Table 8-1: SUMMARY OF GENERAL CHEMISTRY ANALYSES
MCAS El Toro Groundwater Monitoring Program

			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS All Results in Milligrams per Liter (mg/L)						
Station ID	Base Screen Depth (Ft BGS)	Sample Date	TDS 500	Chloride 250.0	Sulfate 250.0	Nitrate/ Nitrite-N 10.0	Alkalinity (as $CaCO_3$)	Bicarbonate (as $CaCO_3$)	Carbonate (as $CaCO_3$)
18_MCAS02-5	430	8-Feb-89	814	134.0	193.0	12.0		187.0	
		10-Oct-89	822	147.0	211.0	12.0		188.0	
		18-May-90	864	167.0	242.0	9.7		194.0	
		5-Apr-91	1,390	286.0	364.0	33.2		263.0	
		9-Jul-91	1,040	186.0	287.0	6.2		220.0	
		17-Sep-92	836	161.0	204.0	3.7		202.0	
		12-Nov-93	837	159.0	200.0	2.6	238.0	238.0	
		29-Jan-96	854	179.0	177.0	5.8	238.0	290.0	2.0 U
18_MCAS02-6	500	8-Feb-89	1,810	450.0	501.0	18.1 U		221.0	
		10-Oct-89	1,320	337.0	424.0	0.4		165.0	
		18-May-90	1,480	460.0	383.0	0.9		223.0	
		5-Apr-91	1,850	450.0	450.0	40.3		278.0	
		9-Jul-91	1,660	392.0	485.0	13.7 U		185.0	
		17-Sep-92	1,410	332.0	412.0	0.4 <		183.0	
		15-Nov-93	1,330	299.0	397.0	0.1 U	212.0	212.0	
		29-Jan-96	1,350	313.0	374.0	0.1	227.0	277.0	2.0 U
18_MCAS02-7	560	8-Feb-89	2,200	596.0	649.0	30.1 U		197.0	
		10-Oct-89	2,210	576.0	648.0	0.4 U		230.0	
		18-May-90	2,100	618.0	663.0	0.4		268.0	
		5-Apr-91	1,860	462.0	511.0	1.3		303.0	
		9-Jul-91	1,840	398.0	477.0	0.4 U		295.0	
		17-Sep-92	1,850	437.0	517.0	0.4		280.0	
		16-Nov-93	1,750	386.0	500.0	0.1 U	332.0	332.0	
		29-Jan-96	1,700	419.0	471.0	0.1 U	341.0	416.0	2.0 U
18_MCAS02-8	630	8-Feb-89	1,870	528.0	518.0	0.4 U		160.0	
		10-Oct-89	1,490	431.0	402.0	0.4 U		160.0	
		18-May-90	1,480	450.0	362.0	0.4 U		165.0	
		5-Apr-91	1,550	432.0	349.0	0.4 U		293.0	
		9-Jul-91	1,520	374.0	320.0	0.4 U		294.0	
		17-Sep-92	1,350	355.0	368.0	0.4 <		205.0	
		8-Nov-93	1,425	163.0	190.0	0.1 U	262.0	262.0	
		29-Jan-96	1,410	312.0	402.0	0.1	225.0	275.0	2.0 U
18_MCAS03-1	95	30-Jan-89	2,072	251.0	814.0	97.4		208.0	
		10-Oct-89	2,230	265.0	899.0	110.7		208.0	
		17-May-90	2,340	348.0	981.0	115.1		165.0	
		9-Nov-90	2,100	246.0	815.0	110.7		200.0	
		4-Apr-91	2,290	318.0	918.0	124.0		219.0	
		18-Jul-91	2,250	315.0	911.0	128.4		165.0	
		15-Sep-92	2,120	327.0	888.0	134.1		182.0	
		22-Nov-93	1,890	268.0	717.0	24.0	267.0	267.0	
		22-Nov-93	1,900	271.0	849.0	24.1	268.0	268.0	
		6-Feb-96	1,980	219.0	766.0	26.0	309.0	377.0	2.0 U
18_MCAS03-2	170	30-Jan-89	1,562	340.0	447.0	101.6		84.0	
		10-Oct-89	1,710	350.0	440.0	93.0		143.0	
		17-May-90	1,690	396.0	480.0	97.4		130.0	
		9-Nov-90	1,650	326.0	400.0	84.1		148.0	
		4-Apr-91	1,630	357.0	411.0	93.0		151.0	
		18-Jul-91	1,520	340.0	442.0	93.0		96.0	
		15-Sep-92	1,590	192.0	696.0	81.0		146.0	
		19-Nov-93	1,500	287.0	383.0	20.9	161.0	161.0	
		6-Feb-96	1,690	335.0	389.0	25.0	150.0	183.0	2.0 U

Table 8-1: SUMMARY OF GENERAL CHEMISTRY ANALYSES
MCAS El Toro Groundwater Monitoring Program

			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS *All Results in Milligrams per Liter (mg/L)*						
Station ID	**Base Screen Depth** (Ft BGS)	**Sample Date**	**TDS** 500	**Chloride** 250.0	**Sulfate** 250.0	**Nitrate/ Nitrite-N** 10.0	**Alkalinity (as $CaCO_3$)**	**Bicarbonate (as $CaCO_3$)**	**Carbonate (as $CaCO_3$)**
18_MCAS03-3	230	30-Jan-89	768	180.0	120.0	101.8		146.0	
		9-Oct-89	822	180.0	123.0	93.0		148.0	
		17-May-90	894	173.0	118.0	88.5		148.0	
		9-Nov-90	824	172.0	108.0	84.1		140.0	
		4-Apr-91	798	175.0	110.0	93.0		150.0	
		18-Jul-91	806	188.0	110.0	88.5		144.0	
		15-Sep-92	806	200.0	101.0	81.0		141.0	
		19-Nov-93	798	181.0	94.3	18.6	160.0	160.0	
		6-Feb-96	828	208.0	89.0	23.0	161.0	196.0	2.0 U
18_MCAS03-4	350	30-Jan-89	658	116.0	122.0	16.4		182.0	
		9-Oct-89	688	123.0	146.0	19.0		176.0	
		17-May-90	722	128.0	140.0	12.8		173.0	
		4-Apr-91	694	121.0	138.0	22.1		184.0	
		18-Jul-91	694	121.0	137.0	26.6		144.0	
		15-Sep-92	714	124.0	135.0	30.8		171.0	
		18-Nov-93	691	110.0	128.0	7.7	206.0	206.0	
		6-Feb-96	713	119.0	118.0	10.0	204.0	249.0	2.0 U
18_MCAS03-5	430	30-Jan-89	656	96.0	162.0	8.4		192.0	
		9-Oct-89	782	135.0	186.0	4.0		201.0	
		17-May-90	684	88.0	157.0	3.1		196.0	
		4-Apr-91	710	90.0	171.0	10.6		208.0	
		18-Jul-91	664	84.0	171.0	7.5		195.0	
		15-Sep-92	568	69.0	161.0	6.2		195.0	
		18-Nov-93	625	65.6	151.0	1.4	234.0	234.0	
		6-Feb-96	795	187.0	137.0	0.6	240.0	293.0	2.0 U
18_MCAS03-6	500	30-Jan-89	772	157.0	186.0	10.6		181.0	
		9-Oct-89	804	153.0	189.0	10.6		169.0	
		17-May-90	802	154.0	190.0	4.9 U		181.0	
		4-Apr-91	798	194.0	224.0	0.4 U		85.0	
		18-Jul-91	731	185.0	216.0	0.4 U		148.0	
		15-Sep-92	736	187.0	212.0	0.4		42.0	
		17-Nov-93	689	158.0	197.0	0.2 U	73.0	73.0	
		6-Feb-96	795	187.0	203.0	0.1 U	24.0	29.0	2.0 U
18_MCAS04	238	23-Oct-89	886	153.0	205.0	21.2		148.0	
		23-Feb-90	996	156.0	232.0	17.3		154.0	
		6-Jul-90	884	173.0	270.0	20.4		116.0	
		2-Feb-91	852	170.0	267.0	19.9		128.0	
		10-Jul-92	844	171.0	264.0	24.3		145.0	
		10-Jul-92	844	171.0	264.0				
		4-Aug-93	944	158.0	240.0	5.9	184.0	184.0	
		9-Feb-96	1,020	184.0	248.0	8.6	210.0	256.0	2.0 U
18_MCAS05	148	19-Oct-89	912	206.0	186.0	48.7		173.0	
		7-Mar-90	896	182.0	179.0	48.7		43.0	
		23-Jul-90	918	212.0	196.0	53.1		176.0	
		15-Feb-91	948	234.0	203.0	53.1		179.0	
		31-Jul-92	934	213.0	193.0	51.8		170.0	
		16-Jun-93	919	200.0	179.0	12.6	210.0	210.0	
		16-Jun-93	930	201.0	180.0		216.0	216.0	
18_MCAS05A	130	6-Feb-96	768	145.0	188.0	3.0	219.0	267.0	2.0 U
18_MCAS06	222	28-Oct-89	722	143.0	163.0	17.7		162.0	
		9-Mar-90	668	141.0	124.0	17.7		161.0	
		11-Jul-90	748	145.0	145.0	24.3		149.0	
		23-May-91	712	147.0	155.0	28.8		154.0	
		31-Jul-92	782	160.0	172.0	39.4		139.0	
		16-Jun-93	741	143.0	163.0	7.3	188.0	188.0	
		6-Feb-96	768	145.0	188.0	3.0	189.0	230.0	2.0 U

Table 8-1: SUMMARY OF GENERAL CHEMISTRY ANALYSES
MCAS El Toro Groundwater Monitoring Program

			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS All Results in Milligrams per Liter (mg/L)						
Station ID	Base Screen Depth (Ft BGS)	Sample Date	TDS 500	Chloride 250.0	Sulfate 250.0	Nitrate/ Nitrite-N 10.0	Alkalinity (as $CaCO_3$)	Bicarbonate (as $CaCO_3$)	Carbonate (as $CaCO_3$)
18_MCAS07-1	99	20-Jan-89	2,560	545.0	638.0	168.2		167.0	
		2-Aug-90	2,670	493.0	716.0	177.1		269.0	
		16-Nov-90	2,640	538.0	700.0	177.1		221.0	
		22-Mar-91	2,600	447.0	607.0	150.5		267.0	
		25-Jul-91	2,520	535.0	673.0	177.1		262.0	
		20-Oct-92	2,440	525.0	650.0	175.3		270.0	
		27-Oct-93	2,680	486.0	668.0	35.5	254.0	254.0	
		27-Oct-93	2,790	490.0	675.0	36.1	346.0	346.0	
		9-Feb-96	2,430	528.0	598.0	35.0	326.0	398.0	2.0 U
18_MCAS07-2	199	20-Jan-89	870	151.0	166.0	0.4		178.0	
		2-Aug-90	1,030	182.0	234.0	57.5		190.0	
		17-Nov-90	710	119.0	150.0	25.7		150.0	
		22-Mar-91	780	141.0	179.0	31.4		174.0	
		26-Jul-91	786	138.0	161.0	33.2		184.0	
		20-Oct-92	734	121.0	136.0	31.9		174.0	
		21-Oct-93	695	123.0	128.0	10.7	204.0	204.0	
		9-Feb-96	778	145.0	171.0	7.3	208.0	254.0	2.0 U
18_MCAS07-3	359	20-Jan-89	650	122.0	126.0	13.7		167.0	
		2-Aug-90	846	162.0	173.0	32.8		173.0	
		17-Nov-90	724	143.0	148.0	25.2		140.0	
		22-Mar-91	720	148.0	160.0	23.5		167.0	
		26-Jul-91	728	140.0	144.0	22.1		164.0	
		20-Oct-92	748	135.0	140.0	19.9		162.0	
		22-Oct-93	692	126.0	145.0	12.1	200.0	200.0	
		9-Feb-96	743	146.0	166.0	5.5 U	212.0	259.0	2.0 U
18_MCAS07-4	449	19-Jan-89	670	137.0	132.0	0.4 U		161.0	
		2-Aug-90	1,210	261.0	347.0	0.4 U		186.0	
		17-Nov-90	832	171.0	210.0	0.4 U		165.0	
		22-Mar-91	760	163.0	195.0	0.4 U		173.0	
		26-Jul-91	736	153.0	166.0	0.4 U		176.0	
		20-Oct-92	702	139.0	146.0	0.4 <		160.0	
		25-Oct-93	679	126.0	146.0	0.1 U	202.0	202.0	
		8-Feb-96	779	147.0	161.0	0.1 U	214.0	262.0	2.0 U
18_MCAS07-5	519	18-Jan-89	1,720	343.0	612.0	0.4		216.0	
		2-Aug-90	2,850	488.0	812.0	154.9		247.0	
		17-Nov-90	2,630	536.0	781.0	62.0 U		282.0	
		22-Mar-91	2,600	580.0	791.0	0.4 U		331.0	
		26-Jul-91	2,560	572.0	823.0	0.4 U		309.0	
		20-Oct-92	2,080	488.0	716.0	0.4 <		328.0	
		26-Oct-93	2,350	432.0	706.0	0.1 U	184.0	184.0	
		8-Feb-96	1,870	399.0	545.0	0.1 U	365.0	445.0	2.0 U
18_MCAS07-6	809	19-Jan-89	2,030	416.0	668.0	0.4		320.0	
		2-Aug-90	2,670	494.0	784.0	128.4		278.0	
		17-Nov-90	2,490	528.0	759.0	12.8 U		235.0	
		22-Mar-91	2,400	579.0	791.0	0.4		226.0	
		26-Jul-91	2,460	543.0	821.0	4.0 <		210.0	
		28-Oct-93	1,670	409.0	637.0	0.1 U	167.0	167.0	
		8-Feb-96	1,990	447.0	706.0	0.1 U	279.0	340.0	2.0 U
18_MCAS07-7	919	19-Jan-89	1,480	239.0	534.0	0.4		255.0	
		2-Aug-90	2,780	584.0	787.0	141.7		273.0	
		16-Nov-90	2,430	562.0	745.0	70.8		239.0	
		25-Mar-91	2,600	387.0	755.0	12.8 U		276.0	
		26-Jul-91	2,380	615.0	847.0	0.4 U		243.0	
		22-Sep-92	2,410	565.0	810.0	0.4 <		189.0	
		29-Oct-93	2,320	483.0	749.0	0.1 U	256.0	256.0	
		8-Feb-96	1,480	384.0	630.0	0.1 U	272.0	232.0	2.0 U

Table 8-1: SUMMARY OF GENERAL CHEMISTRY ANALYSES
MCAS El Toro Groundwater Monitoring Program

			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS *All Results in Milligrams per Liter (mg/L)*						
Station ID	**Base Screen Depth** (Ft BGS)	**Sample Date**	**TDS** 500	**Chloride** 250.0	**Sulfate** 250.0	**Nitrate/ Nitrite-N** 10.0	**Alkalinity (as $CaCO_3$)**	**Bicarbonate (as $CaCO_3$)**	**Carbonate (as $CaCO_3$)**
18_MCAS07-8	989	19-Jan-89	2,070	443.0	671.0	0.4 U		298.0	
		2-Aug-90	2,620	562.0	927.0	0.4 U		150.0	
		16-Nov-90	2,380	483.0	805.0	0.4 U		166.0	
		25-Mar-91	2,200	391.0	583.0	0.4 U		230.0	
		25-Jul-91	2,150	385.0	710.0	0.4 U		253.0	
		22-Sep-92	1,930	439.0	614.0	0.4 <		274.0	
		1-Nov-93	1,430	548.0	5.0	0.1 U	264.0	264.0	
		8-Feb-96	2,320	506.0	858.0	0.1 U	210.0	256.0	2.0 U
18_MCAS07-9	1109	18-Jan-89	2,034	434.0	632.0	0.4		291.0	
		2-Aug-90	864	148.0	231.0	24.8		183.0	
		16-Nov-90	2,690	562.0	749.0	62.0		303.0	
		25-Mar-91	2,700	582.0	721.0	11.1 U		345.0	
		25-Jul-91	2,460	612.0	671.0	0.4 U		367.0	
		22-Sep-92	1,930	504.0	20.0	0.4 <		591.0	
		2-Nov-93	1,490	519.0	24.4	0.1 U	311.0	311.0	
		25-Jan-96	2,120	481.0	661.0	0.1	335.0	408.0	2.0 U
18_MCAS08	410	6-Feb-90	860	399.0	0.5 U	0.4		165.0	
		2-Dec-90	842	423.0	0.5 U	0.4		154.0	
		22-May-91	860	394.0	0.5 U	0.4		159.0	
		5-Nov-91	846	381.0	0.1 U	0.4		172.0	
		10-Jul-92	892	419.0	0.5 U	0.4 <		156.0	
		5-Aug-93	895	413.0	0.3	0.1 U	194.0	194.0	
		1-Feb-96	925	437.0	0.5 U	0.1	191.0	233.0	2.0 U
18_MCAS09	445	27-Oct-89	454	51.0	120.0	2.2		136.0	
		12-Feb-90	536	51.0	123.0	4.4		153.0	
		13-Jul-90	564	56.0	129.0	4.9		164.0	
		18-Mar-91	560	59.0	135.0	0.4		178.0	
		7-Dec-91	544	65.0	129.0	6.2		173.0	
		6-May-92	576	60.0	133.0	7.1		168.0	
		5-Nov-93	584	61.3	130.0	1.4	216.0	216.0	
		5-Nov-93		62.0		1.4	219.0	219.0	
		16-Jan-96	590	60.0	120.0	0.7	212.0	259.0	2.0 U
18_MCAS10	375	31-Jan-90	826	99.0	245.0	10.2		186.0	
		20-Jul-90	864	119.0	233.0	10.6		224.0	
		3-Feb-91	914	123.0	264.0	11.1		242.0	
		7-Dec-91	892	126.0	264.0	12.0		205.0	
		8-May-92	848	120.0	277.0	13.2		205.0	
		4-Nov-93	1,140	125.0	2200.0	2.8	1.0 <	1.0 <	
		19-Jan-96	770	87.0	179.0	1.8	257.0	314.0	2.0 U
18_PS1	122	22-Jan-89	1,950	691.0	480.0	132.8		159.0	
		2-Jul-93	1,770	358.0	438.0	27.8	80.0	80.0	
		19-Jan-96	1,930	389.0	428.0	39.0	197.0	241.0	2.0 U
18_PS2	133	22-Jan-89	3,500	840.0	1430.0	309.9		115.0	
		15-Dec-92	2,550	417.0	1010.0	37.6	256.0	256.0	
		12-Jul-93	2,280	317.0	811.0	27.2	296.0	296.0	
		18-Jan-96	1,580	180.0	508.0	16.0	386.0	471.0	2.0 U
18_PS3	122	23-Jan-89	840	234.0	119.0	62.0		259.0	
		10-Dec-92	893	187.0	109.0	12.4	280.0	280.0	
		7-Jun-93	859	171.0	113.0	13.2	266.0	266.0	
		22-Feb-96	825	182.0	123.0	7.8	195.0	238.0	2.0 U

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			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS All Results in Milligrams per Liter (mg/L)						
Station ID	Base Screen Depth (Ft BGS)	Sample Date	TDS 500	Chloride 250.0	Sulfate 250.0	Nitrate/ Nitrite-N 10.0	Alkalinity (as $CaCO_3$)	Bicarbonate (as $CaCO_3$)	Carbonate (as $CaCO_3$)
18_PS4	118	22-Jan-89	1,000	339.0	76.0	57.5		285.0	
		11-Dec-92	1,130	325.0	86.2	11.8	182.0	182.0	
		7-Jun-93	1,220	326.0	95.2	13.5	226.0	226.0	
		21-Feb-96	1,130	323.0	126.0	9.0	208.0	254.0	2.0 U
18_PS5	126	23-Jan-89	1,300	314.0	309.0	194.8		194.0	
		16-Dec-92	1,390	220.0	318.0	5.3	219.0	219.0	
		8-Jun-93	1,200	191.0	290.0	41.5	230.0	230.0	
		22-Jan-96	1,310	179.0	266.0	51.0	225.0	275.0	2.0 U
18_PS6	150	23-Jan-89	1,250	342.0	334.0	106.2		189.0	
		15-Dec-92	1,630	370.0	458.0	27.6	158.0	158.0	
		15-Dec-92		371.0	460.0	28.2	160.0	160.0	
		26-Jan-96	1,260	240.0	315.0	29.0	214.0	262.0	2.0 U
18_PS7	126	23-Jan-89	510	55.0	86.0	41.6		294.0	
		16-Dec-92	766	79.3	116.0	24.9	266.0	266.0	
		2-Jul-93	632	52.4	84.3	17.2	294.0	294.0	
		22-Jan-96	826	104.0	115.0	34.0	253.0	309.0	2.0 U
18_PS8	145	23-Jan-89	910	242.0	165.0	75.3		180.0	
		14-Dec-92	877	211.0	107.0	14.3	250.0	250.0	
		6-Jul-93	836	174.0	100.0	11.4	263.0	263.0	
		26-Jan-96	842	200.0	107.0	17.0	244.0	298.0	2.0 U
18_RW1	470	11-Sep-89	850	170.0	211.0	13.7		199.0	
		14-Dec-92	823	168.0	212.0	3.2	208.0	208.0	
		15-Dec-92	829	168.0	212.0	3.2	214.0	214.0	
		8-Jul-93	875	162.0	204.0	3.1	210.0	210.0	
		23-Jan-96	833	173.0	190.0	3.8	207.0	252.0	2.0 U
18_RW2	310	11-Sep-89	670	149.0	117.0	48.7		178.0	
		22-Dec-92	666	125.0	123.0	13.3	192.0	192.0	
		13-Jul-93	704	120.0	112.0	12.6	185.0	185.0	
		24-Jan-96	729	113.0	110.0	12.0	187.0	228.0	2.0 U
18_RW3	390	11-Sep-89	790	180.0	144.0	39.0		164.0	
		4-Jun-93	1,160	292.0	350.0	46.2	316.0	316.0	
		25-Jan-96	819	195.0	137.0	12.0	163.0	199.0	2.0 U
18_RW4	85	11-Sep-89	1,650	328.0	375.0	132.8		368.0	
		7-Jun-93	792	195.0	144.0	7.0	164.0	164.0	
		26-Jan-96	1,570	257.0	367.0	43.0	271.0	331.0	2.0 U
19_DBMW54	181	18-Dec-92	763	142.0	185.0	12.2	130.0	130.0	
		22-Jun-93	781	142.0	180.0	11.8	144.0	144.0	
		19-Feb-96	742	126.0	163.0	12.0	152.0	186.0	2.0 U
19_DGMW85	183	16-Dec-92	794	172.0	193.0	12.7	136.0	136.0	
		16-Dec-92	823		195.0	12.8	138.0	138.0	
		10-Jun-93	948	186.0	201.0	14.3	154.0	154.0	
		19-Feb-96	922	157.0	186.0	12.0	180.0	220.0	2.0 U
19_DGMW86	198	17-Dec-92	729	114.0	156.0	11.9	242.0	242.0	
		11-Jun-93	980	164.0	213.0	11.6	193.0	193.0	
		27-Feb-96	911	167.0	193.0	12.0	178.0	217.0	2.0 U
19_DGMW86 (D)		27-Feb-96	920	191.0	222.0	15.0	208.0	254.0	2.0 U

Table 8-1: SUMMARY OF GENERAL CHEMISTRY ANALYSES
MCAS El Toro Groundwater Monitoring Program

			GENERAL CHEMISTRY PARAMETERS AND REGULATORY STANDARDS All Results in Milligrams per Liter (mg/L)						
Station ID	Base Screen Depth (Ft BGS)	Sample Date	TDS 500	Chloride 250.0	Sulfate 250.0	Nitrate/ Nitrite-N 10.0	Alkalinity (as $CaCO_3$)	Bicarbonate (as $CaCO_3$)	Carbonate (as $CaCO_3$)
19_UGMW35	185	8-Dec-92	650	118.0	148.0	9.4	134.0	134.0	
		15-Jul-93	789	126.0	156.0	9.8	148.0	148.0	
		8-Feb-96	742	132.0	159.0	13.0	157.0	191.0	2.0 U
19_UGMW35 (D)		8-Feb-96	706	135.0	159.0	12.0	154.0	188.0	2.0 U
20_DBMW55	227	9-Dec-92	1,900	309.0	854.0	15.4	152.0	152.0	
		17-Jun-93	2,030	332.0	698.0	22.3	136.0	136.0	
		27-Feb-96	1,610	332.0	511.0	23.0	124.0	152.0	2.0 U
20_DGMW88	225	4-Nov-92	1,260	176.0	523.0	9.4	190.0	190.0	
		17-Jun-93	1,410	173.0	537.0	14.2	186.0	186.0	
		1-Feb-96	1,970	301.0	709.0	17.0	142.0	173.0	2.0 U
20_DGMW88 (D)		1-Feb-96	1,930	306.0	718.0	15.0	142.0	173.0	2.0 U
20_UGMW36	223	28-Oct-92	1,780	336.0	559.0	19.4	132.0	132.0	
		18-Jun-93	2,040	376.0	598.0	26.1	138.0	138.0	
		5-Feb-96	2,120	401.0	681.0	28.0	131.0	160.0	2.0 U
21_DBMW56	132	18-Nov-92	1,060	188.0	228.0	22.0	200.0	200.0	
		18-Nov-92	1,080		230.0	22.7	202.0	202.0	
		24-Jun-93	1,160	175.0	211.0	24.6	201.0	201.0	
		15-Feb-96	798	152.0	152.0	28.0	204.0	249.0	2.0 U
21_DGMW90	135	20-Nov-92	1,120	467.0	568.0	23.5	190.0	190.0	
		10-Jun-93	1,020	166.0	199.0	25.8	207.0	207.0	
		2-Feb-96	876	155.0	174.0	26.0	193.0	235.0	2.0 U
21_UGMW37	130	13-Nov-92	964	180.0	191.0	19.3	212.0	212.0	
		7-Jul-93	907	173.0	188.0	17.5	465.0	465.0	
		12-Feb-96	1,010	194.0	192.0	18.0	225.0	275.0	2.0 U
22_DBMW47	156	29-Sep-92	1,130	228.0	263.0	18.7	190.0	190.0	
		13-Jul-93	1,160	225.0	227.0	17.3	180.0	180.0	
		15-Feb-96	1,180	231.0	169.0	17.0	191.0	233.0	2.0 U

EXPLANATION

1) The January - February 1996 sample results listed in this table are as reported in the APCL laboratory analytical reports, (Appendix E, Quarterly Monitoring Report).
Refer to Section 9.3 of the Quarterly Monitoring Report for qualifications from data validation.
(D) added to Station ID denotes a duplcate sample

2) Regulatory Standards for Parameters listed:
Nitrate/Nitrate-N - 10 mg/L Federal maximum contaminant level (MCL)
TDS (Total Dissolved Solids) - 500 mg/L Federal Secondary MCL
Chloride - 250 mg/L Federal Secondary MCL
Sulfate - 250 mg/L Federal Secondary MCL

3) = Result exceeds regulatory standard

4) Qualifying Flags: U = Concentration is below instrument detection limit (not detected)

Table 8-2: RESULTS OF TREATABILITY PARAMETERS ANALYSES
MCAS El Toro Groundwater Monitoring Wells

		Ammonia		Chemical Oxygen Demand		Color		Phosphorus		Silica (dissolved)		Total Suspended Solids		Total Organic Carbon		Turbidity		Radon		Strontium	
Station ID	Sample Date	mg/L		mg/L		units		mg/L		mg/L		mg/L		mg/L		NTU		pCi/L		pCi/L	
02_DGMW59	06-Feb-96	0.2	U	27		1		0.16		34		75		3.7		-10		144		-0.0337	
	06-Feb-96	0.2	U	24		2		0.19		32		48		4.6				151		-0.0583	
02_DGMW60	06-Feb-96	0.2	U	12	J	1		0.01		32		24		3.0		-10		189		0.1020	
	06-Feb-96	0.2	U	15	J	1		0.04		31		24		2.0				211		-0.1030	
02_DGMW61	08-Feb-96	0.2	U	20	U	1	U	5.20		26		4	U	1.0		-10		715		-0.1930	
02_UGMW25	07-Feb-96	NA		30		1		0.01	U	32		4	U	4.0		-10		450		-0.0850	
03_DBMW39	30-Jan-96	0.2	U	20	U	1		0.07		68		31		1.0		-10		657		-0.1840	
03_DGMW64	26-Feb-96	0.2	U	20	U	1		0.18		46		93		1.0	U	30		724		-0.1290	
03_DGMW65X	26-Feb-96	0.2	U	20	U	2		0.22		52		63		1.0		30		553		-0.1140	
03_UGMW26	7-Feb-96	0.2	U	20	U	2		0.15		61		132		1.0	U	74		356		-0.0440	
04_DBMW40	26-Feb-96	0.2	U	20	U	1		0.31		55		1050		1.0	U	149		330		0.0080	
04_DGMW66	26-Feb-96	0.2	U	20	U	1		0.23		53		158		1.0	U	38		401		0.0010	
04_UGMW63	30-Jan-96	0.2	U	20	U	1		0.01	U	50		4	U	1.0		187		613		-0.0462	
05_DBMW41	7-Feb-96	NA		20	U	1	U	0.05		48		4	U	1.0	U	0		305		-0.0270	

Table 8-2: RESULTS OF TREATABILITY PARAMETERS ANALYSES
MCAS El Toro Groundwater Monitoring Wells

		Ammonia		Chemical Oxygen Demand		Color		Phosphorus		Silica (dissolved)		Total Suspended Solids		Total Organic Carbon		Turbidity		Radon		Strontium	
Station ID	Sample Date	mg/L		mg/L		units		mg/L		mg/L		mg/L		mg/L		NTU		pCi/L		pCi/L	
05_DGMW67	7-Feb-96	0.2	U	20	U	1	U	0.08		47		4	U	267.0		-10		198		-0.0760	
05_DGMW68	7-Feb-96	0.2	U	20	U	1		0.12		53		39		1.0	U	49		525		-0.0050	
05_UGMW27	29-Jan-96	0.2	U	20	U	1	U	0.02		40		4	U	2.0		5		451		-0.1290	
07_DGMW91	7-Feb-96	0.2	U	20	U	1	U	16.00		60		4	U	1.0		0		375		-0.0050	
07_DBMW100	31-Jan-96	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
08_DGMW73	7-Feb-96	0.2	U	20	U	1		0.02		53		4	U	2.0		0		392		-0.0020	
08_DGMW74	7-Feb-96	0.2	U	20	U	1		0.04		41		4	U	1.0	U	1		218		-0.0750	
10_DGMW77	7-Feb-96	0.2	U	20	U	1		0.04		53		30		1.0	U	-10		362		0.4100	
13_DBMW49	7-Feb-96	0.2	U	33		1	U	0.01		55		4		1.0	U	38		302		0.0061	
	7-Feb-96	0.2	U	24		1	U	0.02		52		5		3.0				266		-0.3740	
13_DGMW78	1-Feb-96	0.2	U	20	U	1	U	0.01	U	51		11		3.0		9		172		-0.1430	
13_UGMW32	7-Feb-96	0.2	U	20	U	1		0.03		49		13		3.0		0		387		-0.1020	
14_DBMW50	7-Feb-96	0.2	U	20	U	1		0.04		49		14		1.0		-10		332		-0.1260	
	7-Feb-96	0.2	U	20	U	1		0.05		49		12		1.0				337		0.0788	

Table 8-2: RESULTS OF TREATABILITY PARAMETERS ANALYSES
MCAS El Toro Groundwater Monitoring Wells

		Ammonia		Chemical Oxygen Demand		Color		Phosphorus		Silica (dissolved)		Total Suspended Solids		Total Organic Carbon		Turbidity		Radon		Strontium	
Station ID	Sample Date	mg/L		mg/L		units		mg/L		mg/L		mg/L		mg/L		NTU		pCi/L		pCi/L	
14_DGMW79	7-Feb-96	0.2	U	20	U	1		0.02		50		15		761.0		-10		414		0.0173	
15_DBMW51	7-Feb-96	0.2		66		1		0.06		52		6		1.0		0		210		0.0209	
16_DGMW81	7-Feb-96	0.2		20	U	1	U	0.03		54		6		1.0	U	8		404		0.3670	
17_DGMW82	7-Feb-96	0.2		20	U	1		25.00		47		14		NA		-10		303		0.0550	
18_DW135	7-Feb-96	0.2	U	20	U	1	U	0.02		49		4		1.0		39		461		-0.1130	
19_DBMW54	7-Feb-96	0.3		20	U	1		0.09		56		40		1.0		56		799		-0.1380	
19_DGMW85	7-Feb-96	0.2	U	20	U	1		0.07		56		27		2.0		68		323		0.0120	
19_UGMW35	7-Feb-96	0.2	U	20	U	1		0.03		59		8		3.0		0		409		-0.2160	
	7-Feb-96	0.2	U	20	U	1	U	0.13		59		5		1.0				435		-0.1340	
20_DBMW55	27-Feb-96	0.2	U	20	U	1		0.10		37		70		1.0		14		NA		NA	
22_DBMW47	7-Feb-96	0.2	U	20	U	1	U	0.01		55		9		1.0	U	2		481		0.0710	

EXPLANATION:
mg/L = milligrams per liter
NTU = nephelometric turbidity unit (turbidity field measurement; refer to Section 2.2 for discussion)
pCi/L = picocurie per liter (refer to laboratory reports for complete results)
NA = data not available
Qualifying codes: U = below instrument detection limit, J = estimated value

Table 8-3: RESULTS OF GROSS ALPHA AND GROSS BETA ANALYSES
MCAS El Toro Groundwater Monitoring Program

Station ID	Screen Interval Depth (Ft BGS)	Sample Date	Gross Alpha Fed MCL 15 pCi/L	Gross Beta Fed MCL 50 pCi/L
01_DGMW57	63-83	10-Dec-92	5.80	12.20
		14-Jun-93	4.50	6.60
		7-Feb-96	3.93	1.99
01_DGMW58	57-77	14-Dec-92	5.90	8.00
		14-Jun-93	7.50	8.60
		28-Feb-96	6.06	5.15
02_DGMW59	69-89	15-Dec-92	16.30	14.10
		23-Jun-93	21.60	15.80
		7-Feb-96	9.01	-0.97
		7-Feb-96	10.16	0.26
02_DGMW60	80-100	18-Nov-92	20.90	10.80
		23-Jun-93	24.00	30.20
		7-Feb-96	22.93	-1.69
		7-Feb-96	16.71	0.33
02_DGMW61	80-100	14-Dec-92	6.50	8.90
		22-Jun-93	9.20	10.50
		7-Feb-96	23.91	6.35
02_UGMW25	55-75	9-Dec-92	7.80	5.20
		22-Jun-93	0.70	3.70
		7-Feb-96	12.94	1.35
03_DBMW39	230-270	9-Oct-92	15.90	10.30
		21-Jun-93	11.50	11.70
		21-Jun-93	12.30	15.00
		30-Jan-96	14.74	4.03
03_DGMW64	245-285	15-Jan-93	14.30	13.10
		2-Jun-93	13.30	16.60
		26-Feb-96	11.14	2.97
03_DGMW65X	230-270	18-Jan-93	8.60	8.80
		7-Jul-93	14.50	13.20
		26-Feb-96	15.56	9.79
03_UGMW26	230-270	1-Oct-92	14.20	10.90
		23-Jun-93	14.50	10.70
		7-Feb-96	3.77	15.80

Table 8-3: RESULTS OF GROSS ALPHA AND GROSS BETA ANALYSES
MCAS El Toro Groundwater Monitoring Program

Station ID	Screen Interval Depth (Ft BGS)	Sample Date	Gross Alpha Fed MCL 15 pCi/L	Gross Beta Fed MCL 50 pCi/L
04_DBMW40	220-260	26-Feb-96	15.23	10.21
04_DGMW66	250-290	26-Feb-96	2.78	9.33
04_UGMW63	235-275	24-Nov-92	NA	11.30
		30-Jan-96	14.41	4.44
05_DBMW41	182-222	16-Nov-92	9.00	5.90
		16-Nov-92	9.40	6.30
		7-Feb-96	26.37	9.30
05_DGMW67	187-227	30-Nov-92	15.00	7.70
		30-Nov-92	24.90	53.00
		3-Jun-93	16.70	19.00
		7-Feb-96	22.11	6.07
05_DGMW68	190-210	17-Dec-92	7.00	13.60
		25-Jun-93	10.80	12.40
		27-Feb-96	NA	NA
05_UGMW27	198-238	3-Jun-93	9.30	14.10
		29-Jan-96	15.89	2.55
07_DGMW71	115-155	15-Dec-92	6.30	11.70
09_DBMW45	117-157	10-Dec-92	8.30	9.90
		10-Dec-92	9.60	11.20
17_DGMW82	235-255	9-Feb-96	4.59	5.03
19_DGMW85	143-183	16-Dec-92	0.80	5.80
		16-Dec-92	12.80	15.90
22_DBMW47	116-156	29-Sep-92	9.00	5.80

EXPLANATION
pCi/L = picocurie per liter
MCL = maximum contaminant level
BGS = below ground surface, NA = data not available
= Result exceeds regulatory standard

9.0 QUALITY ASSURANCE/QUALITY CONTROL

The groundwater sampling and analyses activities for the January-February 1996 sampling round were performed according to guidance and quality assurance/quality control (QA/QC) procedures described in the *Final Sampling and Analysis Plan* (SAP) and *Final Quality Assurance Project Plan* (QAPP) prepared for the MCAS El Toro GWMP (CDM Federal, 1995). The collection of field data was performed following the SAP and Standard Operating Procedures (SOPs) provided in the QAPP. The laboratory analyses were performed according to analytical methods, detection limits, and QA/QC procedures described in the SAP and QAPP. This section summarizes the data quality and performance of the field and analytical activities.

