Nevada
Environmental
Restoration
Project

DOE/NV-11718-154-Vol. 2
UC-702

Closure Report
for CAU No. 450
Historical UST Release Sites
Nevada Test Site

Volume II

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Revision: 0

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September 1997

MASTER

Environmental Restoration
Division

U.S. Department of Energy
Nevada Operations Office

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**CLOSURE REPORT FOR CAU 450
HISTORICAL UST RELEASE SITES
NEVADA TEST SITE**

VOLUME II

**Prepared for the
U. S. Department of Energy
Nevada Operations Office
Under Contract No. DE-AC08-96NV11718**

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Controlled Copy No.: _____

Revision: 0

**Prepared by
Bechtel Nevada
Remediation Projects**

September 1997

**TABLE 1 - CAU 450 SUMMARY OF REMEDIAL VERIFICATION
ANALYTICAL PACKAGES**

UST ID ¹	LOCATION	VERIFICATION SAMPLE ID	REMEDIAL VERIFICATION SAMPLE PACKAGE
11-2-1	Area 11 Tweezer Facility	11-TWZ-3.2, 5.4 11-TWZ-4, 7.5, Comp 11TW2-4E, Wall 11-TW2-5N/5.5 11-TW2-15N/6.0	FY92-07-053 FY92-08-052 FY92-08-079 FY95-03-064
12-13-1	Area 12 Boiler House	12-13-1/E	FY94-12-021
12-26-1	Area 12 Service Station	12-26-3/E 12-26-2&3/N 12-26-2&3/S 12-26-1/W 12-26-1&2	FY94-10-004
23-BPY-1	Area 23 Bypass Yard	23-BPY-1/9	FY94-12-014
23-752-2	Area 23 Service Station	23-752-3S/21.5	FY95-01-013
23-752-3			
25-3102-1	Area 25 Power House	25-3102-1N/14 25-3102-2S/13 25-3102-2N/13	FY95-05-004
25-3102-2			
25-3102-4	Area 25 Power House	25-3102-4/10.5N	94-10-049
25-3123-1	Area 25 Tech.Services Building	25-3123-1/11.5S	94-10-049
25-3129-1	Area 25 Tech. Operations Building	25-3129-1/12/E	94-10-049
26-2104-1	Area 26 Power House	26-2104/E8 26-2104/W7	FY95-04-025
27-5170-1	Area 27 Boiler House	27-5170-E12 27-5170-W12	FY95-05-011

Sample Analytical Data is provided in numerical order.

RELEASE SITE 11-2-1

REMEDIAL VERIFICATION SAMPLE PACKAGES

FY92-07-053

FY92-08-052

FY92-08-079

FY95-03-064

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

JUL 28 12 53 PM '92
KPM LSS

To F. E. Bingham THRU L. S. Sygitowicz
From G. A. Clark *KK for EAC*
Date July 27, 1992
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results for the the total petroleum hydrocarbons (diesel) analysis of six soil samples collected on July 21, 1992, at the Area 11 Tweezer Facility. These analyses were requested by D. Madsen.

Please direct any questions you may have about these analyses to Sample Management (Roger Mitchell, 295-7220 or Jerry Dugas, 295-7997).

GAC:RNL531:rn

Enclosures
As stated

cy: Central Files, w/encls.
H. A. Hawthorne, w/o encls.
D. Madsen, w/encls.
ACS Packet No. 92-07-053, w/o encls.

REECO ASD/ACS

REECO
FRANK BINGHAM
ENVIRONMENTAL COMPLIANCE
M/S 711
Attn: D. MADSEN

Order #: 92-07-053
Date: 07/27/92 14:31
Work ID: TPH/SOIL; A11, TWEEZER FAC
Date Received: 07/22/92
Date Completed: 07/24/92

Purchase Order: 3754-009
Invoice Number:

Client Code: ENV_COMPLY

REPORT TO DAVE MADSEN, ENV_COMPLY.

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	11-2-2-N
02	11-2-2-S
03	11-2-1-N
04	11-2-1-S

Sample Number	Sample Description
05	11-TWZ-3.2
06	11-TWZ-5.4
07	92-07-053-QC1 MS
08	92-07-053-QC2 METHOD BLANK

Certified By

Sample: 01A 11-2-2-N

Collected: 07/21/92 Category: TPH_SOIL

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	32.9		mg/kg		

Sample: 02A 11-2-2-S

Collected: 07/21/92 Category: TPH_SOIL

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	< 10.0		mg/kg		

Sample: 03A 11-2-1-N

Collected: 07/21/92 Category: TPH_SOIL

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	83.5		mg/kg		

Sample: 04A 11-2-1-S

Collected: 07/21/92 Category: TPH_SOIL

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	< 10.0		mg/kg		

Sample: 05A 11-TWZ-3.2

Collected: 07/22/92 Category: TPH_SOIL

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	127		mg/kg		

Sample: 06A 11-TWZ-5.4

Collected: 07/22/92 Category: TPH_SOIL

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	219		mg/kg		

Sample: 07A 92-07-053-QC1 MS

Collected: Category: TPH_QC

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	112		% RECOVERY		

Sample: 08A 92-07-053-QC2 METHOD BLANK

Collected: Category: TPH_QC

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	< 10.0		mg/kg		

Order # 92-07-053
07/27/92 14:31

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 3

TPH - DIESEL Minimum: 0 Maximum: 999999999
Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	11-2-2-N	32.9	mg/kg				
02A	11-2-2-S	< 10.0	mg/kg				
03A	11-2-1-N	83.5	mg/kg				
04A	11-2-1-S	< 10.0	mg/kg				
05A	11-TWZ-3.2	127	mg/kg				
06A	11-TWZ-5.4	219	mg/kg				
07A	92-07-053-QC1 MS	112	% RECOVERY				
08A	92-07-053-QC2 METHOD BLANK	< 10.0	mg/kg				

Order # 92-07-053
07/27/92 14:31

REECO ASD/ACS
TEST METHODOLOGIES

Page 4

CALIFORNIA DEPT. OF HEALTH SERVICES MODIFICATION OF SW-846 METHOD 8015

NA = NOT APPLICABLE

ND = NOT DETECTED

TOTAL PETROLEUM HYDROCARBONS METHOD DETECTION LIMITS

FRACTION	MATRIX	EXTRACTION METHOD	HEADSPACE METHOD
Gasoline	Aqueous	0.5 mg/l	5.0 mg/l
	Soil	10.0 mg/kg	5.0 mg/kg
Diesel/Oil	Aqueous	0.5 mg/l	
	Soil	10.0 mg/kg	

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 92-07-053

CLIENT: ECO - D. MADSEN

LABORATORY: REECO-ASD

DATE REVIEWED: 7-27-92

REVIEWED BY: *James J. [Signature]*

TPH (DIESEL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		# DAYS	ACCEPTABLE
a. Date Sampled:	<u>7-21-92</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>7-22-92</u>	<u>1</u>	<u>1</u>
c. Date Contract Lab Received:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
d. Date Extracted:	<u>7-22-92</u>	<u>1</u>	<u>14</u>
e. Date Analyzed:	<u>7-24-92</u>	<u>2</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: PRELIMINARY RESULTS TO D. MADSEN 7-27-92.

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A11 Tweezer FAC WORK ORDER No.: 3754-009 PACKET No.: 92-07-053

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	7/21/92/1345	11-2-2-N	-01A	TPH(Diesel) 8015 MOD. 120 ml	soil
2	7/21/92/1405	11-2-2-S	-02A	TPH(Diesel) 8015 MOD. 120 ml	soil
3	7/21/92/1425	11-2-1-N	-03A	TPH(Diesel) 8015 MOD. 120 ml	soil
4	7/21/92/1436	11-2-1-S	-04A	TPH(Diesel) 8015 MOD. 120 ml	soil
5	7-22-92/0940	11-TWZ-3.2	-05A	TPH(Diesel) 8015 MOD. 250 ml	soil
6	7-22-92/1010	11-TWZ-5.4	-06A	TPH(Diesel) 8015 MOD. 250 ml	soil
7		LAST	ITEM		
8					
9					
10					Find Survey NA

SAMPLER: Barbara A. Hommel
SIGNATURE

Barbara A. Hommel
PRINT NAME

ORGANIZATION (PRINT): REEL HPD

RELINQUISHED BY: (SIGNATURE):	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Barbara A. Hommel</u>	07122192 1225	07122192 1225	<u>Catherine D. Castaneda</u> Catherine D. Castaneda ACS
<u>Catherine D. Castaneda</u>	07122192 1230	07122192 1230	<u>Mary Wisniewski</u> MARY WISNIEWSKI
<u>Mary Wisniewski</u>	07122192 1645	07122192 1645	<u>Catherine D. Castaneda</u> Catherine D. Castaneda ACS
<u>SA</u>	1 1	1 1	
<u>SA</u>	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
N	A	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: 1 1
X		SAMPLE LABELS AND C-O-C AGREE?

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To F. E. Bingham THRU L. S. Sygitowicz *LS*
From G. A. Clark *GAC*
Date September 3, 1992
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results for the TCLP volatile organics analysis of one soil sample and a trip blank and the total petroleum hydrocarbons (diesel) analysis of two soil samples collected on August 18, 1992, at the Area 11 Tweezer Facility. These analyses were requested by T. Wilczek.

Please direct any questions you may have about these analyses to Sample Management (Roger Mitchell, 295-7220 or Jerry Dugas, 295-7997).

GAC:RNL599:rn

Enclosures
As stated

cy: Central Files, w/o encls.
H. A. Hawthorne, w/o encls.
T. Wilczek, w/encls.
ACS Packet No. 92-08-052, w/o encls.

SEP 9 10 46 AM '92

REECO ASD/ACS

REECO
FRANK BINGHAM
ENVIRONMENTAL COMPLIANCE
M/S 711
Attn: T.A. WILCZEK

Order #: 92-08-052
Date: 09/03/92 13:34
Work ID: TCLP VOA, TPH/SOIL; A11
Date Received: 08/18/92
Date Completed: 09/03/92

Purchase Order: 3754-009
Invoice Number:

Client Code: ENV_COMPLY

REPORT TO T.A. WILCZEK, ENV_COMPLY.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	92SAB0818-1 TRIP BLANK
02	11-TWZ-COMP
03	11-TWZ-7.5

<u>Sample Number</u>	<u>Sample Description</u>
04	11-TWZ-4.0
05	92-08-052-QC1 METHOD BLANK
06	92-08-052-QC2 MS

Certified By

Order # 92-08-052
09/03/92 13:34

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 2

TPH - DIESEL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
03A	11-TWZ-7.5	< 10.0	mg/kg				
04A	11-TWZ-4.0	< 10.0	mg/kg				
05A	92-08-052-QC1 METHOD BLANK	< 10.0	mg/kg				
06A	92-08-052-QC2 MS	91	% RECOVERY				

VOLATILE ORGANIC ANALYSIS
Method: GC_MS

Minimum: Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	92SAB0818-1 TRIP BLANK	SEE DATA	PACKAGE				
02A	11-TWZ-COMP	SEE DATA	PACKAGE				

Order # 92-08-052
09/03/92 13:34

REECO ASD/ACS
REPORT COMMENTS

Page 3

TPH ANALYST'S NOTES:

THIS SAMPLE SET WAS BATCH EXTRACTED AND ANALYZED WITH WORK ORDER 92-08-046.
THE MATRIX SPIKE WAS PREPARED FROM A SAMPLE OF THAT SET.

ANALYST NOTES: VOAs

Date: September 03, 1992

Lab Work Order No.: 92-08-052

Client Sample Id.: 11-TWZ-COMP, 92SAB0818-1 (trip blank)

Analyst: Philip Briggs

The samples were analyzed on a Hewlett Packard 5890 GC/5970 MSD, with a Tekmar purge and trap connected for direct injection on column. Instrumental parameters used are those specified in SW-846 method 8240. The target analytes are listed with their CAS numbers, and the amount of the target compound found in ug/L or ug/Kg, depending on the matrix. If the analyte was not found in the sample, the quantitation limit is reported followed by an n.d. qualifier. The qualifiers used in this reporting format are:

- n.d.-Indicates compound was analyzed for but not detected.
- J- Indicates an estimated value. Indicates the presence of a compound that meets the identification criteria, but the result is less than the sample quantitation limit but greater than zero.
- B- This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E- This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D- This flag identifies all compounds identified in an analysis at a secondary dilution factor.

The volatile compounds methylene chloride, acetone, and 2-butanone are considered to be common laboratory contaminants by the U.S. EPA. The U.S. EPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, OLM01.1-.6, dated June 1991, Exhibit D, Section IV, paragraph 10.10 allows concentrations up to five times (5X) the Contract Required Quantitation Limit (CRQL) of 10 ppb (ie 50 ppb is allowed) of the common laboratory contaminants methylene chloride, acetone and 2-butanone to be present in the method blank before reanalysis is required. If these contaminants are found in samples as well as the method blank, they are to be qualified by a "B" to show they are possible laboratory contamination.

This was a TCLP VOA analysis and therefore only the TCLP compound list is reported in any report form.

TCLP
VOLATILE ORGANICS ANALYSIS DATA SHEET
METHOD 8260

LAB NAME: REECO-ASD FIELD SAMPLE ID: 11-TWZ-COMP
 LAB FILE ID: 92-08-052-02A DATE RECEIVED: 8-11-92
 MATRIX: SOIL EXTRACT DATE EXTRACTED: 8-19-92
 SAMPLE WT/VOL: 5 mL DATE ANALYZED: 8-24-92
 DILUTION FACTOR: 1.0

Concentration
Units: (ug/l or ug/Kg) ug/L

CAS NO.	COMPOUND	CONC.	QUALIFIER	METHOD DETECTION LIMIT
75-01-4	vinyl chloride	ND		10
75-35-4	1,1-dichloroethene	ND		5
76-66-3	chloroform	ND		5
107-06-2	1,2-dichloroethane	ND		5
78-93-3	2-butanone	ND		10
56-23-5	carbon tetrachloride	ND		5
79-01-6	trichloroethene	ND		5
71-43-2	benzene	ND		5
127-18-4	tetrachloroethene	ND		5
108-90-7	chlorobenzene	ND		5

Footnotes:

- B The analyte was found in the method blank as well as the sample and indicates possible/probable contamination.
- J Indicates an estimated concentration below the Method Detection Limit.
- ND Not detected at Method Detection Limit or above.

TCLP
VOLATILE ORGANICS ANALYSIS DATA SHEET
METHOD 8260

LAB NAME: REECO-ASD FIELD SAMPLE ID: 92SAB0818-1 TB
 LAB FILE ID: 92-08-052-01A DATE RECEIVED: 8-11-92
 MATRIX: SOIL EXTRACT DATE EXTRACTED: 8-19-92
 SAMPLE WT/VOL: 5 mL DATE ANALYZED: 8-24-92
 DILUTION FACTOR: 1.0

Concentration
Units: (ug/l or ug/Kg) ug/L

CAS NO.	COMPOUND	CONC.	QUALIFIER	METHOD DETECTION LIMIT
75-01-4	vinyl chloride	ND		10
75-35-4	1,1-dichloroethene	ND		5
76-66-3	chloroform	ND		5
107-06-2	1,2-dichloroethane	ND		5
78-93-3	2-butanone	ND		10
56-23-5	carbon tetrachloride	ND		5
79-01-6	trichloroethene	ND		5
71-43-2	benzene	ND		5
127-18-4	tetrachloroethene	ND		5
108-90-7	chlorobenzene	ND		5

Footnotes:

- B The analyte was found in the method blank as well as the sample and indicates possible/probable contamination.
- J Indicates an estimated concentration below the Method Detection Limit.
- ND Not detected at Method Detection Limit or above.

TCLP
VOLATILE ORGANICS ANALYSIS DATA SHEET
METHOD 8260

LAB NAME: REECO-ASD FIELD SAMPLE ID: VBLK01
LAB FILE ID: METHOD BLANK DATE RECEIVED: N/A
MATRIX: WATER DATE EXTRACTED: 8-19-92
SAMPLE WT/VOL: 5 mL DATE ANALYZED: 8-24-92
DILUTION FACTOR: 1.0

Concentration
Units: (ug/l or ug/Kg) ug/L

CAS NO.	COMPOUND	CONC.	QUALIFIER	METHOD DETECTION LIMIT
75-01-4	vinyl chloride	ND		10
75-35-4	1,1-dichloroethene	ND		5
76-66-3	chloroform	ND		5
107-06-2	1,2-dichloroethane	ND		5
78-93-3	2-butanone	ND		10
56-23-5	carbon tetrachloride	ND		5
79-01-6	trichloroethene	ND		5
71-43-2	benzene	ND		5
127-18-4	tetrachloroethene	ND		5
108-90-7	chlorobenzene	ND		5

Footnotes:

- B The analyte was found in the method blank as well as the sample and indicates possible/probable contamination.
- J Indicates an estimated concentration below the Method Detection Limit.
- ND Not detected at Method Detection Limit or above.

