
Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 285134
ANALYTICAL REPORT

Golden Gate Tank Removal	Project : 9609
1480 Carroll Avenue	Location : 170 Woodland Way
San Francisco, CA 94124	Level : II

Sample ID	Lab ID
9606-SP	285134-001
9606-TANK	285134-002
9606-W-5.5	285134-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/26/2017

Patrick McCarthy
Project Manager
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(510) 204-2236

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**285134**
Client:	**Golden Gate Tank Removal**
Project:	**9609**
Location:	**170 Woodland Way**
Request Date:	**01/17/17**
Samples Received:	**01/17/17**

This data package contains sample and QC results for two soil samples and one oil sample, requested for the above referenced project on 01/17/17. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B) Soil:
Matrix spikes QC868991,QC868992 (batch 243506) were not reported because the parent sample required a dilution that would have diluted out the spikes. 9606-SP (lab # 285134-001) and 9606-W-5.5 (lab # 285134-003) were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Miscell.:
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
9606-SP (lab # 285134-001) and 9606-W-5.5 (lab # 285134-003) were diluted due to high hydrocarbons. No other analytical problems were encountered.

PCBs (EPA 8082):
All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. High surrogate recovery was observed for decachlorobiphenyl in the method blank for batch 243456; no target analytes were detected in the sample. No other analytical problems were encountered.

CHAIN OF CUSTODY

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Chain of Custody # _____

C&T LOGIN # 285134

Project No: 9606
Project Name: 170 WOODLAND
Project P. O. No: 9606
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH ☒ Standard

Sampler: ASCENSION MORA
Report To: GINA WEE
Company: EBTR
Telephone: 415 512-1555
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H_2SO_4	HNO_3	NaOH	None	TPH-D, BTEX, NAPHTHALENE, TPH-D MOTOR OILS, PCB35
	9606-SP	1/17/17	1:10		X			4						X X X X X X
	9606-TANK	=	1:30					1						X X X
	9606-W-5.5	=	2:00					1						X X X

Notes:

SAMPLE RECEIPT
☐ Intact
☐ Cold
☒ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 1/17 TIME: 3:32
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: 1/17/17 TIME: 15:32
DATE: TIME:
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 285134 Date Received 1/17/17 Number of coolers 0
Client GGTR Project 9606

Date Opened 1/17/17 By (print) HF (sign)
Date Logged in ↓ By (print) ↓ (sign) ↓
Date Labeled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
Shipping info

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☑ NO
How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☐ Blue/Gel ☑ None Temp(°C)

☐ Temperature blank(s) included? ☐ Thermometer# ☐ IR Gun#

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? YES (NO)
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
If YES, Who was called? By Date:

COMMENTS
13) Sample 2 Identified by Sampling Time.

Curtis & Tompkins, Ltd.

Detections Summary for 285134

Results for any subcontracted analyses are not included in this summary.

Client : Golden Gate Tank Removal
Project : 9609
Location : 170 Woodland Way

Client Sample ID : 9606-SP Laboratory Sample ID : 285134-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	9,800		50	mg/Kg	As Recd	50.00	EPA 8015B	EPA 3550B
o-Xylene	400		250	ug/Kg	As Recd	50.00	EPA 8260B	EPA 5030B
Naphthalene	360		250	ug/Kg	As Recd	50.00	EPA 8260B	EPA 5030B

Client Sample ID : 9606-TANK Laboratory Sample ID : 285134-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	20,000		400	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3580

Client Sample ID : 9606-W-5.5 Laboratory Sample ID : 285134-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	14,000		50	mg/Kg	As Recd	50.00	EPA 8015B	EPA 3550B

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Total Extractable Hydrocarbons

Lab #:	285134	Location:	170 Woodland Way
Client:	Golden Gate Tank Removal	Prep:	EPA 3550B
Project#:	9609	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	01/17/17
Units:	mg/Kg	Received:	01/17/17
Basis:	as received	Prepared:	01/18/17
Batch#:	243506		

Field ID:	9606-SP	Diln Fac:	50.00
Type:	SAMPLE	Analyzed:	01/23/17
Lab ID:	285134-001		

Analyte	Result	RL
Diesel C10-C24	9,800	50

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Field ID:	9606-W-5.5	Diln Fac:	50.00
Type:	SAMPLE	Analyzed:	01/23/17
Lab ID:	285134-003		

