

EMAX

LABORATORIES, INC.

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Date: 12-21-2000

EMAX Batch No.: 00L109

Attn: Dwayne Ishida

IT Corporation

3347 Michelson Dr. # 200

Irvine CA 92612

Subject: Laboratory Report

Project: MCAS El Toro/18609/D.O. 70

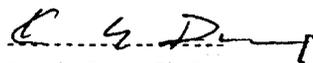
Enclosed is the Laboratory report for samples received on
12/08/00. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3723	L109-01	12/08/00	WATER	TPH DIESEL TPH GASOLINE VOLATILE ORGANICS BY GC/MS
18609-3724	L109-02	12/08/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE TPH DIESEL
18609-3725	L109-03	12/08/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE TPH DIESEL
18609-3726	L109-04	12/08/00	WATER	TPH GASOLINE VOLATILE ORGANICS BY GC/MS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

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METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : IT CORPORATION           Date Collected: 12/08/00
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
Batch No.   : 00L109                  Date Extracted: 12/12/00 13:15
Sample ID   : 18609-3723*             Date Analyzed: 12/13/00 16:54
Lab Samp ID : L109-01                 Dilution Factor: .94
Lab File ID : TL03066A                Matrix          : WATER
Ext Btch ID: DSL018W                 % Moisture      : NA
Calib. Ref.: TL03057A                Instrument ID   : GCT050
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PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	.19	.094	.063
MOTOR OIL 5W30	ND	.94	.054

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	107	65-135
HEXACOSANE	87	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145

SUR1 : Bromobenzene

SUR2 : Hexacosane

RL : Reporting Limit

* : Non-typical fuel. Results were quantitated as Diesel.

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
nt       : IT CORPORATION           Date Collected: 12/08/00
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
Batch No. : 00L109                 Date Extracted: 12/12/00 13:15
Sample ID: 18609-3724*             Date Analyzed: 12/13/00 17:43
Lab Samp ID: L109-02               Dilution Factor: .94
Lab File ID: TLO3067A              Matrix          : WATER
Ext Btch ID: DSL018W                % Moisture      : NA
alib. Ref.: TLO3057A               Instrument ID   : GCT050
=====

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PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	.22	.094	.063
MOTOR OIL 5W30	ND	.94	.054

PROXIMATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	108	65-135
HEXACOSANE	89	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145

UR1 : Bromobenzene
UR2 : Hexacosane
L : Reporting Limit
* : Non-typical fuel. Results were quantitated as Diesel.

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : IT CORPORATION           Date Collected: 12/08/00
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
Batch No.   : 00L109                 Date Extracted: 12/12/00 13:15
Sample ID   : 18609-3725             Date Analyzed: 12/13/00 18:32
Lab Samp ID: L109-03                 Dilution Factor: .94
Lab File ID: TL03068A                Matrix          : WATER
Ext Btch ID: DSL018W                 % Moisture      : NA
Calib. Ref.: TL03057A                Instrument ID   : GCT050
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PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.094	.063
MOTOR OIL 5W30	ND	.94	.054

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	93	65-135
HEXACOSANE	86	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SUR1 : Bromobenzene
SUR2 : Hexacosane
RL : Reporting Limit

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

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=====
Client      : IT CORPORATION           Date Collected: NA
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/12/00
Batch No.   : 00L109                 Date Extracted: 12/12/00 13:15
Sample ID   : MBLK1W                 Date Analyzed: 12/13/00 14:28
Lab Samp ID : DSL018WB              Dilution Factor: 1
Lab File ID : TL03063A              Matrix          : WATER
Ext Btch ID : DSL018W               % Moisture      : NA
Calib. Ref. : TL03057A             Instrument ID   : GCT050
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PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.1	.067
MOTOR OIL 5W30	ND	1	.057

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	115	65-135
HEXACOSANE	100	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SUR1 : Bromobenzene
SUR2 : Hexacosane
RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00L109
METHOD: METHOD M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: DSL018WB DSL018WL DSL018WC
LAB FILE ID: TL03063A TL03064A TL03065A
DATE EXTRACTED: 12/12/0013:15 12/12/0013:15 12/12/0013:15 DATE COLLECTED: NA
DATE ANALYZED: 12/13/0014:28 12/13/0015:17 12/13/0016:06 DATE RECEIVED: 12/12/00
PREP. BATCH: DSL018W DSL018W DSL018W
CALIB. REF: TL03057A TL03057A TL03057A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.76	95	5	4.8	96	1	61-143	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	1.16	116	1	1.22	122	65-135
Hexacosane	.25	.24	96	.25	.247	99	60-145

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00L109

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	PRL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VAL2339B	ND	85	1	NA	.1	.012	12/12/0012:47	12/12/0012:47	EL04081A	EL04077A	VAL2339	NA	12/12/00
LCS1W	VAL2339L	.549	100	1	NA	.1	.012	12/12/0013:21	12/12/0013:21	EL04082A	EL04077A	VAL2339	NA	12/12/00
LCD1W	VAL2339C	.564	107	1	NA	.1	.012	12/12/0014:48	12/12/0014:48	EL04084A	EL04077A	VAL2339	NA	12/12/00
MBLK2W	VAL2839B	ND	88	1	NA	.1	.012	12/14/0000:49	12/14/0000:49	EL04136A	EL04131A	VAL2839	NA	12/14/00
LCS2W	VAL2839L	.519	99	1	NA	.1	.012	12/14/0001:23	12/14/0001:23	EL04137A	EL04131A	VAL2839	NA	12/14/00
LCD2W	VAL2839C	.495	94	1	NA	.1	.012	12/14/0001:57	12/14/0001:57	EL04138A	EL04131A	VAL2839	NA	12/14/00
18609-3723	L109-01	.31	1176*	1	NA	.1	.012	12/13/0003:25	12/13/0003:25	EL04103A	EL04101A	VAL2339	12/08/00	12/08/00
18609-3723RE	L109-01R	.33	1186*	1	NA	.1	.012	12/14/0009:24	12/14/0009:24	EL04151A	EL04144A	VAL2839	12/08/00	12/08/00
18609-3724	L109-02	.36	1355*	1	NA	.1	.012	12/13/0003:59	12/13/0003:59	EL04104A	EL04101A	VAL2339	12/08/00	12/08/00
18609-3724RE	L109-02R	.33	1337*	1	NA	.1	.012	12/14/0009:58	12/14/0009:58	EL04152A	EL04144A	VAL2839	12/08/00	12/08/00
18609-3725	L109-03	ND	90	1	NA	.1	.012	12/13/0004:33	12/13/0004:33	EL04105A	EL04101A	VAL2339	12/08/00	12/08/00
18609-3726	L109-04	ND	85	1	NA	.1	.012	12/13/0005:07	12/13/0005:07	EL04106A	EL04101A	VAL2339	12/08/00	12/08/00

SURR : Bromofluorobenzene (W)65-135 (S)60-140

PRL : Reporting Limit

E : Value exceed the upper level of the initial calibration

D : Value from dilution

* : Out of QC limit due to matrix interference

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EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
 SUBJECT: MCAS EL TORO/18609/D.O. 70
 BATCH NO.: 00L109
 METHOD: METHOD 5030B/M8015

MATRIX: WATER % MOISTURE: NA
 DILUTION FACTOR: 1 1
 SAMPLE ID: MBLK1W
 LAB SAMP ID: VAL2339B VAL2339L VAL2339C
 LAB FILE ID: EL04081A EL04082A EL04084A
 DATE EXTRACTED: 12/12/0012:47 12/12/0013:21 12/12/0014:48 DATE COLLECTED: NA
 DATE ANALYZED: 12/12/0012:47 12/12/0013:21 12/12/0014:48 DATE RECEIVED: 12/12/00
 PREP. BATCH: VAL2339 VAL2339 VAL2339
 ALIB. REF: EL04077A EL04077A EL04077A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.55	.549	100	.55	.564	102	3	67-136	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
1,2-difluorobenzene	.02	.0199	100	.02	.0214	107	65-135

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: 12/08/00
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
Batch No.  : 00L109                   Date Extracted: 12/15/00 11:12
Sample ID  : 18609-3723                Date Analyzed: 12/15/00 11:12
Lab Samp ID: L109-01                   Dilution Factor: 1
Lab File ID: RLQ371                    Matrix          : WATER
Ext Btch ID: VOL3405                    % Moisture     : NA
Calib. Ref.: RLQ361                     Instrument ID   : T-005
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PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	20	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	41	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	92	62-139
BROMOFLUOROBENZENE	98	75-125
TOLUENE-DB	99	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
ent      : IT CORPORATION           Date Collected: 12/08/00
ject     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
atch No. : 00L109                 Date Extracted: 12/15/00 11:49
ample ID : 18609-3724            Date Analyzed: 12/15/00 11:49
lab Samp ID: L109-02             Dilution Factor: 1
Lab File ID: RLQ372              Matrix      : WATER
Ext Btch ID: VOL3405             % Moisture  : NA
alib. Ref.: RLQ361              Instrument ID : T-005
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PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
ENZENE	43	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	94	62-139
BROMOFLUOROBENZENE	96	75-125
TOLUENE-DB	98	75-125

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: 12/08/00
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
Batch No.  : 00L109                   Date Extracted: 12/15/00 12:25
Sample ID  : 18609-3725                Date Analyzed: 12/15/00 12:25
Lab Samp ID: L109-03                   Dilution Factor: 1
Lab File ID: RLQ373                    Matrix          : WATER
Ext Btch ID: VOL3405                    % Moisture      : NA
Calib. Ref.: RLQ361                     Instrument ID   : T-005
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PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLEETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	86	62-139
BROMOFLUOROBENZENE	100	75-125
TOLUENE-D8	99	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
ent      : IT CORPORATION           Date Collected: 12/08/00
ject     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/08/00
atch No. : 00L109                 Date Extracted: 12/15/00 13:03
mple ID  : 18609-3726            Date Analyzed: 12/15/00 13:03
lab Samp ID: L109-04             Dilution Factor: 1
Lab File ID: RLQ374             Matrix      : WATER
Ext Btch ID: VOL3405            % Moisture  : NA
alib. Ref.: RLQ361             Instrument ID : T-005
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PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHYR	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	92	62-139
BROMOFLUOROBENZENE	111	75-125
TOLUENE-D8	98	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
 PROJECT: MCAS EL TORO/18609/D.O. 70
 LAB NO.: 00L109
 METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA
 DILUTION FACTOR: 1 1
 SAMPLE ID: MBLK1W
 LAB SAMP ID: VOL3405B VOL3405L VOL3405C
 LAB FILE ID: RLQ364 RLQ362 RLQ363
 DATE EXTRACTED: 12/15/0006:49 12/15/0005:34 12/15/0006:11 DATE COLLECTED: NA
 DATE ANALYZED: 12/15/0006:49 12/15/0005:34 12/15/0006:11 DATE RECEIVED: 12/15/00
 REP. BATCH: VOL3405 VOL3405 VOL3405
 CALIB. REF: RLQ361 RLQ361 RLQ361

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	16.7	84	20	17.7	89	6	75-125	20
Benzene	ND	20	19.8	99	20	19.8	99	0	75-125	20
Chlorobenzene	ND	20	19.7	99	20	19.5	98	1	75-125	20
Toluene	ND	20	19.3	96	20	19	95	2	74-125	20
Trichloroethene	ND	20	19.6	98	20	19.8	99	1	71-125	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	47.2	94	50	46.9	94	62-139
Bromofluorobenzene	50	46.9	94	50	47.3	95	75-125
ene-d8	50	49	98	50	49.5	99	75-125

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro
Collection Date: December 8, 2000
LDC Report Date: January 4, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Extractables
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 00L109

Sample Identification

18609-3723
18609-3724
18609-3725

18609-3723
18609-3724
18609-3725

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

Samples 18609-3723 and 18609-3724 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/L)		RPD
	18609-3723	18609-3724	
TPH as diesel	0.19	0.22	15

X. Field Blanks

No field blanks were identified in this SDG.

