ALPHA ANALYTICAL

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Lab Number: L1951399

Client: Anchor QEA, LLC

ATTN: Delaney Peterson

Project Name: GASCO PDI

Project Number: 000029-02.59

Table of Contents

Table of Contents

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Summary

Alpha Job Number : L1951399

Account Name : Anchor QEA, LLC
Project Number : 000029-02.59
Project Name : GASCO PDI

Received : 30-OCT-2019
Reviewer : Elizabeth Porta

Delivery Information

Samples Delivered By : Express Ship
FedEx (100191051436000020480077684667990)

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Present/Intact/N/A	Ice	2.0	

Condition Information

1) All samples on COC received? **YES**

2) Extra samples received? **NO**

3) Are there any sample container discrepancies? **NO**

4) Are there any discrepancies between sample labels & COC? **NO**

5) Are samples in appropriate containers for requested analysis? **YES**

6) Are samples properly preserved for requested analysis? **YES**

7) Are samples within holding time for requested analysis? **NO**
Following samples were received beyond the method-required holding time for listed analysis:
-01 (PH-9045), -02 (PH-9045), -03 (PH-9045), -04 (PH-9045), -05 (PH-9045), -06 (PH-9045), -07 (PH-9045), -08 (PH-9045), -09 (PH-9045)

8) All sampling equipment returned? **NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client? **NA**

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 18 2019, 02:42 pm

Login Number: L1951399
Account: ANCHOR Anchor QEA, LLCProject: 000029-02.59
Received: 30OCT19 Due Date: 18NOV19

Sample #	Client ID	Mat	PR	Collected
L1951399-01	PDI-071SC-C-00-08-191028	3	S0	28OCT19 10:00

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides DPKG-FULL Package Due Date: 11/18/19

DPKG-FULL,HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

Sample #	Client ID	Mat	PR	Collected
L1951399-02	PDI-074SC-C-00-7.3-191028	3	S0	28OCT19 09:05

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

Sample #	Client ID	Mat	PR	Collected
L1951399-03	PDI-083SC-C-00-08-191028	3	S0	28OCT19 14:52

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

Sample #	Client ID	Mat	PR	Collected
L1951399-04	PDI-015SC-C-00-8.1-191024	3	S0	24OCT19 13:17

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

Sample #	Client ID	Mat	PR	Collected
L1951399-05	PDI-026SC-C-00-3.9-191024	3	S0	24OCT19 09:58

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package Due Date: 11/18/19

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 18 2019, 02:42 pm

Login Number: L1951399
Account: ANCHOR Anchor QEA, LLCProject: 000029-02.59
Received: 30OCT19 Due Date: 18NOV19

Sample #	Client ID	Mat	PR	Collected

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

L1951399-06 PDI-037SC-C-00-12.4-191024 3 S0 24OCT19 11:36

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package
Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

L1951399-07 PDI-073SC-C-00-13.7-191024 3 S0 24OCT19 14:31

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package
Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

L1951399-08 PDI-019SC-C-00-3.2-191025 3 S0 25OCT19 11:06

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package
Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

L1951399-09 PDI-095SC-C-00-8.8-191025 3 S0 25OCT19 09:51

Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery
Report to the MDL; Full Narration needed Herbs: report list made PREPC: TCLP for Herbicides Package
Due Date: 11/18/19

HERB-8151,HERB-TCLP*,IGNIT-1030,PH-9045,PREPC,TS

Logged By: Lisa Westerlind

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1951399-01A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-01A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-01A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-01A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-01A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento
L1951399-01A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-01A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-01A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-01A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Theo
L1951399-01A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany E
L1951399-01A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-01X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-01X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-01X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-02A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-02A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-02A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-02A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-02A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1951399-02A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-02A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-02A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-02A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th
L1951399-02A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-02A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-02X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-02X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-02X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-03A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-03A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-03A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-03A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-03A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento
L1951399-03A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1951399-03A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-03A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-03A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th
L1951399-03A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-03A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-03X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-03X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-03X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-04A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-04A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-04A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-04A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-04A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento
L1951399-04A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-04A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-04A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-04A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1951399-04A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-04A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-04X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-04X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-04X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-05A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-05A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-05A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-05A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-05A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento
L1951399-05A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-05A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-05A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-05A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th
L1951399-05A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-05A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-05X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-05X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-05X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1951399-06A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	WALK-IN CUSTODY	WALK-IN	CUSTODY Sam Bardsley
L1951399-06A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN	CUSTODY Mitchell Vonachen
L1951399-06A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-06A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN	CUSTODY Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B	CUSTODY Phillip Renaud
L1951399-06A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN	CUSTODY Tarcisio Nascimento
L1951399-06A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	WALK-IN CUSTODY	WALK-IN	CUSTODY Sam Bardsley
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN	CUSTODY Ariana Summit
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	WALK-IN CUSTODY	WALK-IN	CUSTODY Sam Bardsley
L1951399-06A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN	CUSTODY Romany Ibrahim
L1951399-06A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN	CUSTODY Phillip Renaud
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-06A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th
L1951399-06A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-06A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-06X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-06X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-06X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-07A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	WALK-IN CUSTODY	WALK-IN	CUSTODY Sam Bardsley
L1951399-07A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN	CUSTODY Mitchell Vonachen
L1951399-07A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-07A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN	CUSTODY Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B	CUSTODY Phillip Renaud
L1951399-07A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN	CUSTODY Tarcisio Nascimento

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1951399-07A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-07A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-07A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-07A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th
L1951399-07A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-07A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-07X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-07X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-07X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-08A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-08A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-08A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-08A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-08A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento
L1951399-08A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1951399-08A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-08A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-08A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th
L1951399-08A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-08A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-08X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-08X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-08X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko
L1951399-09A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-09A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WETCHEM	Mitchell Vonachen	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Mitchell Vonachen
L1951399-09A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	W20-S2-B CUSTODY	Mitchell Vonachen	WETCHEM	WETCHEM	Mitchell Vonachen
L1951399-09A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	RETURN WALK-IN CUSTODY	Phillip Renaud	W20-S2-B CUSTODY	W20-S2-B CUSTODY	Phillip Renaud
L1951399-09A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	ORGPREP	Tarcisio Nascimento	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Tarcisio Nascimento
L1951399-09A	Glass-A.5	INTACT	01-NOV-19	CUSTODY	WALK-IN CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WETCHEM	Ariana Summit	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Ariana Summit
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	WALK-IN CUSTODY	Ariana Summit	WETCHEM	WETCHEM	Ariana Summit
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	RETURN WALK-IN CUSTODY	Sam Bardsley	WALK-IN CUSTODY	WALK-IN CUSTODY	Sam Bardsley
L1951399-09A	Glass-A.5	INTACT	31-OCT-19		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L1951399-09A	Glass-A.5	INTACT	31-OCT-19		WALK-IN CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	CUSTODY	CUSTODY	Phillip Renaud	WALK-IN CUSTODY	WALK-IN CUSTODY	Phillip Renaud
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Theodore Huddleson
L1951399-09A	Glass-A.5	INTACT	31-OCT-19	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER9-TRANSFER_TO_WESTBORO	Th

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1951399-09A	Glass-A.5	INTACT	30-OCT-19	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER9-TRANSFER_TO_WESTBORO	COOLER9-TRANSFER_TO_WESTBORO	Bethany
L1951399-09A	Glass-A.5	INTACT	30-OCT-19	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1951399-09X	EAmber-A1	INTACT	02-NOV-19		ORGPREP	Armia Rashed	R66-01 CUSTODY	R66-01 CUSTODY	Armia Rashed
L1951399-09X	EAmber-A1	INTACT	02-NOV-19		CUSTODY	Samy Dakkash	ORGPREP	ORGPREP	Samy Dakkash
L1951399-09X	EAmber-A1	INTACT	01-NOV-19	LOGIN	LOGIN	Elizabeth Oko	CUSTODY	CUSTODY	Elizabeth Oko

Chain of Custody

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

L1951399

COC ID: AWHL-20191028-103448
Sample Custodian: SN
Lab: Alpha Analytical

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-071SC-C-00-08-191028	N	SE	10/28/2019	10:00	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
002	PDI-074SC-C-00-7.3-191028	N	SE	10/28/2019	9:05	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
003	PDI-083SC-C-00-08-191028	N	SE	10/28/2019	14:52	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: Sasha Norwood	Print Name	Print Name	Print Name: LANBAILEY	Print Name	Print Name
Company: Anchor QEA	Company: Fedex	Company: Fedex	Company: AHL	Company	Company
Date/Time: 10/29/19 @ 0830	Date/Time	Date/Time	Date/Time: 10/30/19 09:59	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 10/28/2019

Page 1 of 1

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: AWHL-20191025-092034

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

Sample Custodian: CO, SN, BJ, SS
Lab: Alpha Analytical

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-015SC-C-00-8.1-191024	N	SE	10/24/2019	13:17	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
002	PDI-026SC-C-00-3.9-191024	N	SE	10/24/2019	9:58	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
004	PDI-037SC-C-00-12.4-191024	N	SE	10/24/2019	11:36	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
005	PDI-073SC-C-00-13.7-191024	N	SE	10/24/2019	14:31	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: [signature]	Signature:	Signature:	Signature: [signature]	Signature:	Signature:
Print Name: Sasha Norwood	Print Name:	Print Name:	Print Name: Kim BAILEY	Print Name:	Print Name:
Company: Anchor QEA	Company: fedex	Company: fedex	Company: AAL	Company:	Company:
Date/Time: 10/24/19 @ 0830	Date/Time:	Date/Time:	Date/Time: 10/30/19 09:59	Date/Time:	Date/Time:

Date Printed: 10/25/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: AWHL-20191025-111702

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

Sample Custodian: CO, SN, BJ, SS
Lab: Alpha Analytical

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-019SC-C-00-3.2-191025	N	SE	10/25/2019	11:06	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
002	PDI-095SC-C-00-8.8-191025	N	SE	10/25/2019	9:51	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: Sasha Norwood	Print Name	Print Name	Print Name: Kim BAILEY	Print Name	Print Name
Company: Anchor QEA	Company: Fedex	Company: Fedex	Company: AAL	Company	Company
Date/Time: 10/29/19 @ 0830	Date/Time	Date/Time	Date/Time: 10/30/19 09:59	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 10/25/2019

ORIGIN ID:BNOA (503) 718-2323
APEX LABS
APEX LABORATORIES
12232 SW GARDEN PL

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 29OCT19
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CAD: 4716258/NET4160

BILL THIRD PARTY

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ALPHA ANALYTICAL
320 FORBES BLVD.

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PO

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DEPT

567J32A3C05A2

FedEx Express

WED - 30 OCT 3:00P
STANDARD OVERNIGHT

TRK# 0201 **7768 4667 9990**

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MA-US **BOS**

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Use of this system constitutes your agreement to the service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, misinformation, unless you declare a higher value, pay an additional delay, non-delivery,misdelivery,or a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from ue of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage al, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed n for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and uide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Date 10/29/19

Cooler

Apex Laboratories, LLC.
Custody Seal
12232 SW Garden Pl. Tigard, OR 97223
Phone (503)718-2323 Fax (503)718-0323

Organics

GC Extractable Analysis
Herbicides

Initial Calibration

Response Factor Report Pest 17

Method Path : I:\Pest17\190903ICAL\
Method File : Herb17_07_31_ICAL.m
Title : herb
Last Update : Thu Sep 05 09:06:24 2019
Response Via : Initial Calibration

Calibration Files
1 =17190903i-02.d 2 =17190903i-03.d 3 =17190903i-04.d 4 =17190903i-05.d 5 =17190903i-06.d
6 =17190903i-07.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	4,4'-DBOB	----------ISTD----------							
2)	t	Dalapon	0.164	0.149	0.140	0.145	0.124	0.120	0.140	11.83
3)	s	DCAA (surrogate)	0.195	0.173	0.172	0.159	0.145	0.131	0.162	14.04
4)	t	Dicamba	0.541	0.495	0.481	0.536	0.470	0.439	0.494	7.97
5)	t	MCPP	0.001	0.001	0.001	0.001	0.001	0.001	0.001	16.81
6)	t	MCPA		0.001	0.001	0.001	0.001	0.001	*L	0.9954
7)	t	Dichloroprop		0.155	0.146	0.152	0.129	0.118	*L	0.9949
8)	t	2,4-D	0.213	0.191	0.181	0.195	0.170	0.158	0.185	10.58
9)	t	2,4,5-TP (Sil...	0.743	0.682	0.681	0.756	0.665		0.706	5.81
10)	t	2,4,5-T	0.760	0.728	0.740	0.830	0.724	0.679	0.743	6.72
11)	t	2,4-DB	0.131	0.125	0.120	0.129	0.115	0.112	0.122	6.14
12)	t	Dinoseb	0.229	0.227	0.234	0.294	0.279	0.287	*L	0.9983

Signal #2 Calibration Files
1 =17190903i-02.d 2 =17190903i-03.d 3 =17190903i-04.d 4 =17190903i-05.d 5 =17190903i-06.d
6 =17190903i-07.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	4,4'-DBOB	----------ISTD----------							
2)	t	Dalapon	0.206	0.166	0.148	0.150	0.133	0.141	0.157	16.77
3)	s	DCAA (surrogate)	0.236	0.208	0.206	0.193	0.181	0.178	0.200	10.78
4)	t	Dicamba	0.621	0.563	0.542	0.595	0.531	0.533	0.564	6.51
5)	t	MCPP	0.001	0.001	0.001	0.001	0.001	0.001	0.001	7.61
6)	t	MCPA		0.001	0.001	0.001	0.001	0.001	0.001	10.35
7)	t	Dichloroprop		0.167	0.159	0.170	0.151	0.149	*L	0.9988
8)	t	2,4-D	0.248	0.219	0.211	0.232	0.209	0.212	0.222	6.81
9)	t	2,4,5-TP (Sil...	0.727	0.682	0.677	0.760	0.691		*L	0.9968
10)	t	2,4,5-T	0.771	0.677	0.659	0.753	0.709	0.735	0.717	6.10
11)	t	2,4-DB	0.137	0.126	0.121	0.135	0.123	0.123	0.128	5.43

Method Path : I:\Pest17\190903ICAL\
Method File : Herb17_07_31_ICAL.m
Title : herb
Last Update : Thu Sep 05 09:06:24 2019
Response Via : Initial Calibration

Calibration Files
1 =17190903i-02.d 2 =17190903i-03.d 3 =17190903i-04.d 4 =17190903i-05.d 5 =17190903i-06.d
6 =17190903i-07.d

	Compound	1	2	3	4	5	6	Avg	%RSD
12) t	Dinoseb	0.260	0.237	0.235	0.270	0.249	0.257	*L	0.9987

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 11:08 am
Operator : PEST17:dgm
Sample : il1herb,42e,,9270
Misc : wg1280590,
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:08:01 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:07:58 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.658	8.682	639.3E6	638.7E6	0.250	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.124	7.618	23454807	28353303	0.056M4	0.055
	Spiked Amount	0.500	Range 30 - 150	Recovery =		11.20%#	11.00%#
	Target Compounds						
2) t	Dalapon	2.107f	2.175f	19120504	23961701	0.053M2	0.060M2
4) t	Dicamba	7.309	7.802	65062288	74615191	0.052M4	0.052
5) t	MCPP	7.510	7.911	9842637	10690593	5.895M4	5.297M4
6) t	MCPA	7.656	8.137	18600356	19356787	N.D. M4	6.222M4
7) t	Dichloroprop	8.011	8.453	21155888	22754731	N.D.	0.029M4
8) t	2,4-D	8.219	8.723	25587346	29734997	0.054	0.052
9) t	2,4,5-TP (Si	8.929	9.379	90257016	88236631	0.050	0.044
10) t	2,4,5-T	9.143	9.664	92365114	93539493	0.049M4	0.051
11) t	2,4-DB	9.550	10.026	16031980	16849924	0.051M4	0.052M4
12) t	Dinoseb	10.290	10.248	27780943	31594009	0.053	0.051
	SemiQuant Compounds - Not Calibrated on this Instrument						

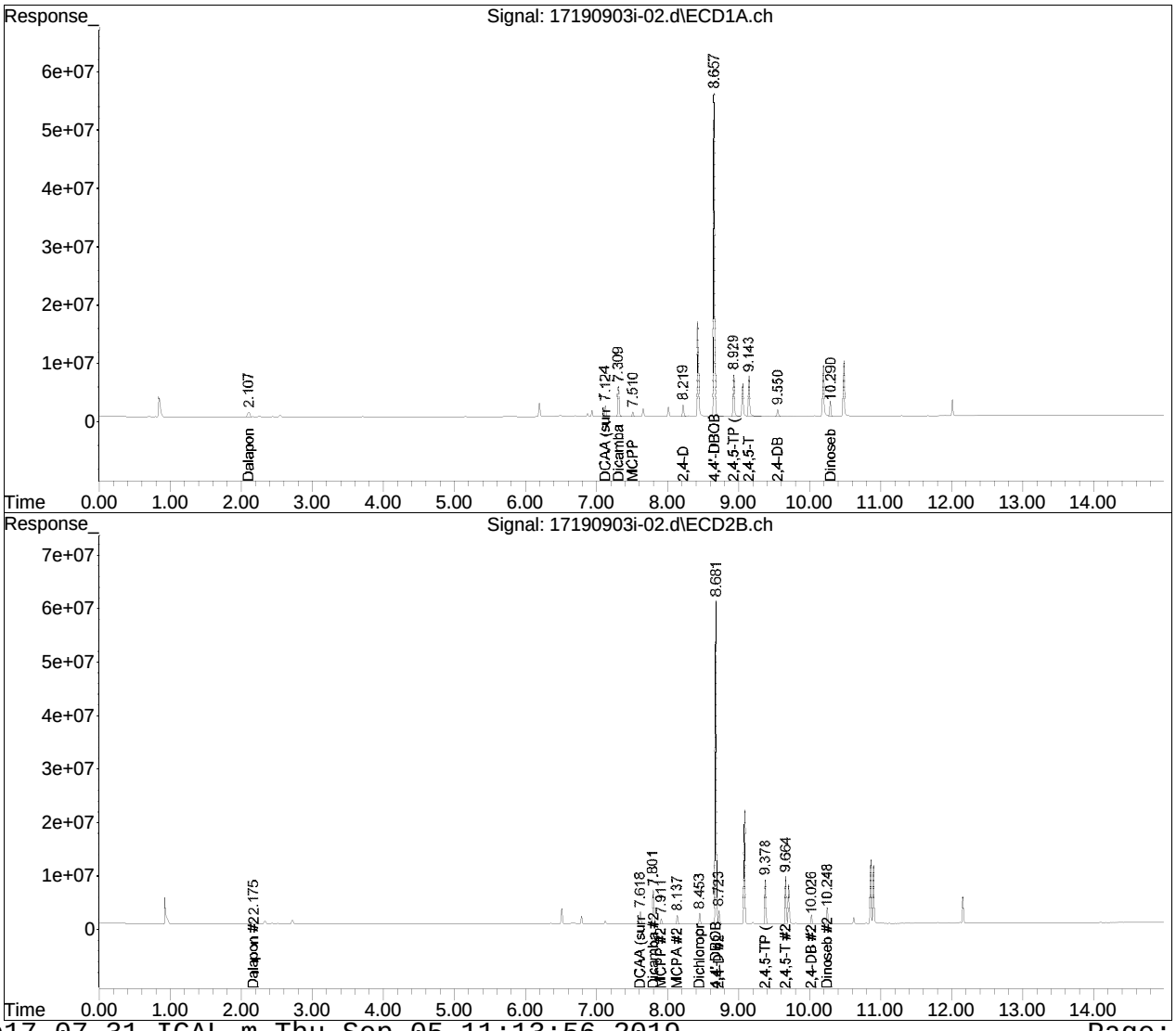
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 11:08 am
Operator : PEST17:dgm
Sample : il1herb,42e,,9270
Misc : wg1280590,
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:08:01 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:07:58 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

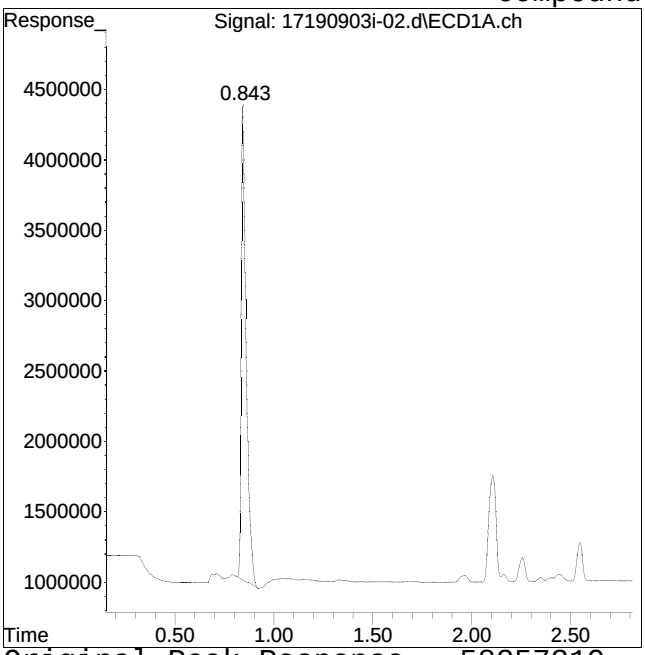


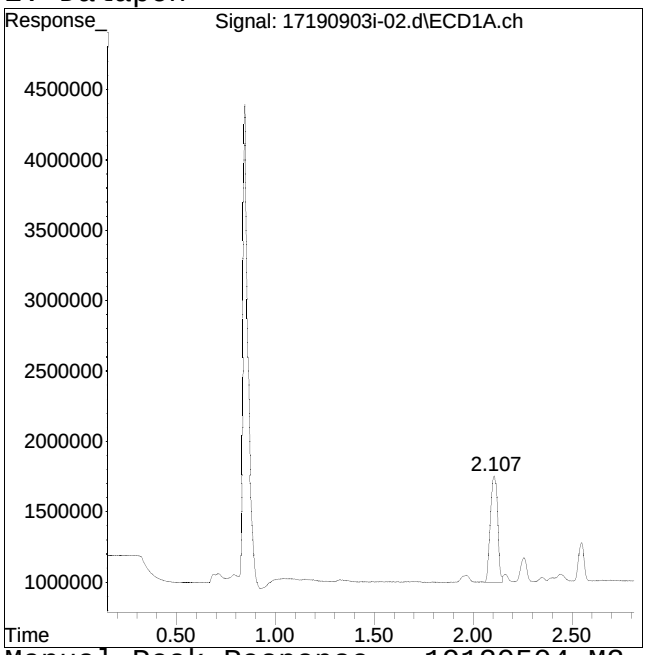
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #2: Dalapon





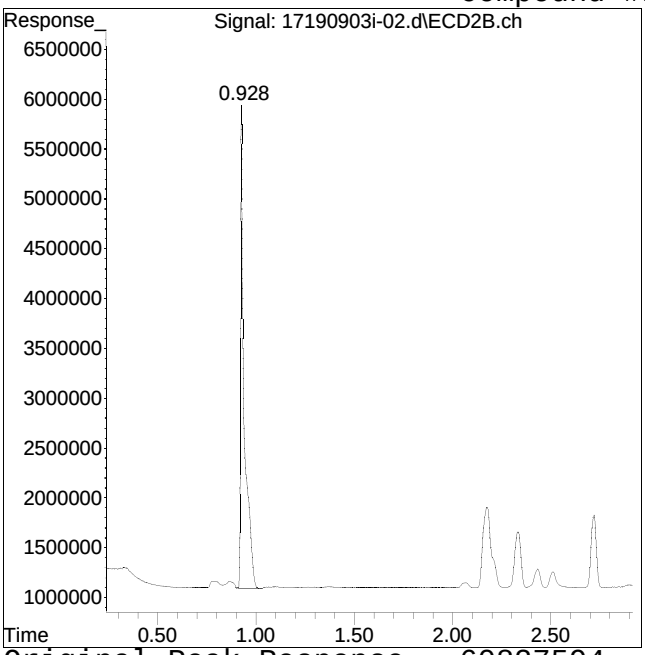
Original Peak Response = 58257319 Manual Peak Response = 19120504 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

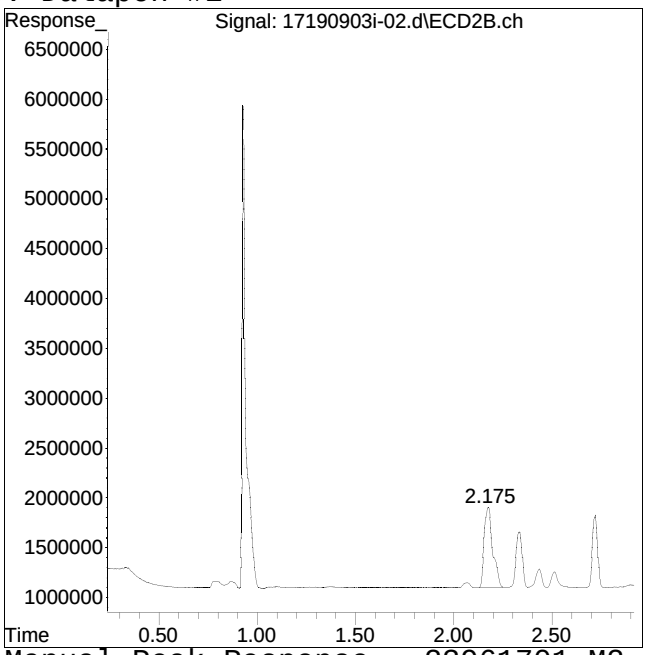
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #15: Dalapon #2



Original Peak Response = 60827594



Manual Peak Response = 23961701 M2

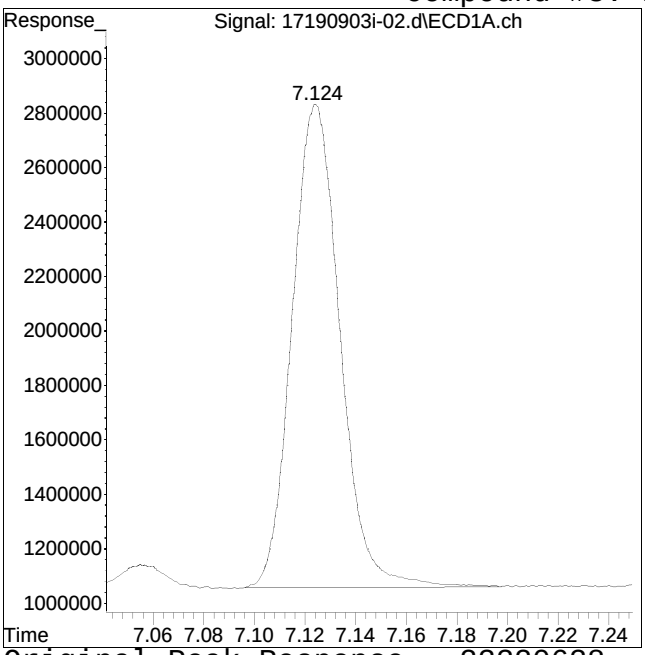
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

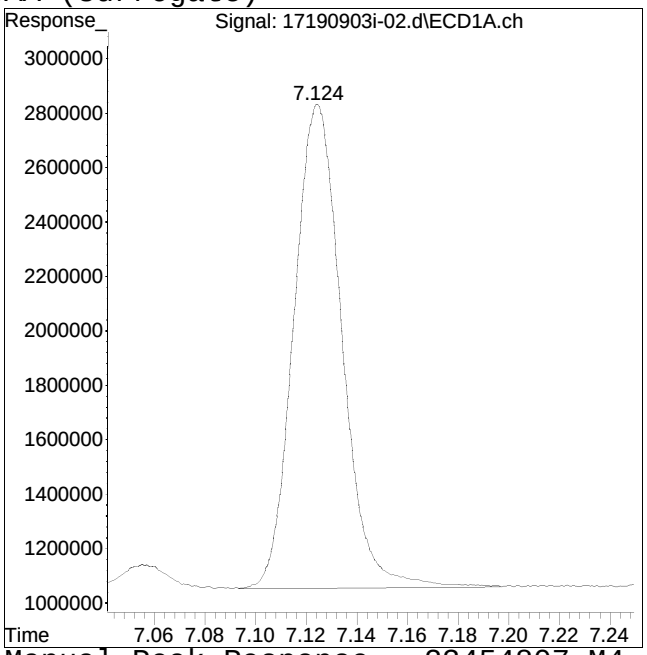
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #3: DCAA (surrogate)



Original Peak Response = 23320638



Manual Peak Response = 23454807 M4

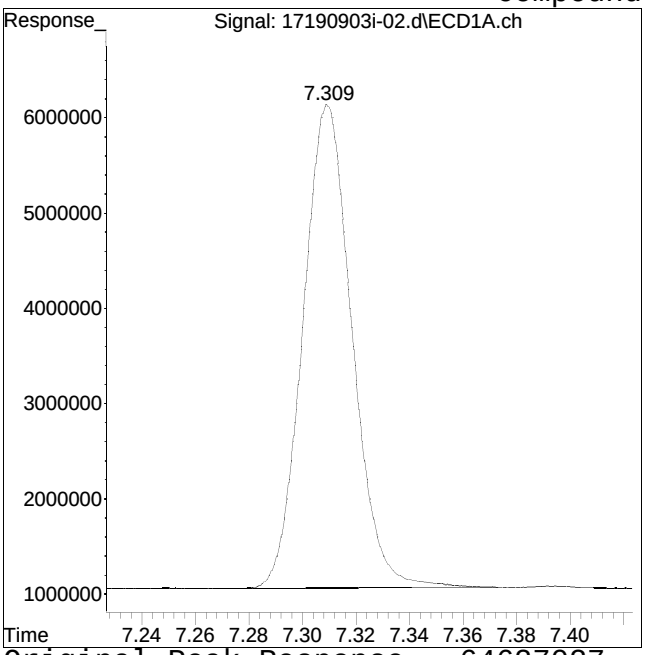
M4 = Poor automated baseline construction.