Analyte	Result	RL
Diesel C10-C24	14,000	50

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC868989	Analyzed:	01/19/17

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
o-Terphenyl	117	59-140

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

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Batch QC Report

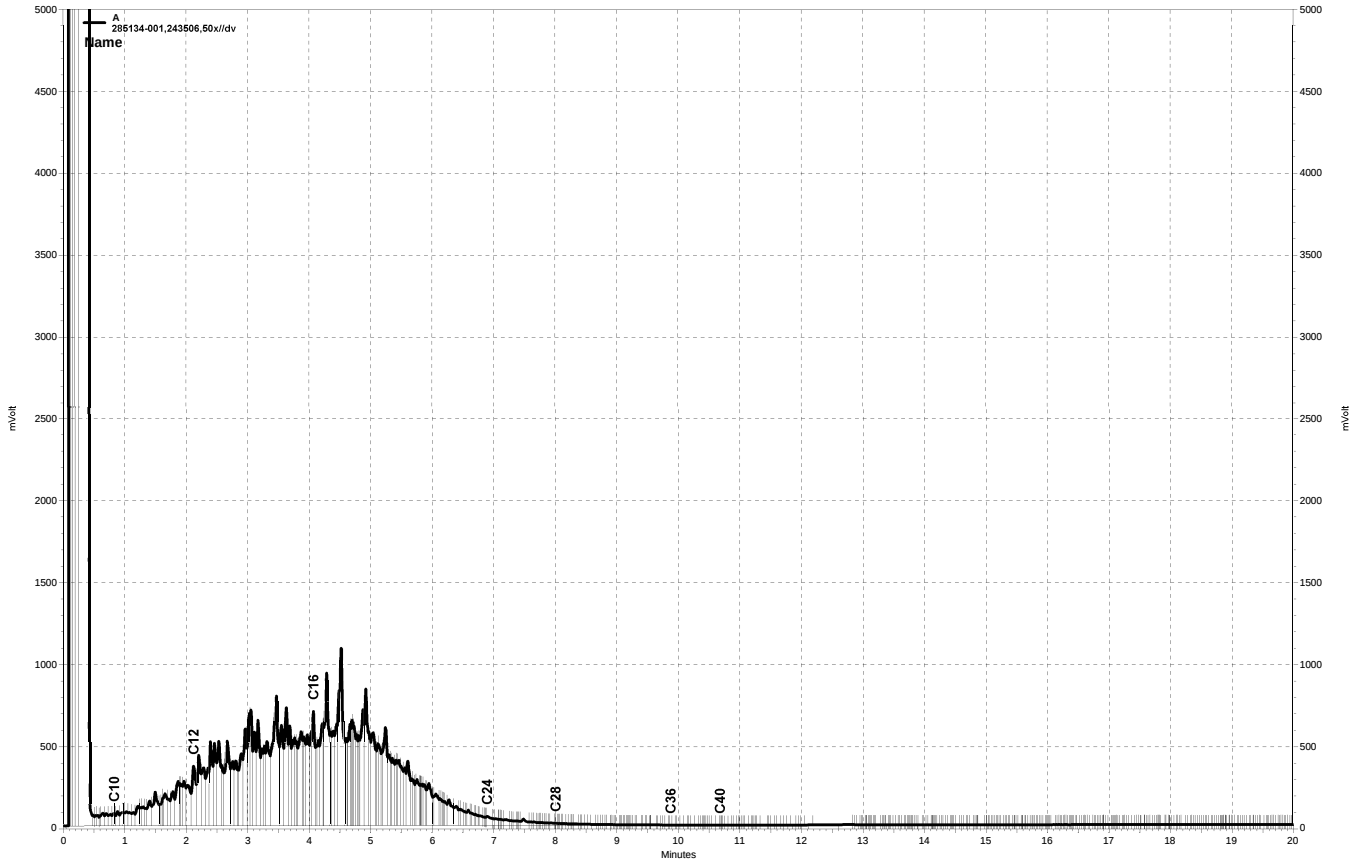
Total Extractable Hydrocarbons

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 3550B
Project#:	9606	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC868990	Batch#:	243506
Matrix:	Soil	Prepared:	01/18/17
Units:	mg/Kg	Analyzed:	01/19/17