**MCAS El Toro
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG
00L109**

No Sample Data Qualified in this SDG

**MCAS El Toro
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification
Summary - SDG 00L109**

No Sample Data Qualified in this SDG

10/15/2010 10:10:10 AM

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro
Collection Date: December 8, 2000
LDC Report Date: January 4, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 00L109

Sample Identification

18609-3723
18609-3723RE
18609-3724
18609-3724RE
18609-3725
18609-3726

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
18609-3723	Bromofluorobenzene	1176 (65-135)	TPH as gasoline	J (all detects)	A
18609-3723RE	Bromofluorobenzene	1186 (65-135)	TPH as gasoline	J (all detects)	A
18609-3724	Bromofluorobenzene	1355 (65-135)	TPH as gasoline	J (all detects)	A
18609-3724RE	Bromofluorobenzene	1337 (65-135)	TPH as gasoline	J (all detects)	A

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

Samples 18609-3723 and 18609-3724 and samples 18609-3723RE and 18609-3724RE were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/L)		RPD
	18609-3723	18609-3724	
TPH as gasoline	0.31	0.36	15

Compound	Concentration (mg/L)		RPD
	18609-3723RE	18609-3724RE	
TPH as gasoline	0.33	0.33	0

18609-3723-18609-3724-18609-3723RE-18609-3724RE

X. Field Blanks

Sample 18609-3726 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

MCAS El Toro

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00L109

SDG	Sample	Compound	Flag	A or P	Reason
00L109	18609-3723 18609-3723RE 18609-3724 18609-3724RE	TPH as gasoline	J (all detects)	A	Surrogate recovery (%R)

MCAS El Toro

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00L109

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS El Toro
Collection Date: December 8, 2000
LDC Report Date: December 29, 2000
Matrix: Water
Parameters: Volatiles
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 00L109

Sample Identification

18609-3723
18609-3724
18609-3725
18609-3726

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 18609-3723 and 18609-3724 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	18609-3723	18609-3724	
1,2-Dichloroethane	20	5U	200
Benzene	41	43	5

XVII. Field Blanks

Sample 18609-3726 was identified as a trip blank. No volatile contaminants were found in this blank.

**MCAS EI Toro
Volatiles - Data Qualification Summary - SDG 00L109**

No Sample Data Qualified in this SDG

**MCAS EI Toro
Volatiles - Laboratory Blank Data Qualification Summary - SDG 00L109**

No Sample Data Qualified in this SDG

EMAX

LABORATORIES, INC.

630 Maple Ave.

Torrance, CA 90503

Telephone: (310) 618-8889

Fax: (310) 618-0818

5887 B

Date: 12-27-2000

EMAX Batch No.: 00L172

Attn: Dwayne Ishida

IT Corporation

3347 Michelson Dr. # 200

Irvine CA 92612

Subject: Laboratory Report

Project: MCAS El Toro/18609/D.O. 70

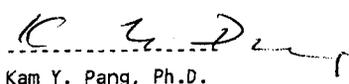
Enclosed is the Laboratory report for samples received on 12/14/00. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3729	L172-01	12/14/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE TPH DIESEL TPH JP-5
18609-3730	L172-02	12/14/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE TPH DIESEL TPH JP-5
18609-3731	L172-03	12/14/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```
=====
Client   : IT CORPORATION           Date Collected: 12/14/00
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/14/00
Batch No. : 00L172                 Date Extracted: 12/17/00 14:00
Sample ID: 18609-3729              Date Analyzed: 12/18/00 20:41
Lab Samp ID: L172-01               Dilution Factor: .94
Lab File ID: TL04014A              Matrix          : WATER
Ext Btch ID: DSL034W               % Moisture      : NA
Calib. Ref.: TL04002A              Instrument ID   : GCT050
=====
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.094	.063
JP5	ND	.47	.12
MOTOR OIL 5W30	ND	.94	.054

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	99	65-135
HEXACOSANE	90	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SUR1 : Bromobenzene
SUR2 : Hexacosane
RL : Reporting Limit

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : IT CORPORATION           Date Collected: 12/14/00
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/14/00
Batch No.  : 00L172                   Date Extracted: 12/17/00 14:00
Sample ID  : 18609-3730                Date Analyzed: 12/19/00 00:43
Lab Samp ID: L172-02                   Dilution Factor: .94
Lab File ID: TL04019A                  Matrix          : WATER
Ext Btch ID: DSL034W                   % Moisture      : NA
Lib. Ref.: TL04015A                    Instrument ID   : GCT050
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DESEL	ND	.094	.063
JP5	ND	.47	.12
MOTOR OIL 5W30	ND	.94	.054

PROBATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	104	65-135
HEXACOSANE	94	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
UR1 : Bromobenzene
UR2 : Hexacosane
RL : Reporting Limit

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : IT CORPORATION           Date Collected: NA
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/17/00
Batch No.  : 00L172                   Date Extracted: 12/17/00 14:00
Sample ID  : MBLK1W                    Date Analyzed: 12/18/00 18:15
Lab Samp ID: DSLO34WB                  Dilution Factor: 1
Lab File ID: TL04011A                  Matrix           : WATER
Ext Btch ID: DSLO34W                   % Moisture      : NA
Calib. Ref.: TL04002A                  Instrument ID    : GCT050
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.1	.067
JP5	ND	.5	.13
MOTOR OIL 5W30	ND	1	.057

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	83	65-135
HEXACOSANE	86	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SUR1 : Bromobenzene
SUR2 : Hexacosane
RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00L172
METHOD: METHOD M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: DSL034WB DSL034WL DSL034WC
LAB FILE ID: TL04011A TL04012A TL04013A
DATE EXTRACTED: 12/17/0014:00 12/17/0014:00 12/17/0014:00 DATE COLLECTED: NA
DATE ANALYZED: 12/18/0018:15 12/18/0019:04 12/18/0019:52 DATE RECEIVED: 12/17/00
PREP. BATCH: DSL034W DSL034W DSL034W
CALIB. REF: TL04002A TL04002A TL04002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.79	96	5	5.14	103	7	61-143	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
1,2,4-trimethylbenzene	1	1	100	1	1.15	115	65-135
Hexacosane	.25	.228	91	.25	.241	96	60-145

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 00L172

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	PRL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VAL3439B	ND	89	1	NA	.1	.012	12/18/0016:54	12/18/0016:54	EL07015A	EL07013A	VAL3439	NA	12/18/00
LCS1W	VAL3439L	.534	109	1	NA	.1	.012	12/18/0017:28	12/18/0017:28	EL07016A	EL07013A	VAL3439	NA	12/18/00
LCD1W	VAL3439C	.572	110	1	NA	.1	.012	12/18/0018:02	12/18/0018:02	EL07017A	EL07013A	VAL3439	NA	12/18/00
18609-3729	L172-01	ND	87	1	NA	.1	.012	12/18/0019:44	12/18/0019:44	EL07020A	EL07013A	VAL3439	12/14/00	12/14/00
18609-3730	L172-02	ND	90	1	NA	.1	.012	12/18/0020:17	12/18/0020:17	EL07021A	EL07013A	VAL3439	12/14/00	12/14/00
18609-3731	L172-03	ND	88	1	NA	.1	.012	12/18/0020:51	12/18/0020:51	EL07022A	EL07013A	VAL3439	12/14/00	12/14/00

SURR : Bromofluorobenzene (W)65-135 (S)60-140
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

4004

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
CHK NO.: 00L172
METH: METHOD 5030B/M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VAL3439B VAL3439L VAL3439C
LAB FILE ID: EL07015A EL07016A EL07017A
DATE EXTRACTED: 12/18/0016:54 12/18/0017:28 12/18/0018:02 DATE COLLECTED: NA
DATE ANALYZED: 12/18/0016:54 12/18/0017:28 12/18/0018:02 DATE RECEIVED: 12/18/00
PREP. BATCH: VAL3439 VAL3439 VAL3439
CALIB. REF: EL07013A EL07013A EL07013A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.55	.534	97	.55	.572	104	7	67-136	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.02	.0217	109	.02	.022	110	65-135

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client   : IT CORPORATION           Date Collected: 12/14/00
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/14/00
Batch No. : 00L172                 Date Extracted: 12/15/00 22:30
Sample ID: 18609-3729              Date Analyzed: 12/15/00 22:30
Lab Samp ID: L172-01               Dilution Factor: 1
Lab File ID: RLW009                Matrix          : WATER
Ext Btch ID: VOLO106               % Moisture     : NA
Calib. Ref.: RLW003                Instrument ID   : T-006
=====

```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROETHANE	ND	5	1.1
CHLOROBENZENE	ND	5	1.7
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	1.6J	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	62-139
BROMOFLUOROBENZENE	109	75-125
TOLUENE-D8	95	75-125

PRL: Project Reporting Limit

* : Out side of QC Limit

J : An estimated value between PRL and MDL

E : Value exceed the upper level of the initial calibration

B : Found in the associated blank

D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : IT CORPORATION           Date Collected: 12/14/00
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/14/00
Batch No.   : 00L172                 Date Extracted: 12/16/00 13:30
Sample ID   : 18609-3730             Date Analyzed: 12/16/00 13:30
Lab Samp ID : L172-02                Dilution Factor: 1
Lab File ID : RLW035                 Matrix          : WATER
Ext Btch ID : VOLO306                % Moisture     : NA
Calib. Ref.: RLW023                 Instrument ID   : T-006
=====
  
```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
S-1,3-DICHLOROPROPENE	ND	5	.79
BROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1
SURROGATE PARAMETERS			
	% RECOVERY	QC LIMIT	
1,2-DICHLOROETHANE-D4	100	62-139	
BROMOFLUOROBENZENE	117	75-125	
TOLUENE-D8	105	75-125	

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client   : IT CORPORATION           Date Collected: 12/14/00
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/14/00
Batch No. : 00L172                 Date Extracted: 12/15/00 23:40
Sample ID: 18609-3731              Date Analyzed: 12/15/00 23:40
Lab Samp ID: L172-03               Dilution Factor: 1
Lab File ID: RLW011                Matrix          : WATER
Ext Btch ID: VOL0106               % Moisture      : NA
Calib. Ref.: RLW003                Instrument ID   : T-006
=====

```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	2.6J	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	62-139
BROMOFLUOROBENZENE	109	75-125
TOLUENE-D8	97	75-125

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : IT CORPORATION           Date Collected: NA
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 12/15/00
Batch No.  : 00L172                   Date Extracted: 12/15/00 21:20
Sample ID  : MBLK1W                     Date Analyzed: 12/15/00 21:20
Lab Samp ID: VOL0106Q                   Dilution Factor: 1
Lab File ID: RLW007                     Matrix          : WATER
Ext Btch ID: VOL0106                     % Moisture     : NA
Calib. Ref.: RLW003                     Instrument ID  : T-006
=====