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 92-08-052

CLIENT: ECO - T. WILCZEK

LABORATORY: REECO-ASD

DATE REVIEWED: 9-3-92

REVIEWED BY: *Jerry R. [Signature]*

TCLP VOA:

MATRIX: SOIL

ARE VOA DATA ACCEPTABLE: YES

	SAMPLE NO.	DATE/TIME	CRITERIA ACCEPTABLE
1. TUNE	BFB	8-24-92/0735	YES
2. CALIBRATION	VSTD050	8-24-92/1114	YES
3. METHOD BLANK	VBK01	8-24-92/1246	YES
4. TRIP BLANK	92SAB0818-1TB	8-24-92/1332	YES
5. SAMPLES	11-TWZ-COMP	8-24-92/1508	YES

6. SURROGATE RECOVERY ACCEPTABLE: YES
7. MS/MSD RECOVERY ACCEPTABLE: N/A
8. METHOD BLANK ACCEPTABLE: YES
9. HOLDING TIMES ACCEPTABLE: YES

		#DAYS	ACCEPTABLE
a. Date Sampled:	8-18-92	0	0
b. Date ACS Received:	8-18-92	0	1
c. Date Contract Lab Received:	N/A	N/A	N/A
d. Date Extracted:	8-19-92	1	14
e. Date Analyzed	8-24-92	5	14
10. Correct Conc units used:	YES		
11. CALCULATIONS ACCEPTABLE:	YES		
12. IS AREAS ACCEPTABLE:	YES		
13. RRT IS ACCEPTABLE:	YES		
14. FORMS ACCEPTABLE:	YES		
15. Chain-of-Custody agrees:	YES		

COMMENTS: _____

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 92-08-052

CLIENT: T. WILCZEK

LABORATORY: REECO-ASD

DATE REVIEWED: 8-20-92

REVIEWED BY: *[Signature]*

TPH (DIESEL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	YES
2. MATRIX SPIKE ACCEPTABLE	YES
3. METHOD BLANK ACCEPTABLE	YES
4. HOLDING TIMES ACCEPTABLE	YES

		# DAYS	ACCEPTABLE
a. Date Sampled:	8-18-92	0	0
b. Date ACS Received:	8-18-92	0	1
c. Date Contract Lab Received:	N/A	N/A	N/A
d. Date Extracted:	8-18-92	0	14
e. Date Analyzed:	8-19-92	1	40

5. CALCULATIONS ACCEPTABLE:	YES
6. Correct conc. units used:	YES
7. FORMS ACCEPTABLE:	YES
8. Chain-of-Custody Agrees:	YES

COMMENTS: *Prelim to D. Madsen 8-26-92 for TPH,*

Reynolds Electrical & Engineering Co., Inc.

>4°C for TPH
4°C for TCEP mtl's
(2 different Ice Chests)

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A-11 Tweezer Facility WORK ORDER No.: 3754009 PACKET No.: 92-08-052

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	8-18-92/0720	92SAB0818-1	-01A	UPST TYP BAK	2x40ml Reagent H ₂ O w/H ₂
2	8-18-92/1000	11-TWZ-CMP	-02A	TPH	120ml 8240 Soil
3	8-18-92/1350	11-TWZ-7.5	-03A	TPH	250ml 8015 mod. Soil
4	8-18-92/1430	11-TWZ-4.0	-04A	TPH	250ml 8015 mod. Soil
5	LAST ITEM				
6					
7					
8					
9					
10					

SAMPLER:

SIGNATURE

Rad Survey Ltd.

Steven A. Boho

PRINT NAME

ORGANIZATION (PRINT):

Reeco ACS/SM6

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Steven A. Boho</u>	08/18/92 1615	08/18/92 1615	<u>Catherine A. Castoreda</u>
<u>Catherine A. Castoreda</u>	08/18/92 1615	08/18/92 1615	<u>Mary Wisniewski</u>
	1 1	1 1	<u>MARY WISNIEWSKI ACS</u>
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
X		PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: 1 1
X		SAMPLE LABELS AND C-O-C AGREE?

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

SEP 17 10 42 AM '92

To F. E. Bingham THRU L. S. Sygitowicz *L. S. Sygitowicz*
From G. A. Clark *GAC*
Date September 14, 1992
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results for the total petroleum hydrocarbon (diesel) analysis of two soil samples and one water sample collected on August 27, 1992, at the Tweezer Facility in Area 11. These analyses were requested by T. Wilczek.

Please direct any questions you may have about these analyses to Sample Management (Roger Mitchell, 295-7220 or Jerry Dugas, 295-7997).

GAC:RNL609:rn

Enclosures
As stated

cy: Central Files, w/o encls.
H. A. Hawthorne, w/o encls.
T. Wilczek, w/encls.
ACS Packet No. 92-08-079, w/o encls.

REECO ASD/ACS

REECO
FRANK BINGHAM
ENVIRONMENTAL COMPLIANCE
M/S 711
Attn: T.A. WILCZEK

Order #: 92-08-079
Date: 09/10/92 14:18
Work ID: TPH/SOIL, WATER; A11,
Date Received: 08/27/92
Date Completed: 09/09/92

Purchase Order: 3754-009 (WILCZEK 5-5396)
Invoice Number:

Client Code: ENV_COMPLY

REPORT TO T.A. WILCZEK, ENV_COMPLY.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	11-TWZ-4E
02	11-TWZ-WALL
03	11-TWZ-RINSE
04	92-08-079-QC1 MS

<u>Sample Number</u>	<u>Sample Description</u>
05	92-08-079-QC2 SOIL BLANK
06	92-08-079-QC3 LIQUID BLANK
07	92-08-079-QC4 CAL VERIF

Certified By

Order # 92-08-079

REECO ASD8

REGULAR TEST RESULTS BY TEST

TPH - DIESEL

Minimum:

0 Maximum: 999999999

Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	11-TWZ-4E	130	mg/kg				
02A	11-TWZ-WALL	< 10.0	mg/kg				
03A	11-TWZ-RINSE	1.05	mg/l				
04A	92-08-079-QC1 MS	79	% RECOVERY				
05A	92-08-079-QC2 SOIL BLANK	< 10.0	mg/kg				
06A	92-08-079-QC3 LIQUID BLANK	< 0.5	mg/l				
07A	92-08-079-QC4 CAL VERIF	96	% RECOVERY				

Order # 92-08-079
09/10/92 14:18

REECO ASD/ACS
TEST METHODOLOGIES

Page 3

CALIFORNIA DEPT. OF HEALTH SERVICES MODIFICATION OF SW-846 METHOD 8015

NA = NOT APPLICABLE

ND = NOT DETECTED

TOTAL PETROLEUM HYDROCARBONS METHOD DETECTION LIMITS

FRACTION	MATRIX	EXTRACTION METHOD	HEADSPACE METHOD
Gasoline	Aqueous	0.5 mg/l	5.0 mg/l
	Soil	10.0 mg/kg	5.0 mg/kg
Diesel/Oil	Aqueous	0.5 mg/l	
	Soil	10.0 mg/kg	

TPH ANALYST'S NOTES:

THE ANALYSIS OF THE LIQUID BLANK EXHIBITS SOME CONTAMINATION, BUT DOES NOT RESEMBLE ANY TPH FRACTION. THE RESULTANT CHROMATOGRAM FOR SAMPLE 11-TWZ-RINSE SHOWS A SIGNIFICANT RESPONSE IN THE WINDOW USED FOR DIESEL ANALYSIS, BUT DOES NOT RESEMBLE THE USUAL DIESEL CHROMATOGRAM. THE BLANK CONTAMINANT WAS ACCOUNTED FOR IN THE SAMPLE, AND THE REMAINING RESPONSE WAS QUANTIFIED USING THE DIESEL CALIBRATION. THE COMPONENT CANNOT BE QUALIFIED AS A TPH FRACTION BY THE CURRENT GC METHOD.

THE RECOVERY OF THE DIESEL MATRIX SPIKE WAS OUTSIDE THE ACCEPTABLE QC CRITERIA, THEREFORE, A CALIBRATION VERIFICATION STANDARD WAS RUN TO VALIDATE THE ANALYSES.

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 92-08-079

CLIENT: ECO - T. WILCZEK

LABORATORY: REECO-ASD

DATE REVIEWED: 9-10-92

REVIEWED BY: James J. DeLoe

TPH (DIESEL)

MATRIX: SOIL/WATER

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	YES
2. MATRIX SPIKE ACCEPTABLE	YES
3. METHOD BLANK ACCEPTABLE	YES
4. HOLDING TIMES ACCEPTABLE	YES

		# DAYS	ACCEPTABLE
a. Date Sampled:	8-27-92	0	0
b. Date ACS Received:	8-27-92	0	1
c. Date Contract Lab Received:	N/A	N/A	N/A
d. Date Extracted:	8-27-92	0	14
e. Date Analyzed:	9-3-92	7	40

5. CALCULATIONS ACCEPTABLE: YES
6. Correct conc. units used: YES
7. FORMS ACCEPTABLE: YES
8. Chain-of-Custody Agrees: YES

COMMENTS:

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A-11 Tweezer Fac. WORK ORDER No.: 3754-009 PACKET No.: 92-08-079

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	8-27-92/1355	11-TWZ-4E	-01A	TPH (Diesel) EPA 9015 Mod	250ml. Soil
2	8-27-92/1400	11-TWZ-Wall	-02A		250ml. Soil
3	8-27-92/1420	11-TWZ-Rinse	-03A		2 liters + 120ml. water
4		LAST ITEM			
5					
6					
7					
8					
9					
10					RAD Survey OK

SAMPLER:

Janet H. Harvey
SIGNATURE

JANET H. HARVEY
PRINT NAME

ORGANIZATION (PRINT):

REECO SMS

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Janet H. Harvey</u>	08/27/92 1630	8/27/92 1630	<u>Joe T. Tabors</u> TOE TABORS SMS
<u>Joe T. Tabors</u>	8/27/92 1630	8/27/92 1630	<u>Mary Wisniewski</u> MARY WISNIEWSKI ACS
<u>Mary Wisniewski</u>	08/28/92 0820	08/28/92 0820	<u>Catherine A. Castaneda</u> Catherine A. Castaneda ACS
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY
M	H	PACKAGES REC'D W/CUSTODY SEAL INTACT?
X		SAMPLE LABELS AND C-O-C AGREE?

FINAL DISPOSITION:

SIGNATURE:

DATE:

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From J. L. Cowley JLC
Date April 27, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results for the total petroleum hydrocarbons (diesel) analysis of two soil samples. These samples, requested by J. F. Bonn, were collected on March 28, 1995, in Area 11. Also enclosed are the gamma results for these samples.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:212:ds

Enclosures
As stated

cy w/o encls.

Central Files, M/S 530
A. R. Latham, M/S 708
L. S. Sygitowicz, M/S 612
ACS Packet No. FY95-03-064

cy w/encls.

J. F. Bonn, M/S 969

REECO ASD/ACS

REECO
REECO
HEALTH PROTECTION

Attn: JERRY BONN

Order #: 95-03-064
Date: 04/27/95 14:16
Work ID: TPH/SOIL; AREA 11
Date Received: 03/28/95
Date Completed: 04/26/95

Purchase Order: 3754-038

DCL #S95-0278

Invoice Number:

Client Code: HPD

REPORT TO JERRY BONN, ERTD.

SAMPLES SENT TO DATACHEM FOR ANALYSIS 03/29/95.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	11-TW2-5N/5.5
02	11-TW2-15N/6.0
03	PACKET #G2017

<u>Sample Number</u>	<u>Sample Description</u>
04	PACKET #G2017
05	BL-53673-1 DCL BLANK

Certified By

117

TPH (DIESEL) RESULTS

Case Narrative
DCL Set ID #(s): S95-0278-CC
Client: REECO
Packet # 95-03-064
Account #: 3018
11 April, 1995

Analysis Method #: SW8015, modified.

General Set Information: None.

Sample Preparation: 4 hour shake on 04 April, 1995.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Laboratory Control Sample Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None.

Signature

COVER FORM (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63M-V1.0
04129511361683
Page 1

SUMMARY INFORMATION

Date Reported.....:

Date Printed.....: 12-APR-95 11:36

DCL Client Group...: S95-0278-CC

Client Ref Number...: Not Provided

Release Number.....: Not Provided

Analysis Method....: 8015 MOD

REECO

Attention: Jerry Dugas
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521

<u>Client Sample ID</u>	<u>Lab Sample ID</u>
BL-53673-1	BL-53673-1
QC-53673-1	QC-53673-1
11TW2-5N/5.5	EO 1365
11TW2-5N/5MS	EO 1365MS
11TW2-5N/MSD	EO 1365MSD
11TW215N/6.0	EO 1366

Analyst: Lawrence E. Miller

Reviewer: Pamela Johnson

Laboratory Supervisor: Daniel J. Bruch

004

FORM H (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63H-V1.0
04129511361683

Page 2

SAMPLE GROUP COMMENTS

G952Y04P

Date Printed.....: 12-APR-95 11:36

DCL Client Group...: S95-0278-CC

Client Name.....: REECO

Release Number....: Not Provided

General Information

The DCL QC Database maintains all numerical figures which are input from the pertinent data source. These data have not been rounded to significant figures nor have they been moisture corrected. Reports generated from the system, however, list data which have been rounded to the number of significant figures requested by the client or deemed appropriate for the method. This may create minor discrepancies between data which appear on the QC Summary Forms (Forms B-G) and those that would be calculated from rounded analytical results. Additionally, if a moisture correction is performed, differences will be observed between the QC data and the surrogate data reported on Form A (or other report forms) and corresponding data reported on QC Summary Forms. In these cases, the Form A will indicate the "Report Basis" as well as the moisture value used for making the correction.

Symbol Definitions

- ND - Not Detected above the MDL or IDL (LLD or MDC for radiochemistry).
- B - For organic analysis the qualifier indicates that this analyte was found in the method blank. For inorganic analysis the qualifier signifies the value is between the IDL and PQL.
- J - The qualifier indicates that the value is between the MDL and the PQL. It is also used for indicating an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

005

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Form RLIMS63B-V1.0
04129511361683
Page 3

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

LCS Source.....:

DCL Preparation Group: G9534002
Date Prepared.....: 04-APR-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 12-APR-95 11:36
DCL Sample Name....: QC-53673-1

DCL Analysis Group: G9534002
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	07-APR-95 23:55	500.	455.	91.0		

006

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
04129511361683
Page 4

89534001

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G9534002
Date Prepared.....: 04-APR-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 12-APR-95 11:36
DCL Sample Name....: BL-53673-1

DCL Analysis Group: G9534002
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	08-APR-95 01:03	-0.344	10

007

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
04129511361683
Page 5

89534003

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G9534002
Date Prepared.....: 04-APR-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 12-APR-95 11:36
DCL Sample Name....: EO 1365MS

DCL Analysis Group: G9534002
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	08-APR-95 03:19	-0.878	468.	500.	93.6	50.0/125.

89534004

DCL Sample Name....: EO 1365MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	08-APR-95 04:26	475.	94.9	471.	6.43	1.4	0.000/50.0	

008

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 95-03-064

CLIENT: ERTD - JERRY BONN

LABORATORY: DATA CHEM

DATE REVIEWED: 4-18-95

REVIEWED BY:

TPH (DIESEL):

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		<u># DAYS</u>	<u>ACCEPTABLE</u>
a. Date Sampled:	<u>3-28-95</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>3-28-95</u>	<u>0</u>	<u>YES</u>
c. Date Contract Lab Received:	<u>3-30-95</u>	<u>2</u>	<u>YES</u>
d. Date Extracted:	<u></u>	<u></u>	<u>14</u>
e. Date Analyzed:	<u>4-8-95</u>	<u></u>	<u>40</u>
5. CALCULATIONS ACCEPTABLE:	<u>YES</u>		
6. Correct conc. units used:	<u>YES</u>		
7. FORMS ACCEPTABLE:	<u>YES</u>		
8. Chain-of-Custody Agrees:	<u>YES</u>		

COMMENTS: COPY FAXED TO JERRY BONN 4-18-95.

EFRE-2261 (03/93)

RELEASE SITE 12-13-1

REMEDIAL VERIFICATION SAMPLE PACKAGE FY94-12-021

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

JAN 17 12 21 PM '95

To S. J. Nacht
From J. L. Cowley *علاء*
Date January 12, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results, requested by Jerry Bonn, for the total petroleum hydrocarbons (diesel) analysis of 2 oil samples collected on December 8, 1994, at Dorm B in Area 23.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:80:ds

Enclosure
As Stated

cy w/o encl.

Central Files, M/S 530

A. R. Latham, M/S 612

ACS Packet No. FY94-12-021

cy w/encl.

J. F. Bonn, ERTD, M/S 969

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: JERRY BONN

Order #: 94-12-021
Date: 01/11/95 15:06
Work ID: TPH(DIESEL ONLY)/SOIL; A23
Date Received: 12/12/94
Date Completed: 12/28/94

Purchase Order: 3754-038
Invoice Number:

DCL #S94-0844
Client Code: ERTD

REPORT TO JERRY BONN, ERTD.
SAMPLES SENT TO DATACHEM FOR ANALYSIS 12/13/94.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	12-13-1/E
02	12-13-1/SP1

<u>Sample Number</u>	<u>Sample Description</u>
03	BL-47672-1 DCL BLANK

Certified By

TPH DIESEL RESULTS

Case Narrative
DCL Set ID #(s): S94-0844-CC
Client: REECO
Packet # 94-12-021
Account #: 3018
23 December, 1994
94-12-021

Analysis Method #: SW8015 modified.

General Set Information: None.

Sample Preparation: 4 hour shake.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

Laboratory Control Sample Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None

Signature

This report is 7
total pages.

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
PDOR 12229415165107
Page 6

G94CH026

Client Name.....: REECO
Release Number.....: Not Provided
Matrix.....: SOIL
Reporting Units.....: µg/g
Report Basis.....: ☒ As Received ☐ Dried

Report Date.....: 12/22/94 15:16

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD

DCL Prep Group....: G94CH026
Preparation Method:

Surrogate Recoveries

Surr. ID	o-Terphenyl								
QC Limits	50.0/125.								
DCL Sample Number	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q
BL-47672-1	35.9	40.0	89.8						
EN 4640	34.9	40.0	87.3						
EN 4641	34.5	40.0	86.3						
EN 4641MS	37.2	40.0	92.9						
EN 4641MSD	32.9	40.0	82.4						
QC-47672-1	38.2	40.0	95.6

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
PDOR 12229414213422
Page 9

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G94CH026
Date Prepared.....: 12/16/94 00:00
Preparation Method....:

Report Date.....: 12/22/94 14:21
DCL Sample Name....: BL-47672-1

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	12/21/94 17:33	2.27	10

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
PDOR 12229414213422
Page 10

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G94CH026
Date Prepared.....: 12/16/94 00:00
Preparation Method....:

Report Date.....: 12/22/94 14:21
DCL Sample Name....: EN 4641MS

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	12/21/94 20:02	19.5	472.	500.	90.5	50.0/125.	

