J

8186

APPENDIX J

LABORATORY ANALYTICAL DATA
OF
FIT-COLLECTED GROUNDWATER SAMPLES--ROUND 3

SPECIAL ANALYTICAL SERVICES
DETECTION LIMITS

Drinking Water Samples

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 6/10 FIT Receipt Date 6/24 Review Completed 6/27

TO: T. Pachowicz
FROM: Zena Gold-Kaufman ZGK
SUBJECT: HOD LNDFl
PAN: 1L0141 ~~QBQ~~ XFQ (1 hour charged for review) Case # 9672/3554E

Sample Description

Organics (VOA, BN, Pest/PCB) Inorganics (Metals, Cyanide)

#	Low Soil	#	Low Soil
	Low Water		Low Water
7	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

_____ Incomplete, awaiting _____

FIT Data Review Findings:
See Tom Clyne's review for usability of $MeCl_2$.
Compounds detected in sample EAA303:
Total-1,2-Dichloroethenes
Trichloroethene - also in EAA304, EAA307

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 8 Page No. 92 Date Sampled 5/19/88

0759:2

SPECIAL ANALYTICAL SERVICES DRINKING WATER
VOLATILE QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT IN REAGENT WATER
Benzene	71-43-2	1.5 ug/L
Bromodichloromethane	75-27-4	1.5
Bromoform	75-25-2	1.5
Bromomethane	74-83-9	1.5
Carbon tetrachloride	56-23-5	1.5
Chlorobenzene	108-90-7	1.5
Chloroethane	75-00-3	1.5
2-Chloroethyl vinyl ether	110-75-8	1.5
Chloroform	67-66-3	1.5
Chloromethane	74-87-3	1.5
Dibromochloromethane	124-48-1	1.5
1,1-Dichloroethane	75-34-3	1.5
1,2-Dichloroethane	107-06-2	1.5
1,1-Dichloroethene	75-35-4	1.5
Total-1,2-Dichloroethene	540-59-0	1.5
1,2-Dichloropropane	78-87-5	1.5
cis-1,3-Dichloropropene	10061-01-5	2
trans-1,3-Dichlopropropene	10061-02-6	1
Ethyl benzene	100-41-4	1.5
Methylene chloride *	75-09-2	1
1,1,2,2-Tetrachloroethane	79-34-5	1.5
Tetrachloroethene	127-18-4	1.5
Toluene *	108-88-3	1.5
1,1,1-Trichloroethane	71-55-6	1.5
1,1,2-Trichloroethane	79-00-5	1.5
Trichloroethene	79-01-6	1.5
Vinyl chloride	75-01-4	1.5
Acrolein	107-02-8	25
Acetone *	67-64-1	5
Acrylonitrile	107-13-1	25
Carbon disulfide	75-15-0	3
2-Butanone	78-93-3	5
Vinyl acetate	108-05-4	5
4-Methyl-2-pentanone	108-10-1	1.5
2-Hexanone	519-78-6	5
Styrene	100-42-5	1
Xylene (total)	1330-02-7	1.5

* Common laboratory solvents.
Blank limit is 5x method detection limit.
( ) Values in parentheses are estimates.
actual values are being determined at this time.

REPORTING UNITS

A. Organics

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - ug/kg or ppb (parts per billion)

B. Metals

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - mg/kg or ppm (parts per million)

DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

OTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscop
	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Metals

THOTE	DEFINITION	INTERPRETATION
EW		
E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
	DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
	Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	Compound was analyzed for but not detected.	Compound was not detected.
M	Duplicate injection precision not met.	Value may be semi-quantitative.
W	Post digestion spike for furnance AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Other Symbols Used

NA Value not available due to insufficient data.
NR Value not calculated since chemical is not a carcinogen.
) Estimated value.

6/24/88
25 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP data
Received for Review on June 10, 1988

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: DATA USER: FIT

We have reviewed the data for the following case(s).

