

1. Technical Holding Times

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

Sample	Analyte	Total Days From Sample Collection Until Analysis	Required Holding Time (in Days) From Sample Collection Until Analysis	Flag	A or P
	Total dissolved solids	13	7		A

Ej I

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met,

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Not applicable to these methods.

b. Matrix Spike/(Matrix Spike) Duplicates

Duplicate sample analyses were reviewed for each matrix as applicable. The relative percent differences (RPD) were within OC limits. Matrix spike analyses are not applicable to this method.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries were within QC limits.

V. Sample Result Verification

Raw data were not reviewed for this SDG

V1. Overall Assessment of Data

Data flags are summarized at the end of this report.

VII. Field Duplicates

Samples 097GO5265 and 097DO1265 and samples 097G10865 and 097DO1765 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

	Concentration (mg/L)		
Ana"	097GO6265	097DO1265	RPD
Total dissolved solids	8730	8410	4

	Concentration (mg/L)		
Ana"	097GIO665	097DO1765	RPD
Total dissolved solids	7840	7860	0.3

VIII. Field Blanks

Sample 097RO5465 was identified as a rinsate. No contaminant concentrations were found in this blank.

Samples 097BOO865 and 097BOO965 were identified as source blanks. No contaminant concentrations were found in these blanks with the following exceptions:

Source Blank ID	Analyte	Concentration (mg/L)
097BOO965	Total dissolved solids	770
1804K6.BC3		4

Salton Sea Test Base, CTO 097
Wet Chemistry - Data Qualification Summary - SDG K9601039

FSDG	Sample	Ana"	Flag	A or P	Reason
K9 601039	097RO5465	Total dissolved solids			Technical holding times
rKS 60	1				

Salton Sea Test Base, CTO 097
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG K9601039

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097
Data Validation Reports
LDC# 1804

TPH as Gasoline

LDC Report# 1804A7

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 6, 1996
LDC Report Date: April 8, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Laboratory: Colum a na yt ca
amp e ry p K9600753**

Sample Identification
097BOO643

** Indicates SDG underwent NEESA Level D review

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

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

Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

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

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix-as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CROLS

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097BOO643 was identified as a source blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG K9600753**

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG K9600753**

No Sample Data Qualified in this SDG

LD

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 7, 1996
LDC Report Date: April 9, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600765

Sample Identification
097BOO42

1 MXB7.BC3

1

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.

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

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r) was greater than or equal to 0.990

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix-as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

Vii. **System Performance**

Raw data were not reviewed for this SDG.

Viii. **Overall Assessment of Data**

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

IX **Field Duplicates**

No field duplicates were identified in this SDG.

X. **Field Blanks**

Sample 097BOO42 was identified as a rinsate. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
K9600765

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG K9600765

No Sample Data Qualified in this SDG

LDC Report# 1804F7

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 14, 1996

LDC Report Date: April 9, 1996

Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600898

Sample Identification

097TO3142
097RO5542
097GO5541
097GO6743
097G10242
097DO1441
097G10143
097G10343
097G1 0342MS
097G10342MSD

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix -as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

Vii. System Performance

Raw data were not reviewed for this SDG.

Viii. Overall Assessment of Data

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

. IX Field Duplicates

Samples 097G10242 and 097DO1441 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

X. Field Blanks

Sample 097TO3142 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Sample 097RO5542 was identified as a rinsate. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
K9600898

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG K9600898

No Sample Data Qualified in this SDG

LDC

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 16, 1996
LDC Report Date: April 9, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600923**

Sample Identification

097TO3343
097GO9042
097GO9241
097DO1542
097RO9142
097GO9143
097GO9341
097GO9443

** Indicates SDG underwent NEESA Level D review.

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

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

Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

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

1. Technical Holding Times

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

Sample	Required Holding Time		Flog	AorP
	Total Days From Sample Collection Until Analysis	(in Days) From Sample Collection Until Analysis		
097GO91 43	13	7	j	p
097GO9341	13	7		P

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r) was greater than or equal to 0.990 .

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample's were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent

recoveries were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs,

All compound quantitation and CRQLs were within validation criteria.