Manual Integration Report

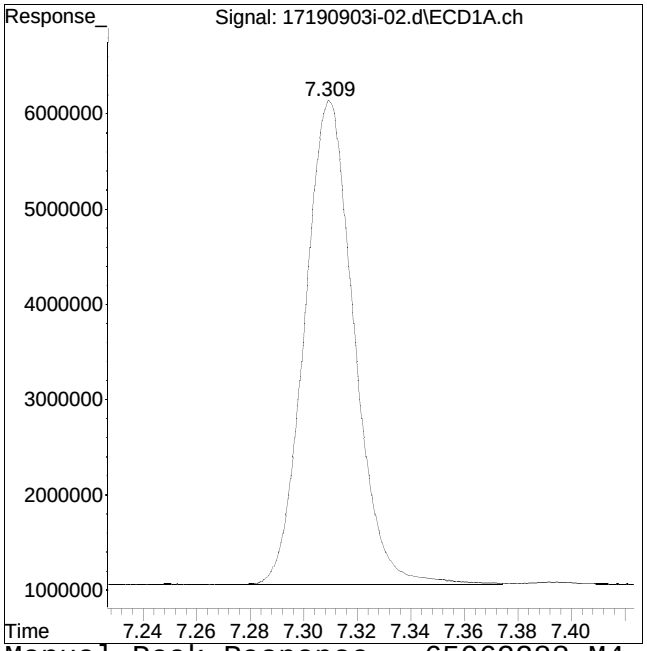
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #4: Dicamba



Original Peak Response = 64627027



Manual Peak Response = 65062288 M4

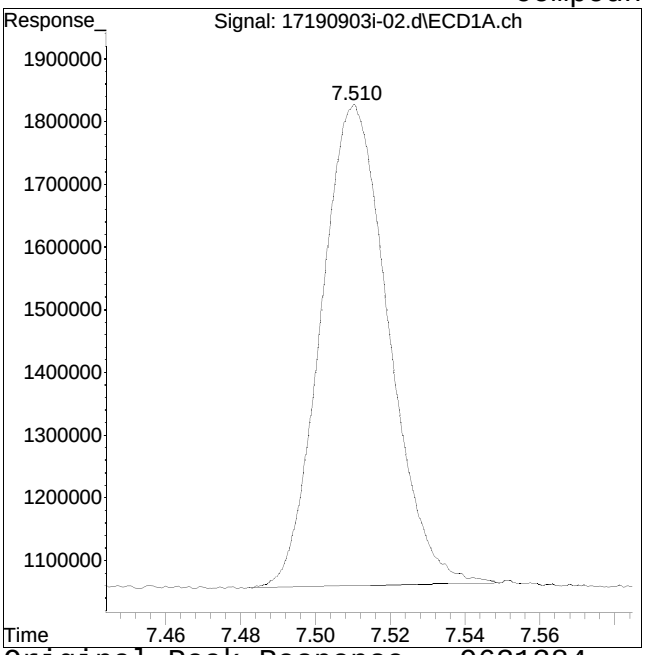
M4 = Poor automated baseline construction.

Manual Integration Report

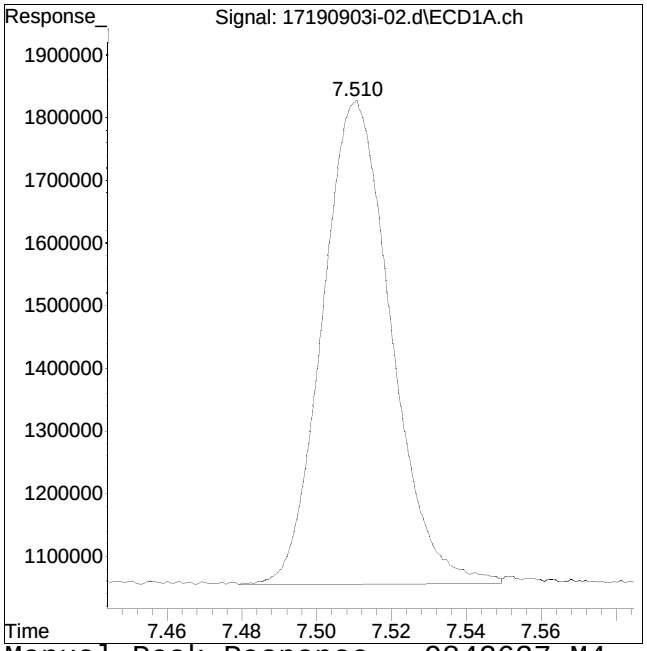
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #5: MCPP



Original Peak Response = 9631384



Manual Peak Response = 9842637 M4

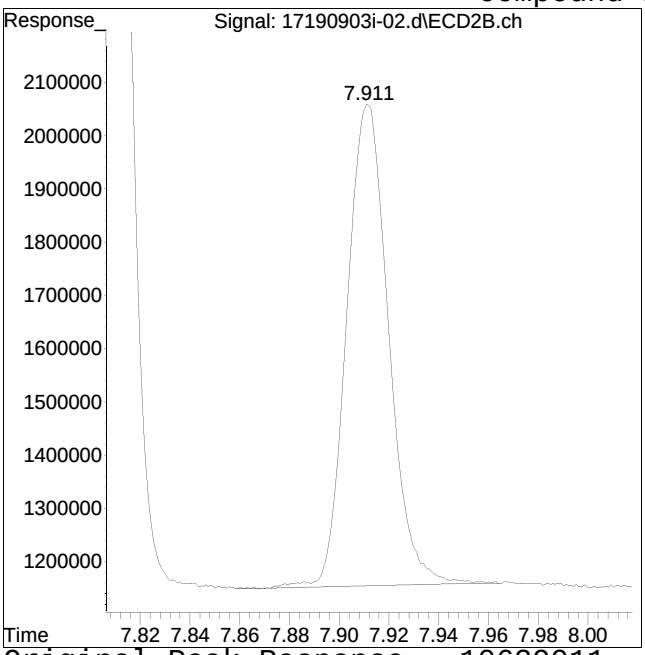
M4 = Poor automated baseline construction.

Manual Integration Report

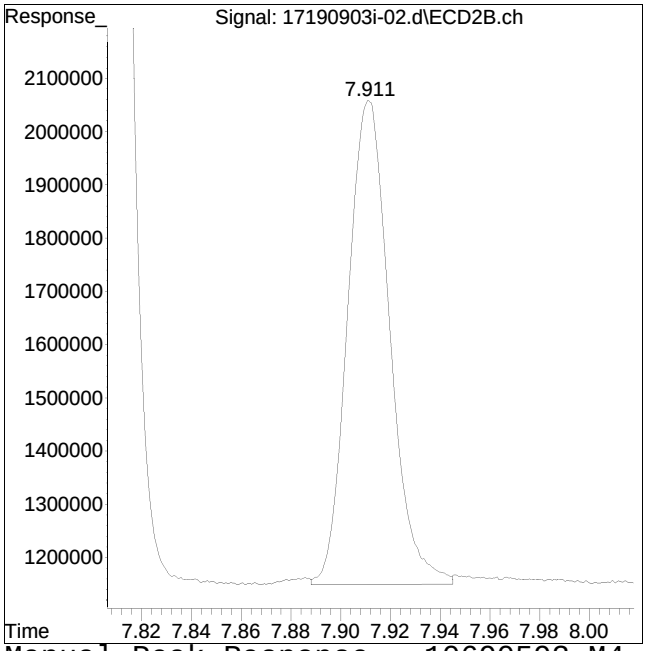
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #18: MCPP #2



Original Peak Response = 10629911



Manual Peak Response = 10690593 M4

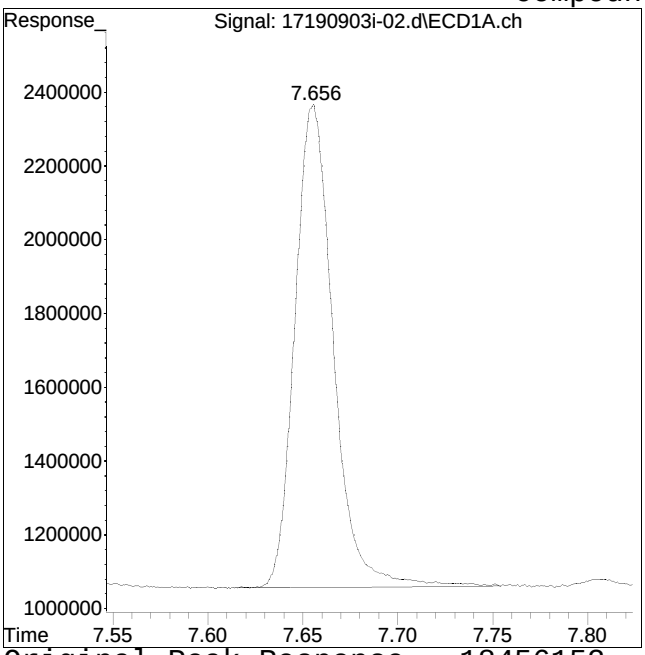
M4 = Poor automated baseline construction.

Manual Integration Report

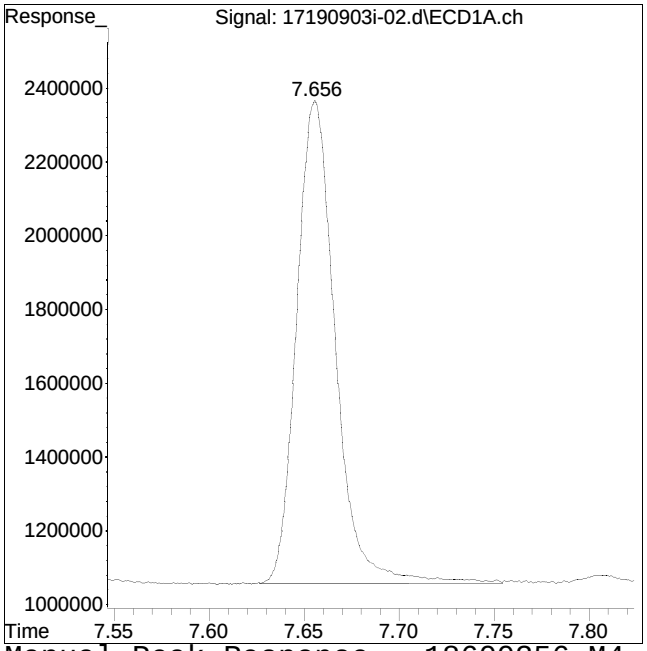
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #6: MCPA



Original Peak Response = 18456152



Manual Peak Response = 18600356 M4

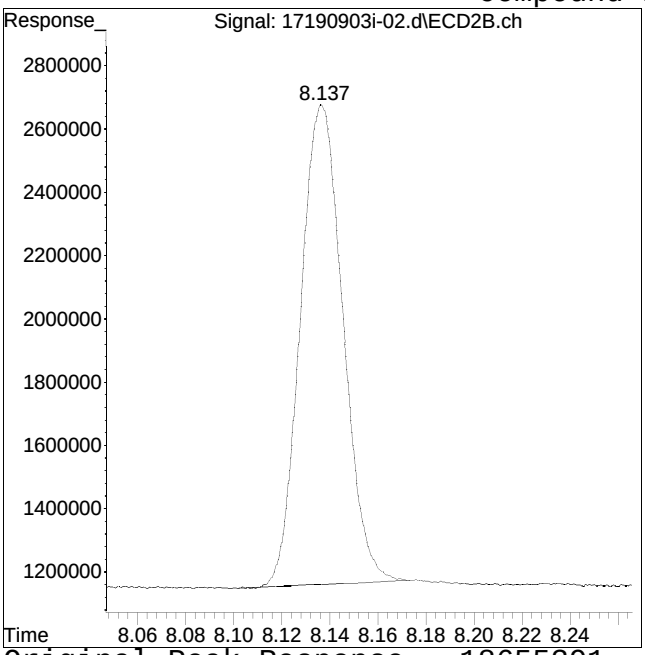
M4 = Poor automated baseline construction.

Manual Integration Report

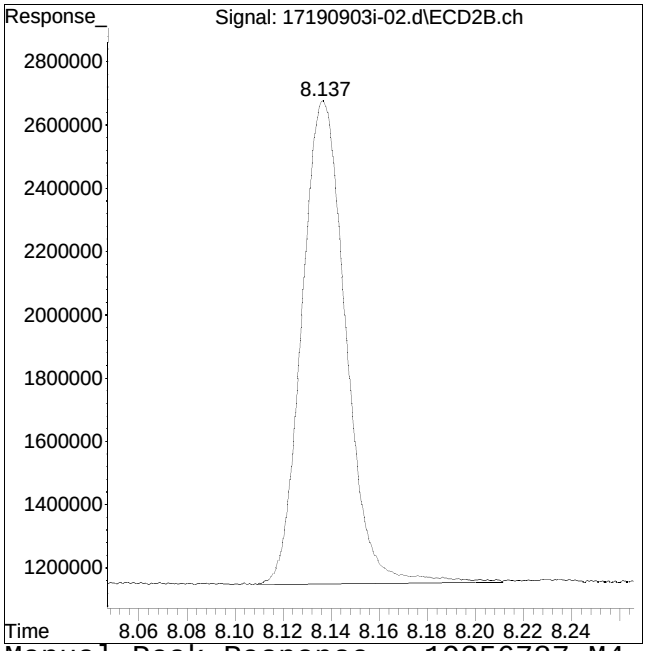
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #19: MCPA #2



Original Peak Response = 18655391



Manual Peak Response = 19356787 M4

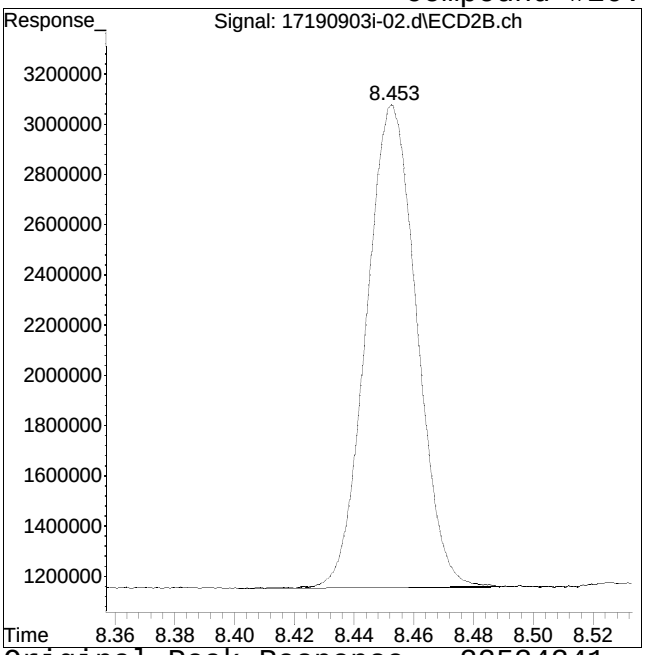
M4 = Poor automated baseline construction.

Manual Integration Report

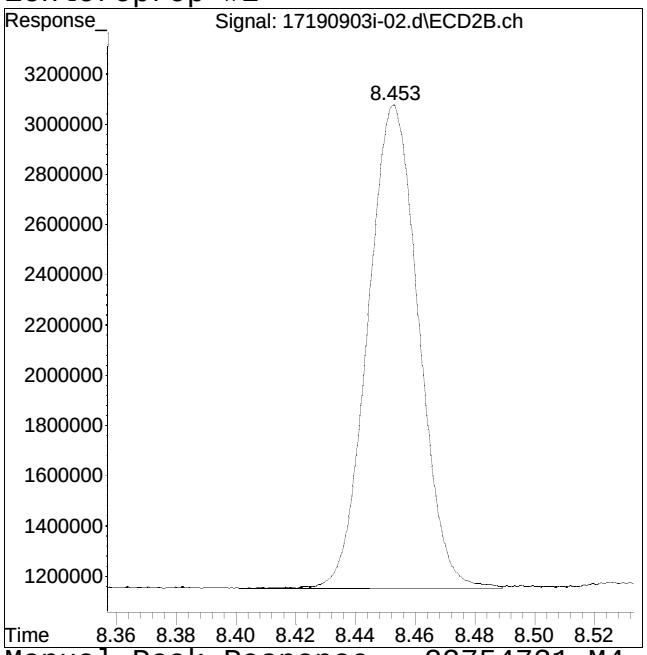
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #20: Dichloroprop #2



Original Peak Response = 22534241



Manual Peak Response = 22754731 M4

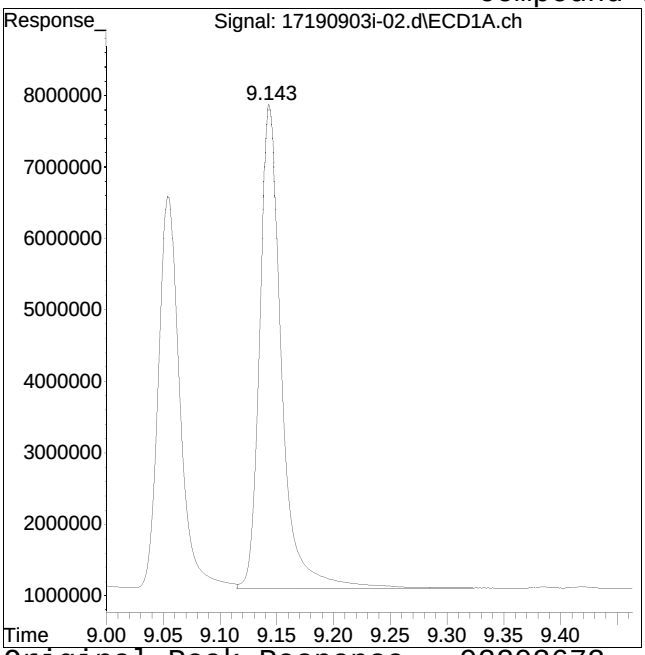
M4 = Poor automated baseline construction.

Manual Integration Report

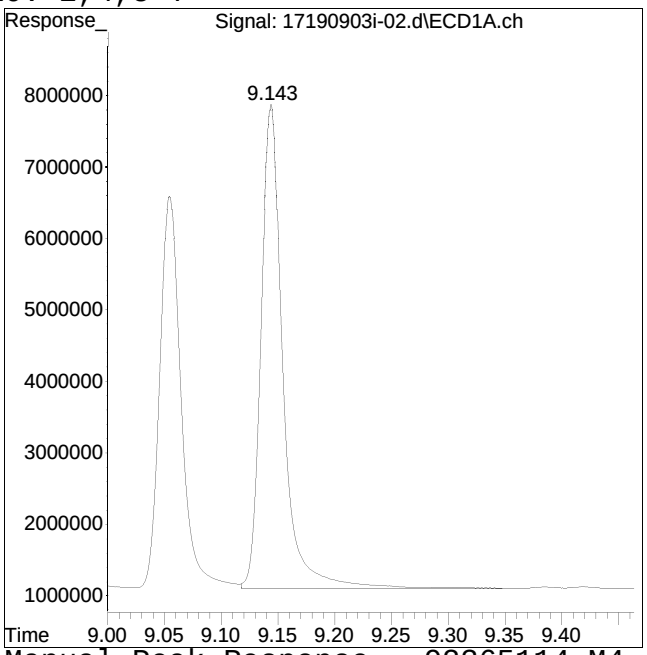
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #10: 2,4,5-T



Original Peak Response = 92203672



Manual Peak Response = 92365114 M4

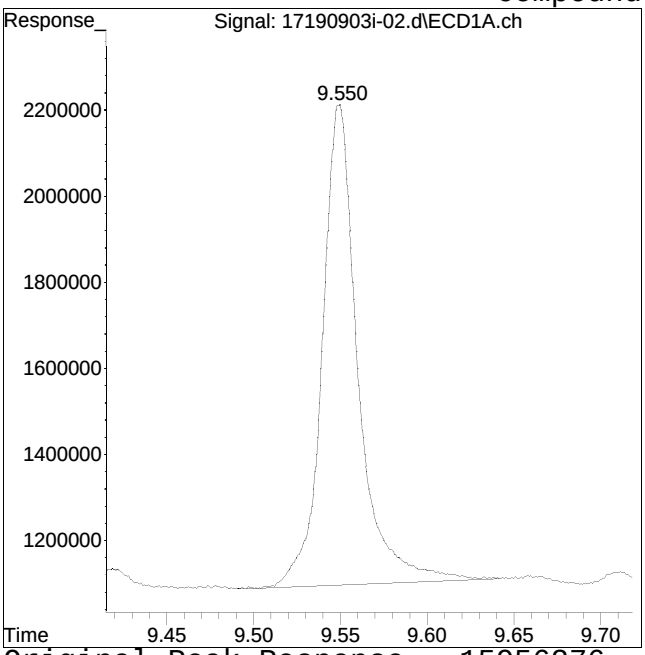
M4 = Poor automated baseline construction.

Manual Integration Report

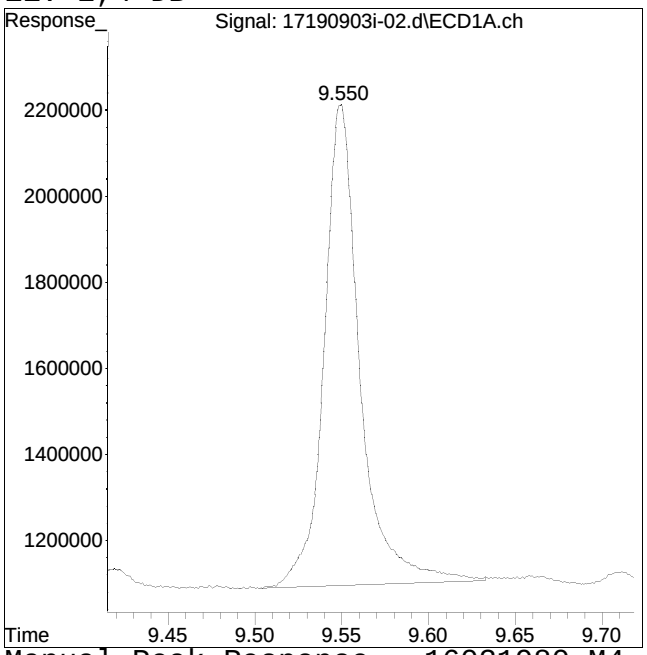
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #11: 2,4-DB



Original Peak Response = 15956276



Manual Peak Response = 16031980 M4

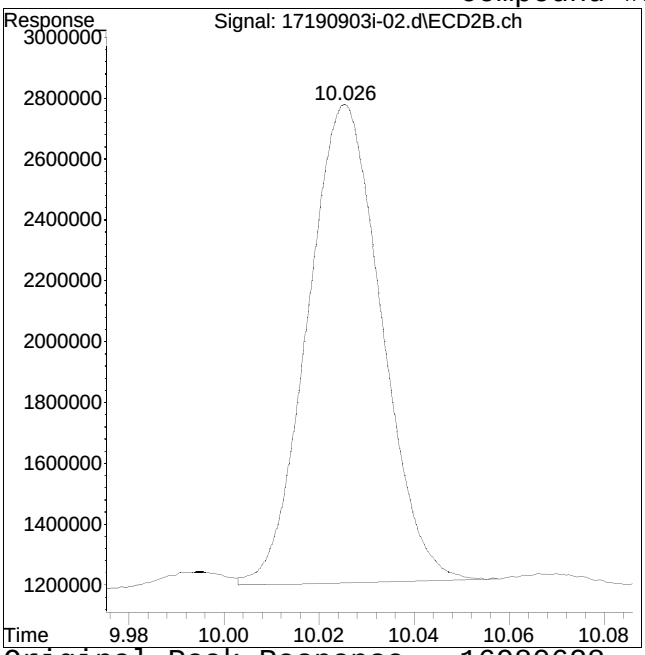
M4 = Poor automated baseline construction.

