

**SEMIVOLATILE ORGANICS**

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CONSULTANTS, INC.



JUN 10 1993

RECEIVED

ICF TECHNOLOGY INCORPORATED

JUN 09 1993

MEMORANDUM

TO: Kevin Mayer  
Environmental Engineer  
South Coast Groundwater Section (H-6-4)

THROUGH: Richard Bauer *KPL for RB*  
Environmental Scientist  
Quality Assurance Management Section (P-3-2)

FROM: *CS* Carolyn Studeny  
Senior Organic Data Reviewer  
Environmental Services Assistance Team (ESAT)

DATE: June 8, 1993

SUBJECT: Review of Analytical Data



URS TDMT Only  
Project #: 62251  
Loc: 09.63  
Type: 63  
TDCN: 0281

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE: Newmark-Muscoy  
EPA SSI NO.: CAD981434517  
CERCLIS ID NO.: J5  
CASE/SAS NO.: LV3S39 Memo #04  
SDG NO.: YM972

LABORATORY: Region IX, Las Vegas  
ANALYSIS: RAS Semivolatiles

SAMPLE NO.: 11 Water Samples (see Case Summary)

COLLECTION DATE: April 16, 20, 21, and 22, 1993

REVIEWER: Chris Davis  
ESAT/ICF Technology, Inc.

If there are any questions, please contact Carolyn Studeny at (415) 882-3184.

Attachment

cc: Steve Remaley, TPO USEPA Region IX  
Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)  
Larry Zinky, URS SAC

TPO: [ ]FYI [X]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

## Data Validation Report

Case No.: LV3S39 Memo #04  
Site: Newmark-Muscoy  
Laboratory: Region IX, Las Vegas  
Reviewer: Chris Davis, ESAT/ICF Technology, Inc.  
Date: June 8, 1993

I. Case Summary

## SAMPLE INFORMATION:

BNA Sample Numbers: YM972 through YM982  
Concentration and Matrix: Low Level Water  
Analysis: RAS Semivolatiles  
SOW: 3/90  
Collection Date: April 16, 20, 21, and 22, 1993  
Sample Receipt Date: April 20, 21, 22, and 23, 1993  
Extraction Date: April 20, 22, 23, and 26, 1993  
Analysis Date: April 29 and 30, 1993

## FIELD QC:

Water Blanks (WB): YM978  
Trip Blanks (FB): None  
Field Blanks (FB): None  
Equipment Blanks (EB): None  
Background Samples (BG): None  
Field Duplicates (D1): YM974 and YM975

## METHOD BLANKS AND ASSOCIATED SAMPLES:

WBLK 4/20/93: YM972  
WBLK 4/22/93: YM973 through YM977  
WBLK 4/23/93: YM978 through YM980, YM980MS, and YM980MSD  
WBLK 4/26/93: YM981 and YM982

## TABLES:

1A: Analytical Results with Qualifications  
1B: Data Qualifiers  
1C: Tentatively Identified Compounds  
2: Sample Quantitation Limits of Target Compound List (TCL) Analytes

## TPO ATTENTION:

The quantitation limits for one target analyte were estimated in all samples due to calibration problems.

METHOD NON-COMPLIANCE: See TPO ATTENTION

## ADDITIONAL COMMENTS:

This report was prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

MS - Matrix Spike; MSD - Matrix Spike Duplicate

ESAT-QA-9A-8485/LV3S39M4.RPT

II. Validation Summary

|                           | BNA                |     |
|---------------------------|--------------------|-----|
|                           | Acceptable/Comment |     |
| HOLDING TIMES             | [Y]                | [ ] |
| GC/MS TUNE/GC PERFORMANCE | [Y]                | [ ] |
| CALIBRATIONS              | [N]                | [A] |
| FIELD QC                  | [Y]                | [ ] |
| LABORATORY BLANKS         | [Y]                | [ ] |
| SURROGATES                | [Y]                | [ ] |
| MATRIX SPIKE/DUPLICATES   | [Y]                | [ ] |
| INTERNAL STANDARDS        | [Y]                | [ ] |
| COMPOUND IDENTIFICATION   | [Y]                | [ ] |
| COMPOUND QUANTITATION     | [Y]                | [ ] |
| SYSTEM PERFORMANCE        | [Y]                | [ ] |

N/A - Not Applicable

III. Validity and Comments

- A. Due to low Relative Response Factors (RRF) in the Continuing Calibrations, the quantitation limits for the following analyte are estimated (J) (see Table 2):

- 2,4-Dinitrophenol in all of the samples and method blanks

The determination of the Relative Response Factors evaluates instrument sensitivity and is used in the quantitation of the target analytes.

Relative Response Factors (RRFs) of 0.047 and 0.039 were observed for 2,4-dinitrophenol in the Continuing Calibrations performed April 29, 1993. These values are below the 0.05 QC advisory validation criterion. Since the results for this analyte are nondetected, false negatives may exist.

## ANALYTICAL RESULTS

Page 1 of 1

TABLE 1A\*

Case No.: LV3S39 Memo #04

Site: Newmark-Muscoy

Lab.: Region IX, Las Vegas

Reviewer: Chris Davis, ESAT/ICF Technology, Inc.

Date: June 8, 1993

Analysis Type: Low Level Water Samples  
for RAS Semivolatiles

Concentration in ug/L

| Station Location<br>Sample I.D.<br>Date of Collection | MUNI-105-01<br>YM972<br>4/16/93 |     |     | MUNI-101-01<br>YM973<br>4/20/93 |     |     | MUNI-104-01<br>YM974 D1<br>4/20/93 |     |     | MUNI-104-02<br>YM975 D1<br>4/20/93 |     |     | MUNI-108-01<br>YM976<br>4/20/93 |     |     | MUNI-112-01<br>YM977<br>4/20/93 |     |     | WA01-01<br>YM978 WB<br>4/21/93 |     |     |
|---|---------------------------------|-----|-----|---------------------------------|-----|-----|------------------------------------|-----|-----|------------------------------------|-----|-----|---------------------------------|-----|-----|---------------------------------|-----|-----|--------------------------------|-----|-----|
| Compound  | Result                          | Val | Com | Result                          | Val | Com | Result                             | Val | Com | Result                             | Val | Com | Result                          | Val | Com | Result                          | Val | Com | Result                         | Val | Com |
| No Semivolatiles Detected                             | ND                              |     |     | ND                              |     |     | ND                                 |     |     | ND                                 |     |     | ND                              |     |     | ND                              |     |     | ND                             |     |     |
| Station Location<br>Sample I.D.<br>Date of Collection | MUNI-110-01<br>YM979<br>4/21/93 |     |     | MUNI-111-01<br>YM980<br>4/21/93 |     |     | MUNI-106-01<br>YM981<br>4/22/93    |     |     | MUNI-102-01<br>YM982<br>4/22/93    |     |     | Method Blank<br>WBLK 4/20/93    |     |     | Method Blank<br>WBLK 4/22/93    |     |     | Method Blank<br>WBLK 4/23/93   |     |     |
| Compound  | Result                          | Val | Com | Result                          | Val | Com | Result                             | Val | Com | Result                             | Val | Com | Result                          | Val | Com | Result                          | Val | Com | Result                         | Val | Com |
| No Semivolatiles Detected                             | ND                              |     |     | ND                              |     |     | ND                                 |     |     | ND                                 |     |     | ND                              |     |     | ND                              |     |     | ND                             |     |     |
| Sample I.D.   | Method Blank<br>WBLK 4/26/93    |     |     |                                 |     |     |                                    |     |     |                                    |     |     |                                 |     |     |                                 |     |     |                                |     |     |
| Compound  | Result                          | Val | Com | Result                          | Val | Com | Result                             | Val | Com | Result                             | Val | Com | Result                          | Val | Com | Result                          | Val | Com | Result                         | Val | Com |
| No Semivolatiles Detected                             | ND                              |     |     |                                 |     |     |                                    |     |     |                                    |     |     |                                 |     |     |                                 |     |     |                                |     |     |