9.1 DEVIATIONS FROM SAMPLING, ANALYSIS, AND QUALITY ASSURANCE PROJECT PLANS

The deviations in field sampling activities from the SAP are summarized in Section 2.0 of this report. Regarding the performance of QA/QC procedures, the following deviations occurred during the January-February 1996 groundwater sampling round:

- The subcontract laboratory did not report results for Freon 113 with the CLP-VOC analyses.
- The subcontract laboratory did not report results for the samples from Well 07 DBMW100 which were submitted for treatability parameter analyses.
- The subcontract laboratory did not report results for gross alpha/gross beta analyses for the sample from Well 05 UGMW68.

9.2 QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

Groundwater samples were collected from a total of 163 wells during the current groundwater sampling round for the analyses described in Section 2.2. The group of organic and inorganic analyses performed ranged from a minimum of three analyses per well to a maximum of eight

specific analyses per well (Table 2-1). During field sampling, the following QA/QC samples were collected and analyzed: 11 field duplicate samples, 3 rinsate samples, 3 air contamination (AC) field blank samples, and 1 field blank sample. In addition, a total of 23 trip blank samples were analyzed during the sampling round. The preliminary results of these samples are summarized below.

Field Duplicate Samples. The results of the field duplicate analyses performed during this sampling round was summarized in a data validation report as described in Section 9.3.

Equipment Rinsate Samples. Two of the rinsate samples were analyzed for both VOCs and SVOCs, and the third rinsate sample was analyzed only for VOCs. No SVOCs were found in these rinsate samples. The following VOCs were detected in two of the rinsate samples: bromodichloromethane, bromoform, chlorodibromomethane, chloroform, methylene chloride, and toluene. Some of these VOCs are found in deionized water and as laboratory contaminants. Refer to laboratory reports in Volume II - Appendix E for complete results.

Air Contamination Blank Samples. Three air contamination field blank samples were collected during sampling in airfield traffic areas and analyzed for VOCs and SVOCs. No SVOCs were detected in these samples. In one of the three air contamination blanks analyzed for VOCs, chloroform and toluene were detected at concentrations of 1 μg/L and 5 μg/L, respectively.

Field Blank Samples. The field blank sample was analyzed for VOCs, SVOCs, pesticides, and herbicides. Of these analyses, only bromodichloromethane, bromoform, chlorodibromomethane, and chloroform were reported in the VOC analysis. Some of these VOCs are found in deionized water and as laboratory contaminants. Refer to laboratory reports in Volume II - Appendix E for complete results.

Trip Blank Samples. Trip blanks were supplied by the subcontract laboratory performing the groundwater analyses. One trip blank sample was included with each sample shipment for VOC analysis. VOCs were not detected in any of the 23 trip blanks analyzed during the sampling round. Refer to laboratory reports in Volume II - Appendix E for complete results.

In summary, the source of the VOCs found in the rinsate and field blanks cannot be determined at this time. The deionized water used for decontamination and for preparing rinsate samples or laboratory contaminants may be possible sources for the compounds detected.

9.3 DATA QUALITY ASSESSMENT

The field and laboratory data collected during the current sampling round have been reviewed according to the criteria described in the QAPP (CDM Federal, 1995). The groundwater analytical results presented in this monitoring report are as reported by the subcontracted analytical laboratory (Volume II - Appendix E, APCL Analytical Reports). In accordance with the QAPP and scope of work for this project, 10 percent of the groundwater sample analyses performed for the current sampling round were validated to meet Naval Facilities Engineering Service Center (NFESC) Level D criteria.

9.3 1 Laboratory Data Validation

To assess data quality for the laboratory analyses, Level D data packages for each analytical parameter (VOC, SVOC, metals, etc.), comprising 10 percent of the total set of samples analyzed, were selected for review. The results of data validation are discussed in the *Data Validation Report, January-February 1996 Sampling Event* (CDM Federal, 1996a). The data validation was performed by CDM Federal to meet NFESC Level D criteria in accordance with EPA Contract Laboratory Program National Functional Guidelines for Inorganic and Organic Data Review (EPA, 1994a, 1994b).

For the sample results reviewed, the goals for precision, accuracy, representativeness, completeness, and comparability were met, as defined in the QAPP (CDM Federal, 1995). Based on the results of data validation, the analytical data obtained during this sampling round are considered usable for the intended purposes of continued monitoring of groundwater quality. A summary of the data validation and qualifications identified in the Data Validation Report (CDM Federal, 1996a) is provided below.

Volatile Organic Analyses. VOC analyses for 21 samples were reviewed (18 groundwater samples and 3 field QC samples). The laboratory QC results were within required control limits. Based on blank contamination, the toluene results for 7 of the 18 samples reviewed were qualified as nondetected (U flag). No other qualifications were identified and none of the VOC data reviewed were rejected.

Semivolatile Organic Analyses. SVOC analyses for 9 samples were reviewed (8 groundwater samples and 1 field QC sample). Overall, the laboratory QC results were within required control limits. Based on deficiencies in laboratory calibration, several SVOCs were qualified as estimated nondetects (UJ flag). No other qualifications were identified and none of the SVOC data reviewed were rejected.

Pesticide and Herbicide Analyses. Laboratory data for pesticide analyses (4 samples) and herbicide analyses (4 samples) were reviewed. The laboratory QC results were within required control limits. No other qualifications were identified and none of the pesticide and herbicide data reviewed were rejected.

Metals Analyses. Metals analyses of 16 groundwater samples and 2 field QC samples were reviewed. For these samples, analyses and data packages were reviewed for both filtered and unfiltered samples. Due to deficiencies in the initial calibration, the results for certain metals analyses were qualified as either estimated (J flag) or estimated nondetect (UJ flag). In several samples, the results for general minerals were qualified as estimated (J flag) due to deficiencies

associated with inductively couple plasma (ICP) serial dilutions. The analytical results for zinc (filtered sample 18 DW135-001) and manganese, nickel, vanadium, and zinc (unfiltered sample 12 DBMW48-001) were qualified as rejected (R flag) due to calcium interference.

General Chemistry and Treatability Parameters. Analyses of general chemistry and treatability parameters were reviewed in selected groundwater samples and a field rinsate sample. The laboratory QC results were within acceptable control limits. Due to rinsate blank contamination, the results for several general chemistry parameters were qualified as nondetect (U flag). No other qualifications were identified and none of the general chemistry data reviewed were rejected.

9.3.2 Field Parameter Measurements

Notably high values of dissolved oxygen and redox potential were obtained for some of the field parameters measured during groundwater sampling (Appendix C). The high values may be due to the type of field instrument used and/or exposure of the sample to atmospheric conditions prior to measurement. Evaluation and selection of a different field instrument and modifications in the procedures for measuring these parameters will be completed before the next sampling round.

10.0 SUMMARY AND STATUS OF MONITORING PROGRAM

10.1 RESULTS SUMMARY

During the period January through March 1996, groundwater monitoring and sampling of the network of 163 monitoring wells in the MCAS El Toro GWMP was completed to document current groundwater quality and groundwater flow conditions. Comprehensive sampling of the groundwater monitoring wells was last conducted during the Phase I RI in 1992-93. The preliminary results of the current monitoring round are summarized as follows:

- Groundwater elevations in the monitoring wells have shown a consistent increase (ranging from 2 to 11 feet) above the groundwater levels measured in these wells in May 1994. In general, groundwater levels continued to show an increase in elevation during the three measurements of the recent winter monitoring period (January through March 1996).

- Compared to sampling rounds conducted in 1992-93, the recent sampling results for VOC analyses indicate a general reduction in the concentration of the VOCs in the areas of impacted groundwater (VOC plumes). Although the apparent lateral and vertical extent of the Main VOC Plume recognized in the southwest area of the Station and in the downgradient area has not appreciably changed since 1992-93, the concentrations of TCE, PCE, and carbon tetrachloride detected in the on-Station portion of the plume are generally lower than concentrations observed in 1992-93.

- Groundwater sampling at the Magazine Road Landfill (Site 2) has confirmed the presence of a secondary VOC plume, which was identified in prior sampling rounds. Concentrations of TCE and PCE in downgradient wells at Site 2 have not significantly changed from levels found in 1992-93.

- The concentrations of benzene and other aromatic hydrocarbons detected in groundwater samples from Site 3/4 and Sites 13 and 15 are lower than found in prior sampling at these areas of fuel hydrocarbon contamination. However, benzene was detected during the current sampling round in two deep zone monitoring wells underlying and/or downgradient of the fuel contamination areas. Benzene or fuel hydrocarbons were not detected in the deep zone monitoring wells at these locations in the 1992-93 sampling.

- SVOCs were detected in samples collected in 11 of the 78 wells sampled during the current monitoring round. Overall, the concentrations and number of SVOC TCL compounds are less than reported during prior groundwater sampling.

- Pesticides and herbicides were not detected at or above the CRDL in any of the groundwater samples collected during the current sampling round (total 23 wells sampled for pesticides and 21 wells sampled for herbicides).

- General chemistry and metals (filtered and unfiltered) analytical data were collected for all wells in the monitoring network. The results are consistent with the inorganic water quality data collected during prior sampling. Selected wells were additionally sampled for site-specific analyses (gross alpha, gross beta, and cyanide) to further characterize water quality conditions.

Discussion of the analytical results and an evaluation of groundwater data are provided in the *Groundwater Data Trends and Recommendations Report* (CDM Federal, 1996b).

10.2 UPCOMING MONITORING ACTIVITIES

According to the *Final Groundwater Monitoring Plan*, the next sampling round (identified as Round 4) for the MCAS El Toro GWMP will be a quarterly sampling event and is scheduled to start in Summer 1996. As established in the Plan, groundwater levels would be measured and samples would be collected for all wells in the monitoring network and analyzed for VOCs and general chemistry parameters. Sampling for SVOC, pesticide, herbicide, dissolved metals, and gross alpha/gross beta analyses is also specified for wells at certain sites (e.g., landfill sites) and/or wells where these compounds were detected in prior sampling in 1992-93. Requirements for sampling may be modified, pending discussions between the government and regulators. Monitoring wells recently installed for the OU-2A and OU-2B remedial investigations may be added to the monitoring program and sampled during the upcoming rounds. The results of the next sampling round will be presented in a Quarterly Monitoring Report and evaluated in the Final Groundwater Monitoring Report.

11.0 REFERENCES

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APPENDIX A

SUMMARY INFORMATION FOR GROUNDWATER MONITORING PROGRAM

Table A-1: SUMMARY OF WELL COMPLETION AND PUMP INSTALLATION
MCAS El Toro Groundwater Monitoring Program

	Well Completion						Pump Installation (March 1996)		
Station ID	Well Elevation (ft MSL)	Well Completion Type	Total Depth of Well (ft BGS)	Casing Diameter (inch)	Screen Interval Depth (ft BGS)	Depth to Water (ft TOC)	Pump Type	Pump Depth (ft TOC)	Remarks
01_DGMW57	631.04	WT	88	4	63 - 83	48.7	2"	81	
01_DGMW58	621.94	WT	82	4	57 - 77	40.9	none	--	pump removed 2/96
02_DGMW59	506.91	WT	94	4	69 - 89	48.8	2"	85	
02_DGMW60	499.28	WT	105	4	80 - 100	56.3	2"	98	
02_DGMW61	514.85	WT	105	4	80 - 100	40.2	2"	98	
02_UGMW25	546.36	WT	80	4	55 - 75	29.6	2"	72	
03_DBMW39	419.66	WT	275	5	230 - 270	228.5	4"-HH	265	
03_DGMW64	418.28	WT	290	5	245 - 285	230.5	none	--	pump removed 1/96
03_DGMW65X	411.90	WT	275	5	230 - 270	222.7	none	--	pump removed 1/96
03_UGMW26	420.05	WT	275	5	230 - 270	219.7	none	--	pump removed 1/96
04_DBMW40	400.04	WT	265	4	220 - 260	211.1	none	--	pump removed 1/96
04_DGMW66	401.10	WT	295	5	250 - 290	211.9	none	--	pump removed 1/96
04_UGMW63	404.11	WT	280	5	235 - 275	211.7	4"-HH	262	
05_DBMW41	425.00	WT	227	4	182 - 222	162.8	2"	221	
05_DGMW67	429.00	WT	232	5	177 - 227	166.2	4"	220	
05_DGMW68	417.00	WT	215	5	190 - 210	168.1	none	--	pump removed 1/96
05_UGMW27	438.00	WT	243	5	198 - 238	169.7	4"	231	
06_DGMW69	324.33	WT	195	4	150 - 190	133.5	2"	187	
06_UGMW28	334.90	WT	185	4	140 - 180	138.9	none	--	pump removed 2/96
07_DBMW43	292.56	WT	195	4	150 - 190	111.4	none	--	pump removed 2/96
07_DGMW70	293.44	WT	170	4	125 - 165	121.8	none	--	pump removed 2/96
07_DBMW71	283.66	WT	160	4	115 - 155	109.0	none	--	pump removed 2/96
07_DGMW72	276.85	WT	155	4	110 - 150	102.5	none	--	pump removed 2/96
07_DGMW91	273.39	WT	155	4	110 - 150	102.9	none	--	pump removed 2/96
07_DBMW100	286.44	WT	176	4	131 - 171	104.5	4"	168	
08_DGMW73	263.77	WT	135	4	90 - 130	83.7	none	--	pump removed 2/96
08_DGMW74	264.75	WT	135	4	90 - 130	85.1	none	--	pump removed 2/96
08_UGMW29	271.94	WT	140	4	95 - 135	86.7	none	--	pump removed 2/96
09_DBMW45	280.00	WT	162	4	117 - 157	118.4	none	--	pump removed 1/96
09_DGMW75	271.00	WT	159	4	114 - 154	112.2	none	--	pump removed 2/96
10_DGMW77	271.40	WT	175	4	130 - 170	104.8	none	--	pump removed 2/96
12_DBMW48	247.81	WT	140	4	95 - 135	90.4	none	--	pump removed 2/96
12_UGMW31	255.82	WT	150	4	105 - 145	96.3	none	--	pump removed 2/96

Table A-1: SUMMARY OF WELL COMPLETION AND PUMP INSTALLATION
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	Well Completion						Pump Installation (March 1996)		
Station ID	Well Elevation (ft MSL)	Well Completion Type	Total Depth of Well (ft BGS)	Casing Diameter (inch)	Screen Interval Depth (ft BGS)	Depth to Water (ft TOC)	Pump Type	Pump Depth (ft TOC)	Remarks
13_DBMW49	280.63	WT	187	4	142 - 182	128.4	2"	175	
13_DGMW78	276.14	WT	172	4	127 - 167	125.5	2"	168	
13_UGMW32	285.22	WT	189	4	144 - 184	133.8	2"	181	
14_DBMW50	270.80	WT	165	4	120 - 160	119.6	2"	150	
14_DGMW79	268.74	WT	163	4	118 - 158	118.2	2"	150	
15_DBMW51	269.26	WT	170	4	125 - 165	119.9	2"	162	
16_DBMW52	332.00	WT	227	4	182 - 222	169.7	2"	220	
16_DGMW81	323.00	WT	221	4	176 - 216	165.1	none	--	pump removed 1/96
16_UGMW33	337.00	WT	225	4	180 - 220	172.2	2"	219	
17_DGMW82	442.12	WT	260	5	235 - 255	192.0	2"	260	
18_BGMP06A	175.41	MP	495	4	445 - 455	NM	none	--	multiple port well
18_BGMP06B	175.41	MP			380 - 390	NM			
18_BGMP06C	175.41	MP			295 - 305	NM			
18_BGMP06D	175.41	MP			168 - 178	NM			
18_BGMP06E	175.41	MP,WT			105 - 115	NM			
18_BGMP08A	195.70	MP	488	4	439 - 449	NM	none	--	multiple port well
18_BGMP08C	195.70	MP			297 - 307	NM			
18_BGMP08D	195.70	MP			126 - 136	NM			
18_BGMP08E	195.70	MP,WT			61 - 71	NM			
18_BGMP09A	235.43	MP	503	4	453 - 463	NM	none	--	multiple port well
18_BGMP09B	235.43	MP			374 - 384	NM			
18_BGMP09C	235.43	MP			268 - 278	NM			
18_BGMP09D	235.43	MP			222 - 232	NM			
18_BGMP09E	235.43	MP			133 - 143	NM			
18_BGMP09F	235.43	MP,WT			59 - 69	NM			
18_BGMP10A	58.24	MP	1052	4	1001 - 1011	NM	none	--	multiple port well
18_BGMP10B	58.24	MP			887 - 897	NM			
18_BGMP10C	58.24	MP			752 - 762	NM			
18_BGMP10D	58.24	MP			563 - 573	NM			
18_BGMP10E	58.24	MP			429 - 439	NM			
18_BGMP10F	58.24	MP,WT			218 - 299	NM			
18_BGMW01A	393.41	CL	491	5	466 - 486	234.0	4"-HH	465	
18_BGMW01B	393.83	CL	421	5	396 - 416	203.1	4"-HH	395	
18_BGMW01C	393.25	CL	355	5	330 - 350	202.4	4"-HH	329	
18_BGMW01D	393.15	CL	267	5	242 - 262	204.8	4"	231	
18_BGMW01E	392.09	CL,WT	230	4	205 - 225	205.2	2"	224	

Table A-1: SUMMARY OF WELL COMPLETION AND PUMP INSTALLATION
MCAS El Toro Groundwater Monitoring Program

	Well Completion						Pump Installation (March 1996)		
Station ID	Well Elevation (ft MSL)	Well Completion Type	Total Depth of Well (ft BGS)	Casing Diameter (inch)	Screen Interval Depth (ft BGS)	Depth to Water (ft TOC)	Pump Type	Pump Depth (ft TOC)	Remarks
18_BGMW02A	391.81	CL	487	5	462 - 482	163.4	4"-HH	461	
18_BGMW02C	391.75	CL	383	5	358 - 378	164.3	4"-HH	357	
18_BGMW02D	391.45	CL	319	5	294 - 314	165.8	4"-HH	293	
18_BGMW02E	391.72	CL,WT	238	5	198 - 233	169.1	2'	200	
18_BGMW03A	279.25	CL	395	5	370 - 390	107.6	none	--	pump removed 2/96
18_BGMW03B	279.28	CL	305	5	280 - 300	104.2	none	--	pump removed 1/96
18_BGMW03C	279.41	CL	247	5	222 - 242	103.5	none	--	pump removed 1/96
18_BGMW03E	279.16	CL,WT	169	4	124 - 164	107.0	2"	160	
18_BGMW04A	243.36	CL	311	5	286 - 306	84.0	none	--	pump removed 2/96
18_BGMW04B	243.58	CL	215	4	190 - 210	80.7	4"	189	
18_BGMW05A	269.45	CL	487	5	462 - 482	85.2	4"-HH	261	
18_BGMW05B	270.41	CL	346	5	321 - 341	81.5	none	--	pump removed 2/96
18_BGMW05C	269.39	CL	250	5	225 - 245	80.2	none	--	pump removed 2/96
18_BGMW05D	270.42	CL,WT	138	6	83 - 133	81.9	none	--	pump removed 2/96
18_BGMW05E	269.41	CL,WT	135	2	80 - 130	81.9	none	--	
18_BGMW07	180.11	WT	70	4	25 - 65	21.5	2"	60	
18_BGMW12	304.44	WT	210	4	165 - 205	154.7	2"	200	
18_BGMW14	268.67	WT	120	4	75 - 115	69.8	none	--	pump removed 2/96
18_BGMW15	319.59	WT	220	4	175 - 215	165.3	2"	214	
18_BGMW16	376.67	WT	268	5	223 - 263	217.0	4"-HH	252	
18_BGMW17	375.68	WT	260	5	215 - 255	139.9	4"	231	
18_BGMW18	276.49	WT	185	4	140 - 180	131.0	2"	175	
18_BGMW19A	232.61	CL	473	5	448 - 468	90.5	none	--	pump removed 2/96
18_BGMW19B	232.69	CL	425	5	400 - 420	92.0	none	--	pump removed 2/96
18_BGMW19C	232.79	CL	282	5	257 - 277	90.7	none	--	pump removed 2/96
18_BGMW19D	232.54	CL	175	5	150 - 170	90.8	none	--	pump removed 2/96
18_BGMW19E	232.91	CL,WT	143	4	98 - 138	91.2	2"	137	
18_BGMW22	426.36	WT	292	5	247 - 287	232.9	4"	285	
18_BGMW23	190.22	WT	109	4	64 - 104	28.5	none	--	pump removed 2/96
18_BGMW24	618.13	WT	76	4	51 - 71	33.9	2"	63	
18_BGMW101	232.80	WT	135	4	90 - 130	80.5	4"	126	
18_DW135	268.90	CL,WT	135	4	115 - 135	117.0	none	--	pump removed 2/96
18_DW250	268.82	CL	254	4	215 - 250	115.4	none	--	
18_DW350	269.11	CL	350	4	310 - 350	113.9	none	--	
18_DW450	269.12	CL	454	4	420 - 460	112.9	none	--	
18_DW540	269.53	CL	541	4	490 - 540	113.2	none	--	

Table A-1: SUMMARY OF WELL COMPLETION AND PUMP INSTALLATION
MCAS El Toro Groundwater Monitoring Program

	Well Completion						Pump Installation (March 1996)		
Station ID	Well Elevation (ft MSL)	Well Completion Type	Total Depth of Well (ft BGS)	Casing Diameter (inch)	Screen Interval Depth (ft BGS)	Depth to Water (ft TOC)	Pump Type	Pump Depth (ft TOC)	Remarks
18_MCAS01-1	140.13	MP	591	4	60 - 70	NM	none	--	multiple port well
18_MCAS01-2	140.13	MP			150 - 160	NM			
18_MCAS01-3	140.13	MP			210 - 220	NM			
18_MCAS01-4	140.13	MP			270 - 280	NM			
18_MCAS01-5	140.13	MP			330 - 340	NM			
18_MCAS01-6	140.13	MP			450 - 460	NM			
18_MCAS01-7	140.13	MP			540 - 550	NM			
18_MCAS02-1	160.60	MP	660	4	40 - 50	NM	none	--	multiple port well
18_MCAS02-2	160.60	MP			130 - 140	NM			
18_MCAS02-3	160.60	MP			200 - 210	NM			
18_MCAS02-4	160.60	MP			370 - 380	NM			
18_MCAS02-5	160.60	MP			420 - 430	NM			
18_MCAS02-6	160.60	MP			490 - 500	NM			
18_MCAS02-7	160.60	MP			550 - 560	NM			
18_MCAS02-8	160.60	MP			620 - 630	NM			
18_MCAS03-1	216.22	MP	540	4	85 - 95	NM	none	--	multiple port well
18_MCAS03-2	216.22	MP			160 - 170	NM			
18_MCAS03-3	216.22	MP			220 - 230	NM			
18_MCAS03-4	216.22	MP			340 - 350	NM			
18_MCAS03-5	216.22	MP			420 - 430	NM			
18_MCAS03-6	216.22	MP			490 - 500	NM			
18_MCAS04	141.46	SH	275	4	181 - 238	22.2	none	--	
18_MCAS05A	NA	SH	NA	4	120 - 130	30.0	none	--	
18_MCAS06	114.85	SH	285	4	167 - 222	14.0	none	--	
18_MCAS07-1	101.19	MP	1152	4	90 - 100	NM	none	--	multiple port well
18_MCAS07-2	101.19	MP			190 - 200	NM			
18_MCAS07-3	101.19	MP			350 - 360	NM			
18_MCAS07-4	101.19	MP			440 - 450	NM			
18_MCAS07-5	101.19	MP			510 - 520	NM			
18_MCAS07-6	101.19	MP			800 - 810	NM			
18_MCAS07-7	101.19	MP			910 - 920	NM			
18_MCAS07-8	101.19	MP			980 - 990	NM			
18_MCAS07-9	101.19	MP			1100 - 1110	NM			
18_MCAS08	86.72	DP	435	4	392 - 410	54.1	none	--	
18_MCAS09	77.50	DP	450	4	372 - 445	6.6	none	--	
18_MCAS10	102.10	DP	389	4	355 - 375	16.1	none	--	

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MCAS El Toro Groundwater Monitoring Program

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Station ID	Well Elevation (ft MSL)	Well Completion Type	Total Depth of Well (ft BGS)	Casing Diameter (inch)	Screen Interval Depth (ft BGS)	Depth to Water (ft TOC)	Pump Type	Pump Depth (ft TOC)	Remarks
18_PS1	247.99	SH	122	4	102 - 122	86.7	none	--	
18_PS2	246.73	SH	133	4	103 - 133	99.0	none	--	
18_PS3	266.47	SH	122	4	102 - 122	84.1	none	--	pump removed 2/96
18_PS4	264.53	SH	119	4	98 - 118	76.5	none	--	pump removed 2/96
18_PS5	255.14	SH	127	4	106 - 126	87.9	none	--	
18_PS6	269.09	SH	151	4	130 - 150	111.0	none	--	
18_PS7	260.00	SH	127	4	106 - 126	87.1	none	--	
18_PS8	282.84	SH	146	4	125 - 145	103.4	none	--	
18_RW1	247.99	DP	504	5	430 - 470	83.4	none	--	
18_RW2	265.69	DP	475	5	270 - 310	75.8	none	--	
19_DBMW54	332.59	WT	186	4	141 - 181	141.9	none	--	pump removed 2/96
19_DGMW85	328.57	WT	188	4	143 - 183	140.6	none	--	pump removed 2/96
19_DGMW86	332.87	WT	203	4	158 - 198	149.9	none	--	pump removed 2/96
19_UGMW35	343.66	WT	190	4	148 - 185	150.0	2"	181	
20_DBMW55	331.56	WT	232	4	187 - 227	179.9	none	--	pump removed 2/96
20_DGMW88	331.65	WT	230	4	185 - 225	181.1	2"	223	
20_UGMW36	338.71	WT	228	4	183 - 223	186.6	2"	222	
21_DBMW56	256.06	WT	137	4	92 - 132	89.8	none	--	pump removed 2/96
21_DGMW90	255.35	WT	140	4	95 - 135	90.1	2"	125	
21_UGMW37	419.67	WT	135	4	89 - 130	90.0	none	--	pump removed 2/96
22_DBMW47	277.83	WT	161	4	116 - 156	114.0	none	--	pump removed 2/96

EXPLANATION

1) Table modified from Table 2-2 of the Final GMP (Jacobs, 1995); *updated with pump inspection/removal information* (Bechtel, 1996).

2) Well elevations are surveyed elevations of top of casing (TOC) or sounding tube, as reported in Phase I RI Tech. Memorandum.

3) Well completion types:
WT = water table monitoring well or port, CL = part of well cluster, MP = multiple-port monitoring well,
SH = well completed below water table and above top of intermediate horizon, DP = well completed below intermediate horizon

4) Static water levels measured February 1996 (or March 1996); depths in feet below TOC or measure point, rounded-off to 0.1 foot.
Depth to water not measured (NM) in MP wells; see Table B-1 for groundwater elevations.

5) Dedicate pumps, installed and functioning as of March 1996:
2" = Grundfos Redi-Flo2 pump, 4" = Grundfos Model 10E-11 (3/4 hp) pump, 4"-HH = Grundfos Model 5S07-18 (3/4 hp) pump

6) As of March 1996, dedicated packers are installed/functioning in wells 18_BGMW01C (depth 326') and 18_BGMW02C (depth 354').
The packers originally installed in other conventional wells are inoperative or have been removed (Jan-Feb 1996).

7) Wells 18_RW3 and 18_RW4 were abandoned without replacement in March 1996.
For well 18_MCAS05A, information noted as NA (not available) will be updated in future monitoring reports.

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Table A-2
Phase II RI/FS Sites
MCAS El Toro Final Groundwater Monitoring Plan

Site	Name
OU-1	
18	Regional Groundwater Investigation
OU-2	
2	Magazine Road Landfill
3/4	Original Landfill and Ferrocene Spill Area
5	Perimeter Road Landfill
7	Drop Tank Drainage Area No. 2
10	Petroleum Disposal Area
17	Communication Station Landfill
24	Potential VOC Source Area
25	Major Drainages
OU-3	
1	Explosive Ordnance Disposal Range
6	Drop Tank Drainage Area No. 1
8	DRMO Storage Yard
9	Crash Crew Pit No. 1
11	Transformer Storage Area
12	Sludge Drying Beds
13	Oil Change Area
14	Battery Acid Disposal Area
15	Suspended Fuel Tanks
16	Crash Crew Pit No. 2
19	Aircraft Expeditionary Refueling (ACER) Site
20	Hobby Shop
21	Materials Management Group Bldg. 320
22	Tactical Air Fuel Dispensing System (TAFDS)

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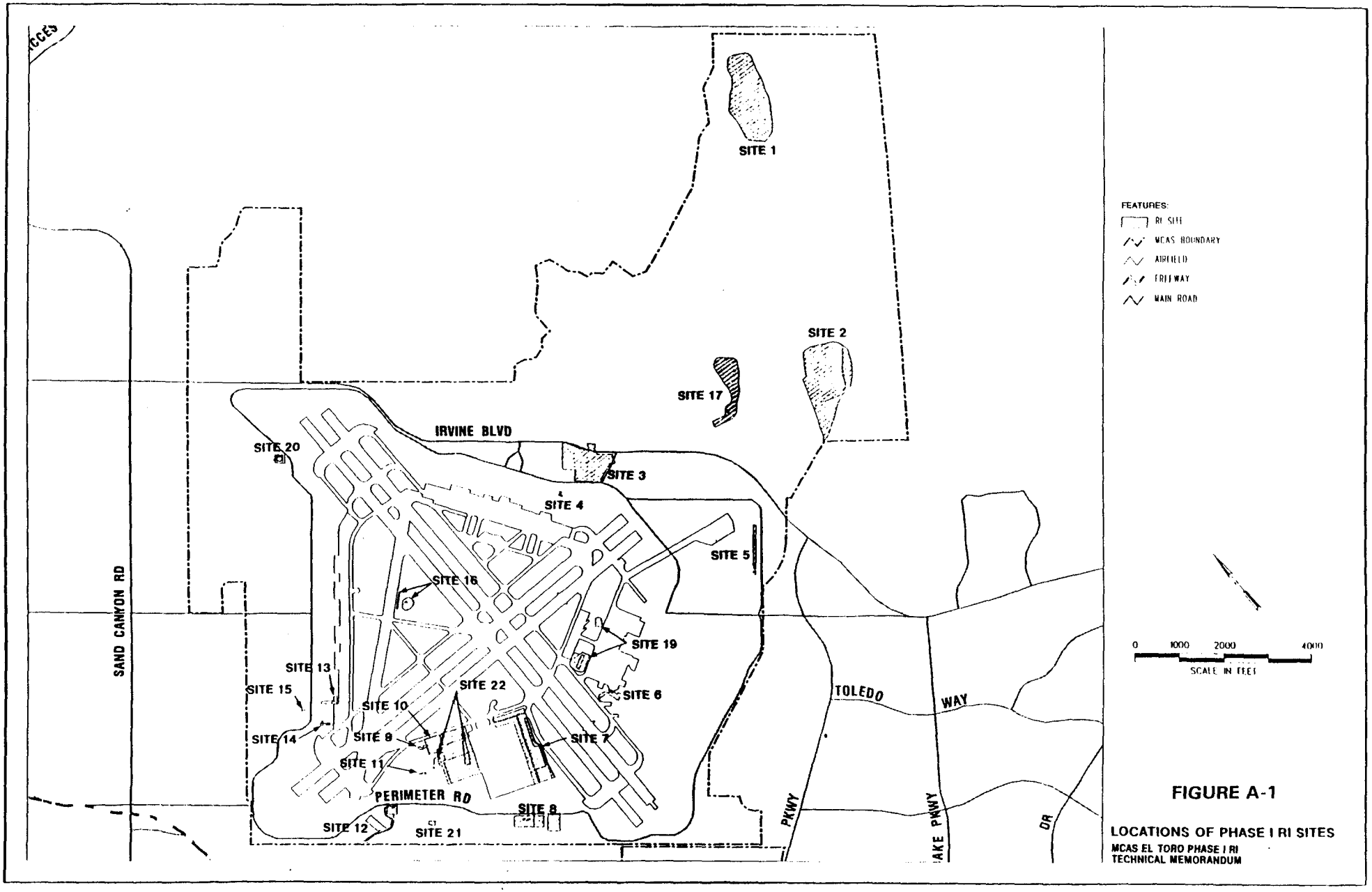

FIGURE A-1

LOCATIONS OF PHASE I RI SITES

MCAS EL TORO PHASE I RI
TECHNICAL MEMORANDUM

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Table A-3
Federal and State Drinking Water Standards, and CRDLs/CRQLs for Chemicals Detected in Groundwater MCAS El Toro Final Groundwater Monitoring Plan

Page 1 of 2

Chemical	Safe Drinking Water Act MCL[a]	California MCL[a]	California Action Level	CRDL/ CRQL
Organic Compounds (µg/L)				
1,1-Dichloroethane	--	5	--	1
1,1-Dichloroethylene	7	6	--	1
1,2-Dichloroethane	5	0.5	--	1
1,2-Dichloroethylene	70	6	--	1
1,2-Dichloropropane	5	5	--	1
1,1,1-Trichloroethane	200	200	--	1
1,1,2-Trichloroethane	5	5	--	1
2,4-Dichlorophenoxy acetic acid	70	100	--	--
Aldrin	--	--	LOQ (0.05)	0.05
BHC-gamma (lindane)	0.2	0.2	--	0.05
Benzene	5	1	--	1
bis(2-Ethylhexyl)phthalate	6	4	--	10
Carbon tetrachloride	5	0.5	--	1
Total trihalomethanes chloroform	100	--	--	1
Dalapon	200	--	--	--
Dichloromethane (methylene chloride)	5	--	40	1
Dieldrin	--	--	LOQ (0.05)	0.1
Ethylbenzene	700	700	--	1
Heptachlor	0.4	0.01	--	0.05
Phenols	--	--	5	10
Styrene	100	100	--	10
Tetrachloroethylene	5	5	--	1
Toluene	1,000	150	100	1
Trichloroethylene	5	5	--	1
Vinyl chloride	2	0.5	--	1
Xylenes (total)	10,000	1,750	--	1
Inorganic Compounds (µg/L)[b]				
Aluminum	50 to 200[S]	1,000	--	200
Antimony	6	--	--	60
Arsenic	50	50	--	10
Barium	2,000	1,000	--	200
Beryllium	4	--	--	5
Cadmium	5	10	--	5
Chloride (mg/L)	250[S]	250[S]	--	--

Table A-3
Federal and State Drinking Water Standards, and CRDLs/CRQLs for Chemicals Detected in Groundwater MCAS El Toro Final Groundwater Monitoring Plan

Chemical	Safe Drinking Water Act MCL[a]	California MCL[a]	California Action Level	CRDL/ CRQL
Organic Compounds (µg/L)				
1,1-Dichloroethane	--	5	--	1
Chromium	100	50	--	10
Copper	1,000[S]	1000[S]	--	25
Cyanide (as free CN)	200	200	--	10
Iron	300[S]	300[S]	--	100
Lead	15[c]	50	--	5
Manganese	50[S]	50[S]	--	15
Mercury	2	2	--	0.2
Nickel	100	100	--	40
Nitrate (as N)	10,000	45,000 (as NO_3)	--	--
Nitrite (as N)	1,000	--	--	--
Total nitrate plus nitrite (as N)	10,000	--	--	--
Selenium	50	50	--	5
Silver	100[S]	100[S]	--	10
Sulfate (mg/L)	250[S]	250-600[S]	--	--
Total dissolved solids (TDS) (mg/L)	500[S]	500[S]	--	--
Thallium	2	2	--	10
Zinc	5,000[S]	5000[S]	--	20
Radionuclides (pCi/L)				
Gross alpha	15	15	--	--
Gross beta	4 mrem/yr[d]	50	--	--

-- No criteria or limits have been established
[a][S] = Secondary MCL
[b]Units for inorganic compounds are µg/L, except for chloride and TDS, for which the units are mg/L
[c]USEPA action level
[d]mrem/yr = millirems per year
LOQ = Limit of quantitation
MCL = Maximum contaminant level
CRDL=Contract-required detection limit
CRQL=Contract-required quantitation limit

References:

Safe Drinking Water Act, 40 CFR 141, July 1992.
California MCL: "California Drinking Water Quality Standards", *Environmental Reporter*, 7-31-92.
California Action Level: *Region 9 EPA Drinking Water Standards and Health Advisory Table*, July, 1992.
A Compilation of Water Quality Goals, RWQCB, May 1993.