S94CH00P

DCL Sample Name....: EN 4641MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	12/21/94 20:52	435.	83.0	453.	37.2	8.6	0.000/50.0

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Form RLIMS63B-V1.0
PDOR 12229414213422
Page 11

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried
LCS Source.....:

DCL Preparation Group: G94CH026
Date Prepared.....: 12/16/94 00:00
Preparation Method....:

Report Date.....: 12/22/94 14:21
DCL Sample Name....: QC-47672-1

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: Not Applicable

- Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	12/21/94 16:44	500.	450.	90.0	50.0/125.	

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 94-12-021

CLIENT: ERTD - J. BONN

LABORATORY: DATA CHEM

DATE REVIEWED: 12-28-94

REVIEWED BY:

TPH (DIESEL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		# DAYS	ACCEPTABLE
a. Date Sampled:	<u>12-8-94</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>12-12-94</u>	<u>4</u>	<u>YES</u>
c. Date Contract Lab Received:	<u>12-14-94</u>	<u>6</u>	<u>YES</u>
d. Date Extracted:			<u>14</u>
e. Date Analyzed:	<u>12-21-94</u>	<u>13</u>	<u>40</u>
5. CALCULATIONS ACCEPTABLE:	<u>YES</u>		
6. Correct conc. units used:	<u>YES</u>		
7. FORMS ACCEPTABLE:	<u>YES</u>		
8. Chain-of-Custody Agrees:	<u>YES</u>		

COMMENTS: _____

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From J. L. Cowley *JLC*
Date October 18, 1994
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results, requested by D. D. Madsen, for the total petroleum hydrocarbons (gasoline/diesel/oil) and TCLP metals analyses of 11 soil samples collected on September 28, 1994, in Area 23.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:597:bv

Enclosures
As stated

cy w/o encls.

Central Files, M/S 530
A. R. Latham, M/S 708
ACS Packet No. 94-10-004

cy w/encls.

D. D. Madsen, ERTD, M/S 969

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: DAVE MADSEN

Order #: 94-10-004
Date: 10/17/94 15:32
Work ID: TPH,TCLP MTLs/SOIL; MERCURY
Date Received: 09/29/94
Date Completed: 10/13/94

Purchase Order: 1146-101
Invoice Number:

Client Code: ERTD

REPORT TO DAVE MADSEN, ERTD.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	12-26-3/E
02	12-16-4/S
03	12-16-4/PILE
04	12-16-4/N
05	12-26-2&3/N
06	12-26-2&3/N
07	12-26-2&3/S
08	12-26-2&3/S
09	12-26-1/W
10	12-26-1/W
11	12-26-1&2
12	12-26-1&2
13	12-26-SP1

<u>Sample Number</u>	<u>Sample Description</u>
14	12-26-SP1
15	12-26-SP2
16	12-26-SP2
17	12-26-SP3
18	12-26-SP3
19	94-10-004-QC1 MS
20	94-10-004-QC2 MB
21	94-10-004-QC3 CAL VER
22	94-10-004-QC4 MS
23	94-10-004-QC5 MB
24	94-10-004-QC6 DETEC. LIMIT
25	DISPOSAL CHARGE

Certified By

RELEASE SITE 12-26-1

REMEDIAL VERIFICATION SAMPLE PACKAGE FY94-10-004

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 2

Sample Description: 12-26-2&3/N

Lab No: 06A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	12-26-2&3/N	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 0.59	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 3

Sample Description: 12-26-2&3/S

Lab No: 08A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	<u>12-26-2&3/S</u>	
ARSENIC (As)	1311/6010 <u>ND</u>	<u>10/12/94</u>
BARIUM (Ba)	1311/6010 <u>0.47</u>	<u>10/12/94</u>
CADMIUM (Cd)	1311/6010 <u>ND</u>	<u>10/12/94</u>
CHROMIUM (Cr)	1311/6010 <u>ND</u>	<u>10/12/94</u>
LEAD (Pb)	1311/6010 <u>ND</u>	<u>10/12/94</u>
MERCURY (Hg)	1311/7470-1 <u>ND</u>	<u>10/12/94</u>
SELENIUM (Se)	1311/6010 <u>ND</u>	<u>10/12/94</u>
SILVER (Ag)	1311/6010 <u>ND</u>	<u>10/12/94</u>

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS

Page 4

TEST RESULTS BY SAMPLE

Sample Description: 12-26-1/W

Lab No: 10A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	12-26-1/W	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 0.92	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 5

Sample Description: 12-26-1&2

Lab No: 12A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	12-26-1&2	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 0.70	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 6

Sample Description: 12-26-SP1

Lab No: 14A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	12-26-SP1	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 0.67	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS

Page 7

TEST RESULTS BY SAMPLE

Sample Description: 12-26-SP2

Lab No: 16A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	12-26-SP2	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 0.69	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 8

Sample Description: 12-26-SP3

Lab No: 18A

Test Description: TCLP RCRA METALS

Method: ICP/COLD VAP Test Code: TCLP_X

Collected: 09/28/94

Category: TCLP_METALS

PARAMETER	RESULT	INJECTED
FIELD ID #	12-26-SP3	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 0.36	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 9

Sample Description: 94-10-004-QC4

MS Lab No: 22A

Test Description: TCLP RCRA METALS

Category: TCLP_MTLS_QC Test Code: TCLP_X

PARAMETER	RESULT	INJECTED
FIELD ID #	MATRIX SPIKE	
ARSENIC (As)	1311/6010	98 10/12/94
BARIUM (Ba)	1311/6010	89 10/12/94
CADMIUM (Cd)	1311/6010	92 10/12/94
CHROMIUM (Cr)	1311/6010	90 10/12/94
LEAD (Pb)	1311/6010	94 10/12/94
MERCURY (Hg)	1311/7470-1	115 10/12/94
SELENIUM (Se)	1311/6010	94 10/12/94
SILVER (Ag)	1311/6010	80 10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS % RECOVERY

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 10

Sample Description: 94-10-004-QC5

MB Lab No: 23A

Test Description: TCLP RCRA METALS

Category: TCLP_MTLS_QC Test Code: TCLP_X

PARAMETER	RESULT	INJECTED
FIELD ID #	METHOD BLANK	
ARSENIC (As)	1311/6010 ND	10/12/94
BARIUM (Ba)	1311/6010 1.1	10/12/94
CADMIUM (Cd)	1311/6010 ND	10/12/94
CHROMIUM (Cr)	1311/6010 ND	10/12/94
LEAD (Pb)	1311/6010 ND	10/12/94
MERCURY (Hg)	1311/7470-1 ND	10/12/94
SELENIUM (Se)	1311/6010 ND	10/12/94
SILVER (Ag)	1311/6010 ND	10/12/94

Notes and Definitions for this Report:

EXTRACTED 10/04/94

UNITS mg/L

PREP_TECH JWB

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 11

Sample Description: 94-10-004-QC6 DETEC. LIMIT Lab No: 24A

Test Description: TCLP RCRA METALS

Category: TCLP_MTLS_QC Test Code: TCLP_X

PARAMETER		RESULT	INJECTED
FIELD ID #		<u>LIMIT OF DET.</u>	<u> </u>
ARSENIC (As)	1311/6010	<u>0.042</u>	<u> </u>
BARIUM (Ba)	1311/6010	<u>0.0018</u>	<u> </u>
CADMIUM (Cd)	1311/6010	<u>0.0042</u>	<u> </u>
CHROMIUM (Cr)	1311/6010	<u>0.0048</u>	<u> </u>
LEAD (Pb)	1311/6010	<u>0.035</u>	<u> </u>
MERCURY (Hg)	1311/7470-1	<u>0.00013</u>	<u> </u>
SELENIUM (Se)	1311/6010	<u>0.050</u>	<u> </u>
SILVER (Ag)	1311/6010	<u>0.0039</u>	<u> </u>

Notes and Definitions for this Report:

EXTRACTED
UNITS mg/L
PREP_TECH

DISPOSAL CHARGE

Minimum:

Maximum:

Method:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
25A	DISPOSAL CHARGE	DISPOSAL	CHARGE				

EXTRACTION STEP CODE

Minimum:

Maximum:

Method:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	12-26-3/E	10/05/94	.				EV
02A	12-16-4/S	10/05/94	.				EV
03A	12-16-4/PILE	10/05/94	.				EV
04A	12-16-4/N	10/05/94	.				EV
05A	12-26-2&3/N	10/05/94	.				EV
07A	12-26-2&3/S	10/05/94	.				EV
09A	12-26-1/W	10/05/94	.				EV
11A	12-26-1&2	10/05/94	.				EV
13A	12-26-SP1	10/05/94	.				EV
15A	12-26-SP2	10/05/94	.				EV
17A	12-26-SP3	10/05/94	.				EV
19A	94-10-004-QC1	MS 10/05/94	.				EV
20A	94-10-004-QC2	MB 10/05/94	.				EV
21A	94-10-004-QC3	CAL VER	.				

TPH - DIESEL

Minimum:

0 Maximum: 999999999

Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	12-26-3/E	< 10.0	MG/KG			10/05/94	ABC
05A	12-26-2&3/N	< 10.0	MG/KG			10/05/94	ABC
07A	12-26-2&3/S	< 10.0	MG/KG			10/06/94	ABC
13A	12-26-SP1	69.6	MG/KG			10/06/94	ABC
15A	12-26-SP2	< 10.0	MG/KG			10/06/94	ABC
17A	12-26-SP3	< 10.0	MG/KG			10/06/94	ABC
19A	94-10-004-QC1	MS 88.0	% RECOVERY			10/06/94	ABC
20A	94-10-004-QC2	MB < 10.0	MG/KG			10/06/94	ABC
21A	94-10-004-QC3	CAL VER 106	% RECOVERY			10/05/94	ABC

TPH - GASOLINE

Minimum:

0 Maximum: 999999999

Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
05A	12-26-2&3/N	< 5.0	MG/KG			10/04/94	ABC
07A	12-26-2&3/S	< 5.0	MG/KG			10/04/94	ABC
09A	12-26-1/W	< 5.0	MG/KG			10/04/94	ABC
11A	12-26-1&2	< 5.0	MG/KG			10/04/94	ABC
13A	12-26-SP1	< 5.0	MG/KG			10/04/94	ABC
15A	12-26-SP2	< 5.0	MG/KG			10/04/94	ABC
17A	12-26-SP3	< 5.0	MG/KG			10/04/94	ABC

Order # 94-10-004
10/17/94 15:32

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 13

<u>Samp</u>	<u>Sample Description</u>		<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
19A	94-10-004-QC1	MS	117	% RECOVERY			10/04/94	ABC
20A	94-10-004-QC2	MB	< 5.0	MG/KG			10/04/94	ABC
21A	94-10-004-QC3	CAL VER	99.1	% RECOVERY			10/04/94	ABC

TPH - GASOLINE MATRIX SPK Minimum: 0 Maximum: 999999999
Method: GC

<u>Samp</u>	<u>Sample Description</u>		<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
19A	94-10-004-QC1	MS	NA					
20A	94-10-004-QC2	MB	NA					
21A	94-10-004-QC3	CAL VER	NA					

TPH - OIL Minimum: 0 Maximum: 999999999
Method: GC

<u>Samp</u>	<u>Sample Description</u>		<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
02A	12-16-4/S		< 10.0	MG/KG			10/05/94	ABC
03A	12-16-4/PILE		< 10.0	MG/KG			10/05/94	ABC
04A	12-16-4/N		< 10.0	MG/KG			10/05/94	ABC
19A	94-10-004-QC1	MS	94.7	% RECOVERY			10/06/94	ABC
20A	94-10-004-QC2	MB	< 10.0	MG/KG			10/06/94	ABC
21A	94-10-004-QC3	CAL VER	103	% RECOVERY			10/05/94	ABC

TPH - TOTAL Minimum: 0 Maximum: 999999999
Method: GC

<u>Samp</u>	<u>Sample Description</u>		<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	12-26-3/E		NA					
02A	12-16-4/S		NA					
03A	12-16-4/PILE		NA					
04A	12-16-4/N		NA					
05A	12-26-2&3/N		NA					
07A	12-26-2&3/S		NA					
09A	12-26-1/W		NA					
11A	12-26-1&2		NA					
13A	12-26-SP1		NA					
15A	12-26-SP2		NA					
17A	12-26-SP3		NA					
19A	94-10-004-QC1	MS	NA					
20A	94-10-004-QC2	MB	< 25.0	MG/KG				
21A	94-10-004-QC3	CAL VER	NA					

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 94-10-004

CLIENT: ERTD - D. MADSEN

LABORATORY: REECO-ASD

DATE REVIEWED: 10-13-94

REVIEWED BY:

TPH (GASOLINE/DIESEL/OIL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		<u># DAYS</u>	<u>ACCEPTABLE</u>
a. Date Sampled:	<u>9-29-94</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>9-29-94</u>	<u>0</u>	<u>1</u>
c. Date Contract Lab Received:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
d. Date Extracted:	<u>10-4 & 10-5-94</u>	<u>5-6</u>	<u>14</u>
e. Date Analyzed:	<u>10-4 & 10-6-94</u>	<u>0-2</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: _____

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 94-10-004

CLIENT: ERTD - D. MADSEN

LABORATORY: REECO-ASD

DATE REVIEWED: 10-13-94

REVIEWED BY: *Jennifer D. Madsen*

TCLP METALS:

MATRIX: SOIL ARE METALS DATA ACCEPTABLE: YES

1. Are Method Blanks Acceptable: YES
2. Are Matrix Spikes Acceptable: YES
3. Are QC Samples Acceptable: YES
4. Are Holding Times Acceptable: YES

		# DAYS	ACCEPTABLE
a. Sample Date:	<u>9-28-94</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>9-29-94</u>	<u>1</u>	<u>YES</u>
c. Date Contract Lab Received:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
d. Date Hg Extracted:	<u>10-4-94</u>	<u>6</u>	<u>28</u>
e. Date Hg Analyzed:	<u>10-12-94</u>	<u>8</u>	<u>28</u>
f. Date Others Extracted:	<u>10-4-94</u>	<u>6</u>	<u>180</u>
g. Date Others Analyzed:	<u>10-6-94</u>	<u>2</u>	<u>180</u>

5. Are Forms correct: YES
6. Are correct
conc. units used: YES
7. Are analyses completed: YES
8. Chain-of-Custody agrees: YES

COMMENTS: _____

RELEASE SITE 23-BPY-1

REMEDIAL VERIFICATION SAMPLE PACKAGE FY94-12-014

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

JAN 17 12 21 PM '95

To S. J. Nacht
From J. L. Cowley *JLC*
Date January 12, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results, requested by Jerry Bonn, for the total petroleum hydrocarbons (diesel) analysis of 3 soil samples collected on December 6, 1994, at Dorm B in Area 23.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:78:ds

Enclosure
As Stated

cy w/o encl.

Central Files, M/S 530

A. R. Latham, M/S 612

ACS Packet No. FY94-12-014

cy w/encl.

J. F. Bonn, ERTD, M/S 969

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: JERRY BONN

Order #: 94-12-014
Date: 01/11/95 15:20
Work ID: TPH(DIESEL ONLY)/SOIL; A23
Date Received: 12/08/94
Date Completed: 01/10/95

Purchase Order: 3754-038
Invoice Number:

DCL #S94-0841
Client Code: ERTD

REPORT TO JERRY BONN, ERTD.
SAMPLES SENT TO DATACHEM FOR ANALYSIS 12/08/94.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	23-BPY-1/9'
02	23-BPY-1/SP1

<u>Sample Number</u>	<u>Sample Description</u>
03	23-BPY-1/SP2
04	BL-47487-1 DCL BLANK

Certified By

TPH DIESEL RESULTS

Case Narrative
DCL Set ID #(s): S94-0841-BC
Client: REECO
Packet # 94-12-014
Account #: 3018
29 December, 1994

Analysis Method #: SW8015 modified.

General Set Information: None.

Sample Preparation: 4 hour shake.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

Laboratory Control Sample Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None

Signature

This report is 7
total pages.

FORM B (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63B-V1.0
PDOR 12299409182785
Page 12

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried
LCS Source.....:

Report Date.....: 12/29/94 09:18
DCL Sample Name....: QC-47487-1

DCL Analysis Group: G94CD037
Analysis Method....: 8015M
Instrument Type....: GC
Instrument ID.....: 'ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

DCL Preparation Group: G94CD037
Date Prepared.....: 12/13/94 00:00
Preparation Method....: 4 hour shake

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	12/27/94 23:05	500.	432.	86.5	50.0/125.

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
PDOR 12299409182785
Page 11

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: µg/g
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G94CD037
Date Prepared.....: 12/13/94 00:00
Preparation Method....: 4 hour shake

Report Date.....: 12/29/94 09:18
DCL Sample Name....: EN 4629MS

DCL Analysis Group: G94CD037
Analysis Method....: 8015M
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	12/28/94 02:29	34.3	444.	500.	81.9	50.0/125.	

S94CD0JK

DCL Sample Name....: EN 4629MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	12/28/94 03:20	387.	70.6	416.	56.4	15.	0.000/50.0

ANALYTICAL REPORT

Form ARF-AL

Page 1 of 1

Part 1 of 1

AMENDED

Date JAN 03 1995Agency Identification Number S94-0841-BCAccount No. 0301894-12-014

REECO

P. O. Box 98521, M/S 713

Las Vegas, NV 89193-8521

Attention: Jerry Dugas

FAX (702) 295-7534

Telephone (702) 295-7220

Sampling Collection and Shipment

Sampling Site A23, Dorm B Date of Collection December 06, 1994Date Samples Received at Laboratory December 12, 1994

Analysis

Method of Analysis 8015MDate(s) of Analysis December 27, 1994 - December 28, 1994

Analytical Results

Field Sample Number	Laboratory Number	Sample Type	TPH-Diesel µg/g 4 hour shake	o-Terphenyl µg/g 4 hour shake						
BL-47487-1	BL-47487-1	SOIL	ND*	36						
QC-47487-1	QC-47487-1	SOIL	430	37						
23-BPY-1/9	EN 4628	SOIL	ND*	31						
23-BPY-1/SP1	EN 4629	SOIL	34	36						
23-BPY-1/SMS	EN 4629MS	SOIL	440	36						
23-BPY-1/MSD	EN 4629MSD	SOIL	390	31						
23-BPY-1/SP2	EN 4630	SOIL	53	34						
* Limit of Detection			10							

† See comment on last page.
ND Parameter not detected.
NR Parameter not requested.