\*The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

ND-Not Detected

D1, D2, etc.-Field Duplicate Pairs

WB-Water Blank

BG-Background Sample

TABLE 1B  
DATA QUALIFIERS

The definitions of the following qualifiers are prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

NO QUALIFIERS indicate that the data are acceptable both qualitatively and quantitatively.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 1C  
Detected Tentatively Identified Compounds (TICs)

Case No.: LV3S39 Memo #04  
 Site: Newmark-Muscoy  
 Laboratory: Region IX, Las Vegas  
 Reviewer: Chris Davis  
 ESAT/ICF Technology, Inc.  
 Date: June 8, 1993

| <u>Sample Number</u> | <u>Compound</u>     | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating* (Remarks)</u> |
|----------------------|---------------------|-----------------|-----------------------------|-----------------------------|--------------------------|
| YM972                | Unknown Hydrocarbon | BNA             | 30.70                       | 3 J                         |                          |
| YM973                | Unknown             | BNA             | 29.73                       | 5 J                         |                          |
| YM974                | None Found          | BNA             |                             |                             |                          |
| YM975                | Unknown Hydrocarbon | BNA             | 30.70                       | 3 J                         |                          |
| YM976                | None Found          | BNA             |                             |                             |                          |
| YM977                | None Found          | BNA             |                             |                             |                          |
| YM978                | None Found          | BNA             |                             |                             |                          |
| YM979                | None Found          | BNA             |                             |                             |                          |
| YM980                | None Found          | BNA             |                             |                             |                          |
| YM981                | None Found          | BNA             |                             |                             |                          |
| YM982                | Unknown Hydrocarbon | BNA             | 30.70                       | 4 J                         |                          |

J (estimated): Value may have technical limitations (see Table 1B)

\*Rating codes--probability that identification is correct:

A - High            B - Moderate            C - Low

TABLE 2  
Sample Quantitation Limits

Case No.: LV3S39 Memo #04  
 Site: Newmark-Muscoy  
 Laboratory: Region IX, Las Vegas  
 Reviewer: Chris Davis  
 ESAT/ICF Technology, Inc.  
 Date: June 8, 1993

| <u>Semivolatiles Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|--------------------------------|--------------------|----------|----------|
| Phenol                         | 10                 |          |          |
| bis(2-Chloroethyl)ether        | 10                 |          |          |
| 2-Chlorophenol                 | 10                 |          |          |
| 1,3-Dichlorobenzene            | 10                 |          |          |
| 1,4-Dichlorobenzene            | 10                 |          |          |
| 1,2-Dichlorobenzene            | 10                 |          |          |
| 2-Methylphenol                 | 10                 |          |          |
| 2,2'-oxybis(1-Chloropropane)   | 10                 |          |          |
| 4-Methylphenol                 | 10                 |          |          |
| N-Nitroso-di-N-propylamine     | 10                 |          |          |
| Hexachloroethane               | 10                 |          |          |
| Nitrobenzene                   | 10                 |          |          |
| Isophorone                     | 10                 |          |          |
| 2-Nitrophenol                  | 10                 |          |          |
| 2,4-Dimethylphenol             | 10                 |          |          |
| bis(2-Chloroethoxy)methane     | 10                 |          |          |
| 2,4-Dichlorophenol             | 10                 |          |          |
| 1,2,4-Trichlorobenzene         | 10                 |          |          |
| Naphthalene                    | 10                 |          |          |
| 4-Chloroaniline                | 10                 |          |          |
| Hexachlorobutadiene            | 10                 |          |          |
| 4-Chloro-3-methylphenol        | 10                 |          |          |
| 2-Methylnaphthalene            | 10                 |          |          |
| Hexachlorocyclopentadiene      | 10                 |          |          |
| 2,4,6-Trichlorophenol          | 10                 |          |          |
| 2,4,5-Trichlorophenol          | 25                 |          |          |
| 2-Chloronaphthalene            | 10                 |          |          |
| 2-Nitroaniline                 | 25                 |          |          |
| Dimethylphthalate              | 10                 |          |          |
| Acenaphthylene                 | 10                 |          |          |
| 3-Nitroaniline                 | 25                 |          |          |

Q - Qualifier  
 C - Comment

TABLE 2  
(cont'd)

| <u>Semivolatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|-------------------------------|--------------------|----------|----------|
| Acenaphthene                  | 10                 |          |          |
| 2,4-Dinitrophenol             | 25                 | J        | A        |
| 4-Nitrophenol                 | 25                 |          |          |
| Dibenzofuran                  | 10                 |          |          |
| 2,4-Dinitrotoluene            | 10                 |          |          |
| 2,6-Dinitrotoluene            | 10                 |          |          |
| Diethylphthalate              | 10                 |          |          |
| 4-Chlorophenyl-phenylether    | 10                 |          |          |
| Fluorene                      | 10                 |          |          |
| 4-Nitroaniline                | 25                 |          |          |
| 4,6-Dinitro-2-methylphenol    | 25                 |          |          |
| N-Nitrosodiphenylamine        | 10                 |          |          |
| 4-Bromophenyl-phenylether     | 10                 |          |          |
| Hexachlorobenzene             | 10                 |          |          |
| Pentachlorophenol             | 25                 |          |          |
| Phenanthrene                  | 10                 |          |          |
| Anthracene                    | 10                 |          |          |
| Carbazole                     | 10                 |          |          |
| Di-n-butylphthalate           | 10                 |          |          |
| Fluoranthene                  | 10                 |          |          |
| Pyrene                        | 10                 |          |          |
| Butylbenzylphthalate          | 10                 |          |          |
| 3,3'-Dichlorobenzidine        | 10                 |          |          |
| Benzo(a)anthracene            | 10                 |          |          |
| bis(2-Ethylhexyl)phthalate    | 10                 |          |          |
| Chrysene                      | 10                 |          |          |
| Di-n-octyl phthalate          | 10                 |          |          |
| Benzo(b)fluoranthene          | 10                 |          |          |
| Benzo(k)fluoranthene          | 10                 |          |          |
| Benzo(a)pyrene                | 10                 |          |          |
| Indeno(1,2,3-cd)pyrene        | 10                 |          |          |
| Dibenz(a,h)anthracene         | 10                 |          |          |
| Benzo(g,h,i)perylene          | 10                 |          |          |