Manual Integration Report

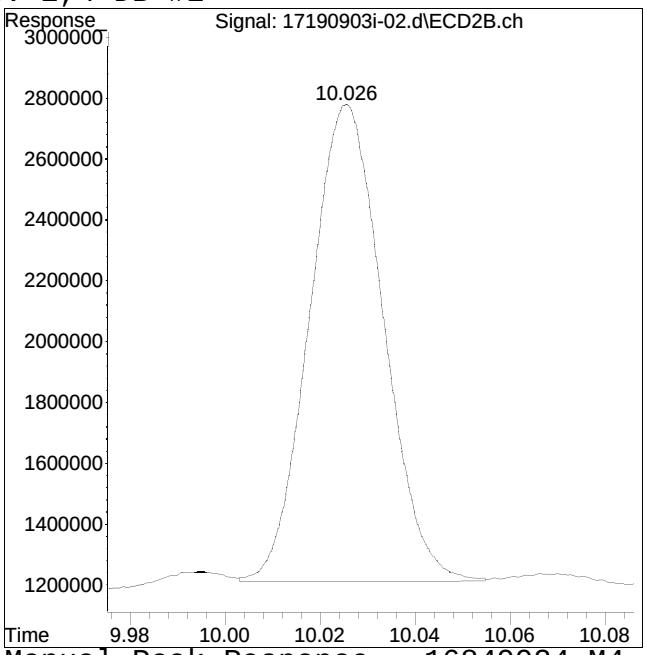
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-02.d
Date Inj'd : 9/3/2019 11:08 am
Sample : il1herb,42e,,9270

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:07 am

Compound #24: 2,4-DB #2



Original Peak Response = 16980628



Manual Peak Response = 16849924 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 11:26 am
Operator : PEST17:dgm
Sample : il2herb,42e,,9271
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:12:06 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:12:03 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.656	8.682	659.5E6	650.6E6	0.250M4	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.123	7.619	42983234	50999722	0.100M4	0.098
	Spiked Amount	0.500	Range 30 - 150		Recovery =	20.00%#	19.60%#
	Target Compounds						
2) t	Dalapon	2.106f	2.173f	35883166	39425221	0.097M2	0.096M2
4) t	Dicamba	7.308	7.801	122.8E6	137.8E6	0.094M4	0.094M4
5) t	MCPP	7.509	7.911	17732301	19687484	10.296	9.576M4
6) t	MCPA	7.654	8.137	31513925	33492810	4.539M4	10.569M4
D							
7) t	Dichloroprop	8.010	8.452	38466913	40750478	0.046M4	0.075M4
D							
8) t	2,4-D	8.217	8.723	47390809	53658662	0.097	0.093
9) t	2,4,5-TP (Si	8.927	9.378	170.9E6	168.6E6	0.092	0.088M4
10) t	2,4,5-T	9.142	9.664	182.5E6	167.3E6	0.093M4	0.090
11) t	2,4-DB	9.547	10.024	31629623	31438129	0.098M4	0.095M4
12) t	Dinoseb	10.288	10.248	56844454	58599510	0.090	0.091

SemiQuant Compounds - Not Calibrated on this Instrument

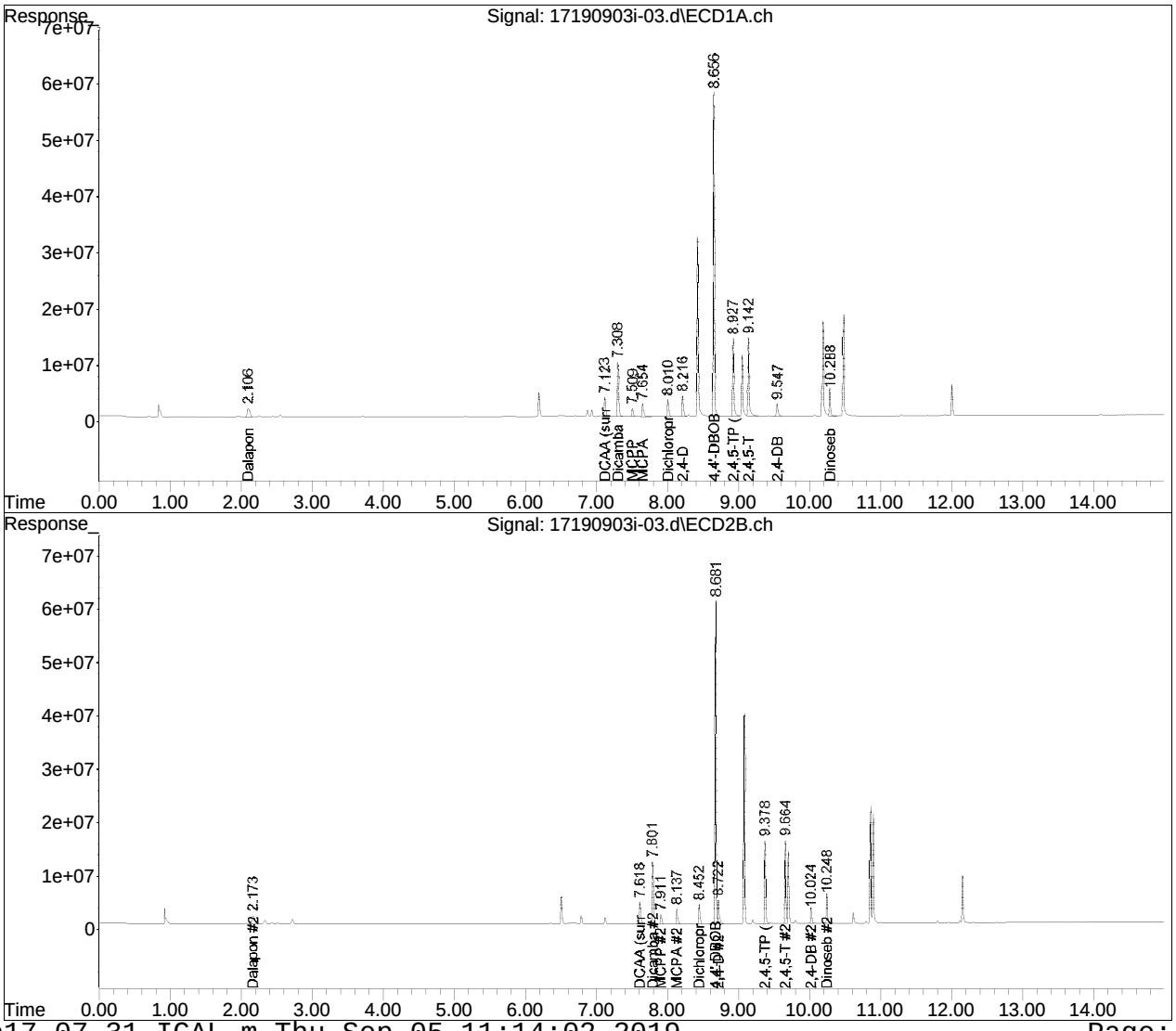
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 11:26 am
Operator : PEST17:dgm
Sample : il2herb,42e,,9271
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:12:06 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:12:03 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

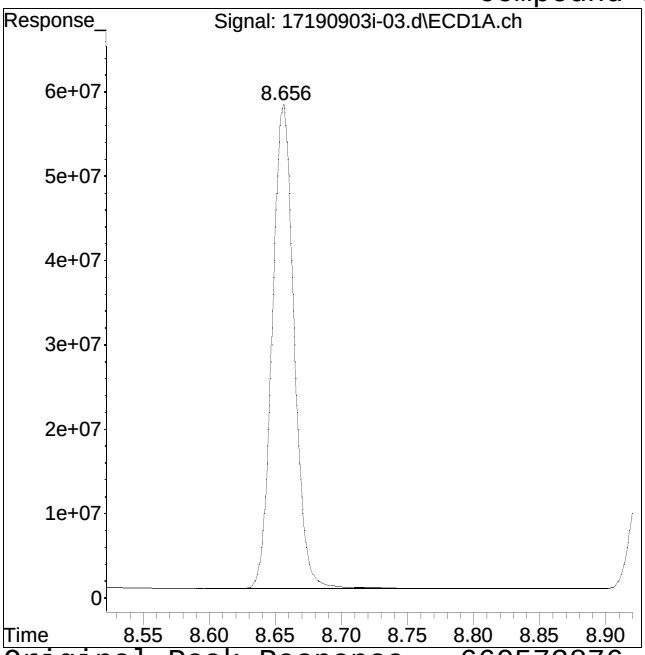


Manual Integration Report

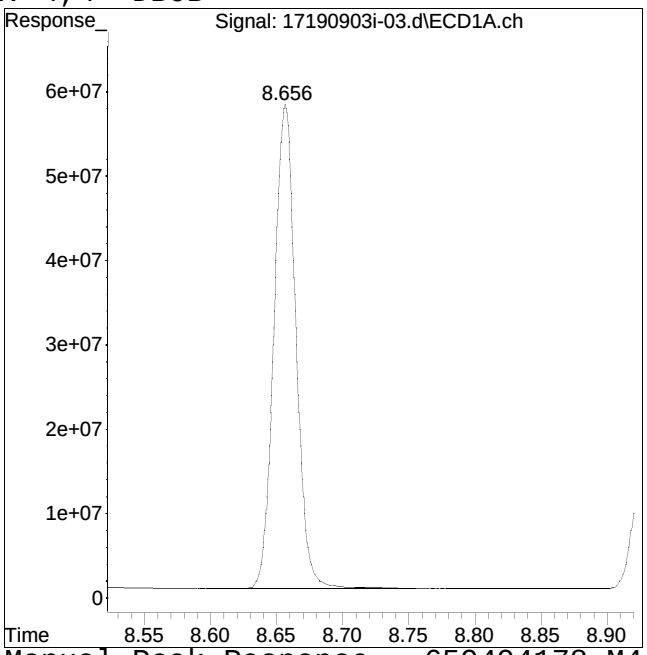
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #1: 4,4'-DBOB



Original Peak Response = 660573876



Manual Peak Response = 659494178 M4

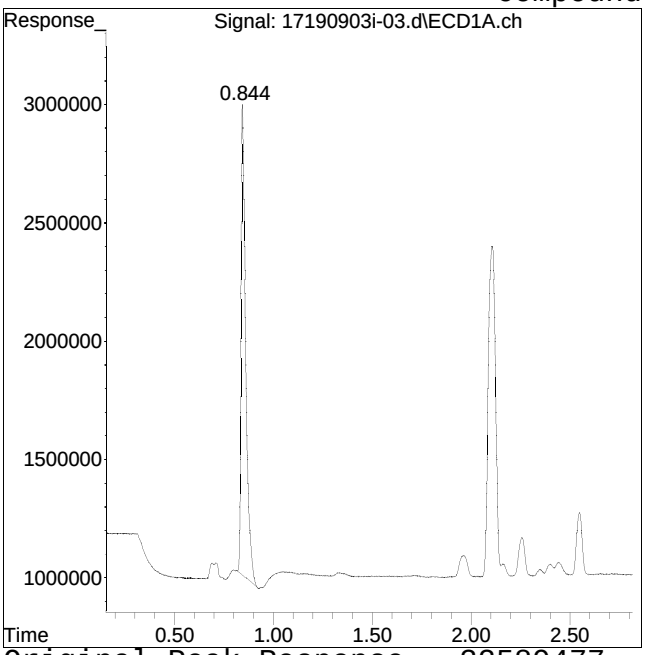
M4 = Poor automated baseline construction.

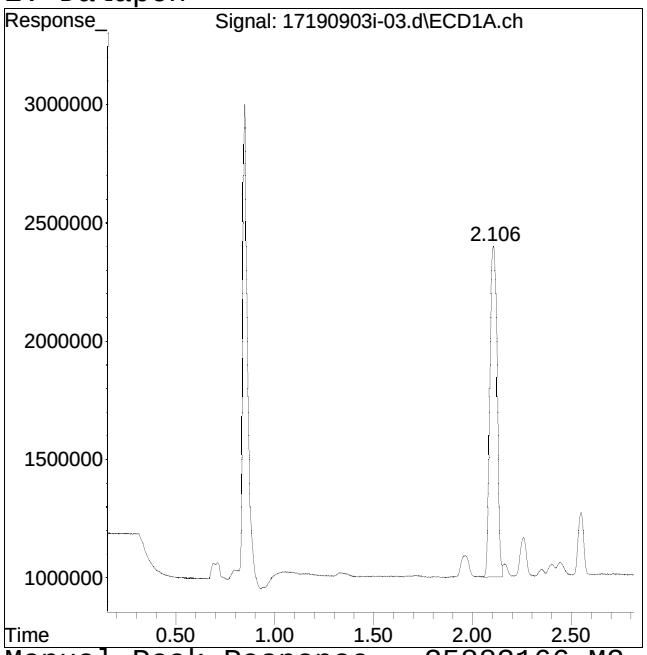
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #2: Dalapon





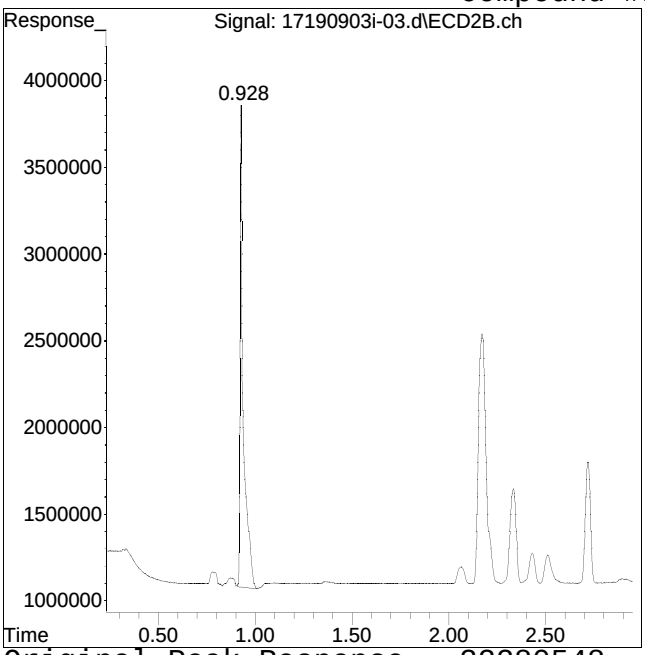
Original Peak Response = 32589477 Manual Peak Response = 35883166 M2
M2 = Peak not found by automatic integration algorithm.

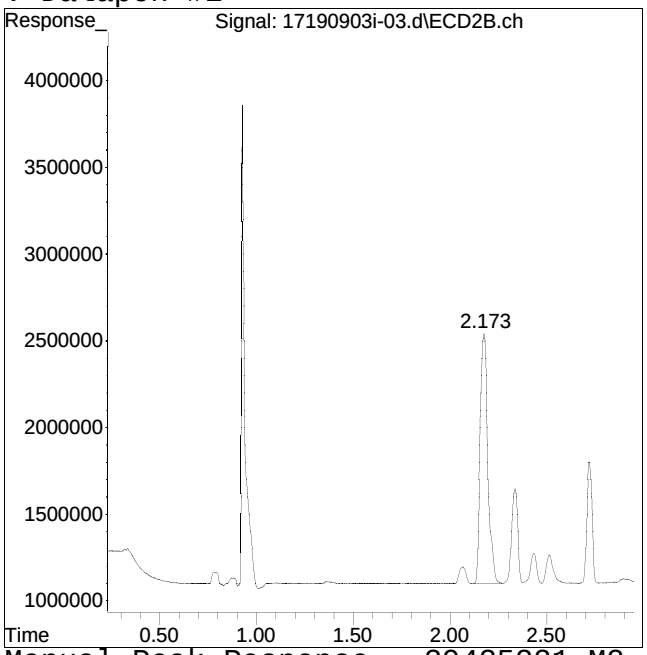
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #15: Dalapon #2





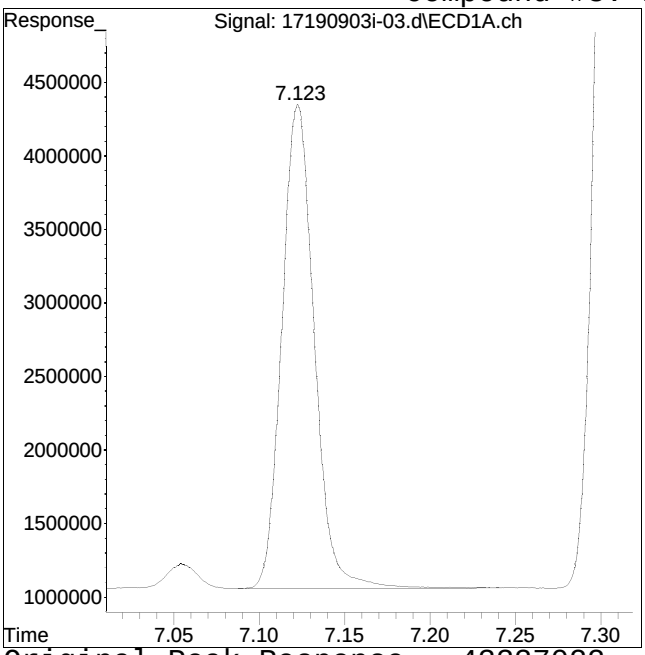
Original Peak Response = 32280548 Manual Peak Response = 39425221 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

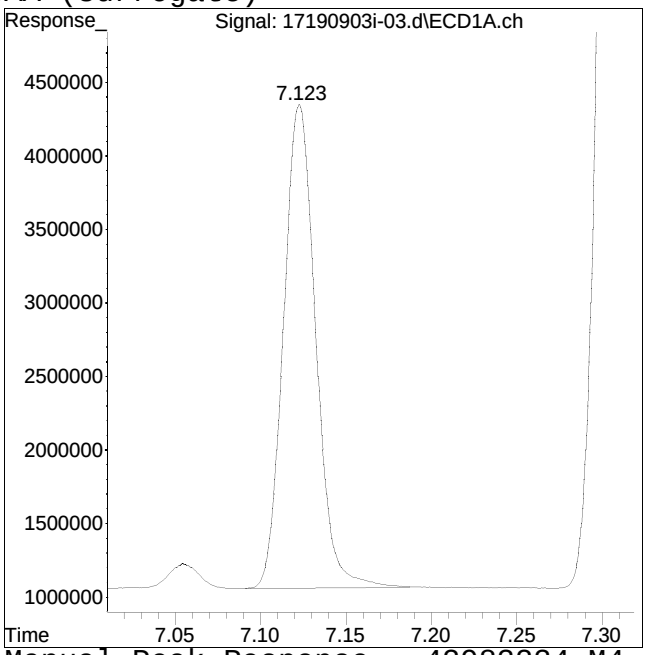
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #3: DCAA (surrogate)



Original Peak Response = 43337022



Manual Peak Response = 42983234 M4

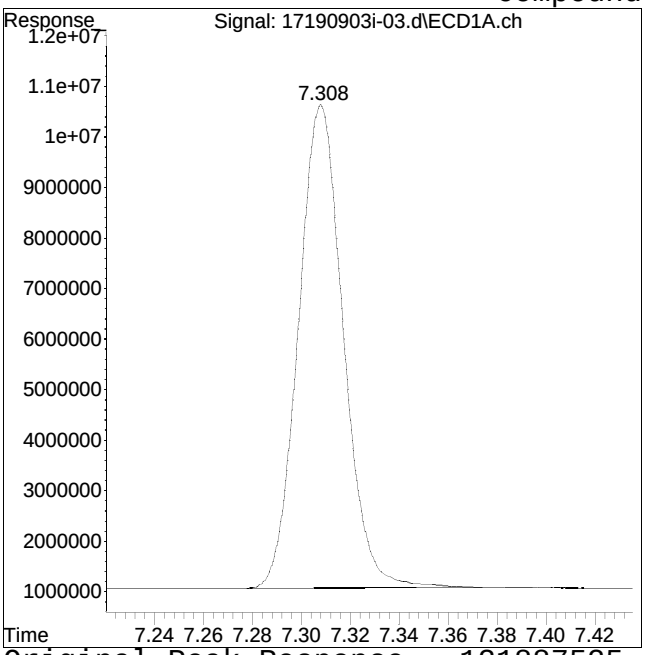
M4 = Poor automated baseline construction.

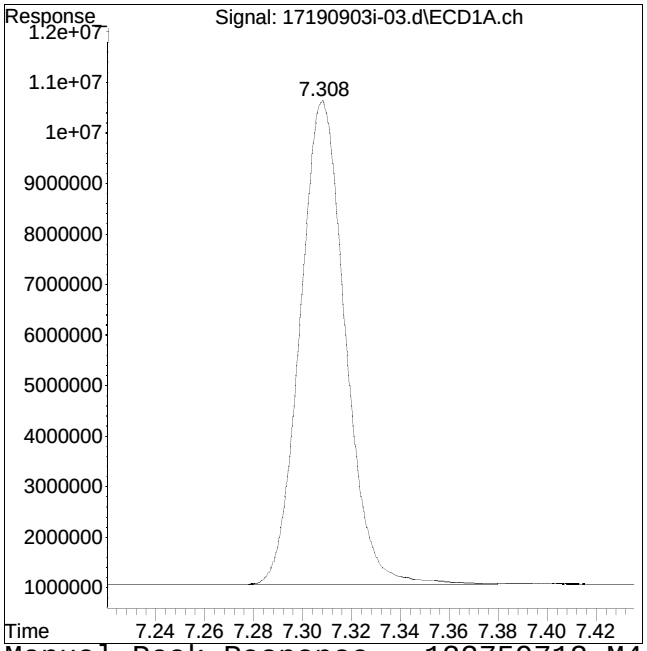
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #4: Dicamba





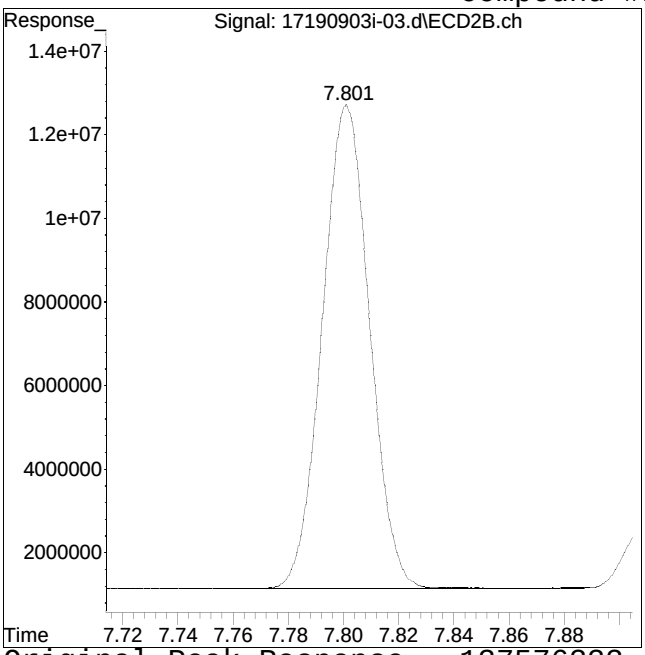
Original Peak Response = 121887525 Manual Peak Response = 122759712 M4
M4 = Poor automated baseline construction.

Manual Integration Report

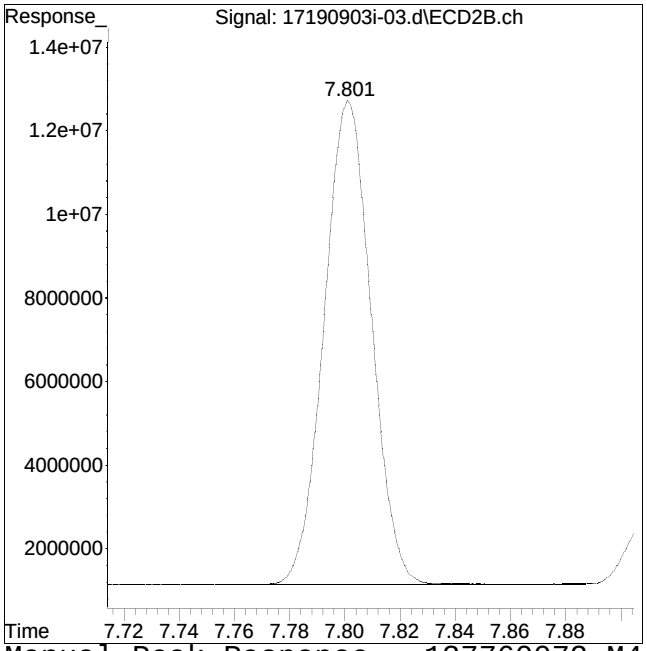
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #17: Dicamba #2



Original Peak Response = 137576333



Manual Peak Response = 137760072 M4

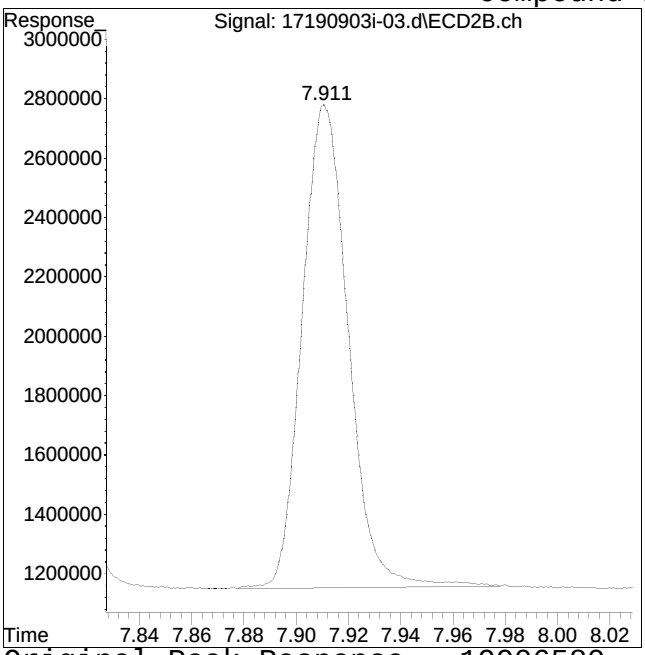
M4 = Poor automated baseline construction.

Manual Integration Report

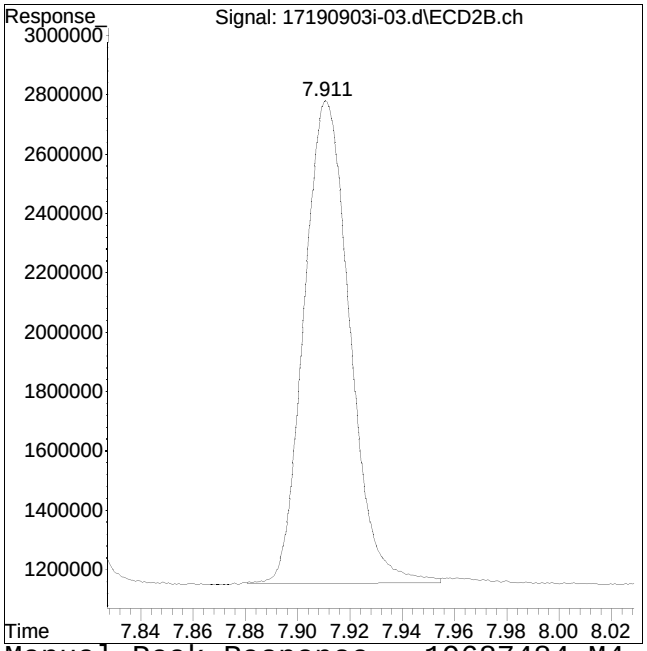
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #18: MCPP #2



Original Peak Response = 19906580



Manual Peak Response = 19687484 M4

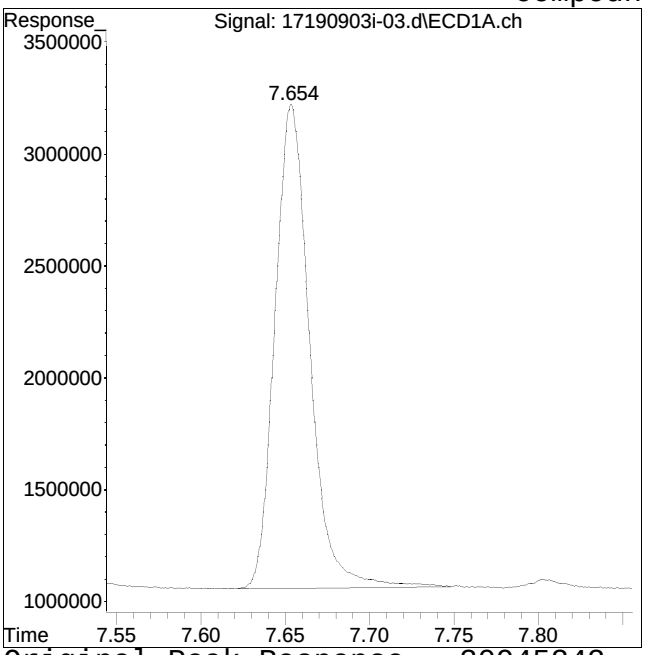
M4 = Poor automated baseline construction.

Manual Integration Report

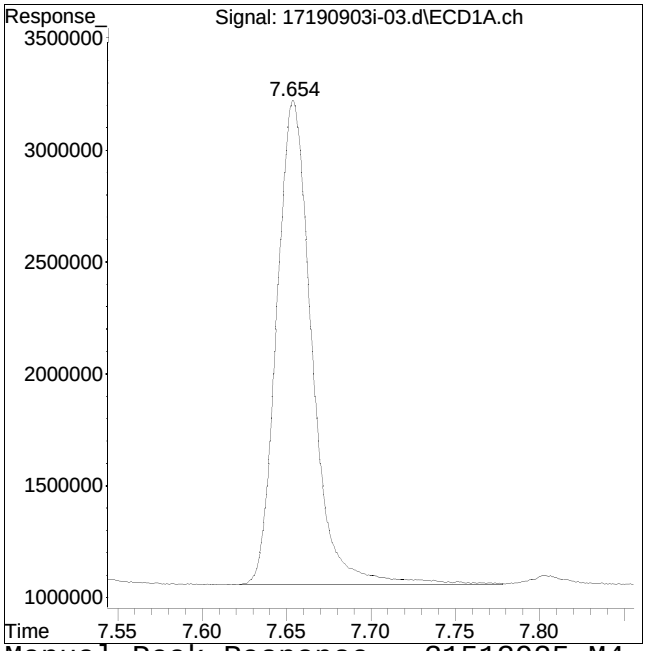
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #6: MCPA



Original Peak Response = 30945242



Manual Peak Response = 31513925 M4

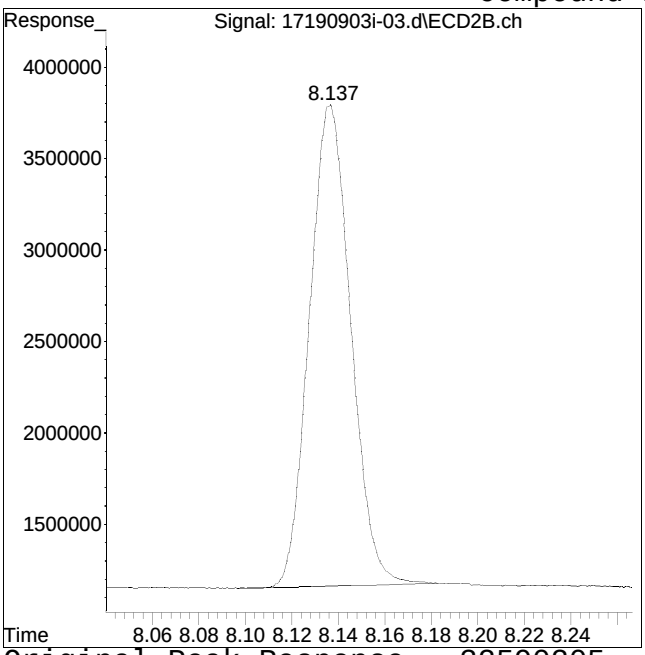
M4 = Poor automated baseline construction.