** See comment on last page.
() Parameter between LOD and LOQ.

Analyst: Lawrence E. MillerReviewer: Daniel J. BruchLaboratory Supervisor: Daniel J. Bruch

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
PDOR 12299409182785
Page 10

S94CD0JB

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G94CD037
Date Prepared.....: 12/13/94 00:00
Preparation Method....: 4 hour shake

Report Date.....: 12/29/94 09:18
DCL Sample Name....: BL-47487-1

DCL Analysis Group: G94CD037
Analysis Method....: 8015M
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	12/27/94 23:56	0.177.	10

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
PDOR 12299409182785
Page 13

G94CD037

Client Name.....: REECO
Release Number.....: Not Provided

Report Date.....: 12/29/94 09:18

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried

DCL Analysis Group: G94CD037
Analysis Method....: 8015M

DCL Prep Group.....: G94CD037
Preparation Method: 4 hour shake

Surrogate Recoveries

Surr. ID	o-Terphenyl								
QC Limits	50.0/125.								
DCL Sample Number	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q
BL-47487-1	35.6	40.0	89.1						
EN 4628	31.1	40.0	77.7						
EN 4629	35.5	40.0	88.8						
EN 4629MS	36.0	40.0	89.9						
EN 4629MSD	30.8	40.0	77.1						
EN 4630	34.5	40.0	86.2						
EN 4633	32.1	40.0	80.3						
EN 4634	33.3	40.0	83.2						
QC-47487-1	37.1	40.0	92.8						

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 94-12-014

CLIENT: ERTD - JERRY BONN

LABORATORY: DATACHEM

DATE REVIEWED: 1-3-95

REVIEWED BY:

TPH (DIESEL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

	<u># DAYS</u>	<u>ACCEPTABLE</u>
a. Date Sampled: <u>12-6-94</u>	<u>0</u>	<u>0</u>
b. Date ACS Received: <u>12-8-94</u>	<u>2</u>	<u>YES</u>
c. Date Contract Lab Received: <u>12-12-94</u>	<u>6</u>	<u>YES</u>
d. Date Extracted: <u> </u>	<u> </u>	<u>14</u>
e. Date Analyzed: <u>12-28-94</u>	<u> </u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: _____

EFRE-2261 (03/93)

RELEASE SITE 23-752-2 & 23-752-3

REMEDIAL VERIFICATION SAMPLE PACKAGE FY95-01-013

OR

Case Narrative
DCL Set ID #(s): S95-0024-CC
Client: REECO
Packet # 95-01-013
Account #: 3018
16 January, 1995

Analysis Method #: SW8015 modified.

General Set Information: None.

Sample Preparation: 4 hour shake.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None.

A handwritten signature in dark ink, appearing to read "Lawrence E. Miller", written over a horizontal dashed line.

Signature

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 95-01-013

CLIENT: ERTD - JERRY BONN

LABORATORY: DATACHEM

DATE REVIEWED: 1-17-95

REVIEWED BY:

TPH (DIESEL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

DAYS

ACCEPTABLE

a. Date Sampled:	<u>1-11-95</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>1-12-95</u>	<u>1</u>	<u>YES</u>
c. Date Contract Lab
Received:	<u>1-13-95</u>	<u>2</u>	<u>YES</u>
d. Date Extracted:	<u>1-14-95</u>	<u>3</u>	<u>14</u>
e. Date Analyzed:	<u>1-14-95</u>	<u>3</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: RESULTS GIVEN TO JERRY BONN 1/17/95 AT 0800.

4-17

SUPPORTING DATA

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
PDOR 01169511414030
Page 11

Date Printed.....: 16-JAN-95 11:41

Client Name.....: REECO
Release Number.....: Not Provided

DCL Analysis Group: G950H00S
Analysis Method....: 8015 MOD

Matrix.....: SOIL
Reporting Units.....: µg/gram
Report Basis.....: ☒ As Received ☐ Dried

DCL Prep Group.....: G950H00S
Preparation Method: 4 hour shake

Surrogate Recoveries

Surr. ID	o-Terphenyl								
QC Limits	50.0/125.								
DCL Sample Number	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q
BL-49007-1	31.9	40.0	79.8						
EO 0188	36.2	40.0	90.4						
EO 0188MS	34.0	40.0	85.0						
EO 0188MSD	34.3	40.0	85.8						
QC-49007-1	35.1	40.0	87.7						

006

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Form RLIMS63B-V1.0
PDOR 01169511414030
Page 10

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....:
Report Basis.....: ☒ As Received ☐ Dried
LCS Source.....:

DCL Preparation Group: G950H00S
Date Prepared.....: 13-JAN-94 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 16-JAN-95 11:41
DCL Sample Name....: QC-49007-1

DCL Analysis Group: G950H00S
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	14-JAN-95 11:35	500.	391.	78.1	50.0/125.	

004

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From J. L. Cowley^{JLC}
Date January 26, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results, requested by Jerry Bonn, for the total petroleum hydrocarbons (diesel) analysis of one soil sample collected on January 11, 1995, at Dorm B in Area 23.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:95:ds

Enclosure
As Stated

cy w/o encl.
Central Files, M/S 530
A. R. Latham, M/S 708
ACS Packet No. FY95-01-013

cy w/encl.
J. F. Bonn, ERTD, M/S 969

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: JERRY BONN

Order #: 95-01-013
Date: 01/25/95 15:57
Work ID: TPH(DIESEL ONLY)/SOIL; RUSH!
Date Received: 01/12/95
Date Completed: 01/17/95

Purchase Order: 4073-111
Invoice Number:

Client Code: ERTD

REPORT TO JERRY BONN, ERTD.
SAMPLES SENT TO DATACHEM FOR ANALYSIS 01/12/95.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	23-752-3S/21.5

<u>Sample Number</u>	<u>Sample Description</u>
02	BL-49007-1 DCL BLANK

Certified By

Order # 95-01-013
01/25/95 15:57

REECO ASD/ACS
TEST RESULTS BY SAMPLE

Page 2

Sample: 01A 23-752-3S/21.5

Collected: 01/11/95 Category: TPH

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	73		μG/GRAM	01/14/95	DCL

Sample: 01B 23-752-3S/21MS

Collected: Category: TPH_MS

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	420		μG/GRAM	01/14/95	DCL

Sample: 01C 23-752-3S/2MSD

Collected: Category: TPH_MSD

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	470		μG/GRAM	01/14/95	DCL

Sample: 02A BL-49007-1

DCL BLANK Collected:

Category: TPH_BLANK

<u>Test Description</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>By</u>
TPH - DIESEL	ND		μG/GRAM	01/14/95	DCL

Order # 95-01-013
01/25/95 15:57

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 3

TPH - DIESEL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	23-752-3S/21.5	73	µG/GRAM			01/14/95	DCL
01B	23-752-3S/21MS	420	µG/GRAM			01/14/95	DCL
01C	23-752-3S/2MSD	470	µG/GRAM			01/14/95	DCL
02A	BL-49007-1 DCL BLANK	ND	µG/GRAM			01/14/95	DCL

Order # 95-01-013
01/25/95 15:57

REECO ASD/ACS
TEST METHODOLOGIES

Page 4

CALIFORNIA DEPT. OF HEALTH SERVICES MODIFICATION OF SW-846 METHOD 8015

NA = NOT APPLICABLE
ND = NOT DETECTED

TOTAL PETROLEUM HYDROCARBONS METHOD DETECTION LIMITS

FRACTION	MATRIX	EXTRACTION METHOD	HEADSPACE METHOD
Gasoline	Aqueous	0.5 mg/l	5.0 mg/l
	Soil	10.0 mg/kg	5.0 mg/kg
Diesel/Oil	Aqueous	0.5 mg/l	
	Soil	10.0 mg/kg	

TPH (DIESEL) RESULTS

RELEASE SITE 25-3102-1 & 25-3102-2

REMEDIAL VERIFICATION SAMPLE PACKAGE FY95-05-004

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From A. R. Latham
Date July 19, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results, requested by J. F. Bonn, for the total petroleum hydrocarbons (diesel) analyses of five soil samples collected on May 1, and May 3, 1995, at the Reactor Control Point in Area 25.

SPECIFIC:

Total Petroleum Hydrocarbons (Diesel/Oil);

The results of samples 253102-2S/13 and 253102-1N/14 for diesel were reported as "ND" for "Not Detected". Inspection of the chromatograms revealed a response in the elution window used for oil analysis. The client was contacted and requested that DATACHEM evaluate the heavier portion. DATACHEM quantitated the heavier hydrocarbon response against the diesel standard, resulting in a value less than the detection limit. The ammended portion of the results, updated for the oil analysis, is included with this report.

Please direct any questions you may have to your Client Service Representative, Ted Redding, at 295-7220.

ARL:294:bv

Enclosures
As stated

cy w/o encls.

Central Files, M/S 530

J. E. Henderson, M/S 580

L. S. Sygitowicz, M/S 612

ACS Packet No. 95-05-004, 95-06-018

cy w/encls.

J. F. Bonn, ERTD, M/S 966

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: DAVE MADSEN DO NOT BILL

Order #: 95-06-018
Date: 07/12/95 17:17
Work ID: TPH/SOIL(OIL ONLY);A25
Date Received: 05/03/95
Date Completed: 07/11/95

Purchase Order: 3754-038 DCL #S95-0427
Invoice Number: Client Code: ERTD

REPORT TO DAVE MADSEN, COPY TO JERRY BONN, ERTD.
PART OF PACKET 95-05-004, DCL #S95-0427.
REANALYZE SMPLS 253102-2S/13 & 253102-1N/14 FOR TPH(OIL ONLY)
WITH NORMAL (2 WEEK) TURNAROUND TIME.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	253102-2S/13

<u>Sample Number</u>	<u>Sample Description</u>
02	253102-1N/14

Certified By

TPH (DIESEL/OIL) RESULTS

MAY 17 1995

Case Narrative
DCL Set ID #(s): S95-0427-CC
Client: REECO
Account #: 3018
Packet # 95-05-004
16 May, 1995

Analysis Method #: SW8015 mod.

General Set Information: None.

Sample Preparation: 4 hour shake on 08 May, 1995.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Laboratory Control Sample Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None.

Signature

4
total pages.

ANALYTICAL REPORT AMENDED

Form ARF-AL
Page 1 of 2
Part 1 of 1

REECO
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521
Attention: Jerry Dugas

Date JUN 16 1995
Agency Identification Number S95-0427-CC
Account No. 03018

95-05-004
w/o # 3754-038

FAX (702) 295-7534
Telephone (702) 295-7220

Sampling Collection and Shipment

Sampling Site A25, RCP Date of Collection May 01, 1995

Date Samples Received at Laboratory May 05, 1995

Analysis

Method of Analysis 8015 MOD

Date(s) of Analysis May 13, 1995

Analytical Results

Field Sample Number	Laboratory Number	Sample Type	TPH-Diesel mg/kg	TPH-Oil mg/kg	O-Terphenyl mg/kg						
BL-55989-1	BL-55989-1	SOIL	ND	ND	34						
QC-55989-1	QC-55989-1	SOIL	340	NR	31						
253102-3N/13	EO 3595	SOIL	170	ND	38						
253102-3S/14	EO 3596	SOIL	620	ND	36						
253102-2S/13	EO 3597	SOIL	ND	ND	36						
253102-2N/13	EO 3598	SOIL	ND	ND	37						
253102-1N/14	EO 3599	SOIL	ND	ND	40						
253102-1N/14	EO 3599MS	SOIL	390	NR	34						
253102-1N/14	EO 3599MSD	SOIL	410	NR	35						
Limit of Detection			10	10							

† See comment on last page.
ND Parameter not detected.
NR Parameter not requested.

** See comment on last page.
() Parameter between LOD and LOQ.

Analyst: Lawrence E. Miller

Reviewer: Pamela Johnson

Laboratory Supervisor: Daniel J. Bruch

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547 / (801) 266-7700
A Sorenson Company

ANALYTICAL REPORT
AMENDED

Form ARF-C
Page 2 of 2

JUN 16 1995

Date _____
Agency Identification Number S95-0427-CC

General Set Comments

TPH-Oil is defined as all peaks eluting after diesel, and is quantitated against diesel standards.

COVER FORM (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63M-V1.0
05169515080719
Page 1

SUMMARY INFORMATION

G954403Z

Date Reported.....:

Date Printed.....: 16-MAY-95 15:08
DCL Client Group...: 895-0427-CC

Client Ref Number.: Not Provided
Release Number.....: Not Provided

Analysis Method....: 8015 MOD

REECO
Attention: Jerry Dugas
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521

<u>Client Sample ID</u>	<u>Lab Sample ID</u>
BL-55989-1	BL-55989-1
QC-55989-1	QC-55989-1
253102-3N/13	EO 3595
253102-3S/14	EO 3596
253102-2S/13	EO 3597
253102-2N/13	EO 3598
253102-1N/14	EO 3599
253102-1N/14	EO 3599MS
253102-1N/14	EO 3599MSD

Analyst: Lawrence E. Miller

Reviewer: Pamela Johnson

Laboratory Supervisor: Daniel J. Bruch

003

FORM H (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63H-V1.0
05169515080719

Page 2

SAMPLE GROUP COMMENTS

Date Printed.....: 16-MAY-95 15:08

DCL Client Group...: S95-0427-CC

Client Name.....: REECO

Release Number.....: Not Provided

General Information

The DCL QC Database maintains all numerical figures which are input from the pertinent data source. These data have not been rounded to significant figures nor have they been moisture corrected. Reports generated from the system, however, list data which have been rounded to the number of significant figures requested by the client or deemed appropriate for the method. This may create minor discrepancies between data which appear on the QC Summary Forms (Forms B-G) and those that would be calculated from rounded analytical results. Additionally, if a moisture correction is performed, differences will be observed between the QC data and the surrogate data reported on Form A (or other report forms) and corresponding data reported on QC Summary Forms. In these cases, the Form A will indicate the "Report Basis" as well as the moisture value used for making the correction.

Symbol Definitions

- ND - Not Detected above the MDL or IDL (LLD or MDC for radiochemistry).
- B - For organic analysis the qualifier indicates that this analyte was found in the method blank. For inorganic analysis the qualifier signifies the value is between the IDL and PQL.
- J - The qualifier indicates that the value is between the MDL and the PQL. It is also used for indicating an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

004

FORM B (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63B-V1.0
05169515080719

Page 3

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

LCS Source.....:

DCL Preparation Group: G954701V
Date Prepared.....: 08-MAY-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 16-MAY-95 15:08
DCL Sample Name....: QC-55989-1

DCL Analysis Group: G954701V
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: DB-5
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	13-MAY-95 10:21	500.	343.	68.7	50.0/125.	

005

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
05169515080719

Page 4

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G954701V
Date Prepared.....: 08-MAY-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 16-MAY-95 15:08
DCL Sample Name....: BL-55989-1

DCL Analysis Group: G954701V
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: .
Column Type.....: DB-5
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	13-MAY-95 11:32	-4.30	10

006

FORM F (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63F-V1.0
05169515080719

Page 5

S95470BW

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G954701V
Date Prepared.....: 08-MAY-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 16-MAY-95 15:08
DCL Sample Name....: EO 3599MS

DCL Analysis Group: G954701V
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: DB-5
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	13-MAY-95 18:25	-0.377	390.	500.	78.0	50.0/125.	.

S95470BX

DCL Sample Name....: EO 3599MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	13-MAY-95 19:35	408.	81.6	399.	17.9	4.5	0.000/50.0	

007

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
05169515080719

Page 6

G954701V

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

Date Printed.....: 16-MAY-95 15:08

DCL Analysis Group: G954701V
Analysis Method....: 8015 MOD

DCL Prep Group.....: G954701V
Preparation Method: 4 hour shake

Surrogate Recoveries

Surr. ID	o-Terphenyl								
QC Limits	50.0/125.								
DCL Sample Number	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q
BL-55989-1	34.1	40.0	85.4						
EO 3595	38.4	40.0	96.0						
EO 3596	36.2	40.0	90.6						
EO 3597	36.0	40.0	90.0						
EO 3598	36.5	40.0	91.4						
EO 3599	39.7	40.0	99.3						
EO 3599MS	34.5	40.0	86.2						
EO 3599MSD	35.0	40.0	87.5						
QC-55989-1	31.1	40.0	77.8						

008

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 95-06-018

CLIENT: ERTD - JERRY BONN

LABORATORY: DATA CHEM

DATE REVIEWED: 07/12/95

REVIEWED BY:

TPH (OIL):

MATRIX: SOIL & LIQUID

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE
2. MATRIX SPIKE ACCEPTABLE
3. METHOD BLANK ACCEPTABLE
4. HOLDING TIMES ACCEPTABLE

YES

YES

YES

YES

DAYS

ACCEPTABLE

a. Date Sampled:

05-01-95

0

0

b. Date ACS Received:

05-03-95

2

YES

c. Date Contract Lab Received:

05-05-95

4

YES

d. Date Extracted:

05-08-95

7

14

e. Date Analyzed:

05-13-95

5

40

5. CALCULATIONS ACCEPTABLE:

YES

6. CORRECT CONC. UNITS USED:

YES

7. FORMS ACCEPTABLE:

YES

8. CHAIN-OF-CUSTODY AGREES:

YES

COMMENTS: THIS PACKET IS A REWORK OF THE DATA FOUND IN 95-05-004. DATA CHEM
REVIEWED THE RAW DATA AND QUANTITATED THE OIL RESPONSE AGAINST THE DIESEL
STANDARD. THE VALUE RETURNED AS LESS THAN 10 MG/KG. NO CHARGES WERE
ASSOCIATED WITH THIS WORK.