Q - Qualifier

C - Comment

TABLE 2  
(cont'd)

To calculate the sample quantitation limits, multiply CRQLs by the following factors:

| <u>Sample No.</u> | <u>Semivolatiles</u> |
|-------------------|----------------------|
| YM972             | 1                    |
| YM973             | 1                    |
| YM974             | 1                    |
| YM975             | 1                    |
| YM976             | 1                    |
| YM977             | 1                    |
| YM978             | 1                    |
| YM979             | 1                    |
| YM980             | 1                    |
| YM981             | 1                    |
| YM982             | 1                    |
| Method Blanks     | 1                    |

TPO: [ ]FYI [X]Attention [ ]Action Region IX  
ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #04 LABORATORY Region IX, Las Vegas

SDG NO. YM972 SITE NAME Newmark-Muscoy

SOW 3/90 REVIEW COMPLETION DATE June 8, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Chris Davis

NO. OF SAMPLES 11 WATER \_\_\_\_\_ SOIL \_\_\_\_\_ OTHER \_\_\_\_\_

|                              | VOA   | BNA      | PEST  | OTHER |
|------------------------------|-------|----------|-------|-------|
| 1. HOLDING TIMES             | _____ | <u>0</u> | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | _____ | <u>0</u> | _____ | _____ |
| 3. INITIAL CALIBRATIONS      | _____ | <u>0</u> | _____ | _____ |
| 4. CONTINUING CALIBRATIONS   | _____ | <u>X</u> | _____ | _____ |
| 5. FIELD QC                  | _____ | <u>0</u> | _____ | _____ |
| 6. LABORATORY BLANKS         | _____ | <u>0</u> | _____ | _____ |
| 7. SURROGATES                | _____ | <u>0</u> | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES   | _____ | <u>0</u> | _____ | _____ |
| 9. REGIONAL QC               | _____ | <u>F</u> | _____ | _____ |
| 10. INTERNAL STANDARDS       | _____ | <u>0</u> | _____ | _____ |
| 11. COMPOUND IDENTIFICATION  | _____ | <u>0</u> | _____ | _____ |
| 12. COMPOUND QUANTITATION    | _____ | <u>0</u> | _____ | _____ |
| 13. SYSTEM PERFORMANCE       | _____ | <u>0</u> | _____ | _____ |
| 14. OVERALL ASSESSMENT       | _____ | <u>X</u> | _____ | _____ |

O - No problems or minor problems that affect data quality.  
X - No more than about 5% of the data points have limitations on data quality.  
Data points are either qualified as estimates or rejected.  
M - More than about 5% of the data points are qualified as estimates.  
Z - More than about 5% of the data points have been rejected.  
F - Not Applicable

TPO ATTENTION: The quantitation limits for one target analyte were estimated in all samples due to calibration problems.

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ICF TECHNOLOGY INCORPORATED  
JHS CONSULTANTS INC.

URS TDMT Only TDCN: 0304  
Project #: 62251 Loc: 09.63 Type: 63

JUN 28 1993  
MEMORANDUM  
RECEIVED

Kevin Mayer  
Environmental Engineer  
South Coast Groundwater Section (H-6-4)

THROUGH: Richard Bauer  
Environmental Scientist  
Quality Assurance Management Section (P-3-2)

FROM: Carolyn Studeny  
Senior Organic Data Reviewer  
Environmental Services Assistance Team (ESAT)

DATE: June 28, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

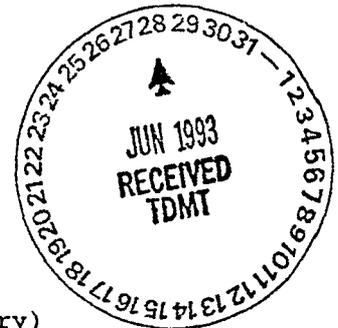
SITE: Newmark-Muscoy  
EPA SSI NO.: J5  
CERCLIS ID NO.: CAD981434517  
CASE/SAS NO.: LV3S39 Memo #08  
SDG NO.: YM983

LABORATORY: Region IX, Las Vegas  
ANALYSIS: RAS Semivolatiles

SAMPLE NO.: 4 Water Samples (see Case Summary)

COLLECTION DATE: May 4 through 6, 1993

REVIEWER: Barbara Gordon  
ESAT/ICF Technology, Inc.



If there are any questions, please contact Carolyn Studeny at (415) 882-3184.

Attachment

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)  
Steve Remaley, TPO USEPA Region IX  
Larry Zinky, URS - SACTO

TPO: [ ]FYI [X]Attention [ ]Action

SAMPLING ISSUES: [ ]Yes [X]No

## Data Validation Report

Case No.: LV3S39 Memo #08  
Site: Newmark-Muscoy  
Laboratory: Region IX, Las Vegas  
Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.  
Date: June 28, 1993

I. Case Summary

## SAMPLE INFORMATION:

BNA Sample Numbers: YM983 through YM986  
Concentration and Matrix: Low Level Water  
Analysis: RAS Semivolatiles  
SOW: 3/90  
Collection Date: May 4 through 6, 1993  
Sample Receipt Date: May 5 through 8, 1993  
Extraction Date: May 6 and 11, 1993  
Analysis Date: May 26, 1993

## FIELD QC:

Trip Blanks (TB): None  
Field Blanks (FB): None  
Equipment Blanks (EB): YM986  
Background Samples (BG): None  
Field Duplicates (D1): None

## METHOD BLANKS AND ASSOCIATED SAMPLES:

WBLK1: YM983  
WBLK2: YM984, YM985, YM985MS, YM985MSD and YM986

## TABLES:

1A: Analytical Results with Qualifications  
1B: Data Qualifiers  
1C: Tentatively Identified Compounds  
2: Sample Quantitation Limits of Target Compound List (TCL) Analytes

## ADDITIONAL COMMENTS:

This report was prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

## METHOD NON-COMPLIANCE:

TPO ATTENTION: Due to equipment blank and laboratory blank contamination, several detected results were reported as nondetected. Due to poor response in the initial and continuing calibrations, the quantitation limit for 2,4-dinitrophenol was estimated in all samples. The gas chromatography/mass spectroscopy (GC/MS) calibration standard, analyzed on May 26, 1993, did not meet the QC requirements specified in the EPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Organics Analysis 01M01.7 (July, 1991).

## SAMPLING ISSUES:

TPO ATTENTION: Due to equipment blank contamination, several results were reported as nondetected.