```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
2-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
1,3-DICHLOROPROPENE	ND	5	.79
BROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	80	62-139
BROMOFLUOROBENZENE	123	75-125
TOLUENE-D8	104	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client   : IT CORPORATION           Date Collected: NA
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/16/00
Batch No. : 00L172                 Date Extracted: 12/16/00 09:34
Sample ID: MBLK2W                   Date Analyzed: 12/16/00 09:34
Lab Samp ID: VOL0306Q               Dilution Factor: 1
Lab File ID: RLW028                 Matrix          : WATER
Ext Btch ID: VOL0306                % Moisture     : NA
Calib. Ref.: RLW023                 Instrument ID   : T-006
=====

```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROETHANE	ND	5	1.1
CHLOROETHENE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	62-139
BROMOFLUOROBENZENE	109	75-125
TOLUENE-D8	96	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: JT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
LAB NO.: 001172
METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
AB SAMP ID: VOL0106Q VOL0106L VOL0106C
AB FILE ID: RLW007 RLW004 RLW005
DATE EXTRACTED: 12/15/0021:20 12/15/0019:35 12/15/0020:10 DATE COLLECTED: NA
DATE ANALYZED: 12/15/0021:20 12/15/0019:35 12/15/0020:10 DATE RECEIVED: 12/15/00
PREP. BATCH: VOL0106 VOL0106 VOL0106
ALIB. REF: RLW003 RLW003 RLW003

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	18.8	94	20	19.4	97	3	75-125	20
Benzene	ND	20	17.7	88	20	17.9	89	1	75-125	20
Chlorobenzene	ND	20	19.5	97	20	19.9	100	2	75-125	20
Toluene	ND	20	19.4	97	20	20.3	101	5	74-125	20
Trichloroethene	ND	20	15.9	80	20	16.3	81	2	71-125	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	46.7	93	50	47.9	96	62-139
Bromofluorobenzene	50	54.9	110	50	56.4	113	75-125
Toluene-d8	50	47	94	50	49.9	100	75-125

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00L172
METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: VOL0306Q VOL0306L VOL0306C
LAB FILE ID: RLW028 RLW025 RLW026
DATE EXTRACTED: 12/16/0009:34 12/16/0007:50 12/16/0008:24 DATE COLLECTED: NA
DATE ANALYZED: 12/16/0009:34 12/16/0007:50 12/16/0008:24 DATE RECEIVED: 12/16/00
PREP. BATCH: VOL0306 VOL0306 VOL0306
CALIB. REF: RLW023 RLW023 RLW023

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	17.5	87	20	19.8	99	13	75-125	20
Benzene	ND	20	16.3	82	20	22	110	30*	75-125	20
Chlorobenzene	ND	20	19.1	95	20	22.4	112	16	75-125	20
Toluene	ND	20	20	100	20	23.3	116	15	74-125	20
Trichloroethene	ND	20	15.4	77	20	20.4	102	28*	71-125	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	42.9	86	50	44	88	62-139
Bromofluorobenzene	50	55.9	112	50	48.5	97	75-125
Toluene-d8	50	50.8	102	50	50.1	100	75-125

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *BJ ToVD*
Collection Date: December 14, 2000
LDC Report Date: January 26, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Extractables
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 00L172

Sample Identification

18609-3729
18609-3730

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 18609-3730 was identified as an equipment rinsate. No total petroleum hydrocarbons as extractable contaminants were found in this blank.

**MCAS Yuma
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG
00L172**

No Sample Data Qualified in this SDG

**MCAS Yuma
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification
Summary - SDG 00L172**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *El Toro*
Collection Date: December 14, 2000
LDC Report Date: January 26, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 00L172

Sample Identification

18609-3729
18609-3730
18609-3731

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 18609-3731 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Sample 18609-3730 was identified as an equipment rinsate. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

**MCAS Yuma
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
00L172**

No Sample Data Qualified in this SDG

**MCAS Yuma
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG 00L172**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma ~~uma~~ El Toro

Collection Date: December 14, 2000

LDC Report Date: January 26, 2001

Matrix: Water

Parameters: Volatiles

Validation Level: NFESC Level C

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00L172

Sample Identification

18609-3729
18609-3730
18609-3731

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

Air bubbles were apparent in all of the sample containers for 18609-3731. There should be no air bubbles in the sample containers.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
12/15/00	Acetone	52	18609-3729	J (all detects)	A
	Vinyl acetate	80	18609-3731	UJ (all non-detects)	
	2-Butanone	89	MBLK1W		
	4-Methyl-2-pentanone	74			
	2-Hexanone	96			

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS2W/D2W (18609-3730 MBLK2W)	Benzene	-	-	30 (≤ 20)	J (all detects) UJ (all non-detects)	P
	Trichloroethene	-	-	28 (≤ 20)	J (all detects) UJ (all non-detects)	

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample 18609-3730 was identified as an equipment rinsate. No volatile contaminants were found in this blank.

Sample 18609-3731 was identified as a trip blank. No volatile contaminants were found in this blank with the following exceptions:

Trip Blank ID	Compound	Concentration (ug/L)
18609-3731	Methylene chloride	2.6

MCAS Yuma

Volatiles - Data Qualification Summary - SDG 00L172

SDG	Sample	Compound	Flag	A or P	Reason
00L172	18609-3729 18609-3731	Acetone 2-Butanone Vinyl acetate 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
00L172	18609-3730	Benzene Trichloroethene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (RPD)

MCAS Yuma

Volatiles - Laboratory Blank Data Qualification Summary - SDG 00L172

No Sample Data Qualified in this SDG

5887A

EMAX

LABORATORIES, INC.

630 Maple Ave.
Torrance, CA 90503

Telephone: (310) 618-8889

Date: 12-22-2000 (310) 618-0818
EMAX Batch No.: 00L149

Attn: Dwayne Ishida

IT Corporation
3347 Michelson Dr. # 200
Irvine CA 92612

Subject: Laboratory Report
Project: MCAS El Toro/18609/D.O. 70

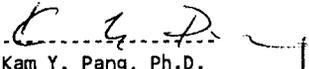
Enclosed is the Laboratory report for samples received on
12/13/00. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3727	L149-01	12/13/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE
18609-3728	L149-02	12/13/00	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE TPH DIESEL TPH JP-5

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,


Kam Y. Pang, Ph.D.
Laboratory Director

18609-3727-18609-3728-18609-3729-18609-3730-18609-3731-18609-3732-18609-3733-18609-3734-18609-3735-18609-3736-18609-3737-18609-3738-18609-3739-18609-3740-18609-3741-18609-3742-18609-3743-18609-3744-18609-3745-18609-3746-18609-3747-18609-3748-18609-3749-18609-3750-18609-3751-18609-3752-18609-3753-18609-3754-18609-3755-18609-3756-18609-3757-18609-3758-18609-3759-18609-3760-18609-3761-18609-3762-18609-3763-18609-3764-18609-3765-18609-3766-18609-3767-18609-3768-18609-3769-18609-3770-18609-3771-18609-3772-18609-3773-18609-3774-18609-3775-18609-3776-18609-3777-18609-3778-18609-3779-18609-3780-18609-3781-18609-3782-18609-3783-18609-3784-18609-3785-18609-3786-18609-3787-18609-3788-18609-3789-18609-3790-18609-3791-18609-3792-18609-3793-18609-3794-18609-3795-18609-3796-18609-3797-18609-3798-18609-3799-18609-3800

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : IT CORPORATION           Date Collected: 12/13/00
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/13/00
Lab No.    : 00L149                   Date Extracted: 12/15/00 16:00
Sample ID  : 18609-3728                Date Analyzed: 12/18/00 17:26
Lab Samp ID: L149-02                   Dilution Factor: .95
Lab File ID: TL04010A                  Matrix          : WATER
Ext Btch ID: DSL022W                    % Moisture      : NA
Calib. Ref.: TL04002A                  Instrument ID   : GCT050
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.095	.064
JPS	ND	.48	.12
MOTOR OIL 5W30	ND	.95	.054

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	101	65-135
HEXACOSANE	88	60-145

```

QC LIMIT : (SOIL)   60-140  55-150
QC LIMIT : (WATER)  65-135  60-145
SUR1      : Bromobenzene
SUR2      : Hexacosane
RL        : Reporting Limit

```

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : IT CORPORATION           Date Collected: NA
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/15/00
Batch No.  : 00L149                   Date Extracted: 12/15/00 16:00
Sample ID  : MBLK1W                     Date Analyzed: 12/18/00 14:57
Lab Samp ID: DSL022WB                   Dilution Factor: 1
Lab File ID: TLO4007A                  Matrix          : WATER
Ext Btch ID: DSL022W                    % Moisture     : NA
Calib. Ref.: TLO4002A                  Instrument ID   : GCT050
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.1	.067
JP5	ND	.5	.13
MOTOR OIL 5W30	ND	1	.057

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	98	65-135
HEXACOSANE	87	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SUR1 : Bromobenzene
SUR2 : Hexacosane
RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00L149
METHOD: METHOD M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: DSL022WB DSL022WL DSL022WC
LAB FILE ID: TL04007A TL04008A TL04009A
DATE EXTRACTED: 12/15/0016:00 12/15/0016:00 12/15/0016:00 DATE COLLECTED: NA
DATE ANALYZED: 12/18/0014:57 12/18/0015:46 12/18/0016:35 DATE RECEIVED: 12/15/00
PREP. BATCH: DSL022W DSL022W DSL022W
CALIB. REF: TL04002A TL04002A TL04002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	5.08	102	5	5.05	101	1	61-143	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Nonbenzene	1	1.05	105	1	1.1	110	65-135
Hexacosane	.25	.234	94	.25	.231	92	60-145

METHOD 5030B/M8015
 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
 Project : MCAS EL TORO/18609/D.O. 70
 Batch No. : 00L149

Matrix : WATER
 Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	PRL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VAL3439B	ND	89	1	NA	.1	.012	12/18/0016:54	12/18/0016:54	EL07015A	EL07013A	VAL3439	NA	12/18/00
LCS1W	VAL3439L	.534	109	1	NA	.1	.012	12/18/0017:28	12/18/0017:28	EL07016A	EL07013A	VAL3439	NA	12/18/00
LCD1W	VAL3439C	.572	110	1	NA	.1	.012	12/18/0018:02	12/18/0018:02	EL07017A	EL07013A	VAL3439	NA	12/18/00
18609-3727	L149-01	ND	90	1	NA	.1	.012	12/18/0018:36	12/18/0018:36	EL07018A	EL07013A	VAL3439	12/13/00	12/13/00
18609-3728	L149-02	ND	95	1	NA	.1	.012	12/18/0019:10	12/18/0019:10	EL07019A	EL07013A	VAL3439	12/13/00	12/13/00

SURR : Bromofluorobenzene (W)65-135 (S)60-140
 PRL : Reporting Limit
 E : Value exceed the upper level of the initial calibration
 D : Value from dilution

4004

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EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
 OBJECT: MCAS EL TORO/18609/D.O. 70
 BATCH NO.: 001149
 METHOD: METHOD 5030B/M8015

MATRIX: WATER % MOISTURE: NA
 DILUTION FACTOR: 1 1
 SAMPLE ID: MBLK1W
 LAB SAMP ID: VAL3439B VAL3439L VAL3439C
 LAB FILE ID: EL07015A EL07016A EL07017A
 DATE EXTRACTED: 12/18/0016:54 12/18/0017:28 12/18/0018:02 DATE COLLECTED: NA
 DATE ANALYZED: 12/18/0016:54 12/18/0017:28 12/18/0018:02 DATE RECEIVED: 12/18/00
 PREP. BATCH: VAL3439 VAL3439 VAL3439
 CALIB. REF: EL07013A EL07013A EL07013A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.55	.534	97	.55	.572	104	7	67-136	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.02	.0217	109	.02	.022	110	65-135

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client   : IT CORPORATION           Date Collected: 12/13/00
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/13/00
Batch No. : 00L149                 Date Extracted: 12/15/00 13:40
Sample ID: 18609-3727              Date Analyzed: 12/15/00 13:40
Lab Samp ID: L149-01               Dilution Factor: 1
Lab File ID: RLQ375                Matrix       : WATER
Ext Btch ID: VOL3405               % Moisture   : NA
Calib. Ref.: RLQ361                Instrument ID : T-005
=====

```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	93	62-139
BROMOFLUOROBENZENE	102	75-125
TOLUENE-D8	98	75-125

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : IT CORPORATION           Date Collected: 12/13/00
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/13/00
Batch No.  : 00L149                   Date Extracted: 12/17/00 03:51
Sample ID  : 18609-3728                Date Analyzed: 12/17/00 03:51
Lab Samp ID: L149-02                   Dilution Factor: 1
Lab File ID: RLW054                    Matrix          : WATER
Ext Btch ID: VOLO506                    % Moisture     : NA
Calib. Ref.: RLW046                     Instrument ID  : T-006
=====
  
```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
BROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	62-139
BROMOFLUOROBENZENE	114	75-125
TOLUENE-D8	112	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client   : IT CORPORATION           Date Collected: NA
Project  : MCAS EL TORO/18609/D.O. 70 Date Received: 12/15/00
Batch No.: 00L149                 Date Extracted: 12/15/00 06:49
Sample ID: MBLK1W                 Date Analyzed: 12/15/00 06:49
Lab Samp ID: VOL3405B             Dilution Factor: 1
Lab File ID: RLQ364               Matrix       : WATER
Ext Btch ID: VOL3405              % Moisture   : NA
Calib. Ref.: RLQ361               Instrument ID : T-005
=====
  
```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHANE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	100	62-139
BROMOFLUOROBENZENE	95	75-125
TOLUENE-DB	96	75-125

PRL: Project Reporting Limit

* : Out side of QC Limit

J : An estimated value between PRL and MDL

E : Value exceed the upper level of the initial calibration

B : Found in the associated blank

D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 00L149
METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VOL3405B VOL3405L VOL3405C
LAB FILE ID: RLQ364 RLQ362 RLQ363
DATE EXTRACTED: 12/15/0006:49 12/15/0005:34 12/15/0006:11 DATE COLLECTED: NA
DATE ANALYZED: 12/15/0006:49 12/15/0005:34 12/15/0006:11 DATE RECEIVED: 12/15/00
PREP. BATCH: VOL3405 VOL3405 VOL3405
CALIB. REF: RLQ361 RLQ361 RLQ361

