.5	25.1	7.01	1.05	52	6.96		no	silty
1200	159 ~~97~~	339.5	25.3	7.03	1.05	35	6.77		no	silty
1320	200 ~~121~~	423.5	24.9	6.99	1.04	21	6.85		no	silty
1410	250 ~~145~~	507.5	24.8	6.95	1.05	13	6.75		no	silty
1500	300 ~~169~~	591.5	24.9	6.95	1.05	3	6.64		no	silty
1550	350 ~~193~~	675.5	24.9	6.91	1.04	43	6.55		no	slightly silty
1640	400 ~~219~~	759.5	24.9	6.91	1.05	17	6.43		no	slightly silty
1730	450 ~~241~~	843.5	24.9	6.90	1.05	3	6.51		no	slightly silty
duplicate			24.9	6.91	1.05	21	6.47			

Air Entrainment Survey (✓) | Field Blanks ( )

SAMPLING LOG

SAMPLING METHOD: Packer ( ) Westbay ( ) Portable Pump (✓)

LAB ANALYSES: VOA (✓) SVOA (✓) Filtered Metals (✓)
Unfiltered Metals (✓) Pesticides ( ) Herbicides ( )
Gross Alpha/Beta ( ) General Chemistry (✓) Treatability Parameters ( )

MMENT: Due to continuous drop in water level at this well, I'd to decrease the purging rate.

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18MCAS01-1-001 Depth 65' Date 1/24/96

Drillhole No. MW01 Sampling Zone No. Zone 1 Starting Time 1515 Finishing Time 1645

Technicians Mike Olphant

Water Level Inside MP Casing (Beginning of Session) 122.65 (End of Session) 122.65

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	14.54	✓	31.19	✓	✓	✓	14.73	1l	
2	✓	✓	✓	✓	✓	✓	14.53	✓	31.14	✓	✓	✓	14.54	1l	
3	✓	✓	✓	✓	✓	✓	14.53	✓	31.14	✓	✓	✓	14.54	1l	
4	✓	✓	✓	✓	✓	✓	14.53	✓	31.09	✓	✓	✓	14.54	1l	
5	✓	✓	✓	✓	✓	✓	14.54	✓	31.12	✓	✓	✓	14.54	1l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1530/pH = 7.20; COND = 2.07mSem; Turb = 2NTU; DO = 8.25mg; Temp 18.2°C; ORP = 230mV

1640/pH = 7.57; cond = 2.06mSem; Turb = 2; DO = 11.57mg; Temp = 19.2°C; ORP = 230mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCASEL TORO Location 18MCAS01-2.001 Depth 155' Date 1/24/96

Drillhole No. MW01 Sampling Zone No. 2 Starting Time 1330 Finishing Time 1455

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 122.27 (End of Session) 122.64

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	32.33	✓	69.84	✓	✓	✓	32.47	1l	
2	✓	✓	✓	✓	✓	✓	32.38	✓	69.89	✓	✓	✓	32.47	1l	
3	✓	✓	✓	✓	✓	✓	32.35	✓	69.86	✓	✓	✓	32.45	1l	
4	✓	✓	✓	✓	✓	✓	32.41	✓	69.79	✓	✓	✓	32.42	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1330 / pH = 6.82; cond = 3.01 mSm; Turb = 4 NTu; DO = 8.11 mg; Temp = 19.5°C; ORP = 200 mV

1455 / pH = 7.26; cond = 3.01 mSm; Turb = 2 NTu; DO = 8.20 mg; Temp = 18.2°C

ORP = 245 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18MCAS01-3-001 Depth 215 Date 1/18/95

Drillhole No. MW01 Sampling Zone No. 3 Starting Time 1530 Finishing Time 1700

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 122.80 (End of Session) 123.04

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

	Surface Function Checks					Position Sampler	Sample Collection Checks								
Run No.	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	58.29	✓	95.21	✓	✓	✓	58.29	1 l	
2	✓	✓	✓	✓	✓	✓	58.24	✓	95.18	✓	✓	✓	58.27	1 l	
3	✓	✓	✓	✓	✓	✓	58.24	✓	95.16	✓	✓	✓	58.24	1 l	
4	✓	✓	✓	✓	✓	✓	58.24	✓	95.18	✓	✓	✓	58.24	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1530 ~~1540~~ / pH=7.10; cond.=222 mScm; TURB.=10 NTU; DO=10.58 mg; Temp=20.8°C; ORP=165 mV

1650 / pH=7.31; cond. =22 mScm; TURB=10 NTU; DO=11.28 mg; Temp=20.8°C; ORP 165 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18MCAS01-4-001 Depth 275' Date 1118195