Manual Integration Report

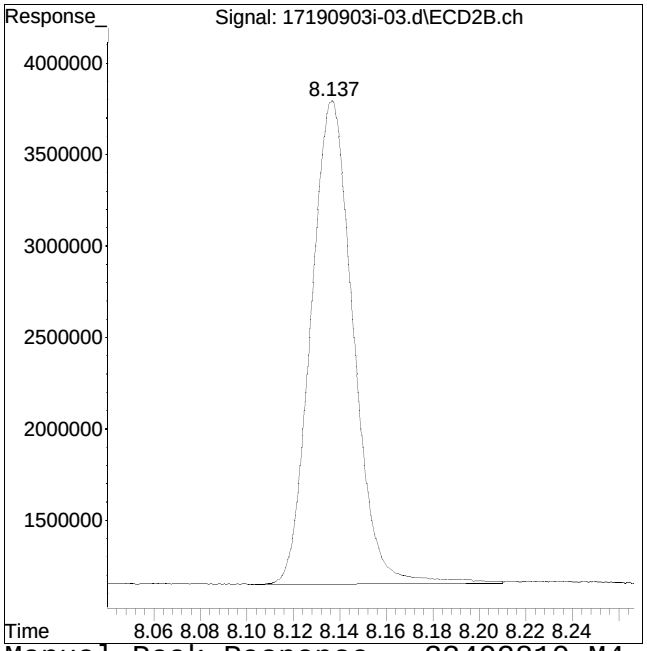
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #19: MCPA #2



Original Peak Response = 32590205



Manual Peak Response = 33492810 M4

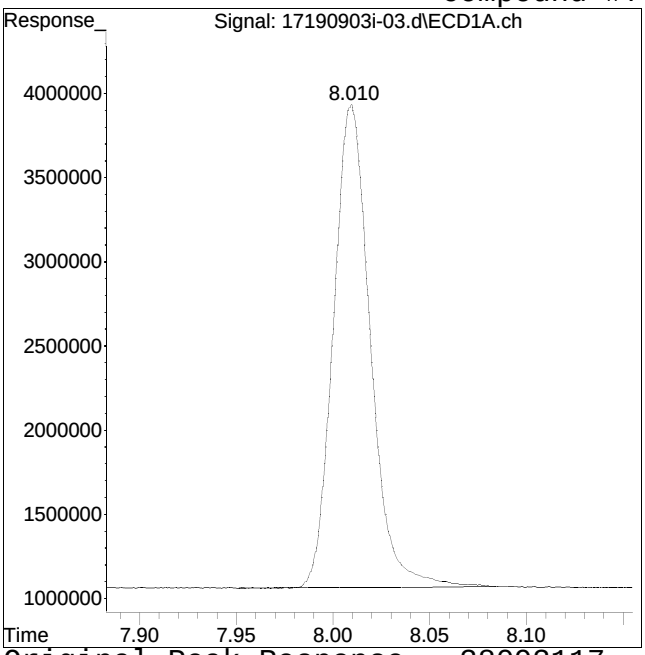
M4 = Poor automated baseline construction.

Manual Integration Report

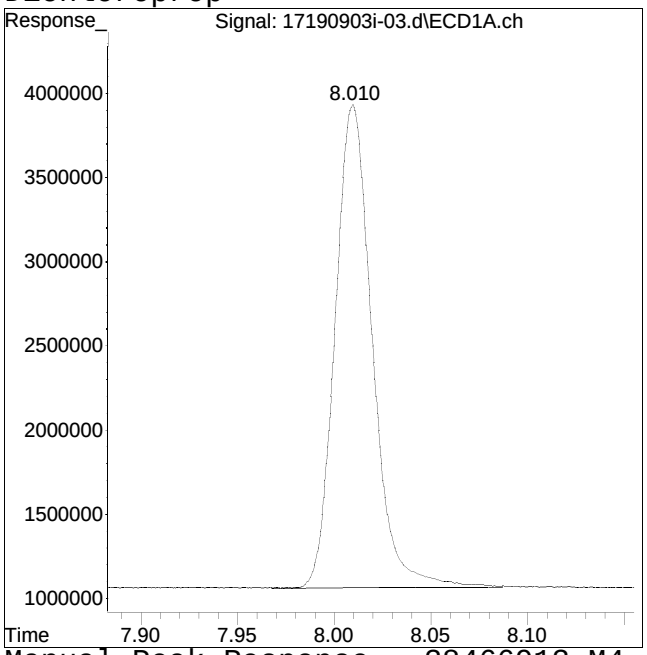
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #7: Dichloroprop



Original Peak Response = 38093117



Manual Peak Response = 38466913 M4

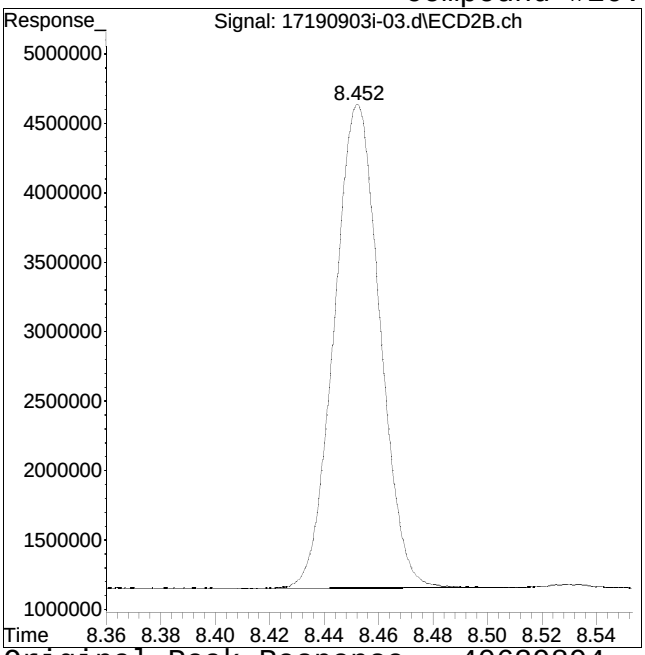
M4 = Poor automated baseline construction.

Manual Integration Report

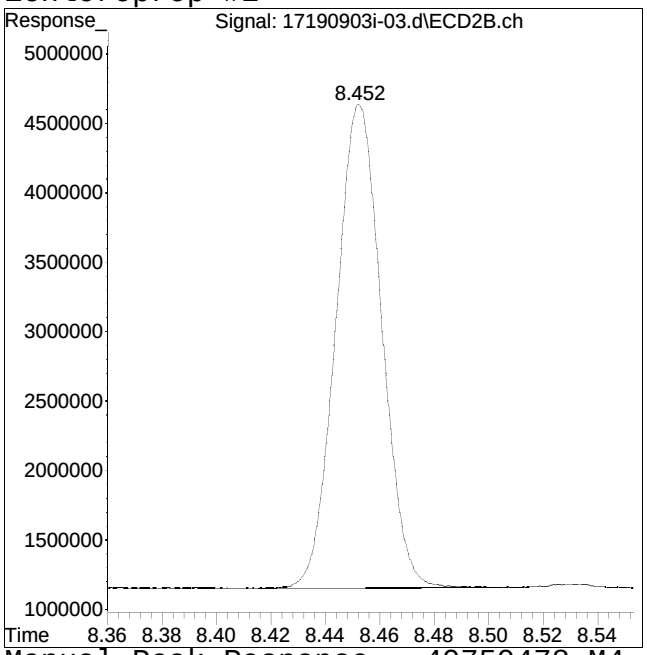
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #20: Dichloroprop #2



Original Peak Response = 40639894



Manual Peak Response = 40750478 M4

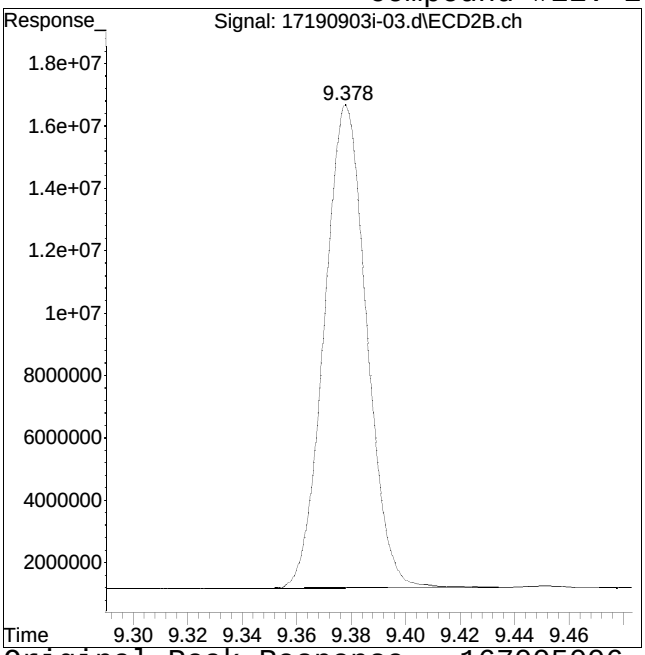
M4 = Poor automated baseline construction.

Manual Integration Report

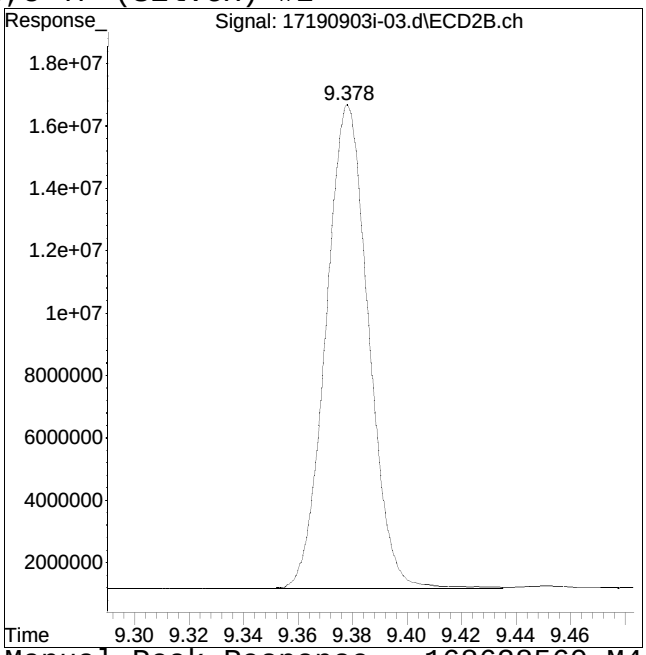
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #22: 2,4,5-TP (Silvex) #2



Original Peak Response = 167005006



Manual Peak Response = 168628560 M4

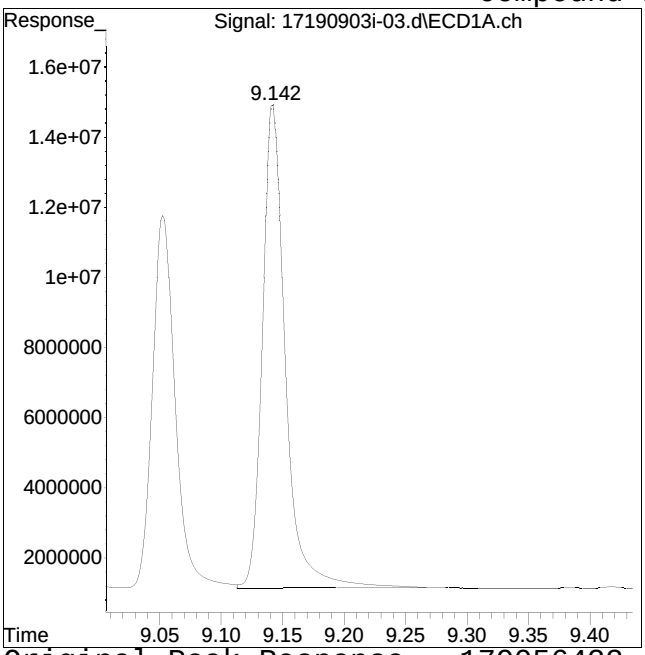
M4 = Poor automated baseline construction.

Manual Integration Report

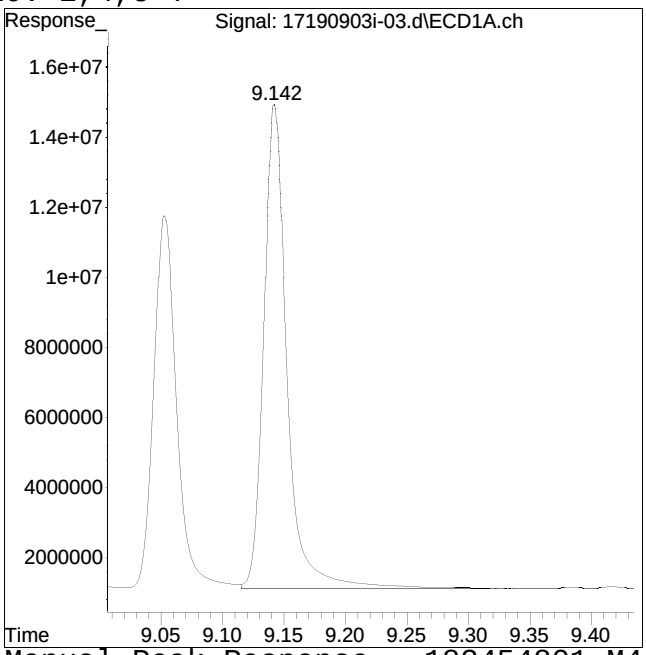
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #10: 2,4,5-T



Original Peak Response = 179056422



Manual Peak Response = 182454801 M4

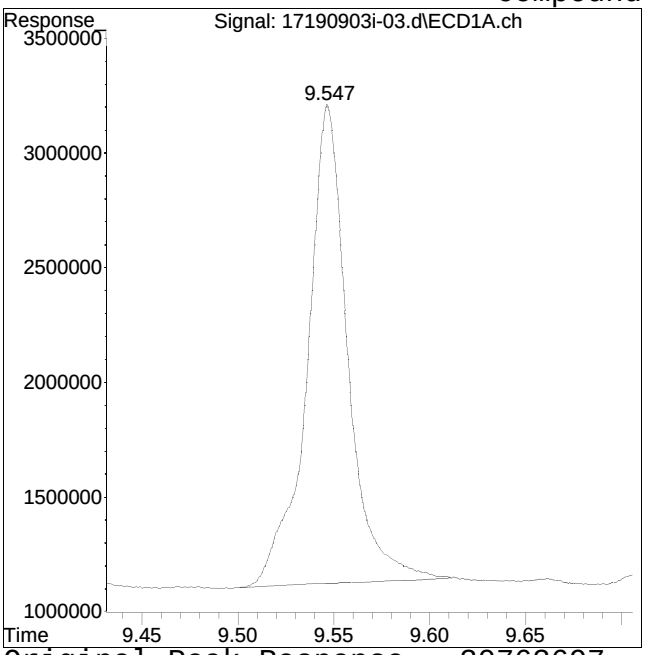
M4 = Poor automated baseline construction.

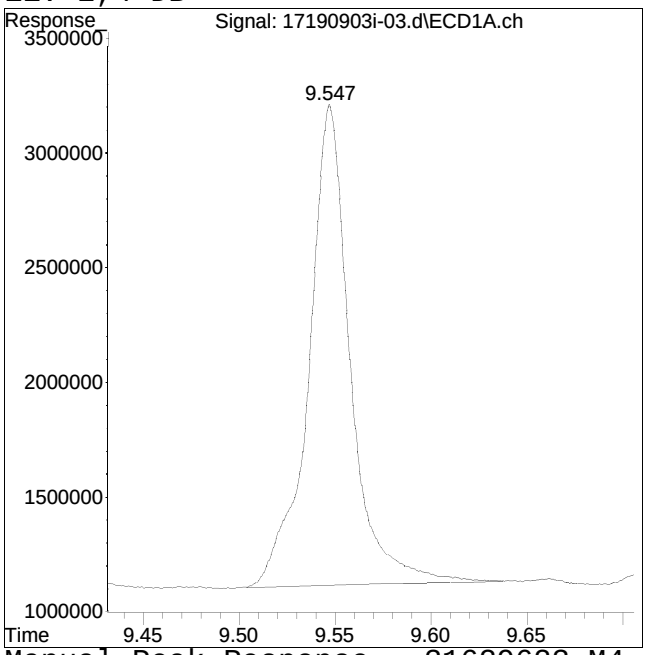
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #11: 2,4-DB





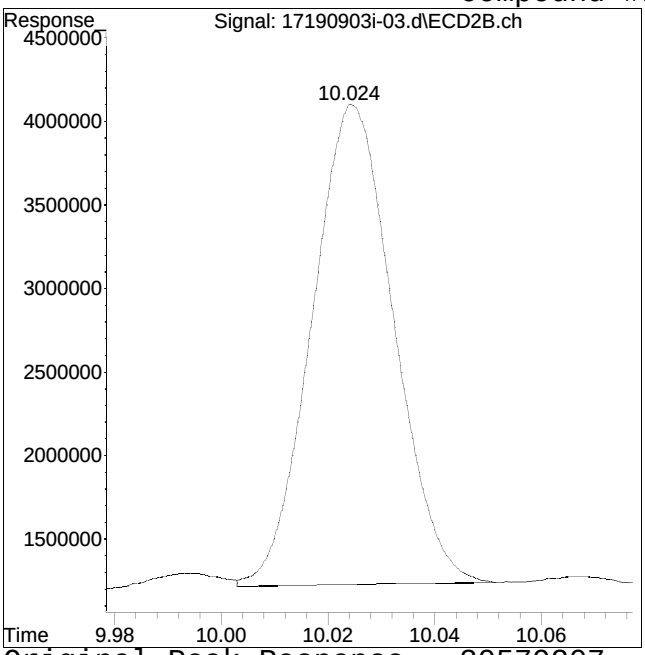
Original Peak Response = 30763697 Manual Peak Response = 31629623 M4
M4 = Poor automated baseline construction.

Manual Integration Report

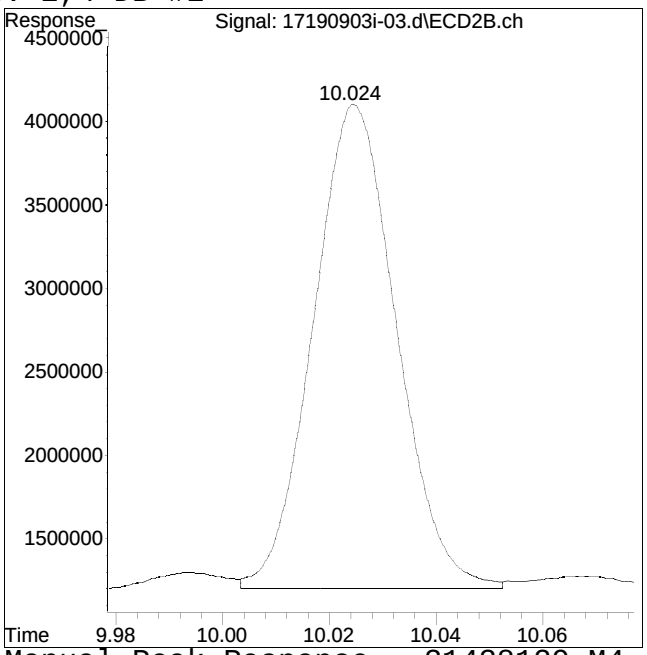
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-03.d
Date Inj'd : 9/3/2019 11:26 am
Sample : il2herb,42e,,9271

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:12 am

Compound #24: 2,4-DB #2



Original Peak Response = 30579207



Manual Peak Response = 31438129 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 11:45 am
Operator : PEST17:dgm
Sample : il3herb,42e,,9272
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:55:53 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 13:50:27 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.656	8.682	672.4E6	657.3E6	0.250	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.122	7.618	86890283	101.8E6	0.206	0.201M4
	Spiked Amount	0.500	Range 30 - 150		Recovery =	41.20%	40.20%
	Target Compounds						
2) t	Dalapon	2.102f	2.169f	68617729	70695643	0.438M2	0.422M2
4) t	Dicamba	7.307	7.801	243.2E6	268.1E6	0.170M4	0.172
5) t	MCPP	7.508	7.911	33044233	37891826	18.676M4	17.930M4
6) t	MCPA	7.653	8.136	55301096	61235557	19.774M4	18.408M4
7) t	Dichloroprop	8.009	8.452	73748698	78343038	0.182	0.176M4
8) t	2,4-D	8.216	8.723	91763674	104.4E6	0.176	0.171
9) t	2,4,5-TP (Si	8.927	9.379	348.1E6	338.0E6	0.173	0.169
10) t	2,4,5-T	9.140	9.664	378.0E6	329.3E6	0.172M4	0.166
11) t	2,4-DB	9.545	10.025	61776513	61215994	0.177M4	0.172
12) t	Dinoseb	10.287	10.248	119.7E6	117.2E6	0.153	0.165
	SemiQuant Compounds - Not Calibrated on this Instrument						

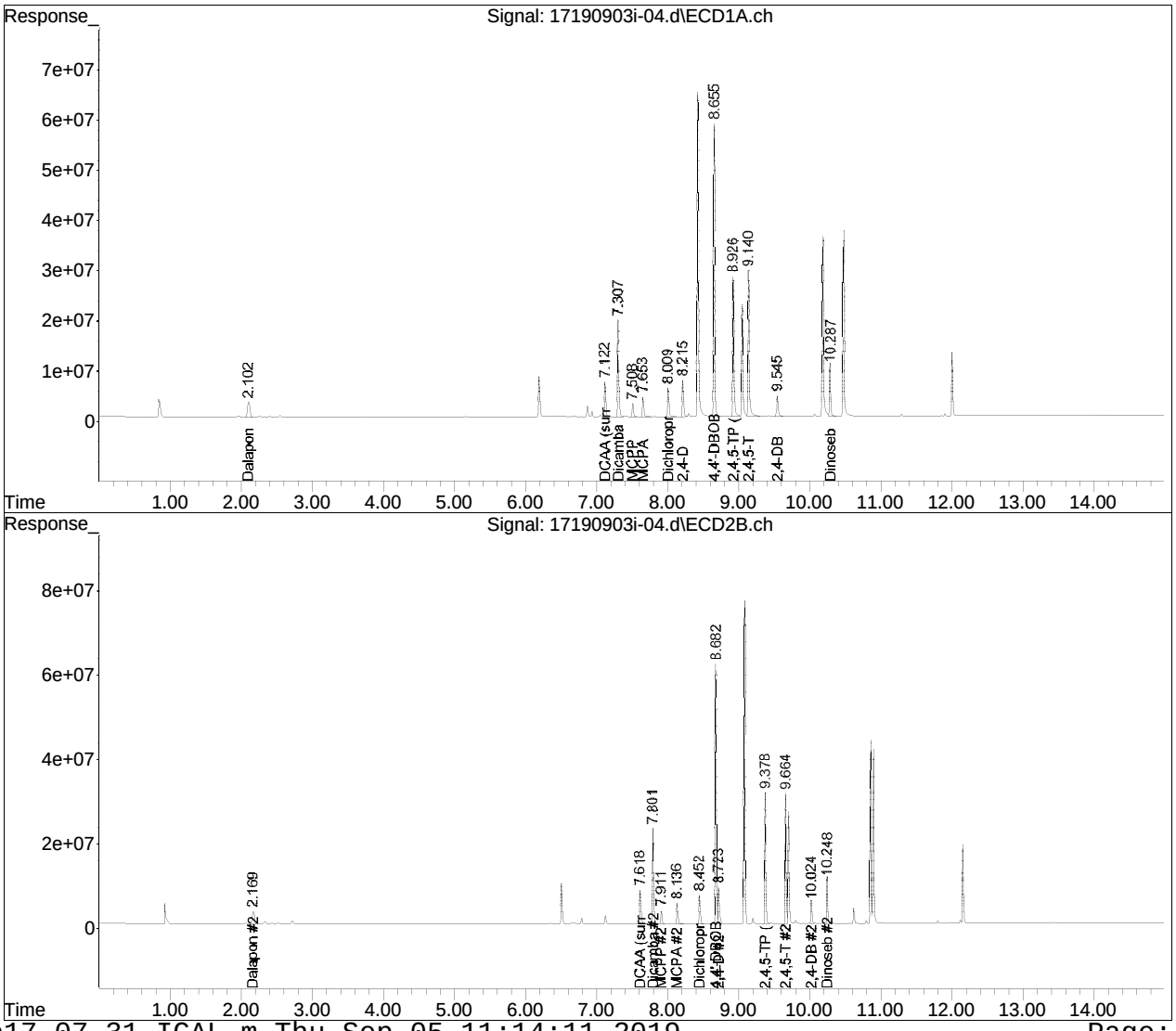
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 11:45 am
Operator : PEST17:dgm
Sample : il3herb,42e,,9272
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:55:53 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 13:50:27 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

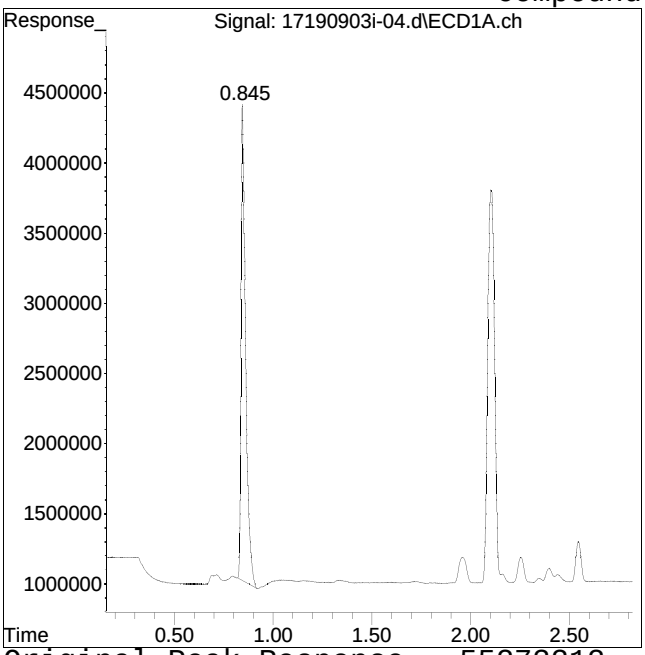


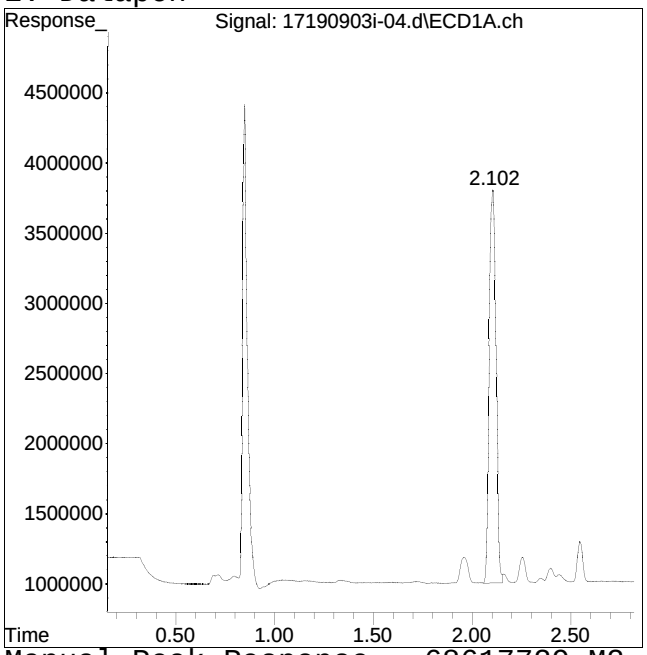
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #2: Dalapon





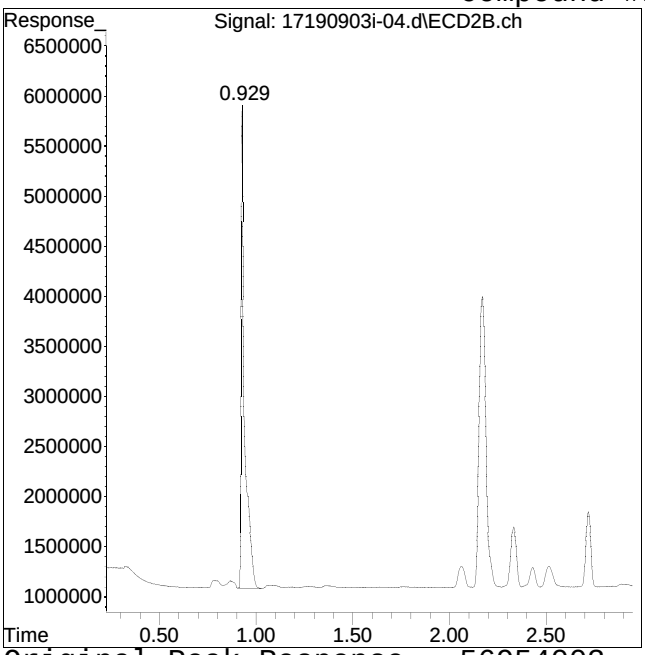
Original Peak Response = 55273212 Manual Peak Response = 68617729 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