Table A-4

Summary of Analytes and Their Maximum Concentrations Detected in Groundwater
MCAS El Toro Groundwater Quality Data Report

Analyte by Group[a]	Units	Number of Samples	Number of Times Detected	Number of Sampling Locations	Number Exceeding Regulatory Standards	Regulatory Standard	Regulatory Standard Code[b]	Maximum Detected Conc.	Data Qual. Flag[c]	Well with Maximum Detected Conc.	Sampling Date	Sampling Depth (ft)
VOLATILE ORGANIC COMPOUNDS												
1,1,1-TRICHLOROETHANE	µg/L	621	3	191	0	200	1	0.5	J	07 DGMW72	07/21/93	110
										13 UGMW32	08/28/93	144
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	µg/L	108	1	191				5.5		18 IDP1-S	10/20/93	120
1,1,2-TRICHLOROETHANE	µg/L	461	9	191	0	5	1	3		08 DGMW73	07/20/93	90
											07/20/93	
1,1-DICHLOROETHANE	µg/L	469	1	191	0	5	2	0.7		18 IDP1-S	10/20/93	120
1,1-DICHLOROETHYLENE	µg/L	469	14	191				8		08 DGMW73	12/02/92	90
1,2-DICHLOROETHANE	µg/L	521	7	191	2	0.5	2	0.9	J	02 DGMW60	11/18/92	80
1,2-DICHLOROETHYLENE (TOTAL)	µg/L	429	20	191				9		18 IDP1-S	10/20/93	120
1,2-DICHLOROPROPANE	µg/L	461	5	191	0	5	1	4		18 BGMW18	11/10/92	140
2-BUTANONE	µg/L	464	2	191				1	J	18 BGMW05D	11/03/92	83
										18MCAS01-5	11/30/93	330
2-HEXANONE	µg/L	361	4	191				7		04 DBMW40	12/03/92	220
4-METHYL-2-PENTANONE	µg/L	464	4	191				5		18 BGMW01A	07/01/93	466
BENZENE	µg/L	461	18	191	14	1	2	730	D	13 UGMW32	10/28/92	144
BROMODICHLOROMETHANE	µg/L	419	12	191				11		18 BGMW02A	08/04/92	462
BROMOFORM	µg/L	461	1	191				2		18 BGMW02A	08/04/92	462
CARBON DISULFIDE	µg/L	361	10	191				6		18MCAS07-8	11/01/93	979
CARBON TETRACHLORIDE	µg/L	529	43	191	41	0.5	2	26		14 DBMW50	08/29/93	120
CHLOROBENZENE	µg/L	521	1	191				0.5		18MCAS01-7	09/18/92	540
CHLORODIBROMOMETHANE	µg/L	461	10	191				11		18 BGMW02A	08/04/92	462
CHLOROFORM	µg/L	529	89	191	0	100	1	12		14 DGMW79	11/20/92	118
CHLOROMETHANE (METHYL CHLORIDE)	µg/L	461	64	191				20		18 BGMP08B	10/07/92	380
CIS-1,2-DICHLOROETHYLENE	µg/L	42	5	191				1.6		18MCAS03-2	02/08/93	160
											02/08/93	
DICHLORODIFLUOROMETHANE	µg/L	99	1	191				0.8		18 TIC055	08/02/93	300
ETHYLBENZENE	µg/L	521	13	191	0	680	2	8		13 DGMW78	08/18/93	127
METHYLENE CHLORIDE	µg/L	460	19	191	0	5	1	1	J	17 DGMW82	08/03/93	235
STYRENE	µg/L	402	8	191	0	100	1	1		18 BGMP10B	01/25/93	887
TETRACHLOROETHYLENE (PCE)	µg/L	529	69	191	23	5	1	58		18 PS3	12/10/92	102
TOLUENE	µg/L	529	26	191	0	100	3	15		18 BGMW05A	12/15/92	462
TRICHLOROETHYLENE (TCE)	µg/L	529	180	191	75	5	1	2000	D	09 DBMW45	12/10/92	117
XYLENES (TOTAL)	µg/L	402	24	191	0	1750	2	58		13 UGMW32	10/28/92	144
										18 BGMW01E	10/27/92	205

Table A-4

SEMIVOLATILE ORGANIC COMPOUNDS												
4-METHYLPHENOL	µg/L	321	2	164				41		18MCAS07-8	11/01/93	979
BENZYL BUTYL PHTHALATE	µg/L	323	4	164				19		10 DGMW77	11/17/92	130
BIS(2-ETHYLHEXYL)PHTHALATE	µg/L	323	47	164	30	4	2	49		01 DGMW67	06/14/93	63
DI-N-BUTYL PHTHALATE	µg/L	323	1	164				11		18 MCAS04	08/04/93	177.5
DI-N-OCTYL PHTHALATE	µg/L	321	1	164				0.6	J	18MCAS03-2	11/19/93	160
DIETHYL PHTHALATE	µg/L	323	1	164				3	J	18 BGMW16	10/30/92	175
DIMETHYL PHTHALATE	µg/L	323	26	164				740	D	18 PS5	06/08/93	106
N-NITROSODIPHENYLAMINE	µg/L	321	5	164				57		18 BGMW05A	07/08/93	462
PHENOL	µg/L	321	2	164	1	5	3	14		06 DGMW69	12/02/92	150
PESTICIDES AND PCBs												
4,4'-DDT	µg/L	306	3	151				0.141		18 BGMW19E	11/12/92	98
ALDRIN	µg/L	306	1	151	1	0.05	3	0.059		18 BGMW19E	11/12/92	98
BHC-GAMMA(LINDANE)	µg/L	306	4	151	0	0.2	1	0.06		18 BGMW19E	11/12/92	98
DIELDRIN	µg/L	306	2	151	2	0.05	3	0.136		18 BGMW19E	11/12/92	98
ENDOSULFAN SULFATE	µg/L	306	1	151				0.003		18 PS7	12/16/92	106
HEPTACHLOR	µg/L	306	2	151	2	0.01	2	0.068		03 DGMW64	01/15/93	245
METHOXYCHLOR	µg/L	306	1	151				1.48		08 UGMW29	07/09/93	95
HERBICIDES												
2,4 DICHLOROPHENOXY ACETIC ACID	µg/L	178	1	91	0	70	1	8.56		12 UGMW31	10/08/92	105
2,4,5-TP (SILVEX)	µg/L	178	1	91				2.87		12 UGMW31	10/08/92	105
2,4,5-TRICHLOROPHENOXYACETIC ACID	µg/L	178	1	91				11.4		18 RW1	12/16/92	430
2,4-DB	µg/L	178	1	91				2.88	J	12 UGMW31	10/08/92	105
DICAMBA	µg/L	178	1	91				4.39		12 UGMW31	10/08/92	105
DICHLOROPROP	µg/L	178	1	91				10		18 BGMW02A	06/08/93	462
DINOSEB	µg/L	179	1	91				0.419		18 BGMW16	10/23/92	223
MCPA	µg/L	178	1	91				3490		12 UGMW31	10/08/92	105
MCPP	µg/L	178	2	91				3530		12 UGMW31	10/08/92	105
TOTAL FUEL HYDROCARBONS (DIESEL AND GASOLINE)												
TFH DIESEL	µg/L	319	57	160				4500		18 BGMW01A	07/01/93	466
TFH GASOLINE	µg/L	322	41	162				1690		13 UGMW32	10/28/92	144
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS												
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS	mg/L	313	1	162				0.836		18MCAS02-4	11/11/93	370
DISSOLVED METALS												
ALUMINUM	µg/L	324	90	174	22	50 to 200	1 (S)	22000		18 BGMW19B	06/11/93	400
ANTIMONY	µg/L	323	135	174	135	6	1	54.6	J	15 DBMW51	10/08/93	125
ARSENIC	µg/L	324	210	174	1	50	1	122		18 BGMW19B	12/17/92	400
BARIUM	µg/L	324	323	174	0	1000	2	241	E	18 BGMW19B	06/11/93	400
BERYLLIUM	µg/L	323	16	174	0	4	1	0.94	J	18 BGMW05B	11/11/92	321
BORON	mg/L	9	9	174				0.7		18 NLAKE	06/02/93	370
CADMIUM	µg/L	324	48	174	8	5	1	118		18 BGMW05D	11/03/92	83
CALCIUM	µg/L	367	367	174				869000		15 DBMW51	12/04/92	125
CHROMIUM	µg/L	324	41	174	2	50	2	176		18 BGMW19B	06/11/93	400
COBALT	µg/L	320	19	174				97.9		18MCAS03-6	11/17/93	490
COPPER	µg/L	324	74	174	0	1000	1 (S)	30.8		16 BGMP08D	06/10/93	75

Table A

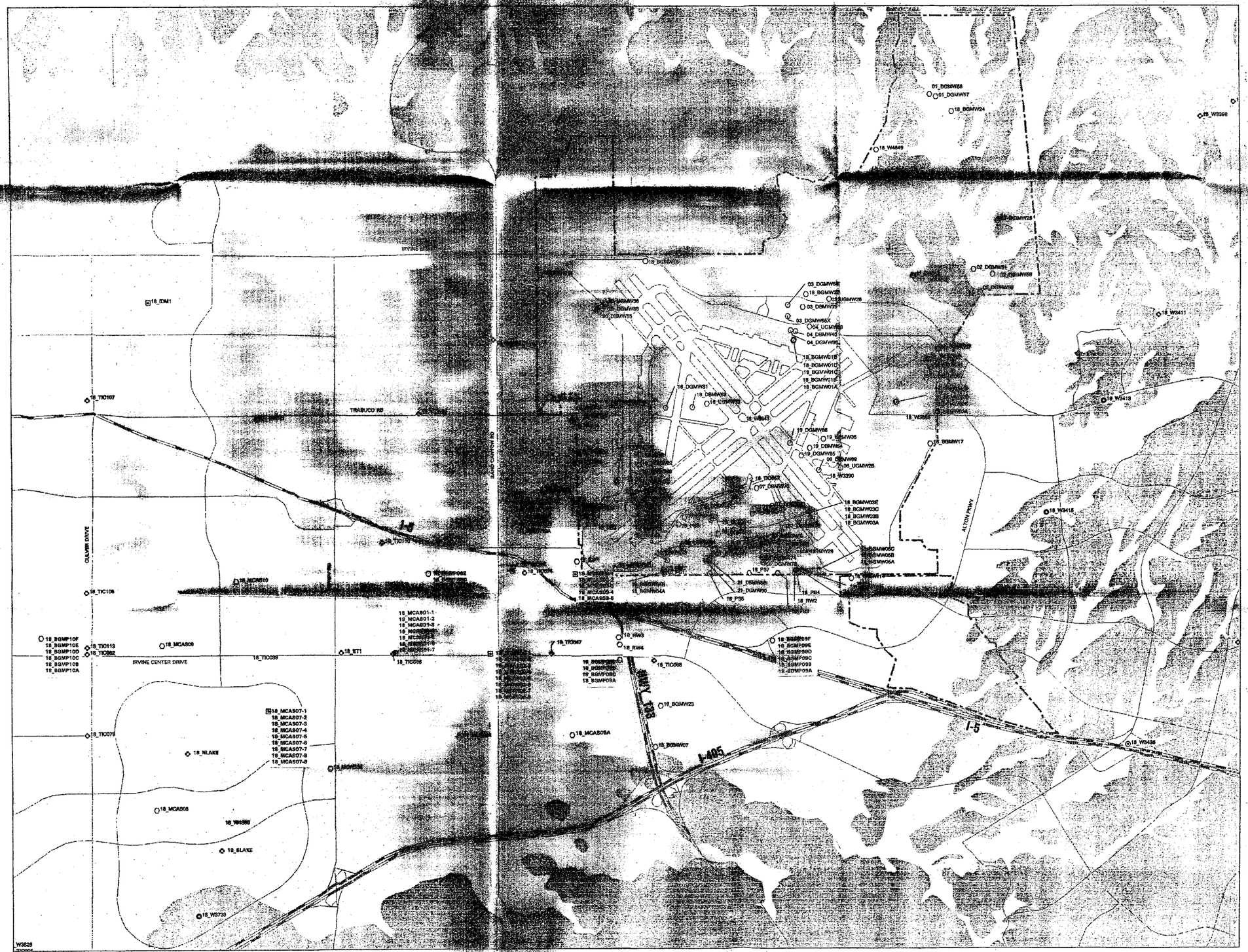
Summary of Analytes and Their Maximum Con[illegible]tions Detected in Groundwater
MCAS El Toro Groundwater Quality Data Report

Analyte by Group*	Units	Number of Samples	Number of Times Detected	Number of Sampling Locations	Number Exceeding Regulatory Standards	Regulatory Standard	Regulatory Standard Code[b]	Maximum Detected Conc.	Data Qual. Flag[c]	Well with Maximum Detected Conc.	Sampling Date	Sampling Depth (ft)
IRON	µg/L	324	144	174	18	300	1 (S)	29700		18 BGMW198	06/11/93	400
LEAD	µg/L	324	12	174	0	15	4	11.7		18 BGMW198	06/11/93	400
MAGNESIUM	µg/L	367	367	174				351000		15 DBMW61	12/04/92	126
MANGANESE	µg/L	324	306	174	108	50	1 (S)	1800		13 DGMW78	11/23/92	127
MERCURY	µg/L	321	18	174	0	2	1	0.48		18 DW136	12/22/92	116
NICKEL	µg/L	322	190	174	88	100	1	5200		18MCAS03-6	11/17/93	490
POTASSIUM	µg/L	367	348	174				10200		18 BGMW198	06/11/93	400
SELENIUM	µg/L	324	258	174	159	10	2	192		16 DGMW81	06/24/93	176
SILVER	µg/L	324	23	174	0	50	2	3.9	J	19 DGMW85	12/16/92	143
SODIUM	µg/L	367	367	174				798000		18 BGMW06A	12/15/92	462
THALLIUM	µg/L	323	11	174	0	2	1	1.2	J	18 BGMW101	11/13/92	90
VANADIUM	µg/L	320	302	174				96.9		18 BGMW198	06/11/93	400
ZINC	µg/L	324	185	174	0	5000	1 (S)	4350		18 BGMW198	06/11/93	400
GENERAL CHEMISTRY AND PHYSICAL PARAMETERS												
ALKALINITY AS CACO3	mg/L	328	327	187				465		21 UGMW37	07/07/93	90
AMMONIA-N	mg/L	5	1	187				0.2		18 TIC106	10/29/93	406
ANIONS, TOTAL	meq/L	1	1	187				14.332		18 NLAKE	06/02/93	370
BICARBONATE	mg/L	45	45	187				720		18MCAS07-9	09/22/92	1099
BICARBONATE (AS CACO3)	mg/L	326	324	187				465		21 UGMW37	07/07/93	90
BROMIDE	mg/L	10	6	187				1.4		18 NLAKE	06/02/93	370
CARBONATE (AS CACO3)	mg/L	317	306	187				126		18 BGMW01A	07/01/93	466
CATIONS, TOTAL	meq/L	1	1	187				13.687		18 NLAKE	06/02/93	370
CHLORIDE	mg/L	365	365	187	92	250 (S)	1	1580		18 BGMW06A	12/15/92	462
COLOR	units	2	1	187				28		18 TIC106	10/21/93	406
COLOR (UNFILTERED)	units	1	1	187				30		18 TIC106	10/21/93	406
CONDUCTIVITY (FIELD)	u mhos/cm	45	45	187				4100		18MCAS02-2	02/17/93	130
CONDUCTIVITY, UMHOS/CM	u mhos/cm	176	176	187				8600		15 DBMW61	08/13/93	126
CYANIDE	µg/L	318	40	187	0	200	1	9	J	02 DGMW60	06/23/93	80
FLUORIDE IC	mg/L	1	1	187				0.44		18 TIC113	06/11/93	280
HARDNESS AS CACO3	mg/L	10	10	187				815		18 TIC056	12/15/92	336
M.B.A.S. (SURFACTANTS)	mg/L	3	1	187				0.05		18 TIC111	10/28/93	200
NITRATE	mg/L	18	14	187				162.66		18 IDP2-S	10/27/93	120
NITRATE AS N	mg/L	37	23	187	13	10	1	50.6		18MCAS02-1	09/17/92	40
NITRATE/NITRITE-N	mg/L	332	301	187	173	10	1	69.7		18 BGMW19D	06/14/93	150
NITROGEN, TOTAL ORGANIC	mg/L	4	1	187				0.3		18 TIC106	10/29/93	406
PH	units	358	358	187				9.79		18 BGMW01A	07/01/93	466
PH (FIELD)	units	213	213	187				24.7		18 TIC113	06/11/93	280
PHOSPHORUS (AS-P)	mg/L	8	1	187				0.3		18 TIC113	06/11/93	280
SILICA, DISSOLVED	mg/L	1	1	187				38		18 NLAKE	06/02/93	370
SPECIFIC CONDUCTANCE	u mho	60	60	187				4000		18MCAS02-2	09/17/92	130
SULFATE	mg/L	365	363	187	139	250	2	2200		18 MCAS10	11/04/93	286
TEMPERATURE, DEGREE C	deg C	213	213	187				2606		18 MCAS08	08/05/93	206
TOTAL DISSOLVED SOLIDS	mg/L	371	371	187	365	500	1 (S)	6600		15 DBMW61	08/13/93	126
TOTAL KJELDAHL NITROGEN (TKN)	mg/L	4	1	187				0.6		18 TIC106	10/29/93	406
TOTAL ORGANIC CARBON	mg/L	10	10	187				3		18 TIC106	10/29/93	406
RADIONUCLIDES												
GROSS ALPHA	pCi/L	35	34	19	7	15	1	24.9		05 DGMW67	11/30/92	177
GROSS BETA	pCi/L	36	36	19	1	50	2	53		05 DGMW67	11/30/92	177

* Analytes shown in boldface are the 76 selected parameters for which data are summarized by well in the data summary tables of this Groundwater Quality Data Report. *Data for all of these parameters are also presented as histograms in this report.*

[b] Regulatory Standard Codes:
1 - Fed[illegible]l MCL
2 - S[illegible]L
3 - [illegible]C Action Level
1(S) - Federal Secondary MCL
4 - EPA Action Level

[c] Flags:
J = R[illegible]ted value was less than the contract-required detection limit (CRDL), [illegible]er than or equal to the instrument detection limit (IDL).
E = [illegible]rted value is estimated because of interference
D = [illegible]lue for this compound came from a diluted sample.



Map compiled from Phase I RI Technical Memorandum (Jacobs, 1993) and Final Groundwater Monitoring Plan (Jacobs, 1995)

FEATURES:

- BEDROCK
- LAKE OR RESERVOIR
- FREEWAY
- ROAD
- MCAS EL TORO BOUNDARY
- WASH OR STREAM
- MONITORING WELL
- WATER SUPPLY WELL

EXPLANATION OF STATION ID

Wells drilled during Phase I RI/FS:

18_BGMW03E

18 Site Number (from 01 to 22)

BG First two letters designate function or location:
BG = Background
DB = Deep Boring
DG = Downgradient
UG = Upgradient

MW Second two letters designate type of well construction:
MP = Westbay well with multiple ports
MW = Single-screen monitoring well

03 Unique number assigned to the well (from 1 to 103)

E Letter suffix that designates screen of a multiple-port well or one well of a well cluster

Wells drilled by others:

18_MCAS01-2

18 Site Number (All wells are part of Site 18, the Groundwater Operable Unit.)

MCAS 2 to 5 letters designate original ownership or purpose:
ET PS
IDM RW
IDP SLAKE
MCAS TIC
NLAKE DW

01 Number assigned to the well by owner

-2 Number suffix that designates the screen of a multiple-port well

0 2000 4000 6000
SCALE IN FEET

PLATE A-1

LOCATION OF GROUNDWATER MONITORING AND REGIONAL WELLS

MCAS El Toro Groundwater Monitoring Program Quarterly Monitoring Report

APPENDIX B

WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
01_DGMW57	WT	63 - 83	631.04	12-Jan-96	48.12	582.92	
			631.04	7-Feb-96	48.32	582.72	-0.20
			631.04	28-Feb-96	48.65	582.39	-0.33
			631.04	27-Mar-96	48.39	582.65	0.26
01_DGMW58	WT	57 - 77	621.94	12-Jan-96	40.44	581.50	
			621.94	28-Feb-96	40.88	581.06	-0.44
			621.94	27-Mar-96	40.58	581.36	0.30
02_DGMW59	WT	69 - 89	506.91	12-Jan-96	50.95	455.96	
			506.91	6-Feb-96	51.22	455.69	-0.27
			506.91	28-Feb-96	48.75	458.16	2.47
			506.91	27-Mar-96	48.66	458.25	0.09
02_DGMW60	WT	80 - 100	499.28	12-Jan-96	63.74	435.54	
			499.28	6-Feb-96	63.32	435.96	0.42
			499.28	28-Feb-96	56.27	443.01	7.05
			499.28	27-Mar-96	60.22	439.06	-3.95
02_DGMW61	WT	80 - 100	514.85	12-Jan-96	41.59	473.26	
			514.85	8-Feb-96	41.78	473.07	-0.19
			514.85	28-Feb-96	40.15	474.70	1.63
			514.85	27-Mar-96	39.70	475.15	0.45
02_UGMW25	WT	55 - 75	546.36	12-Jan-96	30.89	515.47	
			546.36	7-Feb-96	30.72	515.64	0.17
			546.36	28-Feb-96	29.60	516.76	1.12
			546.36	27-Mar-96	29.25	517.11	0.35
03_DBMW39	WT	230 - 270	419.66	11-Jan-96	229.39	190.27	
			419.66	30-Jan-96	229.02	190.64	0.37
			419.66	28-Feb-96	228.47	191.19	0.55
			419.66	27-Mar-96	227.80	191.86	0.67
03_DGMW64	WT	245 - 285	418.28	11-Jan-96	231.49	186.79	
			418.28	26-Feb-96	230.46	187.82	1.03
			418.28	27-Mar-96	229.85	188.43	0.61
03_DGMW65X	WT	230 - 270	411.90	11-Jan-96	223.57	188.33	
			411.90	26-Feb-96	222.70	189.20	0.87
			411.90	27-Mar-96	222.12	189.78	0.58
03_UGMW26	WT	230 - 270	420.05	11-Jan-96	220.49	199.56	
			420.05	26-Feb-96	219.68	200.37	0.81
			420.05	27-Feb-96	219.68	200.37	0.00
			420.05	27-Mar-96	219.11	200.94	0.57
04_DBMW40	WT	220 - 260	400.04	11-Jan-96	212.07	187.97	
			400.04	26-Feb-96	211.14	188.90	0.93
			400.04	27-Mar-96	210.66	189.38	0.48

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
04_DGMW66	WT	250 - 290	401.10	11-Jan-96	212.93	188.17	
			401.10	26-Feb-96	211.91	189.19	1.02
			401.10	27-Mar-96	211.42	189.68	0.49
04_UGMW63	WT	235- 275	404.11	11-Jan-96	212.50	191.61	
			404.11	30-Jan-96	212.31	191.80	0.19
			404.11	28-Feb-96	211.72	192.39	0.59
			404.11	27-Mar-96	211.22	192.89	0.50
05_DBMW41	WT	182 - 222	425.00	12-Jan-96	163.12	261.88	
			425.00	7-Feb-96	162.82	262.18	0.30
			425.00	28-Feb-96	162.82	262.18	0.00
			425.00	27-Mar-96	162.45	262.55	0.37
05_DGMW67	WT	187 - 227	429.00	12-Jan-96	166.52	262.48	
			429.00	9-Feb-96	166.26	262.74	0.26
			429.00	27-Feb-96	166.19	262.81	0.07
			429.00	27-Mar-96	165.85	263.15	0.34
05_DGMW68	WT	190 - 210	417.00	12-Jan-96	168.71	248.29	
			417.00	26-Feb-96	168.11	248.89	0.60
			417.00	27-Feb-96	168.11	248.89	0.00
			417.00	27-Mar-96	167.79	249.21	0.32
05_UGMW27	WT	198 - 238	438.00	11-Jan-96	169.84	268.16	
			438.00	29-Jan-96	169.72	268.28	0.12
			438.00	28-Feb-96	169.70	268.30	0.02
			438.00	27-Mar-96	169.32	268.68	0.38
06_DGMW69	WT	150 - 190	324.33	12-Jan-96	134.00	190.33	
			324.33	2-Feb-96	133.77	190.56	0.23
			324.33	27-Feb-96	133.50	190.83	0.27
			324.33	27-Mar-96	133.20	191.13	0.30
06_UGMW28	WT	140 - 180	334.90	12-Jan-96	139.36	195.54	
			334.90	16-Feb-96	138.91	195.99	0.45
			334.90	28-Feb-96	138.85	196.05	0.06
			334.90	27-Mar-96	138.51	196.39	0.34
07_DBMW43	WT	150 - 190	292.56	12-Jan-96	113.01	179.55	
			292.56	19-Feb-96	112.55	180.01	0.46
			292.56	27-Feb-96	111.41	181.15	1.14
			292.56	27-Mar-96	112.42	180.14	-1.01
07_DBMW70	WT	125 - 165	293.40	12-Jan-96	122.38	171.02	
			293.40	13-Feb-96	122.04	171.36	0.34
			293.40	27-Feb-96	121.84	171.56	0.20
			293.40	27-Mar-96	121.60	171.80	0.24

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
07_DBMW100	WT	131 - 171	286.44	11-Jan-96	104.60	181.84	
			286.44	31-Jan-96	104.58	181.86	0.02
			286.44	27-Feb-96	104.52	181.92	0.06
			286.44	27-Mar-96	NA	NA	
07_DGMW71	WT	115 - 155	283.66	12-Jan-96	109.60	174.06	
			283.66	13-Feb-96	109.21	174.45	0.39
			283.66	27-Feb-96	109.02	174.64	0.19
			283.66	27-Mar-96	108.80	174.86	0.22
07_DGMW72	WT	110 - 150	276.85	11-Jan-96	102.94	173.91	
			276.85	13-Feb-96	102.70	174.15	0.24
			276.85	27-Feb-96	102.53	174.32	0.17
			276.85	27-Mar-96	102.19	174.66	0.34
07_DGMW91	WT	110 - 150	273.39	11-Jan-96	102.92	170.47	
			273.39	8-Feb-96	102.90	170.49	0.02
			273.39	27-Feb-96	102.92	170.47	-0.02
			273.39	27-Mar-96	102.45	170.94	0.47
08_DGMW73	WT	90 - 130	263.77	11-Jan-96	84.40	179.37	
			263.77	14-Feb-96	83.72	180.05	0.68
			263.77	27-Feb-96	83.74	180.03	-0.02
			263.77	27-Mar-96	83.54	180.23	0.20
08_DGMW74	WT	90 - 130	264.75	14-Feb-96	84.99	179.76	
			264.75	27-Feb-96	85.08	179.67	-0.09
			264.75	27-Mar-96	85.24	179.51	-0.16
08_UGMW29	WT	95 - 135	271.94	12-Jan-96	87.00	184.94	
			271.94	14-Feb-96	86.75	185.19	0.25
			271.94	27-Feb-96	86.70	185.24	0.05
			271.94	27-Mar-96	86.50	185.44	0.20
09_DBMW45	WT	117 - 157	280.00	11-Jan-96	118.70	161.30	
			280.00	15-Feb-96	118.44	161.56	0.26
			280.00	27-Feb-96	118.35	161.65	0.09
			280.00	27-Mar-96	118.02	161.98	0.33
09_DGMW75	WT	114 - 154	271.00	11-Jan-96	112.68	158.32	
			271.00	14-Feb-96	112.20	158.80	0.48
			271.00	27-Feb-96	112.21	158.79	-0.01
			271.00	27-Mar-96	111.90	159.10	0.31
10_DGMW77	WT	130 - 170	271.40	11-Jan-96	104.60	166.80	
			271.40	14-Feb-96	104.78	166.62	-0.18
			271.40	27-Feb-96	104.75	166.65	0.03
			271.40	27-Mar-96	104.34	167.06	0.41

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
12_DBMW48	WT	95 - 135	247.81	11-Jan-96	90.86	156.95	
			247.81	16-Feb-96	90.49	157.32	0.37
			247.81	27-Feb-96	90.43	157.38	0.06
			247.81	27-Mar-96	90.11	157.70	0.32
12_UGMW31	WT	105 - 145	255.82	11-Jan-96	96.74	159.08	
			255.82	14-Feb-96	96.26	159.56	0.48
			255.82	27-Feb-96	96.28	159.54	-0.02
			255.82	27-Mar-96	96.02	159.80	0.26
13_DBMW49	WT	142 - 182	280.63	11-Jan-96	129.04	151.59	
			280.63	6-Feb-96	128.73	151.90	0.31
			280.63	27-Feb-96	128.41	152.22	0.32
			280.63	27-Mar-96	128.22	152.41	0.19
13_DGMW78	WT	127 - 167	276.14	11-Jan-96	126.30	149.84	
			276.14	1-Feb-96	125.90	150.24	0.40
			276.14	27-Feb-96	125.50	150.64	0.40
			276.14	27-Mar-96	125.36	150.78	0.14
13_UGMW32	WT	144 - 184	285.22	11-Jan-96	134.52	150.70	
			285.22	5-Feb-96	134.47	150.75	0.05
			285.22	27-Feb-96	133.81	151.41	0.66
			285.22	27-Mar-96	133.62	151.60	0.19
14_DBMW50	WT	120 - 160	270.80	11-Jan-96	120.20	150.60	
			270.80	5-Feb-96	120.04	150.76	0.16
			270.80	27-Feb-96	119.57	151.23	0.47
			270.80	27-Mar-96	119.32	151.48	0.25
14_DGMW79	WT	118 - 158	268.74	11-Jan-96	118.75	149.99	
			268.74	5-Feb-96	118.33	150.41	0.42
			268.74	28-Feb-96	118.17	150.57	0.16
			268.74	27-Mar-96	117.68	151.06	0.49
15_DBMW51	WT	125 - 165	269.26	11-Jan-96	120.45	148.81	
			269.26	6-Feb-96	119.88	149.38	0.57
			269.26	28-Feb-96	119.86	149.40	0.02
			269.26	27-Mar-96	119.41	149.85	0.45
16_DBMW52	WT	182 - 222	332.00	12-Jan-96	170.90	161.10	
			332.00	7-Feb-96	170.30	161.70	0.60
			332.00	27-Feb-96	169.74	162.26	0.56
			332.00	27-Mar-96	169.48	162.52	0.26
16_DGMW81	WT	176 - 216	323.00	12-Jan-96	165.85	157.15	
			323.00	8-Feb-96	165.38	157.62	0.47
			323.00	27-Feb-96	165.07	157.93	0.31
			323.00	27-Mar-96	164.65	158.35	0.42

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
16_UGMW33	WT	180 - 220	337.00	12-Jan-96	173.03	163.97	
			337.00	7-Feb-96	172.35	164.65	0.68
			337.00	27-Feb-96	172.15	164.85	0.20
			337.00	27-Mar-96	171.71	165.29	0.44
17_DGMW82	WT	235 - 255	442.12	12-Jan-96	189.55	252.57	
			442.12	9-Feb-96	192.04	250.08	-2.49
			442.12	28-Feb-96	192.04	250.08	0.00
			442.12	27-Mar-96	NA	NA	
18_BGMP06A	MP	445 - 455	175.41	7-Feb-96	NA	127.57	
			175.41	27-Feb-96	NA	128.48	0.91
			175.41	27-Mar-96	NA	128.56	0.08
18_BGMP06B	MP	380 - 390	175.41	7-Feb-96	NA	108.99	
			175.41	27-Feb-96	NA	110.95	1.96
			175.41	27-Mar-96	NA	109.09	-1.86
18_BGMP06C	MP	295 - 305	175.41	7-Feb-96	NA	121.82	
			175.41	27-Feb-96	NA	122.41	0.59
			175.41	27-Mar-96	NA	122.81	0.40
18_BGMP06D	MP	168 - 178	175.41	7-Feb-96	NA	129.72	
			175.41	27-Feb-96	NA	129.84	0.12
			175.41	27-Mar-96	NA	129.79	-0.05
18_BGMP06E	MP,WT	105 - 115	175.41	7-Feb-96	NA	126.02	
			175.41	27-Feb-96	NA	126.16	0.14
			175.41	27-Mar-96	NA	126.25	0.09
18_BGMP08A	MP	439 - 449	195.70	11-Jan-96	NA	148.06	
			195.70	27-Feb-96	NA	NA	
			195.70	27-Mar-96	NA	150.61	2.55
18_BGMP08C	MP	297 - 307	195.70	11-Jan-96	NA	152.35	
			195.70	27-Feb-96	NA	151.43	-0.92
			195.70	27-Mar-96	NA	151.82	0.39
18_BGMP08D	MP	126 - 136	195.70	11-Jan-96	NA	154.74	
			195.70	27-Feb-96	NA	154.83	0.09
			195.70	27-Mar-96	NA	155.16	0.33
18_BGMP08E	MP,WT	61 - 71	195.70	11-Jan-96	NA	151.81	
			195.70	27-Feb-96	NA	151.92	0.11
			195.70	27-Mar-96	NA	NA	
18_BGMP09A	MP	453 - 463	235.43	11-Jan-96	NA	185.86	
			235.43	28-Feb-96	NA	186.51	0.65
			235.43	27-Mar-96	NA	186.78	0.27