EFRE-2261 (03/93)

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 95-05-004

CLIENT: ERTD - JERRY BONN

LABORATORY: DATA CHEM

DATE REVIEWED: 5-18-95

REVIEWED BY:

TPH (DIESEL):

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		# DAYS	ACCEPTABLE
a. Date Sampled:	<u>5-01-95</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>5-03-95</u>	<u>0</u>	<u>YES</u>
c. Date Contract Lab Received:	<u>5-05-95</u>	<u>4</u>	<u>YES</u>
d. Date Extracted:	<u>5-08-95</u>	<u>7</u>	<u>14</u>
e. Date Analyzed:	<u>5-13-95</u>	<u>12</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: Analyses of samples 253102-25/13 and 253102-1N/14 were reported as "ND" for diesel. However, the reviewer believes, based on inspection of the raw chromatography data, that the samples contain levels of heavier petroleum hydrocarbons, possibly oil. No estimate can be made of the concentration of the unknown constituents.

EFRE-2261 (03/93)

SPEEDY-MEMO

To: T. J. Redding

From: J. F. Bonn

Date: June 15, 1995

Subject: ACS Packet FY95-05-004

Per our telephone conversation this morning regarding the above subject data packet, I authorize the reanalysis of samples 253102-2S/13 and 253102-1N/14. Please analyze the samples for TPH as oil with normal (2 week) turnaround time. Please use Work Order Number 3754-038 for associated charges.

If you have any questions, please contact me at 295-7341.

cy w/o encls.

D. D. Madsen, M/S 969

See 95-06-018

RELEASE SITES 25-3102-4, 25-3123-1, & 25-3129-1

REMEDIAL VERIFICATION SAMPLE PACKAGE 94-10-049

Order # 94-10-049
10/27/94 12:50

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 2

DISPOSAL CHARGE
Method:

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
10A	DISPOSAL CHARGE		L				

EXTRACTION STEP CODE
Method:

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	27-5170-SW-118"	10/18/94	.			10/19/94	EV
02A	27-5170-SE-116"	10/18/94	.			10/19/94	EV
03A	25-3102-4/10.5/N	10/18/94	.			10/19/94	EV
04A	25-3123-1/11.5/S	10/18/94	.			10/19/94	EV
05A	25-3129-1/12/E	10/18/94	.			10/19/94	EV
06A	94-10-049-QC1	MS 10/18/94	.			10/19/94	EV
07A	94-10-049-QC2	MB 10/18/94	.			10/19/94	EV
08A	94-10-049-QC3	CAL VER .	.			10/19/94	ABC

SAMPLE TIME
Method:

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
09A	4 HOURS, .10 UNITS		L2				

SAMPLERS SUPPLIES
Method:

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
09A	4 HOURS, .10 UNITS		L1				

TPH - DIESEL
Method: GC

Minimum:

0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	27-5170-SW-118"	136	MG/KG			10/19/94	ABC
02A	27-5170-SE-116"	< 10.0	MG/KG			10/19/94	ABC
03A	25-3102-4/10.5/N	< 10.0	MG/KG			10/19/94	ABC
04A	25-3123-1/11.5/S	< 10.0	MG/KG			10/19/94	ABC
05A	25-3129-1/12/E	< 10.0	MG/KG			10/19/94	ABC
06A	94-10-049-QC1	MS 88.9	% RECOVERY			10/19/94	ABC
07A	94-10-049-QC2	MB < 10.0	MG/KG			10/19/94	ABC
08A	94-10-049-QC3	CAL VER 111	% RECOVERY			10/19/94	ABC

TPH - OIL
Method: GC

Minimum:

0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
05A	25-3129-1/12/E	< 10.0	MG/KG			10/19/94	ABC
06A	94-10-049-QC1	MS 105	% RECOVERY			10/19/94	ABC

Order # 94-10-049

REECO ASD/ACS

Page 3

10/27/94 12:50

REGULAR TEST RESULTS BY TEST

<u>Samp</u>	<u>Sample Description</u>		<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
07A	94-10-049-QC2	MB	< 10.0	MG/KG			10/19/94	ABC
08A	94-10-049-QC3	CAL VER	104	% RECOVERY			10/19/94	ABC

TPH - TOTAL

Minimum:

0 Maximum: 999999999

Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	27-5170-SW-118"	NA	.			10/19/94	ABC
02A	27-5170-SE-116"	NA	.			10/19/94	ABC
03A	25-3102-4/10.5/N	NA	.			10/19/94	ABC
04A	25-3123-1/11.5/S	NA	.			10/19/94	ABC

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From J. L. Cowley *JLC*
Date November 1, 1994
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results, requested by J. F. Bonn, for the total petroleum hydrocarbons (diesel/oil) of 5 soil samples, collected on October 17, 1994, in Areas 25 and 27.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:30:bv

Enclosure
As stated

cy w/o encl.

Central Files, M/S 530
A. R. Latham, M/S 708
ACS Packet No. 94-10-049

cy w/encl.

J. F. Bonn, ERTD; M/S 969

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: JERRY BONN

Order #: 94-10-049
Date: 10/27/94 12:50
Work ID: TPH(DIESEL)/SOIL; RUSH!!
Date Received: 10/18/94
Date Completed: 10/27/94

Purchase Order: 3754-032-000
Invoice Number:

Client Code: ERTD

REPORT TO JERRY BONN, ERTD.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	27-5170-SW-118"
02	27-5170-SE-116"
03	25-3102-4/10.5/N
04	25-3123-1/11.5/S
05	25-3129-1/12/E

<u>Sample Number</u>	<u>Sample Description</u>
06	94-10-049-QC1 MS
07	94-10-049-QC2 MB
08	94-10-049-QC3 CAL VER
09	4 HOURS, .10 UNITS
10	DISPOSAL CHARGE

Certified By

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 94-10-049

CLIENT: ERTD - J. BONN

LABORATORY: REECO-ASD

DATE REVIEWED: 10-25-94

REVIEWED BY: *[Signature]*

TPH (DIESEL/OIL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		# DAYS	ACCEPTABLE
a. Date Sampled:	<u>10-17-94</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>10-18-94</u>	<u>1</u>	<u>1</u>
c. Date Contract Lab Received:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
d. Date Extracted:	<u>10-18-94</u>	<u>1</u>	<u>14</u>
e. Date Analyzed:	<u>10-19-94</u>	<u>1</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: _____

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A25 RCP WORK ORDER No.: 3754- PACKET No.: 94-10-049

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	10/18/94/1310	25-3102-4/10.5	N -03A	TPH Diesel	8015 mod.
2	10/18/94/1355	25-3123-1/11.5	S -04A	TPH Diesel	8015 mod.
3	10/18/94/145	25-3129-1/12	E -05A	TPH Diesel	8015 mod.
4	LAST ITEM				
5					
6					
7					
8					
9					
10					

SAMPLER:

SIGNATURE

JAMES P. PROGOTT

PRINT NAME

ORGANIZATION (PRINT):

REECO ASD

RELINQUISHED BY:
(SIGNATURE)

DATE/TIME
RELINQUISHED

DATE/TIME
RECEIVED

RECEIVED BY:
(SIGN, PRINT NAME AND ORGANIZATION)

	10/18/94 1645	10/18/94 1645	Catherine D. Castaneda Catherine D. Castaneda ASD
Catherine D. Castaneda	10/18/94 1645	10/18/94 1645	BH
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y N	FOR LAB USE ONLY	FINAL DISPOSITION:
☒	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: 1 1
☒	SAMPLE LABELS AND C-O-C AGREE?

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A.27, Bldg. 5170, USTex. WORK ORDER No.: 3754-032 PACKET No.: 94-10-049

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	10-17-94/1350	27-5170-SW-118"	-01A	TPH-Diesel	8015 Mod. 250ml Soil
2	10-17-94/1455	27-5170-SE-116"	-02A	TPH-Diesel	8015 Mod. 250ml Soil
3	LAST ITEM				
4					
5					
6					
7					
8					
9					
10					

SAMPLER:

SIGNATURE

PRINT NAME

ORGANIZATION (PRINT):

REECO ERTOD/ERS

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Steven A. Boho</u>	10/18/94 0735	10/18/94 0735	<u>Jerry F. Bonn</u> REECO ERTOD
<u>Jerry F. Bonn</u>	10/18/94 1315	10/18/94 1315	<u>James P. Progett</u> REECO ASD
<u>James P. Progett</u>	10/18/94 1645	10/18/94 1645	<u>John W. Burns</u>
<u>John W. Burns</u>	10/18/94 1650	10/18/94 1650	<u>John W. Burns</u> ASD
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION:
X		PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: 1 1
X		SAMPLE LABELS AND C-O-C AGREE?	

RELEASE SITE 26-2104-1

REMEDIAL VERIFICATION SAMPLE PACKAGE FY95-04-025

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From C. J. Slotemaker *CJS*
Date May 22, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results for the volatile organics and total petroleum hydrocarbons (diesel) analyses of three soil samples and the volatile organics analysis of a trip blank. These samples, requested by J. F. Bonn, were collected on April 18, 1995, at the Power House in Area 26. Also enclosed are the gamma results for one soil sample.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

CJS:233:ds

Enclosures
As stated

cy w/o encls.

Central Files, M/S 530
A. R. Latham, M/S 708
L. S. Sygitowicz, M/S 612
ACS Packet No. FY95-04-025

cy w/encls.

J. F. Bonn, M/S 969

VOLATILES RESULTS

APR 28 1995

Case Narrative

DCL Set ID #(s): S95-0368-EE

Reference Packet #: 95-04-025

Client: REECO

Account #: 3018

April 27, 1995

Analysis / Method : Method 8240 is an EPA SW846 method (DCL SOP OV-SW-8240 Revision 2 - herein referred to as the "method") used in the analysis of water samples for volatile organics by GC/MS purge and trap techniques.

General Set Information: Datachem Laboratories received one water sample for VOA analysis. The sample was analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ug/L.

Sample Preparation: This method has no extraction procedure for the water matrix. The sample preparation date is the same as the date of analysis. Five milliliters of sample was spiked with 2.5 uL of Internal Standard/Surrogate Solution.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for a 50 ng purging of 4-Bromofluorobenzene as specified in the method, section 9.1. This tune check is valid for 12 hours.

Initial and Continuing Calibration Verification: The five point initial calibration curve which was analyzed prior to sample analysis met the specified criteria in section 9.2 of the method. System performance check compounds (SPCC) are checked for a minimum response factor of 0.300. These compounds are chloromethane, bromoform (can be 0.250), 1,1-dichloroethane, chlorobenzene, and 1,1,2,2-tetrachloroethane. Response factors for the calibration check compounds (toluene, 1,1-dichloroethene, chloroform, 1,2-dichloropropane, ethylbenzene, and vinyl chloride) from the initial calibration curve are used to calculate percent relative standard deviations (%RSD). For the initial calibration standards, the %RSD for the calibration check compounds (CCC) must be less than 30%.

A continuing calibration standard (CCS) which is used for the quantitation of each target compound was also analyzed prior to sample analysis. The CCS met the method criteria as specified in section 9.3. The response factors of the SPCC's met the minimum criteria of 0.300, except for bromoform at 0.250. The CCC's were less than 25% difference with the average response from the initial calibration curve.

Method Blank Analysis: A method blank (BL-54889-1) was prepared using Barnstead reagent water spiked with 2.5 uL of Internal Standard/Surrogate Solution and analyzed prior to sample analysis. The blank was free of volatile organic contaminants within the specifications of the method, section 13.5. 1,1,1-Trichloroethane was detected below the CRDL.

MS / MSD Analysis: Matrix spike and matrix spike duplicate analyses were performed for sample EO 2998 (95LDR04133) of set S95-0364-DD. All recoveries were within QC limits.

Laboratory Control Sample Analysis: A laboratory control sample (QC-54889-1) was analyzed once for each analytical batch. All recoveries were within established QC limits. Data contained in set S95-0364-DD.

Data Qualifier Codes: The "J" flag indicates a result is greater than the MDL but less than the CRDL. Analytes found in field samples which also appear in the method blanks are reported with a "B" qualifier in the Flag column. Spiked analytes are reported using an "SP" qualifier in the Flag column.

Miscellaneous Comments: All surrogate recoveries were within established QC limits. Instrument designation is HP5972-O. As per customer request, no unknowns were reported.

Christopher Q. Coleman

COVER FORM (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63M-V1.0
0428951107025
Page 1

SUMMARY INFORMATION

G953N01K

Date Reported.....:

Date Printed.....: 28-APR-95 11:07
DCL Client Group...: S95-0368-EE

Client Ref Number.: Not Provided
Release Number....: Not Provided

Analysis Method...: EPA 8240

REECO
Attention: Jerry Dugas
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521

95-01-025

Client Sample ID

95EV0418-1

Lab Sample ID

EO 3035

Analyst: Christopher Q. Coleman

Reviewer: Joseph Gress

Laboratory Supervisor: Joseph Gress

003

FORM H (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63H-V1.0
0428951406228
Page 2

SAMPLE GROUP COMMENTS

G953N01K

Date Printed.....: 28-APR-95 14:06

DCL Client Group...: S95-0368-EE

Release Number.....: Not Provided

Client Name.....: REECO

Sample Group Comments

QC and LCS data included in set S95-0364-DD.
Surrogate and matrix spike compounds are spiked at 50 ug/L.
The QC and sample data for this set are within acceptable parameters.
The samples were analyzed by GC/MS according to method 8240 (OV-BA-8240 Rev 2).
SP - Spiked analyte.
As per customer request no unknowns were reported.

General Information

The DCL QC Database maintains all numerical figures which are input from the pertinent data source. These data have not been rounded to significant figures nor have they been moisture corrected. Reports generated from the system, however, list data which have been rounded to the number of significant figures requested by the client or deemed appropriate for the method. This may create minor discrepancies between data which appear on the QC Summary Forms (Forms B-G) and those that would be calculated from rounded analytical results. Additionally, if a moisture correction is performed, differences will be observed between the QC data and the surrogate data reported on Form A (or other report forms) and corresponding data reported on QC Summary Forms. In these cases, the Form A will indicate the "Report Basis" as well as the moisture value used for making the correction.

Symbol Definitions

- ND - Not Detected above the MDL or IDL (LLD or MDC for radiochemistry).
- B - For organic analysis the qualifier indicates that this analyte was found in the method blank. For inorganic analysis the qualifier signifies the value is between the IDL and PQL.
- J - The qualifier indicates that the value is between the MDL and the PQL. It is also used for indicating an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

004

FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.0
0428951406228
Page 3

SAMPLE ANALYSIS DATA SHEET

S953N085

Client Name.....: REECO
Client Ref Number.....: Not Provided
Sampling Site.....: A26
Release Number.....: Not Provided

Date Received.....: 21-APR-95 00:00
DCL Client Group.....: S95-0368-EE

Date Printed.....: 28-APR-95 14:06
Client Sample Name: 95EV0418-1
DCL Sample Name....: EO 3035

Matrix.....: WATER
Date Sampled.....: 18-APR-95 00:00
Reporting Units....: UG/L
Report Basis.....: ☐ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 5.0 mL
Net Weight/Volume.....: Not Required

DCL Analysis Group: G953V004
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5972-0
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Chloromethane	24-APR-95 12:59	0.24	ND*			10
Bromomethane	24-APR-95 12:59	0.17	ND*			10
Vinyl Chloride	24-APR-95 12:59	0.22	ND*			10
Chloroethane	24-APR-95 12:59	0.28	ND*			10
Methylene Chloride	24-APR-95 12:59	0.17	0.82	J		5
Acetone	24-APR-95 12:59	3.75	4.5	J		100
Carbon Disulfide	24-APR-95 12:59	0.31	ND*			5
Trichlorofluoromethane	24-APR-95 12:59	0.41	ND*			5
1,1-Dichloroethane	24-APR-95 12:59	0.17	ND*			5
1,1-Dichloroethene	24-APR-95 12:59	0.40	ND*			5
total-1,2-Dichloroethene	24-APR-95 12:59	0.27	ND*			5
Chloroform	24-APR-95 12:59	0.14	ND*			5
1,2-Dichloroethane	24-APR-95 12:59	0.13	ND*			5
Iodomethane	24-APR-95 12:59	0.13	ND*			5
Acrolein	24-APR-95 12:59	6.32	ND*			20
Acrylonitrile	24-APR-95 12:59	0.66	ND*			20
2-Butanone	24-APR-95 12:59	2.48	ND*			100
1,1,1-Trichloroethane	24-APR-95 12:59	0.23	ND*			5
Carbon Tetrachloride	24-APR-95 12:59	0.28	ND*			5
Vinyl Acetate	24-APR-95 12:59	0.37	ND*			5
Bromodichloromethane	24-APR-95 12:59	0.13	ND*			5
1,2-Dichloropropane	24-APR-95 12:59	0.13	0.61	J		5
cis-1,3-Dichloropropene	24-APR-95 12:59	0.11	ND*			5
Trichloroethene	24-APR-95 12:59	0.19	1.7	J		5
Benzene	24-APR-95 12:59	0.13	ND*			5
Dibromochloromethane	24-APR-95 12:59	0.06	ND*			5
1,1,2-Trichloroethane	24-APR-95 12:59	0.20	ND*			5
trans-1,3-Dichloropropene	24-APR-95 12:59	0.10	ND*			5
2-Chloroethylvinyl Ether	24-APR-95 12:59	0.15	ND*			10
Bromoform	24-APR-95 12:59	0.11	ND*			5
Dibromomethane	24-APR-95 12:59	0.14	ND*			5
trans-1,4-Dichloro-2-Butene	24-APR-95 12:59	0.39	ND*			5
4-Methyl-2-Pentanone	24-APR-95 12:59	0.10	ND*			50
1,2,3-Trichloropropane	24-APR-95 12:59	0.31	ND*			5
2-Hexanone	24-APR-95 12:59	0.26	ND*			50
1,1,2,2-Tetrachloroethane	24-APR-95 12:59	0.14	ND*			5
Tetrachloroethene	24-APR-95 12:59	0.17	ND*			5
Ethyl Methacrylate	24-APR-95 12:59	0.28	ND*			5
Toluene	24-APR-95 12:59	0.15	ND*			5
Chlorobenzene	24-APR-95 12:59	0.14	ND*			5
Ethylbenzene	24-APR-95 12:59	0.19	ND*			5

005

FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.0
0428951406228
Page 4

SAMPLE ANALYSIS DATA SHEET

S953N085

Client Name.....: REECO

Date Printed.....: 28-APR-95 14:06

DCL Sample Name....: EO 3035

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Styrene	24-APR-95 12:59	0.11	ND*			5
Total Xylene	24-APR-95 12:59	0.37	ND*			5
1,2-Dichloroethane-D4	24-APR-95 12:59		47.			
Toluene-D8	24-APR-95 12:59		50.			
Bromofluorobenzene	24-APR-95 12:59		49.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	46.7	50.0	93.5
bromofluorobenzene	48.7	50.0	97.4
toluene-d8	50.0	50.0	100.