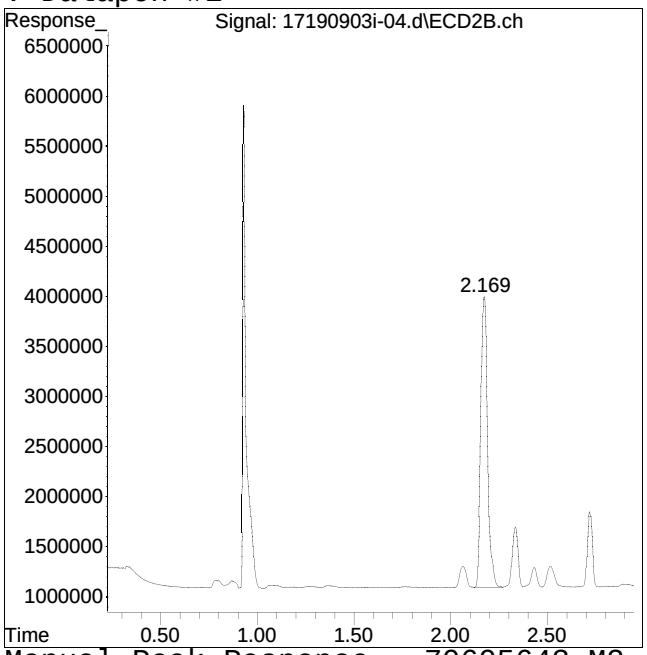
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #15: Dalapon #2



Original Peak Response = 56954003



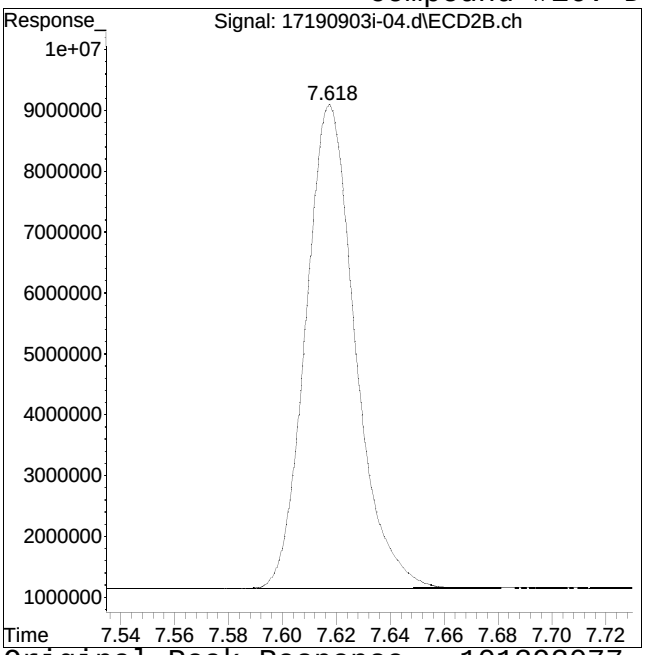
Manual Peak Response = 70695643 M2

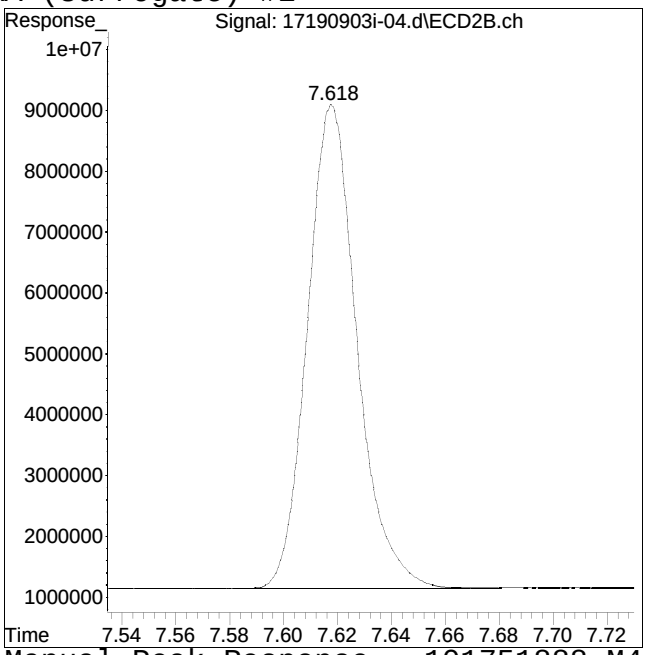
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

Data Path	: I:\Pest17\190903ICAL\	QMethod	: Herb17_07_31_ICAL.m
Data File	: 17190903i-04.d	Operator	: PEST17:dgm
Date Inj'd	: 9/3/2019 11:45 am	Instrument	: Pest 17
Sample	: il3herb,42e,,9272	Quant Date	: 9/4/2019 1:52 pm

Compound #16: DCAA (surrogate) #2





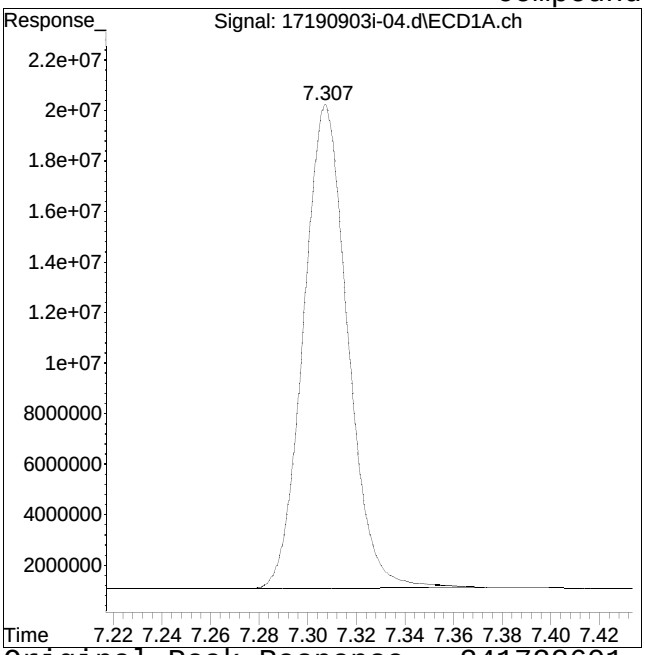
Original Peak Response = 101393077 Manual Peak Response = 101751888 M4
M4 = Poor automated baseline construction.

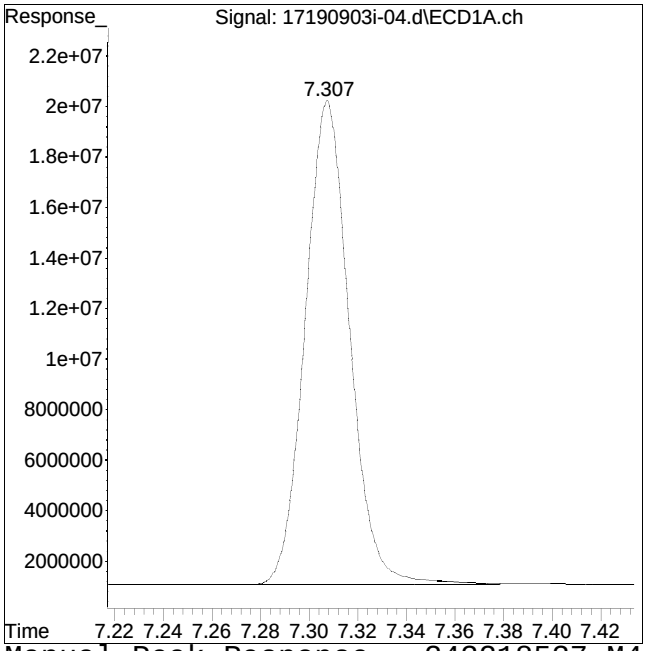
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #4: Dicamba





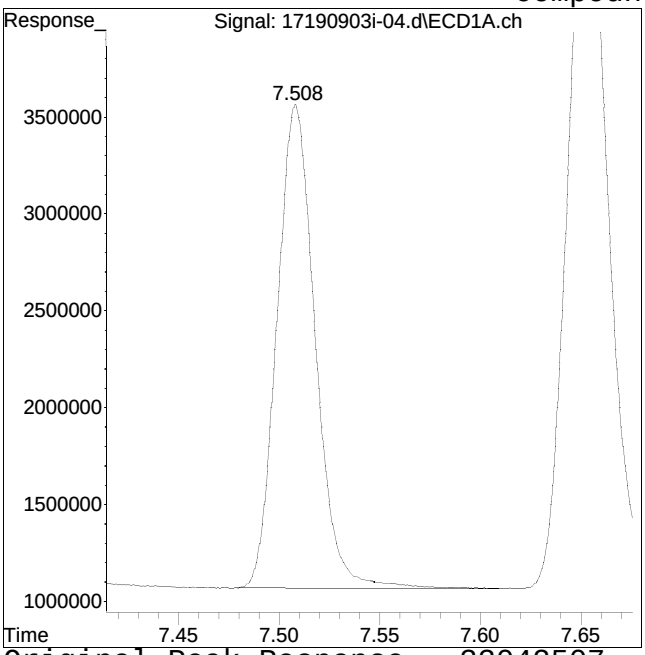
Original Peak Response = 241722601 Manual Peak Response = 243218537 M4
M4 = Poor automated baseline construction.

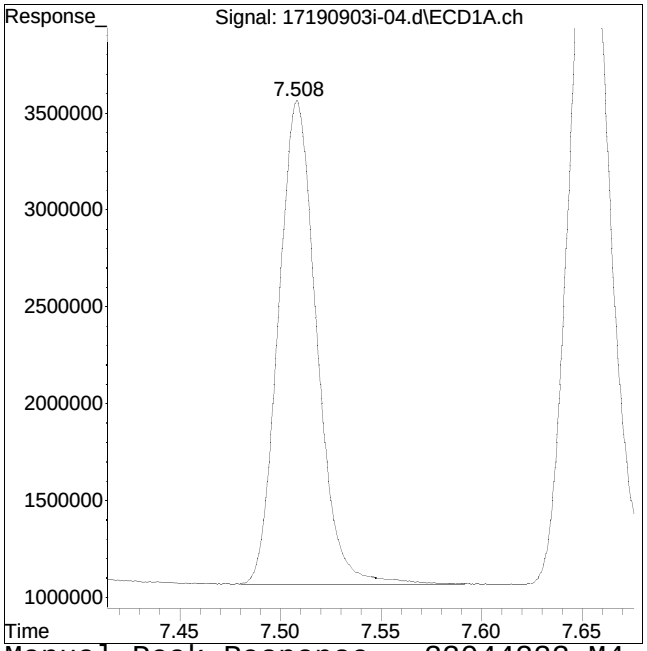
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #5: MCPP





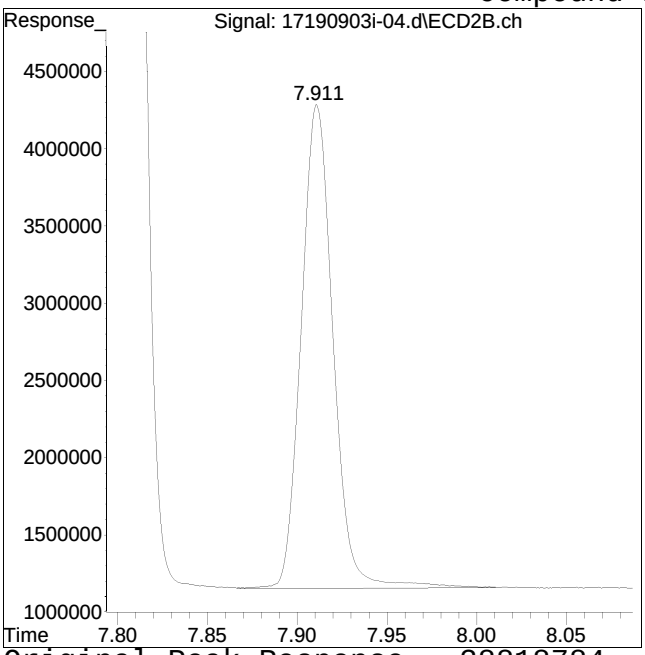
Original Peak Response = 33042507 Manual Peak Response = 33044233 M4
M4 = Poor automated baseline construction.

Manual Integration Report

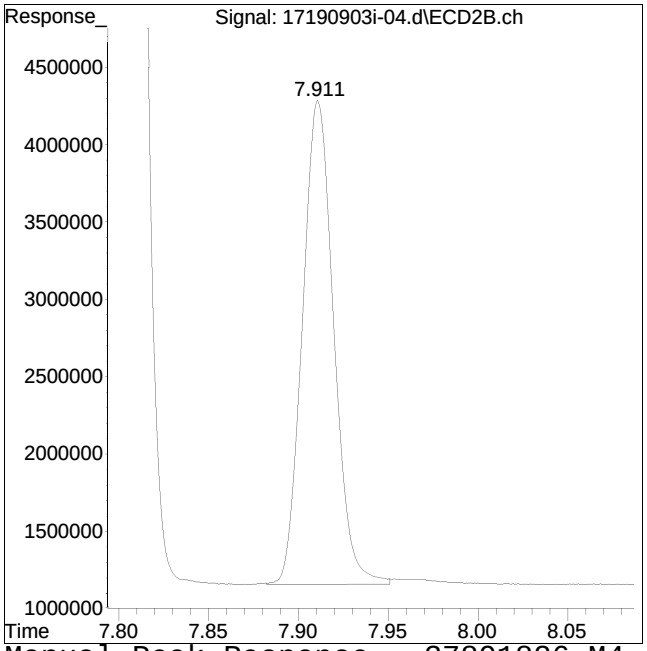
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #18: MCPP #2



Original Peak Response = 38818784



Manual Peak Response = 37891826 M4

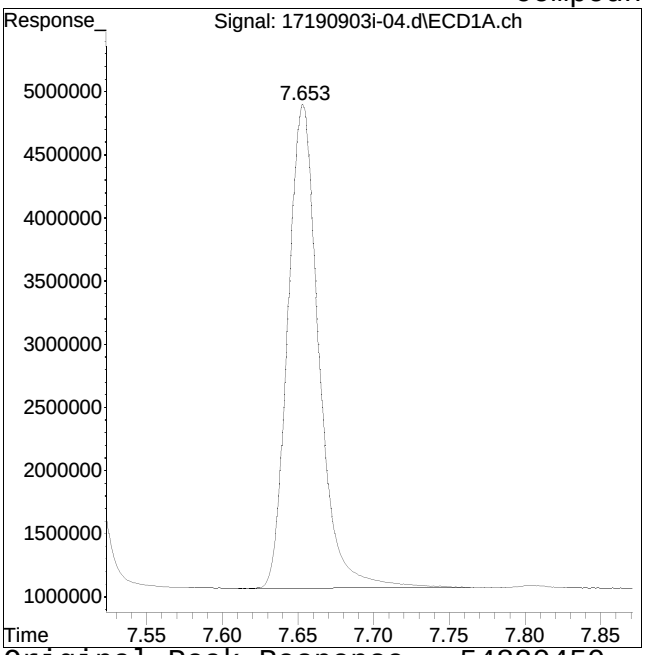
M4 = Poor automated baseline construction.

Manual Integration Report

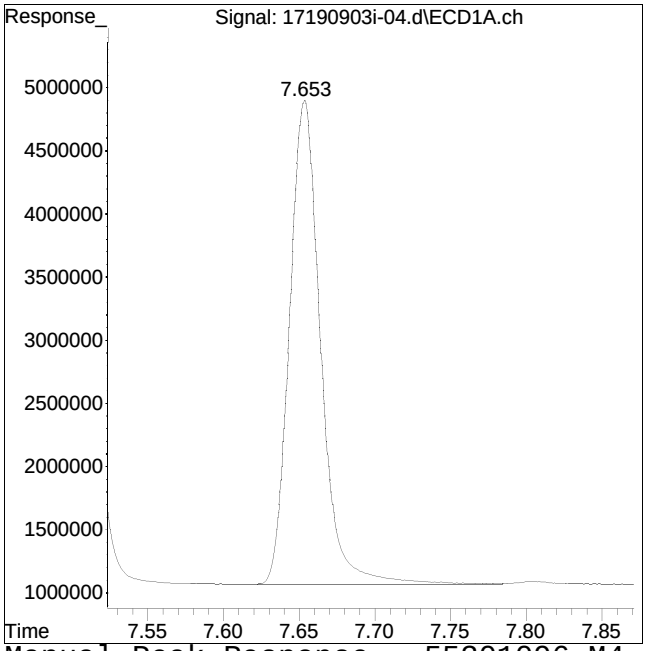
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #6: MCPA



Original Peak Response = 54820450



Manual Peak Response = 55301096 M4

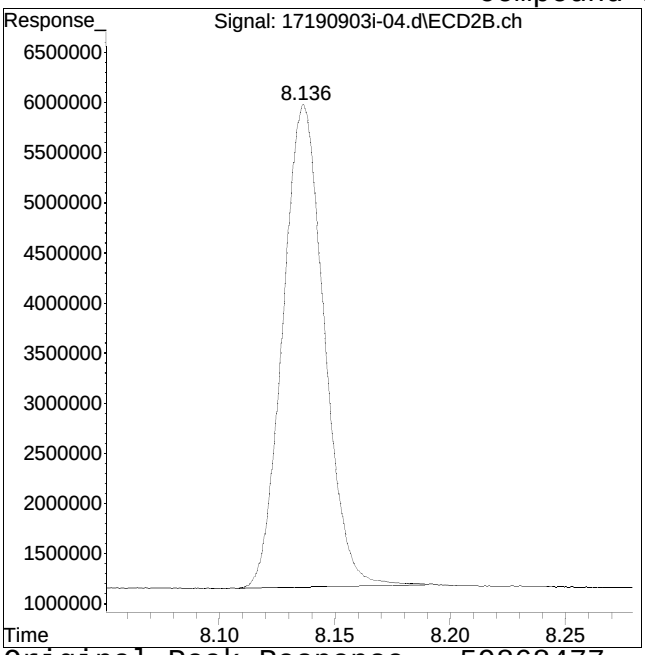
M4 = Poor automated baseline construction.

Manual Integration Report

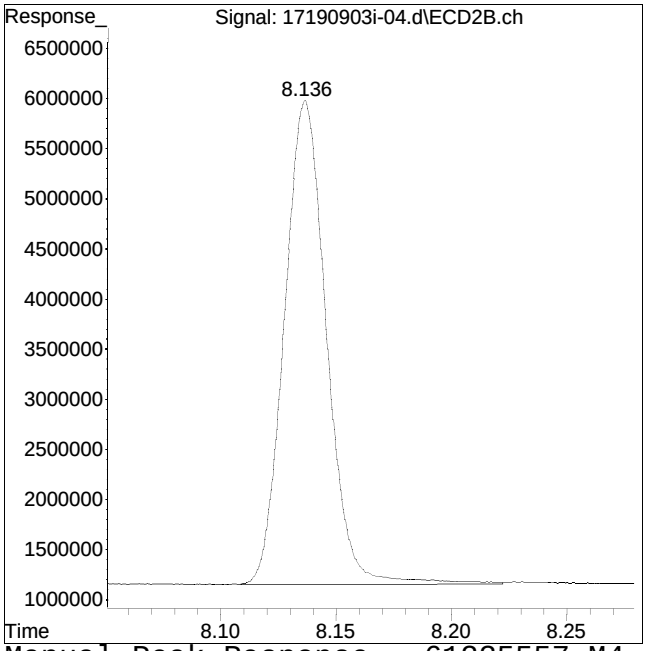
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #19: MCPA #2



Original Peak Response = 59868477



Manual Peak Response = 61235557 M4

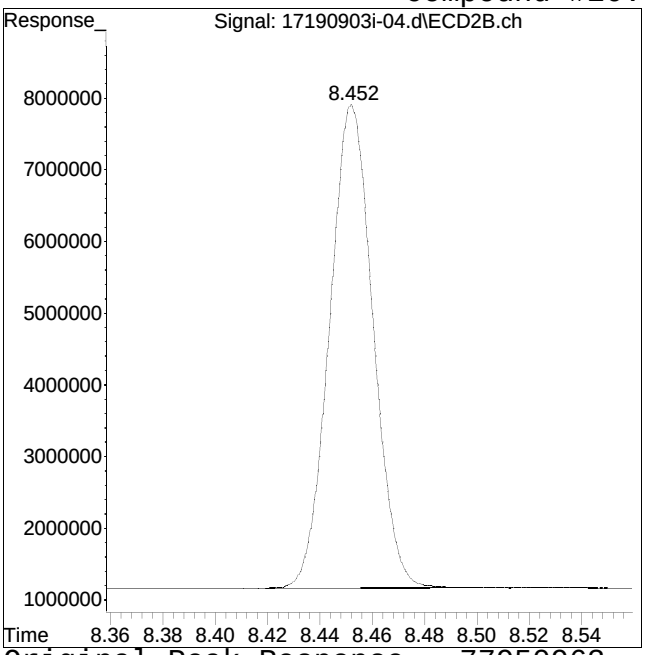
M4 = Poor automated baseline construction.

Manual Integration Report

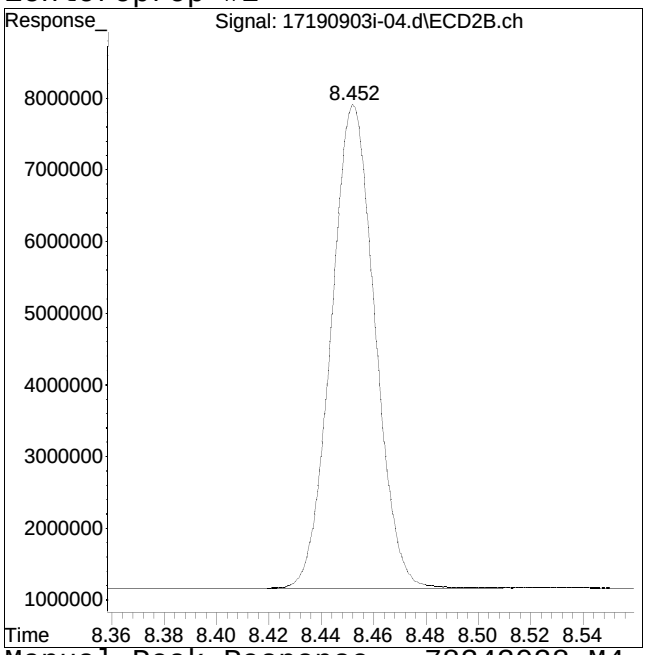
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #20: Dichloroprop #2



Original Peak Response = 77950963



Manual Peak Response = 78343038 M4

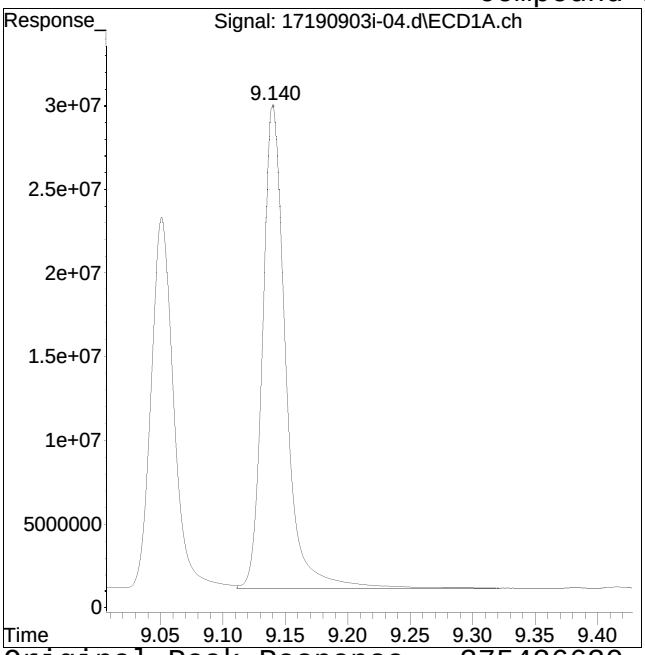
M4 = Poor automated baseline construction.

Manual Integration Report

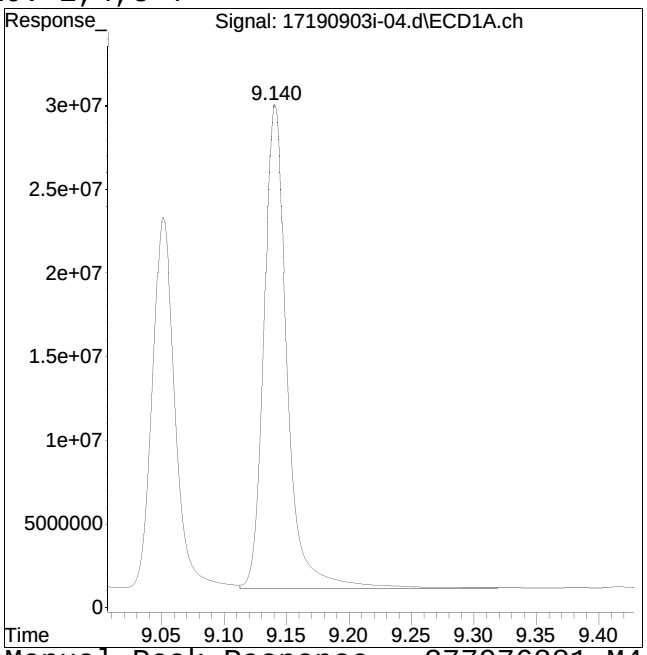
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #10: 2,4,5-T



Original Peak Response = 375426630



Manual Peak Response = 377976881 M4

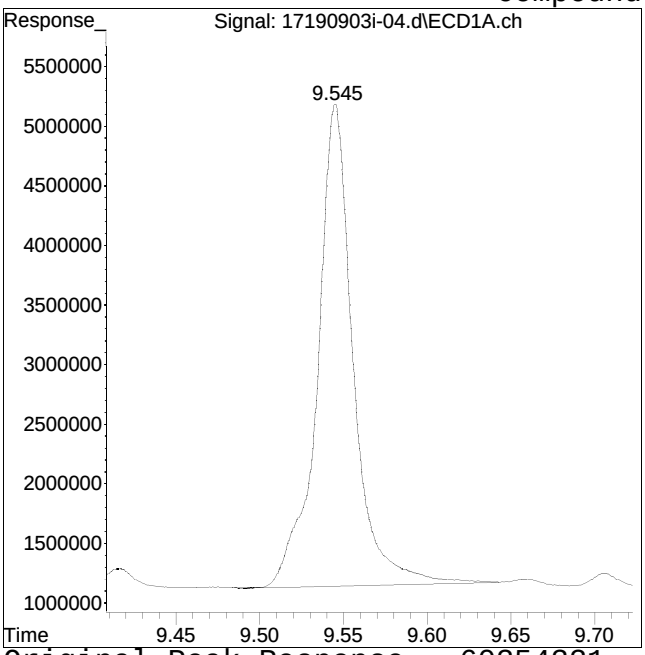
M4 = Poor automated baseline construction.