SITE NAME: HOD Landfill SMO case No. 9672SAS3554E

EPA Data Set No. SF5207 No. of Samples: 7 D.U./Activity Numbers Y9051C72122

CRL No. 88FP22S49-SS3,R07,DS2

SMO Traffic No. EAA301-307

CLP Laboratory: S-Cubed Hrs. Required for Review: 2

Following are our findings:

PAN FIL0141QBQ

Reviewed by Tom Cipkel 21 June 88 E&E

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

Case 9672/SAS355HE consisted of seven low level water samples for VOAs only with fast turn around analyzed by S-Cubed.

Holding times	Holding times are acceptable.
Surrogates	The surrogate recoveries are acceptable with 0/30 report values.
MS/MSD	No %R were reported out (0/10) while one R% D was out (1/5) and are acceptable.
Laboratory blank	Acetone was reported in the lab blank for 5-24-88 and is acceptable.
Tuning	Initial and continuous tuning met requirements and are accepted.
Laboratory Standards	Several outliers for both tuning and continuous are reported out for RRF ave. and RRF. See Standard outlier form. 2-butonone, vinyl acetate, 2-hexanone, and acrolein have RRF below 0.05 and are qualified R or not analyzed for. There are no reported values for these compounds. The % RSD and % D had no reported outliers. The standard data is acceptable.

User's Summary Form
Case 9672/3554E

Several samples have hits for methylene chloride, total-1,2-dichloroethenes and trichloroethene. Although methylene chloride is normally a laboratory artifact, it was not found in the lab blank. Sample EAA 303 was used for the MS/MSD and the results are:

EAA 303	1.1J µg/L
EAA 303MS	7.1
EAA 303MSD	7.2

If there is site evidence that methylene chloride was deposited at the site, you can use it for a real value. If no known site source exists for it to be present just consider it as a lab artifact (CLA).

1015:1

MI

Da

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 9472 / SAS 3550 E CONTRACTOR S cubed

F 70.05
%RSD ≤ 40%

Clear analyte for VOAs only

Instrument # V6-2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	8 MAY			24 MAY											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	0.002		R	0.002		R									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate	0.009		R	0.007		R									
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone	0.021		R	0.019		R									
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															
ACROLEIN	0.044		R	0.032		R									

AFFECTED SAMPLES:

Standards	10 DDB Blank
	EAA 301
	302
	303
	304
	305
	306
	307

Reviewer's Initials/Date: TM Lane 20 June 88

Matrix Hard
EAA 30SA'S
EAA 313 MS

* These flags should be applied to the analytes on the sample data sheets.

8/87

Case: _____

Contractor: _____

TENTATIVELY IDENTIFIED COMPOUNDS WATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Reviewer's Initials/Date: Tim Oppe 20 June 89

SI Memo & Category Abbreviations:

A - Aromatic
CLA - Common lab artifact
CSC - Common soil constituent
HA - Halogenated - aromatic
HH - Halogenated - hydrocarbon
HM - Heavy metal
HYD - Hydrocarbon
IOC - Other inorganic compound
K - Ketone
M - Metal (density < 5x water density)
NA - Nitrogen - aromatic
NH - Nitrogen - hydrocarbon
OCC - Other organic compound
P - Phenol
PAH - Polyaromatic hydrocarbon
PCB - Polychlorinated biphenyl
PEST - Pesticide
PH - Phthalate
SH - Sulfur - hydrocarbon
SOL - Solvent

LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/ SAS No [illegible] SITE NAME [illegible] LABORATORY [illegible] DATE SHIPPED [illegible]

SUPERFUND DU NUMBER [illegible] EPA RPM or OSC (S M S)/(CES) [illegible] CERCLIS NUMBER [illegible] PAGE 1 OF 1

ACTIVITY NUMBER [illegible]

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17584	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7284	RESIDUE FILTERABLE TDS MG L MIN7382	RESIDUE NON-FILT TSS MG L MIN7372			SEDIMENTS or SOILS: ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215822	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42928				
88FP22549	CMA501	✓	✓	✓																						
88FP22550	CMA502	✓	✓	✓																						
88FP22551	CMA503	✓	✓	✓																						
88FP22552	CMA504	✓	✓	✓																						
88FP22553	CMA505	✓	✓	✓																						
88FP22557	CMA506	✓	✓	✓																						
88FP22552	CMA001	✓	✓	✓																						
		DATA	CC																							

S-CUBED
A Division of Maxwell Laboratories, Inc.