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	16.7	84	20	17.7	89	6	75-125	20
Benzene	ND	20	19.8	99	20	19.8	99	0	75-125	20
Chlorobenzene	ND	20	19.7	99	20	19.5	98	1	75-125	20
Toluene	ND	20	19.3	96	20	19	95	2	74-125	20
Trichloroethene	ND	20	19.6	98	20	19.8	99	1	71-125	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	47.2	94	50	46.9	94	62-139
Bromofluorobenzene	50	46.9	94	50	47.3	95	75-125
Toluene-d8	50	49	98	50	49.5	99	75-125

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : IT CORPORATION           Date Collected: NA
Project    : MCAS EL TORO/18609/D.O. 70 Date Received: 12/17/00
Batch No.  : 00L149                  Date Extracted: 12/17/00 02:06
Sample ID  : MBLK2W                   Date Analyzed: 12/17/00 02:06
Lab Samp ID: VOL0506Q                 Dilution Factor: 1
Lab File ID: RLW051                   Matrix          : WATER
Ext Btch ID: VOL0506                  % Moisture      : NA
Calib. Ref.: RLW046                   Instrument ID   : T-006
=====

```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	62-139
BROMOFLUOROBENZENE	88	75-125
TOLUENE-D8	108	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
TCH NO.: 00L149
METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: VOL0506Q VOL0506L VOL0506C
LAB FILE ID: RLW051 RLW048 RLW049
DATE EXTRACTED: 12/17/0002:06 12/17/0000:21 12/17/0000:56 DATE COLLECTED: NA
DATE ANALYZED: 12/17/0002:06 12/17/0000:21 12/17/0000:56 DATE RECEIVED: 12/17/00
PREP. BATCH: VOL0506 VOL0506 VOL0506
CALIB. REF: RLW046 RLW046 RLW046

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	23	115	20	17.8	89	26*	75-125	20
Benzene	ND	20	20.3	101	20	20.3	102	0	75-125	20
Chlorobenzene	ND	20	23	115	20	21.8	109	5	75-125	20
Toluene	ND	20	24.4	122	20	22.6	113	8	74-125	20
Trichloroethene	ND	20	19.5	97	20	19.5	98	0	71-125	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	42.9	86	50	43.8	88	62-139
Bromofluorobenzene	50	54.3	109	50	51.8	104	75-125
Toluene-d8	50	49.7	99	50	50.6	101	75-125

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *El Toro*
Collection Date: December 13, 2000
LDC Report Date: January 25, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 00L149

Sample Identification

18609-3727
18609-3728

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 18609-3727 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

18609-3727

MCAS Yuma

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 00L149

No Sample Data Qualified in this SDG

MCAS Yuma

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 00L149

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma ~~El Toro~~

Collection Date: December 13, 2001

LDC Report Date: January 24, 2001

Matrix: Water

Parameters: Volatiles

Validation Level: NFESC Level C

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 00L149

Sample Identification

18609-3727

18609-3728

18609-3727
18609-3728
18609-3729
18609-3730
18609-3731
18609-3732
18609-3733
18609-3734
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18609-3792
18609-3793
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18609-3795
18609-3796
18609-3797
18609-3798
18609-3799
18609-3800

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Paw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

Air bubbles were apparent in all of the sample containers for 18609-3727. There should be no air bubbles in the sample containers.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
12/16/00	2-Butanone 4-Methyl-2-pentanone 2-Hexanone	52 55 64	18609-3728 MBLK2W	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS2W/D2W (18609-3728 MBLK2W)	1,1-Dichloroethene	-	-	26 (≤ 20)	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

MCAS Yuma
Volatiles - Data Qualification Summary - SDG 00L149

SDG	Sample	Compound	Flag	A or P	Reason
00L149	18609-3728	2-Butanone 4-Methyl-2-pentanone 2-Hexanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
00L149	18609-3728	1,1-Dichloroethene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (RPD)

MCAS Yuma
Volatiles - Laboratory Blank Data Qualification Summary - SDG 00L149

No Sample Data Qualified in this SDG

5887 C

EMAX

LABORATORIES, INC.

630 Maple Ave.

Torrance, CA 90503

Telephone: (310) 618-8889

Fax: (310) 618-0818

Date: 01-16-2001

EMAX Batch No.: 01A022

Attn: Dwayne Ishida

IT Corporation

3347 Michelson Dr. # 200

Irvine CA 92612

Subject: Laboratory Report

Project: MCAS El Toro/18609/D.O. 70

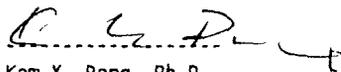
Enclosed is the Laboratory report for samples received on 01/05/01. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18609-3933	A022-01	01/05/01	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE
18609-3934	A022-02	01/05/01	WATER	VOLATILE ORGANICS BY GC/MS TPH GASOLINE TPH DIESEL TPH JP-5 SPECIFIC CONDUCTANCE SOLIDS TOTAL DISSOLVED SULFATE BY IC ALKALINITY PHOSPHATE-P TKN NITRATE-N BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

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18609-3933-18609-3934-18609-3935-18609-3936-18609-3937-18609-3938-18609-3939-18609-3940-18609-3941-18609-3942-18609-3943-18609-3944-18609-3945-18609-3946-18609-3947-18609-3948-18609-3949-18609-3950-18609-3951-18609-3952-18609-3953-18609-3954-18609-3955-18609-3956-18609-3957-18609-3958-18609-3959-18609-3960-18609-3961-18609-3962-18609-3963-18609-3964-18609-3965-18609-3966-18609-3967-18609-3968-18609-3969-18609-3970-18609-3971-18609-3972-18609-3973-18609-3974-18609-3975-18609-3976-18609-3977-18609-3978-18609-3979-18609-3980-18609-3981-18609-3982-18609-3983-18609-3984-18609-3985-18609-3986-18609-3987-18609-3988-18609-3989-18609-3990-18609-3991-18609-3992-18609-3993-18609-3994-18609-3995-18609-3996-18609-3997-18609-3998-18609-3999-18609-4000

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

=====
Client : IT CORPORATION Date Collected: 01/05/01
Project : MCAS EL TORO/18609/D.O. 70 Date Received: 01/05/01
Batch No. : 01A022 Date Extracted: 01/09/01 13:00
Sample ID: 18609-3934 Date Analyzed: 01/09/01 21:34
Lab Samp ID: A022-02 Dilution Factor: .95
Lab File ID: TA03009A Matrix : WATER
Ext Btch ID: DSA004W % Moisture : NA
Calib. Ref.: TA03002A Instrument ID : GCT050
=====

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DIESEL	ND	.095	.064
JP5	ND	.48	.12

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	101	65-135
HEXACOSANE	80	60-145

QC LIMIT : (SOIL) 60-140 55-150
QC LIMIT : (WATER) 65-135 60-145
SURR1 : Bromobenzene
SURR2 : Hexacosane
RL : Reporting Limit

5004

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
RCH NO.: 01A022
METHOD: METHOD M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: DSA004WB DSA004WL DSA004WC
LAB FILE ID: TA03004A TA03005A TA03006A
DATE EXTRACTED: 01/09/0113:00 01/09/0113:00 01/09/0113:00 DATE COLLECTED: NA
DATE ANALYZED: 01/09/0117:28 01/09/0118:17 01/09/0119:06 DATE RECEIVED: 01/09/01
PREP. BATCH: DSA004W DSA004W DSA004W
CALIB. REF: TA03002A TA03002A TA03002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.66	93	5	4.78	96	3	61-143	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.957	96	1	1.08	108	65-135
Hexacosane	.25	.193	77	.25	.202	81	60-145

5038

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 01A022

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VAA0639B	ND	91	1	NA	.1	.012	01/08/0114:07	01/08/0114:07	EA03004A	EA03003A	VAA0639	NA	01/08/01
LCS1W	VAA0639L	.517	104	1	NA	.1	.012	01/08/0114:41	01/08/0114:41	EA03005A	EA03003A	VAA0639	NA	01/08/01
LCD1W	VAA0639C	.533	108	1	NA	.1	.012	01/08/0115:15	01/08/0115:15	EA03006A	EA03003A	VAA0639	NA	01/08/01
18609-3933	A022-01	ND	84	1	NA	.1	.012	01/08/0115:49	01/08/0115:49	EA03007A	EA03003A	VAA0639	01/05/01	01/05/01
18609-3934	A022-02	ND	80	1	NA	.1	.012	01/08/0116:23	01/08/0116:23	EA03008A	EA03003A	VAA0639	01/05/01	01/05/01

SURR : Bromofluorobenzene (W)65-135 (S)60-140
PRL : Reporting Limit
E : Value exceed the upper level of the initial calibration
D : Value from dilution

4004

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EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
ATCH NO.: 01A022
METHOD: METHOD 5030B/M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VAA0639B VAA0639L VAA0639C
LAB FILE ID: EA03004A EA03005A EA03006A
DATE EXTRACTED: 01/08/0114:07 01/08/0114:41 01/08/0115:15 DATE COLLECTED: NA
DATE ANALYZED: 01/08/0114:07 01/08/0114:41 01/08/0115:15 DATE RECEIVED: 01/08/01
PREP. BATCH: VAA0639 VAA0639 VAA0639
CALIB. REF: EA03003A EA03003A EA03003A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.55	.517	94	.55	.533	97	3	67-136	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.02	.0208	104	.02	.0215	108	65-135

4000

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

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=====
Client      : IT CORPORATION           Date Collected: 01/05/01
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 01/05/01
Batch No.   : 01A022                 Date Extracted: 01/10/01 14:25
Sample ID   : 18609-3933             Date Analyzed: 01/10/01 14:25
Lab Samp ID: A022-01                 Dilution Factor: 1
Lab File ID: RAP088                 Matrix          : WATER
Ext Btch ID: VOA0902                % Moisture      : NA
Calib. Ref.: RAP082                 Instrument ID   : T-002
=====
  
```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	62-139
BROMOFLUOROBENZENE	107	75-125
TOLUENE-DB	102	75-125

PRL: Project Reporting Limit
* : Out side of QC Limit
J : An estimated value between PRL and MDL
E : Value exceed the upper level of the initial calibration
B : Found in the associated blank
D : Value from dilution analysis

2004

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : IT CORPORATION           Date Collected: 01/05/01
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 01/05/01
Batch No.   : 01A022                 Date Extracted: 01/10/01 15:00
Sample ID   : 18609-3934             Date Analyzed: 01/10/01 15:00
Lab Samp ID : A022-02                Dilution Factor: 1
Lab File ID : RAP089                 Matrix          : WATER
Ext Btch ID : VOA0902                % Moisture     : NA
Calib. Ref. : RAP082                 Instrument ID   : T-002
=====
  
```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYL VINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
DIBROMOETHANE	ND	5	1
DIBROMOBENZENE	ND	10	.77
DIBROMOMETHANE	ND	5	1.4
DIBROMOETHYLENE	ND	5	.87
DIBROMOETHYLENE	ND	5	1.1
DIBROMOETHYLENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	100	62-139
BROMOFLUOROBENZENE	106	75-125
TOLUENE-D8	102	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

METHOD 5030A/8260A
VOLATILE ORGANICS BY GC/MS