Manual Integration Report

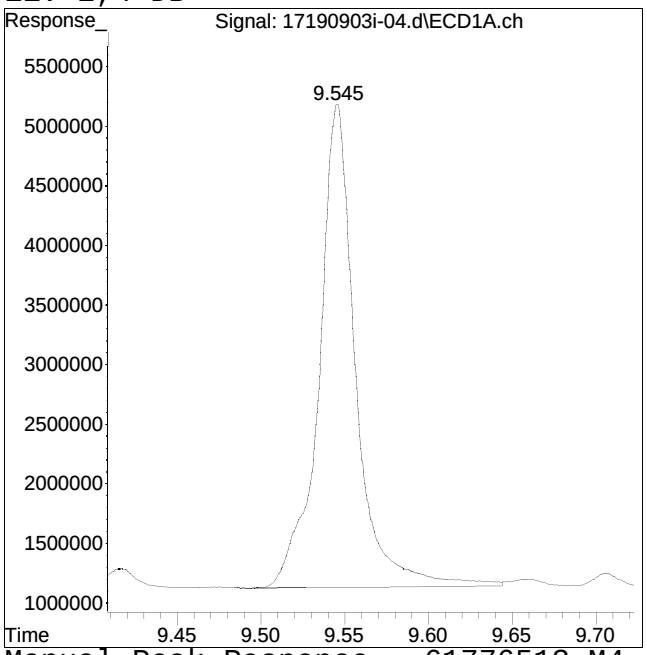
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-04.d
Date Inj'd : 9/3/2019 11:45 am
Sample : il3herb,42e,,9272

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 1:52 pm

Compound #11: 2,4-DB



Original Peak Response = 60354331



Manual Peak Response = 61776513 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 12:04 pm
Operator : PEST17:dgm
Sample : il4herb,42e,,9273
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:38:50 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 14:46:52 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.653	8.682	678.0E6	644.6E6	0.250M4	0.250M4
	System Monitoring Compounds						
3) s	DCAA (surrog	7.119	7.618	202.0E6	234.0E6	0.462	0.453M4
	Spiked Amount	0.500	Range 30 - 150		Recovery =	92.40%	90.60%
	Target Compounds						
2) t	Dalapon	2.095f	2.164f	178.6E6	175.9E6	0.457M2	0.464M2
4) t	Dicamba	7.304	7.801	683.1E6	720.7E6	0.519M4	0.495
5) t	MCPP	7.506	7.912	84015838	98643361	48.003M4	48.199M4
6) t	MCPA	7.651	8.137	132.2E6	152.3E6	44.569M4	45.957M4
7) t	Dichloroprop	8.006	8.452	193.6E6	206.1E6	0.495	0.489M4
8) t	2,4-D	8.212	8.723	248.9E6	281.3E6	0.504	0.492
9) t	2,4,5-TP (Si	8.924	9.379	973.9E6	931.2E6	0.528	0.512
10) t	2,4,5-T	9.138	9.664	1068.5E6	922.6E6	0.543M4	0.499
11) t	2,4-DB	9.543	10.025	168.1E6	167.4E6	0.539M4	0.508
12) t	Dinoseb	10.285	10.249	379.1E6	330.1E6	0.550M4	0.509
	SemiQuant Compounds - Not Calibrated on this Instrument						

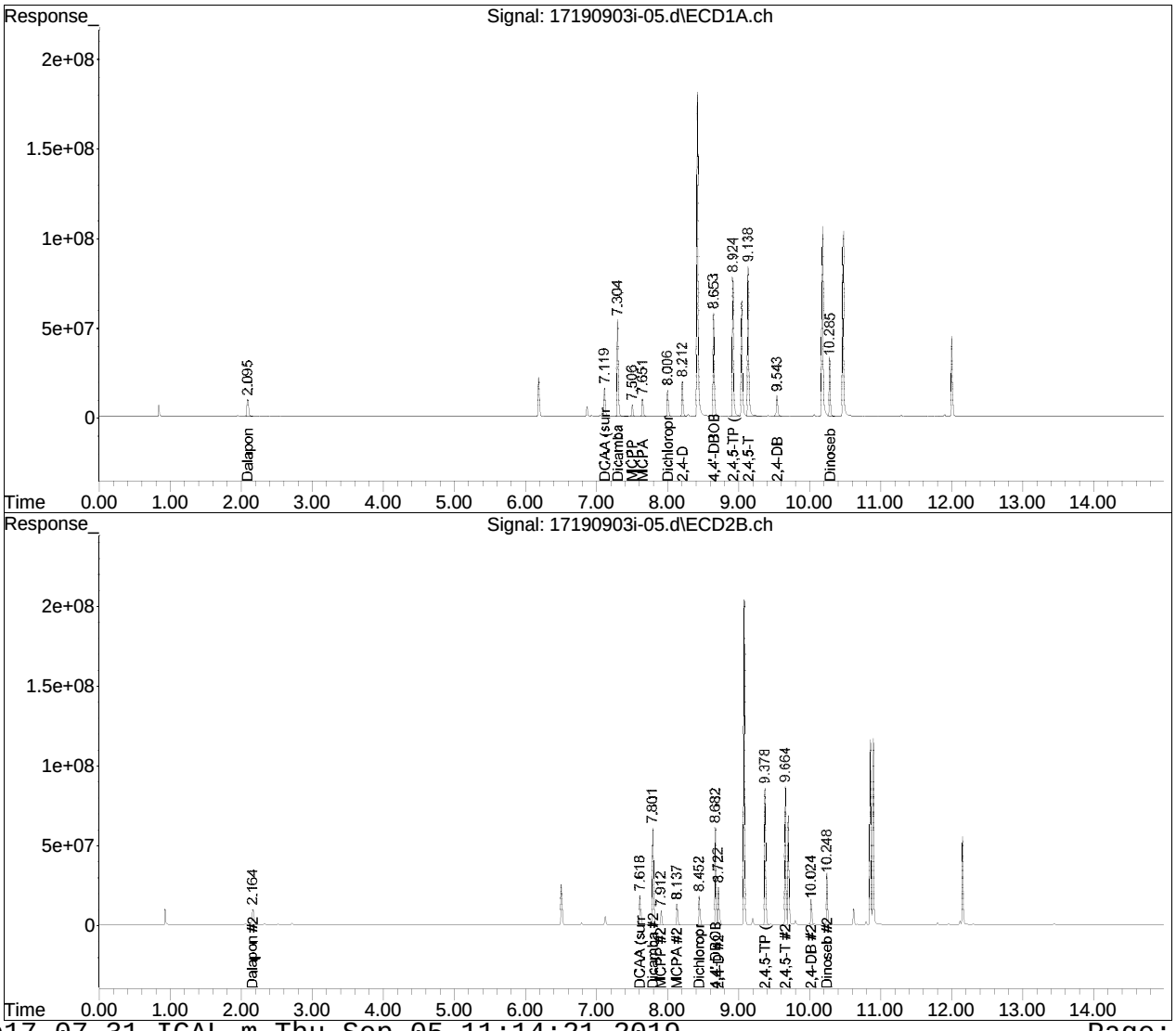
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 12:04 pm
Operator : PEST17:dgm
Sample : il4herb,42e,,9273
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:38:50 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 14:46:52 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

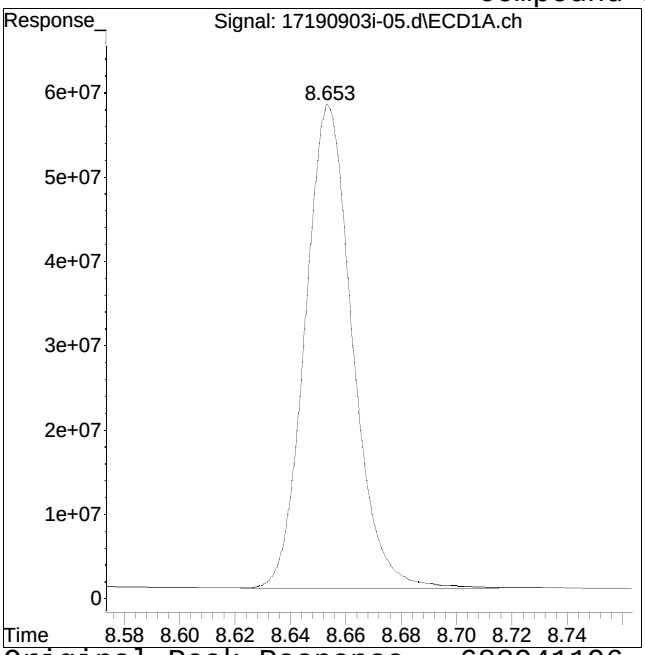


Manual Integration Report

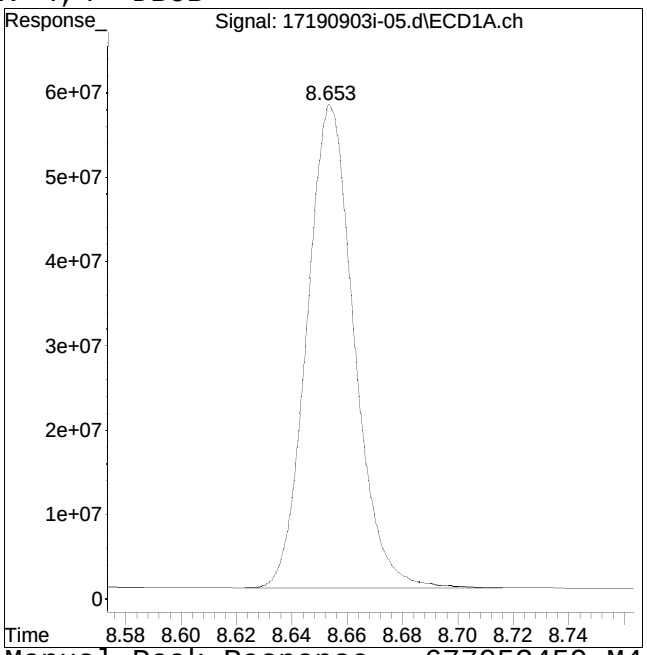
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #1: 4,4'-DBOB



Original Peak Response = 683941196



Manual Peak Response = 677953459 M4

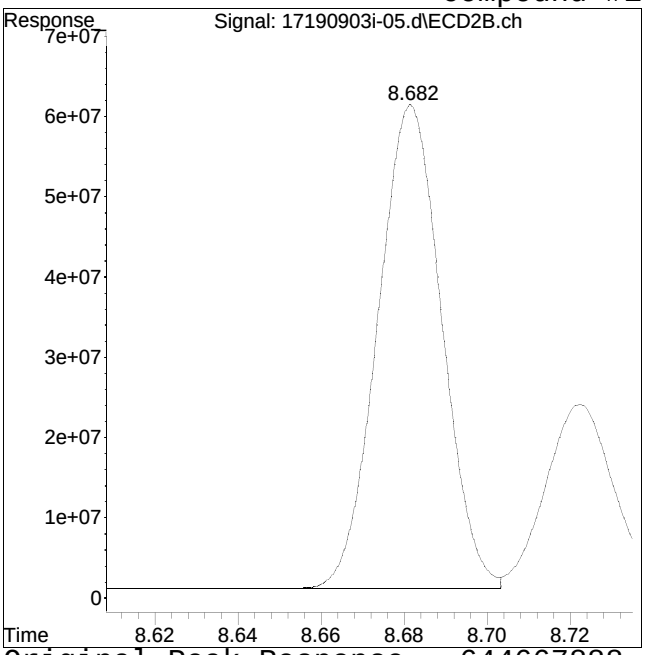
M4 = Poor automated baseline construction.

Manual Integration Report

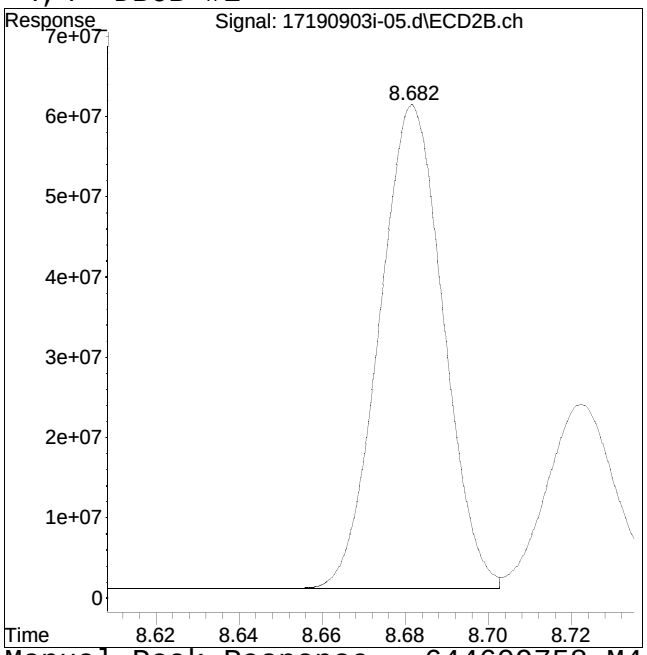
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #14: 4,4'-DBOB #2



Original Peak Response = 644667888



Manual Peak Response = 644609758 M4

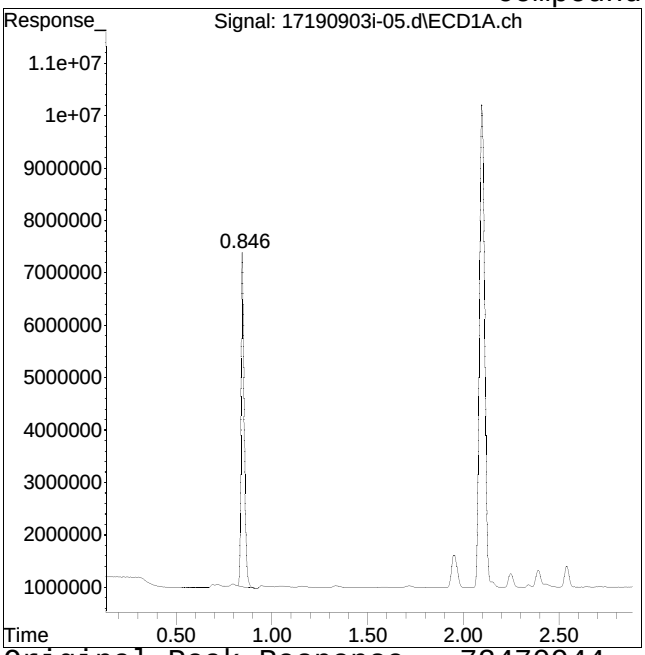
M4 = Poor automated baseline construction.

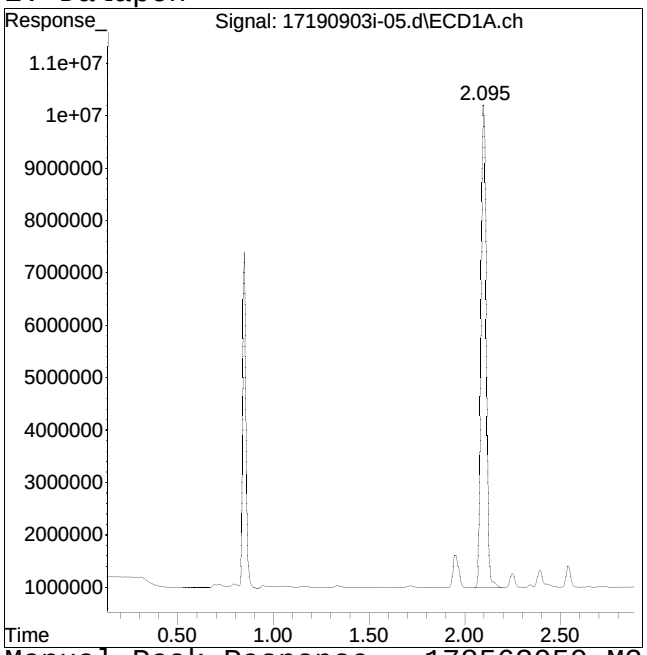
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #2: Dalapon





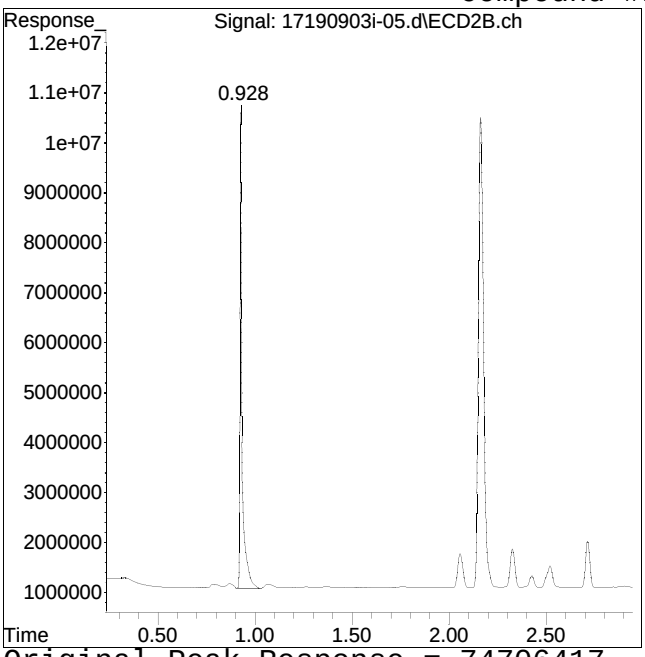
Original Peak Response = 72470944 Manual Peak Response = 178563050 M2
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

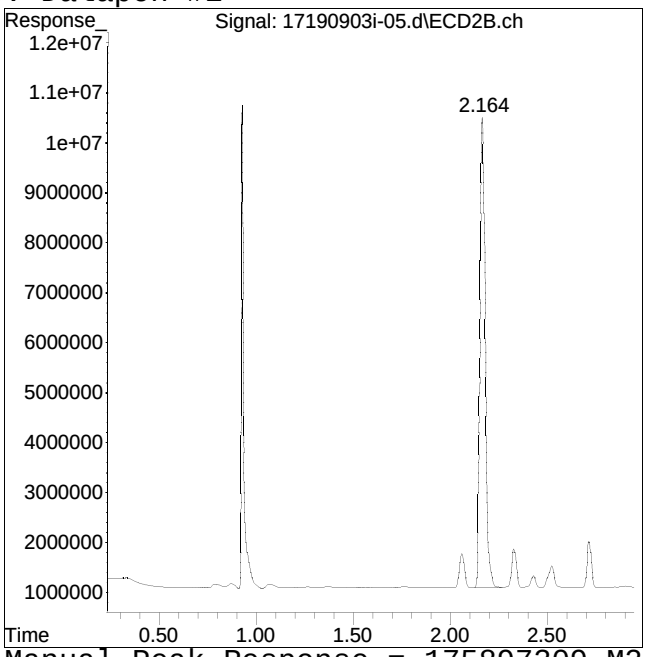
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #15: Dalapon #2



Original Peak Response = 74706417



Manual Peak Response = 175897309 M2

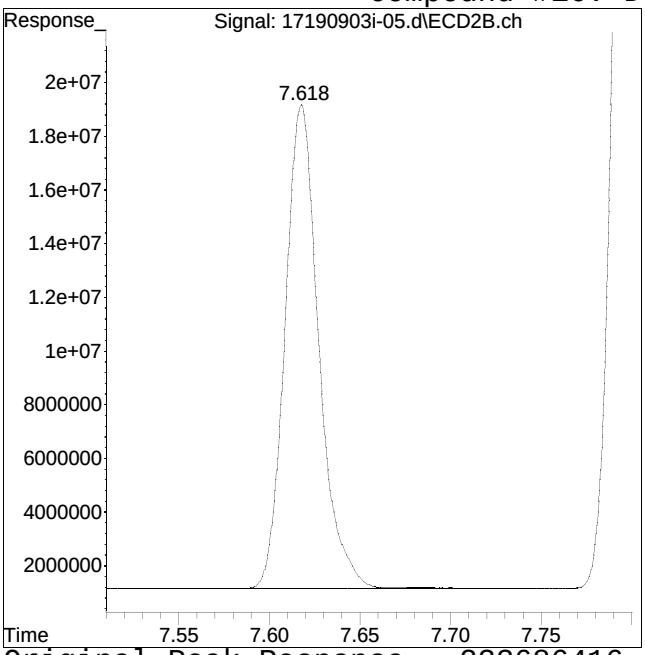
M2 = Peak not found by automatic integration algorithm.

Manual Integration Report

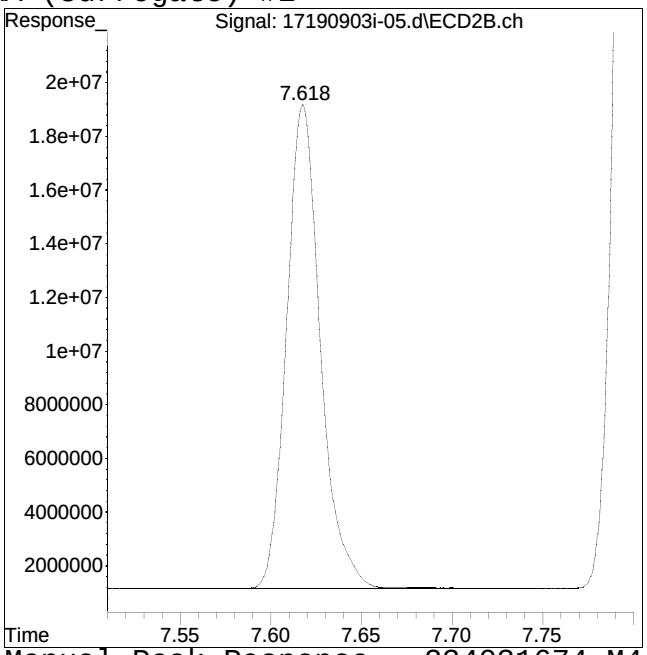
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #16: DCAA (surrogate) #2



Original Peak Response = 233686416



Manual Peak Response = 234031674 M4

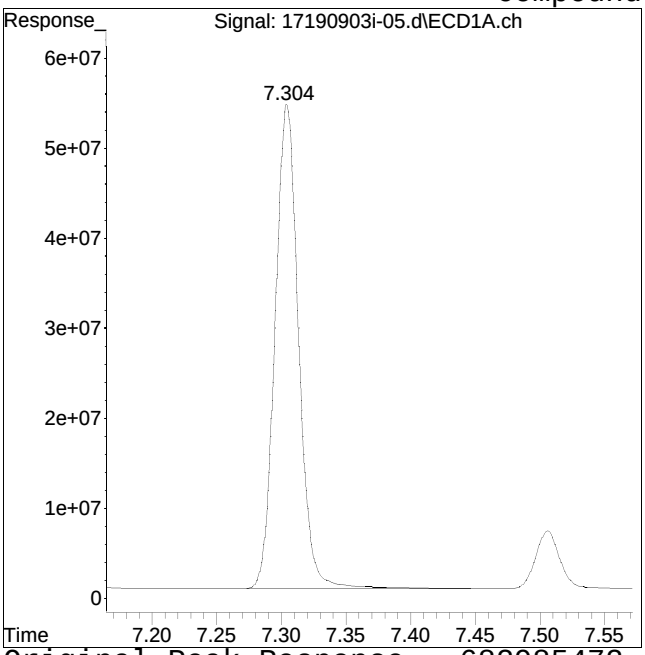
M4 = Poor automated baseline construction.

Manual Integration Report

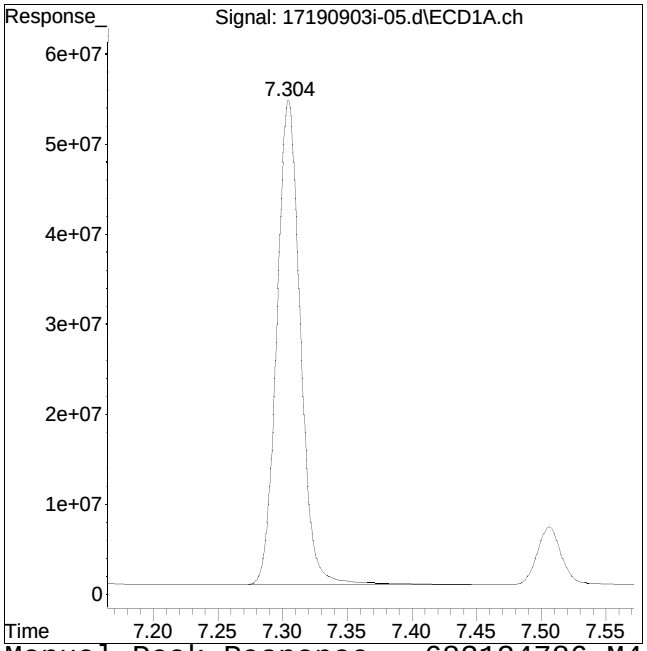
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #4: Dicamba



Original Peak Response = 682985472



Manual Peak Response = 683134786 M4

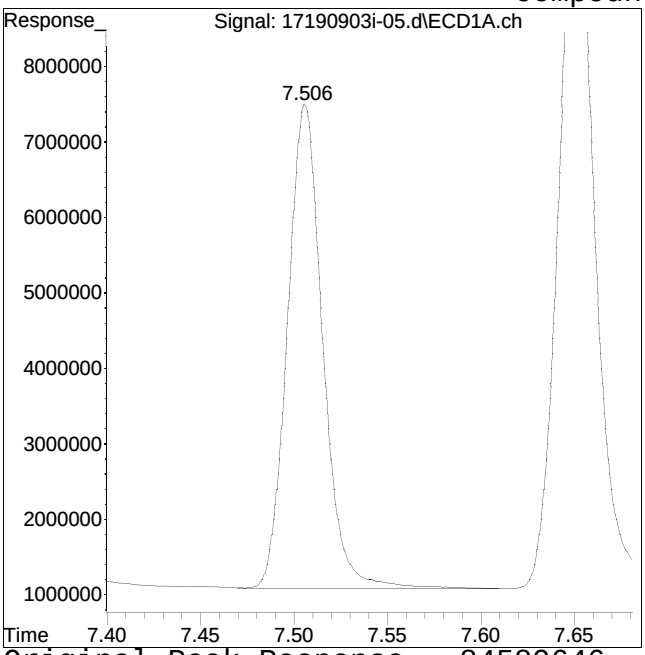
M4 = Poor automated baseline construction.

Manual Integration Report

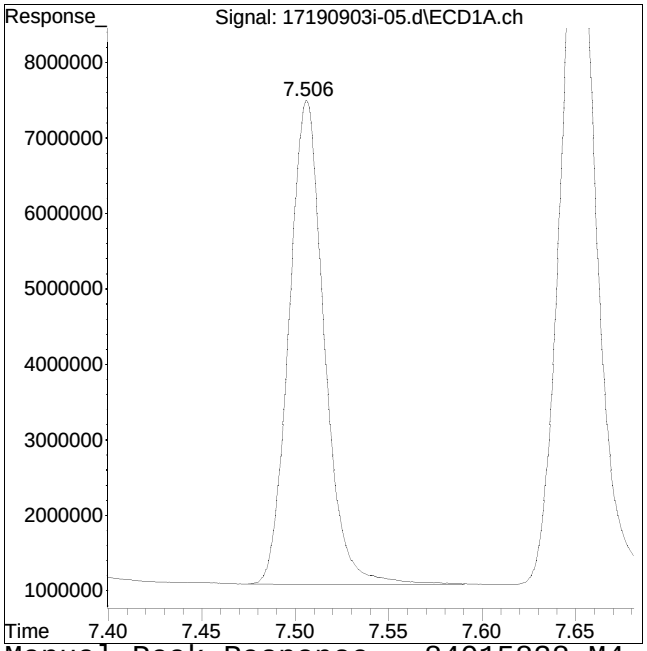
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #5: MCPP



Original Peak Response = 84589646



Manual Peak Response = 84015838 M4

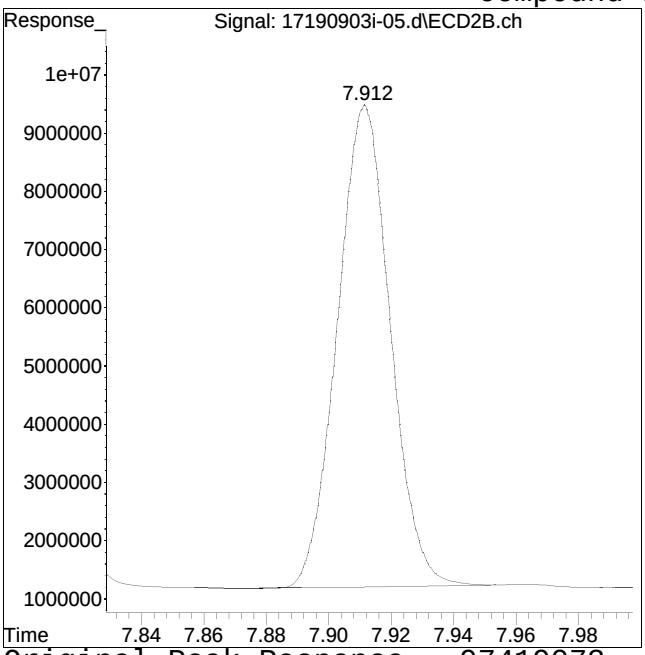
M4 = Poor automated baseline construction.

Manual Integration Report

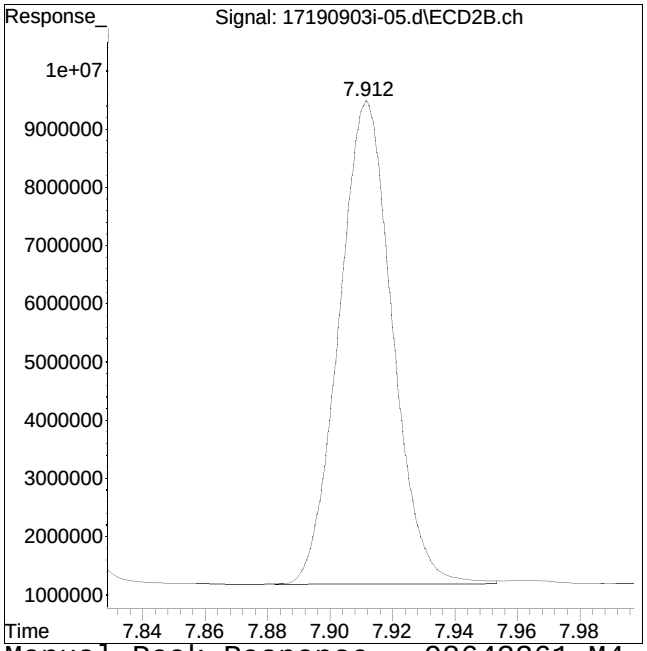
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #18: MCPP #2



Original Peak Response = 97419073



Manual Peak Response = 98643361 M4

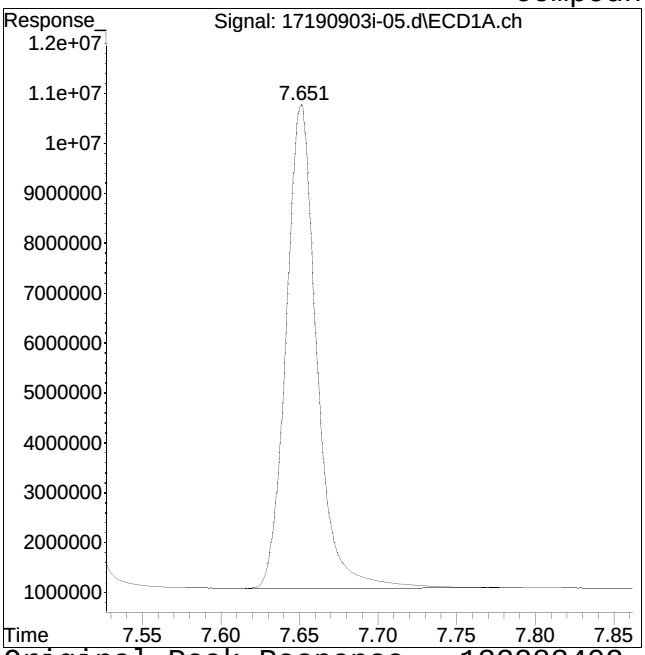
M4 = Poor automated baseline construction.