MS - Matrix Spike; MSD - Matrix Spike Duplicate

II. Validation Summary

|                           | BNA                |     |
|---------------------------|--------------------|-----|
|                           | Acceptable/Comment |     |
| HOLDING TIMES             | [Y]                | [ ] |
| GC/MS TUNE/GC PERFORMANCE | [Y]                | [ ] |
| CALIBRATIONS              | [N]                | [B] |
| FIELD QC                  | [N]                | [A] |
| LABORATORY BLANKS         | [N]                | [A] |
| SURROGATES                | [Y]                | [ ] |
| MATRIX SPIKE/DUPLICATES   | [Y]                | [ ] |
| INTERNAL STANDARDS        | [Y]                | [ ] |
| COMPOUND IDENTIFICATION   | [Y]                | [ ] |
| COMPOUND QUANTITATION     | [Y]                | [ ] |
| SYSTEM PERFORMANCE        | [Y]                | [ ] |

N/A = Not Applicable

III. Validity and Comments

A. Due to laboratory and equipment blank contamination, the results reported in Table 1A for the following analytes are estimated (J):

- Di-n-butylphthalate in sample numbers YM984 and YM985
- bis(2-Ethylhexyl)phthalate in sample numbers YM983, YM984 and YM985
- Di-n-octylphthalate in sample number YM984

A laboratory method blank is laboratory reagent water consisting of all reagents, surrogates and internal standards carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during extraction and analysis.

An equipment blank is reagent water that has been collected as a sample using decontaminated sampling equipment. The intent of an equipment blank is to monitor for contamination introduced by the sampling activity, although any laboratory introduced contamination will also be present.

Although not detected in the laboratory method blanks, di-n-octylphthalate historically has been found as a common laboratory blank contaminant. It is the opinion of the reviewer that the di-n-octylphthalate found in sample number YM984 is an artifact.

Di-n-butylphthalate was found in laboratory and equipment blank at concentrations of 39 ug/L and 76 ug/L, respectively; and bis(2-ethylhexyl)phthalate was found in laboratory and equipment blank at concentrations of 68 ug/L and 21 ug/L, respectively. The results for the samples listed above are considered nondetected and estimated (U,J) and the quantitation limits have been increased according to the blank qualification rules listed below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for the common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result (U,J). If the sample result is less than the CRQL, the result is reported as nondetected (U,J) at the CRQL.

- B. Due to low Relative Response Factors (RRF) in the Initial and Continuing Calibrations, the quantitation limit for the following analyte is estimated (J) (see Table 2):

- 2,4-Dinitrophenol in all samples and method blanks

The determination of the Relative Response Factors evaluates instrument sensitivity and is used in the quantitation of the target analytes.

Average Relative Response Factors (RRFs) of 0.033 and 0.025, below the 0.05 QC advisory validation criteria, were observed for 2,4-dinitrophenol in the Initial Calibration performed May 25, 1993 and the Continuing Calibration performed May 26, 1993, respectively. Since the results for 2,4-dinitrophenol are nondetected, false negatives may exist.

ANALYTICAL RESULTS  
TABLE

Case No.: LV3S39 Memo #08

Site: Newmark-Muscovy

Lab.: Region IX, Las Vegas

Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.

Date: June 28, 1993

Analysis Type: Low Level Water Samples  
for RAS Semivolatiles

Concentration in ug/L

| Station Location<br>Sample I.D.<br>Date of Collection | MUNI-103-01<br>YM983<br>5/04/93 |     |     | MUNI-107-01<br>YM984<br>5/05/93 |     |     | MUNI-109-01<br>YM985<br>5/06/93 |     |     | WEQ109-01<br>YM986 EB<br>5/06/93 |     |     | METHOD BLANK<br>WBLK 5/06/93 |     |     | METHOD BLANK<br>WBLK 5/11/93 |     |     | CRQL   |     |     |
|---|---------------------------------|-----|-----|---------------------------------|-----|-----|---------------------------------|-----|-----|----------------------------------|-----|-----|------------------------------|-----|-----|------------------------------|-----|-----|--------|-----|-----|
|   | Result                          | Val | Com | Result                          | Val | Com | Result                          | Val | Com | Result                           | Val | Com | Result                       | Val | Com | Result                       | Val | Com | Result | Val | Com |
| Di-n-butylphthalate                                   | 10 U                            |     |     | 46 U                            | J   | A   | 52 U                            | J   | A   | 76                               |     |     | 10 U                         |     |     | 39                           |     |     | 10     |     |     |
| bis(2-Ethylhexyl)phthalate                            | 10 U                            | J   | A   | 10 U                            | J   | A   | 10 U                            | J   | A   | 21                               |     |     | 68                           |     |     | 10 U                         |     |     | 10     |     |     |
| Di-n-octylphthalate                                   | 10 U                            |     |     | 10 U                            | J   | A   | 10 U                            |     |     | 10 U                             |     |     | 10 U                         |     |     | 10 U                         |     |     | 10     |     |     |

\*The other requested analytes were analyzed for, but "Not Detected." The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ND-Not Detected

TABLE 1B  
DATA QUALIFIERS

The definitions of the following qualifiers are prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

NO QUALIFIERS indicate that the data are acceptable both qualitatively and quantitatively.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 1C  
Detected Tentatively Identified Compounds (TICs)

Case No.: LV3S39 Memo #08  
Site: Newmark-Muscoy  
Laboratory: Region IX, Las Vegas  
Reviewer: Barbara Gordon  
ESAT/ICF Technology, Inc.  
Date: June 28, 1993

| <u>Sample Number</u> | <u>Compound</u>     | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating* (Remarks)</u> |
|----------------------|---------------------|-----------------|-----------------------------|-----------------------------|--------------------------|
| YM983                | Unknown             | BNA             | 29.85                       | 7                           | J                        |
| YM984                | Unknown             | BNA             | 25.22                       | 9                           | J                        |
|                      | Unknown hydrocarbon | BNA             | 25.83                       | 20                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 26.85                       | 20                          | J                        |
|                      | Unknown             | BNA             | 27.48                       | 20                          | J                        |
|                      | Unknown             | BNA             | 27.67                       | 20                          | J                        |
|                      | Unknown             | BNA             | 27.77                       | 20                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 27.82                       | 10                          | J                        |
|                      | Unknown             | BNA             | 27.93                       | 10                          | J                        |
|                      | Unknown             | BNA             | 29.67                       | 10                          | J                        |
|                      | Unknown             | BNA             | 29.87                       | 30                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 29.95                       | 30                          | J                        |
|                      | Unknown             | BNA             | 31.62                       | 50                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 31.88                       | 20                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 32.18                       | 10                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 35.13                       | 10                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 35.33                       | 40                          | J                        |
|                      | Unknown             | BNA             | 35.43                       | 20                          | J                        |
| YM985                | Unknown hydrocarbon | BNA             | 26.85                       | 20                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 27.18                       | 9                           | J                        |
|                      | Unknown hydrocarbon | BNA             | 27.57                       | 20                          | J                        |
|                      | Unknown             | BNA             | 27.67                       | 9                           | J                        |
|                      | Unknown             | BNA             | 27.77                       | 8                           | J                        |
|                      | Unknown hydrocarbon | BNA             | 27.83                       | 8                           | J                        |
|                      | Unknown hydrocarbon | BNA             | 28.75                       | 40                          | J                        |
|                      | Unknown             | BNA             | 28.87                       | 10                          | J                        |
|                      | Unknown             | BNA             | 29.02                       | 20                          | J                        |
|                      | Unknown hydrocarbon | BNA             | 29.10                       | 30                          | J                        |
|                      | Unknown             | BNA             | 29.45                       | 30                          | J                        |
|                      | Unknown             | BNA             | 29.55                       | 30                          | J                        |