```

=====
Client      : IT CORPORATION           Date Collected: NA
Project     : MCAS EL TORO/18609/D.O. 70 Date Received: 01/10/01
Batch No.  : 01A022                   Date Extracted: 01/10/01 13:16
Sample ID  : MBLK1W                     Date Analyzed: 01/10/01 13:16
Lab Samp ID: VOA0902B                   Dilution Factor: 1
Lab File ID: RAP086                     Matrix          : WATER
Ext Btch ID: VOA0902                    % Moisture     : NA
Calib. Ref.: RAP082                     Instrument ID  : T-002
=====
  
```

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5	.91
1,1,2,2-TETRACHLOROETHANE	ND	5	1.1
1,1,2-TRICHLOROETHANE	ND	5	.83
1,1-DICHLOROETHANE	ND	5	.65
1,1-DICHLOROETHENE	ND	5	.86
1,2-DICHLOROETHANE	ND	5	.95
1,2-DICHLOROPROPANE	ND	5	.73
2-BUTANONE	ND	50	6.7
2-CHLOROETHYLVINYLETHER	ND	50	1.3
2-HEXANONE	ND	50	5.6
4-METHYL-2-PENTANONE	ND	50	3.6
ACETONE	ND	50	9.6
BENZENE	ND	5	.77
BROMODICHLOROMETHANE	ND	5	.82
BROMOFORM	ND	5	.74
BROMOMETHANE	ND	5	1.9
CARBON DISULFIDE	ND	5	.61
CARBON TETRACHLORIDE	ND	5	.83
CHLOROBENZENE	ND	5	1.1
CHLOROETHANE	ND	5	1.7
CHLOROFORM	ND	5	.67
CHLOROMETHANE	ND	5	.67
CIS-1,2-DICHLOROETHENE	ND	5	.79
CIS-1,3-DICHLOROPROPENE	ND	5	.79
DIBROMOCHLOROMETHANE	ND	5	.71
ETHYLBENZENE	ND	5	1
MTBE	ND	10	.77
METHYLENE CHLORIDE	ND	5	1.4
STYRENE	ND	5	.87
TETRACHLOROETHENE	ND	5	1.1
TOLUENE	ND	5	.99
TRANS-1,2-DICHLOROETHENE	ND	5	.73
TRANS-1,3-DICHLOROPROPENE	ND	5	.82
TRICHLOROETHENE	ND	5	.89
VINYL ACETATE	ND	50	1.4
VINYL CHLORIDE	ND	5	2.5
XYLENES	ND	5	3.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	93	62-139
BROMOFLUOROBENZENE	102	75-125
TOLUENE-D8	97	75-125

PRL: Project Reporting Limit
 * : Out side of QC Limit
 J : An estimated value between PRL and MDL
 E : Value exceed the upper level of the initial calibration
 B : Found in the associated blank
 D : Value from dilution analysis

2007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
ATCH NO.: 01A022
METHOD: METHOD 5030A/8260A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: VOA0902B VOA0902L VOA0902C
LAB FILE ID: RAP086 RAP084 RAP085
DATE EXTRACTED: 01/10/0113:16 01/10/0112:06 01/10/0112:41 DATE COLLECTED: NA
DATE ANALYZED: 01/10/0113:16 01/10/0112:06 01/10/0112:41 DATE RECEIVED: 01/10/01
PREP. BATCH: VOA0902 VOA0902 VOA0902
CALIB. REF: RAP082 RAP082 RAP082

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	19.8	99	20	16.8	84	16	75-125	20
Benzene	ND	20	21.4	107	20	17.7	89	19	75-125	20
Chlorobenzene	ND	20	20.2	101	20	17.3	87	16	75-125	20
Toluene	ND	20	20.9	105	20	17.7	88	17	74-125	20
Trichloroethene	ND	20	20.9	104	20	17.3	87	19	71-125	20

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	48.1	96	50	49.3	99	62-139
Bromofluorobenzene	50	51	102	50	50.3	101	75-125
Toluene-d8	50	52.1	104	50	50.6	101	75-125

METHOD 120.1
 SPECIFIC CONDUCTIVITY

=====
 Client : IT CORPORATION
 Project : MCAS EL TORO/18609/D.O. 70
 Batch No. : 01A022
 =====

Matrix : WATER
 Instrument ID : I34
 =====

SAMPLE ID	EMAX SAMPLE ID	RESULTS		RL		MDL	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
		(umhos/cm)	DLF MOIST	(umhos/cm)	(umhos/cm)								
18609-3934	A022-02	1820	1 NA	1	.197	01/10/0117:24	NA	ECA001W-03	NA	ECA001W	01/05/01	01/05/01	
18609-3934DUP	A022-02D	1820	1 NA	1	.197	01/10/0117:26	NA	ECA001W-04	NA	ECA001W	01/05/01	01/05/01	

RL: Reporting Limit

0053

18609-3934-0053-01A022-01

METHOD 351.3
TKN

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 01A022

Matrix : WATER
Instrument ID : I21

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	KNA002WB	ND	1	NA	1	.0255	01/12/0116:27	01/11/0120:48	KNA002W-11	KNA002W-09	KNA002W	NA	01/11/01
LCS1W	KNA002WL	2.99	1	NA	1	.0255	01/12/0116:28	01/11/0120:48	KNA002W-12	KNA002W-09	KNA002W	NA	01/11/01
LCD1W	KNA002WC	2.91	1	NA	1	.0255	01/12/0116:29	01/11/0120:48	KNA002W-13	KNA002W-09	KNA002W	NA	01/11/01
18609-3934	A022-02	ND	1	NA	1	.0255	01/12/0116:30	01/11/0120:48	KNA002W-14	KNA002W-09	KNA002W	01/05/01	01/05/01
18609-3934DUP	A022-02D	ND	1	NA	1	.0255	01/12/0116:31	01/11/0120:48	KNA002W-15	KNA002W-09	KNA002W	01/05/01	01/05/01
18609-3934MS	A022-02M	.658J	1	NA	1	.0255	01/12/0116:32	01/11/0120:48	KNA002W-16	KNA002W-09	KNA002W	01/05/01	01/05/01

RL : Reporting Limit

0035

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
METHOD: METHOD 351.3
MATRIX: WATER
% MOISTURE: NA

=====

BATCH NO.: 01A022 DATE RECEIVED: 01/05/01
SAMPLE ID: 18609-3934MS DATE EXTRACTED: 01/11/01 20:48
CONTROL NO.: A022-02M DATE ANALYZED: 01/12/01 16:32

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
TKN	ND	.6	.658J	110	80-120

0046

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
METHOD: METHOD 351.3
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 01A022
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: KNA002WL/C

DATE RECEIVED: 01/11/01
DATE EXTRACTED: 01/11/01 20:48
DATE ANALYZED: 01/12/01 16:28/16:29

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
TKN	ND	2.96	2.99	101	2.96	2.91	98	3	80-120	20

0018

METHOD 160.1
TOTAL DISSOLVED SOLIDS

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 01A022

Matrix : WATER
Instrument ID :

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
18609-3934	A022-02	1290	1	NA	10	4.33	01/10/0118:03	N	DSA001W-4	NA	DSA001W	01/05/01	01/05/01
18609-3934DUP	A022-02D	1280	1	NA	10	4.33	01/10/0118:04	N	DSA001W-5	NA	DSA001W	01/05/01	01/05/01
MBLK1W	DSA001WB	ND	1	NA	10	4.33	01/10/0118:00	NA	DSA001W-1	NA	DSA001W	NA	NA
LCS1W	DSA001WL	310	1	NA	10	4.33	01/10/0118:01	NA	DSA001W-2	NA	DSA001W	NA	NA
LCD1W	DSA001WC	295	1	NA	10	4.33	01/10/0118:02	NA	DSA001W-3	NA	DSA001W	NA	NA

RL : Reporting Limit

0040

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: IT CORPORATION
 PROJECT: MCAS EL TORO/18609/D.O. 70
 METHOD: METHOD 160.1
 MATRIX: WATER
 % MOISTURE: NA

BATCH NO.: 01A022
 SAMPLE ID: LCS1W/LCD1W
 CONTROL NO.: DSA001WL/C

DATE RECEIVED: NA
 DATE EXTRACTED: NA
 DATE ANALYZED: 01/10/01 18:01/18:02

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
TDS	ND	300	310	103	300	295	98	5	80-120	20

0041

METHOD 300.0
NITRATE/NITRITE-N

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 01A022

Matrix : WATER
Instrument ID : T1006

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICA003WB	ND	1	NA	.1	.0206	01/11/0112:23	NA	AA11004A	AA11001A	ICA003W	NA	NA
LCS1W	ICA003WL	3.85	1	NA	.1	.0206	01/11/0112:40	NA	AA11005A	AA11001A	ICA003W	NA	NA
18609-3934MS	A022-02M	44	10	NA	1	.206	01/11/0114:57	NA	AA11013A	AA11001A	ICA003W	01/05/01	01/05/01
18609-3934	A022-02	25.6	10	NA	1	.206	01/11/0116:39	NA	AA11019A	AA11014A	ICA003W	01/05/01	01/05/01
18609-3934DUP	A022-02D	25.2	10	NA	1	.206	01/11/0116:56	NA	AA11020A	AA11014A	ICA003W	01/05/01	01/05/01

RL: Reporting Limit

0003

METHOD 300.0
SULFATE

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 01A022

Matrix : WATER
Instrument ID : TI006

SAMPLE ID	EMAX SAMPLE ID	RESULTS			RL	MDL	Analysis	Extraction	LFID	CAL REF	PREP BATCH	Collection	Received
		(mg/L)	DLF	MOIST	(mg/L)	(mg/L)	DATETIME	DATETIME				DATETIME	DATETIME
MBLK1W	ICA003WB	ND	1	NA	.5	.101	01/11/0112:23	NA	AA11004A	AA11001A	ICA003W	NA	NA
LCS1W	ICA003WL	20.9	1	NA	.5	.101	01/11/0112:40	NA	AA11005A	AA11001A	ICA003W	NA	NA
18609-3934	A022-02	314	200	NA	100	20.2	01/11/0115:48	NA	AA11016A	AA11014A	ICA003W	01/05/01	01/05/01
18609-3934DUP	A022-02D	265	200	NA	100	20.2	01/11/0117:50	NA	AA11023A	AA11014A	ICA003W	01/05/01	01/05/01
18609-3934MS	A022-02M	1210	200	NA	100	20.2	01/11/0118:07	NA	AA11024A	AA11014A	ICA003W	01/05/01	01/05/01

RL : Reporting Limit

0004

METHOD 300.0
 ORTHOPHOSPHATE-P

Client : IT CORPORATION
 Project : MCAS EL TORO/18609/D.O. 70
 Batch No. : 01A022

Matrix : WATER
 Instrument ID : TI006

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICA003WB	ND	1 NA	.5	.0322	01/11/0112:23	NA	AA11004A	AA11001A	ICA003W	NA	NA
LCS1W	ICA003WL	2.03	1 NA	.5	.0322	01/11/0112:40	NA	AA11005A	AA11001A	ICA003W	NA	NA
18609-3934	A022-02	ND	1 NA	.5	.0322	01/11/0114:06	NA	AA11010A	AA11001A	ICA003W	01/05/01	01/05/01
18609-3934DUP	A022-02D	ND	1 NA	.5	.0322	01/11/0117:13	NA	AA11021A	AA11014A	ICA003W	01/05/01	01/05/01
18609-3934MS	A022-02M	1.75	1 NA	.5	.0322	01/11/0117:30	NA	AA11022A	AA11014A	ICA003W	01/05/01	01/05/01

RL : Reporting Limit

2005

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 01A022
METHOD: METHOD 300.0

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICA003WB ICA003WL
LAB FILE ID: AA11004A AA11005A
DATE EXTRACTED: NA NA DATE COLLECTED: NA
DATE ANALYZED: 01/11/0112:23 01/11/0112:40 DATE RECEIVED: NA
PREP. BATCH: ICA003W ICA003W
CALIB. REF: AA11001A AA11001A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	QC LIMIT (%)
Nitrate/Nitrite-N	ND	4	3.85	96	80-120

0007

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 01A022
METHOD: METHOD 300.0

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 10 10
SAMPLE ID: 18609-3934
LAB SAMP ID: A022-02 A022-02M
LAB FILE ID: AA11019A AA11013A
DATE EXTRACTED: NA NA DATE COLLECTED: 01/05/01
DATE ANALYZED: 01/11/0116:39 01/11/0114:57 DATE RECEIVED: 01/05/01
PREP. BATCH: ICA003W ICA003W
CALIB. REF: AA11014A AA11001A

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
Nitrate/Nitrite-N	25.6	20	44	92	80-120

6000

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 01A022
METHOD: METHOD 300.0

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICA003WB ICA003WL
LAB FILE ID: AA11004A AA11005A
DATE EXTRACTED: NA NA DATE COLLECTED: NA
DATE ANALYZED: 01/11/0112:23 01/11/0112:40 DATE RECEIVED: NA
PREP. BATCH: ICA003W ICA003W
CALIB. REF: AA11001A AA11001A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	QC LIMIT (%)
Orthophosphate-P	ND	2	2.03	101	80-120

0010

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 01A022
METHOD: METHOD 300.0

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1
SAMPLE ID: 18609-3934
LAB SAMP ID: A022-02 A022-02M
LAB FILE ID: AA11010A AA11022A
DATE EXTRACTED: NA NA DATE COLLECTED: 01/05/01
DATE ANALYZED: 01/11/0114:06 01/11/0117:30 DATE RECEIVED: 01/05/01
PREP. BATCH: ICA003W ICA003W
CALIB. REF: AA11001A AA11014A

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
Orthophosphate-P	ND	2	1.75	87	80-120

011

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 01A022
METHOD: METHOD 300.0

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICA003WB ICA003WL
LAB FILE ID: AA11004A AA11005A
DATE EXTRACTED: NA NA DATE COLLECTED: NA
DATE ANALYZED: 01/11/0112:23 01/11/0112:40 DATE RECEIVED: NA