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.00	40.89	82	58-137

Surrogate	%REC	Limits
o-Terphenyl	86	59-140



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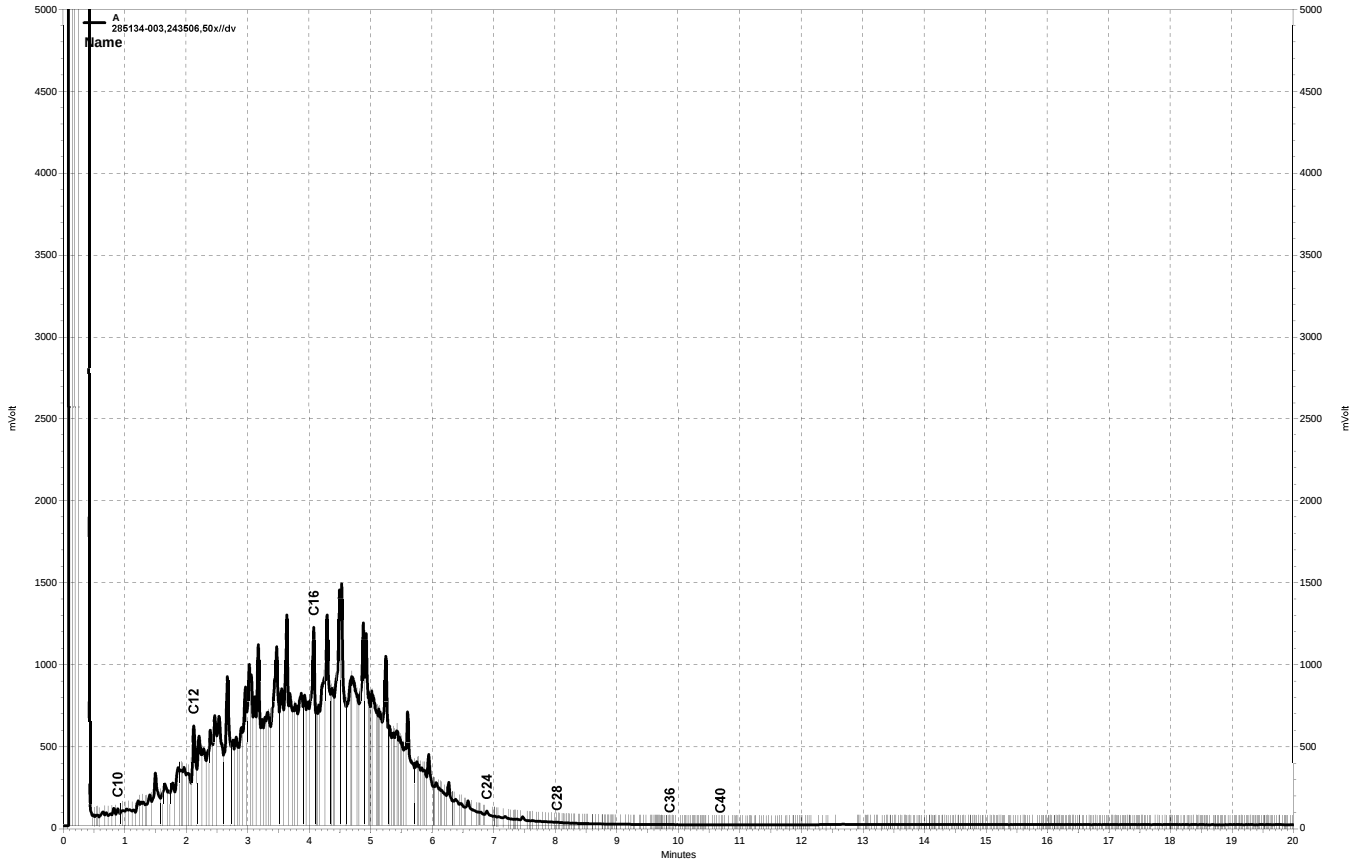