June 8, 1988

Volume 1 of 1

NARRATIVE CASE 9672/SAS 3554E
S-CUBED CONTRACT NO. 68-01-7261

This case consists of seven water samples, analyzed for VOA only under the low detection limit SAS 3554E. The chain-of-custody records received for this case included sample No. EAA 308. However, the sample was not received and is not on the EPA Traffic Report either.

All analyses were straightforward and only minor amounts of HSL compounds were found. There were no problems in the analyses or QC data.

RECEIVED
JUN 10 1988
U.S. EPA CENTRAL
RECORDS

A. Lukiini-Johnson
Acting Project Manager

P.O. Box 1620, La Jolla, California 92038-1620
Telephone: (619) 453-0060
3398 Carmel Mountain Road, San Diego, California 92121-1095
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WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 9672 Contract Laboratory S-CUBED Contract No. 68-01-7261

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLORO-ETHANE-D4 (76-114)	NITRO-BENZENE-D5 (35-114)	2-FLUORO-BIPHENYL (43-116)	TERPHENYL-D14 (33-141)			PHENOL-D5 (10-94)	2-FLUORO-PHENOL (21-100)	2,4,6 TRIBROMO-PHENOL (10-123)	** DIBUTYL-CHLORENDATE (24-154)
EAA301	90	95	110									
EAA302	93	102	112									
EAA303	89	99	104									
EAA303MS	92	92	86									
EAA303MSD	93	98	94		NR					NR		NR
EAA304	90	99	78									
EAA305	92	100	85									
EAA306	89	103	108									
EAA307	107	102	107									
(1) LABBLANK	89	98	112									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 30 ; outside of QC limits

Semi-Volatiles: NR out of NR ; outside of QC limits

Pesticides: NR out of NR ; outside of QC limits

Comments: (1) 524.2031 (PEA)

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 9672 Contractor S-CUBED Contract No. 68-01-7261

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. EAA303	1,1-Dichloroethene	13	0	16	123	13	100	21*	14	61-145
	Trichloroethene	10	5.3	14	87	16	107	13	14	71-120
	Chlorobenzene	4.1	0	4.1	100	4.4	107	7	13	75-130
	Toluene	10	0	10	100	11	110	10	13	76-125
	Benzene	11	0	10	91	11	100	10	11	76-127
B/N SMO SAMPLE NO. NR	1,2,4-Trichlorobenzene								28	39-98
	Acenaphthene								31	46-118
	2,4 Dinitrotoluene								38	24-96
	Pyrene								31	26-127
	N-Nitroso-Di-n-Propylamine			NR					38	41-116
	1,4-Dichlorobenzene								28	36-97
ACID SMO SAMPLE NO. NR	Pentachlorophenol								50	9-103
	Phenol								42	12-89
	2-Chlorophenol								40	27-123
	4-Chloro-3-Methylphenol								42	23-97
	4-Nitrophenol								50	10-80
PEST SMO SAMPLE NO. NR	Lindane								15	56-123
	Heptachlor								20	40-131
	Aldrin			NR					22	40-120
	Dieldrin								18	52-126
	Endrin								21	56-121
	4,4'-DDT								27	38-127

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 1 out of 5 ; outside QC limits
B/N ___ out of ___ ; outside QC limits
ACID NR out of ___ ; outside QC limits
PEST NR out of ___ ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N ___ out of ___ ; outside QC limits
ACID NR out of ___ ; outside QC limits
PEST NR out of ___ ; outside QC limits

Comments:

METHOD BLANK SUMMARY

Case No. 9672 Region 5 Contractor S-CUBED Contract No. 68-01-7261

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
(A) 524V2031	5-24-88	VOA	H_2O	L	V02	67-64-1	Acetone	26	ug/l	75

Comments: (A) Case holding blank and a laboratory blank.