PREP. BATCH: ICA003W ICA003W
CALIB. REF: AA11001A AA11001A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	QC LIMIT (%)
Sulfate	ND	20	20.9	105	80-120

0013

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
BATCH NO.: 01A022
METHOD: METHOD 300.0

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 200 200
SAMPLE ID: 18609-3934
LAB SAMP ID: A022-02 A022-02M
LAB FILE ID: AA11016A AA11024A
DATE EXTRACTED: NA NA DATE COLLECTED: 01/05/01
DATE ANALYZED: 01/11/0115:48 01/11/0118:07 DATE RECEIVED: 01/05/01
PREP. BATCH: ICA003W ICA003W
CALIB. REF: AA11014A AA11014A

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
Sulfate	314	1000	1210	90	80-120

0014

METHOD 310.1
TOTAL ALKALINITY

Client : IT CORPORATION
Project : MCAS EL TORO/18609/D.O. 70
Batch No. : 01A022

Matrix : WATER
Instrument ID :

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
18609-3934	A022-02	276	1 NA	5	.469	01/11/0114:15	NA	ALK001W-4	NA	ALK001W	01/05/01	01/05/01
18609-3934DUP	A022-02D	278	1 NA	5	.469	01/11/0114:30	NA	ALK001W-5	NA	ALK001W	01/05/01	01/05/01
18609-3934MS	A022-02M	342	1 NA	5	.469	01/11/0114:45	NA	ALK001W-6	NA	ALK001W	01/05/01	01/05/01
MBLK1W	ALK001WB	ND	1 NA	5	.469	01/11/0113:30	NA	ALK001W-1	NA	ALK001W	NA	NA
LCS1W	ALK001WL	65.5	1 NA	5	.469	01/11/0113:45	NA	ALK001W-2	NA	ALK001W	NA	NA
LCD1W	ALK001WC	67.9	1 NA	5	.469	01/11/0114:00	NA	ALK001W-3	NA	ALK001W	NA	NA

RL: Reporting Limit

0034

EMAX QUALITY CONTROL DATA
MS ANALYSIS

NT: IT CORPORATION
ECT: MCAS EL TORO/18609/D.O. 70
OD: METHOD 310.1
IX: WATER
IISTURE: NA

=====

SH NO.: 01A022 DATE RECEIVED: 01/05/01
FILE ID: 18609-3934MS DATE EXTRACTED: NA
ROL NO.: A022-02M DATE ANALYZED: 01/11/01 14:45

SESSION:

INSTRUMENT	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
Conductivity	276	58.5	342	113	80-120

0037

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: IT CORPORATION
PROJECT: MCAS EL TORO/18609/D.O. 70
METHOD: METHOD 310.1
MATRIX: WATER
% MOISTURE: NA

=====

BATCH NO.: 01A022 DATE RECEIVED: 01/05/01
SAMPLE ID: 18609-3934MS DATE EXTRACTED: NA
CONTROL NO.: A022-02M DATE ANALYZED: 01/11/01 14:45

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
Alkalinity	276	58.5	342	113	80-120

0037

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *El Toro*
Collection Date: January 5, 2001
LDC Report Date: January 24, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Extractables
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 01A022
Sample Identification
18609-3934

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

**MCAS Yuma
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG
01A022**

No Sample Data Qualified in this SDG

**MCAS Yuma
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification
Summary - SDG 01A022**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *El Toro*
Collection Date: January 5, 2001
LDC Report Date: January 24, 2001
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 01A022

Sample Identification

18609-3933
18609-3934

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 18609-3933 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

**MCAS Yuma
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
01A022**

No Sample Data Qualified in this SDG

**MCAS Yuma
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG 01A022**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *ET TORO*
Collection Date: January 5, 2001
LDC Report Date: January 24, 2001
Matrix: Water
Parameters: Volatiles
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 01A022

Sample Identification

18609-3933
18609-3934

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260A for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
1/8/01	Acetone	0.04235 (≥ 0.05)	All samples in SDG 01A022	J (all detects) R (all non-detects)	A

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% for all calibration check compounds and less than or equal to 50.0% for all other compounds.

All of the continuing calibration RRF values were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
1/10/01	Acetone	0.04336 (≥ 0.05)	All samples in SDG 01A022	J (all detects) R (all non-detects)	A

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample 18609-3933 was identified as a trip blank. No volatile contaminants were found in this blank.

MCAS Yuma
Volatiles - Data Qualification Summary - SDG 01A022

SDG	Sample	Compound	Flag	A or P	Reason
01A022	18609-3933 18609-3934	Acetone	J (all detects) R (all non-detects)	A	Initial calibration (RRF)
01A022	18609-3933 18609-3934	Acetone	J (all detects) R (all non-detects)	A	Continuing calibration (RRF)

MCAS Yuma
Volatiles - Laboratory Blank Data Qualification Summary - SDG 01A022

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: MCAS Yuma *ET TOVD*
Collection Date: January 5, 2001
LDC Report Date: January 26, 2001
Matrix: Water
Parameters: Wet Chemistry
Validation Level: NFESC Level C
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 01A022

Sample Identification

18609-3934
18609-3934MS
18609-3934DUP

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 120.1 for Conductivity, EPA Method 160.1 for Total Dissolved Solids, EPA Method 300.0 for Nitrate/Nitrite as Nitrogen, Sulfate and Orthophosphate, EPA Method 310.1 for Alkalinity, and EPA Method 351.3 for Total Kjeldahl Nitrogen.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section VII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
18609-3934 18609-3934MS 18609-3934DUP	Orthophosphate	6 days	48 hours	J (all detects) R (all non-detects)	P

Sample concentrations were qualified as unusable (R) due to a gross exceedance (>2X) of holding time.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG 01A022	Nitrate/Nitrite as N Orthophosphate	A blank was not used to establish the calibration curve.	A blank must be used to establish the calibration curve.	None None	P

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the method blanks.

IV. Accuracy and Precision Data

a. Matrix Spike/(Matrix Spike) Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Relative percent differences (RPD) were within QC limits.

b. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Sample Result Verification

Raw data were not reviewed for this SDG.

VI. Overall Assessment of Data

Data flags are summarized at the end of this report.

VII. Field Duplicates

No field duplicates were identified in this SDG.

VIII. Field Blanks

No field blanks were identified in this SDG.

Appendix B
Field Notes

GROUNDWATER SAMPLING LOG

MCAS EL TORO, SANTA ANA, CALIFORNIA

$$\begin{array}{r} 30 \\ 0.653 \\ \hline 90 \\ 150 \\ \hline 180 \\ 19.59 \\ \hline \end{array}$$

6 VOA
 4 Ambic 1L
 2 pol7 1L
 1 pol4 500 mL w/HNO3

Well Identification: <u>398-MW-19D</u>	Date: <u>11-28-00</u>	IT Field Representative: <u>Paul Lind</u>
Delivery Order: <u>70</u>	Site Location: <u>TF 398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3689</u>	Static Water Level:(swl) <u>185.3</u>	Subcontractor: <u>Layne</u>
COC Number: <u>A12379</u>	Total Depth:(td) <u>~215</u>	Rig Number: <u>(471) US DOT 053175</u>
	Measuring Device: <u>Roctest CPR</u> serial number: <u> </u>	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>TOC GS</u>	Pump Number: <u>#1</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>30</u> = td-sw1	Pump Depth: <u>~197'</u>	Number of Bottles Collected: <u>15</u> <small>of 11-28-00</small>
Well Diameter: (d) <u>4" → 0.53</u>	Feet Discharge Pipe: <u>20"</u>	Duplicate Collected: Yes <input checked="" type="radio"/> No <input type="radio"/>
<small>d" (2-inch = .183) (4-inch = .653) (8-inch = 1.469)</small>	<small>pump = Redi-flow II</small>	Duplicate Sample Number: <u> </u>
Casing Volume:(cv) <u>19.59</u> = (wc)(d ²)		Rinsate Sample Number: <u>-3688</u>
Total Gallons to Purge: <u>~60</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: <u>90</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC (µm)	pH	Temp F°	Turbidity (NTU)	%DO	Comments
0924	~1.2	1	1,730	7.06	70.6	174	NA	Start Pump
0944	~1.2	24	1,790	7.20	72.5	58	NA	
1004	~1.2	48 48	1,660	7.25	81.2	31.3	NA	
1018	↓	~60	1,590	7.16	76.4	37.67	NA	
1024	↓	72	1,620	7.16	77.1	28.78	NA	
1029	↓	79	1,630	7.16	78.5	27.64	↓	
1034		84	1,640	7.15	78.8	32.05	↓	
1040								Sample time

GROUNDWATER SAMPLING LOG

MCAS EL TORO, SANTA ANA, CALIFORNIA

ASTM 02D

Well Identification: <u>398-MW-19</u> <small>11-28</small>	Date: <u>11-28-00</u>	IT Field Representative: <u>Carl J. Lind</u>
Delivery Order: <u>70</u>	Site Location: <u>IF 398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3690</u>	Static Water Level:(swl) <u>186.3</u>	Subcontractor: <u>Layne</u>
COC Number: <u>A 12379</u>	Total Depth:(td) <u>215</u>	Rig Number: <u>(471)</u>
	Measuring Device: <u>Roctest</u> CR serial number: <u>?</u>	Sampling Pump: <u>Rectiflo II</u>
	Measuring Point: <u>TOC GS</u>	Pump Number: <u>?</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>30 JA</u> = td-sw1	Pump Depth: <u>~197'</u>	Number of Bottles Collected: <u>15</u>
Well Diameter: (d) <u>4" → 0.653</u>	Feet Discharge Pipe: <u>~20' ?</u>	Duplicate Collected: Yes <u>No</u>
<small>d" (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u>NA</u>
Casing Volume:(cv) <u>~19-20</u> = (wc)(d ²)		Rinsate Sample Number: <u>3638</u>
Total Gallons to Purge: <u>~60</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: _____		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
1214								Start Pump
1227	1.2	15	1460	7.26	79	8.21	NA	
1237	↓	27	1450	7.14	76.2	12.83	↓	
1247	↓	39	1520	7.13	76.1	23.90	↓	
1257	↓	51	1530	7.07	75.4	36.04	↓	
1307	↓	63	1550	7.06	75.8	37.67	↓	
1312	↓	69	1540	7.07	75.7	43.08 ¹¹⁻²⁸⁻⁰⁰ 36.58	↓	
1315								Sample time

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

33
 .653
 77
 165
 198
 21579

Well Identification: <u>398-MW-2B</u>	Date: <u>11-29-00</u>	IT Field Representative: <u>Carl Lind</u>
Delivery Order: <u>70</u>	Site Location: <u>TF 398</u>	
Project Number: <u>18609</u> <small>cf 11-2000</small>		
Sample Number: <u>18609-3692</u> <u>3691</u>	Static Water Level: (swl) <u>182.1</u>	
COC Number: <u>A 12380</u>	Total Depth: (td) <u>215</u>	Subcontractor: <u>Layne</u>
	Measuring Device: <u>Rootest</u> serial number: <u>X</u>	Rig Number: <u>471</u>
	Measuring Point: <u>TOC</u> GS	Sampling Pump: <u>Rediflo II</u>
	Casing Material: <u>PVC</u>	Pump Number: <u>X</u>