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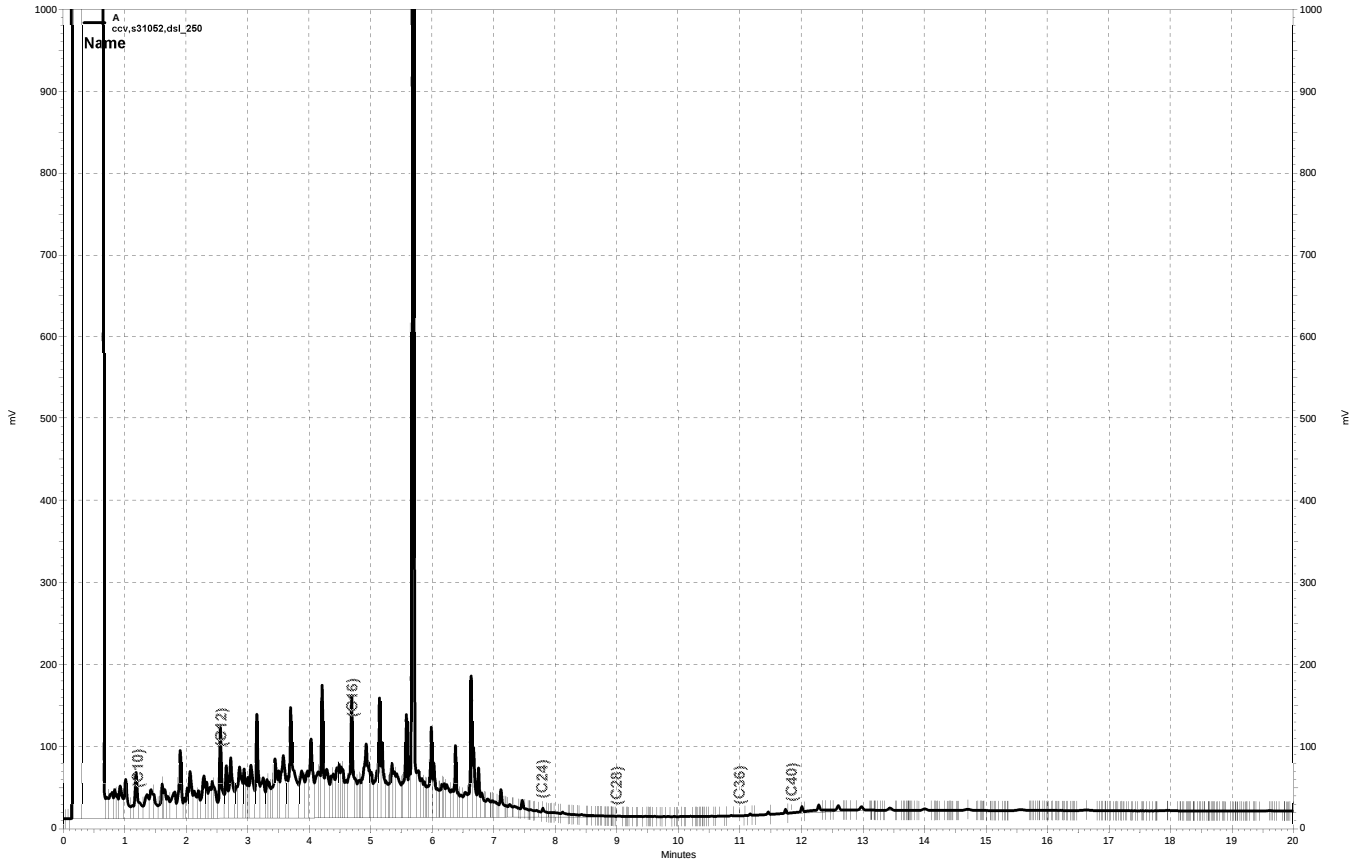

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Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	285134	Location:	170 Woodland Way
Client:	Golden Gate Tank Removal	Prep:	EPA 3580
Project#:	9609	Analysis:	EPA 8015B
Field ID:	9606-TANK	Batch#:	243483
Matrix:	Miscell.	Sampled:	01/17/17
Units:	mg/Kg	Received:	01/17/17
Basis:	as received	Prepared:	01/18/17
Diln Fac:	1.000	Analyzed:	01/18/17

Type: SAMPLE Lab ID: 285134-002

Analyte	Result	RL
Diesel C10-C24	20,000	400
Motor Oil C24-C36	ND	2,000

Surrogate	%REC	Limits
o-Terphenyl	117	59-140

Type: BLANK Lab ID: QC868901

Analyte	Result	RL
Diesel C10-C24	ND	400
Motor Oil C24-C36	ND	2,000

Surrogate	%REC	Limits
o-Terphenyl	105	59-140

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	285134	Location:	170 Woodland Way
Client:	Golden Gate Tank Removal	Prep:	EPA 3580
Project#:	9609	Analysis:	EPA 8015B
Matrix:	Miscell.	Batch#:	243483
Units:	mg/Kg	Prepared:	01/18/17
Diln Fac:	1.000	Analyzed:	01/18/17