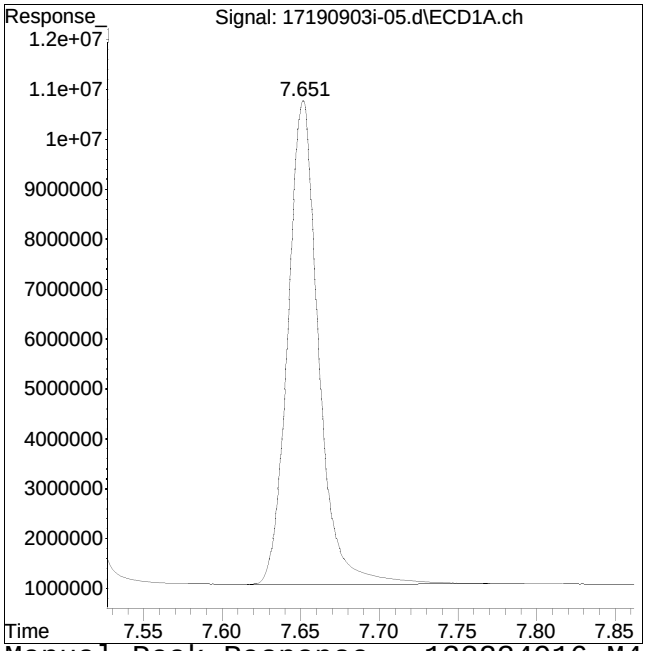
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #6: MCPA





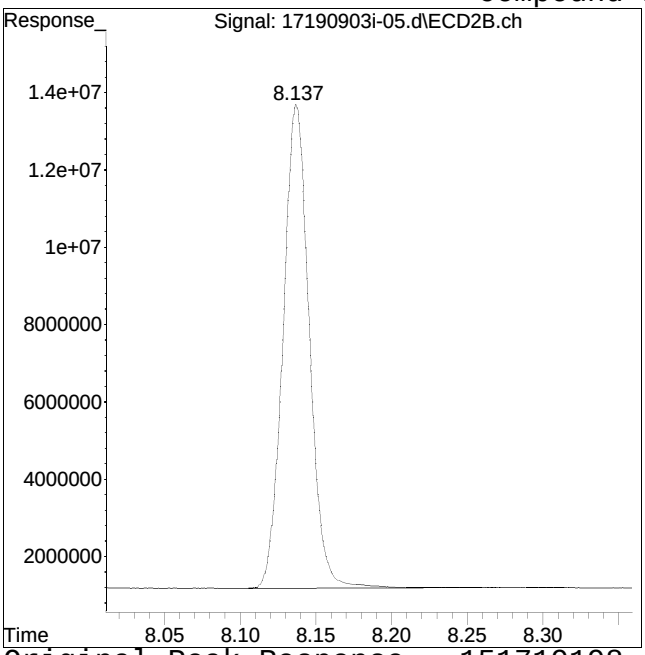
Original Peak Response = 132283402 Manual Peak Response = 132234916 M4
M4 = Poor automated baseline construction.

Manual Integration Report

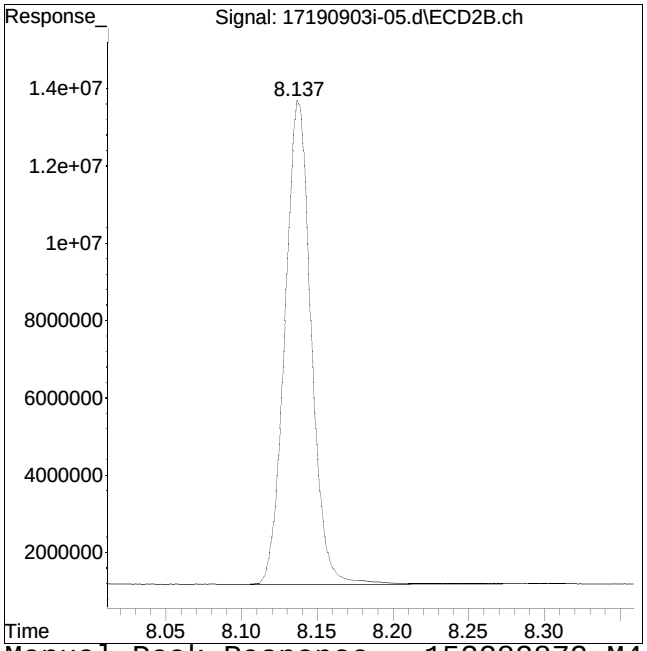
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #19: MCPA #2



Original Peak Response = 151719198



Manual Peak Response = 152282872 M4

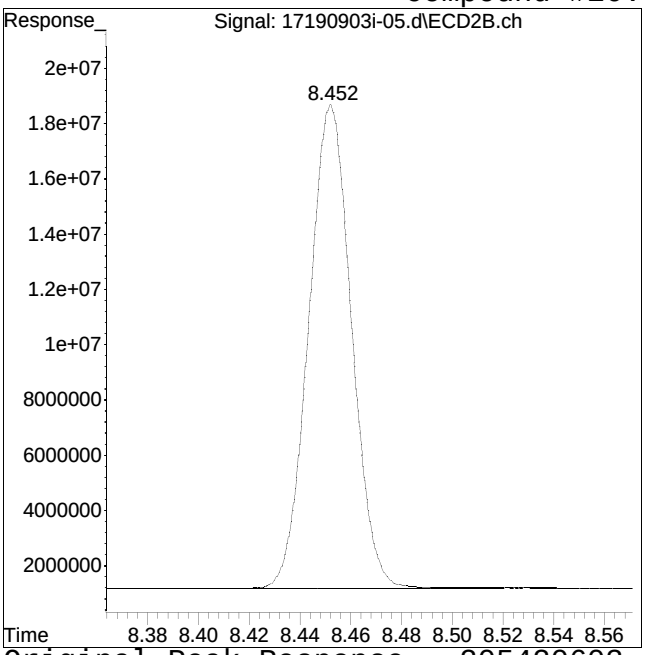
M4 = Poor automated baseline construction.

Manual Integration Report

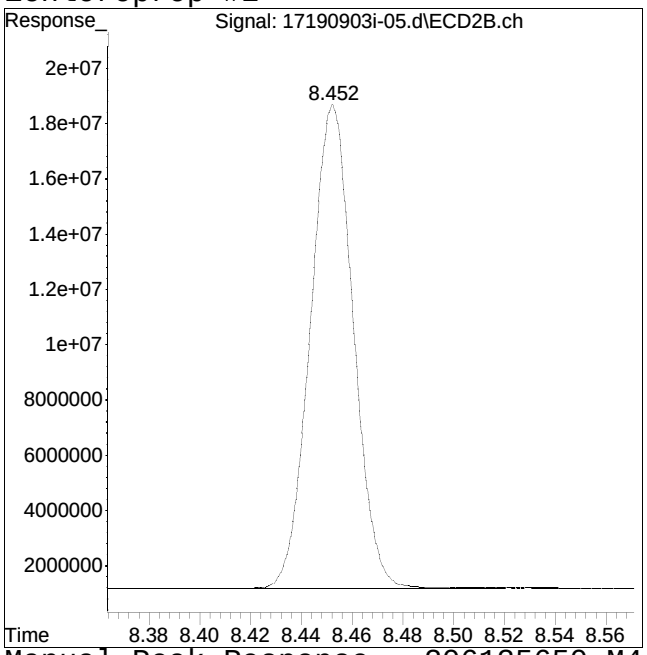
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #20: Dichloroprop #2



Original Peak Response = 205420603



Manual Peak Response = 206135650 M4

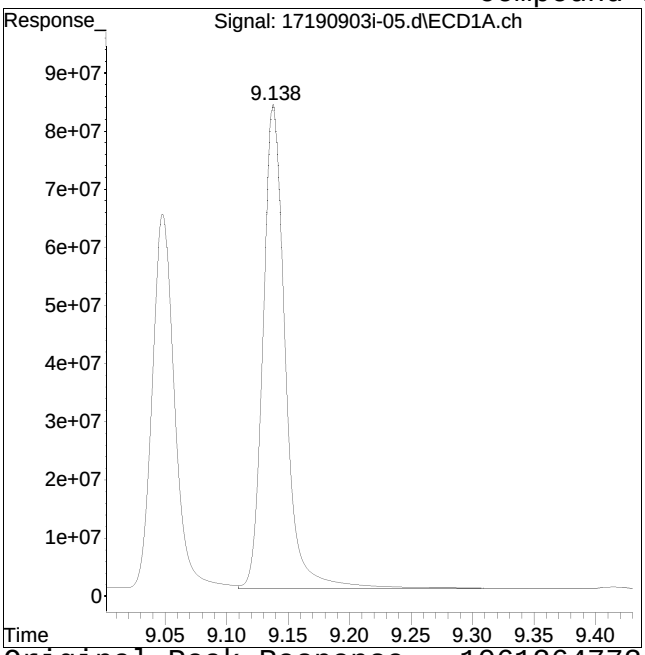
M4 = Poor automated baseline construction.

Manual Integration Report

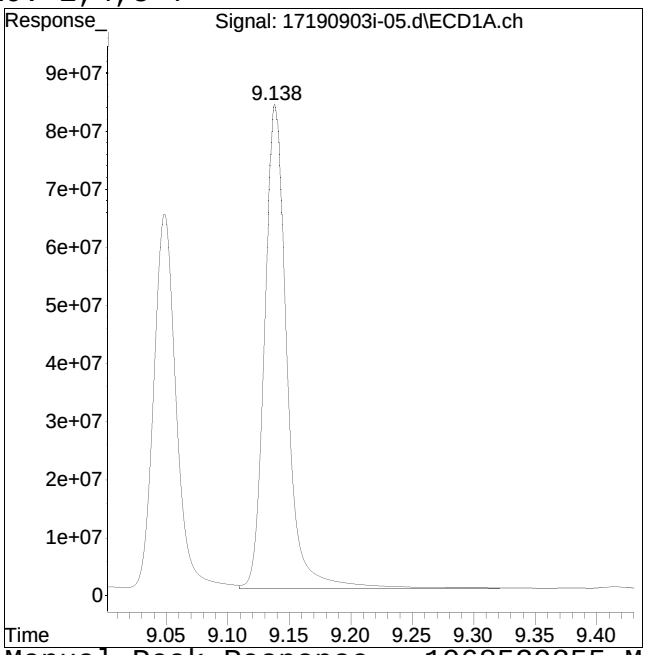
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #10: 2,4,5-T



Original Peak Response = 1061264773



Manual Peak Response = 1068529255 M4

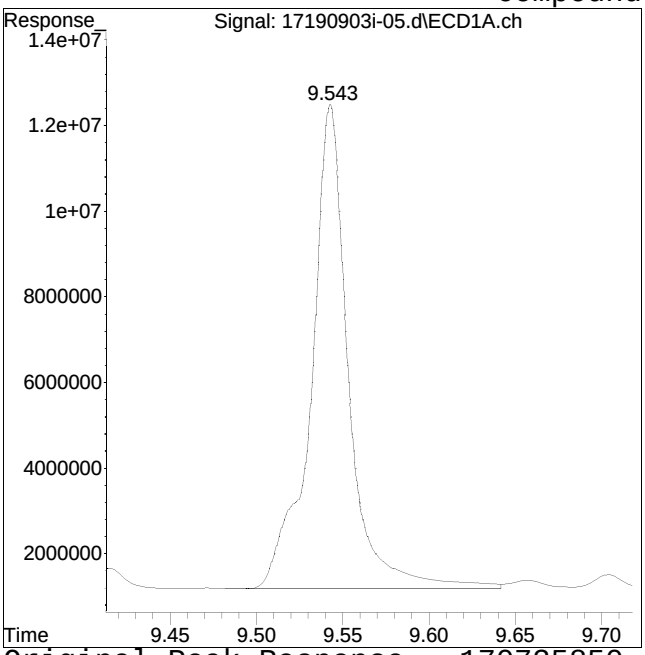
M4 = Poor automated baseline construction.

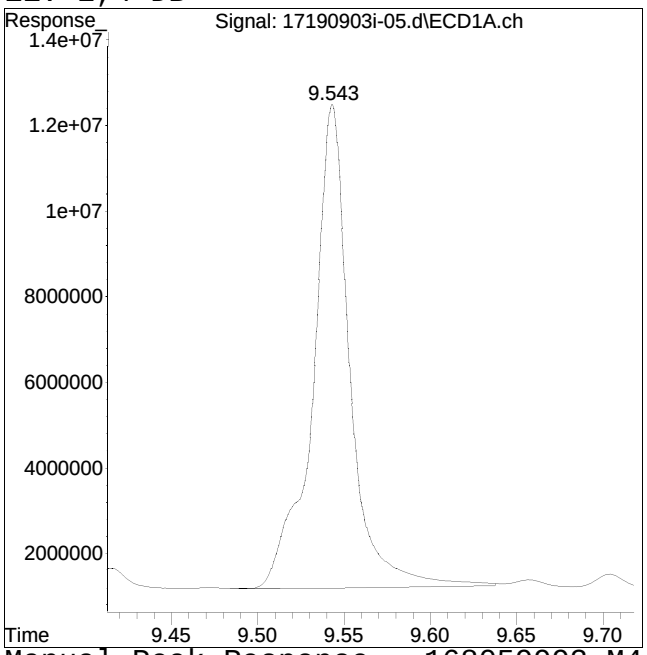
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #11: 2,4-DB





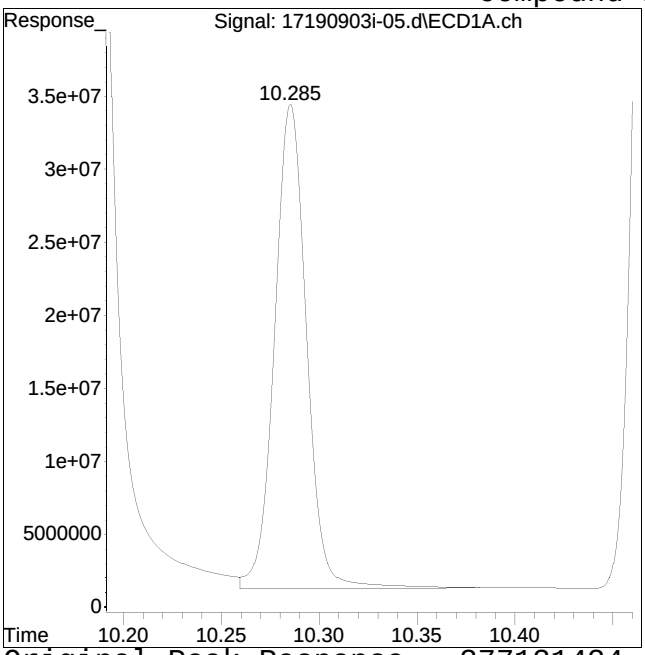
Original Peak Response = 170735850 Manual Peak Response = 168059993 M4
M4 = Poor automated baseline construction.

Manual Integration Report

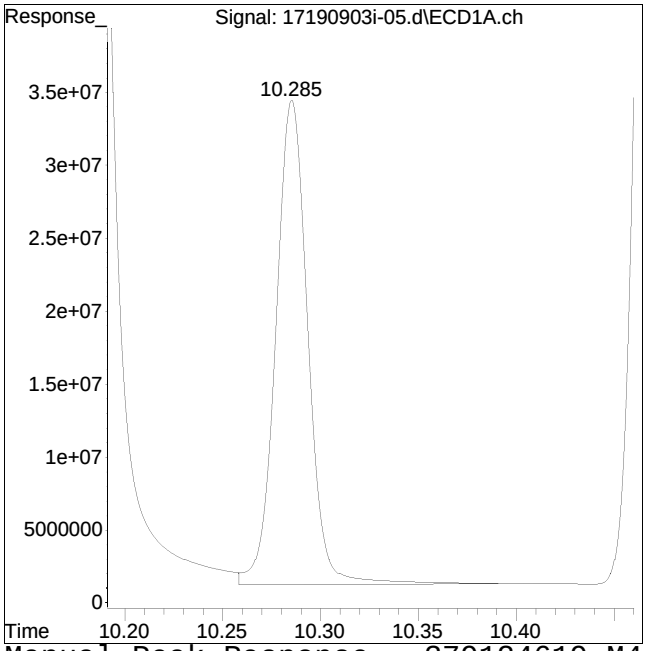
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-05.d
Date Inj'd : 9/3/2019 12:04 pm
Sample : il4herb,42e,,9273

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:46 pm

Compound #12: Dinoseb



Original Peak Response = 377121424



Manual Peak Response = 379124619 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 12:23 pm
Operator : PEST17:dgm
Sample : il5herb,42e,,9274
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:49:07 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 14:48:35 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.653	8.682	731.6E6	663.3E6	0.250M4	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.118	7.618	398.2E6	450.7E6	0.844	0.848
	Spiked Amount	0.500	Range 30 - 150		Recovery =	168.80%#	169.60%#
	Target Compounds						
2) t	Dalapon	2.088f	2.158f	330.1E6	321.5E6	0.782M2	0.823M2
4) t	Dicamba	7.303	7.801	1292.0E6	1323.7E6	0.910M4	0.884
5) t	MCPP	7.506	7.913	153.8E6	182.6E6	81.343M4	86.713
6) t	MCPA	7.652	8.139	236.8E6	270.5E6	73.911M4	79.278
7) t	Dichloroprop	8.004	8.452	354.9E6	377.7E6	0.841M4	0.870M4
8) t	2,4-D	8.211	8.723	467.3E6	521.7E6	0.877	0.886
9) t	2,4,5-TP (Si	8.923	9.379	1849.7E6	1740.7E6	0.929	0.930
10) t	2,4,5-T	9.137	9.664	2013.0E6	1786.4E6	0.949M4	0.939
11) t	2,4-DB	9.541	10.024	324.5E6	313.6E6	0.967M4	0.925
12) t	Dinoseb	10.285	10.249	774.6E6	626.4E6	1.044M4	0.939
	SemiQuant Compounds - Not Calibrated on this Instrument						

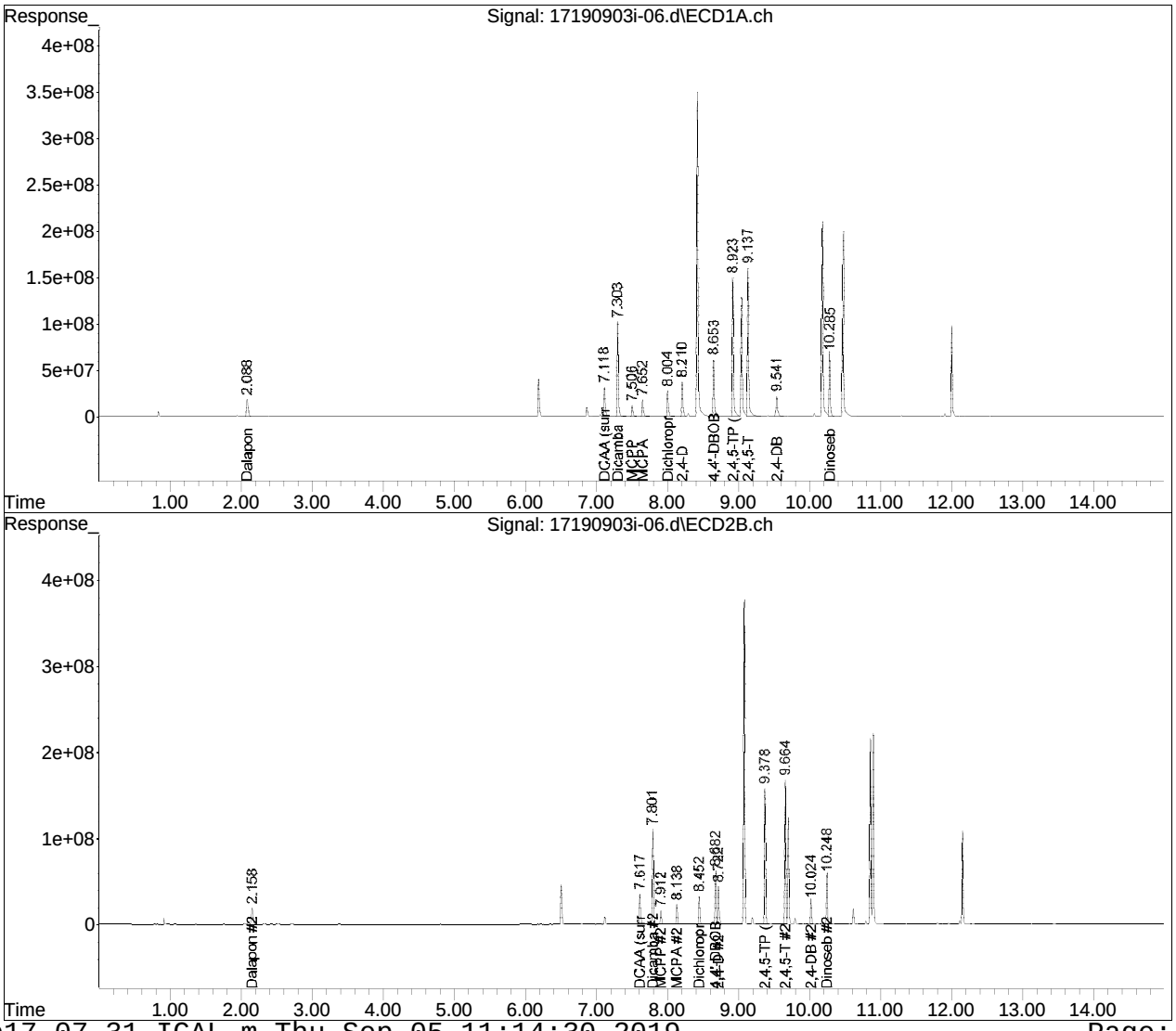
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 12:23 pm
Operator : PEST17:dgm
Sample : il5herb,42e,,9274
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:49:07 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 14:48:35 2019
Response via : Initial Calibration
Integrator: ChemStation

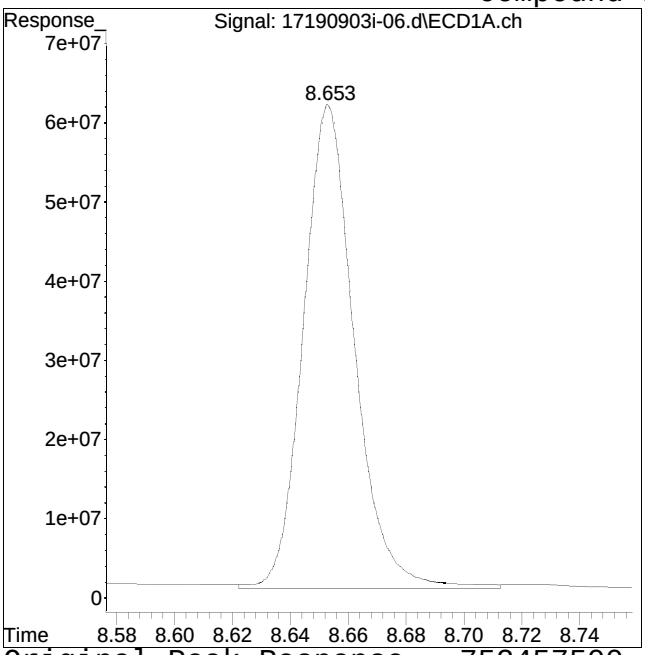
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

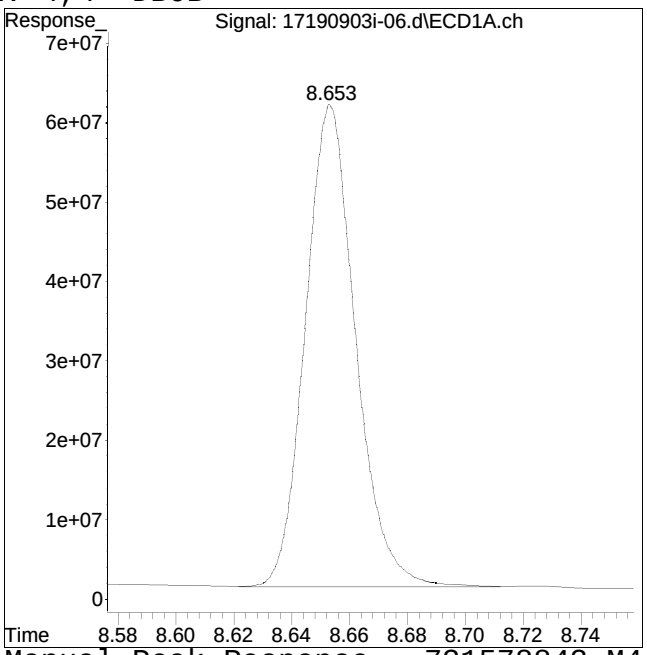


Manual Integration Report

Data Path	: I:\Pest17\190903ICAL\	QMethod	: Herb17_07_31_ICAL.m
Data File	: 17190903i-06.d	Operator	: PEST17:dgm
Date Inj'd	: 9/3/2019 12:23 pm	Instrument	: Pest 17
Sample	: il5herb,42e,,9274	Quant Date	: 9/4/2019 2:48 pm

Compound #1: 4,4'-DBOB





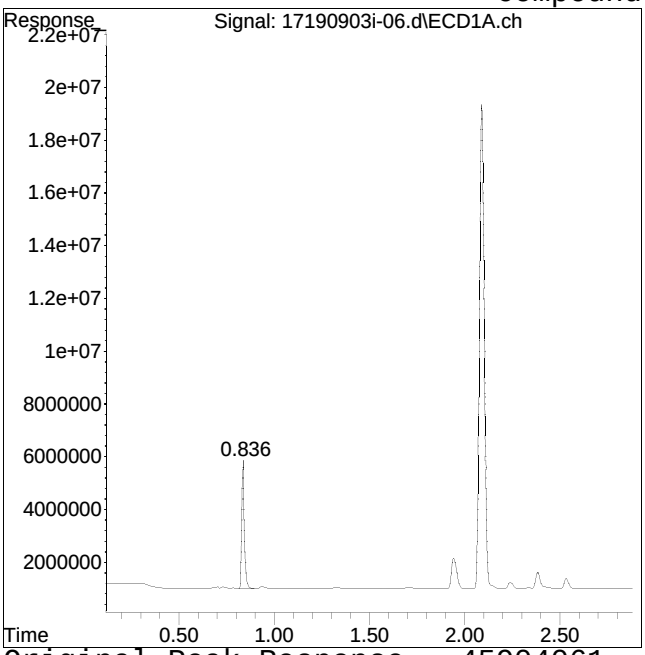
Original Peak Response = 752457500 Manual Peak Response = 731578843 M4
M4 = Poor automated baseline construction.