Water Column: (wc) <u>33</u> = td-sw	Pump Depth: <u>~197'</u>	Number of Bottles Collected: <u>13</u>
Well Diameter: (d) <u>4</u> → <u>.653</u>	Feet Discharge Pipe: <u>~20'</u>	Duplicate Collected: <u>Yes</u> No
<small>d" (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u>18609-3694</u>
Casing Volume: (cv) <u>21.5</u> = (wc)(d ²)		Rinsate Sample Number: _____
Total Gallons to Purge: <u>~65</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: <u>94.5</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
0800	<u>1.5</u>							<u>Start pump</u>
<u>0815</u>	↓	<u>22.5</u>	<u>1,160</u>	<u>6.65</u>	<u>69.5</u>	<u>36.76</u>	<u>NA</u>	<u>New pH probe</u>
<u>0820</u>	↓	<u>30</u>	<u>1,170</u>	<u>7.01</u>	<u>71.2</u>	<u>12.49</u>	<u>NA</u>	
<u>0830</u>	↓	<u>45</u>	<u>1,140</u>	<u>6.96</u>	<u>70.0</u>	<u>7.72</u>	↓	
<u>0840</u>	↓	<u>60</u>	<u>1,150</u>	<u>6.92</u>	<u>70.3</u>	<u>5.57</u>	↓	
<u>0850</u>	↓	<u>75</u>	<u>1,150</u>	<u>6.96</u>	<u>71.0</u>	<u>5.25</u>	↓	
<u>0900</u>	↓	<u>90</u>	<u>1,180</u>	<u>6.93</u>	<u>72.0</u>	<u>2.82</u>	↓	
<u>0905</u>								<u>Sample Time</u>

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

3
 653
 90
 150
 180
 19590

Well Identification: <u>398-11W-29</u>	Date: <u>11-29-00</u>	IT Field Representative: <u>CARL LIND</u>
Delivery Order: <u>70</u>	Site Location: <u>TF-398</u>	
Project Number: <u>18609</u> <small>CA 11-30-00</small>		
Sample Number: <u>18609-3623</u> <u>3698</u>	Static Water Level: (swl) <u>185.5</u>	
COC Number: <u>A-12980</u>	Total Depth: (td) <u>215</u>	Subcontractor: <u>Layne</u>
	Measuring Device: <u>Porter</u> serial number: <u>X</u>	Rig Number: <u>471</u>
	Measuring Point: <u>TOC GS</u>	Sampling Pump: <u>Rediflo II</u>
	Casing Material: <u>PCY</u>	Pump Number: <u>X</u>
Water Column: (wc) <u>30</u> = td-sw	Pump Depth: <u>~197'</u>	Number of Bottles Collected: <u>13</u>
Well Diameter: (d) <u>4" → 0.653</u>	Feet Discharge Pipe: <u>220'</u>	Duplicate Collected: Yes <input checked="" type="radio"/> No <input type="radio"/>
<small>d" (2-inch = .163) (4-inch = .853) (6-inch = 1.469)</small>		Duplicate Sample Number: <u>X</u>
Casing Volume: (cv) <u>19.59</u> = (wc)(d ²)		Rinsate Sample Number: _____
Total Gallons to Purge: <u>~60</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: _____		

Time	Pumping Rate (gpm)	Gallons purged	EC (uS/cm)	pH	Temp F°	Turbidity (NTU)	%DO	Comments
1030	1.1							Start pump.
1035	↓	5.5	1,100	7.29	73.5	76	NA	
1045	↓	16.5	1,120	7.30	75.5	235	↓	
1055	↓	27.5	990	7.29	76.8	546	↓	
1105	↓	38.5	997	7.20	77.5	468	↓	
1115	↓	49.5	991	7.16	78.0	256	↓	
1125	↓	60.5	992	7.15	78.8	115	↓	
1135	↓	71.5	979	7.15	77.9	79	↓	
1145	↓	82.5	980	7.15	79.1	32.4	↓	
1155		93.5	895	7.13	79.5	22.37	↑	Adjust 7 on Hydac
1205		104.5	922	7.15	78.6	15.18	↓	
1215		115.5	946	7.16	79.1	12.01	↓	
1225		126.5	952	7.15	79.1	9.34	↓	
1240		143	948	7.15	78.2	7.73		

1245

Sample time.

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

24
653
72
120
44
15672

24
653
72
120
44

Well Identification: <u>398-MW-30</u>	Date: <u>11-30-00</u>	IT Field Representative: <u>Carol Lind</u>
Delivery Order: <u>70</u>	Site Location: <u>MCAS EL TORO</u>	
Project Number: <u>18609</u>	<u>TF 398</u>	
Sample Number: <u>18609-5699-3700</u>	Static Water Level: (swl) <u>191'</u>	Subcontractor: <u>LAYNE</u> <small>Subcontractor's water level meter stuck to casing wall & would not reach water</small>
COC Number: <u>A 12381</u>	Total Depth: (td) <u>217</u>	
	Measuring Device: <u>from dev. rec. serial number:</u>	Rig Number: <u>471</u>
	Measuring Point: <u>TOC GS</u>	Sampling Pump: <u>Rediflo II</u>
	Casing Material: <u>PVC</u>	Pump Number: <u>X</u>
Water Column: (wc) <u>24</u> = td-sw	Pump Depth: <u>~197' bgs</u>	Number of Bottles Collected: <u>45</u>
Well Diameter: (d) <u>4 → 0.653</u>	Feet Discharge Pipe: <u>~20'</u>	Duplicate Collected: Yes <input checked="" type="checkbox"/> No
<small>d" (2-inch = .193) (4-inch = .653) (8-inch = 1.469)</small>		Duplicate Sample Number: _____
Casing Volume: (cv) <u>15.7</u> = (wc)(d ²)		Rinsate Sample Number: _____
Total Gallons to Purge: <u>~48</u> = (cv)(number of casing volumes to be purged)		MS/MSD: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Actual Gallons Purged: _____		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
0805	1.3	13						start pumping
0815	1.3	13	1,200	6.07	67.5	174	NA	
0825	1.3	26	1,300	6.77	70.4	100	NA	
0835	1.3	39	1,310	6.76	71.1	107	NA	
0845	1.3	52	1,320	6.78	69.4	125	↓	
0855	1.3	65	1,320	6.78	69.2	66	↓	
0905	↓	78	1,330	6.77	69.9	52	↓	
0915	↓	91	1,340	6.77	76.9	45.17	↓	
0925	↓	104	1,320	6.77	70.3	59	↓	
0935	↓	117	1,350	6.78	71.9	35.67	↓	
0945	↓	130	1,330	6.79	71.8	39.14	↓	
0955	↓	143	1,330	6.80	71.4	33.35	↓	END
1000	←							Sample time

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

1.4705
 7
 98

3.70
 1.94
 5.2

3.2
 6.5
 1.56
 6
 3.26
 2

11-30-00

Well Identification: MW-398-9 Date: 11-30-00 IT Field Representative: 33956
 Delivery Order: _____ Site Location: MCAS El Tero Cool Line
 Project Number: _____ TF398
 Sample Number: 18609-3701 Static Water Level:(swl) 188.4
 COC Number: A12381 Total Depth:(td) 207 Subcontractor: Layne
 Measuring Device: Rocket serial number: X Rig Number: 471
 Measuring Point: TOC GS Sampling Pump: KodiFlo III
 Casing Material: PVC Pump Number: X

Water Column: (wc) 52 = td-swl Pump Depth: _____
 Well Diameter: (d) 4 → 0.653 Feet Discharge Pipe: _____ Number of Bottles Collected: _____
 d" (2-inch = .163) (4-inch = .853) (6-inch = 1.469) Duplicate Collected: Yes No
 Casing Volume: (cv) 34 = (wc)(d") Duplicate Sample Number: _____
 Total Gallons to Purge: 102 = (cv)(number of casing volumes to be purged) Rinsate Sample Number: _____
 Actual Gallons Purged: 112 MS/MSD: Yes No

Time	Pumping Rate (gpm)	Gallons purged	EC (µS/cm)	pH	Temp F°	Turbidity (NTU)	%DO	Comments
1200								Start pumping
1220	1.4	28	1,400	7.07	72.5	6.03	NA	
1230	↓	42	1,440	7.05	76.7	1.76	NA	
1250	↓	70	1,440	7.04	77.0	0.68	NA	
1300	↓	98	1,420	7.02	76.9	0.92	↓	
1320	↓	112	1,430	7.02	77.4	0.00	↓	
1325	1.4							SAMPLE TIME

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>348-MW-12</u>	Date: <u>11/21/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>1070</u>	Site Location: <u>TF398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3705</u>	Static Water Level:(swl) <u>189</u>	Subcontractor: <u>Layne</u>
COC Number: _____	Total Depth:(td) <u>242</u>	Rig Number: <u>USDOT053175</u>
	Measuring Device: <u>Sounder</u> serial number: _____	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>TOC</u> GS	Pump Number: <u>2</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>56.53</u> = td-sw1	Pump Depth: <u>216</u>	Number of Bottles Collected: <u>11</u>
Well Diameter: (d) <u>.653</u>	Feet Discharge Pipe: <u>210</u>	Duplicate Collected: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<small>d" (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: _____
Casing Volume:(cv) <u>35</u> = (wc)(d ²)		Rinsate Sample Number: <u>18609-3706</u>
Total Gallons to Purge: <u>105</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Actual Gallons Purged: <u>136</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
1025	2							Start Pumping
1035	2	20	1.13	6.65	67.3	0.0		No odor
1045	2	40	1.16	7.07	67.1	0.0		NO odor
1055	2	60	1.20	7.03	69.4	0.0		"
1105	2	80	1.22	7.02	69.6	0.0		"
1115	2	100	1.21	7.00	70.2	0.0		"
1120	2	110	1.20	7.03	68.5	0.0		"
1125	Start collecting Sample							
1133	Stop sample collection							
1200	Arrive to clean pumps.							

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>TF6-MN-02</u>	Date: <u>12-4-00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>D70</u>	Site Location: <u>TF6</u>	
Project Number: <u>18604</u>		
Sample Number: 18604-3709 <u>2</u>	Static Water Level:(swl) <u>186.4</u>	Subcontractor: <u>Layne</u>
COC Number: <u>A12390</u>	Total Depth:(td) <u>230</u>	Rig Number: <u>USD 1053175</u>
	Measuring Device: <u>Sounder</u> serial number: <u> </u>	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>(TOC) GS</u>	Pump Number: <u> </u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>43.6</u> = td-sw	Pump Depth: <u>218 228 ft.</u>	Number of Bottles Collected: <u>11</u>
Well Diameter: (d) <u>.653</u>	Feet Discharge Pipe: <u>2 1/2</u>	Duplicate Collected: Yes <input checked="" type="checkbox"/> <u>No</u>
<small>d* (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u> </u>
Casing Volume:(cv) <u>29</u> = (wc)(d*)		Rinsate Sample Number: <u>18604-3706</u>
Total Gallons to Purge: <u>85</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes <input checked="" type="checkbox"/> <u>No</u>
Actual Gallons Purged: <u> </u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments	
10 35								Arrive to well-02	
11 10	1							Start Pump	
11 25	1	05	1.02	7.22	76.9	8.89		odorous / sulfur smel	
11 27	1/2	17						Pumping rate lowered	
12 00	1/2	33.5						due to the well	
11 45	Stop pump						WL=206	going dry. Well went dry	
11 57							WL=201.5		
12 10	lower pump another		10ft				WL=200.8		
12 15							WL=200.5		
12 21							WL=200		
12 58	Start	Pump	@ 1/2 gpm				WL=194.3		
14 35	1/2	35.5	1.01	7.30	77.4	1.39		odorous w/sulfur	
14 51	Stop Pump	Well went dry - 43 gal total purged			out so far.				odorous w/sulfur
		leave pump in fill tomorrow							

* Sounder cannot go down further than 187 ft.

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>398-MW-027</u>	Date: <u>12/5/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>0070</u>	Site Location: <u>TF398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3713</u>	Static Water Level:(swl) <u>189.1</u>	Subcontractor: <u>layne</u>
COC Number: <u>A12397</u>	Total Depth:(td) <u>252</u>	Rig Number: <u>USDT053175</u>
	Measuring Device: <u>Sundry</u> serial number: <u> </u>	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>(100) GS</u>	Pump Number: <u>#1</u>
	Casing Material: <u> </u>	
Water Column: (wc) <u>63</u> = td-sw1	Pump Depth: <u>245</u>	Number of Bottles Collected: <u>11</u>
Well Diameter: (d) <u>6.53</u>	Feet Discharge Pipe: <u>240</u>	Duplicate Collected: Yes <input checked="" type="radio"/> No <input type="radio"/>
<small>d" (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u> </u>
Casing Volume:(cv) <u>41.1</u> = (wc)(d ²)		Rinsate Sample Number: <u>18609-3710</u>
Total Gallons to Purge: <u>123.4</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: <u>135</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