Type: BS Lab ID: QC868902

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	19,200	19,800	103	58-137

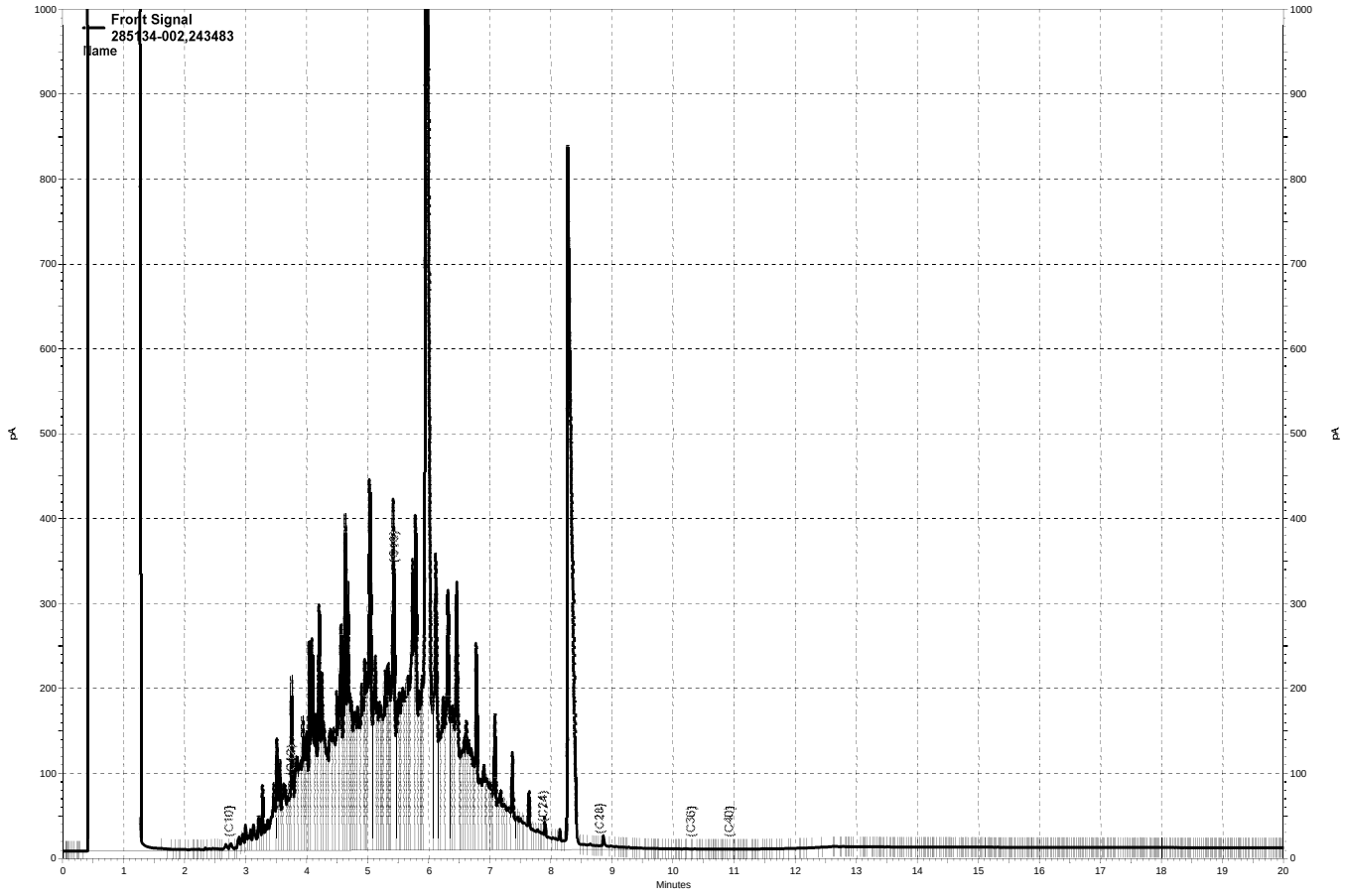
Surrogate	%REC	Limits
o-Terphenyl	103	59-140

Type: BSD Lab ID: QC868903

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	19,200	20,570	107	58-137	4	20