J (estimated): Value may have technical limitations (see Table 1B)

\*Rating codes--probability that identification is correct:

A = High                      B = Moderate                      C = Low

TABLE 1C  
(continued)

| <u>Sample Number</u> | <u>Compound</u>     | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating<sup>a</sup> (Remarks)</u> |
|----------------------|---------------------|-----------------|-----------------------------|-----------------------------|-------------------------------------|
|                      | Unknown             | BNA             | 29.68                       | 30                          | J                                   |
|                      | Unknown hydrocarbon | BNA             | 30.53                       | 9                           | J                                   |
|                      | Unknown hydrocarbon | BNA             | 30.87                       | 9                           | J                                   |
|                      | Unknown hydrocarbon | BNA             | 31.87                       | 10                          | J                                   |
|                      | Unknown hydrocarbon | BNA             | 35.13                       | 9                           | J                                   |
|                      | Unknown             | BNA             | 39.05                       | 7                           | J                                   |
| YM986                | Unknown             | BNA             | 24.83                       | 8                           | J                                   |
|                      | Unknown             | BNA             | 25.50                       | 5                           | J                                   |
|                      | Unknown hydrocarbon | BNA             | 25.83                       | 10                          | J                                   |
|                      | Unknown hydrocarbon | BNA             | 26.85                       | 6                           | J                                   |

---

J (estimated): Value may have technical limitations (see Table 1B)

<sup>a</sup>Rating codes--probability that identification is correct:

A = High            B = Moderate            C = Low

TABLE 2  
Sample Quantitation Limits

Case No.: LV3S39 Memo #08  
 Site: Newmark-Muscoy  
 Laboratory: Region IX, Las Vegas  
 Reviewer: Barbara Gordon  
           ESAT/ICF Technology, Inc.  
 Date: June 28, 1993

| <u>Semivolatile Compounds</u> | <u>Units. ug/L</u> | <u>Q</u> | <u>C</u> |
|-------------------------------|--------------------|----------|----------|
| Phenol                        | 10                 |          |          |
| bis(2-Chloroethyl)ether       | 10                 |          |          |
| 2-Chlorophenol                | 10                 |          |          |
| 1,3-Dichlorobenzene           | 10                 |          |          |
| 1,4-Dichlorobenzene           | 10                 |          |          |
| 1,2-Dichlorobenzene           | 10                 |          |          |
| 2-Methylphenol                | 10                 |          |          |
| 2,2'-oxybis(1-Chloropropane)  | 10                 |          |          |
| 4-Methylphenol                | 10                 |          |          |
| N-Nitroso-di-N-propylamine    | 10                 |          |          |
| Hexachloroethane              | 10                 |          |          |
| Nitrobenzene                  | 10                 |          |          |
| Isophorone                    | 10                 |          |          |
| 2-Nitrophenol                 | 10                 |          |          |
| 2,4-Dimethylphenol            | 10                 |          |          |
| bis(2-Chloroethoxy)methane    | 10                 |          |          |
| 2,4-Dichlorophenol            | 10                 |          |          |
| 1,2,4-Trichlorobenzene        | 10                 |          |          |
| Naphthalene                   | 10                 |          |          |
| 4-Chloroaniline               | 10                 |          |          |
| Hexachlorobutadiene           | 10                 |          |          |
| 4-Chloro-3-methylphenol       | 10                 |          |          |
| 2-Methylnaphthalene           | 10                 |          |          |
| Hexachlorocyclopentadiene     | 10                 |          |          |
| 2,4,6-Trichlorophenol         | 10                 |          |          |
| 2,4,5-Trichlorophenol         | 25                 |          |          |
| 2-Chloronaphthalene           | 10                 |          |          |
| 2-Nitroaniline                | 25                 |          |          |
| Dimethylphthalate             | 10                 |          |          |
| Acenaphthylene                | 10                 |          |          |
| 3-Nitroaniline                | 25                 |          |          |

Q - Qualifier

C - Comment

TABLE 2  
(cont'd)

| <u>Semivolatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|-------------------------------|--------------------|----------|----------|
| Acenaphthene                  | 10                 |          |          |
| 2,4-Dinitrophenol             | 25                 | J        | B        |
| 4-Nitrophenol                 | 25                 |          |          |
| Dibenzofuran                  | 10                 |          |          |
| 2,4-Dinitrotoluene            | 10                 |          |          |
| 2,6-Dinitrotoluene            | 10                 |          |          |
| Diethylphthalate              | 10                 |          |          |
| 4-Chlorophenyl-phenylether    | 10                 |          |          |
| Fluorene                      | 10                 |          |          |
| 4-Nitroaniline                | 25                 |          |          |
| 4,6-Dinitro-2-methylphenol    | 25                 |          |          |
| N-Nitrosodiphenylamine        | 10                 |          |          |
| 4-Bromophenyl-phenylether     | 10                 |          |          |
| Hexachlorobenzene             | 10                 |          |          |
| Pentachlorophenol             | 25                 |          |          |
| Phenanthrene                  | 10                 |          |          |
| Anthracene                    | 10                 |          |          |
| Carbazole                     | 10                 |          |          |
| Di-n-butylphthalate           | 10                 |          |          |
| Fluoranthene                  | 10                 |          |          |
| Pyrene                        | 10                 |          |          |
| Butylbenzylphthalate          | 10                 |          |          |
| 3,3'-Dichlorobenzidine        | 10                 |          |          |
| Benzo(a)anthracene            | 10                 |          |          |
| bis(2-Ethylhexyl)phthalate    | 10                 |          |          |
| Chrysene                      | 10                 |          |          |
| Di-n-octyl phthalate          | 10                 |          |          |
| Benzo(b)fluoranthene          | 10                 |          |          |
| Benzo(k)fluoranthene          | 10                 |          |          |
| Benzo(a)pyrene                | 10                 |          |          |
| Indeno(1,2,3-cd)pyrene        | 10                 |          |          |
| Dibenz(a,h)anthracene         | 10                 |          |          |
| Benzo(g,h,i)perylene          | 10                 |          |          |

Q - Qualifier

C - Comment

TABLE 2  
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Semivolatiles</u> |
|-------------------|----------------------|
| YM983             | 1.00                 |
| YM984             | 1.00                 |
| YM985             | 1.00                 |
| YM986             | 1.00                 |
| Method Blanks     | 1.00                 |