VIII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

Samples 097GO9241 and 097DO1542 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

X. Field Blanks

Sample 097T03343 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Sample 097RO9142 was identified as a rinsate. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG K9600923**

SDG	Sample	Compound	Flag	A or P	Reason
K9600923	097GO9143	TPH s			Technical holding times
~F	097GO9341	gasoline TPH as			

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG K9600923**

No Sample Data Qualified in this SDG

LDC Report# 18041-17

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 15, 1996

LDC Report Date: April 9, 1996

Matrix: Water

Parameters: Total Petroleum Hydrocarbon's as Gasoline

Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600927

Sample Identification

097GO8843 097TO3242 097GO8943 097G10043 097R10043 097RO8943 097GO9543 097GO9642 097GO9941
097GO8845MS 097GO8845MSD

Introduction

This data review covers 11 **water samples listed** on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0% .

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix -as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097TO3242 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Samples 097R10043 and 097ROB943 were identified as rinsates. No total petroleum hydrocarbons as gasoline contaminants were found in these blanks.

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
K9600927

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG K9600927

No Sample Data Qualified in this SDG

LDC Report# 180417

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 19, 1996

LDC Report Date: April 9, 1996

Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600964

Sample Identification

097TO3442 097RO9843 097GO8341 097GO8441 097GO9841 097GO8643 097GO8741 097GO8543
097GO8646MS 097GO8646MSD

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The **analyses were** per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

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

Sample	Total Days From Sample Collection Until Analysis	Required Holding Time (in Days) From Sample Collection Until Analysis	Flag	A or P
097GO9841	14	7		P

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples-were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097T03442 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Sample 097RO9843 was identified as a rinsates. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG K9600964

SDG	Sample	Compound	Flag	A or P	Reason
[Z;;;64	097GO9841	All TCL compounds	i	P	Technical holding times

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG K9600964

No Sample Data Qualified in this SDG

LDC Report# 1804,J7

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:	Salton Sea Test Base, CTO 097
Collection Date:	February 20, 1996
LDC Report Date:	April 8, 1996
Matrix:	Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Laboratory:	Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9601003

Sample Identification

097T03541
097GO9741
097DO1643
097G10641
097G10443
097R10441
097G10543
097DO1642MS
097DO1642MSD

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r) was greater than or equal to 0.990 .

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix-as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CROLS

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

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

IX Field Duplicates

Samples 097DO1643 and 097G10641 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

X. Field Blanks

Sample 097TO3541 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Sample 097R10441 was identified as a rinsate. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
K9601003

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG K9601003

No Sample Data Qualified in this SDG

LDC Report# 1804K7

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 21, 1996
LDC Report Date: April 8, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Gasoline
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9601039

Sample Identification

097BOO833
097BOO931

Introduction

This data review covers 2 **water samples** listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix- as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

V1. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

Vii. **System Performance**

Raw data were not reviewed for this SDG.

Viii. **Overall Assessment of Data**

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

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Samples 097BOO833 and 097BOO931 were identified as source blanks. No total petroleum hydrocarbons as gasoline contaminants were found in these blanks.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG K9601039

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG K9601039

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097
Data Validation Reports
LDC# 1804

TPH as Diesel

.....

.....

LDC Report# 1804A8

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 6, 1996
LDC Report Date: April 8, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600753**

Sample Identification

097BOO655
097BOO655MS
097BOO655MSD

** Indicates SDG underwent NEESA Level D review.

1804A8.BC4

Introduction

This data review covers 3-water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0% .

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix _as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CROLS

All compound quantitation and CROLS were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

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

IX Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097BOO655 was identified as a source blank. No total petroleum hydrocarbons as diesel contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9600753**

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9600753**

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 7, 1996
LDC Report Date: April 8, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600765

Sample Identification
097BOO755

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0%.

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix -as applicable. Percent recoveries were within OC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CROLS

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097BOO755 was identified as a source blank. No total petroleum hydrocarbons as diesel contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9600765

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9600765

No Sample Data Qualified in this SDG

1804B8.BC3

LD

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 14, 1996
LDC Report Date: April 9, 1996
Matrix: Water

Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600898

Sample Identification

097RO5555
097GO5555
097GO6755
097G10255
097DO1455
097G10155
097G10355
097RO5555MS
097RO5555MSD

Introduction

This data review covers 9 **water samples listed on the** cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0%.