Drillhole No. mw01 Sampling Zone No. 4 Starting Time 1330 Finishing Time 1457

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 122.48 (End of Session) 122.80

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	84.47	✓	117.29	✓	✓	✓	84.47	1l	
2	✓	✓	✓	✓	✓	✓	84.47	✓	117.29	✓	✓	✓	84.47	1l	
3	✓	✓	✓	✓	✓	✓	84.40	✓	117.27	✓	✓	✓	84.40	1l	
4	✓	✓	✓	✓		✓	84.37	✓	117.27	✓	✓	✓	84.42	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1330 / pH = 7.08 ; cond = 177 mScm ; TURB = 10 NTu ; DO = 8.70 mg ; Temp = 20.6°C
ORP = 170 mV
1450 / pH = 7.46 ; cond = 178 mScm ; TURB. = 0 NTu ; DO = 9.08 mg ; ~~[illegible]~~
Temp = 18.4 °C ; ORP = 165 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS ELTORO Location 18MCAS01-5-001 Depth 335' Date 1/18/96

Drillhole No. MW-5 Sampling Zone No. Zone 5 Starting Time 1115 Finishing Time 1305

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 122.18 (End of Session) 122.48

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Ambient 14.46 19.63°C

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	110.72	✓	143.51	✓	✓	✓ 110.74 →		1l	
2	✓	✓	✓	✓	✓	✓	110.69	✓	143.51	✓	✓	✓	110.72	1l	
3	✓	✓	✓	✓	✓	✓	110.65	✓	143.49	✓	✓	✓	110.67	1l	
4	✓	✓	✓	✓	✓	✓	110.62	✓	143.49	✓	✓	✓	110.62	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : 4l

Field Determinations (Appearance, pH, S.C., etc.) 1140 / pH=7.32; cond.=1.35 mScm; TURB.=10 NTu; DO=8.57 mg; Temp=20.9°C; ORP=165 mV

1245 / pH=7.60; cond. - 1.35 mScm; TURB=1 NTu; DO=8.55 mg; Temp=20.7 °C; ORP 90 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18MCAS01 -6 Depth 455 Date 1/18/96

Drillhole No. MW-01 Sampling Zone No. Zone 6 Starting Time 0800 Finishing Time 1035

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 122.08 (End of Session) ~~1035~~ 1035 122.18

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Ambient 14.50 13.61 °C

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	163.03	✓	195.12	✓	✓	✓ 162.97 →		1l	
2	✓	✓	✓	✓	✓	✓	163.03	✓	195.14	✓	✓	✓	163.02	1l	
3	✓	✓	✓	✓	✓	✓	162.98	✓	195.14	✓	✓	✓	162.94	1l	
4	✓	✓	✓	✓	✓	✓	162.91	✓	195.14	✓	✓	✓	162.92	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 0855/ pH=6.33; cond=130 mS/cm; Turb=10 NTU; DO=8.74 mg Temp 18.5°C ORP= 190 mV

1028 / pH=7.01 ; cond=125 mS/cm; Turb= 1 NTU; DO=8.65 mg; Temp=19.2°C; ORP=160 mV

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS ELTORO Location 18MCAS01 Depth 545' Date 1/17/96

Drillhole No. MW-01 Sampling Zone No. 7 Starting Time 1402 Finishing Time 1715

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 123.45 (End of Session) 121.75

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

AMBIENT 14:36 / 19.11°C

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	201.22	✓	231.66	✓	✓	✓	201.20	1 l	
2	✓	✓	✓	✓	✓	✓	201.21	✓	231.45	✓	✓	✓	201.20	1 l	
3	✓	✓	✓	✓	✓	✓	201.18	✓	231.35	✓	✓	✓	201.54	1 l	sample discarded (FACE SEAL)
4	✓	✓	✓	✓	✓	✓	202.15	✓	231.35	✓	✓	✓	202.12	1 l	
5	✓	✓	✓	✓	✓	✓	202.13	✓	231.26	✓	✓	✓	202.12	1 l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.) 1434 / pH = 5.47; cond = 1.04 mScm; TURB = 10; D.O = 8.48 mg; Temp = 21.0°C; ORP less than -35 mV went out of Range on meter.