TPO: [ ]FYI [X]Attention [ ]Action

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #08 LABORATORY Region IX, Las Vegas

SDG NO. YM983 SITE NAME Newmark-Muscoy

SOW 3/90 REVIEW COMPLETION DATE June 28, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Barbara Gordon

NO. OF SAMPLES 4 WATER \_\_\_\_\_ SOIL \_\_\_\_\_ OTHER \_\_\_\_\_

|                              | VOA   | BNA      | PEST  | OTHER |
|------------------------------|-------|----------|-------|-------|
| 1. HOLDING TIMES             | _____ | <u>0</u> | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | _____ | <u>0</u> | _____ | _____ |
| 3. INITIAL CALIBRATIONS      | _____ | <u>X</u> | _____ | _____ |
| 4. CONTINUING CALIBRATIONS   | _____ | <u>X</u> | _____ | _____ |
| 5. FIELD QC                  | _____ | <u>X</u> | _____ | _____ |
| 6. LABORATORY BLANKS         | _____ | <u>X</u> | _____ | _____ |
| 7. SURROGATES                | _____ | <u>0</u> | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES   | _____ | <u>0</u> | _____ | _____ |
| 9. REGIONAL QC               | _____ | <u>F</u> | _____ | _____ |
| 10. INTERNAL STANDARDS       | _____ | <u>0</u> | _____ | _____ |
| 11. COMPOUND IDENTIFICATION  | _____ | <u>0</u> | _____ | _____ |
| 12. COMPOUND QUANTITATION    | _____ | <u>0</u> | _____ | _____ |
| 13. SYSTEM PERFORMANCE       | _____ | <u>0</u> | _____ | _____ |
| 14. OVERALL ASSESSMENT       | _____ | <u>X</u> | _____ | _____ |

- O - No problems or minor problems that affect data quality.
- X - No more than about 5% of the data points have limitations on data quality. Data points are either qualified as estimates or rejected.
- M - More than about 5% of the data points are qualified as estimates.
- Z - More than about 5% of the data points have been rejected.
- F - Not Applicable

TPO: [ ]FYI [X]Attention [ ]Action

Region IX

ORGANIC REGIONAL DATA ASSESSMENT (Contd.)

Case No. LV3S39 Memo #08 LABORATORY Region IX, Las Vegas

SDG NO. YM983 SITE NAME Newmark-Muscoy

SOW 3/90 REVIEW COMPLETION DATE June 28, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Barbara Gordon

NO. OF SAMPLES 4 WATER \_\_\_\_\_ SOIL \_\_\_\_\_ OTHER \_\_\_\_\_

TPO ATTENTION: Due to equipment blank and laboratory blank contamination, several detected results were reported as nondetected. Due to poor response in the initial and continuing calibrations, the quantitation limit for 2,4-dinitrophenol was estimated in all samples. The gas chromatography/mass spectroscopy (GC/MS) calibration standard, analyzed on May 26, 1993, did not meet the QC requirements specified in the EPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Organics Analysis O1M01.7 (July, 1991).

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ICF TECHNOLOGY INCORPORATED

URS TDMT Only TDCN: 0317  
Project #: 62251 Loc: 09.63 Type: 63

MEMORANDUM

TO: Kevin Mayer  
Environmental Engineer  
South Coast Groundwater Section (H-6-4)

THROUGH: Richard Bauer  
Environmental Scientist  
Quality Assurance Management Section (P-3-2)

FROM: Carolyn Studeny  
Senior Organic Data Reviewer  
Environmental Services Assistance Team (ESAT)

DATE: July 9, 1993

SUBJECT: Review of Analytical Data

Attached are comments resulting from ESAT Region IX review of the following analytical data:

SITE: Newmark-Muscoy  
EPA SSI NO.: J5  
CERCLIS ID NO.: CAD981434517  
CASE/SAS NO.: LV3S39 Memo #11  
SDG NO.: YM987

LABORATORY: Region IX, Las Vegas  
ANALYSIS: RAS Semivolatiles

SAMPLE NO.: 4 Water Samples (see Case Summary)

COLLECTION DATE: May 24 and 25, 1993

REVIEWER: Barbara Gordon  
ESAT/ICF Technology, Inc.

If there are any questions, please contact Carolyn Studeny at (415) 882-3184.

Attachment

cc: Brenda Bettencourt, Chief, Laboratory Support Section (P-3-1)  
Steve Remaley, TPO USEPA Region IX  
Larry Zinky, URS - SACTO

TPO: [ ]FYI [X]Attention [ ]Action

SAMPLING ISSUES: [X]Yes [ ]No

## Data Validation Report

Case No.: LV3S39 Memo #11  
Site: Newmark-Muscoy  
Laboratory: Region IX, Las Vegas  
Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.  
Date: July 9, 1993

I. Case Summary

## SAMPLE INFORMATION:

BNA Sample Numbers: YM987, YM989, YM990 and YM992  
Concentration and Matrix: Low Level Water  
Analysis: RAS Semivolatiles  
SOW: 3/90  
Collection Date: May 24 and 25, 1993  
Sample Receipt Date: May 25 and 26, 1993  
Extraction Date: May 26 and 27, 1993  
Analysis Date: June 3, 1993

## FIELD QC:

Trip Blanks (TB): None  
Field Blanks (FB): None  
Equipment Blanks (EB): None  
Background Samples (BG): None  
Field Duplicates (D1): YM989 and YM990

## METHOD BLANKS AND ASSOCIATED SAMPLES:

WBLK1: YM987, YM992, YM992MS and YM992MSD  
WBLK2: YM989 and YM990

## TABLES:

1A: Analytical Results with Qualifications  
1B: Data Qualifiers  
1C: Tentatively Identified Compounds  
2: Sample Quantitation Limits of Target Compound List (TCL) Analytes

## METHOD NON-COMPLIANCE:

TPO ATTENTION: Due to poor response in the initial and continuing calibrations, the quantitation limit for 2,4-dinitrophenol was estimated in all samples. Due to laboratory blank contamination, several detected results were reported as nondetected.

## ADDITIONAL COMMENTS:

This report was prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

MS - Matrix Spike; MSD - Matrix Spike Duplicate

ESAT-QA-9A-8650/LV3S3911.RPT

II. Validation Summary

|                           | BNA                |     |
|---------------------------|--------------------|-----|
|                           | Acceptable/Comment |     |
| HOLDING TIMES             | [Y]                | [ ] |
| GC/MS TUNE/GC PERFORMANCE | [Y]                | [ ] |
| CALIBRATIONS              | [Y]                | [B] |
| FIELD QC                  | [Y]                | [ ] |
| LABORATORY BLANKS         | [N]                | [A] |
| SURROGATES                | [Y]                | [ ] |
| MATRIX SPIKE/DUPLICATES   | [Y]                | [ ] |
| INTERNAL STANDARDS        | [Y]                | [ ] |
| COMPOUND IDENTIFICATION   | [Y]                | [ ] |
| COMPOUND QUANTITATION     | [Y]                | [ ] |
| SYSTEM PERFORMANCE        | [Y]                | [ ] |

N/A - Not Applicable

III. Validity and Comments

A. Due to laboratory blank contamination, the results reported in Table 1A for the following analytes are estimated (J):

- Dimethylphthalate and di-n-butylphthalate in all samples
- bis(2-Ethylhexyl)phthalate in sample numbers YM987, YM989 and YM990

A laboratory method blank is laboratory reagent water consisting of all reagents, surrogates and internal standards carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during extraction and analysis.