006

FORM B (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63B-V1.0
0428951406228C
Page 5

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

S953V005

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: WATER
Reporting Units.....: UG/L

LCS Source.....:

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable

Date Printed.....: 28-APR-95 14:06
DCL Sample Name....: QC-54889-1

DCL Analysis Group: G953V004
Analysis Method...: EPA 8240
Instrument Type...: GC/MS
Instrument ID.....: 5972-0
Column Type.....: DB 624

☒ Primary
☐ Confirmation

- Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
1,1-dichloroethene	24-APR-95 11:29	50.0	45.2	90.4	66.5/127.	
benzene	24-APR-95 11:29	50.0	46.6	93.1	75.9/117.	
chlorobenzene	24-APR-95 11:29	50.0	45.4	90.7	79.1/119.	
toluene	24-APR-95 11:29	50.0	44.6	89.2	78.4/119.	
trichloroethene	24-APR-95 11:29	50.0	44.9	89.8	74.1/112.	

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FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
0428951406228

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S953V004

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: WATER
Reporting Units.....: UG/L

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable

Date Printed.....: 28-APR-95 14:06
DCL Sample Name....: BL-54889-1

DCL Analysis Group: G953V004
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5972-O
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
1,1,1-Trichloroethane	24-APR-95 10:58	0.835	5

008

FORM F (TYPE I)
SINGLE METHOD ANALYSES
QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
0428951406228C
Page 7
[REDACTED]
S953M018

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: WATER
Reporting Units.....: UG/L

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable

Date Printed.....: 28-APR-95 14:06

DCL Sample Name....: EO 2998MS

DCL Analysis Group: G953V004

Analysis Method....: EPA 8240

Instrument Type...: GC/MS

Instrument ID.....: 5972-0

Column Type.....: DB 624

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
1,1-dichloroethene	24-APR-95 17:29	ND	47.4	50.0	94.8	64.8/122.	
benzene	24-APR-95 17:29	ND	49.2	50.0	98.3	79.2/111.	
chlorobenzene	24-APR-95 17:29	ND	48.8	50.0	97.7	78.0/117.	
toluene	24-APR-95 17:29	ND	48.5	50.0	97.1	78.6/117.	
trichloroethene	24-APR-95 17:29	ND	47.7	50.0	95.4	74.9/107.	

[REDACTED]
S953M019

DCL Sample Name....: EO 2998MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
1,1-dichloroethene	24-APR-95 18:00	44.5	89.1	46.0	2.88	6.3	0.000/17.1	
benzene	24-APR-95 18:00	48.9	97.7	49.0	0.284	0.58	0.000/13.3	
chlorobenzene	24-APR-95 18:00	47.4	94.8	48.1	1.44	3.0	0.000/15.5	
toluene	24-APR-95 18:00	46.9	93.7	47.7	1.68	3.5	0.000/15.7	
trichloroethene	24-APR-95 18:00	46.7	93.3	47.2	1.01	2.1	0.000/13.7	

009

MAY 05 1995

Case Narrative
DCL Set ID #(s): S95-0368-DE
Reference Packet #: 95-04-025

Client: Reeco
Account #: 3018
May 4, 1995

This report is 34
total pages.

Analysis / Method #: Method 8240 is an EPA SW846 method (DCL SOP: OV-SW-8240; revision #2 - herein referred to as the "method") for the analysis of soil samples for volatile organics by GC/MS using purge and trap techniques.

General Set Information: Datachem Laboratories received three soil samples for VOA analysis. All samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ug/Kg.

Sample Preparation: This method has no extraction procedure for the soil matrix. The sample preparation date is the same as the date of analysis. Five grams of sample was mixed with 5.0 mL of Barnstead reagent water spiked with 2.5 uL of Internal Standard/Surrogate Solution. The sample was then heated to 40°C and purged directly as per section 11.6 of the method.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for a 50 ng purging of 4-Bromofluorobenzene as specified in the method, section 9.1. This tune check is valid for 12 hours.

Initial and Continuing Calibration Verification: The five point initial calibration curve which was analyzed prior to sample analysis met the specified criteria in section 9.2 and 11.6 of the method. System performance check compounds (SPCC) are checked for a minimum response factor of 0.300. These compounds are chloromethane, bromoform (can be 0.250), 1,1-dichloroethane, chlorobenzene, and 1,1,2,2-tetrachloroethane. Response factors for the calibration check compounds (toluene, 1,1-dichloroethene, chloroform, 1,2-dichloropropane, ethylbenzene, and vinyl chloride) from the initial calibration curve are used to calculate percent relative standard deviations (%RSD). For the initial calibration standards, the %RSD for the calibration check compounds (CCC) must be less than 30%.

A continuing calibration standard (CCS) which is used for the quantitation of each target compound was also analyzed prior to sample analysis. The CCS met the method criteria as specified in section 9.3 and 11.6. The response factors of the SPCC's met the minimum criteria of 0.300, except for bromoform at 0.250. The CCC's were less than 25% difference with the average response from the initial calibration curve.

Method Blank Analysis: Two method blanks (BL-54937-1,2) were prepared using Barnstead reagent water spiked with 2.5 uL of Internal Standard/Surrogate Solution and analyzed prior to sample analysis. The blanks were free of volatile organic contaminants within the specifications of the method, section 13.5. Toluene was detected below the CRDL in BL-54937-1.

MS / MSD Analysis: Matrix spike and matrix spike duplicate analyses were performed on sample EO 3034 (26-2104/SP). The Matrix spike compounds are 1,1-dichloroethene, benzene, trichloroethene, toluene and chlorobenzene, and are spiked in at a concentration of 50 ug/Kg. The matrix spike and matrix spike duplicate recoveries were within the established QC limits.

Laboratory Control Sample Analysis: A laboratory control sample (QC-54937-1) was analyzed once for every analytical batch. The analytes (same as the matrix spike compounds) were spiked in at a concentration of 50 ug/Kg. The LCS recoveries were within the established QC limits.

Data Qualifier Codes: Recoveries less than the reporting limit but greater than the method detection limit (MDL) are reported with a "J" qualifier entered in the Flag column of the report. Analytes found in field samples that also appeared in the method blanks are reported with a "B" qualifier in the Flag column. Spiked analytes are reported with an "SP" qualifier in the Flag column.

Miscellaneous Comments: All surrogate recoveries were within the established method QC limits. Instrument designation was HP5972-O. All values are reported on a dry weight basis.

Christopher Q. Coleman

COVER FORM (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63M-V1
05059512582
Page 1

SUMMARY INFORMATION

G953N01J

REECO
Attention: Jerry Dugas
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521

Date Reported.....:

Date Printed.....: 05-MAY-95 12:58
DCL Client Group...: S95-0368-DE

Client Ref Number.: Not Provided
Release Number....: Not Provided

Analysis Method....: EPA 8240

<u>Client Sample ID</u>	<u>Lab Sample ID</u>
BL-54937-1	BL-54937-1
BL-54937-2	BL-54937-2
QC-54937-1	QC-54937-1
26-2104/E8	EO 3032
26-2104/W7	EO 3033
26-2104/SP	EO 3034
26-2104/SPMS	EO 3034MS
26-2104/SP	EO 3034MSD

Analyst: Christopher Q. Coleman

Reviewer: Thomas N. Bosch

Laboratory Supervisor: Thomas J. Masolan

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FORM H (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63H-V1.0
05059512582626
Page 2

SAMPLE GROUP COMMENTS

G953N01J

Client Name.....: REECO

Date Printed.....: 05-MAY-95 12:58

DCL Client Group...: S95-0368-DE

Release Number....: Not Provided

Sample Group Comments

QC and LCS data included in set S95-0368-DE.
Surrogate and matrix spike compounds are spiked at 50 ug/Kg.
The QC and sample data for this set are within acceptable parameters.
The samples were analyzed by GC/MS according to method 8240 (OV-SW-8240 Rev 2).
SP - Spiked analyte.

General Information

The DCL QC Database maintains all numerical figures which are input from the pertinent data source. These data have not been rounded to significant figures nor have they been moisture corrected. Reports generated from the system, however, list data which have been rounded to the number of significant figures requested by the client or deemed appropriate for the method. This may create minor discrepancies between data which appear on the QC Summary Forms (Forms B-G) and those that would be calculated from rounded analytical results. Additionally, if a moisture correction is performed, differences will be observed between the QC data and the surrogate data reported on Form A (or other report forms) and corresponding data reported on QC Summary Forms. In these cases, the Form A will indicate the "Report Basis" as well as the moisture value used for making the correction.

Symbol Definitions

- ND - Not Detected above the MDL or IDL (LLD or MDC for radiochemistry).
- B - For organic analysis the qualifier indicates that this analyte was found in the method blank. For inorganic analysis the qualifier signifies the value is between the IDL and PQL.
- J - The qualifier indicates that the value is between the MDL and the PQL. It is also used for indicating an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.0
0505951258262
Page 3

SAMPLE ANALYSIS DATA SHEET

S95420J9

Client Name.....: REECO
Client Ref Number....: Not Provided
Sampling Site.....: Not Applicable
Release Number.....: Not Provided

Date Received.....: Not Applicable
DCL Client Group.....: S95-0368-DE

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume....: Not Required

Date Printed.....: 05-MAY-95 12:58

Client Sample Name: BL-54937-1

DCL Sample Name....: BL-54937-1

Matrix.....: SOIL
Date Sampled.....: Not Applicable
Reporting Units....: UG/KG
☐ As Received ☐ Dried

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Chloromethane	27-APR-95 06:53	.48	ND			10
Bromomethane	27-APR-95 06:53	.26	ND			10
Vinyl Chloride	27-APR-95 06:53	.27	ND			10
Chloroethane	27-APR-95 06:53	.45	ND			10
Dichloromethane	27-APR-95 06:53	.28	ND			5
Acetone	27-APR-95 06:53	21.	ND			100
Carbon Disulfide	27-APR-95 06:53	.12	ND			5
Trichlorofluoromethane	27-APR-95 06:53	4.1	ND			5
1,1-Dichloroethane	27-APR-95 06:53	.12	ND			5
1,1-Dichloroethene	27-APR-95 06:53	.18	ND			5
total-1,2-Dichloroethene	27-APR-95 06:53	.27	ND			5
Chloroform	27-APR-95 06:53	.11	ND			5
1,2-Dichloroethane	27-APR-95 06:53	.18	ND			5
Iodomethane	27-APR-95 06:53	.13	ND			5
Acrolein	27-APR-95 06:53	8.2	ND			20
Acrylonitrile	27-APR-95 06:53	.47	ND			20
2-Butanone	27-APR-95 06:53	1.9	ND			100
1,1,1-Trichloroethane	27-APR-95 06:53	.16	ND			5
Carbon Tetrachloride	27-APR-95 06:53	2.3	ND			5
Vinyl Acetate	27-APR-95 06:53	.85	ND			5
Bromodichloromethane	27-APR-95 06:53	.19	ND			5
1,2-Dichloropropane	27-APR-95 06:53	.12	ND			5
cis-1,3-Dichloropropene	27-APR-95 06:53	.13	ND			5
Trichloroethene	27-APR-95 06:53	.16	ND			5
Benzene	27-APR-95 06:53	.20	ND			5
Chlorodibromomethane	27-APR-95 06:53	.15	ND			5
1,1,2-Trichloroethane	27-APR-95 06:53	.15	ND			5
trans-1,3-Dichloropropene	27-APR-95 06:53	.11	ND			5
2-Chloroethylvinyl Ether	27-APR-95 06:53	.10	ND			10
Bromoform	27-APR-95 06:53	.10	ND			5
Dibromomethane	27-APR-95 06:53	.22	ND			5
trans-1,4-Dichloro-2-Butene	27-APR-95 06:53	.24	ND			5
4-Methyl-2-Pentanone	27-APR-95 06:53	.37	ND			50
1,2,3-Trichloropropane	27-APR-95 06:53	.16	ND			5
2-Hexanone	27-APR-95 06:53	.50	ND			50
1,1,2,2-Tetrachloroethane	27-APR-95 06:53	.08	ND			5
Tetrachloroethene	27-APR-95 06:53	.17	ND			5
Ethyl Methacrylate	27-APR-95 06:53	.20	ND			5
Toluene	27-APR-95 06:53	.20	2.3	J		5
Chlorobenzene	27-APR-95 06:53	.06	ND			5
Ethyl Benzene	27-APR-95 06:53	.19	ND			5

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.0
05059512582626
Page 4

SAMPLE ANALYSIS DATA SHEET

Date Printed.....: 05-MAY-95 12:58

DCL Sample Name....: BL-54937-1

Client Name.....: REECO

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Styrene	27-APR-95 06:53	.26	ND			5
Total Xylene	27-APR-95 06:53	.30	ND			5
1,2-Dichloroethane-D4	27-APR-95 06:53		49.			
Toluene-D8	27-APR-95 06:53		49.			
Bromofluorobenzene	27-APR-95 06:53		50.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	49.3	50.0	98.6
bromofluorobenzene	49.7	50.0	99.5
toluene-d8	49.2	50.0	98.5

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.0

0505951258262

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SAMPLE ANALYSIS DATA SHEET

S95420JB

Client Name.....: REECO
Client Ref Number.....: Not Provided
Sampling Site.....: Not Applicable
Release Number.....: Not Provided

Date Received.....: Not Applicable
DCL Client Group.....: S95-0368-DE

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method....: Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume....: Not Required

Date Printed.....: 05-MAY-95 12:58

Client Sample Name: BL-54937-2

DCL Sample Name....: BL-54937-2

Matrix.....: SOIL

Date Sampled.....: Not Applicable

Reporting Units....: UG/KG

☐ As Received ☐ Dried

DCL Analysis Group: G9543005

Analysis Method....: EPA 8240

Instrument Type....: GC/MS

Instrument ID.....: 5971-L

Column Type.....: DB 624

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Chloromethane	28-APR-95 14:24	.48	ND			10
Bromomethane	28-APR-95 14:24	.26	ND			10
Vinyl Chloride	28-APR-95 14:24	.27	ND			10
Chloroethane	28-APR-95 14:24	.45	ND			10
Dichloromethane	28-APR-95 14:24	.28	ND			5
Acetone	28-APR-95 14:24	21.	ND			100
Carbon Disulfide	28-APR-95 14:24	.12	ND			5
Trichlorofluoromethane	28-APR-95 14:24	4.1	ND			5
1,1-Dichloroethane	28-APR-95 14:24	.12	ND			5
1,1-Dichloroethene	28-APR-95 14:24	.18	ND			5
total-1,2-Dichloroethene	28-APR-95 14:24	.27	ND			5
Chloroform	28-APR-95 14:24	.11	ND			5
1,2-Dichloroethane	28-APR-95 14:24	.18	ND			5
Iodomethane	28-APR-95 14:24	.13	ND			5
Acrolein	28-APR-95 14:24	8.2	ND			20
Acrylonitrile	28-APR-95 14:24	.47	ND			20
2-Butanone	28-APR-95 14:24	1.9	ND			100
1,1,1-Trichloroethane	28-APR-95 14:24	.16	ND			5
Carbon Tetrachloride	28-APR-95 14:24	2.3	ND			5
Vinyl Acetate	28-APR-95 14:24	.85	ND			5
Bromodichloromethane	28-APR-95 14:24	.19	ND			5
1,2-Dichloropropane	28-APR-95 14:24	.12	ND			5
cis-1,3-Dichloropropene	28-APR-95 14:24	.13	ND			5
Trichloroethene	28-APR-95 14:24	.16	ND			5
Benzene	28-APR-95 14:24	.20	ND			5
Chlorodibromomethane	28-APR-95 14:24	.15	ND			5
1,1,2-Trichloroethane	28-APR-95 14:24	.15	ND			5
trans-1,3-Dichloropropene	28-APR-95 14:24	.11	ND			5
2-Chloroethylvinyl Ether	28-APR-95 14:24	.10	ND			10
Bromoform	28-APR-95 14:24	.10	ND			5
Dibromomethane	28-APR-95 14:24	.22	ND			5
trans-1,4-Dichloro-2-Butene	28-APR-95 14:24	.24	ND			5
4-Methyl-2-Pentanone	28-APR-95 14:24	.37	ND			50
1,2,3-Trichloropropane	28-APR-95 14:24	.16	ND			5
2-Hexanone	28-APR-95 14:24	.50	ND			50
1,1,2,2-Tetrachloroethane	28-APR-95 14:24	.08	ND			5
Tetrachloroethene	28-APR-95 14:24	.17	ND			5
Ethyl Methacrylate	28-APR-95 14:24	.20	ND			5
Toluene	28-APR-95 14:24	.20	ND			5
Chlorobenzene	28-APR-95 14:24	.06	ND			5
Ethyl Benzene	28-APR-95 14:24	.19	ND			5

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.0
0505951258262
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S95420JB

Date Printed.....: 05-MAY-95 12:58

DCL Sample Name....: BL-54937-2

Client Name.....: REECO

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Styrene	28-APR-95 14:24	.26	ND			.5
Total Xylene	28-APR-95 14:24	.30	ND			5
1,2-Dichloroethane-D4	28-APR-95 14:24		48.			
Toluene-D8	28-APR-95 14:24		50.			
Bromofluorobenzene	28-APR-95 14:24		49.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	47.7	50.0	95.5
bromofluorobenzene	49.0	50.0	97.9
toluene-d8	50.5	50.0	101.