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EAA301

Laboratory Name: E-CUBED
Lab Sample ID No: V2524011 (VOA)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SA53354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	1.5 U
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	AM ~~0.43 J~~ 1U	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	28 J B	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds *where a 1:1 response is assumed or when the mass spectral data* indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated.report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S *Matrix spiked compound.*

Laboratory Name S-CUBED

Case No 91072/3534E

Sample Number
EAA 301

V2524011 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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27.				
28				
29				
30				

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EHH302

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2021 (UCA)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	AM ~~[illegible]~~ 1.5U
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	10	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 91072/3554 E

Sample Number EA4302

M24N2041 CVOA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EAA303

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2011 CUGA/
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	5.3 J
75-00-3	CHLOROETHANE	1.5 U CRA	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	1.1 J	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.2 J	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U HH	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U SOL	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

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Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) *based on necessary concentration/dilution action.(this is* not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data *indicated the presence of a compound* that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J). If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 96724355AF

Sample Number EAA 303

M24V2011 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number:
EAA304

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2031 (CLP)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	0.47 J
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	4.2	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

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Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E Matrix spiked compound.

Laboratory Name S-CUBED

Case No 9472/3554E

Sample Number EAA304

M24V2031 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
3.				
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EHA305

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2041 (CUA)
Sample Matrix: WATER
Data Release Authorized By: Ay

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	1.5 U
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	6.1	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name: S-CUBED

Case No: 9672/3534E

Sample Number: EAA305

M24N2041 CVOA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EAA306

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2051 (WA)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	1.5 U
75-00-3	CHLOROETHANE	1.5 U CLA	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	7.8	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	67 J B	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U CLA	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 9672/3534E

Sample Number EAA 306

M24V2051 LVOA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 75-28-5	Propane, 2-methyl —	VOA	127	4.1 J
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EAA307

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2061 CCA
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	0.66 J
75-00-3	CHLOROETHANE	1.5 U CCA	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	4.1	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

HH
SOL

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 91672/3554F

Sample Number EAA307

M24V2061

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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25				
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ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 6/10 FIT Receipt Date 6/24 Review Completed 6/27

TO: T. Pachowicz
FROM: Zena Gold-Kaufman ZGK
SUBJECT: HOD LNDFl
PAN: 1L0141 ~~QBQ~~ XFQ (1 hour charged for review) Case # 9672/3554E

Sample Description

Organics (VOA, BN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# _____	Low Soil	# _____	Low Soil
_____	Low Water	_____	Low Water
7	Drinking Water	_____	Drinking Water
_____	Other	_____	Other

Project Data Status _____ Completed!!

_____ Incomplete, awaiting _____

FIT Data Review Findings:
See Tom Clyne's review for usability of $MeCl_2$.
Compounds detected in sample EAA 303:
Total-1,2-Dichloroethenes
Trichloroethene - also in EAA 304, EAA 307

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 8 Page No. 92 Date Sampled 5/19/88

0759:2

[illegible] units

A. Organics

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - ug/kg or ppb (parts per billion)

B. Metals

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - mg/kg or ppm (parts per million)

DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscop
	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Metals

NOTE	DEFINITION	INTERPRETATION
NEW		
E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
	DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
	Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	Compound was analyzed for but not detected.	Compound was not detected.
M	Duplicate injection precision not met.	Value may be semi-quantitative.
W	Post digestion spike for furnance AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

Other Symbols Used

Value not available due to insufficient data.
Value not calculated since chemical is not a carcinogen.
Estimated value.

6/24/88
25 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP data
Received for Review on June 10, 1988

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: DATA USER: FIT

We have reviewed the data for the following case(s).

SITE NAME: HOD Landfill SMO case No. 9672SAS3554E

EPA Data Set No. SF5207 No. of Samples: 7 D.U./Activity Numbers Y9051C72122

CRL No. 88FP22S49-SS3,R07,DS2

SMO Traffic No. EAA301-307

CLP Laboratory: S-Cubed Hrs. Required for Review: 2

Following are our findings:

PAN FIL01410BQ

Reviewed by Tom Cipolla 21 June 88 E&E

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

Case 9672/SAS355HE consisted of seven low level water samples for VOAs only with fast turn around analyzed by S-Cubed.