1707 / pH = 6.25; cond = ~~0.487~~ 101 mScm; TURB = 13 NTU; DO = 9.63 mg Temp = 18.9°C

ORP = less than - mV [illegible]

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El Toro Location 18MCAS02-1001 Depth 45' Date 1/30/96
Drillhole No. MW2 Sampling Zone No. Zone 1 Starting Time 1350 Finishing Time 1650
Technicians Mike Olyphant
Water Level Inside MP Casing (Beginning of Session) 120.81 (End of Session) 120.81
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks: Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Position Sampler: Deactivate Set Arm Locate Port	Sample Collection Checks: Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	Comments
1	✓	✓	✓	✓	✓	✓	14.39	✓	19.54	✓	✓	✓	14.46	1/2 l	
2	✓	✓	✓	✓	✓	✓	14.51	✓	19.51	✓	✓	✓	14.46	1 l	
3	✓	✓	✓	✓	✓	✓	14.46	✓	19.51	✓	✓	✓	14.41	1 l	
4	✓	✓	✓	✓	✓	✓	14.46	✓	19.51	✓	✓	✓	14.55	1/2 l	
5	✓	✓	✓	✓	✓	✓	14.46	✓	19.53	✓	✓	✓	14.51	1/2 l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1400	18.5	7.20	3.52	0	—	270	
1640	18.2	7.09	3.52	77	—	270	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18MCAS02-2-001 Depth 135' Date 1/30/96

Drillhole No. MW2 Sampling Zone No. Zone 2 Starting Time 1215 Finishing Time 1330

Technicians Mike Olyphant

Water Level Inside MP Casing (Beginning of Session) 124.38 (End of Session) 120.81

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	23.33	✓	57.61	✓	✓	✓	23.45	1/2 l	
2	✓	✓	✓	✓	✓	✓	23.35	✓	58.10	✓	✓	✓	23.59	1 l	
3	✓	✓	✓	✓	✓	✓	23.79	✓	58.10	✓	✓	✓	24.10	1 l	
4	✓	✓	✓	✓	✓	✓	24.20	✓	58.07	✓	✓	✓	24.44	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1235	18.6	.78	3.57	2	—	235	
1325	19.5	.92	3.60	2	—	260	

Westbay

Groundwater Sampling
Field Data Sheet

Project MCAS El TORO Location 18MCAS02-3-001 Depth 205 Date 1/30/96
Drillhole No. MW2 Sampling Zone No. Zone 3 Starting Time 0945 Finishing Time 1200
Technicians Mike Olphant
Water Level Inside MP Casing (Beginning of Session) 124.68 (End of Session) 124.38
Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	53.16	✓	87.06	✓	✓	✓	53.60	1l	
2	✓	✓	✓	✓	✓	✓	53.50	✓	87.04	✓	✓	✓	53.55	1l	
3	✓	✓	✓	✓	✓	✓	53.57	✓	86.99	✓	✓	✓	53.60	1l	
4	✓	✓	✓	✓	✓	✓	53.60	✓	87.06	✓	✓	✓	53.62	1l	
5	✓	✓	✓	✓	✓	✓	53.69	✓	87.01	✓	✓	✓	53.67	1l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1030	17.9	6.43	1.65	0	9.38	145	
1150	19.4	6.87	1.66	1	8.91	205	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18 MCAS02-4-001 Depth 375' Date 1/29/96

Drillhole No. MW2 Sampling Zone No. zone 4 Starting Time 1630 Finishing Time 1750

Technicians Mike Olyphant

Water Level Inside MP Casing (Beginning of Session) 125.95 (End of Session) 125.90

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	126.80	✓	159.80	✓	✓	✓	126.87	1l	
2	✓	✓	✓	✓	✓	✓	126.81	✓	159.77	✓	✓	✓	126.81	1l	
3	✓	✓	✓	✓	✓	✓	126.87	✓	159.75	✓	✓	✓	126.87	1l	
4	✓	✓	✓	✓	✓	✓	126.97	✓	159.78	✓	✓	✓	127.07	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1645	19.4	7.76	1.68	-5	8.60	45	
1740	19.8	60	1.70	180	8.28	245	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El Toro Location 18MCAS02-5-001 Depth 425' Date 1/29/96

Drillhole No. MW2 Sampling Zone No. zone 5 Starting Time 1430 Finishing Time 1610

Technicians Mike Olephant

Water Level Inside MP Casing (Beginning of Session) 125.90 (End of Session) 125.95

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	148.34	✓	182.20	✓	✓	✓	148.29	1l	
2	✓	✓	✓	✓	✓	✓	148.27	✓	182.17	✓	✓	✓	148.29	1l	
3	✓	✓	✓	✓	✓	✓	148.22	✓	182.10	✓	✓	✓	148.51	1l	
4	✓	✓	✓	✓	✓	✓	148.39	✓	182.12	✓	✓	✓	148.51	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1445	19.0	7.48	1.55	-5	8.21	250	—
1605	18.6	7.67	1.58	-7	8.73	260	/