008

FORM A (TYPE I)
SINGLE METHOD ANALYSES

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0505951258262
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SAMPLE ANALYSIS DATA SHEET

S95420JC

Client Name..... REECO
Client Ref Number..... Not Provided
Sampling Site..... Not Applicable
Release Number..... Not Provided

Date Received..... Not Applicable
DCL Client Group..... S95-0368-DE

DCL Preparation Group: Not Applicable
Date Prepared..... Not Applicable
Preparation Method.... Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume..... Not Required

Date Printed.....: 05-MAY-95 12:58
Client Sample Name: QC-54937-1
DCL Sample Name....: QC-54937-1

Matrix.....: SOIL
Date Sampled.....: Not Applicable
Reporting Units....: UG/KG
☐ As Received ☐ Dried

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
1,1-Dichloroethene	28-APR-95 14:57	.18	48.	SP		5
Trichloroethene	28-APR-95 14:57	.16	46.	SP		5
Benzene	28-APR-95 14:57	.20	51.	SP		5
Toluene	28-APR-95 14:57	.20	51.	SP		5
Chlorobenzene	28-APR-95 14:57	.06	51.	SP		5
1,2-Dichloroethane-D4	28-APR-95 14:57		48.			
Toluene-D8	28-APR-95 14:57		51.			
Bromofluorobenzene	28-APR-95 14:57		50.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	48.4	50.0	96.8
bromofluorobenzene	49.6	50.0	99.2
toluene-d8	50.7	50.0	101.

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

Client Name..... REECO
Client Ref Number..... Not Provided
Sampling Site..... A26
Release Number..... Not Provided

Date Received..... 21-APR-95 00:00
DCL Client Group..... S95-0368-DE

Date Printed..... 05-MAY-95 12:58
Client Sample Name: 26-2104/E8
DCL Sample Name.... EO 3032

Matrix..... SOIL
Date Sampled..... 18-APR-95 00:00
Reporting Units.... UG/KG
Report Basis..... ☐ As Received ☒ Dried
Percent Solids..... 92.6

DCL Preparation Group: Not Applicable
Date Prepared..... Not Applicable
Preparation Method.... Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume..... Not Required

DCL Analysis Group: G9543005
Analysis Method.... EPA 8240
Instrument Type.... GC/MS
Instrument ID..... 5971-L
Column Type..... DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Chloromethane	27-APR-95 16:02	.48	ND			10
Bromomethane	27-APR-95 16:02	.26	ND			10
Vinyl Chloride	27-APR-95 16:02	.27	ND			10
Chloroethane	27-APR-95 16:02	.45	ND			10
Dichloromethane	27-APR-95 16:02	.28	ND			5
Acetone	27-APR-95 16:02	21.	ND			100
Carbon Disulfide	27-APR-95 16:02	.12	ND			5
Trichlorofluoromethane	27-APR-95 16:02	4.1	ND			5
1,1-Dichloroethane	27-APR-95 16:02	.12	ND			5
1,1-Dichloroethene	27-APR-95 16:02	.18	ND			5
total-1,2-Dichloroethene	27-APR-95 16:02	.27	ND			5
Chloroform	27-APR-95 16:02	.11	ND			5
1,2-Dichloroethane	27-APR-95 16:02	.18	ND			5
Iodomethane	27-APR-95 16:02	.13	ND			5
Acrolein	27-APR-95 16:02	8.2	ND			20
Acrylonitrile	27-APR-95 16:02	.47	ND			20
2-Butanone	27-APR-95 16:02	1.9	ND			100
1,1,1-Trichloroethane	27-APR-95 16:02	.16	ND			5
Carbon Tetrachloride	27-APR-95 16:02	2.3	ND			5
Vinyl Acetate	27-APR-95 16:02	.85	ND			5
Bromodichloromethane	27-APR-95 16:02	.19	ND			5
1,2-Dichloropropane	27-APR-95 16:02	.12	ND			5
cis-1,3-Dichloropropene	27-APR-95 16:02	.13	ND			5
Trichloroethene	27-APR-95 16:02	.16	ND			5
Benzene	27-APR-95 16:02	.20	ND			5
Chlorodibromomethane	27-APR-95 16:02	.15	ND			5
1,1,2-Trichloroethane	27-APR-95 16:02	.15	ND			5
trans-1,3-Dichloropropene	27-APR-95 16:02	.11	ND			5
2-Chloroethylvinyl Ether	27-APR-95 16:02	.10	ND			10
Bromoform	27-APR-95 16:02	.10	ND			5
Dibromomethane	27-APR-95 16:02	.22	ND			5
trans-1,4-Dichloro-2-Butene	27-APR-95 16:02	.24	ND			5
4-Methyl-2-Pentanone	27-APR-95 16:02	.37	ND			50
1,2,3-Trichloropropane	27-APR-95 16:02	.16	ND			5
2-Hexanone	27-APR-95 16:02	.50	ND			50
1,1,2,2-Tetrachloroethane	27-APR-95 16:02	.08	ND			5
Tetrachloroethene	27-APR-95 16:02	.17	ND			5
Ethyl Methacrylate	27-APR-95 16:02	.20	ND			5
Toluene	27-APR-95 16:02	.20	ND			5
Chlorobenzene	27-APR-95 16:02	.06	ND			5
Ethyl Benzene	27-APR-95 16:02	.19	ND			5

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

S953N082

Client Name.....: REECO

Date Printed.....: 05-MAY-95 12:58
DCL Sample Name....: EO 3032

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Styrene	27-APR-95 16:02	.26	ND			5
Total Xylene	27-APR-95 16:02	.30	ND			5
1,2-Dichloroethane-D4	27-APR-95 16:02		48.			
Toluene-D8	27-APR-95 16:02		51.			
Bromofluorobenzene	27-APR-95 16:02		51.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	43.6	50.0	87.2
bromofluorobenzene	46.9	50.0	93.8
toluene-d8	47.4	50.0	94.8

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

S953N083

Client Name.....: REECO
Client Ref Number.....: Not Provided
Sampling Site.....: A26
Release Number.....: Not Provided

Date Received.....: 21-APR-95 00:00
DCL Client Group.....: S95-0368-DE

Date Printed.....: 05-MAY-95 12:58
Client Sample Name: 26-2104/W7
DCL Sample Name....: EO 3033

Matrix.....: SOIL
Date Sampled.....: 18-APR-95 00:00
Reporting Units....: UG/KG
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids.....: 89.3

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume....: Not Required

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Chloromethane	27-APR-95 16:34	.48	ND			10
Bromomethane	27-APR-95 16:34	.26	ND			10
Vinyl Chloride	27-APR-95 16:34	.27	ND			10
Chloroethane	27-APR-95 16:34	.45	ND			10
Dichloromethane	27-APR-95 16:34	.28	ND			5
Acetone	27-APR-95 16:34	21.	ND			100
Carbon Disulfide	27-APR-95 16:34	.12	ND			5
Trichlorofluoromethane	27-APR-95 16:34	4.1	ND			5
1,1-Dichloroethane	27-APR-95 16:34	.12	ND			5
1,1-Dichloroethene	27-APR-95 16:34	.18	ND			5
total-1,2-Dichloroethene	27-APR-95 16:34	.27	ND			5
Chloroform	27-APR-95 16:34	.11	ND			5
1,2-Dichloroethane	27-APR-95 16:34	.18	ND			5
Iodomethane	27-APR-95 16:34	.13	ND			5
Acrolein	27-APR-95 16:34	8.2	ND			20
Acrylonitrile	27-APR-95 16:34	.47	ND			20
2-Butanone	27-APR-95 16:34	1.9	ND			100
1,1,1-Trichloroethane	27-APR-95 16:34	.16	ND			5
Carbon Tetrachloride	27-APR-95 16:34	2.3	ND			5
Vinyl Acetate	27-APR-95 16:34	.85	ND			5
Bromodichloromethane	27-APR-95 16:34	.19	ND			5
1,2-Dichloropropane	27-APR-95 16:34	.12	ND			5
cis-1,3-Dichloropropene	27-APR-95 16:34	.13	ND			5
Trichloroethene	27-APR-95 16:34	.16	ND			5
Benzene	27-APR-95 16:34	.20	ND			5
Chlorodibromomethane	27-APR-95 16:34	.15	ND			5
1,1,2-Trichloroethane	27-APR-95 16:34	.15	ND			5
trans-1,3-Dichloropropene	27-APR-95 16:34	.11	ND			5
2-Chloroethylvinyl Ether	27-APR-95 16:34	.10	ND			10
Bromoform	27-APR-95 16:34	.10	ND			5
Dibromomethane	27-APR-95 16:34	.22	ND			5
trans-1,4-Dichloro-2-Butene	27-APR-95 16:34	.24	ND			5
4-Methyl-2-Pentanone	27-APR-95 16:34	.37	ND			50
1,2,3-Trichloropropane	27-APR-95 16:34	.16	ND			5
2-Hexanone	27-APR-95 16:34	.50	ND			50
1,1,2,2-Tetrachloroethane	27-APR-95 16:34	.08	ND			5
Tetrachloroethene	27-APR-95 16:34	.17	ND			5
Ethyl Methacrylate	27-APR-95 16:34	.20	ND			5
Toluene	27-APR-95 16:34	.20	ND			5
Chlorobenzene	27-APR-95 16:34	.06	ND			5
Ethyl Benzene	27-APR-95 16:34	.19	ND			5

FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

S953N083

Client Name.....: REECO

Date Printed.....: 05-MAY-95 12:58
DCL Sample Name....: EO 3033

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Styrene	27-APR-95 16:34	.26	ND			5
Total Xylene	27-APR-95 16:34	.30	ND			5
1,2-Dichloroethane-D4	27-APR-95 16:34		50.			
Toluene-D8	27-APR-95 16:34		54.			
Bromofluorobenzene	27-APR-95 16:34		54.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	45.3	50.0	90.6
bromofluorobenzene	47.5	50.0	95.0
toluene-d8	47.7	50.0	95.4

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

Client Name.....: REECO
Client Ref Number.....: Not Provided
Sampling Site.....: A26
Release Number.....: Not Provided

Date Received.....: 21-APR-95 00:00
DCL Client Group.....: S95-0368-DE

Date Printed.....: 05-MAY-95 12:58
Client Sample Name: 26-2104/SP
DCL Sample Name....: EO 3034

Matrix.....: SOIL
Date Sampled.....: 18-APR-95 00:00
Reporting Units....: UG/KG
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids.....: 88.6

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method....: Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume.....: Not Required

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Chloromethane	27-APR-95 17:07	.48	ND			10
Bromomethane	27-APR-95 17:07	.26	ND			10
Vinyl Chloride	27-APR-95 17:07	.27	ND			10
Chloroethane	27-APR-95 17:07	.45	ND			10
Dichloromethane	27-APR-95 17:07	.28	ND			5
Acetone	27-APR-95 17:07	21.	ND			100
Carbon Disulfide	27-APR-95 17:07	.12	ND			5
Trichlorofluoromethane	27-APR-95 17:07	4.1	ND			5
1,1-Dichloroethane	27-APR-95 17:07	.12	ND			5
1,1-Dichloroethene	27-APR-95 17:07	.18	ND			5
total-1,2-Dichloroethene	27-APR-95 17:07	.27	ND			5
Chloroform	27-APR-95 17:07	.11	ND			5
1,2-Dichloroethane	27-APR-95 17:07	.18	ND			5
Iodomethane	27-APR-95 17:07	.13	ND			5
Acrolein	27-APR-95 17:07	8.2	ND			20
Acrylonitrile	27-APR-95 17:07	.47	ND			20
2-Butanone	27-APR-95 17:07	1.9	ND			100
1,1,1-Trichloroethane	27-APR-95 17:07	.16	ND			5
Carbon Tetrachloride	27-APR-95 17:07	2.3	ND			5
Vinyl Acetate	27-APR-95 17:07	.85	ND			5
Bromodichloromethane	27-APR-95 17:07	.19	ND			5
1,2-Dichloropropane	27-APR-95 17:07	.12	ND			5
cis-1,3-Dichloropropene	27-APR-95 17:07	.13	ND			5
Trichloroethene	27-APR-95 17:07	.16	ND			5
Benzene	27-APR-95 17:07	.20	ND			5
Chlorodibromomethane	27-APR-95 17:07	.15	ND			5
1,1,2-Trichloroethane	27-APR-95 17:07	.15	ND			5
trans-1,3-Dichloropropene	27-APR-95 17:07	.11	ND			5
2-Chloroethylvinyl Ether	27-APR-95 17:07	.10	ND			10
Bromoform	27-APR-95 17:07	.10	ND			5
Dibromomethane	27-APR-95 17:07	.22	ND			5
trans-1,4-Dichloro-2-Butene	27-APR-95 17:07	.24	ND			5
4-Methyl-2-Pentanone	27-APR-95 17:07	.37	ND			50
1,2,3-Trichloropropane	27-APR-95 17:07	.16	ND			5
2-Hexanone	27-APR-95 17:07	.50	ND			50
1,1,2,2-Tetrachloroethane	27-APR-95 17:07	.08	ND			5
Tetrachloroethene	27-APR-95 17:07	.17	ND			5
Ethyl Methacrylate	27-APR-95 17:07	.20	ND			5
Toluene	27-APR-95 17:07	.20	ND			5
Chlorobenzene	27-APR-95 17:07	.06	ND			5
Ethyl Benzene	27-APR-95 17:07	.19	ND			5

FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

S953N084

Client Name.....: REECO

Date Printed.....: 05-MAY-95 12:58
DCL Sample Name....: E0 3034

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
Styrene	27-APR-95 17:07	.26	ND			5
Total Xylene	27-APR-95 17:07	.30	ND			5
1,2-Dichloroethane-D4	27-APR-95 17:07		51.			
Toluene-D8	27-APR-95 17:07		54.			
Bromofluorobenzene	27-APR-95 17:07		54.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	44.8	50.0	89.6
bromofluorobenzene	47.8	50.0	95.6
toluene-d8	47.7	50.0	95.4

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

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S95420JD

Client Name.....: REECO
Client Ref Number.....: Not Provided
Sampling Site.....: A26
Release Number.....: Not Provided

Date Received.....: 21-APR-95 00:00
DCL Client Group.....: S95-0368-DE

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method....: Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume.....: Not Required

Date Printed.....: 05-MAY-95 12:58
Client Sample Name: 26-2104/SPMS
DCL Sample Name....: EO 3034MS

Matrix.....: SOIL
Date Sampled.....: Not Provided
Reporting Units....: UG/KG
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids.....: 88.6

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
1,1-Dichloroethene	28-APR-95 15:30	.18	55.	SP		5
Trichloroethene	28-APR-95 15:30	.16	46.	SP		5
Benzene	28-APR-95 15:30	.20	53.	SP		5
Toluene	28-APR-95 15:30	.20	55.	SP		5
Chlorobenzene	28-APR-95 15:30	.06	54.	SP		5
1,2-Dichloroethane-D4	28-APR-95 15:30		53.			
Toluene-D8	28-APR-95 15:30		55.			
Bromofluorobenzene	28-APR-95 15:30		55.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	47.2	50.0	94.5
bromofluorobenzene	49.3	50.0	98.6
toluene-d8	48.8	50.0	97.6

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

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Client Name.....: REECO
Client Ref Number.....: Not Provided
Sampling Site.....: A26
Release Number.....: Not Provided

Date Received.....: 21-APR-95 00:00
DCL Client Group.....: S95-0368-DE

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 5.0 g
Net Weight/Volume.....: Not Required

Date Printed.....: 05-MAY-95 12:58
Client Sample Name: 26-2104/SP
DCL Sample Name....: EO 3034MSD

Matrix.....: SOIL
Date Sampled.....: Not Provided
Reporting Units....: UG/KG
Report Basis.....: ☐ As Received ☒ Dried
Percent Solids.....: 88.6

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Flag	Dilution	CRDL
1,1-Dichloroethene	28-APR-95 16:03	.18	55.	SP		5
Trichloroethene	28-APR-95 16:03	.16	49.	SP		5
Benzene	28-APR-95 16:03	.20	55.	SP		5
Toluene	28-APR-95 16:03	.20	56.	SP		5
Chlorobenzene	28-APR-95 16:03	.06	56.	SP		5
1,2-Dichloroethane-D4	28-APR-95 16:03		54.			
Toluene-D8	28-APR-95 16:03		55.			
Bromofluorobenzene	28-APR-95 16:03		56.			

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-dichloroethane-d4	47.8	50.0	95.6
bromofluorobenzene	49.9	50.0	99.8
toluene-d8	49.2	50.0	98.4

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FORM B (TYPE I)
SINGLE METHOD ANALYSES

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QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Date Printed.....: 05-MAY-95 12:58
DCL Sample Name....: QC-54937-1

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: UG/KG

LCS Source.....:

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method....: Not Applicable

- Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
1,1-dichloroethene	28-APR-95 14:57	50.0	48.5	97.0	86.0/120.	
benzene	28-APR-95 14:57	50.0	51.0	102.	87.1/118.	
chlorobenzene	28-APR-95 14:57	50.0	51.4	103.	85.8/119.	
toluene	28-APR-95 14:57	50.0	50.9	102.	84.4/125.	
trichloroethene	28-APR-95 14:57	50.0	45.5	91.1	71.8/104.	