¹³⁴³ 1240	2	—	—	—	—	—	—	Start Pump
1250								
1310	2	60	1.22	6.50	83.4	0.00	—	NO odor, clear
1315	2	70	1.29	7.02	83.9	0.00	—	NO odor, clear
1330	2	100	1.23	7.13	82.7	0.00	—	NO odor.
1340	2	110	1.25	6.91	82.2	0.00	—	NO odor.
1350	1	120	1.22	6.94	80.5	0.00	—	"
1355	1	125	1.21	6.91	79.8	0.00	—	"
1400	Collect	Sample						
1405	Finish	Collecting	Sample.	Pump stop				

**GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA**

Well Identification: <u>398-MW-21</u>	Date: <u>12/6/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>0070</u>	Site Location: <u>TF 368 398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3716</u>	Static Water Level:(swl) <u>186.1</u>	Subcontractor: <u>Layne</u>
COC Number: _____	Total Depth:(td) <u>242</u>	Rig Number: <u>USD0T053175</u>
	Measuring Device: <u>sounder</u> serial number: _____	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>(TOC) GS</u>	Pump Number: <u>#1</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>57</u> = td-sw1	Pump Depth: <u>218</u>	Number of Bottles Collected: <u>10</u>
Well Diameter: (d) <u>.653</u>	Feet Discharge Pipe: <u>210</u>	Duplicate Collected: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<small>d* (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u>N/A</u>
Casing Volume:(cv) <u>37</u> = (wc)(d*)		Rinsate Sample Number: <u>18609-11609 3714</u>
Total Gallons to Purge: <u>112</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: <u>127</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
0826								
0830	1.5							Start Pump
0905	1.5	52.5	1.10	6.57	71.2	0.18	—	NO odor
0915	1.5	67.5	1.08	6.92	69.3	0.00	—	NO odor
0925	1.5	82.5	1.08	6.95	60.5	0.00	—	NO odor
0935	1.5	97.5	1.08	6.94	60.5	0.00	—	NO odor
0945	1	107.5	1.08	6.97	60.8	0.00	—	NO odor
0955	1	117.5	1.08	6.96	60.6	0.00	—	NO odor
1000	Collect Sample							
1005	Finish Collecting Sample							

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>398-MW-01</u>	Date: <u>12/6/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>NO 70</u>	Site Location: <u>TF398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3717</u>	Static Water Level:(swl) <u>189.6</u>	Subcontractor: <u>Layne</u>
COC Number: _____	Total Depth:(td) <u>229</u>	Rig Number: <u>USDOT053175</u>
	Measuring Device: <u>Saunders</u> serial number: _____	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>TOC GS</u>	Pump Number: <u>#2</u>
	Casing Material: _____	
Water Column: (wc) <u>39.4</u> = td-sw	Pump Depth: <u>216</u>	Number of Bottles Collected: <u>10</u>
Well Diameter: (d) <u>.653</u>	Feet Discharge Pipe: <u>210</u>	Duplicate Collected: Yes <input checked="" type="checkbox"/> No
d* (2-inch = .163) (4-inch = .653) (6-inch = 1.469)		Duplicate Sample Number: _____
Casing Volume:(cv) <u>25.7</u> = (wc)(d*)		Rinsate Sample Number: <u>18609-3710</u>
Total Gallons to Purge: <u>77</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes <input checked="" type="checkbox"/> No
Actual Gallons Purged: <u>85</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
1110	1							Start Pump
1130	1	20	1.44	6.77	73.1	0.00	—	Odorous Fuel like
1140	1	30	1.42	6.95	74.8	0.00	—	Odorous Fuel like
1150	1	40	1.44	6.94	75.3	0.00	—	No odor
1200	1	50	1.42	6.98	73.6	0.00	—	Slight odor
1210	1	60	1.44	6.96	62.7	0.00	—	Slight odor
1220	1	70	1.42	6.96	71.9	0.00	—	Slight odor
1230	1	80	1.39	6.96	70.5	0.00	—	Slight odor
1234								Collect sample
1235								Stop finish collecting sample

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>398-mw-17</u>	Date: <u>12/7/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>DO 70</u>	Site Location: <u>IF 398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3720</u>	Static Water Level:(swl) <u>186.0</u>	Subcontractor: <u>Layne</u>
COC Number: <u>12399</u>	Total Depth:(td) <u>21.239 241</u>	Rig Number: <u>USTO 53175</u>
	Measuring Device: <u>Sounder</u> serial number: <u> </u>	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>(C)GS</u>	Pump Number: <u>1</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>55</u> = td-sw	Pump Depth: <u>220</u>	Number of Bottles Collected: <u>11</u>
Well Diameter: (d) <u>35.924 .653</u>	Feet Discharge Pipe: <u>24</u>	Duplicate Collected: Yes <input checked="" type="checkbox"/> No
<small>d* (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u> </u>
Casing Volume:(cv) <u>35.97</u> = (wc)(d*)		Rinsate Sample Number: <u> </u> <u>18609-3718</u>
Total Gallons to Purge: <u>250</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes <input checked="" type="checkbox"/> No 3710
Actual Gallons Purged: <u>270</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
0830	2	←	—	—	—	—	—	Start Pump
0900	2	60	1.34	6.62	67.2	0.00	—	odor of IPS
0930	2	120	1.59	6.52	68.3	0.00	—	Odorous
0950	2	160	1.43	6.56	69.1	0.00	—	No odor
1000	2	180	1.38	6.64	68.2	0.00	—	NO odor
1010	2	200	1.41	6.55	70.0	0.00	—	NO odor
1020	2	220	1.41	6.54	70.2	0.00	—	NO odor
1030	2	240	1.42	6.57	69.9	0.00	—	No odor
1035	2	250	1.41	6.55	70.1	0.00	—	NO odor
1040		Collect	sample					
1045		Finish	Collecting	Sample				

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>398-MW-04</u>	Date: <u>12/7/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>5070</u>	Site Location: <u>TF 398</u>	
Project Number: <u>18409</u>		
Sample Number: <u>18609-3721</u>	Static Water Level:(swl) <u>191.0</u>	Subcontractor: <u>Layne</u>
COC Number: <u>12349</u>	Total Depth:(td) <u>232</u>	Rig Number: <u>USTOTO 53175</u>
	Measuring Device: <u>Sounding</u> serial number: <u>—</u>	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>100 GS</u>	Pump Number: <u>2</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>41</u> = td-sw1	Pump Depth: <u>220</u>	
Well Diameter: (d) <u>.453</u>	Feet Discharge Pipe: <u>—</u>	Number of Bottles Collected: <u>11</u>
<small>d" (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Collected: Yes <input checked="" type="checkbox"/> NO
Casing Volume:(cv) <u>26.78</u> = (wc)(d ²)		Duplicate Sample Number: <u>—</u>
Total Gallons to Purge: <u>186</u> = (cv)(number of casing volumes to be purged)		Rinsate Sample Number: <u>18609-3718</u>
Actual Gallons Purged: <u>263 gal</u>		MS/MSD: Yes <input checked="" type="checkbox"/> NO

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
122530	2	—	—	—	—	—	—	Start Pump
1245	2	30	1.26	6.96	76.3	0.0	—	odorous. Sheen
1300	2	60	1.26	6.85	79.5	0.0	—	"
131530	2	90	1.26	6.85	79.0	0.0	—	"
1330	2	120	↓	↓	↓	↓	—	" No sheen
1345	2	150	1.33	6.82	80.6	0.0	—	" No sheen
1400	2	180	1.27	6.82	78.5	0.0	—	"
1410	1	190	1.30	6.83	79.6	0.0	—	"
1415	Collect	Sample						
1423	Finish	Collecting Samples						

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

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Well Identification: <u>TF2-MW-01</u>	Date: <u>12/9/00</u>	IT Field Representative: <u>W. Jefferson</u>
Delivery Order: <u>D070</u>	Site Location: <u>TF398</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609-3723</u>	Static Water Level:(swl) <u>125.5</u>	Subcontractor: <u>Layne</u>
COC Number: _____	Total Depth:(td) <u>1163</u>	Rig Number: <u>USD07053175</u>
	Measuring Device: <u>sonar</u> serial number: _____	Sampling Pump: <u>Grundfos</u>
	Measuring Point: <u>COG GS</u>	Pump Number: <u>Pump #2</u>
	Casing Material: <u>PVC</u>	
Water Column: (wc) <u>37.5</u> = td-sw1	Pump Depth: <u>1160</u>	Number of Bottles Collected: <u>8</u>
Well Diameter: (d) <u>4.53 1.469</u>	Feet Discharge Pipe: <u>160</u>	Duplicate Collected: <input checked="" type="radio"/> Yes <input type="radio"/> No
<small>d* (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: <u>18609-3724</u>
Casing Volume:(cv) <u>55</u> = (wc)(d*)		Rinsate Sample Number: <u>18609-3719</u>
Total Gallons to Purge: <u>289</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes <input type="radio"/> No <input checked="" type="radio"/>
Actual Gallons Purged: <u>300</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments
0825	3							Start Pump
0840								
0855	Calibrate instrument hydrac & turbidity meter							
0900	3	105	3.20	6.69	65.2	2.68	—	Odorous (sulfur like)
0915	3	150	3.23	6.83	65.3	0.25	—	Odors
0930	3	195	3.36	6.86	65.70	6.86	0.0	Odorous
0945	3	240	3.41	6.82	66.9	0.00	—	slight odor
1000	1	255	3.45	6.78	67.8	0.00	—	NO odor
1015	1	270	3.48	6.76	68.8	0.00	—	NO odor
1030	1	285	3.56	6.82	71.6	0.00	—	No odor
1035	1	300 290	3.61	6.82	72.5	0.00		
1040	Collect Sample							
1045	Finish Collecting Sample							

GROUNDWATER SAMPLING LOG
MCAS EL TORO, SANTA ANA, CALIFORNIA

Well Identification: <u>555-MW-01</u>	Date: <u>12/13/00</u>	IT Field Representative: <u>MC Gomez</u>
Delivery Order: <u>70</u>	Site Location: <u>Tank Farm 555</u>	
Project Number: <u>18609</u>		
Sample Number: <u>18609</u>	Static Water Level:(swl) <u>171.22</u>	Subcontractor: <u>Layne (Glen)</u>
COC Number: _____	Total Depth:(td) <u>220.05</u>	Rig Number: <u>4710 25535</u>
	Measuring Device: <u>Grounders</u> serial number: _____	Sampling Pump: <u>Rediflow #</u>
	Measuring Point: <u>TOC GS</u>	Pump Number: <u>2</u>
	Casing Material: _____	

Water Column: (wc) <u>44.43</u> = td-sw 51.78	Pump Depth: <u>217</u>	Number of Bottles Collected: <u>8</u>
Well Diameter: (d) <u>4" = .653</u>	Feet Discharge Pipe: <u>—</u>	Duplicate Collected: Yes <input checked="" type="radio"/> No
<small>d* (2-inch = .163) (4-inch = .653) (6-inch = 1.469)</small>		Duplicate Sample Number: _____
Casing Volume:(cv) <u>32.28</u> = (wc)(d*)		Rinsate Sample Number: <u>18609-5725</u>
Total Gallons to Purge: <u>904 + 220</u> = (cv)(number of casing volumes to be purged)		MS/MSD: Yes No
Actual Gallons Purged: <u>131.7 gal. 207 gal.</u>		

Time	Pumping Rate (gpm)	Gallons purged	EC ()	pH	Temp F°	Turbidity (NTU)	%DO	Comments	
1245	1	0							
1340	1	40	0.54	8.33	67.6	26.08	—	clear no odor	
1410	1	85	0.54	8.24	68.7	21.37	—	clear no odor	
1420	~1	95	well went dry						
Next day 12/14/00 ~132 gal purged out									
0740	1/2	Start	Pump again.						
0800	1/2	142	1.79	8.07	60.0	2.53	—	Clear no odor	
0830	1/2	157	1.33	8.03	68.5	1.61	—	Slight odor	
0900	1/2	172	1.36	7.99	69.5	2.53	—	"	
0930	1/2	187	1.36	7.75	70.2	2.61	—	"	
1000	1/2	202	1.42	7.91	71.6	2.75	—	"	
1005	1/2	Parameter	seems stabilize, Parameters are within criteria. ∴						Collect Samples.
1000	Finish	collecting samples.		Pump stop					
				Final water level				WL = 202.5	