Surrogate	%REC	Limits
o-Terphenyl	104	59-140

RPD= Relative Percent Difference



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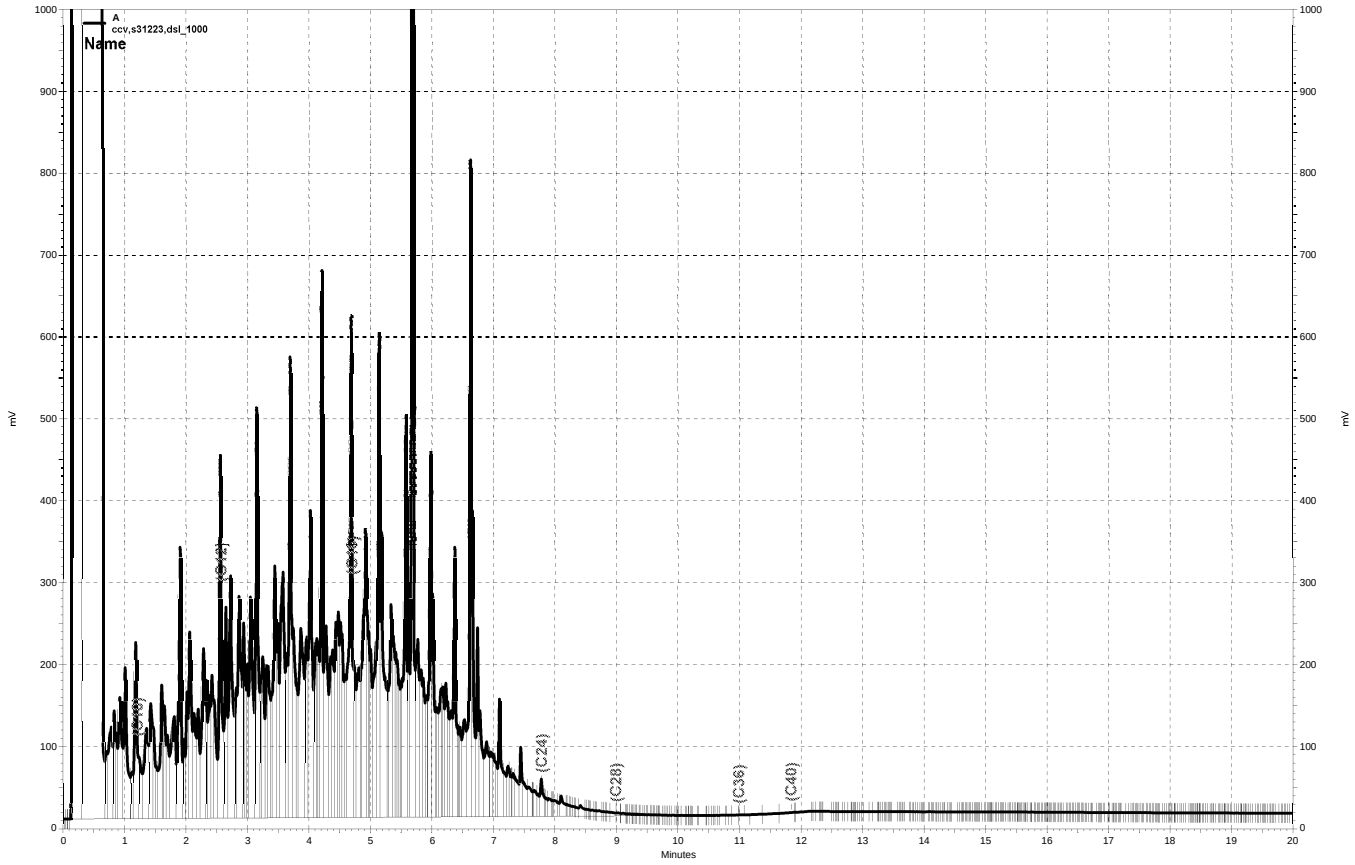