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_BGMP09B	MP	375 - 385	235.43	11-Jan-96	NA	186.93	
			235.43	28-Feb-96	NA	187.59	0.66
			235.43	27-Mar-96	NA	188.05	0.46
18_BGMP09C	MP	268 - 278	235.43	11-Jan-96	NA	213.23	
			235.43	28-Feb-96	NA	235.90	22.67
			235.43	27-Mar-96	NA	189.91	-45.99
18_BGMP09D	MP	222 - 232	235.43	11-Jan-96	NA	232.85	
			235.43	28-Feb-96	NA	188.81	-44.04
			235.43	27-Mar-96	NA	189.40	0.59
18_BGMP09E	MP	133 - 143	235.43	11-Jan-96	NA	196.41	
			235.43	28-Feb-96	NA	187.00	-9.41
			235.43	27-Mar-96	NA	187.40	0.40
18_BGMP09F	MP,WT	59 - 69	235.43	11-Jan-96	NA	NA	
			235.43	28-Feb-96	NA	NA	
			235.43	27-Mar-96	NA	188.97	
18_BGMP10A	MP	1001 - 1011	58.24	19-Jan-96	NA	35.55	
			58.24	28-Feb-96	NA	NA	
			58.24	27-Mar-96	NA	40.46	4.91
18_BGMP10B	MP	886 - 896	58.24	19-Jan-96	NA	37.62	
			58.24	28-Feb-96	NA	NA	
			58.24	27-Mar-96	NA	NA	
18_BGMP10C	MP	752 - 762	58.24	19-Jan-96	NA	41.86	
			58.24	28-Feb-96	NA	NA	
			58.24	27-Mar-96	NA	34.94	-6.92
18_BGMP10D	MP	563 - 573	58.24	19-Jan-96	NA	40.94	
			58.24	28-Feb-96	NA	NA	
			58.24	27-Mar-96	NA	37.40	-3.54
18_BGMP10E	MP	429 - 449	58.24	19-Jan-96	NA	55.65	
			58.24	28-Feb-96	NA	NA	
			58.24	27-Mar-96	NA	60.15	4.50
18_BGMP10F	MP,WT	218 - 228	58.24	19-Jan-96	NA	70.10	
			58.24	28-Feb-96	NA	NA	
			58.24	27-Mar-96	NA	73.02	2.92
18_BGMW01A	CL	466 - 486	393.41	11-Jan-96	223.28	170.13	
			393.41	26-Jan-96	217.78	175.63	5.50
			393.41	27-Feb-96	233.97	159.44	-16.19
			393.41	27-Mar-96	221.56	171.85	12.41

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_BGMW01B	CL	396 - 416	393.83	11-Jan-96	204.11	189.72	
			393.83	23-Jan-96	204.08	189.75	0.03
			393.83	27-Feb-96	203.06	190.77	1.02
			393.83	27-Mar-96	202.89	190.94	0.17
18_BGMW01C	CL	330 - 350	393.25	11-Jan-96	203.39	189.86	
			393.25	23-Jan-96	203.34	189.91	0.05
			393.25	27-Feb-96	202.38	190.87	0.96
			393.25	27-Mar-96	202.26	190.99	0.12
18_BGMW01D	CL	242 - 262	393.15	11-Jan-96	205.70	187.45	
			393.15	23-Jan-96	205.79	187.36	-0.09
			393.15	27-Feb-96	204.75	188.40	1.04
			393.15	27-Mar-96	204.54	188.61	0.21
18_BGMW01E	CL,WT	205 - 225	392.09	11-Jan-96	205.97	186.12	
			392.09	27-Feb-96	205.20	186.89	0.77
			392.09	27-Mar-96	205.01	187.08	0.19
18_BGMW02A	CL	462 - 482	391.81	12-Jan-96	164.41	227.40	
			391.81	18-Jan-96	164.04	227.77	0.37
			391.81	27-Feb-96	163.38	228.43	0.66
			391.81	27-Mar-96	163.30	228.51	0.08
18_BGMW02C	CL	358 - 378	391.75	12-Jan-96	165.06	226.69	
			391.75	18-Jan-96	164.62	227.13	0.44
			391.75	27-Feb-96	164.30	227.45	0.32
			391.75	27-Mar-96	163.94	227.81	0.36
18_BGMW02D	CL	294 - 314	391.45	12-Jan-96	166.42	225.03	
			391.45	17-Jan-96	166.10	225.35	0.32
			391.45	27-Feb-96	165.78	225.67	0.32
			391.45	27-Mar-96	165.48	225.97	0.30
18_BGMW02E	CL,WT	198 - 233	391.72	12-Jan-96	169.88	221.84	
			391.72	1-Feb-96	169.10	222.62	0.78
			391.72	27-Feb-96	169.05	222.67	0.05
			391.72	27-Mar-96	168.56	223.16	0.49
18_BGMW03A	CL	370 - 390	279.25	12-Jan-96	103.00	176.25	
			279.25	27-Feb-96	107.63	171.62	-4.63
			279.25	29-Feb-96	107.59	171.66	0.04
			279.25	27-Mar-96	107.22	172.03	0.37
18_BGMW03B	CL	280 - 300	279.28	12-Jan-96	105.26	174.02	
			279.28	27-Feb-96	104.22	175.06	1.04
			279.28	29-Feb-96	104.25	175.03	-0.03
			279.28	27-Mar-96	103.90	175.38	0.35

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_BGMW03C	CL	222 - 242	279.41	12-Jan-96	104.26	175.15	
			279.41	12-Feb-96	103.51	175.90	0.75
			279.41	27-Feb-96	103.45	175.96	0.06
			279.41	27-Mar-96	103.08	176.33	0.37
18_BGMW03E	CL - WT	124 - 164	279.16	12-Jan-96	107.22	171.94	
			279.16	5-Feb-96	107.09	172.07	0.13
			279.16	27-Feb-96	106.98	172.18	0.11
			279.16	27-Mar-96	106.62	172.54	0.36
18_BGMW04A	CL	286 - 306	243.36	11-Jan-96	85.37	157.99	
			243.36	27-Feb-96	84.01	159.35	1.36
			243.36	28-Feb-96	83.97	159.39	0.04
			243.36	27-Mar-96	83.65	159.71	0.32
18_BGMW04B	CL	190 - 210	243.58	11-Jan-96	81.65	161.93	
			243.58	19-Jan-96	81.70	161.88	-0.05
			243.58	27-Feb-96	80.72	162.86	0.98
			243.58	27-Mar-96	80.36	163.22	0.36
18_BGMW05A	CL	462 - 482	269.45	12-Jan-96	81.91	187.54	
			269.45	26-Jan-96	84.98	184.47	-3.07
			269.45	27-Feb-96	85.22	184.23	-0.24
			269.45	27-Mar-96	84.13	185.32	1.09
18_BGMW05B	CL	321 - 341	270.41	12-Jan-96	82.51	187.90	
			270.41	27-Feb-96	81.50	188.91	1.01
			270.41	29-Feb-96	81.38	189.03	0.12
			270.41	27-Mar-96	81.15	189.26	0.23
18_BGMW05C	CL	225 - 245	269.39	12-Jan-96	80.64	188.75	
			269.39	25-Jan-96	80.52	188.87	0.12
			269.39	27-Feb-96	80.20	189.19	0.32
			269.39	29-Feb-96	80.16	189.23	0.04
			269.39	27-Mar-96	79.93	189.46	0.23
18_BGMW05D	CL,WT	83 - 133	270.42	12-Jan-96	82.21	188.21	
			270.42	19-Feb-96	81.78	188.64	0.43
			270.42	27-Feb-96	81.87	188.55	-0.09
			270.42	27-Mar-96	81.63	188.79	0.24
18_BGMW07	WT	25 - 65	180.11	12-Jan-96	21.73	158.38	
			180.11	9-Feb-96	21.68	158.43	0.05
			180.11	28-Feb-96	21.49	158.62	0.19
			180.11	27-Mar-96	21.54	158.57	-0.05
18_BGMW12	WT	165 - 205	304.44	11-Jan-96	155.51	148.93	
			304.44	2-Feb-96	155.27	149.17	0.24
			304.44	28-Feb-96	154.71	149.73	0.56
			304.44	27-Mar-96	154.30	150.14	0.41

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_BGMW14	WT	75 - 115	268.67	12-Jan-96	70.40	198.27	
			268.67	16-Feb-96	69.95	198.72	0.45
			268.67	28-Feb-96	69.82	198.85	0.13
			268.67	27-Mar-96	69.70	198.97	0.12
18_BGMW15	WT	175 - 215	319.59	11-Jan-96	166.13	153.46	
			319.59	2-Feb-96	165.79	153.80	0.34
			319.59	28-Feb-96	165.30	154.29	0.49
			319.59	27-Mar-96	169.79	149.80	-4.49
18_BGMW16	WT	223 - 263	376.67	11-Jan-96	217.68	158.99	
			376.67	19-Jan-96	217.68	158.99	0.00
			376.67	28-Feb-96	217.04	159.63	0.64
			376.67	27-Mar-96	216.58	160.09	0.46
18_BGMW17	WT	215 - 255	375.68	11-Jan-96	140.31	235.37	
			375.68	29-Jan-96	140.08	235.60	0.23
			375.68	28-Feb-96	139.89	235.79	0.19
			375.68	27-Mar-96	139.64	236.04	0.25
18_BGMW18	WT	140 - 180	276.49	12-Jan-96	NA	NA	
			276.49	5-Feb-96	131.41	145.08	
			276.49	27-Feb-96	130.97	145.52	0.44
			276.49	27-Mar-96	130.58	145.91	0.39
18_BGMW19A	CL	448 - 468	232.61	12-Jan-96	93.32	139.29	
			232.61	27-Feb-96	90.51	142.10	2.81
			232.61	1-Mar-96	90.32	142.29	0.19
			232.61	27-Mar-96	90.10	142.51	0.22
18_BGMW19B	CL	400 - 420	232.69	12-Jan-96	94.61	138.08	
			232.69	27-Feb-96	92.03	140.66	2.58
			232.69	1-Mar-96	91.90	140.79	0.13
			232.69	27-Mar-96	91.70	140.99	0.20
18_BGMW19C	CL	257 - 277	232.79	12-Jan-96	92.45	140.34	
			232.79	27-Feb-96	90.65	142.14	1.80
			232.79	29-Feb-96	90.57	142.22	0.08
			232.79	27-Mar-96	90.18	142.61	0.39
18_BGMW19D	CL	150 - 170	232.54	12-Jan-96	91.49	141.05	
			232.54	16-Feb-96	90.85	141.69	0.64
			232.54	27-Feb-96	90.77	141.77	0.08
			232.54	27-Mar-96	90.50	142.04	0.27
18_BGMW19E	CL,WT	98 - 138	232.91	12-Jan-96	91.67	141.24	
			232.91	6-Feb-96	91.47	141.44	0.20
			232.91	27-Feb-96	91.22	141.69	0.25
			232.91	27-Mar-96	90.98	141.93	0.24

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_BGMW22	WT	247 - 287	426.36	11-Jan-96	234.83	191.53	
			426.36	22-Jan-96	234.70	191.66	0.13
			426.36	27-Feb-96	232.89	193.47	1.81
			426.36	27-Mar-96	233.40	192.96	-0.51
18_BGMW23	WT	64 - 104	190.22	12-Jan-96	28.87	161.35	
			190.22	19-Feb-96	28.55	161.67	0.32
			190.22	28-Feb-96	28.52	161.70	0.03
			190.22	27-Mar-96	28.20	162.02	0.32
18_BGMW24	WT	51 - 71	618.13	12-Jan-96	34.40	583.73	
			618.13	7-Feb-96	34.38	583.75	0.02
			618.13	28-Feb-96	33.92	584.21	0.46
			618.13	27-Mar-96	33.82	584.31	0.10
18_BGMW101	WT	90 - 130	232.80	12-Jan-96	80.86	151.94	
			232.80	29-Jan-96	80.78	152.02	0.08
			232.80	27-Feb-96	80.46	152.34	0.32
			232.80	27-Mar-96	80.21	152.59	0.25
18_DW135	CL,WT	115 - 135	268.90	12-Jan-96	117.69	151.21	
			268.90	19-Feb-96	117.06	151.84	0.63
			268.90	26-Feb-96	116.99	151.91	0.07
			268.90	27-Mar-96	116.61	152.29	0.38
18_DW250	CL	215 - 250	268.82	11-Jan-96	116.41	152.41	
			268.82	31-Jan-96	115.65	153.17	0.76
			268.82	26-Feb-96	115.36	153.46	0.29
			268.82	27-Mar-96	114.90	153.92	0.46
18_DW350	CL	310 - 350	269.11	12-Jan-96	115.40	153.71	
			269.11	29-Jan-96	114.78	154.33	0.62
			269.11	26-Feb-96	113.93	155.18	0.85
			269.11	27-Mar-96	113.50	155.61	0.43
18_DW450	CL	420 - 450	269.12	11-Jan-96	114.81	154.31	
			269.12	29-Jan-96	113.81	155.31	1.00
			269.12	26-Feb-96	112.88	156.24	0.93
			269.12	27-Mar-96	112.37	156.75	0.51
18_DW540	CL	490 - 540	269.53	11-Jan-96	115.26	154.27	
			269.53	30-Jan-96	114.16	155.37	1.10
			269.53	26-Feb-96	113.21	156.32	0.95
			269.53	27-Mar-96	112.71	156.82	0.50
18_MCAS01-1	MP	60 - 70	142.14	12-Jan-96	NA	117.46	
			142.14	27-Feb-96	NA	117.23	-0.23
			140.13	27-Mar-96	NA	117.99	0.76

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_MCAS01-2	MP	150 - 160	142.14	12-Jan-96	NA	111.82	
			142.14	27-Feb-96	NA	108.24	-3.58
			140.13	27-Mar-96	NA	104.38	-3.86
18_MCAS01-3	MP	210 - 220	142.14	12-Jan-96	NA	111.30	
			142.14	27-Feb-96	NA	108.94	-2.36
			140.13	27-Mar-96	NA	110.71	1.77
18_MCAS01-4	MP	270 - 280	142.14	12-Jan-96	NA	103.34	
			142.14	27-Feb-96	NA	105.74	2.40
			140.13	27-Mar-96	NA	104.77	-0.97
18_MCAS01-5	MP	330 - 340	142.14	12-Jan-96	NA	103.46	
			142.14	27-Feb-96	NA	106.31	2.85
			140.13	27-Mar-96	NA	105.47	-0.84
18_MCAS01-6	MP	450 - 460	142.14	12-Jan-96	NA	102.76	
			142.14	27-Feb-96	NA	106.19	3.43
			140.13	27-Mar-96	NA	104.64	-1.55
18_MCAS01-7	MP	540 - 550	142.14	12-Jan-96	NA	96.78	
			142.14	27-Feb-96	NA	100.27	3.49
			140.13	27-Mar-96	NA	101.83	1.56
18_MCAS02-1	MP	40 - 50	160.60	12-Jan-96	NA	129.72	
			160.60	27-Feb-96	NA	130.00	0.28
			160.60	27-Mar-96	NA	129.88	-0.12
18_MCAS02-2	MP	130 - 140	160.60	12-Jan-96	NA	123.87	
			160.60	27-Feb-96	NA	121.35	-2.52
			160.60	27-Mar-96	NA	121.94	0.59
18_MCAS02-3	MP	200 - 210	160.60	12-Jan-96	NA	120.47	
			160.60	27-Feb-96	NA	120.51	0.04
			160.60	27-Mar-96	NA	120.86	0.35
18_MCAS02-4	MP	370 - 380	160.60	12-Jan-96	NA	117.92	
			160.60	27-Feb-96	NA	119.30	1.38
			160.60	27-Mar-96	NA	118.57	-0.73
18_MCAS02-5	MP	420 - 430	160.60	12-Jan-96	NA	119.21	
			160.60	27-Feb-96	NA	120.82	1.61
			160.60	27-Mar-96	NA	120.97	0.15
18_MCAS02-6	MP	490 - 500	160.60	12-Jan-96	NA	112.70	
			160.60	27-Feb-96	NA	116.17	3.47
			160.60	27-Mar-96	NA	117.59	1.42

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_MCAS02-7	MP	550 - 560	160.60	12-Jan-96	NA	113.45	
			160.60	27-Feb-96	NA	116.64	3.19
			160.60	27-Mar-96	NA	118.14	1.50
18_MCAS02-8	MP	620 - 630	160.60	12-Jan-96	NA	110.71	
			160.60	27-Feb-96	NA	113.93	3.22
			160.60	27-Mar-96	NA	116.01	2.08
18_MCAS03-1	MP	85 - 95	216.22	12-Jan-96	NA	144.54	
			216.22	27-Feb-96	NA	144.54	0.00
			216.22	27-Mar-96	NA	145.42	0.88
18_MCAS03-2	MP	160 - 170	216.22	12-Jan-96	NA	141.74	
			216.22	27-Feb-96	NA	142.00	0.26
			216.22	27-Mar-96	NA	142.59	0.59
18_MCAS03-3	MP	220 - 230	216.22	12-Jan-96	NA	143.28	
			216.22	27-Feb-96	NA	144.12	0.84
			216.22	27-Mar-96	NA	144.62	0.50
18_MCAS03-4	MP	340 - 350	216.22	12-Jan-96	NA	141.24	
			216.22	27-Feb-96	NA	143.11	1.87
			216.22	27-Mar-96	NA	143.53	0.42
18_MCAS03-5	MP	420 - 430	216.22	12-Jan-96	NA	140.15	
			216.22	27-Feb-96	NA	142.47	2.32
			216.22	27-Mar-96	NA	142.86	0.39
18_MCAS03-6	MP	490 - 500	216.22	12-Jan-96	NA	141.82	
			216.22	27-Feb-96	NA	143.83	2.01
			216.22	27-Mar-96	NA	144.41	0.58
18_MCAS04	SH	181 - 238	141.46	9-Feb-96	22.48	118.98	
			141.46	28-Feb-96	22.24	119.22	0.24
			141.46	27-Mar-96	22.02	119.44	0.22
18_MCAS05A	SH	120 -130	NA	31-Jan-96	30.01	NA	
			NA	28-Feb-96	NA	NA	
			NA	27-Mar-96	NA	NA	
18_MCAS06	SH	167 - 222	114.85	12-Jan-96	14.08	100.77	
			114.85	16-Jan-96	14.32	100.53	-0.24
			114.85	28-Feb-96	14.00	100.85	0.32
			114.85	27-Mar-96	14.10	100.75	-0.10
18_MCAS07-1	MP	90 - 100	101.19	12-Jan-96	NA	88.42	
			101.19	28-Feb-96	NA	89.02	0.60
			101.19	27-Mar-96	NA	88.98	-0.04

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_MCAS07-2	MP	190 - 200	101.19	12-Jan-96	NA	94.75	
			101.19	28-Feb-96	NA	96.79	2.04
			101.19	27-Mar-96	NA	95.45	-1.34
18_MCAS07-3	MP	350 - 360	101.19	12-Jan-96	NA	67.84	
			101.19	28-Feb-96	NA	76.17	8.33
			101.19	27-Mar-96	NA	65.92	-10.25
18_MCAS07-4	MP	440 - 450	101.19	12-Jan-96	NA	58.75	
			101.19	28-Feb-96	NA	69.82	11.07
			101.19	27-Mar-96	NA	52.71	-17.11
18_MCAS07-5	MP	510 - 520	101.19	12-Jan-96	NA	63.67	
			101.19	28-Feb-96	NA	73.86	10.19
			101.19	27-Mar-96	NA	61.14	-12.72
18_MCAS07-6	MP	800 - 810	101.19	12-Jan-96	NA	52.01	
			101.19	28-Feb-96	NA	40.69	-11.32
			101.19	27-Mar-96	NA	36.33	-4.36
18_MCAS07-7	MP	910 - 920	101.19	12-Jan-96	NA	50.25	
			101.19	28-Feb-96	NA	39.69	-10.56
			101.19	27-Mar-96	NA	32.36	-7.33
18_MCAS07-8	MP	980 - 990	101.19	12-Jan-96	NA	51.23	
			101.19	28-Feb-96	NA	91.63	40.40
			101.19	27-Mar-96	NA	58.98	-32.65
18_MCAS07-9	MP	1100 - 1110	101.19	12-Jan-96	NA	105.65	
			101.19	28-Feb-96	NA	NA	
			101.19	27-Mar-96	NA	NA	
18_MCAS08	DP	392 - 410	86.72	1-Feb-96	58.01	28.71	
			86.72	28-Feb-96	54.08	32.64	3.93
			86.72	27-Mar-96	54.00	32.72	0.08
18_MCAS09	DP	372 - 445	77.50	12-Jan-96	4.89	72.61	
			77.50	16-Jan-96	6.63	70.87	-1.74
			77.50	27-Mar-96	6.63	70.87	0.00
18_MCAS10	DP	355 - 375	102.10	11-Jan-96	16.06	86.04	
			102.10	19-Jan-96	18.47	83.63	-2.41
			102.10	27-Mar-96	16.12	85.98	2.35
18_PS1	SH	102 - 122	247.99	11-Jan-96	86.98	161.01	
			247.99	19-Jan-96	86.90	161.09	0.08
			247.99	26-Feb-96	86.65	161.34	0.25
			247.99	27-Mar-96	86.41	161.58	0.24

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_PS2	SH	103 - 133	246.73	11-Jan-96	99.50	147.23	
			246.73	18-Jan-96	99.42	147.31	0.08
			246.73	26-Feb-96	98.96	147.77	0.46
			246.73	27-Mar-96	98.62	148.11	0.34
18_PS3	SH	102 - 122	266.47	11-Jan-96	87.30	179.17	
			266.47	22-Feb-96	84.10	182.37	3.20
			266.47	28-Feb-96	84.06	182.41	0.04
			266.47	27-Mar-96	83.84	182.63	0.22
18_PS4	SH	98 - 118	264.53	12-Jan-96	79.85	184.68	
			264.53	21-Feb-96	76.50	188.03	3.35
			264.53	28-Feb-96	76.45	188.08	0.05
			264.53	27-Mar-96	76.25	188.28	0.20
18_PS5	SH	106 - 126	255.14	12-Jan-96	88.01	167.13	
			255.14	22-Jan-96	88.11	167.03	-0.10
			255.14	28-Feb-96	87.90	167.24	0.21
			255.14	27-Mar-96	87.62	167.52	0.28
18_PS6	SH	130 - 150	269.09	11-Jan-96	111.45	157.64	
			269.09	26-Jan-96	111.34	157.75	0.11
			269.09	26-Feb-96	110.97	158.12	0.37
			269.09	27-Mar-96	110.70	158.39	0.27
18_PS7	SH	106 - 126	260.00	11-Jan-96	88.10	171.90	
			260.00	22-Jan-96	87.28	172.72	0.82
			260.00	28-Feb-96	87.06	172.94	0.22
			260.00	27-Mar-96	86.85	173.15	0.21
18_PS8	SH	125 - 145	282.84	11-Jan-96	103.82	179.02	
			282.84	26-Jan-96	103.18	179.66	0.64
			282.84	26-Feb-96	103.42	179.42	-0.24
			282.84	27-Mar-96	103.57	179.27	-0.15
18_RW1	DP	430 - 470	247.99	12-Jan-96	85.85	162.14	
			247.99	23-Jan-96	85.66	162.33	0.19
			247.99	28-Feb-96	83.39	164.60	2.27
			247.99	27-Mar-96	82.95	165.04	0.44
18_RW2	DP	270 - 310	265.69	11-Jan-96	76.08	189.61	
			265.69	24-Jan-96	76.07	189.62	0.01
			265.69	28-Feb-96	75.79	189.90	0.28
			265.69	27-Mar-96	75.50	190.19	0.29
18_RW3	DP	370 - 390	NA	11-Jan-96	50.22	NA	
			NA	25-Jan-96	50.04	NA	
			NA	28-Feb-96	48.70	NA	
			NA	27-Mar-96	NA	NA	

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
18_RW4	SH	65 - 85	NA	11-Jan-96	48.13	NA	
			NA	26-Jan-96	48.12	NA	
			NA	28-Feb-96	47.90	NA	
			NA	27-Mar-96	NA	NA	
19_DBMW54	WT	141 - 181	332.59	12-Jan-96	142.66	189.93	
			332.59	19-Feb-96	141.85	190.74	0.81
			332.59	27-Feb-96	141.85	190.74	0.00
			332.59	27-Mar-96	141.52	191.07	0.33
19_DGMW85	WT	143 - 183	328.57	12-Jan-96	141.30	187.27	
			328.57	19-Feb-96	140.54	188.03	0.76
			328.57	27-Feb-96	140.60	187.97	-0.06
			328.57	27-Mar-96	140.87	187.70	-0.27
19_DGMW86	WT	158 - 198	332.87	12-Jan-96	150.34	182.53	
			332.87	12-Feb-96	149.94	182.93	0.40
			332.87	27-Feb-96	NA	NA	
			332.87	27-Mar-96	149.47	183.40	0.47
19_UGMW35	WT	148 - 185	343.66	12-Jan-96	150.62	193.04	
			343.66	8-Feb-96	150.29	193.37	0.33
			343.66	27-Feb-96	149.97	193.69	0.32
			343.66	27-Mar-96	149.65	194.01	0.32
20_DBMW55	WT	187 - 227	331.56	11-Jan-96	180.53	151.03	
			331.56	27-Feb-96	179.62	151.94	0.91
			331.56	28-Feb-96	179.92	151.64	-0.30
			331.56	27-Mar-96	179.34	152.22	0.58
20_DGMW88	WT	185 - 225	331.65	11-Jan-96	181.59	150.06	
			331.65	1-Feb-96	181.38	150.27	0.21
			331.65	28-Feb-96	181.10	150.55	0.28
			331.65	27-Mar-96	180.55	151.10	0.55
20_UGMW36	WT	183 - 223	338.71	11-Jan-96	187.07	151.64	
			338.71	5-Feb-96	187.08	151.63	-0.01
			338.71	28-Feb-96	186.58	152.13	0.50
			338.71	27-Mar-96	186.03	152.68	0.55
21_DBMW56	WT	92 - 132	256.06	11-Jan-96	90.07	165.99	
			256.06	15-Feb-96	89.84	166.22	0.23
			256.06	27-Feb-96	89.84	166.22	0.00
			256.06	27-Mar-96	89.60	166.46	0.24
21_DGMW90	WT	95 - 135	255.35	11-Jan-96	90.08	165.27	
			255.35	2-Feb-96	90.16	165.19	-0.08
			255.35	27-Feb-96	90.08	165.27	0.08
			255.35	27-Mar-96	89.78	165.57	0.30

Table B-1: WATER LEVEL MEASUREMENTS AND GROUNDWATER ELEVATIONS
MCAS El Toro Groundwater Monitoring Program

STATION ID	WELL TYPE	SCREEN INTERVAL (feet BGS)	TOP OF CASING (feet MSL)	MEASUREMENT DATE	DEPTH TO WATER (feet TOC)	WATER LEVEL ELEVATION (feet MSL)	CHANGE FROM PRIOR ELEVATION (+ or - feet)
21_UGMW37	WT	89 - 130	419.67	11-Jan-96	91.28	328.39	
			419.67	12-Feb-96	90.93	328.74	0.35
			419.67	27-Feb-96	89.95	329.72	0.98
			419.67	27-Mar-96	90.68	328.99	-0.73
22_DBMW47	WT	116 - 156	277.83	11-Jan-96	114.43	163.40	
			277.83	15-Feb-96	113.95	163.88	0.48
			277.83	28-Feb-96	114.01	163.82	-0.06
			277.83	27-Mar-96	113.66	164.17	0.35

EXPLANATION

1. Well Types: WT = Water table monitoring well/port, CL = well in monitoring well cluster, MP = multiple port monitoring well, SH = well completed below water table and above top of intermediate horizon, DP = well completed in deep production aquifer.

2. Abbreviations: BGS = below ground surface, MSL = mean sea level, TOC = top of well casing, NA = not available or applicable.

3. Due to installation of well vault, the top of MP casing for well 18_MCAS01 was lowered 2.01 feet in March 1996. Reference elevation has been adjusted by field measurement.

4. Well 18_MCAS05 was destroyed and replaced with well 18_MCAS05A in 1994. Surveyed TOC elevation not available for well 18_MCAS05A.

APPENDIX C

GROUNDWATER SAMPLING FIELD PARAMETERS

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
01_DGMW57	7-Feb-96	22.1	7.15	799	-10	9.96	235	90
01_DGMW58	28-Feb-96	17.0	7.55	522	86	9.49	NA	83
02_DGMW59	6-Feb-96	20.8	7.18	1,410	-10	11.90	245	85
02_DGMW60	6-Feb-96	22.4	6.86	1,540	-10	9.11	260	85
02_DGMW61	8-Feb-96	22.4	6.99	1,020	-10	10.58	250	126
02_UGMW25	7-Feb-96	18.0	7.16	2,200	-10	14.96	240	112
03_DBMW39	30-Jan-96	24.8	7.21	1,220	-10	7.42	125	100
03_DGMW64	26-Feb-96	21.3	7.77	1,870	30	7.00	NA	150
03_DGMW65X	26-Feb-96	21.0	7.67	1,790	30	6.63	NA	130
03_UGMW26	27-Feb-96	21.7	7.22	1,020	74	6.52	NA	154
04_DBMW40	26-Feb-96	21.4	7.44	1,950	149	6.42	NA	120
04_DGMW66	26-Feb-96	21.0	7.52	1,630	38	6.17	NA	170
04_UGMW63	30-Jan-96	24.0	7.07	1,330	187	6.60	190	120
05_DBMW41	7-Feb-96	22.6	6.83	1,310	0	6.91	250	128
05_DGMW67	9-Feb-96	20.9	7.03	1,400	-10	7.49	245	148
05_DGMW68	27-Feb-96	20.9	7.16	1,260	49	7.98	NA	135
05_UGMW27	29-Jan-96	22.0	7.25	1,280	5	9.78	95	150
06_DGMW69	2-Feb-96	24.0	6.60	1,440	4	6.18	205	120
06_UGMW28	16-Feb-96	25.9	6.79	2,030	9	7.33	160	93
07_DBMW43	19-Feb-96	24.8	7.01	897	67	7.09	220	172
07_DBMW70	13-Feb-96	24.1	6.73	1,480	0	7.89	245	100
07_DBMW100	31-Jan-96	23.4	6.76	1,070	-10	6.82	230	110
07_DGMW71	13-Feb-96	24.5	6.69	1,350	0	9.37	235	100
07_DGMW72	13-Feb-96	24.5	6.64	1,290	0	8.17	220	104
07_DGMW91	8-Feb-96	23.9	6.63	1,300	0	7.10	200	105

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
08_DGMW73	14-Feb-96	23.3	6.79	1,620	0	8.06	NA	105
08_DGMW74	14-Feb-96	23.9	6.96	1,280	1	8.26	235	99
08_UGMW29	14-Feb-96	23.4	6.89	1,300	8	8.11	NA	32
09_DBMW45	15-Feb-96	23.5	6.39	1,490	241	7.11	NA	87
09_DGMW75	14-Feb-96	25.2	6.93	1,780	52	8.62	140	96
10_DGMW77	14-Feb-96	25.5	6.94	1,410	-10	7.77	185	144
12_DBMW48	16-Feb-96	23.2	6.68	2,120	0	7.34	255	98
12_UGMW31	14-Feb-96	25.3	6.90	1,350	-10	7.60	235	108
13_DBMW49	6-Feb-96	24.1	6.72	2,400	38	7.06	250	120
13_DGMW78	1-Feb-96	23.9	6.50	2,550	9	6.98	NA	92
13_UGMW32	5-Feb-96	24.8	6.67	1,630	0	11.98	240	105
14_DBMW50	5-Feb-96	24.0	6.79	2,410	-10	8.28	240	102
14_DGMW79	5-Feb-96	24.2	6.71	2,680	-10	9.20	250	90
15_DBMW51	6-Feb-96	24.9	6.56	4,750	0	7.32	255	100
16_DBMW52	7-Feb-96	25.9	7.20	1,850	0	7.81	NA	112
16_DGMW81	8-Feb-96	24.7	6.81	2,150	8	6.75	NA	105
16_UGMW33	7-Feb-96	24.5	6.93	867	1	7.07	240	105
17_DGMW82	9-Feb-96	24.8	7.23	1,110	-10	10.79	NA	123
18_BGMP06A	7-Feb-96	22.2	7.84	792	-9	8.04	220	
18_BGMP06B	7-Feb-96	22.7	7.70	920	-10	9.51	240	
18_BGMP06C	7-Feb-96	22.9	8.02	787	-10	10.08	55	
18_BGMP06D	7-Feb-96	23.3	7.47	1,740	-10	10.57	195	
18_BGMP06E	7-Feb-96	22.9	7.32	2,170	-10	10.40	200	
18_BGMP08A	15-Jan-96	20.6	7.14	2,080	10	10.16	145	
18_BGMP08B	16-Jan-96	20.3	7.14	1,110	18	8.89	90	

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
18_BGMP08C	16-Jan-96	20.1	7.45	1,120	10	9.07	90	
18_BGMP08D	17-Jan-96	19.5	7.32	1,400	10	7.04	235	
18_BGMP09A	31-Jan-96	18.2	NA	3,860	0	NA	15	
18_BGMP09B	31-Jan-96	19.6	NA	1,930	-10	NA	250	
18_BGMP09C	1-Feb-96	20.1	7.09	1,120	-5	8.51	240	
18_BGMP09D	2-Feb-96	20.2	7.32	1,120	2	8.31	265	
18_BGMP09E	2-Feb-96	20.1	7.31	1,480	1	8.75	295	
18_BGMP09F	2-Feb-96	19.3	7.99	1,680	3	9.28	265	
18_BGMP10A	19-Jan-96	18.5	8.57	960	0	9.46	-40	
18_BGMP10B	23-Jan-96	18.5	7.53	804	8	8.88	-35	5
18_BGMP10C	23-Jan-96	18.1	8.30	549	8	8.82	-40	
18_BGMP10D	23-Jan-96	16.7	7.20	639	0	8.87	5	
18_BGMP10E	24-Jan-96	18.3	7.38	727	3	10.72	10	
18_BGMP10F	24-Jan-96	20.7	7.87	1,630	3	12.61	205	
18_BGMW01A	26-Jan-96	23.7	7.04	1,920	10	8.78	NA	384
18_BGMW01B	24-Jan-96	26.5	7.36	1,080	109	9.01	215	500
18_BGMW01C	23-Jan-96	25.2	7.16	1,050	10	6.73	175	84
18_BGMW01D	23-Jan-96	25.0	7.01	1,280	10	8.33	230	180
18_BGMW01E	5-Feb-96	24.8	6.79	1,200	1	11.33	210	50
18_BGMW02A	19-Jan-96	25.5	7.43	920	5	8.16	NA	400
18_BGMW02C	18-Jan-96	25.4	7.27	890	10	6.02	315	335
18_BGMW02D	17-Jan-96	24.6	7.27	934	10	5.17	305	230
18_BGMW02E	1-Feb-96	23.6	6.86	1,160	-10	6.79	155	375
18_BGMW03A	29-Feb-96	25.3	7.16	941	0	7.90	NA	405
18_BGMW03B	29-Feb-96	25.0	7.00	872	0	7.98	NA	280