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18MCAS02-6-001 Depth 495' Date 1/29/96

Drillhole No. MW2 Sampling Zone No. Zone 6 Starting Time 1250 Finishing Time 1415

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 125.58 (End of Session) 125.90

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	179.79	✓	209.46	✓	✓	✓	178.85	1l	
2	✓	✓	✓	✓	✓	✓	179.43	✓	209.34	✓	✓	✓	178.85	1l	
3	✓	✓	✓	✓	✓	✓	178.84	✓	209.36	✓	✓	✓	178.80	1l	
4	✓	✓	✓	✓	✓	✓	178.79	✓	209.31	✓	✓	✓	178.73	1l	
5															
6															
7															
8															
9															
10															
11															
12															

10-03-93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1315	18.4	7.31	2.66	-5	9.31	225	—
1410	19.3	70	2.42	-6	8.43	255	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18MCAS02-7-001 Depth 555' Date 1/29/95

Drillhole No. MW2 Sampling Zone No. Zone 7 Starting Time 1120 Finishing Time 1235

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 125.51 (End of Session) 125.58

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	~~[illegible]~~ ✓	204.99	✓	235.82	✓	✓	✓	204.96	1 l	
2	✓	✓	✓	✓	✓	✓	204.87	✓	235.66	✓	✓	✓	204.84	1 l	
3	✓	✓	✓	✓	✓	✓	204.91	✓	235.57	✓	✓	✓	204.91	1 l	
4	✓	✓	✓	✓	✓	✓	204.84	✓	235.43	✓	✓	✓	204.89	1 l	
5															
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1140	18.9	6.70	3.03	-10	9.06	170	—
1230	19.5	7.09	3.05	0	8.50	65	

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18MCAS02-8-001 Depth 625 Date 1/27/96

Drillhole No. MW2 Sampling Zone No. Zone 8 Starting Time 0840 Finishing Time 1105

Technicians Mike Olphant

Water Level Inside MP Casing (Beginning of Session) 127.42 (End of Session) 125.51

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure In MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure In MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	234.55	✓	264.84	✓	✓	✓	234.49	1l	
2	✓	✓	✓	✓	✓	✓	234.54	✓	261.62	✓	✓	✓	234.54	1l	
3	✓	✓	✓	✓	✓	✓	234.61	✓	260.67	✓	✓	✓	234.49	0l	NO sample leaking coupling.
4	✓	✓	✓	✓	✓	✓	235.47	✓	259.94	✓	✓	✓	235.52	1l	
5	✓	✓	✓	✓	✓	✓	235.45	✓	259.71	✓	✓	✓	235.36	1l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.a.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
0905	18.2	6.21	2.55	0	8.02	120	
1055	19.2	6.36	2.51	25	8.51	100	

Page_

Continue

Westbay

Groundwater Sampling

Field Data Sheet

Project MCAS El TORO Location 18MCAS03-1-001 Depth 90' Date 2/6/96

Drillhole No. MW3 Sampling Zone No. Zone 1 Starting Time 1750 Finishing Time 1930

Technicians Mike Oliphant

Water Level Inside MP Casing (Beginning of Session) 118.93 (End of Session) 119.00

Sampler Probe Preparation - See Sampling Plan Collection Bottle Preparation - See Sampling Plan

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Comments
	Activate	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Deactivate Set Arm Locate Port	Pressure in MP ( )	Activate	Pressure Through Port ( )	Open Valve	Close Valve	Deactivate	Pressure in MP ( )	Volume Retrieved (liters)	
1	✓	✓	✓	✓	✓	✓	14.44	✓	21.76	✓	✓	✓	14.48	3/4 l	
2	✓	✓	✓	✓	✓	✓	14.41	✓	21.73	✓	✓	✓	14.46	1 l	
3	✓	✓	✓	✓	✓	✓	14.41	✓	21.73	✓	✓	✓	14.43	1 l	
4	✓	✓	✓	✓	✓	✓	14.43	✓	21.78	✓	✓	✓	14.41	1 l	
5	✓	✓	✓	✓	✓	✓	14.41	✓	21.78	✓	✓	✓	14.48	1 l	
6															
7															
8															
9															
10															
11															
12															

10/03/93

Total Volume : _____

Field Determinations (Appearance, pH, S.C., etc.)

TIME	Temp (oF)	PH (s.s.)	COND (mS/cm)	TURB (NTA)	DO (MG/L)	Redox (mV)	Air Bubbles (Y OR N)
1900	19.7	6.86	2.36	3	8.62	95	
1925	19.8	7.62	2.35	14	8.28	145	