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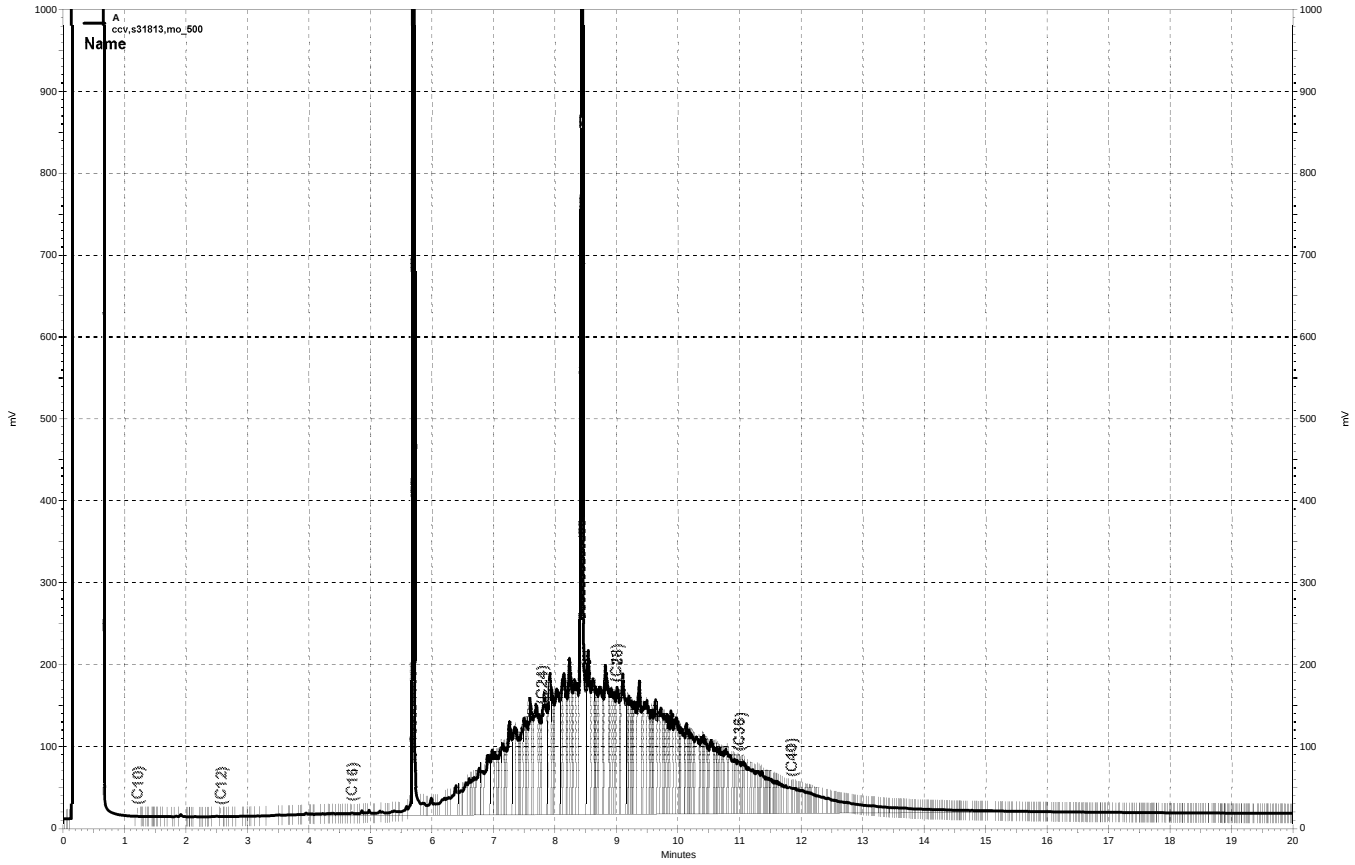

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Purgeable Aromatics by GC/MS

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 5030B
Project#:	9606	Analysis:	EPA 8260B
Field ID:	9606-SP	Diln Fac:	50.00
Lab ID:	285134-001	Batch#:	243623
Matrix:	Soil	Sampled:	01/17/17
Units:	ug/Kg	Received:	01/17/17
Basis:	as received	Analyzed:	01/21/17

Analyte	Result	RL
MTBE	ND	250
Benzene	ND	250
Toluene	ND	250
Ethylbenzene	ND	250
m,p-Xylenes	ND	250
o-Xylene	400	250
Naphthalene	360	250

Surrogate	%REC	Limits
Dibromofluoromethane	84	78-134
1,2-Dichloroethane-d4	101	80-138
Toluene-d8	100	80-120
Bromofluorobenzene	118	78-123
Trifluorotoluene (MeOH)	78	52-147

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 5030B
Project#:	9606	Analysis:	EPA 8260B
Field ID:	9606-W-5.5	Diln Fac:	100.0
Lab ID:	285134-003	Batch#:	243623
Matrix:	Soil	Sampled:	01/17/17
Units:	ug/Kg	Received:	01/17/17
Basis:	as received	Analyzed:	01/22/17

Analyte	Result	RL
MTBE	ND	500
Benzene	ND	500
Toluene	ND	500
Ethylbenzene	ND	500
m,p-Xylenes	ND	500
o-Xylene	ND	500
Naphthalene	ND	500

Surrogate	%REC	Limits
Dibromofluoromethane	83	78-134
1,2-Dichloroethane-d4	100	80-138
Toluene-d8	96	80-120
Bromofluorobenzene	107	78-123
Trifluorotoluene (MeOH)	79	52-147