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
18_BGMW03C	12-Feb-96	24.2	6.69	900	0	8.79	245	400
18_BGMW03E	5-Feb-96	25.1	7.01	1,300	-10	8.87	240	130
18_BGMW04A	28-Feb-96	23.5	6.67	959	0	6.87	NA	256
18_BGMW04B	19-Jan-96	23.0	7.00	1,400	144	9.51	195	160
18_BGMW05A	26-Jan-96	26.1	7.37	3,700	9	7.48	NA	470
18_BGMW05B	29-Feb-96	25.2	6.20	1,080	0	8.06	NA	375
18_BGMW05C	29-Feb-96	24.8	7.05	1,100	0	8.35	NA	192
18_BGMW05D	19-Feb-96	22.9	6.51	1,480	41	8.23	150	192
18_BGMW07	9-Feb-96	20.4	6.67	2,020	-10	8.37	240	90
18_BGMW12	2-Feb-96	25.1	6.82	2,370	4	6.25	10	105
18_BGMW14	16-Feb-96	22.5	6.41	1,720	0	9.64	160	98
18_BGMW15	2-Feb-96	23.8	6.91	2,480	5	6.91	245	105
18_BGMW16	19-Jan-96	24.7	7.03	1,500	68	7.62	80	180
18_BGMW17	29-Jan-96	22.8	7.13	1,250	122	8.44	90	300
18_BGMW18	5-Feb-96	23.6	6.91	1,470	2	11.15	245	105
18_BGMW19A	1-Mar-96	26.1	6.84	1,130	0	7.65	NA	540
18_BGMW19B	11-Mar-96	25.4	7.10	1,060	0	7.99	NA	460
18_BGMW19C	29-Feb-96	23.8	6.91	1,850	0	8.82	NA	270
18_BGMW19D	16-Feb-96	25.0	6.93	2,410	-7	8.39	205	240
18_BGMW19E	6-Feb-96	22.8	6.74	2,270	0	7.70	255	105
18_BGMW22	22-Jan-96	23.7	7.34	1,270	10	5.82	160	80
18_BGMW23	19-Feb-96	21.4	6.66	1,220	39	8.79	215	160
18_BGMW24	7-Feb-96	21.7	7.27	1,000	1	11.69	240	98
18_BGMW101	29-Jan-96	23.0	6.96	2,150	84	8.92	105	125
18_DW135	19-Feb-96	24.1	6.62	2,870	39	7.52	250	36

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
18_DW250	31-Jan-96	23.1	6.90	1,050	0	7.39	75	275
18_DW350	29-Jan-96	25.3	7.01	980	36	7.44	125	466
18_DW450	29-Jan-96	24.8	6.99	1,030	0	8.09	145	672
18_DW540	30-Jan-96	24.9	6.91	1,050	21	6.47	NA	844
18_MCAS01-1	24-Jan-96	19.2	7.57	2,060	2	11.57	230	
18_MCAS01-2	24-Jan-96	18.2	7.26	3,010	2	8.20	245	
18_MCAS01-3	18-Jan-95	20.8	7.31	2,220	10	11.28	165	
18_MCAS01-4	18-Jan-95	18.4	7.46	1,780	0	9.08	165	
18_MCAS01-5	18-Jan-96	20.2	7.60	1,350	1	8.55	160	
18_MCAS01-6	18-Jan-96	19.2	7.01	1,250	1	8.65	160	
18_MCAS01-7	17-Jan-96	18.9	6.25	1,010	13	9.63	-35	
18_MCAS02-1	30-Jan-96	18.2	7.09	3,520	72	NA	270	
18_MCAS02-2	30-Jan-96	19.5	6.92	3,600	2	NA	260	
18_MCAS02-3	30-Jan-96	19.4	6.87	1,660	1	8.51	205	
18_MCAS02-4	29-Jan-96	19.8	7.60	1,700	180	8.28	245	
18_MCAS02-5	29-Jan-96	18.6	7.67	1,580	-7	8.73	260	
18_MCAS02-6	29-Jan-96	19.3	7.70	2,420	-6	8.43	255	
18_MCAS02-7	29-Jan-96	19.5	7.09	3,050	0	8.50	65	
18_MCAS02-8	29-Jan-96	19.2	6.36	2,510	25	8.51	100	
18_MCAS03-1	6-Feb-96	19.8	7.62	2,350	14	8.28	145	
18_MCAS03-2	6-Feb-95	21.0	7.08	1,910	12	8.31	120	
18_MCAS03-3	6-Feb-95	22.0	7.36	1,170	0	9.00	230	
18_MCAS03-4	6-Feb-96	21.1	7.63	1,020	9	9.86	195	
18_MCAS03-5	6-Feb-96	21.3	7.63	817	4	8.22	230	
18_MCAS03-6	6-Feb-96	21.3	5.73	1,030	-10	7.53	80	

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
18_MCAS04	9-Feb-96	20.6	6.62	1,380	0	7.88	60	500
18_MCAS05A	31-Jan-96	21.4	7.01	1,140	0	9.61	-35	250
18_MCAS06	16-Jan-96	21.9	7.14	1,100	10	8.26	NA	536
18_MCAS07-1	9-Feb-96	20.0	7.17	2,930	31	9.10	285	
18_MCAS07-2	9-Feb-96	20.2	7.22	1,130	-10	8.67	285	
18_MCAS07-3	9-Feb-96	20.4	7.47	1,110	-10	8.05	280	
18_MCAS07-4	8-Feb-96	23.1	7.63	1,090	-10	10.00	280	
18_MCAS07-5	8-Feb-96	23.7	7.01	2,490	-10	9.96	240	
18_MCAS07-6	8-Feb-96	23.6	7.26	2,600	-10	10.28	245	
18_MCAS07-7	8-Feb-96	24.1	7.23	2,130	6	10.27	250	
18_MCAS07-8	8-Feb-96	22.3	7.05	2,630	-10	8.31	160	
18_MCAS07-9	25-Jan-96	18.9	6.39	2,870	1	8.34	165	
18_MCAS08	1-Feb-96	24.4	7.48	1,670	0	7.65	10	750
18_MCAS09	16-Jan-96	23.7	7.28	720	10	9.85	50	878
18_MCAS10	19-Jan-96	23.7	7.23	1,260	<10	8.32	40	736
18_PS1	19-Jan-96	22.3	7.19	2,620	<10	7.36	150	70
18_PS2	18-Jan-96	23.2	7.08	2,130	<10	6.44	215	66
18_PS3	22-Feb-96	22.8	6.73	1,180	28	8.43	225	75
18_PS4	21-Feb-96	22.5	6.62	1,620	29	8.68	250	81
18_PS5	22-Jan-96	22.4	8.41	1,670	<10	10.18	215	77
18_PS6	26-Jan-96	23.8	6.65	1,780	0	6.28	260	80
18_PS7	22-Jan-96	22.6	8.82	1,130	-4	10.15	245	77
18_PS8	26-Jan-96	23.7	6.62	1,330	2	6.13	260	84
18_RW1	23-Jan-96	24.1	7.94	1,270	-10	3.72	100	1,168
18_RW2	24-Jan-96	23.7	7.24	1,040	4	4.56	115	1,120

TABLE C-1: FIELD PARAMETERS MEASURED DURING GROUNDWATER SAMPLING
MCAS El Toro Groundwater Monitoring Program

STATION ID	SAMPLE DATE	TEMPERATURE (degrees °C)	pH	ELECTRICIAL CONDUCTIVITY (umhos/cm)	TURBIDITY (NTU)	DISSOLVED OXYGEN (mg/L)	REDOX (mv)	VOLUME PURGED (gallons)
18_RW3	25-Jan-96	22.7	7.19	1,250	13	7.45	50	987
18_RW4	26-Jan-96	21.3	6.57	2,170	1	7.32	260	105
19_DBMW54	19-Feb-96	25.5	6.90	1,010	56	7.30	220	89
19_DGMW85	19-Feb-96	25.5	6.93	1,150	68	7.45	175	96
19_DGMW86	12-Feb-96	23.9	6.98	1,330	-10	8.03	70	95
19_DGMW86	27-Feb-96	21.1	7.40	1,250	560	7.67	NA	105
19_UGMW35	8-Feb-96	24.0	6.54	1,030	0	6.47	150	80
20_DBMW55	27-Feb-96	22.0	6.93	2,120	14	7.58	NA	105
20_DGMW88	1-Feb-96	24.9	6.90	2,280	183	7.06	155	122
20_UGMW36	5-Feb-96	25.5	6.81	2,610	4	10.38	140	80
21_DBMW56	15-Feb-96	23.2	6.43	1,290	0	9.27	195	93
21_DGMW90	2-Feb-96	22.7	6.96	1,350	-10	7.85	130	102
21_UGMW37	12-Feb-96	23.3	6.66	1,410	0	7.38	130	90
22_DBMW47	15-Feb-96	25.9	6.88	1,400	2	7.89	215	96

EXPLANATION

1. Abbreviations: NTU = nephelometric turbidity unit, NA = not available or applicable, mg/L = milligrams per liter, umhos/cm = micromhos per centimeter, mv = millivolts.

2. Field measurements for electical conductivity and dissolved oxygen are corrected to 25°C.

APPENDIX D

AIR ENTRAINMENT EVALUATION

APPENDIX D

AIR ENTRAINMENT EVALUATION
MCAS El Toro Groundwater Monitoring Program, January-February 1996 Sampling Round

A limited field study was performed for selected monitoring wells during the January-February 1996 sampling round to evaluate potential air entrainment during sampling. In the sampling round conducted in 1993, entrained air was observed during groundwater purging and sampling of monitoring wells equipped with 4-inch diameter submersible pumps. The California Department of Toxics Substances Control (DTSC) had expressed concern that the sampling procedure using constant-speed 4-inch dedicated well pumps may impact sample quality.

The *Final Groundwater Monitoring Plan* (Jacobs, 1995) specified that field observations be made during the current sampling round from a selected group of wells equipped with 4-inch pumps to assess air entrainment. The following eight monitoring wells were identified for study: 18 BGMW101, 18 BGMW05D, 12 UGMW31, 18 BGMW23, 09 DGMW75, 10 DGMW77, 18 BGMW19D, and 07 DBMW100.

As discussed in Section 2.2 of the *Quarterly Groundwater Monitoring Report*, problems were encountered by the field team during the purging of wells as a result of the age and condition of the dedicated pumps. Because the inoperative well pumps had to be removed for groundwater sampling, six of the wells scheduled for study could not be purged or investigated for air entrainment. Therefore, field observations for assessing air entrainment were completed for only two wells equipped with 4-inch pumps (18 BGMW101 and 07 DBMW100).

The procedure and results of the air entrainment study performed during the January-February 1996 sampling round are summarized below.

PROCEDURE

For the air entrainment study, the sampling team observed and recorded field data while purging the well with the dedicated 4-inch diameter pumps (Grundfos 11-stage 3/4 hp submersible pump). The following information was recorded during purging:

- Pump discharge rate and volume purged during the test,
- Water level in well casing during purging, and
- Observations of the discharge water during purging (in addition, a half-gallon beaker was used to check for entrained air in the discharge after purging).

The discharge rate of the well pump was adjusted (choked back) during the test to assess the effects of discharge rate on air entrainment. A minimum of two stages of pumping were performed (full discharge and reduced discharge rate).

RESULTS

The results of the air entrainment field tests are presented in the attached field data sheets for Wells 19 BGMW101 and 07 DBMW100. General results and conclusions of the tests are summarized as follows:

1. Moderate to numerous amounts of fine to very fine air bubbles were observed at full discharge (approximately 8 gallons per minute (gpm) and reduced discharge purging rates (approximately 2 gpm).

2. The maximum drawdowns in the wells during the air entrainment tests were 2.4 feet (Well 18 BGMW101) and 7.4 feet (Well 07 DBMW100). The water column above the pump in Well 18 BGMW101 at maximum drawdown was 42 feet. The water column above the pump in Well 07 DBMW100 at maximum drawdown was 55 feet. This confirms that the pumps were fully submerged during purging.

3. The discharge samples collected when the pump rate was reduced were generally milky and opaque due to suspended air bubbles. When the pump was operated at the higher pump capacity (8 gpm), the discharge appeared to have less air bubbles.

In summary, the observations made during the purging of Wells 18 BGMW101 and 07 DBMW100 confirmed that entrained air bubbles were associated with the discharge from the dedicated 4-inch well pumps installed in these wells.

AIR ENTRAINMENT PROCEDURE

Objective:

Observe and record field data from groundwater wells equipped with 4" diameter constant speed submersible pumps to:

1) Confirm presence or absence of entrained air bubbles in discharge.
2) Attempt adjustments to discharge rate (choke back) to assess if lower rate discharge yields less air bubbles.
3) Confirm water level/well conditions during purging to help identify the likely cause(s) of air entrainment (if present).

Procedures & Data To Record:

Stage 1:

1) Set-up and prepare for normal 3 casing vol. purge / field parameter activity.
2) Start pump full open discharge
   - calculate flow rate - Q1 (1st stage initial)

Record water level during pumping at 5 to 10 minute intervals to monitor drawdown.
Record character of discharge (air bubbles, clear, turbid, etc.) for stage 1 purge.
Fill 1/2 gallon clear beaker, check for bubbles (initial and after sitting for 2-5 mins)

Stage 2:

3) After 1st stage volume purged, choke back discharge to reduce purge rate
   - calculate flow rate - Q2 (2nd stage)

Record water level during pumping at 5 to 10 minute intervals to monitor drawdown.
Record character of discharge (air bubbles, clear, turbid, etc.) for stage 1 purge.
Fill 1/2 gallon clear beaker, check for bubbles (initial and after sitting for 2-5 mins)

Repeat if necessary for 3rd stage to complete 3 casing volume purge.
Record observations as above.

Air Entrainment Field Form
18BGMW101

1st Stage:
Purge volume for observations: 30 gallons

Flow Rate 8 gpm

Actual Time	Elapsed Time	Volume Purged	Water level	Discharge Observations
1235	0	0	80.45	Water cloudy, red. No bubbles.
1238	3	24	83.26	Slightly cloudy. Few v. small bubbles
1240	5	40	53.38	Clear. Numerous v. small bubbles

1/2 Gallon Beaker Observations:
Initial Observation:
Air Bubbles: Yes Clear: X Turbid: _____ Other: _____
Comment: Lots of small to v. small bubbles

Delayed Observation:(after 5 minutes of sitting)
Air Bubbles: Yes Clear: X Turbid: _____ Other: _____
Comment: Water clear, but lots of small to 1/16" bubbles clinging to sides of beaker.

2nd Stage:
Purge volume for observations: 30 gallons

Flow Rate 2 gpm

Actual Time	Elapsed Time	Volume Purged	Water level	Discharge Observations
1244	4	8	81.38	Clear. Lots of v. small bubbles.
1248	8	16	81.34	Clear. Number of bubbles is increasing
1252	12	24	81.24	Water milky from v. fine bubbles.
1256	16	32	81.32	Milky. Lots of v. fine bubbles

1/2 Gallon Beaker Observations:
Initial Observation:
Air Bubbles: Yes Clear: _____ Turbid: _____ Other: X Milky white
Comment: V. fine bubbles in sufficient number to make water opaque.

Delayed Observation:(after 5 minutes of sitting)
Air Bubbles: Yes Clear: X Turbid: _____ Other: _____
Comment: Water clear. Lots of v. fine to 1/16" bubbles clinging to sides of beaker.

(3rd stage)
(over)

3rd Stage:
Purge volume for observations: 48 gallons

18 BGMW101 pg. 2

Flow Rate 8 gpm

Actual Time	Elapsed Time	Volume Purged	Water level	Discharge Observations
1258	2	16	83.16	Water clear. Few v. fine bubbles
1301	5	40	83.25	Clear. More v. fine bubbles.

1/2 Gallon Beaker Observations:
Initial Observation:
Air Bubbles: yes Clear: X Turbid: _____ Other: _____

Comment: Lots of very small suspended bubbles - Significantly fewer bubbles than in 2nd stage.

Delayed Observation:(after 5 minutes of sitting)
Air Bubbles: yes Clear: X Turbid: _____ Other: _____

Comment: A few fine to v. fine bubbles are clinging to the sides of the beaker.

Air Entrainment Field Form
07DBMW100

1st Stage:
urge volume for observations: 40 gallons

Flow Rate 8gpm

Actual Time	Elapsed Time	Volume Purged	Water level	Discharge Observations
1436	0	0	105.32	Water cloudy red
1438	2	16	112.50	Clear with lots of v. fine bubbles
1441	5	40	112.74	Brownish color. Lots of fine bubbles

1/2 Gallon Beaker Observations:
Initial Observation:
Air Bubbles: Yes Clear: X Turbid: ____ Other: X slight brown color
Comment: Water is cloudy with suspended v. fine bubbles.

Delayed Observation:(after 5 minutes of sitting)
Air Bubbles: Yes Clear: X Turbid: ____ Other: X slight brown color
Comment: A few 1/16" bubbles & lots of v. fine bubbles are clinging to the sides of the beaker.

2nd Stage:
Purge volume for observations: 40 gallons

Flow Rate 2gpm

Actual Time	Elapsed Time	Volume Purged	Water level	Discharge Observations
1446	5	10	106.44	Water milky in appearance. Lots of v. fine bubbles
1451	10	20	106.92	Water clear. Lots of fine bubbles.
1456	15	30	107.25	Water milky. Lots of v. fine bubbles.
1501	20	40	107.12	Water less milky. Lots of v. fine bubbles.

1/2 Gallon Beaker Observations:
Initial Observation:
Air Bubbles: Yes Clear: ____ Turbid: ____ Other: X Milky appearance.
Comment: Water is nearly opaque due to v. fine suspended bubbles. Many more bubbles than first stage.

Delayed Observation:(after 5 minutes of sitting)
Air Bubbles: Yes Clear: X Turbid: ____ Other: ____
Comment: A few 1/16" & v. fine bubbles are clinging to the sides of the beaker.

(3rd stage)
(over)

3rd Stage:
Purge volume for observations: 62 gallons

07 DBMW1CO pg. 2

Flow Rate 8 gpm

Actual Time	Elapsed Time	Volume Purged	Water level	Discharge Observations
1304	3	24	111.72	Clear. Few v. fine bubbles
1307	6	56	112.65	Clear. Few v. fine bubbles.
1308	7	64	112.72	Clear. Few v. fine bubbles

1/2 Gallon Beaker Observations:
Initial Observation:
Air Bubbles: Yes. Clear: X Turbid: _____ Other: _____

Comment: There are a few suspended v. fine bubbles.

Delayed Observation:(after 5 minutes of sitting)
Air Bubbles: Yes Clear: X Turbid: _____ Other: _____

Comment: A moderate amount of v. fine bubbles are clinging to the sides of the beaker.

CDM Federal Programs Corporation

A Subsidiary of Camp Dresser & McKee Inc.

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June 27, 1996
DOC No. 3266

Mr. Bernie Lindsey
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132

Subject: Contract No. N68711-95-D-7530, Delivery Order No.009
Groundwater Monitoring for Marine Corps Air Station (MCAS) El Toro
1. Final Quarterly Groundwater Monitoring Report
2. Final Groundwater Data Trends and Recommendations Report
3. Response to Comments

Dear Mr. Lindsey:

Enclosed are 16 copies of the Final Quarterly Groundwater Monitoring Report and Final Data Trends Report and 8 copies of the Volume II - Quarterly Report for the MCAS El Toro groundwater monitoring program. Draft review comments by California EPA, USEPA, Orange County Water District, and the government are addressed in these reports as appropriate.

Comments were discussed in a meeting on June 3, 1996 between Navy's RPM and CDM Federal. A summary of CDM Federal's responses to comments is attached. Responses are listed according to comment designations for each set of comments (comments are attached).

If you have any questions, please call me at (619) 268-3383.

Sincerely,

CDM FEDERAL PROGRAMS CORPORATION

Larry Davidson

Larry Davidson, P.E.
Project Manager

c: D. Villanueva (SWDIV)
A. Piszkin (SWDIV)
B. Sanders (SWDIV)
M. Nuzum (SWDIV)
A. Thompson (SWDIV)
M. Schwan
P. Bertucci
P. Russell
File

RESPONSE TO COMMENTS
California EPA Letter, dated May 2, 1996
Department of Toxic Substances Control (DTSC) and
Regional Water Quality Control Board (RWQCB)

General Comments

1. *Recommendation for water level measurements*: Section 5.0 of Data Trends and Recommendations Report will acknowledge Cal/EPA comment.

2. *Recommendation for pesticide and herbicide sampling*: Section 5.0 of Data Trends and Recommendations Report will acknowledge Cal/EPA comment.

3. *Section 5.0 Recommendations*: Comment noted.

4. *Add Site 2 extraction wells to round 4*: VOC sampling from extraction wells 02NEW13 and 02NEW14 will be added to round 4 sampling.

5. *Add OU-2A and OU-2B remedial investigation wells to future monitoring rounds*: The new RI wells installed under CLEAN II (Site 2 and Site 17) will be incorporated in the monitoring program as directed by the Navy.

6. *Include groundwater data from OU-2A and OU-2B investigations in the next quarterly report*: The monitoring report data tables in the future monitoring reports will be updated with groundwater data from the OU-2A and OU-2B investigation wells.

7. *Request for comprehensive data table of all analytes*: A complete record of all groundwater analytical results from the current sampling round is provided in the laboratory analytical reports included in Appendix E of the Quarterly Monitoring Report. Preparation of a comprehensive data table for the monitoring reports was not included in the negotiated SOW for this project and is not considered warranted for routine quarterly reporting. A comprehensive data table will be considered for use in the Final Monitoring Report.

8. *Reconciliation of base boundaries*: The legends for drawings in the current reports will be amended to indicate "approximate location" for the base boundaries shown. Maps used in future reports will be updated with base boundaries as confirmed from Bechtel documents.

9. *Flagging MCL exceedances on data tables*: The results for compounds of concern which exceed regulatory standards will be highlighted by shading in the data tables included in the current and future monitoring reports.

Specific Comments - Draft Groundwater Data Trends and Recommendations Report

1. *Section 3.2.5, page 3-24*: The text identified will be deleted from the final report.

2. *Figure B-1 (well symbol)*: The symbol reflects wells installed by others (for monitoring or other purposes) which are not part of the MCAS El Toro monitoring well network. For consistency, these symbols for wells not in the current GMP will be deleted from the figures used in monitoring reports.

3. *Appendix A, Table A-1 (add well/pump information)*: The well completion and pump installation table included in the Quarterly Monitoring Report has been updated to show current well completion and pump installation information. For reference, this summary table (to be identified as Table A-2) will be included in Appendix A with the water level and groundwater elevation database table.

Specific Comments - Draft Quarterly Groundwater Monitoring Report

1. *Section 2.2, page 2-3*: It should be clarified that problems were encountered in operating the dedicated packers in 14 of the conventional monitoring wells at well clusters and not with the packers installed in the Westbay multiple port wells. Sections 2.2 and 2.4 have been revised to clarify the problems encountered and the associated methods used for purging and sampling the conventional monitoring wells which had inoperative pumps and packers.

2. *Section 2.3, page 2-3*: Appendix D of the Quarterly Monitoring Report includes a summary of the air entrainment field study. Responses to the questions are as follows: 1) the pumps were fully submerged during the tests (>40 ft water column), 2) both wells were sampled from the dedicated 4-inch pumps 2 weeks before the air entrainment field tests were performed, 3 and 4) the discharge rate of the constant speed pump was adjusted using a gate valve to reduce (choke back) the discharge outlet.

   No further investigation is planned to evaluate air entrainment during the current monitoring program. As noted in the comment from Orange County Water District, it is likely that the micro-air bubbles observed are due to natural off-gassing from depressurization of groundwater. The characteristics of well purging discharge will continue to be recorded on the field sampling forms during the sampling of all wells in the monitoring program. These records can be reviewed to assess anomalous trends in VOC results if they are observed in future sampling.

3. *Appendix C, Table C-1*: For future sampling rounds, a flow through cell water quality field instrument, such as YSI Model 3560 monitoring system, will be used to measure redox and other field parameters. However, the standard model YSI system does not include a dissolved oxygen probe. Selection of equipment and procedure for collecting dissolved oxygen field measurements will be completed before the next sampling round. Section 9.3 of the Quarterly Monitoring Report has been revised to address this issue.

RESPONSE TO COMMENTS
U.S. Environmental Protection Agency Letter, dated May 16, 1996

Cover Letter Comments - Draft Groundwater Data Trends and Recommendations Report

1. *Page 3-24*: The text identified will be deleted from the final report.

2. *Page 5-1*: The recommendations section will be amended to indicate that a quarterly monitoring report will be prepared and submitted after sampling round 5.

May 16, 1996 USEPA Memorandum

Although the data presentation used in the Groundwater Quality Data Report provides a comprehensive listing and sampling history graphs for reviewing monitoring data, this format is not warranted for routine monitoring reports given the effort and cost. The summary tables used in the current reports are more practical for quickly reviewing sampling results/trends at a given well and comparing data with other monitoring wells. Isoconcentration maps for selected VOCs will continue to be presented in the quarterly monitoring reports. A more comprehensive presentation of groundwater data, including additional groundwater chemistry maps, are planned for the Final Monitoring Report.

The primary goal of the data evaluation was to compare current 1996 sampling results with prior monitoring data to confirm groundwater quality and flow conditions. The available water level data (1992-1996) are considered sufficient to evaluate groundwater elevation trends and recommend bi-monthly water level measurements. Although it is acknowledged that additional sampling would aid in evaluating groundwater chemistry data trends, the evaluation and recommendations regarding SVOC, pesticide, and herbicide sampling are considered supported by the available data.

Please refer to responses to EPA specific comments on the Draft Quarterly Monitoring Report regarding clarification of sampling methods. The use of the low flow purge and sample method may be considered for incorporation in upcoming monitoring rounds, where appropriate.

Specific Comments - Draft Quarterly Groundwater Monitoring Report

1. *Section 2.4, page 2-4*: It should be clarified that bailers were used for the sampling of only nine wells; all other conventional monitoring wells were sampled using either a dedicated well pump or a portable purge and sampling pump (per the SAP). Bailers had to be used on nine of the wells due to the inoperative dedicated pumps in these wells and the depth limitation (< 150 feet) of the portable pump used by the field team.

   Based on EPA guidance for groundwater investigations, it is our understanding that bailers are an acceptable method for groundwater sampling. Although the bailing action may introduce formation material into the sample, the filtering of a bailer sample after collection, as was done during this round, should be effective at removing any additional suspended sediment (> 45 micron).

2. *Section 4.1, page 4-1*: The presentation of VOC results in the subject reports followed format used in the Phase I RI Technical Memorandum. The presentation may be changed in the next Quarterly Monitoring Report where appropriate.

3. *Section 4.2, page 4-2*: The TCE isoconcentration map for the January-February 1996 round followed format used in the Phase I RI Technical Memorandum and will be retained without revision in the final reports. The legend for Figure 4-1 has been updated to clarify the TCE data shown on this isconcentration map. Based on discussions with the regulators and SWDIV, subsequent monitoring reports will include separate maps showing TCE results for the shallow and deeper saturated units.

   Due to the density of well points in the main plume area, it would be difficult to include TCE results and all well identifications. The legend for Figure 4-1 references the reader to Figure 1-2 for well identifications.

4. *Section 4.3, page 4-4*: The contract required detection limit (CRDL) for the VOC analyses is 1.0 ug/L. Given the distribution of PCE detections at and above the CRDL (Figure 4-2), we feel that showing the 1 ug/L contour is useful for informational purposes to define the area of groundwater PCE impact. Please see response to EPA Comment #3 on the Draft Quarterly Monitoring Report.

5. *Table 4-1*: Preparation and update of a comprehensive data listing such as the 1994 Data Report for individual wells was not in the negotiated SOW for this project and is not considered warranted for quarterly monitoring reports.

6. *Section 7.2, page 7-2*: Please see response to EPA Comment #1on the Draft Quarterly Monitoring Report. Omission of the results of filtered vs. unfiltered metals for the limited number of wells which were sampled by bailer does not affect the general observations made. The discussion in Section 7.2 will remain without revision.

7. *Table 7-1*: Based on the high percentage of well pumps which have failed and the apparent high chloride content of the groundwater in the study area, corrosion of the stainless steel well materials (pump components and/or screens) is a likely explanation for the high concentrations of chromium and iron in the water samples. The reference on well corrosion cited in this comment provides relevant information for assessing possible corrosion effects at MCAS El Toro. Since the elevated chromium and iron concentrations have been observed primarily in this latest sampling round, it is recommended that the results of the next semiannnual sampling round (filtered metals) be obtained to confirm the January-February 1996 results. Further evaluation of the metals concentrations will be provide in the Final Monitoring Report at the conclusion of the scheduled sampling rounds.

8. *Dissolved oxygen measurements*: As noted in the response to Cal/EPA Specific Comment # 3, evaluation/selection of a different field instrument and modifications in the methods and procedures for measuring dissolved oxygen will be completed before the next sampling round. Section 9.3 of the Quarterly Monitoring Report has been revised to address this issue.

9. *Appendix D (air entrainment evaluation)*: Please see response to Cal/EPA Specific Comment #2. As suggested by Mr. Roy Herndon of Orange County Water District, off-gassing due to depressurization of groundwater may be the cause of the micro-air bubbles present in some of the well purging discharge from the MCAS El Toro wells.

Specific Comments - Draft Groundwater Data Trends and Recommendations Report

1. *Figures 1-2 and 3-10*: The regional cross section A-A' was selected to illustrate the results of monitoring/sampling along the axis of the main VOC plume. Based on discussions with SWDIV, this cross section will be extended to MP well 18_MCAS07 to show the vertical extent of TCE detections. Due to figure size limitations (i.e., 11x17 inch drawing) for the Quarterly Monitoring Report, the wells cited in this comment will not be incorporated.

2. *Section 2.2, page 2-2*: Section 2.2 indicated that data from the water supply wells were not used in the data trend evaluation. The monitoring wells installed by OCWD in the monitoring well network were used in the evaluation.

3. *Section 3.1.4, page 3-8*: Preparation of individual hydrographs for all wells was not included in the negotiated SOW for this project. Preparation of a complete set of hydrographs may be incorporated in the work plan for the long-term groundwater monitoring program for the Station.

4. *Section 3.1.4, page 3-9 (and Table B-1)*: The results for compounds of concern which exceed regulatory standards will be highlighted by shading in the data tables included in the current and future monitoring reports.

5. *Section 3.2.2, page 3-15, Figure 3-9*: Please see response to EPA Comment #3 on the Draft Quarterly Monitoring Report.

6. *Figure 3-11, page 3-19*: Figure 3-11 shows TCE results (1988-1996) for selected OCWD multiple port wells which are in the MCAS El Toro monitoring program. This is consistent with the sampling range indicated in Section 2.2. The dashed line in this plot of TCE concentrations will be replaced with a solid line.

7. *Section 3.2.3, page 3-20, Figure 3-12*: Given the distribution of PCE detections, we feel that showing the 1 ug/L contour is useful to define the area of groundwater PCE impact.

8. *Section 3.2.5, page 3-24*: The conclusion that VOC concentrations in the main plume are generally decreasing is supported in the summary table of VOC results (Table B-1). Preparation of individual concentration graphs for all wells was not in the negotiated SOW for this project. The MCLs for the TCE and PCE are listed on the concentration plots used in this report.

9. *Section 3.5, page 3-29*: Please see responses to EPA Comments #1 and #7 on the Draft Quarterly Monitoring Report.

10. *Section 4.2.1, page 4-4*: The comment on the effects of recharge/discharge and changing water levels is noted and will be evaluated during future monitoring rounds. However, we feel that the general conclusions in Section 4.2.1 are supported by the available data and the text will remain as worded.

11. *Section 4.2.1, page 4-4*: Comment noted.

12. *Section 4.2.1, page 4-5*: Comment noted.

13. *Section 4.2.4, page 4-5*: Comment noted.

14. *Section 4.2.5, page 4-6*: Comment noted.

15. *Section 4.2.6, page 4-6*: Comment noted.

16. *Section 4.5, page 4-7*: It should be clarified that the recommendation for reducing sampling frequency for wells within the main plume applies only to those wells where current data is consistent with prior data. Wells with either increasing or decreasing VOC trends would remain on a quarterly sampling schedule (see Table 5-1). The other comments are noted.

17. *Section 5.0, page 5-1*: As noted before, preparation of a comprehensive groundwater database report for presenting the quarterly monitoring results is not practical or warranted given the effort and costs. A quarterly monitoring report, of the format used for the January-February 1996 sampling round, will be prepared for each of the upcoming sampling rounds. As appropriate, these quarterly reports may include discussions of obvious changes in water quality, data collection issues, and recommendations for modifications to the groundwater monitoring plan, such as changes in analyses and sampling frequency.

    At the conclusion of the scheduled sampling rounds, a Final Monitoring Report will include a more comprehensive (i.e., database) summary of historical water quality and groundwater data to support development of the long-term groundwater monitoring program for MCAS El Toro.

RESPONSE TO COMMENTS
Orange County Water District Letter, dated May 8, 1996

Specific Comments - Draft Quarterly Groundwater Monitoring Report

1. *Section 1.3, page 1-4*: The text has been revised regarding reference to the OCWD wells.

2. *Section 2.1, page 2-1*: References to the replacement well 18_MCAS05A have been made in the text, tables, and figures.

3. *Section 2.1, page 2-1*: The specific reason for not obtaining a water measurement in the referenced well can not be confirmed at this time.

4. *Section 2.2, page 2-3*: The text has been revised to clarify that packer problems were encountered in only the conventional nested monitoring wells, not in the Westbay multiple port wells.

5. *Table 4-1*: The noted suspect VOC results for the 1993 sampling rounds will be corrected in the summary tables used in the monitoring reports.

6. *Air Entrainment*: The comment and information provided is acknowledged and appreciated. Navy will continue to monitor the characteristics of well purging discharge.

7. *Well abandonment records*: CDM Federal did not observe the abandonment of wells 18_RW3 and 18_RW4 and does not know the responsible party. OCWD's request has been forwarded to Navy's RPM.

RESPONSE TO COMMENTS
Navy SWDIV Memorandum, dated June 10, 1996

General Comments

- *Incorporate Phase I RI monitoring well data*: Well survey, location, and construction information were provided from SWDIV for the 89 conventional wells installed for the Phase I RI. This information will be incorporated in the final versions of the subject reports, specifically, the "Well Completion and Pump Installation Table" and the "Water Level Measurements and Groundwater Elevations Table" (Quarterly Monitoring Report Tables A-1 and B-1, respectively).

- *Sampling/reporting of additional groundwater monitoring wells at Site 2 and Site 17*: Section 10.2 of the Quarterly Monitoring Report and Section 5.0 of the Data Trends and Recommendations Report will indicate that these wells will be sampled and the results reported in the next quarterly groundwater monitoring event.

- *MCAS El Toro base map boundaries*: The legends for drawings in the current reports will be amended to indicate "approximate location" for the base boundaries shown. Maps used in future reports will be updated with base boundaries as confirmed from Bechtel documents.

- *Flagging MCL exceedances on data tables*: The results for compounds of concern which exceed regulatory standards will be highlighted by shading in the data tables included in the current and future monitoring reports.

- *Isoconcentration contour maps*: The VOC isoconcentration maps for the January-February 1996 sampling round will be retained without revision in the final reports. Based on discussions with the regulators and SWDIV, subsequent monitoring reports will include separate maps showing TCE results for the shallow and deeper saturated units. The text and legends accompanying the concentration maps will be clarified as appropriate.

- *Wells sampled by bailers*: Section 2.2 of the Quarterly Monitoring Report has been revised to clarify and list all wells (total nine) which were purged and sampled using bailers.

- *Designation and references for shallow groundwater unit*: The text and figures in the subject reports have been revised to change the terminology from "shallow groundwater zone" to the shallow groundwater unit.

- *Addition of well 18_MCAS07 to cross section*: Section 1.4 of the Quarterly Monitoring Report has been updated to indicate that regional cross section A-A' will include the multiple port well 18_MCAS07 in future monitoring reports. The figures included in the final versions of the current reports will not be updated.

- *Certification signature page*: A signed and stamped R.G. professional certification page will be included in the final reports.