Although not detected in the laboratory method blanks, dimethylphthalate and bis(2-ethylhexyl)phthalate historically have been found as a common laboratory blank contaminants. It is the opinion of the reviewer that the dimethylphthalate and bis(2-ethylhexyl)phthalate found in the samples listed above are artifacts.

Di-n-butylphthalate was found in laboratory blanks WBLK1 and WBLK2 at concentrations of 11 ug/L and 76 ug/L, respectively. The results for the samples listed above are considered nondetected and estimated (U,J) and the quantitation limits have been increased according to the blank qualification rules listed below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for the common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result (U,J). If the sample result is less than the CRQL, the result is reported as nondetected (U,J) at the CRQL.

B. Due to low Relative Response Factors (RRF) in the Initial and Continuing Calibrations, the quantitation limit for the following analyte is estimated (J) (see Table 2):

- 2,4-Dinitrophenol in all samples and method blanks

The determination of the Relative Response Factors evaluates instrument sensitivity and the RRF is used in the quantitation of the target analytes.

Average RRFs of 0.033 and 0.032, below the 0.05 QC advisory validation criteria, were observed for 2,4-dinitrophenol in the Initial Calibration performed June 2, 1993 and in the Continuing Calibration performed June 3, 1993, respectively. Since the results for 2,4-dinitrophenol are nondetected, false negatives may exist.

ANALYTICAL RESULTS  
TABLE 1A\*

Case No.: LV3S39 Memo #11  
Site: Newmark-Muscoy  
Lab.: Region 9, Las Vegas  
Reviewer: Barbara Gordon, ESAT/ICF Technology, Inc.  
Date: July 9, 1993

Analysis Type: Low Level Water Samples  
for RAS Semivolatiles

Concentration in ug/L

| Station Location           | WMW-113-01 |     |     | WMW-114-01 |     |     | WMW-114-02 |     |     | WMW-115-01 |     |     | Method Blank |     |     | Method Blank |     |     | CRQL   |     |     |
|----------------------------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------|-----|-----|
| Sample I.D.                | YM987      |     |     | YM989 D1   |     |     | YM990 D1   |     |     | YM992      |     |     | WBLK1        |     |     | WBLK2        |     |     |        |     |     |
| Date of Collection         | 05/24/93   |     |     | 05/25/93   |     |     | 05/25/93   |     |     | 05/24/93   |     |     |              |     |     |              |     |     |        |     |     |
| Compound                   | Result     | Val | Com | Result       | Val | Com | Result       | Val | Com | Result | Val | Com |
| Dimethylphthalate          | 67 U       | J   | A   | 61 U       | J   | A   | 60 U       | J   | A   | 77 U       | J   | A   | 10 U         |     |     | 10 U         |     |     | 10     |     |     |
| Di-n-butylphthalate        | 73 U       | J   | A   | 59 U       | J   | A   | 10 U       | J   | A   | 72 U       | J   | A   | 11           |     |     | 76           |     |     | 10     |     |     |
| bis(2-Ethylhexyl)phthalate | 25 U       | J   | A   | 38 U       | J   | A   | 19 U       | J   | A   | 10 U       |     |     | 10 U         |     |     | 10 U         |     |     | 10     |     |     |

\*The other requested analytes were analyzed for, but "Not Detected." The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B

Com-Comments Refer to the Corresponding Section in the Narrative for each letter.

CRQL-Contract Required Quantitation Limits

NA-Not Analyzed

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B  
DATA QUALIFIERS

The definitions of the following qualifiers are prepared according to the EPA draft document, "National Functional Guidelines for Organic Data Review," December, 1990 (6/91 Revision).

NO QUALIFIERS indicate that the data are acceptable both qualitatively and quantitatively.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 1C  
Detected Tentatively Identified Compounds (TICs)

Case No.: LV3S39 Memo #11  
 Site: Newmark-Muscoy  
 Laboratory: Region IX, Las Vegas  
 Reviewer: Barbara Gordon  
 ESAT/ICF Technology, Inc.  
 Date: July 9, 1993

| <u>Sample Number</u> | <u>Compound</u>      | <u>Fraction</u> | <u>Retention Time, min.</u> | <u>Concentration (ug/L)</u> | <u>Rating<sup>a</sup> (Remarks)</u> |
|----------------------|----------------------|-----------------|-----------------------------|-----------------------------|-------------------------------------|
| YM987                | None found           | BNA             |                             |                             |                                     |
| YM989                | Ethylhexanol         | BNA             | 12.20                       | 30 J                        | B                                   |
|                      | Phenylethanone       | BNA             | 13.05                       | 7 J                         | B                                   |
|                      | Dehydroacetic acid   | BNA             | 18.00                       | 20 J                        | C                                   |
| YM990                | Methylethenylbenzene | BNA             | 11.37                       | 20 J                        | B                                   |
|                      | Ethylhexanol         | BNA             | 12.20                       | 30 J                        | B                                   |
|                      | Phenylethanone       | BNA             | 13.03                       | 7 J                         | B                                   |
|                      | Dehydroacetic acid   | BNA             | 18.00                       | 10 J                        | C                                   |
| YM992                | None found           | BNA             |                             |                             |                                     |

J (estimated): Value may have technical limitations (see Table 1B)

<sup>a</sup>Rating codes--probability that identification is correct:

A - High      B - Moderate      C - Low

TABLE 2  
Sample Quantitation Limits

Case No.: LV3S39 Memo #11  
 Site: Newmark-Muscoy  
 Laboratory: Region IX, Las Vegas  
 Reviewer: Barbara Gordon  
 ESAT/ICF Technology, Inc.  
 Date: July 9, 1993