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FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

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05059512582..
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Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....:

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable

Date Printed.....: 05-MAY-95 12:58
DCL Sample Name....: BL-54937-1

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
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FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

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G9543005

Date Printed.....: 05-MAY-95 12:58

Client Name.....: REECO
Release Number.....: Not Provided

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240

Matrix.....: SOIL
Reporting Units.....: UG/KG

DCL Prep Group....: Not Applicable
Preparation Method: Not Applicable

Surrogate Recoveries

Surr. ID	1,2-dichloroethane-d4				bromofluorobenzene				toluene-d8			
QC Limits	74.5/105.				82.4/112.				92.1/119.			
DCL Sample Number	Analyte Result	Spiked Amount	% Rec.	Q	Analyte Result	Spiked Amount	% Rec.	Q	Analyte Result	Spiked Amount	% Rec.	Q
BL-54937-1	49.3	50.0	98.6		49.7	50.0	99.5		49.2	50.0	98.5	
BL-54937-2	47.7	50.0	95.5		49.0	50.0	97.9		50.5	50.0	101.	
EO 3032	43.6	50.0	87.2		46.9	50.0	93.8		47.4	50.0	94.8	
EO 3033	45.3	50.0	90.6		47.5	50.0	95.0		47.7	50.0	95.4	
EO 3034	44.8	50.0	89.6		47.8	50.0	95.6		47.7	50.0	95.4	
EO 3034MS	47.2	50.0	94.5		49.3	50.0	98.6		48.8	50.0	97.6	
EO 3034MSD	47.8	50.0	95.6		49.9	50.0	99.8		49.2	50.0	98.4	
QC-54937-1	48.4	50.0	96.8		49.6	50.0	99.2		50.7	50.0	101.	

022

TPH (DIESEL) RESULTS

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
0505951258262
Page 18

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....:

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable

Date Printed.....: 05-MAY-95 12:58

DCL Sample Name....: BL-54937-2

DCL Analysis Group: G9543005

Analysis Method....: EPA 8240

Instrument Type....: GC/MS

Instrument ID.....: 5971-L

Column Type.....: DB 624

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
---------	---------------	--------	------

020

FORM F (TYPE I)
SINGLE METHOD ANALYSES
QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
0505951258262
Page 19

S95420JD

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: UG/KG

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method....: Not Applicable

Date Printed.....: 05-MAY-95 12:58
DCL Sample Name....: EO 3034MS

DCL Analysis Group: G9543005
Analysis Method....: EPA 8240
Instrument Type....: GC/MS
Instrument ID.....: 5971-L
Column Type.....: DB 624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
1,1-dichloroethene	28-APR-95 15:30	ND	49.3	50.0	98.6	82.8/116.	
benzene	28-APR-95 15:30	ND	47.1	50.0	94.2	74.0/127.	
chlorobenzene	28-APR-95 15:30	ND	47.8	50.0	95.6	77.3/122.	
toluene	28-APR-95 15:30	ND	48.7	50.0	97.3	78.8/129.	
trichloroethene	28-APR-95 15:30	ND	41.5	50.0	82.9	57.7/117.

S95420JF

DCL Sample Name....: EO 3034MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
1,1-dichloroethene	28-APR-95 16:03	48.9	97.8	49.1	0.395	0.80	0.000/17.6	
benzene	28-APR-95 16:03	48.9	97.8	48.0	1.77	3.7	0.000/16.4	
chlorobenzene	28-APR-95 16:03	49.9	99.8	48.8	2.11	4.3	0.000/17.1	
toluene	28-APR-95 16:03	49.7	99.4	49.2	1.06	2.2	0.000/15.9	
trichloroethene	28-APR-95 16:03	42.9	85.8	42.2	1.40	3.3	0.000/21.6	

021

MAY 01 1995

Case Narrative
DCL Set ID #(s): S95-0368-CE
Client: REECO
Account #: 3018
Packet # 95-04-025
28 April, 1995

Analysis Method #: SW8015 mod.

General Set Information: None.

Sample Preparation: 4 hour shake on 24 April, 1995.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Laboratory Control Sample Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None.

Signature

COVER FORM (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63M-V1.0
04289516251401
Page 1

SUMMARY INFORMATION

G953N01H

REECO
Attention: Jerry Dugas
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521

Date Reported.....:

Date Printed.....: 28-APR-95 16:25
DCL Client Group...: S95-0368-CR

Client Ref Number.: Not Provided
Release Number....: Not Provided

Analysis Method....: 8015 MOD

<u>Client Sample ID</u>	<u>Lab Sample ID</u>
BL-54936-1	BL-54936-1
QC-54936-1	QC-54936-1
26-2104/B8	EO 3032
26-2104/W7	EO 3033
26-2104/SP	EO 3034
26-2104/SPMS	EO 3034MS
26-2104/SP	EO 3034MSD

Analyst: Lawrence E. Miller

Reviewer: Pamela Johnson

Laboratory Supervisor: Daniel J. Bruch

FORM H (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE GROUP COMMENTS

Form RLIMS63H-V1.0
0428951625140

Page 2

G953N01H

Client Name.....: REECO

Date Printed.....: 28-APR-95 16:25

DCL Client Group...: S95-0368-CR

Release Number....: Not Provided

General Information

The DCL QC Database maintains all numerical figures which are input from the pertinent data source. These data have not been rounded to significant figures nor have they been moisture corrected. Reports generated from the system, however, list data which have been rounded to the number of significant figures requested by the client or deemed appropriate for the method. This may create minor discrepancies between data which appear on the QC Summary Forms (Forms B-G) and those that would be calculated from rounded analytical results. Additionally, if a moisture correction is performed, differences will be observed between the QC data and the surrogate data reported on Form A (or other report forms) and corresponding data reported on QC Summary Forms. In these cases, the Form A will indicate the "Report Basis" as well as the moisture value used for making the correction.

Symbol Definitions

- ND - Not Detected above the MDL or IDL (LLD or MDC for radiochemistry).
- B - For organic analysis the qualifier indicates that this analyte was found in the method blank. For inorganic analysis the qualifier signifies the value is between the IDL and PQL.
- J - The qualifier indicates that the value is between the MDL and the PQL. It is also used for indicating an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Form RLIMS63B-V1.0
04289516251401
Page 3

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

LCS Source.....:

DCL Preparation Group: G953S001
Date Prepared.....: 24-APR-95 00:00
Preparation Method...: 4 hour shake

Date Printed.....: 28-APR-95 16:25

DCL Sample Name....: QC-54936-1

DCL Analysis Group: G953S001

Analysis Method...: 8015 MOD

Instrument Type....: GC

Instrument ID.....: ch #13

Column Type.....: DB-5

☒ Primary

☐ Confirmation

- Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	28-APR-95 02:04	500.	367.	73.5	50.0/125.	

005

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
04289516251401

Page 4

S953S002

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G953S001
Date Prepared.....: 24-APR-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 28-APR-95 16:25
DCL Sample Name....: BL-54936-1

DCL Analysis Group: G953S001
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #13
Column Type.....: DB-5

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	28-APR-95 03:18	2.84	10

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
04289516251401

Page 5

S953S004

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G953S001
Date Prepared.....: 24-APR-95 00:00
Preparation Method....: 4 hour shake

Date Printed.....: 28-APR-95 16:25

DCL Sample Name....: EO 3034MS

DCL Analysis Group: G953S001

Analysis Method....: 8015 MOD

Instrument Type....: GC

Instrument ID.....: ch #13

Column Type.....: DB-5

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	28-APR-95 08:12	7.28	404.	500.	79.3	50.0/125.

S953S005

DCL Sample Name....: EO 3034MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	28-APR-95 09:26	427.	83.9	415.	22.7	3.8	0.000/50.0

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
04289516251401
Page 6

G953S001

Client Name.....: REECO
Release Number.....: Not Provided
Matrix.....: SOIL
Reporting Units.....: mg/kg

Date Printed.....: 28-APR-95 16:25

DCL Analysis Group: G953S001
Analysis Method....: 8015 MOD

DCL Prep Group.....: G953S001
Preparation Method: 4 hour shake

Surrogate Recoveries

Surr. ID	o-Terphenyl								
QC Limits	50.0/125.								
DCL Sample Number	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q	Analyte Result	Spiked Amount	% Rec. Q
BL-54936-1	36.0	40.0	90.1						
EO 3032	38.5	40.0	96.2						
EO 3033	43.4	40.0	109.						
EO 3034	40.1	40.0	100.						
EO 3034MS	41.9	40.0	105.						
EO 3034MSD	39.5	40.0	98.8						
QC-54936-1	40.4	40.0	101.						

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 95-04-025

CLIENT: ERTD - JERRY BONN

LABORATORY: DATACHEM

DATE REVIEWED: 5-8-95

REVIEWED BY: *George J. Dwyer*

VOA:

MATRIX: SOIL

ARE VOA DATA ACCEPTABLE: YES

	SAMPLE NO.	DATE/TIME	CRITERIA ACCEPTABLE
1. TUNE	BFB	3-6-95/0903	YES
	BFB	4-24-95/1003	YES
	BFB	4-27-95/0515	YES
	BFB	4-28-95/1022	YES
2. CALIBRATION	INITIAL	3-6-95/1330-95	YES
	VSTD050	4-24-95/1027	YES
	VSTD050	4-27-95/0547	YES
	VSTD050	4-28-95/1054	YES
3. METHOD BLANK	BL-		YES
	BL-		YES
4. TRIP BLANK	95EV0418-1TB	4-24-95/1259	YES
5. SAMPLES	26-2104/E8	4-27-95/1602	YES
	26-2104/W7	4-27-95/1634	YES
	26-2104/SP	4-27-95/1707	YES
	26-2104/SPMS	4-28-95/1530	YES
	26-2104/SPMSD	4-28-95/1603	YES
6. SURROGATE RECOVERY ACCEPTABLE:		YES	
7. MS/MSD RECOVERY ACCEPTABLE:		YES	
8. METHOD BLANK ACCEPTABLE:		YES	
9. HOLDING TIMES ACCEPTABLE:		YES	

		#DAYS	ACCEPTABLE
a. Date Sampled:	4-18-95	0	0
b. Date ACS Received:	4-19-95	1	YES
c. Date Contract Lab Received:	4-21-95	3	YES
d. Date Extracted:	N/A	N/A	N/A
e. Date Analyzed	4-28-95	10	14
10. Correct Conc units used:	YES		
11. CALCULATIONS ACCEPTABLE:	YES		
12. IS AREAS ACCEPTABLE:	YES		
13. RRT IS ACCEPTABLE:	YES		
14. FORMS ACCEPTABLE:	YES		
15. Chain-of-Custody agrees:	YES		

COMMENTS:

EFRE-2258 (03/93)

RELEASE SITE 27-5170-1

REMEDIAL VERIFICATION SAMPLE PACKAGE FY95-05-011

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To R. L. Dodge THRU A. R. Latham
From C. J. Slotemaker
Date June 12, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results for the total petroleum hydrocarbons (diesel) analyses of two soil samples. These samples, requested by J. F. Bonn, were collected on May 10, 1995, in Area 27.

Please direct any questions you may have to your Client Service Representative, Ted Redding, at 295-7220.

ARL:CJS:245:ds

Enclosure
As stated

cy w/o encls.

Central Files, M/S 530

A. R. Latham, M/S 708

L. S. Sygitowicz, M/S 612

ACS packet No. FY95-05-011

cy w/encls.

J. F. Bonn, M/S 969

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: DAVE MADSEN

Order #: 95-05-018
Date: 06/09/95 08:37
Work ID: TPH(DIESEL ONLY)/SOIL;A27
Date Received: 05/11/95
Date Completed: 05/31/95

Purchase Order: 3754-038
Invoice Number:

DCL #S95-0458
Client Code: ERTD

REPORT TO DAVE MADSEN COPY TO JERRY BONN, ERTD.
SAMPLES SENT TO DATACHEM FOR ANALYSIS 05/11/95.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	27-5170-E12

<u>Sample Number</u>	<u>Sample Description</u>
02	27-5170-W12

Certified By

17

TPH DIESEL RESULTS

Case Narrative
DCL Set ID #(s): S95-0458-CC
Client: REECO
Account #: 3018
Packet # 95-05-018
22 May, 1995

Analysis Method #: SW8015 mod.

General Set Information: None.

Sample Preparation: 4 hour shake on 16 May, 1995.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Was common to DCL set # S95-0457-GK and met QC criteria.

MS/MSD Analysis: Were common to DCL set # S95-0457-GK and met QC criteria.

Laboratory Control Sample Analysis: Was common to DCL set # S95-0457-GK and met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: DCL sample #'s EO 3753, EO 3753MS and EO 3753MSD all had low surrogate recoveries. The surrogate compounds were diluted out of the range of the calibration. Surrogate recoveries are not valid due to matrix effects and the dilution of the extracts. LCS and method blank surrogates were both in control. The TPH-Oil LOD for sample EO 3753 is 5000 ug/L because of the initial dilution of the extract.

Signature

COVER FORM (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63M-V1.0
05229513474406

Page 1

G954C01Q

SUMMARY INFORMATION

Date Reported.....:

Date Printed.....: 22-MAY-95 13:47

DCL Client Group...: 895-0458-CC

Client Ref Number.: Not Provided

Release Number....: Not Provided

Analysis Method....: 8015 MOD

REECO
Attention: Jerry Dugas
P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521

Client Sample ID

Lab Sample ID

27-5170-E12

EO 3757

27-5170-W12

EO 3758

Analyst: Lawrence E. Miller

Reviewer: Pamela Johnson

Laboratory Supervisor: Daniel J. Bruch

FORM H (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE GROUP COMMENTS

Form RLIMS63H-V1.0
05229513474406

Page 2

G954C01Q

Client Name.....: REECO

Date Printed.....: 22-MAY-95 13:47

DCL Client Group...: 895-0458-CC

Release Number.....: Not Provided

General Information

The DCL QC Database maintains all numerical figures which are input from the pertinent data source. These data have not been rounded to significant figures nor have they been moisture corrected. Reports generated from the system, however, list data which have been rounded to the number of significant figures requested by the client or deemed appropriate for the method. This may create minor discrepancies between data which appear on the QC Summary Forms (Forms B-G) and those that would be calculated from rounded analytical results. Additionally, if a moisture correction is performed, differences will be observed between the QC data and the surrogate data reported on Form A (or other report forms) and corresponding data reported on QC Summary Forms. In these cases, the Form A will indicate the "Report Basis" as well as the moisture value used for making the correction.

Symbol Definitions

- ND - Not Detected above the MDL or IDL (LLD or MDC for radiochemistry).
- B - For organic analysis the qualifier indicates that this analyte was found in the method blank. For inorganic analysis the qualifier signifies the value is between the IDL and PQL.
- J - The qualifier indicates that the value is between the MDL and the PQL. It is also used for indicating an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

FORM B (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63B-V1.0
05229513474406
Page 3

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

8954H002

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

LCS Source.....:

DCL Preparation Group: G954H001
Date Prepared.....: 16-MAY-95 00:00
Preparation Method....: 3580

Date Printed.....: 22-MAY-95 13:47
DCL Sample Name....: QC-56454-1

DCL Analysis Group: G954H001
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

- Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	18-MAY-95 17:53	500.	317.	63.4	50.0/125.	

005

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
05229513474406

Page 4

8954H001

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G954H001
Date Prepared.....: 16-MAY-95 00:00
Preparation Method...: 3580

Date Printed.....: 22-MAY-95 13:47

DCL Sample Name...: BL-56454-1

DCL Analysis Group: G954H001
Analysis Method...: 8015 MOD
Instrument Type...: GC
Instrument ID.....: ch #32
Column Type.....: DB-5

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	18-MAY-95 19:04	-7.77	10

006

FORM F (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1
05229513474

Page 5

S954H003

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: mg/kg

DCL Preparation Group: G954H001
Date Prepared.....: 16-MAY-95 00:00
Preparation Method....: 3580

Date Printed.....: 22-MAY-95 13:47
DCL Sample Name....: EO 3753MS

DCL Analysis Group: G954H001
Analysis Method....: 8015 MOD
Instrument Type....: GC
Instrument ID.....: ch #32
Column Type.....: DB-5
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	18-MAY-95 21:24	1110	1490	500.	76.3	50.0/125.

S954H004

DCL Sample Name....: EO 3753MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	18-MAY-95 22:36	1400	57.2	1450	95.5	4.2	0.000/50.0

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
05229513474406

Page 6

G954H001

Client Name.....: REECO
Release Number.....: Not Provided
Matrix.....: SOIL
Reporting Units.....: mg/kg

Date Printed.....: 22-MAY-95 13:47

DCL Analysis Group: G954H001
Analysis Method....: 8015 MOD

DCL Prep Group....: G954H001
Preparation Method: 4 hour shake

Surrogate Recoveries

Surr. ID	o-Terphenyl											
QC Limits	50.0/125.											
DCL Sample Number	Analyte Result	Spiked Amount	% Rec.	Q	Analyte Result	Spiked Amount	% Rec.	Q	Analyte Result	Spiked Amount	% Rec.	Q
BL-56454-1	30.2	40.0	75.4									
EO 3753	10.6	40.0	26.6	*								
EO 3753MS	18.7	40.0	46.8	*								
EO 3753MSD	11.7	40.0	29.3	*								
EO 3757	33.4	40.0	83.5									
EO 3758	30.1	40.0	75.3									
QC-56454-1	27.9	40.0	69.7									

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 95-05-018

CLIENT: ERTD - JERRY BONN

LABORATORY: DATACHEM

DATE REVIEWED: 06-08-95

REVIEWED BY:

TPH (DIESEL):

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		<u># DAYS</u>	<u>ACCEPTABLE</u>
a. Date Sampled:	<u>05-10-95</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>05-11-95</u>	<u>1</u>	<u>YES</u>
c. Date Contract Lab Received:	<u>05-12-95</u>	<u>2</u>	<u>YES</u>
d. Date Extracted:	<u>05-16-95</u>	<u>6</u>	<u>14</u>
e. Date Analyzed:	<u>05-18-95</u>	<u>2</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: SEE PACKET 95-05-016 FOR RAW DATA.

EFRE-2261 (03/93)