Holding times	Holding times are acceptable.
Surrogates	The surrogate recoveries are acceptable with 0/30 report values.
MS/MSD	No %R were reported out (0/10) while one R% D was out (1/5) and are acceptable.
Laboratory blank	Acetone was reported in the lab blank for 5-24-88 and is acceptable.
Tuning	Initial and continuous tuning met requirements and are accepted.
Laboratory Standards	Several outliers for both tuning and continuous are reported out for RRF ave. and RRF. See Standard outlier form. 2-butonone, vinyl acetate, 2-hexanone, and acrolein have RRF below 0.05 and are qualified R or not analyzed for. There are no reported values for these compounds. The % RSD and % D had no reported outliers. The standard data is acceptable.

User's Summary Form
Case 9672/3554E

Several samples have hits for methylene chloride, total-1,2-dichloroethenes and trichloroethene. Although methylene chloride is normally a laboratory artifact, it was not found in the lab blank. Sample EAA 303 was used for the MS/MSD and the results are:

EAA 303	1.1J µg/L
EAA 303MS	7.1
EAA 303MSD	7.2

If there is site evidence that methylene chloride was deposited at the site, you can use it for a real value. If no known site source exists for it to be present just consider it as a lab artifact (CLA).

1015:1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION BLANKS
VOLATILE HSL COMPOUNDS

CASE/SAS # [illegible] CONTRACTOR [illegible]

F 70.05
%RSD ≤ 40%

Instrument # VG-2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	[illegible]			[illegible]											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	0.002		R	0.002		R									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate	0.009		R	0.007		R									
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone	0.021		R	0.010		R									
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															
ACROLEIN	0.024		R	0.022		R									

AFFECTED SAMPLES: Standards; 10ppb Blank; EAA 301, 302, 303, 304, 305, 306, 307

Reviewer's Initials/Date: [illegible] 20 Jun 88

Matrix Spike EAA [illegible]

* These flags should be applied to the analytes on the sample data sheets.

EAA [illegible]

since analyzed for VOAs only

[illegible] 8/87

Case: _____

Contractor: _____

TENTATIVELY IDENTIFIED COMPOUNDS WATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Reviewer's Initials/Date: Tom Ogra 20 June 89

SI Memo & Category Abbreviations:

A - Aromatic
CLA - Common lab artifact
CSC - Common soil constituent
HA - Halogenated - aromatic
HH - Halogenated - hydrocarbon
HM - Heavy metal
HYD - Hydrocarbon
IOC - Other inorganic compound
K - Ketone
M - Metal (density < 5x water density)
NA - Nitrogen - aromatic
NH - Nitrogen - hydrocarbon
OCC - Other organic compound
P - Phenol
PAH - Polyaromatic hydrocarbon
PCB - Polychlorinated biphenyl
PEST - Pesticide
PH - Phthalate
SH - Sulfur - hydrocarbon
SOL - Solvent

REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER SAS No. [illegible] SITE NAME [illegible] LABORATORY [illegible] DATE SHIPPED [illegible]

SUPERFUND DO NUMBER [illegible] EPA RPM or OSC (S M S I/CES) [illegible] CERCLIS NUMBER [illegible] PAGE 1 OF 1

ACTIVITY NUMBER [illegible]

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS: ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17584	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7382	RESIDUE NONFILT SS MG L MIN7[illegible]			SEDIMENTS or SOILS: ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215832	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42928				
[illegible]	[illegible]	✓	✓	✓																					
[illegible]	[illegible]	✓	✓	✓																					
[illegible]	[illegible]	✓	✓	✓																					
[illegible]	[illegible]	✓	✓	✓																					
[illegible]	[illegible]	✓	✓	✓																					
[illegible]	[illegible]	✓	✓	✓																					
[illegible]	[illegible]	✓	✓	✓																					
[illegible]		DATA	✓	✓																					

S-CUBED
A Division of Maxwell Laboratories, Inc.