FINAL

QUARTERLY GROUNDWATER MONITORING REPORT
JANUARY-FEBRUARY 1996 SAMPLING ROUND

Volume II

GROUNDWATER MONITORING PROGRAM
FOR
MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA

Contract No. N68711-95-D-7530
Delivery Order 009

Prepared for:

SOUTHWEST DIVISION
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3760 Convoy Street, Suite 210
San Diego, California 92111

June 27, 1996

APPENDIX E

LABORATORY ANALYSES REPORTS
JANUARY-FEBRUARY 1996 SAMPLING ROUND

INDEX OF LABORATORY ANALYTICAL REPORTS
January-February 1996 Sampling Round -- MCAS El Toro Groundwater Monitoring Program

LABORATORY REPORT		WELL SAMPLE ANALYSES		FIELD QC ANALYSES		LAB QC ANALYSES	
Report No.	Report Date	Well /Station No.	Analyses	Field QC Sample (Sample ID)	Analyses	Sample ID	Analysis
96-1132	1/31/96	18_MCAS06	GC, V, M, SV			Trip Blank	V
		18_BGMP08E	GC, V, M				
96-1145	2/5/96	18_BGMP08C	GC, V, M, H			Trip Blank	V
		18_BGMP08D	GC, V, M				
		18_MCAS09	GC, V, M, SV				
96-1166	2/5/96	18_BGMP08A	GC, V, M			Trip Blank	V
		18_BGMW02D	GC, V, M, SV, P, H, T	Duplicate (301)	GC, V, M, SV, T		
				Field Blank (701)	GC, V, M, SV, P, H, T		
		18_MCAS01-7	GC, V, M, T				
96-1188	2/12/96	18_BGMW02C	GC, V, M			Trip Blank	V
		18_MCAS01-3	GC, V, M				
		18_MCAS01-4	GC, V, M				
		18_MCAS01-5	GC, V, M				
		18_MCAS01-6	GC, V, M				
		18_PS2	GC, V, M, SV				
96-1235	2/22/96	18_BGMW02A	GC, V, M, SV, H			Trip Blank	V
		18_BGMW04B	GC, V, M, SV	Duplicate (301)	GC, V, M, SV		
		18_BGMP10A	GC, V, M				
		18_BGMW16	GC, V, M, SV, H				
		18_BGMW22	GC, V, M, SV				
		18_MCAS10	GC, V, M, SV				
		18_PS1	GC, V, M				
		18_PS5	GC, V, M, SV				
		18_PS7	GC, V, M, SV, P				
96-1244	2/19/96	18_BGMP10B	GC, V, M, SV			Trip Blank	V
		18_BGMP10C	GC, V, M				
		18_BGMP10D	GC, V, M, SV				
		18_BGMW01C	GC, V, M, SV				
		18_BGMW01D	GC, V, M, SV	AC Blank (901)	GC, V, M, SV		
		18_RW1	GC, V, M, SV, H				
96-1255	2/21/96	18_BGMP10E	GC, V, M			Trip Blank	V
		18_BGMP10F	GC, V, M				
		18_BGMW01B	GC, V, M, SV				
		18_MCAS01-1	GC, V, M				
		18_MCAS01-2	GC, V, M				
		18_RW2	GC, V, M, SV				
96-1279	2/19/96	18_MCAS07-9	GC, V, M, SV			Trip Blank	V
		18_RW3	GC, V, M	Rinsate (501)	GC, V, M, SV		
		18_RW4	GC, V, M				
		18_PS5	GC, V, M				
96-1292	2/19/96	18_BGMW01A	GC, V, M, SV	Duplicate (301)	GC, V, M, SV	Trip Blank	V
		18_BGMW05A	GC, V, M, SV	Duplicate (301)	GC, V, M, SV		
		18_BGMW017	GC, V, M, SV				
		18_PS8	GC, V, M, SV				

INDEX OF LABORATORY ANALYTICAL REPORTS
January-February 1996 Sampling Round -- MCAS El Toro Groundwater Monitoring Program

LABORATORY REPORT		WELL SAMPLE ANALYSES		FIELD QC ANALYSES		LAB QC ANALYSES	
Report No.	Report Date	Well /Station No.	Analyses	Field QC Sample (Sample ID)	Analyses	Sample ID	Analysis
96-1308	3/1/96	18_MCAS02-4	GC, V, M			Trip Blank	V
		18_MCAS02-5	GC, V, M				
		18_MCAS02-6	GC, V, M				
		18_MCAS02-7	GC, V, M				
		18_MCAS02-8	GC, V, M				
		04_UGMW63	GC, V, M, SV, T, P, H				
		05_UGMW27	GC, V, M, SV, T, P, H				
		18_BGMW101	GC, V, M, SV				
		18_DW350	GC, V, M, SV				
		18_DW450	GC, V, M, SV				
96-1338	2/29/96	07_DBMW100	GC, V, M			Trip Blank	V
		18_MCAS02-1	GC, V, M				
		18_MCAS02-2	GC, V, M				
		18_MCAS02-3	GC, V, M	Rinsate (501)	GC, V, M		
		03_DBMW39	GC, V, M, SV, T, P, H				
		18_DW250	GC, V, M, SV, T				
		18_DW540	GC, V, M, SV, T				
96-1367	2/29/96	18_BGMP09A	GC, V, M			Trip Blank	V
		18_BGMP09B	GC, V, M				
		18_MCAS05	GC, V, M, SV				
		20_DGMW88	GC, V, M, SV	Duplicate (301)	GC, V, M, SV		
96-1384	3/1/96	13_DGMW78	GC, V, M			Trip Blank	V
		18_BGMP09C	GC, V, M, SV				
		18_BGMW02E	GC, V, M, SV				
		18_MCAS08	GC, V, M, SV				
		21_UGMW90	GC, V, M				
96-1399	2/16/96	06_DGMW69	GC, V, M, SV			Trip Blank	V
		18_BGMP09D	GC, V, M				
		18_BGMP09E	GC, V, M				
		18_BGMP09F	GC, V, M, T				
		18_BGMW03E	GC, V, M, T				
		18_BGMW12	GC, V, M, T				
		18_BGMW15	GC, V, M, SV, T				
96-1423	3/8/96	13_UGMW32	GC, V, M, SV, T			Trip Blank	V
		14_DGMW50	GC, V, M, SV, T	Duplicate (301)	GC, V, M, SV, T		
		14_DGMW79	GC, V, M, SV, T				
		18_BGMW1E	GC, V, M, SV, T, P				
		18_BGMW18	GC, V, M, T				
		20_UGMW36	GC, V, M, T				
96-1429	3/4/96	02_DGMW59	GC, V, M, SV, T, P, H	Duplicate (301)	GC, V, M, SV, T, P, H	Trip Blank	V
		02_DGMW60	GC, V, M, SV, T, P, H	Duplicate (301)	GC, V, M, SV, T, P, H		
		01_DGMW57	GC, V, M, SV, T, NN				
		13_DBMW49	GC, V, M, SV, T	Duplicate (301)	GC, V, M, SV, T		
		15_DBMW51	GC, V, M, SV, T				
		18_BGMW19E	GC, V, M, T, P				
		18_MCAS03-1	GC, V, M, T				
		18_MCAS03-2	GC, V, M, SV				
		18_MCAS03-3	GC, V, M, SV	Rinsate (501)	GC, V, M, SV		
		18_MCAS03-4	GC, V, M				
		18_MCAS03-5	GC, V, M				
		18_MCAS03-6	GC, V, M				

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LABORATORY REPORT		WELL SAMPLE ANALYSES		FIELD QC ANALYSES		LAB QC ANALYSES	
Report No.	Report Date	Well /Station No.	Analyses	Field QC Sample (Sample ID)	Analyses	Sample ID	Analysis
96-1445	3/4/96	18_BGMP06A	GC, V, M			Trip Blank	V
		18_BGMP06B	GC, V, M				
		18_BGMP06C	GC, V, M				
		18_BGMP06D	GC, V, M				
		18_BGMP06E	GC, V, M				
		18_BGMW24	GC, V, M				
		02_UGMW25	GC, V, M, SV, T, P, H				
		05_DBMW41	GC, V, M, SV, T, P, H				
		16_DBMW52	GC, V, M, SV, T	Duplicate (301)	GC, V, M, SV, T		
				AC Blank (901)	GC, V, M, SV, T		
		16_UGMW33	GC, V, M, SV, T				
96-1452	3/5/96	16_DGMW81	GC, V, M, SV, T			Trip Blank	V
		07_DGMW91	GC, V, M, T				
		19_UGMW35	GC, V, M, T	Duplicate (301)	GC, V, M, T		
		02_DGMW61	GC, V, M, SV, T, P, H				
		05_DGMW67	GC, V, M, SV, T, P, H				
		17_DGMW82	GC, V, M, SV, T, P, H				
		18_MCAS07-4	GC, V, M, T				
		18_MCAS07-5	GC, V, M, T				
		18_MCAS07-6	GC, V, M				
		18_MCAS07-7	GC, V, M, SV				
		18_MCAS07-8	GC, V, M, SV				
96-1462	3/7/96	18_BGMW07	GC, V, M			Trip Blank	V
		18_MCAS07-3	GC, V, M				
		19_DGMW86	GC, V, M				
		18_MCAS-04	GC, V, M, SV				
		18_MCAS07-1	GC, V, M				
		18_MCAS07-2	GC, V, M				
96-1505	3/11/96	07_DBMW71	GC, V, M			Trip Blank	V
		07_DGMW70	GC, V, M				
		07_DGMW72	GC, V, M, SV, T				
		18_DGMW03C	GC, V, M, SV, T				
		21_UGMW37	GC, V, M, T				
96-1518	3/11/96	12_UGMW31	GC, V, M, SV, T, H			Trip Blank	V
		08_DGMW73	GC, V, M, SV, T, P				
		08_DGMW74	GC, V, M, SV, T, P				
		08_UGMW29	GC, V, M, SV, T, P				
		09_DGMW75	GC, V, M, T	Field Blank (701)	V		
		10_DGMW77	GC, V, M, SV, T				
96-1530	2/23/96	06_UGMW28	GC, V, M, SV, T			Trip Blank	V
		09_DBMW45	GC, V, M, T				
		21_DBMW56	GC, V, M, T				
		22_DBMW47	GC, V, M, SV, T				
96-1542	3/14/96	19_DGMW85	GC, V, M, T	AC Blank (901)	V, M, SV	Trip Blank	V
		12_DBMW48	GC, V, M, SV, H				
		18_BGMW14	GC, V, M				
		18_BGMW19D	GC, V, M				
		18_BGMW23	GC, V, M				

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96-1562	3/13/96	07_DBMW43	GC, V, M			Trip Blank	V
		18_BGMW5D	GC, V, M				
		18_DW135	GC, V, M, T				
		19_DBMW54	GC, V, M, T				
96-1634	3/14/96	18_PS3	GC, V, M			Trip Blank	V
		18_PS4	GC, V, M				
		03_DGMW64	GC, V, M, SV, T, P, H				
		03_DGMW65X	GC, V, M, SV, T, P, H				
		04_DBMW40	GC, V, M, SV, T, P, H				
		04_DGMW66	GC, V, M, SV, T, P, H				
96-1654	3/15/96	03_UGMW26	GC, V, M, SV, T, P, H			Trip Blank	V
		05_DGMW68	GC, V, M, SV, T, P, H				
		20_DBMW55	GC, V, M, SV, T				
		01_DGMW58	GC, V, M, NN				
		19_DBMW86	GC, V, M				
96-1699	3/16/96	18_BGMW3A	GC, V, M	Duplicate (301)	GC, V, M	Trip Blank	V
		18_BGMW3B	GC, V, M, SV				
		18_BGMW4A	GC, V, M				
		18_BGMW5B	GC, V, M				
		18_BGMW5C	GC, V, M, SV				
		18_BGMW19A	GC, V, M				
		18_BGMW19B	GC, V, M, SV				
		18_BGMW19C	GC, V, M, SV, P				
96-1296	3/14/96	05_UGMW27	RAD				
96-1459	3/14/96	03_DBMW39	RAD				
		04_UGMW63	RAD				
96-1460	3/14/96	13_DGMW78	RAD				
96-1818	3/27/96	04_DGMW66	RAD				
		04_DBMW40	RAD				
		03_DGMW65X	RAD				
		03_DGMW64	RAD				
96-2018	3/26/96	18_BGMW03E	RAD				
		14_DGMW79	RAD				
		14_DGMW50	RAD	Duplicate (301)	RAD		
		13_UGMW32	RAD				
		16_DBMW52	RAD	Duplicate (301)	RAD		
				AC Blank (901)	RAD		
		07_DGMW91	RAD				
		19_UGMW35	RAD	Duplicate (301)	RAD		
		16_DGMW81	RAD				
		07_DGMW72	RAD				
		08_DGMW74	RAD				
		10_DGMW77	RAD				
		09_DGMW75	RAD				
		08_DGMW73	RAD				
		09_DBMW45	RAD				
		22_DBMW47	RAD				

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Report No.	Report Date	Well /Station No.	Analyses	Field QC Sample (Sample ID)	Analyses	Sample ID	Analysis
		19_DGMW85	RAD				
		19_DBMW54	RAD				
		18_DW135	RAD				
		05_DGMW68	RAD				
		13_DBMW49	RAD	Duplicate (301)	RAD		
		15_DBMW51	RAD				
		02_DGMW60	RAD	Duplicate (301)	RAD		
		02_DGMW59	RAD	Duplicate (301)	RAD		
		05_DBMW41	RAD				
		02_UGMW25	RAD				
		02_DGMW61	RAD				
		05_DGMW67	RAD				
		17_DGMW82	RAD				
		19_DGMW86	RAD				
		03_UGMW26	RAD				
		01_DGMW57	RAD				
		01_DGMW58	RAD				

EXPLANATION

LAB ANALYSIS ABBREVIATION:

GC = General Chemistry
H = Chlorinated herbicides (8150 method)
M = Metals (CLP method)
N N = Nitroaromatics and Nitroamines (8330 method)
P = Organochlorine pesticides & PCB (CLP method)
RAD = Radionuclid
SV = Semi-Volatiles (CLP method)
T = Treatability Perimeter
V = Volatiles (CLP method)

FIELD QC SAMPLE ABBREVIATION:

AC Blank = Air Contaminant Blank

Applied P & Ch Laboratory
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APCL Analytical Report

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

Service ID #: 801-961132
Collected by: S.S., P.R.
Collected on: 01/15-16/96

Received: 01/16/96
Extracted: 01/19/96
Tested: 01/17-27/96
Reported: 01/31/96

Sample Description: Water from El Toro
Project Description: MCAS EL TORO #6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS06-001 96-01132-1	18BGMP08E-001 96-01132-3
Alkalinity	310.1	mg/L	2	189	283
Bicarbonate	SM2330B	mg/L	2	230	345
Carbonate	SM2330B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	145	229
Nitrate/Nitrite	300.0	mg-N/L	0.01	3.00	39.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	768	1,470
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.10	188	412
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.	2
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.	2
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.	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	2	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 18MCAS06-001 96-01132-1	18BGMP08E-001 96-01132-3
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.	-
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.	-

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS06-001 96-01132-1	18BGMP08E-001 96-01132-3
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 18MCAS06-001 96-01132-1	18MCAS06-001 (U) 96-01132-2	18BGMP08E-001 96-01132-3	18BGMP08E-001 (U) 96-01132-4
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	96,000	95,000	233,000	231,000

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS06-001 96-01132-1	18MCAS06-001 (U) 96-01132-2	18BGMP08E-001 96-01132-3	18BGMP08E-001 (U) 96-01132-4
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	490	1,300	N.D.	N.D.
Lead, Pb	CLP-Metal	μg/L	3	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	μg/L	5000	25,000	25,000	52,000	53,000
Manganese, Mn	CLP-Metal	μg/L	15	83	86	N.D.	N.D.
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	N.D.	N.D.	N.D.	60
Potassium, K	CLP-Metal	μg/L	5000	2840J	3020J	2330J	2270J
Selenium, Se	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	13
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	119,000	123,000	198,000	195,000
Thallium, Tl	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	μg/L	20	N.D.	N.D.	N.D.	250

Component Analyzed	Method	Unit	CRDL	Analysis Result TRIP BLK 96-01132-5
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result TRIP BLK 96-01132-5
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.

(U) = Unfiltered.

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) Scott Schwab / Pat Russell

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	Nitrate/Chloride	Sulfate/Carbonate	Bi-carbonate	Alkalinity/Nitrite	REMARKS	PRESERVATIVE USED
18BGMP08A-001	1/15/96	1645		✓	H_2O	6	✓		✓	✓	✓	✓	✓	✓	* Refer to previously	
18MCAS06-001	1/16/96	1140		✓	H_2O	7	✓	✓	✓	✓	✓	✓	✓	✓	sent project specific	
APCL-TB	—	—		—	—										detection limits.	
															* Samples for metals	
															have been properly	
															filtered and preserved	
															in field - No additional	
															lab filtering required.	
															*NFESC QC Level D	
															for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schwab	1/16/96 1415				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Jed Hun	1-16-96 2:15				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

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APCL Analytical Report

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

Service ID #: 801-961145
Collected by: SS, PR
Collected on: 01/16/96

Received: 01/17/96
Extracted: 01/19/96
Tested: 01/17-29/96
Reported: 02/05/96

Sample Description: Water from MCAS EL Toro, CA
Project Description: MCAS EL Toro #6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP08C-001 96-01145-1	18BGMP08D-001 96-01145-3	18MCAS09-001 96-01145-5
Alkalinity	310.1	mg/L	2	197	165	212
Bicarbonate	SM2320B	mg/L	2	241	201	259
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	133	181	60.0
Nitrate/Nitrite	300.0	mg-N/L	0.1	7.7	19.0	0.7
Solids, Total Dissolved (TDS)	160.1	mg/L	10	822	899	590
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	180	173	120
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	10	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	10	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	1	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 18BGMP08C-001 96-01145-1	18BGMP08D-001 96-01145-3	18MCAS09-001 96-01145-5
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	-	-	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 18BGMP08C-001 96-01145-1	18BGMP08D-001 96-01145-3	18MCAS09-001 96-01145-5
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.
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	Analysis Result 18BGMP08C-001 96-01145-1	18BGMP08C-001(U) 96-01145-2	18BGMP08D-001 96-01145-3
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	89,000	89,000	107,000
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	22,000	22,000	24,000
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	N.D.	N.D.	N.D.
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	152,000	150,000	146,000
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.	30	21

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP08D-001(U) 96-01145-4	18MCAS09-001 96-01145-5	18MCAS09-001(U) 96-01145-6
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	107,000	71,000	72,000
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.	820	850
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	25,000	18,000	19,000
Manganese	CLP-Metal	µg/L	15	N.D.	56	57
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	N.D.	N.D.	N.D.
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	146,000	90,000	90,000
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 TRIP BLANK 96-01145-7
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	10	N.D.
trans-1,2-Dichloroethene	CLP-VOC	μg/L	10	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) Scott Schroeder / Pat Russo

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Herbicides (8150)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	General Chemistry*			REMARKS	PRESERVATIVE USED
18BGMP08D-001	1/16/96	1145		✓	H_2O	6	✓			✓	✓	✓			* Refer to previously	
18BGMP08C-001	1/16/96	1540		✓	H_2O	6	✓		✓	✓	✓	✓			sent project specific	
18MCAS09-001	1/16/96	1900		✓	H_2O	7	✓	✓		✓	✓	✓			detection limits.	
APCL-TB	—	—		—	—											
															* Samples for metals	
															analyses have been	
															properly filtered and	
															preserved in the field.	
															No additional lab	
															filtering required.	
															* NFESC QC Level D	
															for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schroeder	1/17/96 1425				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	1-17-96 1425				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
				* General Chemistry includes nitrate, chloride, sulfate, carbonate, bi-carbonate, TDS, Alkalinity, nitrite	

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

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 #: 801-961166
Collected by: Scott Schroeder
Collected on: 01/17/96

Received: 01/19/96
Extracted: 01/19,22/96
Tested: 01/19-2/01/96
Reported: 02/05/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMPO8A-001 96-01166-1	18BGMW2D-001 96-01166-3
Alkalinity	310.1	mg/L	2	184	174
Bicarbonate	SM2330B	mg/L	2	225	212
Carbonate	SM2330B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	241	104
Nitrate/Nitrite	300.0	mg-N/L	0.1	4.5	2.2
Solids, Total Dissolved (TDS)	160.1	mg/L	10	986	670
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	229	164
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	10	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.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMPO8A-001 96-01166-1	18BGMW2D-001 96-01166-3
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.
Fluorene	CLP-SVOC	µg/L	10	-	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	-	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	-	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMPO8A-001 96-01166-1	18BGMW2D-001 96-01166-3
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 18BGMW2D-301 96-01166-5	18BGMW2D-701 96-01166-6	18MCAS01-7-001 96-01166-8
Alkalinity	310.1	mg/L	2	176	124	114
Ammonia (NH_4^+)	350.2	mg/L	0.2	-	0.5	-
Bicarbonate	SM2330B	mg/L	2	215	152	139
Carbonate	SM2330B	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	112	100	169
Nitrate/Nitrite	300.0	mg-N/L	0.1	2.2	0.2	N.D.
Phosphorus, Orthophosphate	300.0	mg/L	0.06	-	N.D.	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	-	8.00	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	662	721	680
Solids, Total Suspended (TSS)	160.2	mg/L	4	-	N.D.	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	175	265	175
Carbon, Total Organic (TOC)	415.1	mg/L	1	-	2	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW2D-301 96-01166-5	18BGMW2D-701 96-01166-6	18MCAS01-7-001 96-01166-8
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.	9	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	2	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.	10	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	7	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	10	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	1	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	1	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	10	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	1	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 18BGMW2D-301 96-01166-5	18BGMW2D-701 96-01166-6	18MCAS01-7-001 96-01166-8
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 18BGMW2D-301 96-01166-5	18BGMW2D-701 96-01166-6	18MCAS01-7-001 96-01166-8
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						
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 (PQL)	Analysis Result 18BGMW2D-301 96-01166-5	18BGMW2D-701 96-01166-6	18MCAS01-7-001 96-01166-8
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	PQL	Analysis Result 18BGMPO8A-001 96-01166-1	18BGMPO8A-001(U) 96-01166-2	18BGMW2D-001 96-01166-3
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	110,000	108,000	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.	N.D.	N.D.
Lead, Pb	CLP-Metal	μg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	μg/L	5000	28,000	27,000	27,000
Manganese, Mn	CLP-Metal	μg/L	15	37	N.D.	26
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	3140J	3140J	3350J
Selenium, Se	CLP-Metal	μg/L	5	N.D.	N.D.	10
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	177,000	173,000	78,000
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	59	84	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 18BGMW2D-001(U) 96-01166-4	18BGMW2D-301 96-01166-5	18BGMW2D-701 96-01166-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	3,100	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	95,000	93,000	79,000
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	2,390	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	29,000	27,000	32,000
Manganese, Mn	CLP-Metal	µg/L	15	57	25	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	3810J	3320J	4710J
Selenium, Se	CLP-Metal	µg/L	5	8	8	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	82,000	76,000	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	N.D.	N.D.	23

Component Analyzed	Method	Unit	PQL	Analysis Result 18BGMW2D-301(U) 96-01166-7	18MCAS01-7-001 96-01166-8	18MCAS01-7-001(U) 96-01166-9
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	1,200	398	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	21	19
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	42,000	44,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	170	130
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	1,900	1,900	1,400
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	28,000	10,000	10,000
Manganese, Mn	CLP-Metal	µg/L	15	59	447	451
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	3530J	2450J	2270J
Selenium, Se	CLP-Metal	µg/L	5	9	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	194,000	192,000
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.	34	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01166-10
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.
J = Reported below PQL.
(U) = Unfiltered.

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) Scott Schwab

	SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC/Filtered Metals	Unfiltered Metals	Semi-VOC	General Chemistry *	Pesticides (CLP)	Herbicides (8150)	Phosphate, ammonia	Silica, TSS, TOC, COD	REMARKS	PRESERVATIVE USED
✓	18BGMP08A-001	1/17/96	1100		✓	H_2O	6	✓	✓		✓					* Refer to previously	
✓	18BGMW2D-001	1/17/96	1605		✓	H_2O	7	✓	✓	✓	✓					sent project specific	
✓	18BGMW2D-301	1/17/96	1610		✓	H_2O	7	✓	✓	✓	✓					detection limits	
✓	18BGMW2D-701	1/17/96	1620		✓	H_2O	11	✓		✓	✓	✓	✓	✓	✓		
✓	18MCAS01-7-001	1/17/96	1700		✓	H_2O	6	✓	✓		✓					* Samples for metals	
	APPL-TB	—	—	—	—	—										analyses have been	
																properly filtered and	
																preserved in the field-	
																No additional lab	
																filtering required.	
																* NFESC QC level D	
																for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schwab	1/18/96 1405				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Eddy Yun	1-18-96 1405				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory** * General chemistry includes nitrate, chloride, sulfate, carbonate, bicarbonate, TDS, alkalinity, nitrite	

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

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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 #: 801-961188
Collected by: Scott
Collected on: 01/18/96

Received: 01/19/96
Extracted: 01/22/96
Tested: 01/19-02/25/96
Reported: 02/12/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW2C-001 96-01188-1	18MCAS01-3-001 96-01188-3	18MCAS01-4-001 96-01188-5
Alkalinity	310.1	mg/L	2	225	247	240
Bicarbonate	SM2330B	mg/L	2	275	301	293
Carbonate	SM2330B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	73.0	333	224
Nitrate/Nitrite	300.0	mg-N/L	0.1	1.9	19.0	13.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	561	1,460	1,140
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.1	132	358	276
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	1	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.	2	6
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
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS01-5-001 96-01188-7	18MCAS01-6-001 96-01188-9	18PS2-001 96-01188-11
Alkalinity	310.1	mg/L	2	232	232	386
Bicarbonate	SM2330B	mg/L	2	283	283	471
Carbonate	SM2330B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	150	146	180
Nitrate/Nitrite	300.0	mg-N/L	0.1	8.9	0.7	16.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	828	771	1,580
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.1	175	175	508
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	1	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.	35
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	23	25	4
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 18PS2-001 96-01188-11
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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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18PS2-001 96-01188-11
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	Analysis Result 18BGMW2C-001 96-01188-1	18BGMW2C-001 (U) 96-01188-2	18MCAS01-3-001 96-01188-3	18MCAS01-3-001 (U) 96-01188-4
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW2C-001 96-01188-1	18BGMW2C-001 (U) 96-01188-2	18MCAS01-3-001 96-01188-3	18MCAS01-3-001 (U) 96-01188-4
Calcium, Ca	CLP-Metal	µg/L	5000	76,000	73,000	211,000	204,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	13	N.D.	150
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	660	N.D.	1,500
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	24,000	24,000	53,000	51,000
Manganese, Mn	CLP-Metal	µg/L	15	31	43	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	190	200	350	350
Potassium, K	CLP-Metal	µg/L	5000	2960J	3010J	3440J	3290J
Selenium, Se	CLP-Metal	µg/L	5	7	8	17	18
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	87,000	85,000	183,000	177,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	31	N.D.	43

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS01-4-001 96-01188-5	18MCAS01-4-001 (U) 96-01188-6	18MCAS01-5-001 96-01188-7	18MCAS01-5-001 (U) 96-01188-8
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	160,000	158,000	98,000	98,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.	108
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	41,000	40,000	27,000	27,000
Manganese, Mn	CLP-Metal	µg/L	15	17	20	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	110	120	110	120
Potassium, K	CLP-Metal	µg/L	5000	3340J	3340J	3030J	3050J
Selenium, Se	CLP-Metal	µg/L	5	7	9	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	155,000	152,000	144,000	147,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	44	N.D.	36

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS01-6-001 96-01188-9	18MCAS01-6-001 (U) 96-01188-10	18PS2-001 96-01188-11	18PS2-001 (U) 96-01188-12
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	μg/L	5000	97,000	97,000	200,000	218,000
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	N.D.	157	N.D.	N.D.
Lead, Pb	CLP-Metal	μg/L	3	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	μg/L	5000	23,000	23,000	84,000	86,000
Manganese, Mn	CLP-Metal	μg/L	15	628	633	N.D.	N.D.
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	580	600	N.D.	N.D.
Potassium, K	CLP-Metal	μg/L	5000	3430J	3440J	1920J	1950J
Selenium, Se	CLP-Metal	μg/L	5	N.D.	N.D.	48	50
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	133,000	137,000	175,000	177,000
Thallium, Tl	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	μg/L	20	N.D.	33	N.D.	33

Component Analyzed	Method	Unit	PQL	Analysis Result TRIP BLANK 96-01188-13
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	1	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	PQL	Analysis Result TRIP BLANK 96-01188-13
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.
CRDL = Contract Required Detection 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: MCAS El Toro

SAMPLERS: (Signature) Scott Schroeder

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	General Chemistry *				REMARKS	PRESERVATIVE USED
18MCAS01-6-001	1/13/96	1000		✓	H_2O	6	✓		✓	✓	✓				* Refer to previously	
18MCAS01-5-001	1/19/96	1245		✓	H_2O	6	✓		✓	✓	✓				sent project specific	
18MCAS01-4-001	1/19/96	1445		✓	H_2O	6	✓		✓	✓	✓				detection limits.	
18BGMW2C-001	1/18/96	1555		✓	H_2O	6	✓		✓	✓	✓					
18MCAS01-3-001	1/18/96	1640		✓	H_2O	6	✓		✓	✓	✓				* Samples for metals	
18PS2-001	1/18/96	1715		✓	H_2O	7	✓	✓	✓	✓	✓				analysis have been	
APCL-TB	—	—		—	—										properly filtered and	
															preserved in the field.	
															No additional lab	
															filtering required.	
															* NFESC QC Level D	
															for all samples.	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schroeder	1/19/96 1433				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	1/19/96 2:30				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	

* General chemistry includes nitrate, nitrite, chloride, sulfate, carbonate, bi-carbonate, alkalinity, TDS

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Fi

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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 #: 801-961235
Collected by: SS, PR
Collected on: 01/19-22/96

Received: 01/23/96
Extracted: 01/24-25,26/96
Tested: 01/24-02/16/96
Reported: 02/22/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW2A-001 96-01235-1	18BGMW04B-001 96-01235-3	18BGMW04B-301 96-01235-5	18BGMP10A-001 96-01235-7	18BGMW16-001 96-01235-9
Alkalinity	310.1	mg/L	2	202	148	148	221	223
Bicarbonate	SM2320B	mg/L	2	246	181	181	217	272
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.	26	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	78.0	232	234	99.0	96.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	21.0	24.0	N.D.	25.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	531	867	1,020	552	1,030
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	126	87.0	84.0	58.0	327
CLP: VOC by GC/MS								
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	3	4	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	1	4	4	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW2A-001 96-01235-1	18BGMW04B-001 96-01235-3	18BGMW04B-301 96-01235-5	18BGMP10A-001 96-01235-7	18BGMW16-001 96-01235-9
CLP: Semi-VOC by GC/MS								
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	-	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	-	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	-	N.D.

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

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW22-001 96-01235-11	18MCAS10-001 96-01235-13	18PS1-001 96-01235-15	18PS5-001 96-01235-17	18PS7-001 96-01235-19
Alkalinity	310.1	mg/L	2	309	257	197	225	253
Bicarbonate	SM2320B	mg/L	2	377	314	241	275	309
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	116	87.0	389	179	104
Nitrate/Nitrite	353.3	mg-N/L	0.1	2.9	1.8	39.0	51.0	34.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	920	770	1,930	1,310	826
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	209	179	428	266	115

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CLP: VOC by GC/MS								
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	1	N.D.	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	16	18	19	23
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	2	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.