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 5030B
Project#:	9606	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC869451	Batch#:	243623
Matrix:	Soil	Analyzed:	01/21/17
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.52	86	61-122
Benzene	25.00	23.32	93	80-123
Toluene	25.00	22.42	90	80-120
Ethylbenzene	25.00	22.00	88	80-122
m,p-Xylenes	50.00	42.67	85	80-127
o-Xylene	25.00	21.67	87	80-125

Surrogate	%REC	Limits
Dibromofluoromethane	87	78-134
1,2-Dichloroethane-d4	100	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	97	78-123

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Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 5030B
Project#:	9606	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC869452	Batch#:	243623
Matrix:	Soil	Analyzed:	01/21/17
Units:	ug/Kg		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Naphthalene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	87	78-134
1,2-Dichloroethane-d4	102	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	99	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 5030B
Project#:	9606	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	243623
MSS Lab ID:	285310-001	Sampled:	01/20/17
Matrix:	Soil	Received:	01/20/17
Units:	ug/Kg	Analyzed:	01/21/17
Basis:	as received		

Type: MS Diln Fac: 0.9653
Lab ID: QC869457

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.4708	24.13	24.80	103	49-120
Benzene	<0.6785	24.13	24.34	101	57-120
Toluene	<0.7432	24.13	23.06	96	51-120
Ethylbenzene	<0.6941	24.13	22.85	95	45-120
m,p-Xylenes	<1.342	48.26	44.12	91	45-123
o-Xylene	<0.5791	24.13	22.38	93	44-122

Surrogate	%REC	Limits
Dibromofluoromethane	88	78-134
1,2-Dichloroethane-d4	106	80-138
Toluene-d8	101	80-120
Bromofluorobenzene	100	78-123

Type: MSD Diln Fac: 0.9579
Lab ID: QC869458

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	23.95	23.01	96	49-120	7	40
Benzene	23.95	23.53	98	57-120	3	44
Toluene	23.95	21.78	91	51-120	5	47
Ethylbenzene	23.95	21.30	89	45-120	6	55
m,p-Xylenes	47.89	40.72	85	45-123	7	53
o-Xylene	23.95	20.83	87	44-122	6	55

Surrogate	%REC	Limits
Dibromofluoromethane	88	78-134
1,2-Dichloroethane-d4	106	80-138
Toluene-d8	101	80-120
Bromofluorobenzene	98	78-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 3580
Project#:	9606	Analysis:	EPA 8082
Field ID:	9606-TANK	Batch#:	243456
Matrix:	Miscell.	Sampled:	01/17/17
Units:	ug/Kg	Received:	01/17/17
Basis:	as received	Analyzed:	01/19/17
Diln Fac:	1.000		

Type: SAMPLE Prepared: 01/18/17
Lab ID: 285134-002

Analyte	Result	RL
Aroclor-1016	ND	500
Aroclor-1221	ND	1,000
Aroclor-1232	ND	500
Aroclor-1242	ND	500
Aroclor-1248	ND	500
Aroclor-1254	ND	500
Aroclor-1260	ND	500

Surrogate	%REC	Limits
Decachlorobiphenyl	117	25-135

Type: BLANK Prepared: 01/17/17
Lab ID: QC868805

Analyte	Result	RL
Aroclor-1016	ND	500
Aroclor-1221	ND	1,000
Aroclor-1232	ND	500
Aroclor-1242	ND	500
Aroclor-1248	ND	500
Aroclor-1254	ND	500
Aroclor-1260	ND	500

Surrogate	%REC	Limits
Decachlorobiphenyl	138 *	25-135

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	285134	Location:	170 Woodland
Client:	Golden Gate Tank Removal	Prep:	EPA 3580
Project#:	9606	Analysis:	EPA 8082
Matrix:	Miscell.	Batch#:	243456
Units:	ug/Kg	Prepared:	01/17/17
Diln Fac:	1.000	Analyzed:	01/19/17

Type: BS Lab ID: QC868806

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	10,000	11,290	113	64-140
Aroclor-1260	10,000	12,610	126	65-146

Surrogate	%REC	Limits
Decachlorobiphenyl	102	25-135

Type: BSD Lab ID: QC868807

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	10,000	10,730	107	64-140	5	35
Aroclor-1260	10,000	10,880	109	65-146	15	36

Surrogate	%REC	Limits
Decachlorobiphenyl	93	25-135

RPD= Relative Percent Difference