June 8, 1988 | Volume 1 of 1

NARRATIVE CASE 9672/SAS 3554E
S-CUBED CONTRACT NO. 68-01-7261

This case consists of seven water samples, analyzed for VOA only under the low detection limit SAS 3554E. The chain-of-custody records received for this case included sample No. EAA 308. However, the sample was not received and is not on the EPA Traffic Report either.

All analyses were straightforward and only minor amounts of HSL compounds were found. There were no problems in the analyses or QC data.

RECEIVED
JUN 16 1988
U.S. EPA

A. Lukiini-Johnson
Acting Project Manager

P.O. Box 1620, La Jolla, California 92038-1620
Telephone: (619) 455-0060
3391 Carmel Mountain Road, San Diego, California 92121-1096
TWX: 910-337-1253
Telecopier: (619) 755-0474

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE No. 9672 Contract Laboratory S-CUBED Contract No. 68-01-7261

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLORO-ETHANE-D4 (76-114)	NITRO-BENZENE-D5 (35-114)	2-FLUORO-BIPHENYL (43-116)	TERPHENYL-D14 (33-141)			PHENOL-D6 (10-94)	2-FLUORO-PHENOL (21-100)	2,4,6 TRIBROMO-PHENOL (10-123)	** DIBUTYL-CHLORENDATE (24-154)
EAA301	90	95	110									
EAA302	93	102	112									
EAA303	89	99	104									
EAA303MS	92	92	86									
EAA303MSD	93	98	94		NR					NR		
EAA304	90	99	78									NR
EAA305	92	100	85									
EAA306	89	103	108									
EAA307	101	102	107									
(1) LABBLANK	89	98	112									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 30 ; outside of QC limits

Semi-Volatiles: NR out of NR ; outside of QC limits

Pesticides: NR out of NR ; outside of QC limits

Comments: (1) 5241'2031 (1'04)

FORM II 7/85

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 9672 Contractor S-CUBED Contract No. 68-01-7261

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. EAA303	1,1-Dichloroethene	13	0	16	123	13	100	21*	14	61-145
	Trichloroethene	10	5.3	14	87	16	107	13	14	71-120
	Chlorobenzene	4.1	0	4.1	100	4.4	107	7	13	75-130
	Toluene	10	0	10	100	11	110	10	13	76-125
	Benzene	11	0	10	91	11	100	10	11	76-127
B/N SMO SAMPLE NO. 1'R	1,2,4-Trichlorobenzene								28	39-98
	Acenaphthene								31	46-118
	2,4 Dinitrotoluene								38	24-96
	Pyrene								31	26-127
	N-Nitroso-Di-n-Propylamine			NR					38	41-116
	1,4-Dichlorobenzene								28	36-97
ACID SMO SAMPLE NO. 1'R	Pentachlorophenol								50	9-103
	Phenol								42	12-89
	2-Chlorophenol								40	27-123
	4-Chloro-3-Methylphenol								42	23-97
	4-Nitrophenol								50	10-80
PEST SMO SAMPLE NO. 1'R	Lindane								15	56-123
	Heptachlor								20	40-131
	Aldrin								22	40-120
	Dieldrin			NR					18	52-126
	Endrin								21	56-121
	4,4'-DDT								27	38-127

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 1 out of 5 : outside QC limits
B/N ___ out of ___ : outside QC limits
ACID 1'R out of Z : outside QC limits
PEST Z out of Z : outside QC limits

RECOVERY: VOAs 0 out of 10 : outside QC limits
B/N ___ out of ___ : outside QC limits
ACID 1'R out of Z : outside QC limits
PEST Z out of Z : outside QC limits

Comments:

METHOD BLANK SUMMARY

Case No. 7672 Region 5 Contractor S-CUBED Contract No. 68-01-7261

	FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (VOL., TIC OR UNKNOWN)	CONC.	UNITS	CRQL
(1)	524V2031	5-24-88	VOA	H_2O	L	V02	67-64-1	Acetone	26	ug/l	75

Comments: (1) Lab holding blank and a laboratory blank.