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CLP: Semi-VOC by GC/MS								
Acenaphthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Acenaphthylene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	µg/L	10	N.D.	31	-	10	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Carbazole	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Chrysene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Dibenzofuran	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-	27	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	µg/L	25	N.D.	N.D.	-	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	-	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Fluoranthene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	-	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW22-001 96-01235-11	18MCAS10-001 96-01235-13	18PS1-001 96-01235-15	18PS5-001 96-01235-17	18PS7-001 96-01235-19
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
Naphthalene	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.	-	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.	-	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	μg/L	25	N.D.	N.D.	-	N.D.	N.D.
Nitrobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	μg/L	25	N.D.	N.D.	-	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	μg/L	25	N.D.	N.D.	-	N.D.	N.D.
Phenanthrene	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
Phenol	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
Pyrene	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	-	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	μg/L	25	N.D.	N.D.	-	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.	-	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.
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.
Toxaphene	CLP-Pest	μg/L	5.0	-	-	-	-	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW2A-001 96-01235-1	18BGMW2A-001 (U) 96-01235-2	18BGMW04B-001 96-01235-3	18BGMW04B-001 (U) 96-01235-4	18BGMW04B-301 96-01235-5
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	53,000	54,000	115,000	114,000	116,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	160	150
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	101	N.D.	1,400	1,600
Lead, Pb	CLP-Metal	µg/L	3	3	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	24,000	25,000	31,000	31,000	31,000
Manganese, Mn	CLP-Metal	µg/L	15	170	180	48	33	41
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	52	61	67
Potassium, K	CLP-Metal	µg/L	5000	5,440	5,510	2420J	2410J	2430J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	5	6	6
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	98,000	98,000	106,000	106,000	108,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW04B-301 (U) 96-01235-6	18BGMP10A-001 96-01235-7	18BGMP10A-001 (U) 96-01235-8	18BGMW16-001 96-01235-9	18BGMW16-001 (U) 96-01235-10
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	113,000	6,470	5,910	109,000	112,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	58
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	140	430	830
Lead, Pb	CLP-Metal	µg/L	3	N.D.	3	N.D.	3	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	31,000	7,160	7,000	56,000	56,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.	67	42
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	54	N.D.	N.D.	260	200
Potassium, K	CLP-Metal	µg/L	5000	2370J	3510J	3500J	2560J	2640J
Selenium, Se	CLP-Metal	µg/L	5	6	N.D.	N.D.	26	27
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	104,000	172,000	171,000	117,000	118,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	92	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW22-001 96-01235-11	18BGMW22-001 (U) 96-01235-12	18MCAS10-001 96-01235-13	18MCAS10-001 (U) 96-01235-14	18PS1-001 96-01235-15
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	48,000	48,000	89,000	87,000	307,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	35	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	1,000	350	280	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	30,000	30,000	39,000	39,000	80,000
Manganese, Mn	CLP-Metal	µg/L	15	19	26	65	61	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	350	380	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2620J	2650J	2790J	2750J	2340J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	32
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	208,000	206,000	112,000	109,000	104,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18PS1-001 (U) 96-01235-16	18PS5-001 96-01235-17	18PS5-001 (U) 96-01235-18	18PS7-001 96-01235-19	18PS7-001 (U) 96-01235-20
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	980	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	310,000	218,000	227,000	87,000	89,000
Chromium, Cr	CLP-Metal	µg/L	10	17	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	390	N.D.	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	80,000	55,000	57,000	23,000	23,000
Manganese, Mn	CLP-Metal	µg/L	15	37	N.D.	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2310J	1890J	1920J	1450J	1460J
Selenium, Se	CLP-Metal	µg/L	5	34	7	7	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	103,000	80,000	82,000	151,000	150,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01235-21
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) Scott Schneider / Pat Russell

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Pesticides (CLP)	Herbicides (BLS)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	General Chemistry*	REMARKS	PRESERVATIVE USED
1BBGMP10A-001	1/19/96	1430		✓	H_2O	6	✓				✓	✓	✓	*Refer to previously	
1BBGMW04B-001	1/19/96	1550		✓	H_2O	7	✓	✓			✓	✓	✓	sent project specific	
1BBGMW04B-301	1/19/96	1555		✓	H_2O	7	✓	✓			✓	✓	✓	detection limits.	
1BBGMW2A-001	1/19/96	0935		✓	H_2O	8	✓	✓		✓	✓	✓	✓		
1BBGMW16-001	1/19/96	1140		✓	H_2O	8	✓	✓		✓	✓	✓	✓	*Samples for metals	
1BMCAS10-001	1/19/96	1300		✓	H_2O	7	✓	✓			✓	✓	✓	analysis have been	
1BPS1-001	1/19/96	1515		✓	H_2O	6	✓				✓	✓	✓	properly filtered and	
1BPS7-001	1/22/96	1645		✓	H_2O	8	✓	✓	✓		✓	✓	✓	preserved in the field.	
1BBGMW22-001	1/22/96	1822		✓	H_2O	7	✓	✓			✓	✓	✓	No additional lab	
1BPS5-001	1/22/96	1135		✓	H_2O	7	✓	✓			✓	✓	✓	filtering required.	
APCL-TB	—	—		—	—										
														*NFESC QC Level D	
														for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schneider	1/23/96 1400				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
A. Gonzalez	1/23/96 1400				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory** General chemistry includes nitrate, chloride, sulfate, carbonate, bicarbonate, TDS, Alkalinity, nitrite	

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

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 #: 801-961244
Collected by: SS, PR
Collected on: 01/23/96

Received: 01/24/96
Extracted: 01/26-27/96
Tested: 01/25-02/15/96
Reported: 02/19/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP10B-001 96-01244-1	18BGMP10C-001 96-01244-3	18BGMP10D-001 96-01244-5
Alkalinity	310.1	mg/L	2	229	182	223
Bicarbonate	SM2320B	mg/L	2	280	186	272
Carbonate	SM2320B	mg/L	2	N.D.	18	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	86.0	23.0	27.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	N.D.	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	495	367	462
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	70.0	81.0	92.0
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 18BGMP10B-001 96-01244-1	18BGMP10C-001 96-01244-3	18BGMP10D-001 96-01244-5
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	11	-	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 18BGMP10B-001 96-01244-1	18BGMP10C-001 96-01244-3	18BGMP10D-001 96-01244-5
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 (PQL)	Analysis Result 18BGMW01C-001 96-01244-7	18BGMW01D-001 96-01244-9	18BGMW01D-901 96-01244-11	18RW1-001 96-01244-13
Alkalinity	310.1	mg/L	2	238	287	N.D.	207
Bicarbonate	SM2320B	mg/L	2	290	351	N.D.	252
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	95.0	139	N.D.	173
Nitrate/Nitrite	353.3	mg-N/L	0.1	25.0	9.9	N.D.	3.8
Solids, Total Dissolved (TDS)	160.1	mg/L	10	696	944	N.D.	833
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	124	182	N.D.	190

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW01C-001 96-01244-7	18BGMW01D-001 96-01244-9	18BGMW01D-901 96-01244-11	18RW1-001 96-01244-13
CLP: VOC by GC/MS							
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	10	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	1	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	5	9
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	2	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW01C-001 96-01244-7	18BGMW01D-001 96-01244-9	18BGMW01D-901 96-01244-11	18RW1-001 96-01244-13
CLP: Semi-VOC by GC/MS							
Acenaphthene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Acenaphthylene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Anthracene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Benz(a)anthracene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Benzo(a)pyrene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Benzo(b)fluoranthene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Benzo(g,h,i)perylene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Benzo(k)fluoranthene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Bis(2-chloroethoxy) methane	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Bis(2-chloroethyl) ether	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Bis(2-chloroisopropyl) ether	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Bis(2-ethylhexyl) phthalate	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
4-Bromophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Butyl Benzyl Phthalate (BBP)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Carbazole	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
4-Chloro-3-methylphenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
4-Chloroaniline	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
2-Chloronaphthalene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
2-Chlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
4-Chlorophenyl phenyl ether	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Chrysene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Di-n-butyl phthalate (DBP)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Di-n-octyl phthalate (DOP)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Dibenz(a,h)anthracene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Dibenzofuran	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
1,2-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
1,3-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
1,4-Dichlorobenzene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
3,3'-Dichlorobenzidine	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
2,4-Dichlorophenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Diethyl phthalate (DEP)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Dimethyl phthalate (DMP)	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
2,4-Dimethylphenol	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
4,6-Dinitro-2-methylphenol	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.	N.D.
2,4-Dinitrophenol	CLP-SVOC	μg/L	25	N.D.	N.D.	N.D.	N.D.
2,4-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
2,6-Dinitrotoluene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.
Fluoranthene	CLP-SVOC	μg/L	10	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW01C-001 96-01244-7	18BGMW01D-001 96-01244-9	18BGMW01D-901 96-01244-11	18RW1-001 96-01244-13
Fluorene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Hexachlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Hexachlorobutadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Hexachlorocyclopentadiene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Hexachloroethane	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Indeno(1,2,3-cd)pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Isophorone	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2-Methylnaphthalene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
3/4-Methylphenol (m/p-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2-Methylphenol (o-Cresol)	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Naphthalene	CLP-SVOC	µg/L	10	N.D.	35	N.D.	N.D.
2-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	N.D.
3-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	N.D.
4-Nitroaniline	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	N.D.
Nitrobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2-Nitrophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
4-Nitrophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	N.D.
N-Nitroso-di-n-propylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
N-Nitrosodiphenylamine	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Pentachlorophenol (PCP)	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	N.D.
Phenanthrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Phenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Pyrene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,2,4-Trichlorobenzene	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2,4,5-Trichlorophenol	CLP-SVOC	µg/L	25	N.D.	N.D.	N.D.	N.D.
2,4,6-Trichlorophenol	CLP-SVOC	µg/L	10	N.D.	N.D.	N.D.	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.
MCPA	8150	µg/L	2	-	-	-	N.D.
MCPP	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	Analysis Result 18BGMP10B-001 96-01244-1	18BGMP10B-001(U) 96-01244-2	18BGMP10C-001 96-01244-3	18BGMP10C-001(U) 96-01244-4	18BGMP10D-001 96-01244-5
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	25 [a]	26 [a]	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	39,000	40,000	19,000	20,000	46,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	184	N.D.	N.D.	196
Lead, Pb	CLP-Metal	µg/L	3	5	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	15,000	14,000	11,000	11,000	15,000
Manganese, Mn	CLP-Metal	µg/L	15	99	97	N.D.	N.D.	65
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3710J	3750J	2940J	3050J	2950J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	132,000	129,000	97,000	100,000	92,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	120	N.D.	190	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP10D-001(U) 96-01244-6	18BGMW01C-001 96-01244-7	18BGMW01C-001(U) 96-01244-8	18BGMW01D-001 96-01244-9	18BGMW01D-001(U) 96-01244-10
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	45,000	94,000	95,000	125,000	127,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	15	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	220	N.D.	290	N.D.	124
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.	4	4
Magnesium, Mg	CLP-Metal	µg/L	5000	15,000	33,000	33,000	56,000	57,000
Manganese, Mn	CLP-Metal	µg/L	15	65	N.D.	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	250	250	180	180
Potassium, K	CLP-Metal	µg/L	5000	2890J	2850J	2840J	3070J	3100J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	17	14	15	16
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	91,000	103,000	103,000	88,000	89,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	75	21	24	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW01D-901 96-01244-11	18BGMW01D-901(U) 96-01244-12	18RW1-001 96-01244-13	18RW1-001(U) 96-01244-14
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	μg/L	5000	N.D.	N.D.	92,000	92,000
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	N.D.	N.D.	260	6,780
Lead, Pb	CLP-Metal	μg/L	3	N.D.	N.D.	5	5
Magnesium, Mg	CLP-Metal	μg/L	5000	N.D.	N.D.	22,000	22,000
Manganese, Mn	CLP-Metal	μg/L	15	N.D.	N.D.	63	74
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	N.D.	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	μg/L	5000	N.D.	N.D.	3010J	3010J
Selenium, Se	CLP-Metal	μg/L	5	N.D.	N.D.	5	N.D.
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	N.D.	N.D.	169,000	169,000
Thallium, Tl	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	μg/L	20	N.D.	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01244-15
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	1	N.D.
Carbon tetrachloride	CLP-VOC	μg/L	10	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01244-15
Chlorobenzene	CLP-VOC	μg/L	1	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	10	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) Confirmed by GFAA.

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) Scott Schmidt / Pat Russell

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX	NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Herbicide (8150)	Filtered metals (CLP)	Unfiltered metals (CLP)	General Chemistry			REMARKS	PRESERVATIVE USED
18BGMW01D-001	1/23/96	1204		✓	H_2O	7	✓	✓		✓	✓	✓			* Refer to previously	
18BGMW01D-001	1/23/96	1218		✓	H_2O	7	✓	✓		✓	✓	✓			sent project specific	
18RW1-001	1/23/96	1615		✓	H_2O	8	✓	✓	✓	✓	✓	✓			detection limits.	
18BGMW01C-001	1/23/96	1500		✓	H_2O	7	✓	✓		✓	✓	✓				
18BGMP10D-001	1/23/96	1710		✓	H_2O	7	✓	✓		✓	✓	✓			* Samples for metals	
18BGMP10C-001	1/23/96	1445		✓	H_2O	6	✓			✓	✓	✓			analysis have been	
18BGMP10B-001	1/23/96	1215		✓	H_2O	7	✓	✓		✓	✓	✓			properly filtered and	
APCL-TB	—	—		—	—										preserved in the field.	
															No additional lab	
															filtering required.	
															* NFESC QC Level	
															D for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schmidt	1/24/96 1440	Kevin Jay	1/24/96 14:40		
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Kevin Jay	1/24/96 1440				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
				General Chemistry includes Nitrate/nitrite, chloride, sulfate, carbonate, bicarbonate, alkalinity, TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field Fi

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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 #: 801-961255
Collected by: ss
Collected on: 01/24/96

Received: 01/25/96
Extracted: 01/26-27/96
Tested: 01/26-02/12/96
Reported: 02/21/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP10E-001 96-01255-1	18BGMP10F-001 96-01255-3	18BGMW01B-001 96-01255-5
Alkalinity	310.1	mg/L	2	262	272	210
Bicarbonate	SM2320B	mg/L	2	319	332	256
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	31.0	144	72.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	3.6	1.8
Solids, Total Dissolved (TDS)	160.1	mg/L	10	545	1,260	701
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	128	632	314
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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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP10E-001 96-01255-1	18BGMP10F-001 96-01255-3	18BGMW01B-001 96-01255-5
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	-	-	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 18BGMP10E-001 96-01255-1	18BGMP10F-001 96-01255-3	18BGMW01B-001 96-01255-5
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 18MCAS01-1-001 96-01255-7	18MCAS01-2-001 96-01255-9	18RW2-001 96-01255-11
Alkalinity	310.1	mg/L	2	455	285	187
Bicarbonate	SM2320B	mg/L	2	555	348	228
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	189	504	113
Nitrate/Nitrite	353.3	mg-N/L	0.1	24.0	39.0	12.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,540	2,380	729
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	411	711	110

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS01-1-001 96-01255-7	18MCAS01-2-001 96-01255-9	18RW2-001 96-01255-11
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.	5
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 18MCAS01-1-001 96-01255-7	18MCAS01-2-001 96-01255-9	18RW2-001 96-01255-11
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 18MCAS01-1-001 96-01255-7	18MCAS01-2-001 96-01255-9	18RW2-001 96-01255-11
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	Analysis Result 18BGMP10E-001 96-01255-1	18BGMP10E-001(U) 96-01255-2	18BGMP10F-001 96-01255-3
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 18BGMP10E-001 96-01255-1	18BGMP10E-001(U) 96-01255-2	18BGMP10F-001 96-01255-3
Calcium, Ca	CLP-Metal	µg/L	5000	52,000	52,000	152,000
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	109	128	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	5
Magnesium, Mg	CLP-Metal	µg/L	5000	19,000	19,000	60,000
Manganese, Mn	CLP-Metal	µg/L	15	44	45	150
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	2610J	2630J	3370J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	16
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	106,000	108,000	169,000
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	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP10F-001(U) 96-01255-4	18BGMW01B-001 96-01255-5	18BGMW01B-001(U) 96-01255-6
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	152,000	61,000	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.	109
Lead, Pb	CLP-Metal	µg/L	3	6	4	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	60,000	25,000	25,000
Manganese, Mn	CLP-Metal	µg/L	15	150	110	110
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	3370J	3060J	3040J
Selenium, Se	CLP-Metal	µg/L	5	17	N.D.	5
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	171,000	148,000	147,000
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	69	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS01-1-001 96-01255-7	18MCAS01-1-001(U) 96-01255-8	18MCAS01-2-001 96-01255-9
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	169,000	173,000	436,000
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	41,000	41,000	107,000
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	1210J	1210J	3150J
Selenium, Se	CLP-Metal	µg/L	5	8	8	50
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	284,000	285,000	176,000
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.	24	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS01-2-001(U) 96-01255-10	18RW2-001 96-01255-11	18RW2-001(U) 96-01255-12
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	441,000	91,000	92,000
Chromium, Cr	CLP-Metal	µg/L	10	14	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	590
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	107,000	16,000	16,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	29	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	3130J	2310J	2360J
Selenium, Se	CLP-Metal	µg/L	5	60	11	11
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	175,000	109,000	111,000
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	30	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01255-13
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.
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) Scott Schroder

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	General chemistry*				REMARKS	PRESERVATIVE USED
18BGMW01B-001	1/24/96	1045		✓	H_2O		7	✓	✓	✓	✓	✓				*Refer to previously	
18RW2-001	1/24/96	1615		✓	H_2O		7	✓	✓	✓	✓	✓				sent project specific	
18BGMP10F-001	1/24/96	1100		✓	H_2O		6	✓		✓	✓	✓				detection limits.	
18MCAS01-1-001	1/24/96	1630		✓	H_2O		6	✓		✓	✓	✓					
18MCAS01-2-001	1/24/96	1445		✓	H_2O		6	✓		✓	✓	✓				*Samples for metals	
18BGMP10E-001	1/24/96	0940		✓	H_2O		6	✓		✓	✓	✓				analyses have been	
17PCL-TB	—	—		—	—											properly filtered and	
																preserved in the field.	
																No additional lab	
						CDM Federal										filtering required.	
																*NFESC SOW Level D	
																for all samples	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schroder	1/25/96 1400				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	1/25/96 1400				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	

*General chemistry includes chloride, sulfate, Nitrate/Nitrite as N, carbonate, bicarbonate, and alkalinity.

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

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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 #: 801-961279
Collected by:
Collected on: 01/25-26/96

Received: 01/26/96
Extracted: 01/29-30/96
Tested: 01/26-02/12/96
Reported: 02/19/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (EQL)	Analysis Result 18MCAS07-9-001 96-01279-1	18PS6-001 96-01279-3	18RW3-001 96-01279-5	18RW3-501 96-01279-7	18RW4-001 96-01279-9
Alkalinity	310.1	mg/L	2	335	214	163	127	271
Bicarbonate	SM2320B	mg/L	2	408	262	199	154	331
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	481	240	195	97.0	257
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	29.0	12.0	0.1	43.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	2,120	1,260	819	715	1,570
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	661	315	137	260	367
CLP: VOC by GC/MS								
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	7	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	1	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	7	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	1	N.D.	5	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	3	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	9	4	10	7
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	6	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (EQL)	Analysis Result 18MCAS07-9-001 96-01279-1	18RW3-501 96-01279-7
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (EQL)	Analysis Result 18MCAS07-9-001 96-01279-1	18RW3-501 96-01279-7
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 18MCAS07-9-001 96-01279-1	18MCAS07-9-001(U) 96-01279-2	18PS6-001 96-01279-3	18PS6-001(U) 96-01279-4	18RW3-001 96-01279-5
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS07-9-001 96-01279-1	18MCAS07-9-001(U) 96-01279-2	18PS6-001 96-01279-3	18PS6-001(U) 96-01279-4	18RW3-001 96-01279-5
Calcium, Ca	CLP-Metal	µg/L	5000	245,000	249,000	206,000	205,000	76,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	13	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	270	300	N.D.	350	1,100
Lead, Pb	CLP-Metal	µg/L	3	6	5	4	7	4
Magnesium, Mg	CLP-Metal	µg/L	5000	53,000	54,000	56,000	56,000	19,000
Manganese, Mn	CLP-Metal	µg/L	15	1,070	1,100	N.D.	N.D.	91
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	330	340	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	7,140	7,250	2320J	2340J	2560J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	51	53	6
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	372,000	378,000	120,000	119,000	174,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	230	290	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18RW3-001(U) 96-01279-6	18RW3-501 96-01279-7	18RW3-501(U) 96-01279-8	18RW4-001 96-01279-9	18RW4-001(U) 96-01279-10
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	75,000	N.D.	6,140	229,000	231,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	3,330	N.D.	122	N.D.	1,800
Lead, Pb	CLP-Metal	µg/L	3	4	N.D.	N.D.	5	5
Magnesium, Mg	CLP-Metal	µg/L	5000	18,000	N.D.	2480J	50,000	49,000
Manganese, Mn	CLP-Metal	µg/L	15	110	N.D.	N.D.	N.D.	34
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2550J	N.D.	N.D.	1690J	1750J
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	10	7
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	170,000	N.D.	7,480	212,000	211,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01279-11
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.

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)	Semi-VOC (CLP)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	General Chemistry *				REMARKS	PRESERVATIVE USED
18RW3-501	1/25/96	1440		✓	H_2O		7	✓	✓	✓	✓	✓				* Refer to previously	
18RW3-001	1/25/96	1450		✓	H_2O		6	✓		✓	✓	✓				sent project specific	
18MCAS07-9-001	1/25/96	1345		✓	H_2O		7	✓	✓	✓	✓	✓				detection limits.	
18RW4-001	1/26/96	0900		✓	H_2O		6	✓		✓	✓	✓					
18PS6-001	1/26/96	1200		✓	H_2O		6	✓		✓	✓	✓				* Samples for metals	
APCL-TB	—	—		—	—											analysis have been	
																properly filtered and	
																preserved in the field.	
																No additional lab	
																filtering required.	
																* NFESC QC Level D	
																for all samples	

Scott Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Shrader	1/26/96 1410				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Teddy SUN	1/26/96 1410				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL					

*General chemistry includes chloride, sulfate, nitrate/nitrite as N, carbonate, bicarbonate, and alkalinity

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

CS

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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 #: 801-961292
Collected by: ss
Collected on: 01/26-29/96

Received: 01/29/96
Extracted: 01/29,30/96
Tested: 01/29-02/15/96
Reported: 02/19/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW01A-001 96-01292-1	18BGMW01A-301 96-01292-3	18BGMW05A-001 96-01292-5
Alkalinity	310.1	mg/L	2	195	193	152
Bicarbonate	SM2320B	mg/L	2	238	235	186
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	357	365	1,060
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	N.D.	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,190	1,190	2,240
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	226	233	216
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	61	61	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.	2J
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.	0.9J	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	0.6J	0.5J	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW01A-001 96-01292-1	18BGMW01A-301 96-01292-3	18BGMW05A-001 96-01292-5
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW01A-001 96-01292-1	18BGMW01A-301 96-01292-3	18BGMW05A-001 96-01292-5
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	49	51	12
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.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW05A-301 96-01292-7	18BGMW017-001 96-01292-9	18PS8-001 96-01292-11
Alkalinity	310.1	mg/L	2	152	225	244
Bicarbonate	SM2320B	mg/L	2	186	275	298
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	1,080	118	200
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	24.0	17.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	2,230	861	842
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	225	187	107

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW05A-301 96-01292-7	18BGMW017-001 96-01292-9	18PS8-001 96-01292-11
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.	2
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.	2
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.	2
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.	0.8J
Toluene	CLP-VOC	μg/L	1	N.D.	N.D.	4
1,1,1-Trichloroethane	CLP-VOC	μg/L	1	N.D.	N.D.	0.8J
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.	102
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 18BGMW05A-301 96-01292-7	18PS8-001 96-01292-11
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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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW05A-301 96-01292-7	18PS8-001 96-01292-11
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	15	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 18BGMW01A-001 96-01292-1	18BGMW01A-001(U) 96-01292-2	18BGMW01A-301 96-01292-3	18BGMW01A-301(U) 96-01292-4
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW01A-001 96-01292-1	18BGMW01A-001(U) 96-01292-2	18BGMW01A-301 96-01292-3	18BGMW01A-301(U) 96-01292-4
Calcium, Ca	CLP-Metal	µg/L	5000	47,000	47,000	47,000	47,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	730	920	740	860
Lead, Pb	CLP-Metal	µg/L	3	3	4	N.D.	4
Magnesium, Mg	CLP-Metal	µg/L	5000	24,000	24,000	24,000	24,000
Manganese, Mn	CLP-Metal	µg/L	15	280	290	280	280
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	5,850	5,910	5,910	6,030
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	367,000	374,000	372,000	374,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW05A-001 96-01292-5	18BGMW05A-001(U) 96-01292-6	18BGMW05A-301 96-01292-7	18BGMW05A-301(U) 96-01292-8
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	125,000	126,000	119,000	120,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	147	550	124	470
Lead, Pb	CLP-Metal	µg/L	3	4	4	N.D.	5
Magnesium, Mg	CLP-Metal	µg/L	5000	66,000	68,000	65,000	64,000
Manganese, Mn	CLP-Metal	µg/L	15	300	310	300	290
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	35,000	34,000	36,000	37,000
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	587,000	602,000	566,000	560,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	46	N.D.	25

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW017-001 96-01292-9	18BGMW017-001(U) 96-01292-10	18PS8-001 96-01292-11	18PS8-001(U) 96-01292-12
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	23.0J
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	124,000	123,000	121,000	122,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	50	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	200	750	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	4	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	37,000	37,000	33,000	33,000
Manganese, Mn	CLP-Metal	µg/L	15	15	25	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	220	220	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	2690J	2660J	1790J	1790J
Selenium, Se	CLP-Metal	µg/L	5	13	12	11	13
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	106,000	105,000	120,000	120,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01292-13
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.

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Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01292-13
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.
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)	Semi-VOC (CLP)	Filtered Metals (CLP)	Unfiltered Metals (CLP)	General Chemistry*				REMARKS	PRESERVATIVE USED
18PS8-001	1/26/96	1450		✓	H_2O	7	✓	✓	✓	✓	✓				*Refer to previously	
18BGMW01A-001	1/26/96	1505		✓	H_2O	7	✓	✓	✓	✓	✓				sent project specific	
18BGMW01A-301	1/26/96	1510		✓	H_2O	7	✓	✓	✓	✓	✓				detection limits.	
18BGMW05A-001	1/26/96	1400		✓	H_2O	7	✓	✓	✓	✓	✓					
18BGMW05A-301	1/26/96	1405		✓	H_2O	7	✓	✓	✓	✓	✓				*Samples for metals	
18BGMW17-001	1/29/96	1010		✓	H_2O	6	✓		✓	✓	✓				analysis have been	
APCL-TB	—	—		—	—										properly filtered and	
															preserved in the field.	
															No additional lab	
															filtering required.	
															*NFESC Level D	
															for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schwab	1/29/96 1415				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Johnson / APCL	1/29/96 2:15				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory** *General chemistry includes chloride, sulfate, nitrate/nitrite as N, bicarbonate, bi-carbonate, and alkalinity	

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 #: 801-961308
Collected by: ss
Collected on: 01/29-30/96

Received: 01/30/96
Extracted: 01/31-02/01/96
Tested: 01/31-02/29/96
Reported: 03/01/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS02-4-001 96-01308-11	Analysis Result 18MCAS02-5-001 96-01308-13
Alkalinity	310.1	mg/L	2	214	238
Bicarbonate	SM2320B	mg/L	2	262	290
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	200	179
Nitrate/Nitrite	353.3	mg-N/L	0.1	18.0	5.8
Solids, Total Dissolved (TDS)	160.1	mg/L	10	984	854
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	208	177
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	12	21
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 18MCAS02-6-001 96-01308-15	18MCAS02-7-001 96-01308-17	18MCAS02-8-001 96-01308-19
Alkalinity	310.1	mg/L	2	227	341	225
Bicarbonate	SM2320B	mg/L	2	277	416	275
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	313	419	312
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	N.D.	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,350	1,700	1,410
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	374	471	402
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 04UGMW63-001 96-01308-1	05UGMW27-001 96-01308-3
Alkalinity	310.1	mg/L	2	315	292
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	385	356
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	193	96.0
Color, for drinking water	110.2	Color Unit	1	1	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	3.7	8.9
Phosphorus, Orthophosphate	365.2	mg/L	0.01	N.D.	0.02
Silica (SiO_2) dissolved	370.1	mg/L	0.03	50.0	40.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	898	927
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	253
Carbon, Total Organic (TOC)	415.1	mg/L	1	1	2
CLP: VOC by GC/MS					
Acetone	CLP-VOC	μg/L	10	N.D.	N.D.
Benzene	CLP-VOC	μg/L	1	3	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 04UGMW63-001 96-01308-1	05UGMW27-001 96-01308-3
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 04UGMW63-001 96-01308-1	05UGMW27-001 96-01308-3
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.
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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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 04UGMW63-001 96-01308-1	05UGMW27-001 96-01308-3
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 18BGMW101-001 96-01308-5	18DW350-001 96-01308-7	18DW450-001 96-01308-9
Alkalinity	310.1	mg/L	2	259	229	251
Bicarbonate	SM2320B	mg/L	2	317	280	306
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	326	103	91.0
Nitrate/Nitrite	353.3	mg-N/L	0.1	25.0	5.5	8.9
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,520	693	722
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	381	151	165
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 18BGMW101-001 96-01308-5	18DW350-001 96-01308-7	18DW450-001 96-01308-9
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.	1	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.	1
Toluene	CLP-VOC	µg/L	1	N.D.	13	4
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	15	N.D.	4
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.
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.

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMW101-001 96-01308-5	18DW350-001 96-01308-7	18DW450-001 96-01308-9
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 04UGMW63-001 96-01308-1	04UGMW63-001(U) 96-01308-2	05UGMW27-001 96-01308-3
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	129,000	124,000	133,000
Chromium	CLP-Metal	µg/L	10	N.D.	18	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.	310	N.D.
Lead	CLP-Metal	µg/L	3	5	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	58,000	55,000	37,000
Manganese	CLP-Metal	µg/L	15	42	37	N.D.
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	550	530	N.D.
Potassium	CLP-Metal	µg/L	5000	2810J	2590J	1810J
Selenium	CLP-Metal	µg/L	5	26	21	11
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	88,000	82,000	116,000
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	21	22	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 05UGMW27-001(U) 96-01308-4	18BGMW101-001 96-01308-5	18BGMW101-001(U) 96-01308-6
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	138,000	231,000	232,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.	356
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.	240	3,410
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	37,000	62,000	62,000
Manganese	CLP-Metal	µg/L	15	N.D.	20	28
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	N.D.	120	130
Potassium	CLP-Metal	µg/L	5000	1860J	3180J	3240J
Selenium	CLP-Metal	µg/L	5	13	33	38
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	119,000	182,000	184,000
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 18DW350-001 96-01308-7	18DW350-001(U) 96-01308-8	18DW450-001 96-01308-9
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	95,000	96,000	110,000
Chromium	CLP-Metal	µg/L	10	N.D.	16	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	134	6,340	136
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	30,000	30,000	35,000
Manganese	CLP-Metal	µg/L	15	91	150	90
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	2760J	2720J	3070J
Selenium	CLP-Metal	µg/L	5	17	17	14
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	97,000	96,000	101,000
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 18DW450-001(U) 96-01308-10	18MCAS02-4-001 96-01308-11	18MCAS02-4-001(U) 96-01308-12
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	111,000	129,000	122,000
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	900	N.D.	N.D.
Lead	CLP-Metal	µg/L	3	5	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	35,000	34,000	33,000
Manganese	CLP-Metal	µg/L	15	98	15	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	3110J	3940J	3660J
Selenium	CLP-Metal	µg/L	5	20	15	17
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	102,000	185,000	176,000
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.	59

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS02-5-001 96-01308-13	18MCAS02-5-001(U) 96-01308-14	18MCAS02-6-001 96-01308-15
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	109,000	104,000	67,000
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.	210	N.D.
Lead	CLP-Metal	µg/L	3	3	3	3
Magnesium	CLP-Metal	µg/L	5000	29,000	28,000	19,000
Manganese	CLP-Metal	µg/L	15	317	317	390
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	965	948	310
Potassium	CLP-Metal	µg/L	5000	3850J	3700J	4100J
Selenium	CLP-Metal	µg/L	5	10	8	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	154,000	149,000	430,000
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.	31	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS02-6-001(U) 96-01308-16	18MCAS02-7-001 96-01308-17	18MCAS02-7-001(U) 96-01308-18
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	67,000	87,000	88,000
Chromium	CLP-Metal	µg/L	10	N.D.	53	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	193	950	1,000
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	19,000	32,000	32,000
Manganese	CLP-Metal	µg/L	15	391	981	999
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	320	1,570	1,610
Potassium	CLP-Metal	µg/L	5000	4250J	6,890	7,040
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	437,000	587,000	601,000
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	39	26	52

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS02-8-001 96-01308-19	Analysis Result 18MCAS02-8-001(U) 96-01308-20
CLP Metals (Full CLP 23 metals)					
Aluminum	CLP-Metal	µg/L	200	N.D.	1,400
Antimony	CLP-Metal	µg/L	60	N.D.	N.D.
Arsenic	CLP-Metal	µg/L	10	N.D.	12
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	52,000	50,000
Chromium	CLP-Metal	µg/L	10	N.D.	150
Cobalt	CLP-Metal	µg/L	50	N.D.	N.D.
Copper	CLP-Metal	µg/L	25	N.D.	28
Iron	CLP-Metal	µg/L	100	2,550	4,880
Lead	CLP-Metal	µg/L	3	N.D.	7
Magnesium	CLP-Metal	µg/L	5000	17,000	18,000
Manganese	CLP-Metal	µg/L	15	1,280	1,260
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	1,310	1,390
Potassium	CLP-Metal	µg/L	5000	6,200	6,480
Selenium	CLP-Metal	µg/L	5	N.D.	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	501,000	508,000
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	32	66

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01308-21
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 96-01308-21
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/Gen Chemistry	Metals/Cont Hard Metals	Semi-VOC	Pesticides/Herbicides	Ammonia-Nitrogen	COD/TOC/Phosphate	Silica/TSS/Color	REMARKS	PRESERVATIVE USED
18BGMW101-001	1/29/96	1140		✓	H_2O	7	✓	✓	✓					*Refer to previously	
18DW350-001	1/29/96	1250		✓	H_2O	7	✓	✓	✓					sent project specific	
18MCAS02-8-001	1/29/96	1055		✓	H_2O	6	✓	✓						detection limits.	
18MCAS02-7-001	1/29/96	1225		✓	H_2O	6	✓	✓							
05UGMW27-001	1/29/96	1540		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	*Samples for metals	
18MCAS02-5-001	1/29/96	1550		✓	H_2O	6	✓	✓						analyses have been	
18MCAS02-4-001	1/29/96	1740		✓	H_2O	6	✓	✓						properly filtered and	
18DW450-001	1/29/96	1830		✓	H_2O	7	✓	✓	✓					received in the field.	
18MCAS02-6-001	1/29/96	1405		✓	H_2O	6	✓	✓						No additional lab	
04UGMW63-001	1/30/96	1005		✓	H_2O	12	✓	✓	✓	✓	✓	✓	✓	filtering required	
APCL-TB	—	—		—	—										
														*NEESC Level D	
		CDM Federal												for all samples	
														*Note short holding time	
														for phosphate and color	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schwada	1/30/96 1430				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Teddy Yun	1-30-96 14:30				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
3 Coolers - APCL courier				*General chemistry includes chloride, sulfate, nitrate/nitrite as N, carbonate, bi-carbonate, and alkalinity	

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 #: 801-961367
Collected by: ss
Collected on: 01/31-02/01/

Received: 02/01/96
Extracted: 02/05-06/96
Tested: 02/01-29/96
Reported: 02/29/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18BGMP09A-001 96-01367-1	18BGMP09B-001 96-01367-3
Alkalinity	310.1	mg/L	2	69	191
Bicarbonate	SM2320B	mg/L	2	79	233
Carbonate	SM2320B	mg/L	2	3	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	803	325
Nitrate/Nitrite	353.3	mg-N/L	0.1	N.D.	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	2,200	1,270
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	633	307
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 18MCAS05-001 96-01367-5	20DGMW88-001 96-01367-7	20DGMW88-301 96-01367-9
Alkalinity	310.1	mg/L	2	219	142	142
Bicarbonate	SM2320B	mg/L	2	267	173	173
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	153	301	306
Nitrate/Nitrite	353.3	mg-N/L	0.1	6.2	17.0	15.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	748	1,970	1,930
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	120	709	718
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	2	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	1	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 18MCAS05-001 96-01367-5	20DGMW88-001 96-01367-7	20DGMW88-301 96-01367-9
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS05-001 96-01367-5	20DGMW88-001 96-01367-7	20DGMW88-301 96-01367-9
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.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP09A-001 96-01367-1	18BGMP09A-001(U) 96-01367-2	18BGMP09B-001 96-01367-3
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 18BGMP09A-001 96-01367-1	18BGMP09A-001(U) 96-01367-2	18BGMP09B-001 96-01367-3
Calcium, Ca	CLP-Metal	μg/L	5000	67,000	70,000	67,000
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	22,000	23,000	18,000
Manganese, Mn	CLP-Metal	μg/L	15	47	51	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	6,850	7,410	3980J
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	849,000	887,000	425,000
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 18BGMP09B-001(U) 96-01367-4	18MCAS05-001 96-01367-5	18MCAS05-001(U) 96-01367-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	N.D.	1,400
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	65,000	93,000	96,000
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	N.D.	10
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.	1,200	4,170
Lead, Pb	CLP-Metal	μg/L	3	6	N.D.	4
Magnesium, Mg	CLP-Metal	μg/L	5000	18,000	41,000	41,000
Manganese, Mn	CLP-Metal	μg/L	15	N.D.	76	110
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	4550J	3080J	3350J
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	428,000	144,000	144,000
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	35	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 20DGMW88-001 96-01367-7	Analysis Result 20DGMW88-001(U) 96-01367-8
CLP Metals (Full CLP 23 metals)					
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	207
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	298,000	321,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	1,880
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	97
Iron, Fe	CLP-Metal	µg/L	100	184	14,900
Lead, Pb	CLP-Metal	µg/L	3	3	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	151,000	163,000
Manganese, Mn	CLP-Metal	µg/L	15	53	170
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	510	690
Potassium, K	CLP-Metal	µg/L	5000	4740J	5,750
Selenium, Se	CLP-Metal	µg/L	5	106	98
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	144,000	162,000
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.	37

Component Analyzed	Method	Unit	CRDL	Analysis Result 20DGMW88-301 96-01367-9	Analysis Result 20DGMW88-301(U) 96-01367-10
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	301,000	293,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	1,800
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	94
Iron, Fe	CLP-Metal	µg/L	100	137	14,700
Lead, Pb	CLP-Metal	µg/L	3	N.D.	4
Magnesium, Mg	CLP-Metal	µg/L	5000	158,000	153,000
Manganese, Mn	CLP-Metal	µg/L	15	54	160
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	560	660
Potassium, K	CLP-Metal	µg/L	5000	5,950	5,700
Selenium, Se	CLP-Metal	µg/L	5	107	96
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	161,000	156,000
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.	37

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01367-11
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: MCAS El Toro

SAMPLERS: (Signature)

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Filtered Metals	Unfiltered Metals	General Chemistry				REMARKS	PRESERVATIVE USED
18BGMP09B-001	1/31/96	1510		✓	H_2O		6	✓		✓	✓	✓				Refer to project specific	
18BGMP09A-001	1/31/96	1330		✓	H_2O		6	✓		✓	✓	✓				detection limits	
18MCAS05-001	1/31/96	1650		✓	H_2O		7	✓	✓	✓	✓	✓					
20DGMW38-001	2/1/96	0955		✓	H_2O		11	✓	✓	✓	✓	✓				Metals have been filtered	
20DGMW38-301	2/1/96	1000		✓	H_2O		7	✓	✓	✓	✓	✓				and preserved	
APCL-TB	—	—		—	—												
																NFESC QC level D	
																for all samples	
		CDM															
					Federal											Extra Semi-VOC	
																volume for MS/MSD	

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schuster	2/1/96 1415				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Ernie Garcia	2/1/96 1647				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory** General chemistry includes chloride, nitrate/nitrite as N, sulfate, ammonia, bicarbonate, alkalinity, TDS	
APCL Courier - 2 coolers					

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

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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 #: 801-961384
Collected by:
Collected on: 02/01/96

Received: 02/02/96
Extracted: 02/06-07/96
Tested: 02/02-29/96
Reported: 03/01/96

Sample Description: Groundwater
Project Description: MCAS El Toro/#6206-009

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 13DGMW78-001 96-01384-1	Analysis Result 18BGMP09C-001 96-01384-3
Alkalinity	310.1	mg/L	2	375	139
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	-
Bicarbonate	SM2320B	mg/L	2	458	170
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	302	113
Color, for drinking water	110.2	Color Unit	1	N.D.	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	22.0	N.D.
Phosphorus, Orthophosphate	365.2	mg/L	0.01	N.D.	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	51.0	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,970	625
Solids, Total Suspended (TSS)	160.2	mg/L	4	11	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	671	163
Carbon, Total Organic (TOC)	415.1	mg/L	1	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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 13DGMW78-001 96-01384-1	18BGMP09C-001 96-01384-3
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.	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.
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.	-

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 13DGMW78-001 96-01384-1	18BGMP09C-001 96-01384-3
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.	-
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 18BGMW02E-001 96-01384-5	18MCAS08-001 96-01384-7	21UGMW90-001 96-01384-9
Alkalinity	310.1	mg/L	2	187	191	193
Bicarbonate	SM2330B	mg/L	2	228	233	235
Carbonate	SM2330B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	131	437	155
Nitrate/Nitrite	353.3	mg-N/L	0.1	11.0	N.D.	26.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	911	925	876
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	222	N.D.	174
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	N.D.	2
Toluene	CLP-VOC	µg/L	1	N.D.	8	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.	3
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 18BGMW02E-001 96-01384-5	18MCAS08-001 96-01384-7	21UGMW90-001 96-01384-9
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 18BGMW02E-001 96-01384-5	18MCAS08-001 96-01384-7	21UGMW90-001 96-01384-9
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 13DGMW78-001 96-01384-1	13DGMW78-001 (U) 96-01384-2	18BGMP09C-001 96-01384-3
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	5	5	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 13DGMW78-001 96-01384-1	13DGMW78-001 (U) 96-01384-2	18BGMP09C-001 96-01384-3
Calcium	CLP-Metal	µg/L	5000	257,000	242,000	48,000
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	128,000	117,000	23,000
Manganese	CLP-Metal	µg/L	15	2,300	2,130	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	3830J	3180J	12,000
Selenium	CLP-Metal	µg/L	5	25	25	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	230,000	200,000	199,000
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 18BGMP09C-001 (U) 96-01384-4	18BGMW02E-001 96-01384-5	18BGMW02E-001 (U) 96-01384-6
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	43,000	118,000	119,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.	80
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.	820
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	21,000	35,000	36,000
Manganese	CLP-Metal	µg/L	15	N.D.	15	40
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	N.D.	320	290
Potassium	CLP-Metal	µg/L	5000	3310J	2960J	3020J
Selenium	CLP-Metal	µg/L	5	N.D.	6	N.D.
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	172,000	92,000	93,000
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	25	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS08-001 96-01384-7	Analysis Result 18MCAS08-001 (U) 96-01384-8
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	272	267
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	32,000	33,000
Chromium	CLP-Metal	µg/L	10	N.D.	N.D.
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	870	1,100
Lead	CLP-Metal	µg/L	3	4	N.D.
Magnesium	CLP-Metal	µg/L	5000	6,520	6,290
Manganese	CLP-Metal	µg/L	15	75	70
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	N.D.	N.D.
Potassium	CLP-Metal	µg/L	5000	3120J	3150J
Selenium	CLP-Metal	µg/L	5	103	103
Silver	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	324,000	313,000
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	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 21UGMW90-001 96-01384-9	Analysis Result 21UGMW90-001 (U) 96-01384-10
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	134,000	138,000
Chromium	CLP-Metal	µg/L	10	N.D.	55
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	N.D.	2,100
Lead	CLP-Metal	µg/L	3	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	40,000	40,000
Manganese	CLP-Metal	µg/L	15	18	54
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	260	300
Potassium	CLP-Metal	µg/L	5000	1790J	1800J
Selenium	CLP-Metal	µg/L	5	108	99
Silver	CLP-Metal	µg/L	10	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	67,000	66,000
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	N.D.	N.D.