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix -as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CROLS

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

Samples 097G10255 and 097DO1455 were identified as field duplicates. No total petroleum hydrocarbons as diesel were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD
	097G10255	097DO1455	
sel	127	140	9.7

X. Field Blanks

Sample 097RO5555 was identified as a rinsate. No total petroleum hydrocarbons as diesel contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9600898

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9600898

No Sample Data Qualified in this SDG

LDC

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 16, 1996
LDC Report Date: April 9, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600923**

Sample Identification

097GO9055
097GO9255
097DO1555
097RO9155
097GO9155
097GO9355
097GO9455

** Indicates SDG underwent NEESA Level D review.

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0% .

b. Calibration Verification

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

III. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries were within OC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

V1. Compound Quantitation and CROLS

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

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

IX. Field Duplicates

Samples 097GO9255 and 097DO1555 were identified as field duplicates. No total petroleum hydrocarbons as diesel were detected in any of the samples with the following exceptions:

Compound	<u>Concentration (mg/Kg)</u>		RPD
	097GO9255	097001555	
TPH as diesel	62	58	7

X. Field Blanks

Sample 097RO9155 was identified as a rinsate. No total petroleum hydrocarbons as diesel contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9600923**

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9600923**

No Sample Data Qualified in this SDG

LDC: Report# 18041-18

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 15, 1996
LDC Report Date: April 9, 1996
Matrix: Water

Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600927

Sample Identification

097GO8855 097GO8955 097G10055 097R10055 097RO8955 097GO9555 097GO9655 097GO9955
097GO8855MS 097GO8855MSD

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data-Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

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

Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

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

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0%.

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

Vii. **System Performance**

Raw data were not reviewed for this SDG.

Viii. **Overall Assessment of Data**

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

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097R10055 was identified as a rinsate. No total petroleum hydrocarbons as diesel contaminants were found in this blank.

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9600927

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9600927

No Sample Data Qualified in this SDG

LDC Report# 180418

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 19, 1996
LDC Report Date: April 9, 1996
Matrix: Water

Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9600964

Sample Identification

097RO9855
097GO8355
097GO8455
097GO9855
097GO8655
097GO8755
097GO8555
097GO8656MS
097GO8657MSD

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section 111.

Field duplicates are summarized in Section IX

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0% .

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory, Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix -as applicable. Percent recoveries were within validation criteria.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

Vii. System Performance

Raw data were not reviewed for this SDG.

Viii. Overall Assessment of Data

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

IX Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

Sample 097RO9855 was identified as a rinsate. No total petroleum hydrocarbons as diesel contaminants were found in this blank with the following exceptions:

	Rinsate ID	Compound	Concentration (ug/L)
097RO9855		TPH as diesel	56
180418.BC3			

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9600964

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9600964

No Sample Data Qualified in this SDG

LDC Report# 1804J8

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

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 20, 1996
LDC Report Date: April 8, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9601003

Sample Identification

097GO9755
097DO1655
097G10655
097G10455
097R10455
097G10555

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

- U Indicates the compound or element was analyzed for but not detected at or above the stated limit.
- i Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or element was analyzed for but not detected. The sample detection limit is an estimated value.

1. Technical Holding Times

All technical holding time requirements were met.

11. Calibration

a. Initial Calibration

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

The percent relative standard deviations (%RSD) of calibration factors for analytes were less than 20.0%.

b. Calibration Verification

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

111. Blanks

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

IV. Accuracy and Precision Data

a. Surrogate Recovery

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix- as applicable. Percent recoveries were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

Vii. System Performance

Raw data were not reviewed for this SDG.

Viii. Overall Assessment of Data

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

IX. Field Duplicates

Samples 097DO1655 and 097G10655 were identified as field duplicates. No total petroleum hydrocarbons as diesel were detected in any of the samples.

X. Field Blanks

Sample 0971R10455 was identified as a rinsate. No total petroleum hydrocarbons as diesel contaminants were found in this blank.

Salton Sea Test Base, CT0097

Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG
K9601003

No Sample Data Qualified in this SDG

Salton Sea Test Base, CTO 097

Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification
Summary - SDG K9601003

No Sample Data Qualified in this SDG

LD

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Salton Sea Test Base, CTO 097
Collection Date: February 2, 1996
LDC Report Date: April 8, 1996
Matrix: Water
Parameters: Total Petroleum Hydrocarbons as Diesel
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K9601039

Sample Identification

097BOO855
097BOO955
097BOO855MS
097BOO855MSD

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per California DOHS LUFT Method for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994) as there are no current guidelines for California DOHS LUFT Method. The modifications were based on California DOHS LUFT Method.

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

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

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

The following are definitions of the data qualifiers:

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

Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

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