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number:
EAA301

Laboratory Name: S-CUBED
Lab Sample ID No: V2524011 (VOA)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	1.5 U
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	AM ~~0.13 J~~ U	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	28 J B	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 91072/3534E

Sample Number
EAA 301

V2524011 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
3.				
4.				
5.				
6.				
7.				
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EMM302

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2021 (U09-1)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SA53354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-26-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	AM ~~0.11 J~~ 1.5U
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	10	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E Matrix spiked compound.

Laboratory Name S-CUBED

Case No 91672-/3524 E

Sample Number
EA4 3C2

M24N2041 (VOA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EMM303

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2011 (Vgc)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-26-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	5.3 J
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	1.1 J	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.2 J	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J). If limit of detection is 10 ug/L and a concentratipp of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 9672/5524F

Sample Number EAA 303

M24/2011 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: EAA304

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2031 (OOA)
Sample Matrix: WATER
Data Release Authorized By: AQ

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-26-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	0.47 J
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	4.2	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

CLP

H# 502

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E Matrix spiked compound.

Laboratory Name S-CUBED

Case No 9472135-4E

Sample Number EAA304

M2412031CVOA

Organics Analytic Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample number: SMA305

Laboratory Name: G-CUBED
Lab Sample ID No: M24V2041 (CUA)
Sample Matrix: WATER
Data Release Authorized By: [illegible]

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-24-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	1.5 U
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	6.1	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 9672/3534E

Sample Number EAA305

M24N204 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
3.				
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number:
EMA306

Laboratory Name: S-CUBED
Lab Sample ID No: M24V2051 (WA)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-24-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	1.5 U
75-00-3	CHLOROETHANE	1.5 U CLA	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	7.8	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	67 J B	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U CLA	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value:This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

Laboratory Name S-CUBED

Case No 9672/3534E

Sample Number EAA 306

M24V2051 (VO

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 75-28-5	Propane, 2-methyl-	VOA	127	4.1 J
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number:
EAA307

Laboratory Name: S-CUBED
Lab Sample ID No: M24V206 (CLP)
Sample Matrix: WATER
Data Release Authorized By: AM

Case No: 9672 (SAS3354E)
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 05-20-88

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 05-24-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	10 U	78-87-5	1,2-DICHLOROPROPANE	1.5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	1 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	0.66 J
75-00-3	CHLOROETHANE	1.5 U	124-48-1	DIBROMOCHLOROMETHANE	1.5 U
75-09-2	METHYLENE CHLORIDE	4.1	79-00-5	1,1,2-TRICHLOROETHANE	1.5 U
67-64-1	ACETONE	75 U	71-43-2	BENZENE	1.5 U
75-15-0	CARBON DISULFIDE	3 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2 U
75-35-4	1,1-DICHLOROETHENE	1.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	1.5 U
75-34-3	1,1-DICHLOROETHANE	1.5 U	75-25-2	BROMOFORM	1.5 U
	TOTAL-1,2-DICHLOROETHENE'S	1.5 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	1.5 U	108-10-1	4-METHYL-2-PENTANONE	3 U
107-06-2	1,2-DICHLOROETHANE	1.5 U	127-18-4	TETRACHLOROETHENE	1.5 U
78-93-3	2-BUTANONE	50 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	1.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.5 U	108-88-3	TOLUENE	1.5 U
56-23-5	CARBON TETRACHLORIDE	1.5 U	108-90-7	CHLOROBENZENE	1.5 U
108-05-4	VINYL ACETATE	15 U	100-41-4	ETHYLBENZENE	1.5 U
75-27-4	BROMODICHLOROMETHANE	1.5 U	100-42-5	STYRENE	1 U
107-02-8	ACROLEIN	100 U		M-XYLENE	2 U
107-13-1	ACRYLONITRILE	50 U		O/P-XYLENE	2.5 U

HH
SOL

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged. However, the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (eg. 10U) based on necessary concentration/dilution action. (this is not necessarily the instrument detection limit.) The footnotes should read:-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value: This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J). If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E Matrix spiked compound.

Laboratory Name S-CUBED

Case No 91672/353HF

Sample Number EAA307

M34V2061

Organics Analysis Data Sheet
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Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC'S FOUND	VOA	—	—
2.	ANALYSIS NOT REQUIRED	BNA	—	—
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4.				
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