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01384-11
CLP: VOC by GC/MS				
Acetone	CLP-VOC	μg/L	10	N.D.
Benzene	CLP-VOC	μg/L	10	N.D.
Bromodichloromethane	CLP-VOC	μg/L	10	N.D.
Bromoform	CLP-VOC	μg/L	10	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	10	N.D.
Chlorobenzene	CLP-VOC	μg/L	10	N.D.
Chlorodibromomethane	CLP-VOC	μg/L	10	N.D.
Chloroethane	CLP-VOC	μg/L	10	N.D.
Chloroform	CLP-VOC	μg/L	10	N.D.
Chloromethane	CLP-VOC	μg/L	10	N.D.
1,1-Dichloroethane	CLP-VOC	μg/L	10	N.D.
1,2-Dichloroethane	CLP-VOC	μg/L	10	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	10	N.D.
1,2-Dichloropropane	CLP-VOC	μg/L	10	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	10	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	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	10	N.D.
Toluene	CLP-VOC	μg/L	10	N.D.
1,1,1-Trichloroethane	CLP-VOC	μg/L	10	N.D.
1,1,2-Trichloroethane	CLP-VOC	μg/L	10	N.D.
Trichloroethene	CLP-VOC	μg/L	10	N.D.
Vinyl chloride	CLP-VOC	μg/L	10	N.D.
Xylenes (total)	CLP-VOC	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.

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) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Filtered Metals	Unfiltered Metals	Ammonia-Nitrogen	COD/TOC/phosphate	Silica/TSS/Color	General Chemistry*	REMARKS	PRESERVATIVE USED
18MCAS08-001	2/1/96	1420		✓	H_2O		7	✓	✓	✓	✓				✓	Refer to project specific	
13DGMW78-001	2/1/96	1730		✓	H_2O		10	✓	✓	✓	✓	✓	✓	✓	✓	detection limits	
18BGMW02E-001	2/1/96	1625		✓	H_2O		7	✓	✓	✓	✓				✓		
18BGMP09C-001	2/1/96	1740		✓	H_2O		6	✓		✓	✓				✓	Metals have been	
21UGMW90-001	2/2/96	1115		✓	H_2O		6	✓		✓	✓				✓	filtered and preserved	
APCL-TB	—	—		-	—												
																NFESC QC Level D	
																for all samples	
						CDM Federal											

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Pat Rinell	2/2/96 2:17PM				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
[illegible]	2-2-96 2:17 PM				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL Courier - 1 cooler				General chemistry, including cyanide, nitrite/nitrate as N, sulfate, carbonate, bicarbonate alkalinity, TDS	

Distribution: Original Accompanies Shipments; Copy to Coordinator Field F

SS

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 #: 801-961399
Collected by: ss
Collected on: 02/02,05/96

Received: 02/05/96
Extracted: 02/07,08/96
Tested: 02/06-15/96
Reported: 02/16/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 06DGMW69-001 96-01399-1	18BGMP09D-001 96-01399-3	18BGMP09E-001 96-01399-5
Alkalinity	310.1	mg/L	2	142	195	212
Bicarbonate	SM2320B	mg/L	2	173	238	259
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	248	143	246
Nitrate/Nitrite	353.3	mg-N/L	0.1	17.0	6.5	10.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,030	830	1,060
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	210	203	164
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 18BGMP09F-001 96-01399-7	18BGMW03E-001 96-01399-9	18BGMW12-001 96-01399-11	18BGMW15-001 96-01399-13
Alkalinity	310.1	mg/L	2	219	142	204	195
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	-	N.D.	-	-
Bicarbonate	SM2330B	mg/L	2	267	173	249	238
Carbonate	SM2330B	mg/L	2	N.D.	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	167	250	305	288
Color, for drinking water	110.2	Color Unit	1	-	N.D.	-	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	53.0	17.0	28.0	20.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	-	0.01	-	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	-	53.0	-	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,370	922	1,770	2,210
Solids, Total Suspended (TSS)	160.2	mg/L	4	-	10	-	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	326	94.0	665	898
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.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	N.D.	139	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 06DGMW69-001 96-01399-1	18BGMW15-001 96-01399-13
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 06DGMW69-001 96-01399-1	18BGMW15-001 96-01399-13
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 06DGMW69-001 96-01399-1	06DGMW69-001(U) 96-01399-2	18BGMP09D-001 96-01399-3	18BGMP09D-001(U) 96-01399-4	18BGMP09E-001 96-01399-5
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 06DGMW69-001 96-01399-1	06DGMW69-001(U) 96-01399-2	18BGMP09D-001 96-01399-3	18BGMP09D-001(U) 96-01399-4	18BGMP09E-001 96-01399-5
Calcium, Ca	CLP-Metal	µg/L	5000	166,000	168,000	93,000	92,000	140,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	56	N.D.	N.D.	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	109	530	N.D.	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	6	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	48,000	48,000	20,000	19,000	32,000
Manganese, Mn	CLP-Metal	µg/L	15	15	30	N.D.	N.D.	N.D.
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	280	290	N.D.	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	3270J	3380J	3350J	3180J	3500J
Selenium, Se	CLP-Metal	µg/L	5	35	31	N.D.	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	80,000	82,000	172,000	167,000	147,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	37	43	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMP09E-001(U) 96-01399-6	18BGMP09F-001 96-01399-7	18BGMP09F-001(U) 96-01399-8	18BGMW03E-001 96-01399-9	18BGMW03E-001(U) 96-01399-10
CLP Metals (Full CLP 23 metals)								
Aluminum, Al	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Antimony, Sb	CLP-Metal	µg/L	60	N.D.	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	µg/L	200	N.D.	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	µg/L	5000	140,000	185,000	181,000	138,000	135,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	27
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	N.D.	N.D.	N.D.	N.D.	370
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	31,000	46,000	45,000	34,000	34,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	N.D.	N.D.	15	18
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	N.D.	N.D.	140	150
Potassium, K	CLP-Metal	µg/L	5000	3420J	2470J	2410J	5,190	5,240
Selenium, Se	CLP-Metal	µg/L	5	N.D.	N.D.	N.D.	10	12
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	144,000	181,000	176,000	88,000	87,000
Thallium, Tl	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium, V	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	µg/L	20	N.D.	N.D.	23	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 18BGMW12-001 96-01399-11	18BGMW12-001(U) 96-01399-12	18BGMW15-001 96-01399-13	18BGMW15-001(U) 96-01399-14
CLP Metals (Full CLP 23 metals)							
Aluminum, Al	CLP-Metal	μg/L	200	N.D.	600	N.D.	349
Antimony, Sb	CLP-Metal	μg/L	60	N.D.	N.D.	N.D.	N.D.
Arsenic, As	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Barium, Ba	CLP-Metal	μg/L	200	N.D.	N.D.	N.D.	N.D.
Beryllium, Be	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	N.D.
Cadmium, Cd	CLP-Metal	μg/L	5	N.D.	N.D.	N.D.	N.D.
Calcium, Ca	CLP-Metal	μg/L	5000	188,000	188,000	321,000	315,000
Chromium, Cr	CLP-Metal	μg/L	10	N.D.	316	N.D.	20
Cobalt, Co	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	N.D.	4,500	N.D.	1,500
Lead, Pb	CLP-Metal	μg/L	3	N.D.	3	N.D.	N.D.
Magnesium, Mg	CLP-Metal	μg/L	5000	121,000	124,000	115,000	112,000
Manganese, Mn	CLP-Metal	μg/L	15	49	98	19	61
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	290	160	N.D.	N.D.
Potassium, K	CLP-Metal	μg/L	5000	5,240	5,680	3570J	3630J
Selenium, Se	CLP-Metal	μg/L	5	89	100	151	138
Silver, Ag	CLP-Metal	μg/L	10	N.D.	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	μg/L	5000	211,000	207,000	159,000	158,000
Thallium, Tl	CLP-Metal	μg/L	10	N.D.	17	N.D.	N.D.
Vanadium, V	CLP-Metal	μg/L	50	N.D.	N.D.	N.D.	N.D.
Zinc, Zn	CLP-Metal	μg/L	20	N.D.	37	N.D.	34

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01399-15
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 96-01399-15
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) [illegible]

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	MATRIX		NO. OF CONTAINERS	VOC (CLP)	Semi-VOC (CLP)	Filtered Metals	Unfiltered Metals	General Chemistry*	Ammonia-Nitrogen	COD/TOC/Phosphate	Silica/TSS/Color	REMARKS	PRESERVATIVE USED
06DGMW69-001	2/2/96	1615		✓	H_2O		7	✓	✓	✓	✓	✓				Refer to project specific	
18BGMW15-001	2/2/96	0955		✓	H_2O		7	✓	✓	✓	✓	✓				detection limits	
18BGMW12-001	2/2/96	1305		✓	H_2O		6	✓		✓	✓	✓					
18BGMP09D-001	2/2/96	1020		✓	H_2O		6	✓		✓	✓	✓				Metals have been	
18BGMP09E-001	2/2/96	1130		✓	H_2O		6	✓		✓	✓	✓				filtered and preserved	
18BGMP09F-001	2/2/96	1310		✓	H_2O		6	✓		✓	✓	✓					
18BGMW03E-001	2/5/96	1110		✓	H_2O		9	✓		✓	✓	✓	✓	✓	✓	NFESC [illegible]	
APCL-TB	—	—		—	—											Trip Blank Samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schneider	2/5/96 1445				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Nelson APCL	2/5/96 2:45				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL courier				*General chemistry / [illegible] chloride, nitrate/nitrite as N, sulfate, carbonate, bicarbonate, alkalinity, TDS	

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

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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 #: 801-961423
Collected by: ss
Collected on: 02/05/96

Received: 02/06/96
Extracted: 02/07,08,09/96
Tested: 02/09-28/96
Reported: 03/08/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 13UGMW32-001 96-01423-1	14DGMW50-001 96-01423-3	14DGMW50-301 96-01423-5
Alkalinity	310.1	mg/L	2	223	253	257
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	272	309	314
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	153	306	310
Color, for drinking water	110.2	Color Unit	1	1	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	13.0	27.0	25.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.03	0.04	0.05
Silica (SiO_2) dissolved	370.1	mg/L	0.03	49.0	49.0	49.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,290	1,900	1,980
Solids, Total Suspended (TSS)	160.2	mg/L	4	13	14	12
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	445	614	616
Carbon, Total Organic (TOC)	415.1	mg/L	1	3	1	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.	8	9
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.	4	5
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 13UGMW32-001 96-01423-1	14DGMW50-001 96-01423-3	14DGMW50-301 96-01423-5
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.	2	2
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.
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.	27	38
Dimethyl phthalate (DMP)	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 13UGMW32-001 96-01423-1	14DGMW50-001 96-01423-3	14DGMW50-301 96-01423-5
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 14DGMW79-001 96-01423-7	18BGMW1E-001 96-01423-9	18BGMW18-001 96-01423-11	20UGMW36-001 96-01423-13
Alkalinity	310.1	mg/L	2	255	440	294	131
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	-	-	-
Bicarbonate	SM2320B	mg/L	2	311	536	358	160
Carbonate	SM2320B	mg/L	2	N.D.	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	324	129	107	401
Color, for drinking water	110.2	Color Unit	1	1	-	-	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	23.0	8.8	31.0	28.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.02	-	-	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	50.0	-	-	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	2,240	780	1,110	2,120
Solids, Total Suspended (TSS)	160.2	mg/L	4	15	-	-	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	761	55.0	300	681
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.	N.D.
Benzene	CLP-VOC	µg/L	1	N.D.	40	N.D.	N.D.
Bromodichloromethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromoform	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Bromomethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
2-Butanone (MEK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Carbon disulfide	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Carbon tetrachloride	CLP-VOC	µg/L	1	5	N.D.	N.D.	N.D.
Chlorobenzene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chlorodibromomethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Chloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Chloroform	CLP-VOC	µg/L	1	7	N.D.	N.D.	N.D.
Chloromethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,2-Dichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
cis-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
trans-1,2-Dichloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,2-Dichloropropane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
cis-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
trans-1,3-Dichloropropene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Ethylbenzene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
2-Hexanone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
4-Methyl-2-pentanone (MIBK)	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Methylene chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Styrene	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
1,1,2,2-Tetrachloroethane	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.	N.D.
Tetrachloroethene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Toluene	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1,1-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
1,1,2-Trichloroethane	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Trichloroethene	CLP-VOC	µg/L	1	0.6J	N.D.	N.D.	N.D.
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	N.D.	6	N.D.	N.D.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 14DGMW79-001 96-01423-7	18BGMW1E-001 96-01423-9	18BGMW18-001 96-01423-11	20UGMW36-001 96-01423-13
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	21	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 14DGMW79-001 96-01423-7	18BGMW1E-001 96-01423-9	18BGMW18-001 96-01423-11	20UGMW36-001 96-01423-13
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 13UGMW32-001 96-01423-1	13UGMW32-001(U) 96-01423-2	14DGMW50-001 96-01423-3
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	174,000	156,000	254,000
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.	134	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	78,000	71,000	103,000
Manganese	CLP-Metal	µg/L	15	96	92	58
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	N.D.	N.D.	89
Potassium	CLP-Metal	µg/L	5000	4200J	3710J	3700J
Selenium	CLP-Metal	µg/L	5	20	26	41
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	107,000	107,000	141,000
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 14DGMW50-001(U) 96-01423-4	14DGMW50-301 96-01423-5	14DGMW50-301(U) 96-01423-6
CLP Metals (Full CLP 23 metals)						
Aluminum	CLP-Metal	µg/L	200	257	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	240,000	250,000	234,000
Chromium	CLP-Metal	µg/L	10	52	N.D.	29
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	860	N.D.	580
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	104,000	102,000	101,000
Manganese	CLP-Metal	µg/L	15	220	55	210
Mercury	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel	CLP-Metal	µg/L	40	83	90	78
Potassium	CLP-Metal	µg/L	5000	4010J	3700J	3970J
Selenium	CLP-Metal	µg/L	5	35	39	35
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	152,000	141,000	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	35	N.D.	32

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL	Analysis Result 14DGMW79-001 96-01423-7	14DGMW79-001(U) 96-01423-8	18BGMW1E-001 96-01423-9
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	266,000	258,000	88,000
Chromium	CLP-Metal	µg/L	10	N.D.	58	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.	530	N.D.
Lead	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium	CLP-Metal	µg/L	5000	122,000	121,000	58,000
Manganese	CLP-Metal	µg/L	15	91	88	94
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	3740J	3880J	3370J
Selenium	CLP-Metal	µg/L	5	26	25	11
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	166,000	164,000	109,000
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 18BGMW1E-001(U) 96-01423-10	18BGMW18-001 96-01423-11	18BGMW18-001(U) 96-01423-12
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	86,000	98,000	99,000
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	57,000	64,000	64,000
Manganese	CLP-Metal	µg/L	15	100	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.	77	78
Potassium	CLP-Metal	µg/L	5000	3380J	3050J	3200J
Selenium	CLP-Metal	µg/L	5	10	12	16
Silver	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium	CLP-Metal	µg/L	5000	107,000	153,000	154,000
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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Component Analyzed	Method	Unit	CRDL	Analysis Result 20UGMW36-001 96-01423-13	20UGMW36-001(U) 96-01423-14
CLP Metals (Full CLP 23 metals)					
Aluminum	CLP-Metal	μg/L	200	N.D.	255
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	254,000	259,000
Chromium	CLP-Metal	μg/L	10	N.D.	30
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	N.D.	620
Lead	CLP-Metal	μg/L	3	N.D.	3
Magnesium	CLP-Metal	μg/L	5000	127,000	131,000
Manganese	CLP-Metal	μg/L	15	17	46
Mercury	CLP-Metal	μg/L	0.2	N.D.	N.D.
Nickel	CLP-Metal	μg/L	40	260	270
Potassium	CLP-Metal	μg/L	5000	4450J	4680J
Selenium	CLP-Metal	μg/L	5	84	82
Silver	CLP-Metal	μg/L	10	N.D.	N.D.
Sodium	CLP-Metal	μg/L	5000	146,000	151,000
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	N.D.	N.D.

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01423-15
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 96-01423-15
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)	Semi-VOC (CLP)	Filtered Metals	Gen Chemistry	Pesticides (CLP)	Ammonia-Nitrogen	COD/TOC/Phosphate	Silica/TSS/Color	REMARKS	PRESERVATIVE USED
14DGMW79-001	2/5/96	1450		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓	Refer to project specific	
14DGMW50-301	2/5/96	1715		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓	detection limits	
14DGMW50-001	2/5/96	1710		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓		
20UGMW36-001	2/5/96	1115		✓	H_2O		6	✓		✓	✓					Metals have been	
18BGMW18-001	2/5/96	1315		✓	H_2O		6	✓		✓	✓					filtered and preserved	
13UGMW32-001	2/5/96	1745		✓	H_2O		10	✓	✓	✓	✓		✓	✓	✓		
18BGMW1E-001	2/5/96	1530		✓	H_2O		8	✓	✓	✓	✓	✓				NFESC Level D QC	
APCL-TB	—	—		—	—											for all samples	

CDM Federal

Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time	Relinquished by: (Signature)	Date / Time
Scott Schwab	2/6/96 2:05				
Received by: (Signature)	**Date / Time**	**Received by: (Signature)**	**Date / Time**	**Received by: (Signature)**	**Date / Time**
Carrie Swan	2/6/96 2:05				
Airbill No.		**Received for Laboratory by: (Signature)**	**Date / Time**	**Laboratory**	
APCL Courier				Conventional chemistry includes not definitively as N, nitrate, 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 #: 801-961429
Collected by: ss
Collected on: 02/06-07/96

Received: 02/07/96
Extracted: 02/09-10,13/96
Tested: 02/07-03/01/96
Reported: 03/04/96

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

Analysis of Water Samples

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02DGMW59-001 96-01429-3	02DGMW59-301 96-01429-5
Alkalinity	310.1	mg/L	2	221	221
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	269	269
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	27	24
Chloride Cl^- by IC	300.0	mg/L	0.2	110	107
Color, for drinking water	110.2	Color Unit	1	1	2
Nitrate/Nitrite	353.3	mg-N/L	0.1	5.4	7.7
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.16	0.19
Silica (SiO_2) dissolved	370.1	mg/L	0.03	34.0	32.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,130	1,090
Solids, Total Suspended (TSS)	160.2	mg/L	4	75	48
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	394	401
Carbon, Total Organic (TOC)	415.1	mg/L	1	3.7	4.6
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02DGMW59-001 96-01429-3	02DGMW59-301 96-01429-5
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.
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 02DGMW59-001 96-01429-3	02DGMW59-301 96-01429-5
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.
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 (PQL)	Analysis Result 02DGMW59-001 96-01429-3	02DGMW59-301 96-01429-5
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 02DGMW60-001 96-01429-7	02DGMW60-301 96-01429-9
Alkalinity	310.1	mg/L	2	343	339
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	419	413
Carbonate	SM2320B	mg/L	2	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	12J	15J
Chloride Cl^- by IC	300.0	mg/L	0.2	125	125
Color, for drinking water	110.2	Color Unit	1	1	1
Nitrate/Nitrite	353.3	mg-N/L	0.1	20.0	23.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.01	0.04
Silica (SiO_2) dissolved	370.1	mg/L	0.03	32.0	31.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,090	1,110
Solids, Total Suspended (TSS)	160.2	mg/L	4	24	24
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	303	301
Carbon, Total Organic (TOC)	415.1	mg/L	1	3	2
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	6	5
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	1	0.8J
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	4	3
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	2	2
Trichloroethene	CLP-VOC	µg/L	1	98	98
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 02DGMW60-001 96-01429-7	02DGMW60-301 96-01429-9
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.
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 02DGMW60-001 96-01429-7	02DGMW60-301 96-01429-9
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 02DGMW60-001 96-01429-7	02DGMW60-301 96-01429-9
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 01DGMW57-001 96-01429-1	13DBMW49-001 96-01429-11	13DBMW49-301 96-01429-13
Alkalinity	310.1	mg/L	2	244	281	279
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	-	N.D.	N.D.
Bicarbonate	SM2320B	mg/L	2	298	343	340
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	-	33	24
Chloride Cl^- by IC	300.0	mg/L	0.2	58.0	299	302
Color, for drinking water	110.2	Color Unit	1	-	N.D.	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	3.1	25.0	27.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	-	0.01	0.02
Silica (SiO_2) dissolved	370.1	mg/L	0.03	-	55.0	52.0
Solids, Total Dissolved (TDS)	160.1	mg/L	10	494	1,860	2,000
Solids, Total Suspended (TSS)	160.2	mg/L	4	-	4	5
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	81.0	636	645
Carbon, Total Organic (TOC)	415.1	mg/L	1	-	N.D.	3

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 01DGMW57-001 96-01429-1	13DBMW49-001 96-01429-11	13DBMW49-301 96-01429-13
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.	2	1
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 01DGMW57-001 96-01429-1	13DBMW49-001 96-01429-11	13DBMW49-301 96-01429-13
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.

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APCL Analytical Report

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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.
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.	-	-

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APCL Analytical Report

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Alkalinity	310.1	mg/L	2	392	339	309
Ammonia (NH_4^+-N)	350.2	mg/L	0.2	0.2	-	-
Bicarbonate	SM2320B	mg/L	2	479	413	377
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chemical Oxygen Demand (COD)	410.4	mg-O_2/L	20	66	-	-
Chloride Cl^- by IC	300.0	mg/L	0.2	895	154	219
Color, for drinking water	110.2	Color Unit	1	1	-	-
Nitrate/Nitrite	353.3	mg-N/L	0.1	53.0	64.0	26.0
Phosphorus, Orthophosphate	365.2	mg/L	0.01	0.06	-	-
Silica (SiO_2) dissolved	370.1	mg/L	0.03	52.0	-	-
Solids, Total Dissolved (TDS)	160.1	mg/L	10	3,960	1,820	1,980
Solids, Total Suspended (TSS)	160.2	mg/L	4	6	-	-
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	1,160	564	766
Carbon, Total Organic (TOC)	415.1	mg/L	1	1	-	-
CLP: VOC by GC/MS						
Acetone	CLP-VOC	µg/L	10	N.D.	N.D.	N.D.
Benzene	CLP-VOC	µg/L	1	3	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	1	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.	2
Vinyl chloride	CLP-VOC	µg/L	1	N.D.	N.D.	N.D.
Xylenes (total)	CLP-VOC	µg/L	1	3	N.D.	N.D.

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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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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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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS03-2-001 96-01429-21	18MCAS03-3-001 96-01429-23	18MCAS03-3-501 96-01429-25
Alkalinity	310.1	mg/L	2	150	161	N.D.
Bicarbonate	SM2320B	mg/L	2	183	196	N.D.
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	335	208	N.D.
Nitrate/Nitrite	353.3	mg-N/L	0.1	25.0	23.0	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	1,690	828	N.D.
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	389	89.0	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.
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	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	33	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 18MCAS03-2-001 96-01429-21	18MCAS03-3-001 96-01429-23	18MCAS03-3-501 96-01429-25
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.

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APCL Analytical Report

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS03-2-001 96-01429-21	18MCAS03-3-001 96-01429-23	18MCAS03-3-501 96-01429-25
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.

Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS03-4-001 96-01429-27	18MCAS03-5-001 96-01429-29	18MCAS03-6-001 96-01429-31
Alkalinity	310.1	mg/L	2	204	240	24
Bicarbonate	SM2320B	mg/L	2	249	293	29
Carbonate	SM2320B	mg/L	2	N.D.	N.D.	N.D.
Chloride Cl^- by IC	300.0	mg/L	0.2	119	66.0	187
Nitrate/Nitrite	353.3	mg-N/L	0.1	10.0	0.6	N.D.
Solids, Total Dissolved (TDS)	160.1	mg/L	10	713	627	795
Sulfate (SO_4^{--}), by IC	300.0	mg/L	0.5	118	137	203

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Component Analyzed	Method	Unit	CRDL (PQL)	Analysis Result 18MCAS03-4-001 96-01429-27	18MCAS03-5-001 96-01429-29	18MCAS03-6-001 96-01429-31
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	Analysis Result 01DGMW57-001 96-01429-1	01DGMW57-001(U) 96-01429-2	02DGMW59-001 96-01429-3
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	68,000	68,000	162,000
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	27,000	28,000	42,000
Manganese, Mn	CLP-Metal	µg/L	15	37	62	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	2530J	2580J	2250J
Selenium, Se	CLP-Metal	µg/L	5	9	7	20
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	60,000	62,000	111,000
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 02DGMW59-001(U) 96-01429-4	02DGMW59-301 96-01429-5	02DGMW59-301(U) 96-01429-6
CLP Metals (Full CLP 23 metals)						
Aluminum, Al	CLP-Metal	µg/L	200	420	N.D.	460
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	165,000	162,000	163,000
Chromium, Cr	CLP-Metal	µg/L	10	21	N.D.	21
Cobalt, Co	CLP-Metal	µg/L	50	N.D.	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	30	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	1,200	N.D.	880
Lead, Pb	CLP-Metal	µg/L	3	N.D.	3	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	41,000	42,000	42,000
Manganese, Mn	CLP-Metal	µg/L	15	64	43	56
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	2290J	2270J	2310J
Selenium, Se	CLP-Metal	µg/L	5	20	18	17
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	109,000	111,000	111,000
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 02DGMW60-001 96-01429-7	02DGMW60-001(U) 96-01429-8	02DGMW60-301 96-01429-9
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	111,000	109,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	23	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.	500	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	15
Magnesium, Mg	CLP-Metal	µg/L	5000	89,000	82,000	91,000
Manganese, Mn	CLP-Metal	µg/L	15	N.D.	46	17
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	N.D.	43	N.D.
Potassium, K	CLP-Metal	µg/L	5000	8,090	7,350	8,540
Selenium, Se	CLP-Metal	µg/L	5	6	10	9
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	124,000	120,000	127,000
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 02DGMW60-301(U) 96-01429-10	13DBMW49-001 96-01429-11	13DBMW49-001(U) 96-01429-12
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	117,000	257,000	254,000
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	123	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	6	N.D.	4
Magnesium, Mg	CLP-Metal	µg/L	5000	84,000	101,000	103,000
Manganese, Mn	CLP-Metal	µg/L	15	86	80	100
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	43	N.D.	N.D.
Potassium, K	CLP-Metal	µg/L	5000	7,700	4710J	4700J
Selenium, Se	CLP-Metal	µg/L	5	12	44	45
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	126,000	152,000	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.	N.D.	N.D.

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Component Analyzed	Method	Unit	CRDL	Analysis Result 13DBMW49-301 96-01429-13	13DBMW49-301(U) 96-01429-14	15DBMW51-001 96-01429-15
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	262,000	260,000	531,000
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.	150	N.D.
Lead, Pb	CLP-Metal	µg/L	3	6	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	103,000	104,000	252,000
Manganese, Mn	CLP-Metal	µg/L	15	110	92	345
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	4840J	4800J	6,630
Selenium, Se	CLP-Metal	µg/L	5	47	45	69
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	154,000	154,000	216,000
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	24	N.D.	66

Component Analyzed	Method	Unit	CRDL	Analysis Result 15DBMW51-001(U) 96-01429-16	18BGMW19E-001 96-01429-17	18BGMW19E-001(U) 96-01429-18
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	602,000	193,000	190,000
Chromium, Cr	CLP-Metal	µg/L	10	N.D.	14	14
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.	300
Lead, Pb	CLP-Metal	µg/L	3	N.D.	3	6
Magnesium, Mg	CLP-Metal	µg/L	5000	288,000	84,000	83,000
Manganese, Mn	CLP-Metal	µg/L	15	250	46	65
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	7,210	4740J	4620J
Selenium, Se	CLP-Metal	µg/L	5	77	14	12
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	233,000	263,000	258,000
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	58	N.D.	29

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS03-1-001 96-01429-19	18MCAS03-1-001(U) 96-01429-20	18MCAS03-2-001 96-01429-21
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	228,000	231,000	215,000
Chromium, Cr	CLP-Metal	µg/L	10	18	45	N.D.
Cobalt, Co	CLP-Metal	µg/L	50	57	N.D.	N.D.
Copper, Cu	CLP-Metal	µg/L	25	N.D.	N.D.	N.D.
Iron, Fe	CLP-Metal	µg/L	100	560	420	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	64,000	66,000	62,000
Manganese, Mn	CLP-Metal	µg/L	15	639	98	303
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	3,280	500	3,880
Potassium, K	CLP-Metal	µg/L	5000	3390J	3590J	3430J
Selenium, Se	CLP-Metal	µg/L	5	34	38	47
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	307,000	312,000	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	28	23	37

Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS03-2-001(U) 96-01429-22	18MCAS03-3-001 96-01429-23	18MCAS03-3-001(U) 96-01429-24
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	221,000	104,000	106,000
Chromium, Cr	CLP-Metal	µg/L	10	150	N.D.	19
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	3,150	N.D.	146
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	64,000	26,000	27,000
Manganese, Mn	CLP-Metal	µg/L	15	290	27	38
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	4,050	120	120
Potassium, K	CLP-Metal	µg/L	5000	3530J	2860J	2870J
Selenium, Se	CLP-Metal	µg/L	5	47	N.D.	N.D.
Silver, Ag	CLP-Metal	µg/L	10	N.D.	N.D.	N.D.
Sodium, Na	CLP-Metal	µg/L	5000	122,000	116,000	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	50	N.D.	37

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Component Analyzed	Method	Unit	CRDL	Analysis Result 18MCAS03-3-501 96-01429-25	18MCAS03-3-501(U) 96-01429-26	18MCAS03-4-001 96-01429-27
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.	N.D.	89,000
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	N.D.	N.D.	27,000
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	N.D.	N.D.	440
Potassium, K	CLP-Metal	µg/L	5000	N.D.	N.D.	2680J
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	N.D.	N.D.	85,000
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 18MCAS03-4-001(U) 96-01429-28	18MCAS03-5-001 96-01429-29	18MCAS03-5-001(U) 96-01429-30
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	89,000	81,000	82,000
Chromium, Cr	CLP-Metal	µg/L	10	21	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	260	N.D.	N.D.
Lead, Pb	CLP-Metal	µg/L	3	N.D.	N.D.	N.D.
Magnesium, Mg	CLP-Metal	µg/L	5000	27,000	25,000	25,000
Manganese, Mn	CLP-Metal	µg/L	15	16	N.D.	22
Mercury, Hg	CLP-Metal	µg/L	0.2	N.D.	N.D.	N.D.
Nickel, Ni	CLP-Metal	µg/L	40	450	89	78
Potassium, K	CLP-Metal	µg/L	5000	2700J	2690J	2730J
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	86,000	84,000	84,000
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 18MCAS03-6-001 96-01429-31	18MCAS03-6-001(U) 96-01429-32
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	69,000	67,000
Chromium, Cr	CLP-Metal	μg/L	10	329	774
Cobalt, Co	CLP-Metal	μg/L	50	160	160
Copper, Cu	CLP-Metal	μg/L	25	N.D.	N.D.
Iron, Fe	CLP-Metal	μg/L	100	17,100	17,300
Lead, Pb	CLP-Metal	μg/L	3	N.D.	3
Magnesium, Mg	CLP-Metal	μg/L	5000	19,000	19,000
Manganese, Mn	CLP-Metal	μg/L	15	1,370	1,370
Mercury, Hg	CLP-Metal	μg/L	0.2	N.D.	N.D.
Nickel, Ni	CLP-Metal	μg/L	40	7,180	6,980
Potassium, K	CLP-Metal	μg/L	5000	2490J	2510J
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	108,000	106,000
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	81	72

Component Analyzed	Method	Unit	CRDL	Analysis Result APCL-TB 96-01429-33
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 96-01429-33
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.
J = Reported below PQL.

Respectfully submitted,

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Laboratory Director
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