| <u>Semivolatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|-------------------------------|--------------------|----------|----------|
| Phenol                        | 10                 |          |          |
| bis(2-Chloroethyl)ether       | 10                 |          |          |
| 2-Chlorophenol                | 10                 |          |          |
| 1,3-Dichlorobenzene           | 10                 |          |          |
| 1,4-Dichlorobenzene           | 10                 |          |          |
| 1,2-Dichlorobenzene           | 10                 |          |          |
| 2-Methylphenol                | 10                 |          |          |
| 2,2'-oxybis(1-Chloropropane)  | 10                 |          |          |
| 4-Methylphenol                | 10                 |          |          |
| N-Nitroso-di-N-propylamine    | 10                 |          |          |
| Hexachloroethane              | 10                 |          |          |
| Nitrobenzene                  | 10                 |          |          |
| Isophorone                    | 10                 |          |          |
| 2-Nitrophenol                 | 10                 |          |          |
| 2,4-Dimethylphenol            | 10                 |          |          |
| bis(2-Chloroethoxy)methane    | 10                 |          |          |
| 2,4-Dichlorophenol            | 10                 |          |          |
| 1,2,4-Trichlorobenzene        | 10                 |          |          |
| Naphthalene                   | 10                 |          |          |
| 4-Chloroaniline               | 10                 |          |          |
| Hexachlorobutadiene           | 10                 |          |          |
| 4-Chloro-3-methylphenol       | 10                 |          |          |
| 2-Methylnaphthalene           | 10                 |          |          |
| Hexachlorocyclopentadiene     | 10                 |          |          |
| 2,4,6-Trichlorophenol         | 10                 |          |          |
| 2,4,5-Trichlorophenol         | 25                 |          |          |
| 2-Chloronaphthalene           | 10                 |          |          |
| 2-Nitroaniline                | 25                 |          |          |
| Dimethylphthalate             | 10                 |          |          |
| Acenaphthylene                | 10                 |          |          |
| 3-Nitroaniline                | 25                 |          |          |

Q - Qualifier

C - Comment

TABLE 2  
(cont'd)

| <u>Semivolatile Compounds</u> | <u>Units, ug/L</u> | <u>Q</u> | <u>C</u> |
|-------------------------------|--------------------|----------|----------|
| Acenaphthene                  | 10                 |          |          |
| 2,4-Dinitrophenol             | 25                 | J        | B        |
| 4-Nitrophenol                 | 25                 |          |          |
| Dibenzofuran                  | 10                 |          |          |
| 2,4-Dinitrotoluene            | 10                 |          |          |
| 2,6-Dinitrotoluene            | 10                 |          |          |
| Diethylphthalate              | 10                 |          |          |
| 4-Chlorophenyl-phenylether    | 10                 |          |          |
| Fluorene                      | 10                 |          |          |
| 4-Nitroaniline                | 25                 |          |          |
| 4,6-Dinitro-2-methylphenol    | 25                 |          |          |
| N-Nitrosodiphenylamine        | 10                 |          |          |
| 4-Bromophenyl-phenylether     | 10                 |          |          |
| Hexachlorobenzene             | 10                 |          |          |
| Pentachlorophenol             | 25                 |          |          |
| Phenanthrene                  | 10                 |          |          |
| Anthracene                    | 10                 |          |          |
| Carbazole                     | 10                 |          |          |
| Di-n-butylphthalate           | 10                 |          |          |
| Fluoranthene                  | 10                 |          |          |
| Pyrene                        | 10                 |          |          |
| Butylbenzylphthalate          | 10                 |          |          |
| 3,3'-Dichlorobenzidine        | 10                 |          |          |
| Benzo(a)anthracene            | 10                 |          |          |
| bis(2-Ethylhexyl)phthalate    | 10                 |          |          |
| Chrysene                      | 10                 |          |          |
| Di-n-octyl phthalate          | 10                 |          |          |
| Benzo(b)fluoranthene          | 10                 |          |          |
| Benzo(k)fluoranthene          | 10                 |          |          |
| Benzo(a)pyrene                | 10                 |          |          |
| Indeno(1,2,3-cd)pyrene        | 10                 |          |          |
| Dibenz(a,h)anthracene         | 10                 |          |          |
| Benzo(g,h,i)perylene          | 10                 |          |          |

Q - Qualifier

C - Comment

TABLE 2  
(cont'd)

To calculate the sample quantitation limits, multiply CRQL by the following factors:

| <u>Sample No.</u> | <u>Semivolatiles</u> |
|-------------------|----------------------|
| YM987             | 1.00                 |
| YM989             | 1.00                 |
| YM990             | 1.00                 |
| YM992             | 1.00                 |
| Method Blanks     | 1.00                 |

TPO: [ ]FYI [X]Attention [ ]Action

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #11 LABORATORY Region IX, Las Vegas

SDG NO. YM987 SITE NAME Newmark-Muscoy

SOW 3/90 REVIEW COMPLETION DATE July 9, 1993

REVIEWER [ ] ESD [X] ESAT REVIEWER'S NAME Barbara Gordon

NO. OF SAMPLES 4 WATER \_\_\_\_\_ SOIL \_\_\_\_\_ OTHER \_\_\_\_\_

|                              | VOA   | BNA      | PEST  | OTHER |
|------------------------------|-------|----------|-------|-------|
| 1. HOLDING TIMES             | _____ | <u>0</u> | _____ | _____ |
| 2. GC-MS TUNE/GC PERFORMANCE | _____ | <u>0</u> | _____ | _____ |
| 3. INITIAL CALIBRATIONS      | _____ | <u>X</u> | _____ | _____ |
| 4. CONTINUING CALIBRATIONS   | _____ | <u>X</u> | _____ | _____ |
| 5. FIELD QC                  | _____ | <u>0</u> | _____ | _____ |
| 6. LABORATORY BLANKS         | _____ | <u>X</u> | _____ | _____ |
| 7. SURROGATES                | _____ | <u>0</u> | _____ | _____ |
| 8. MATRIX SPIKE/DUPLICATES   | _____ | <u>0</u> | _____ | _____ |
| 9. REGIONAL QC               | _____ | <u>F</u> | _____ | _____ |
| 10. INTERNAL STANDARDS       | _____ | <u>0</u> | _____ | _____ |
| 11. COMPOUND IDENTIFICATION  | _____ | <u>0</u> | _____ | _____ |
| 12. COMPOUND QUANTITATION    | _____ | <u>0</u> | _____ | _____ |
| 13. SYSTEM PERFORMANCE       | _____ | <u>0</u> | _____ | _____ |
| 14. OVERALL ASSESSMENT       | _____ | <u>X</u> | _____ | _____ |

O - No problems or minor problems that affect data quality.  
X - No more than about 5% of the data points have limitations on data quality.  
Data points are either qualified as estimates or rejected.  
M - More than about 5% of the data points are qualified as estimates.  
Z - More than about 5% of the data points have been rejected.  
F - Not Applicable

TPO: [ ]FYI [X]Attention [ ]Action

Region IX

ORGANIC REGIONAL DATA ASSESSMENT

Case No. LV3S39 Memo #11 LABORATORY Region IX, Las Vegas  
SDG NO. YM987 SITE NAME Newmark-Muscoy  
SOW 3/90 REVIEW COMPLETION DATE July 9, 1993  
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NO. OF SAMPLES 4 WATER \_\_\_\_\_ SOIL \_\_\_\_\_ OTHER \_\_\_\_\_

TPO ATTENTION: Due to poor response in the initial and continuing calibrations, the quantitation limit for 2,4-dinitrophenol was estimated in all samples. Due to laboratory blank contamination, several detected results were reported as nondetected.