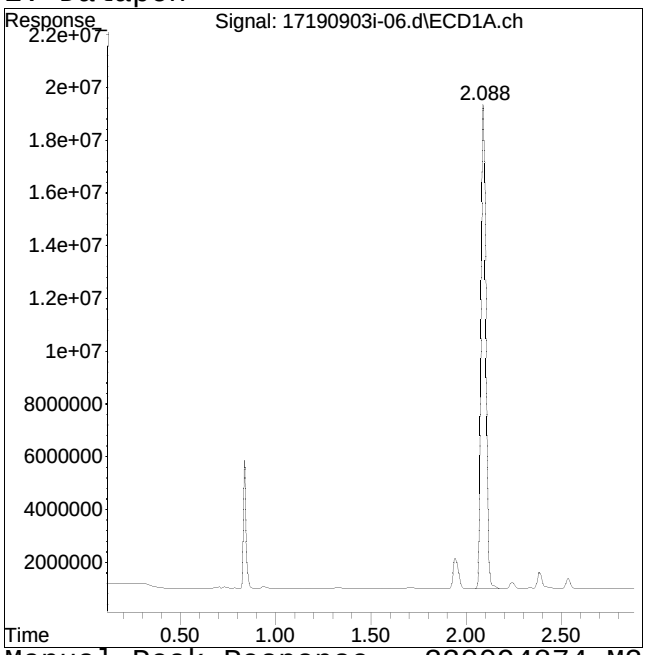
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #2: Dalapon





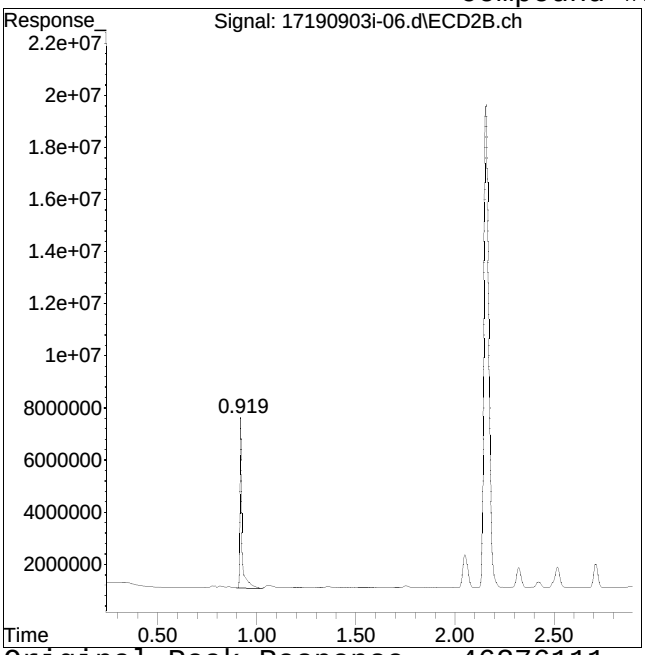
Original Peak Response = 45904061 Manual Peak Response = 330094874 M2
M2 = Peak not found by automatic integration algorithm.

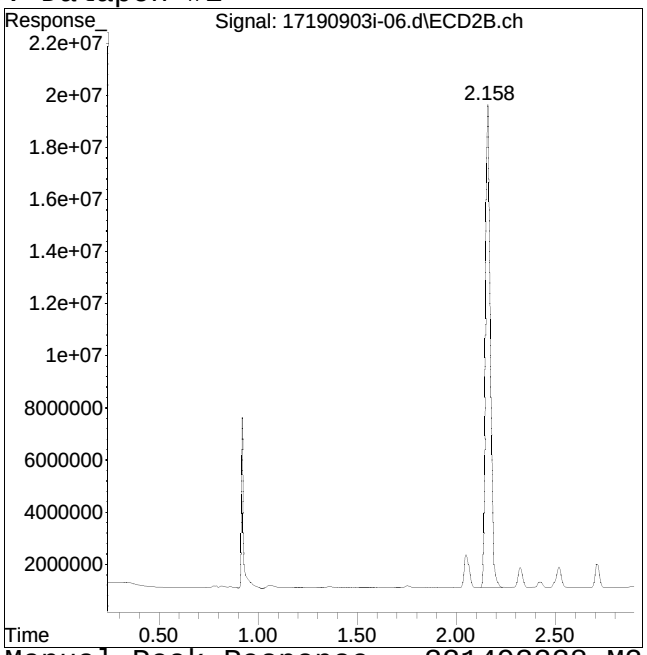
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #15: Dalapon #2





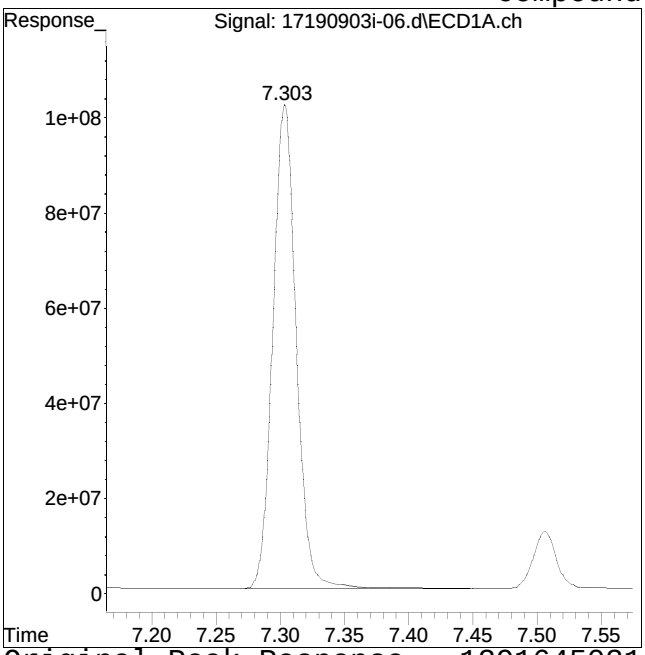
Original Peak Response = 46276111 Manual Peak Response = 321493238 M2
M2 = Peak not found by automatic integration algorithm.

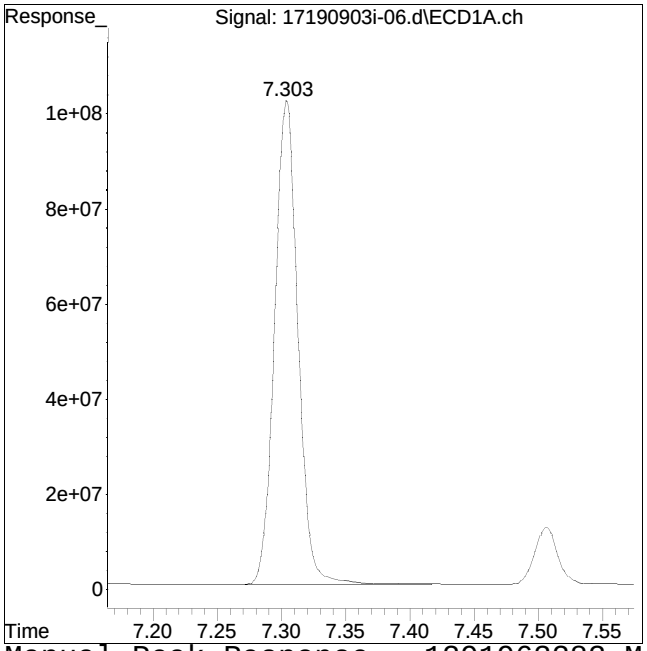
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #4: Dicamba





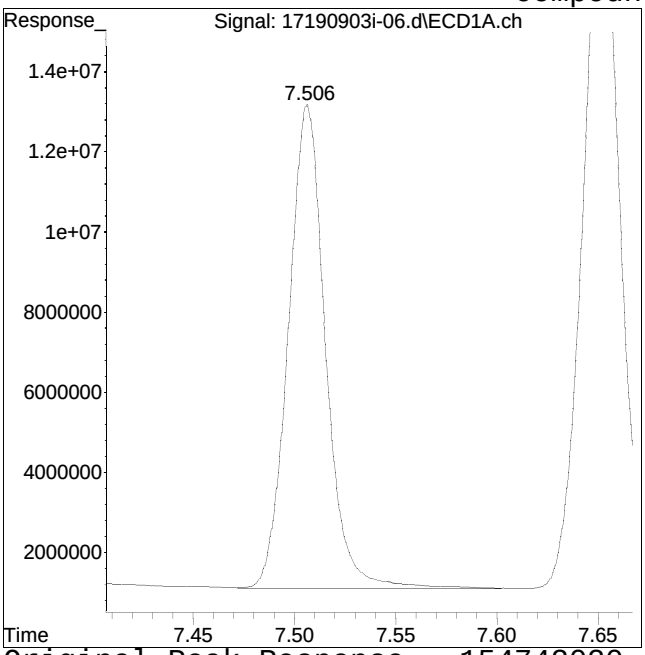
Original Peak Response = 1291645031 Manual Peak Response = 1291963283 M4
M4 = Poor automated baseline construction.

Manual Integration Report

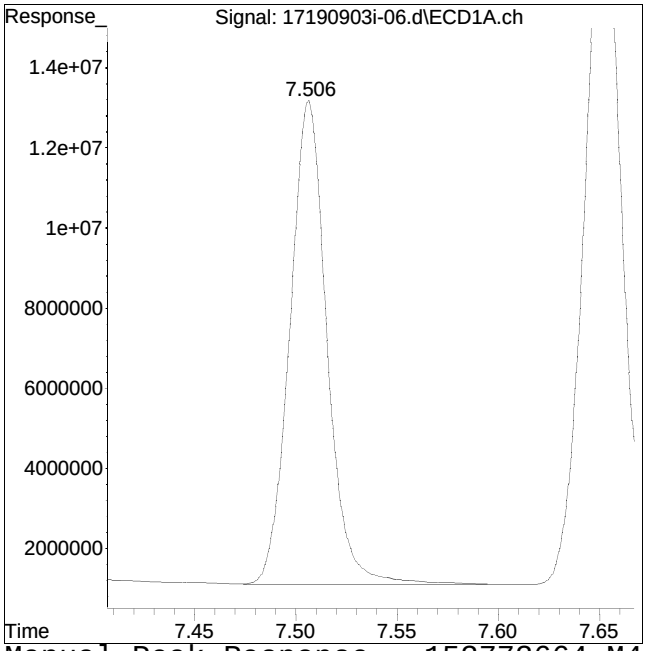
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #5: MCPP



Original Peak Response = 154742020



Manual Peak Response = 153773664 M4

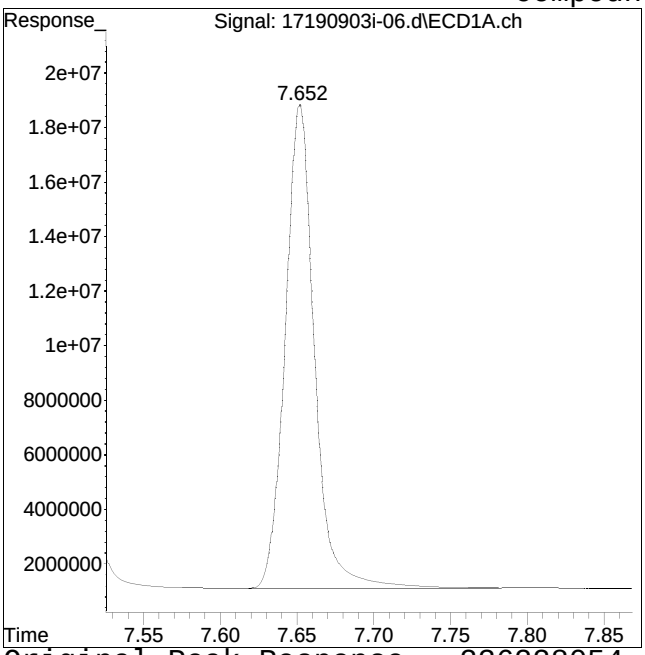
M4 = Poor automated baseline construction.

Manual Integration Report

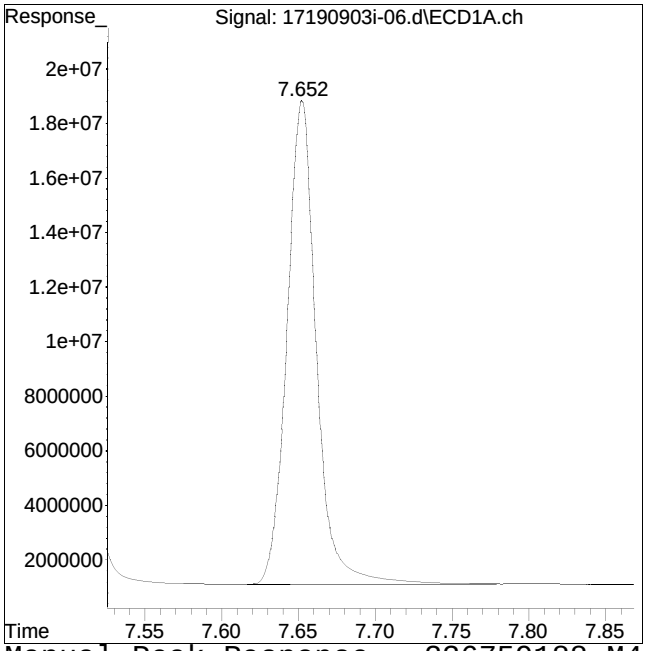
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #6: MCPA



Original Peak Response = 236228054



Manual Peak Response = 236759188 M4

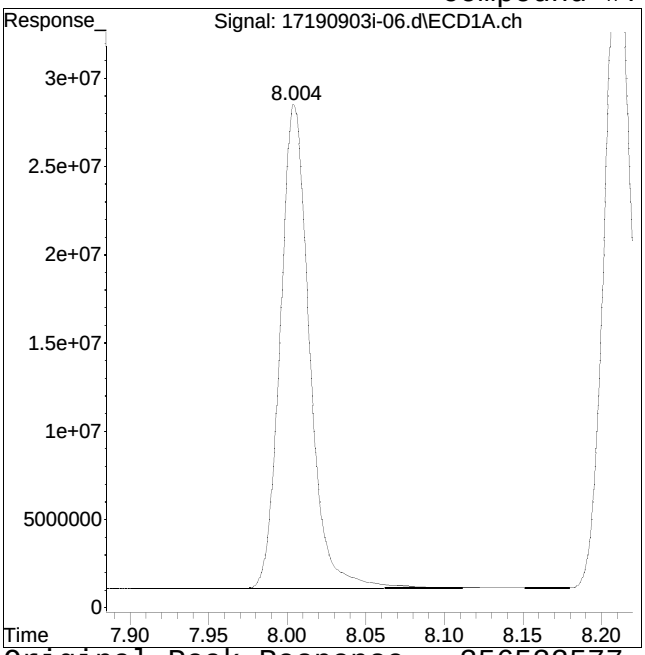
M4 = Poor automated baseline construction.

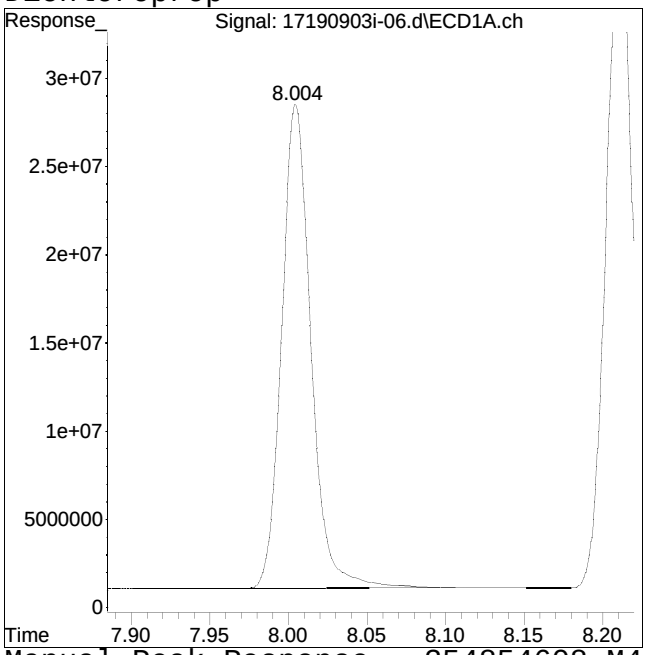
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #7: Dichloroprop





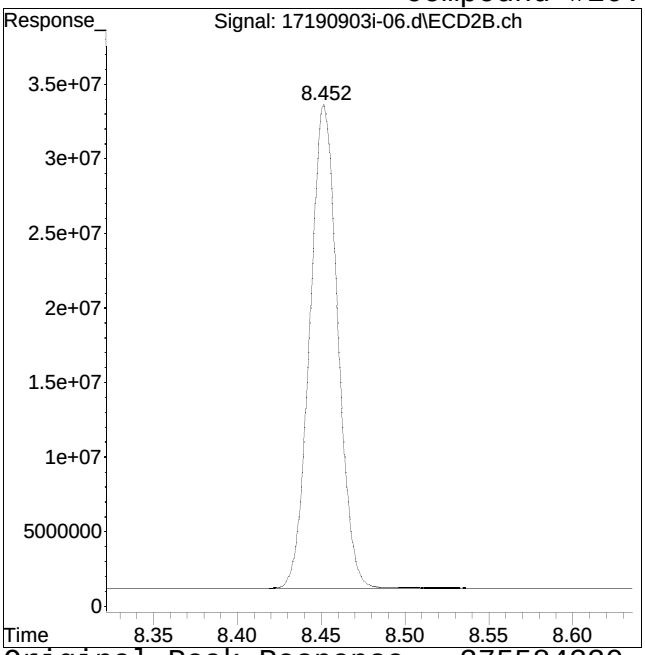
Original Peak Response = 356532577 Manual Peak Response = 354854608 M4
M4 = Poor automated baseline construction.

Manual Integration Report

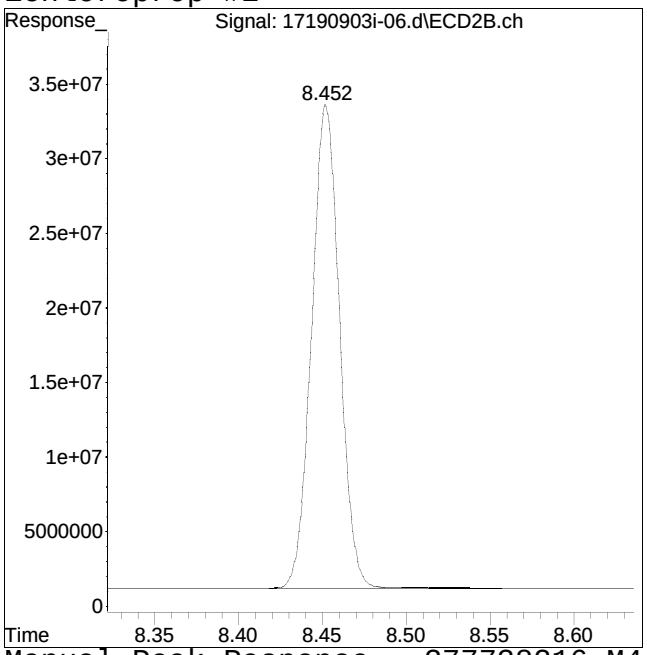
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #20: Dichloroprop #2



Original Peak Response = 375584330



Manual Peak Response = 377738216 M4

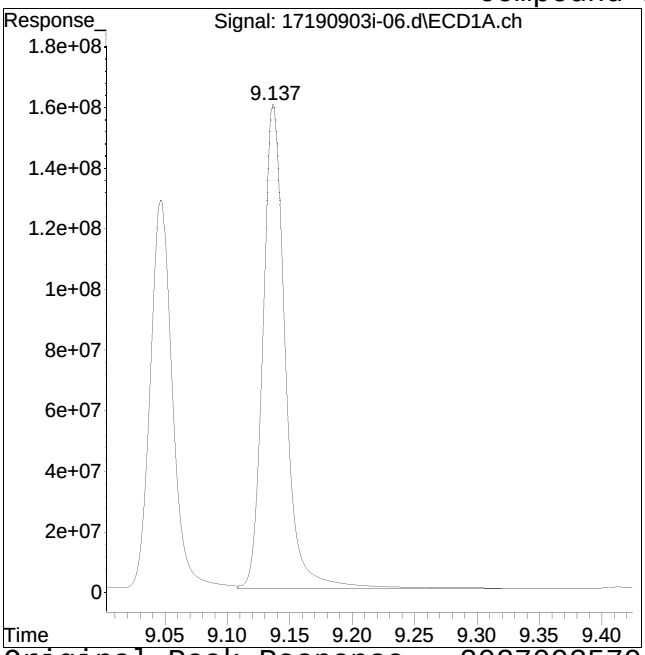
M4 = Poor automated baseline construction.

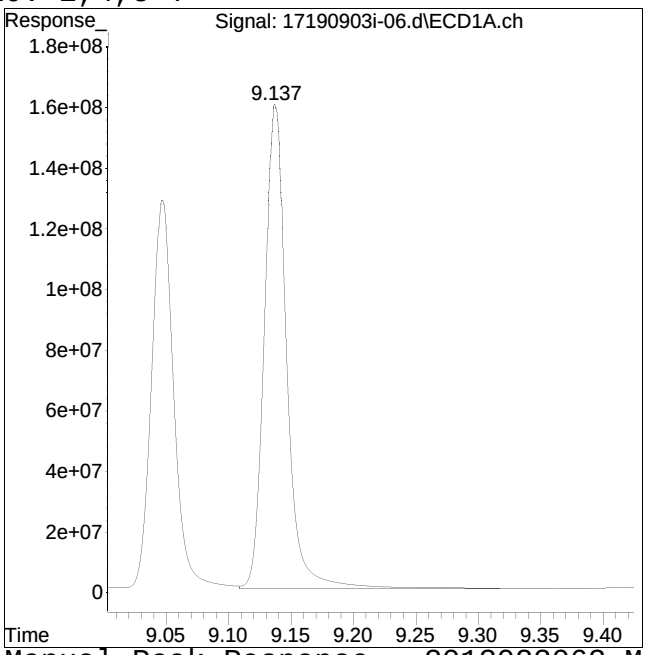
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #10: 2,4,5-T





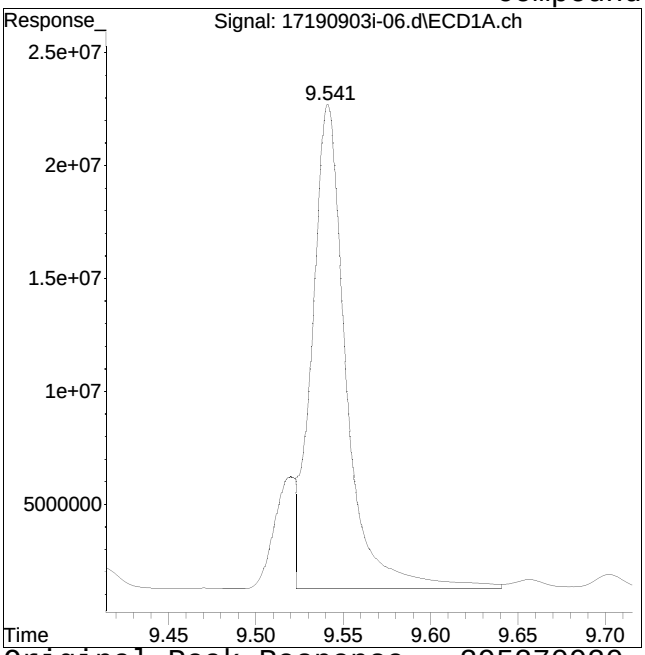
Original Peak Response = 2027093579 Manual Peak Response = 2013023063 M4
M4 = Poor automated baseline construction.

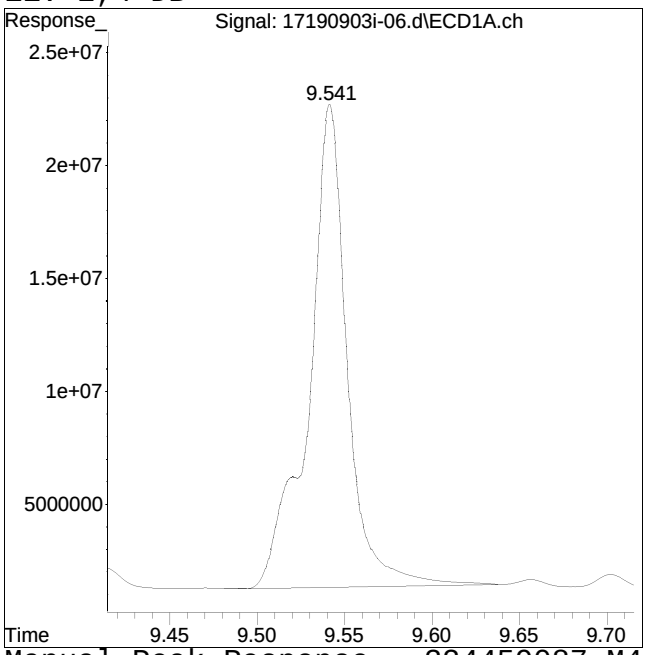
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #11: 2,4-DB





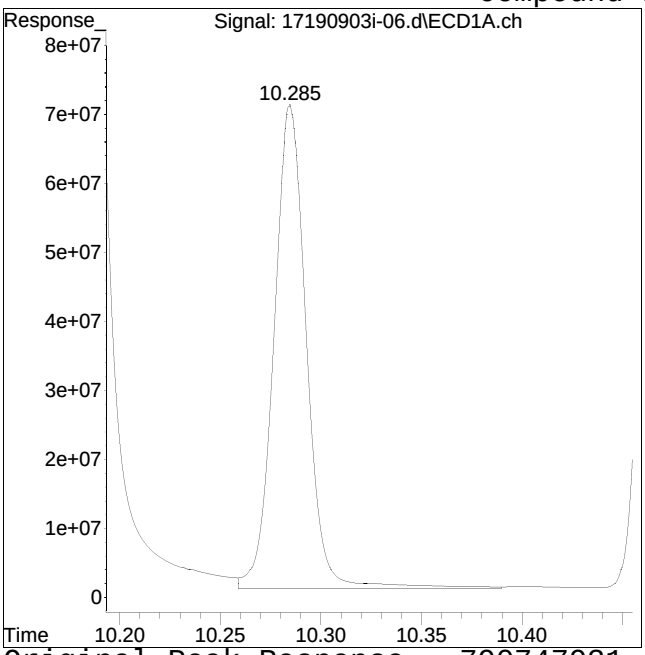
Original Peak Response = 295270920 Manual Peak Response = 324459087 M4
M4 = Poor automated baseline construction.

Manual Integration Report

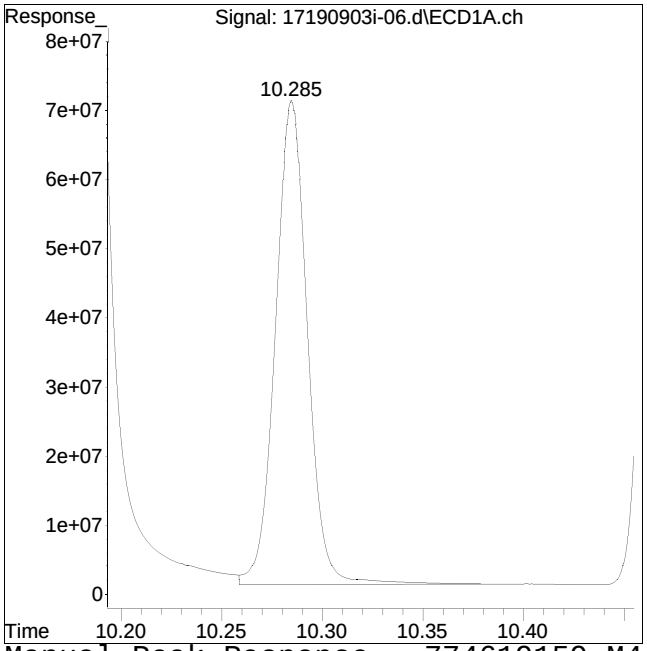
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-06.d
Date Inj'd : 9/3/2019 12:23 pm
Sample : il5herb,42e,,9274

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:48 pm

Compound #12: Dinoseb



Original Peak Response = 790747931



Manual Peak Response = 774619159 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 12:42 pm
Operator : PEST17:dgm
Sample : il6herb,42e,,9275
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:52:48 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 14:12:12 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.654	8.682	762.7E6	627.7E6	0.250M4	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.118	7.618	750.7E6	838.6E6	1.457M4	1.632
	Spiked Amount	0.500	Range 30 - 150		Recovery =	291.40%#	326.40%#
	Target Compounds						
2) t	Dalapon	2.090f	2.159f	663.6E6	642.0E6	1.319M2	1.484M2
4) t	Dicamba	7.305	7.802	2520.6E6	2517.3E6	1.655M4	1.757
5) t	MCPP	7.510	7.914	293.5E6	345.7E6	142.706M4	171.227M4
6) t	MCPA	7.655	8.141	446.2E6	507.4E6	126.100M4	153.459M4
7) t	Dichloroprop	8.006	8.452	674.1E6	701.0E6	1.469M4	1.678M4
8) t	2,4-D	8.212	8.722	904.2E6	1001.6E6	1.570	1.782M4
9) t	2,4,5-TP (Si	8.923	9.379	3560.9E6	3329.4E6	1.666M4	1.875
10) t	2,4,5-T	9.137	9.665	3934.8E6	3507.7E6	1.734M4	1.957
11) t	2,4-DB	9.541	10.024	656.1E6	592.6E6	1.790M4	1.842
12) t	Dinoseb	10.285	10.249	1664.9E6	1227.1E6	2.171M4	1.955M4

SemiQuant Compounds - Not Calibrated on this Instrument

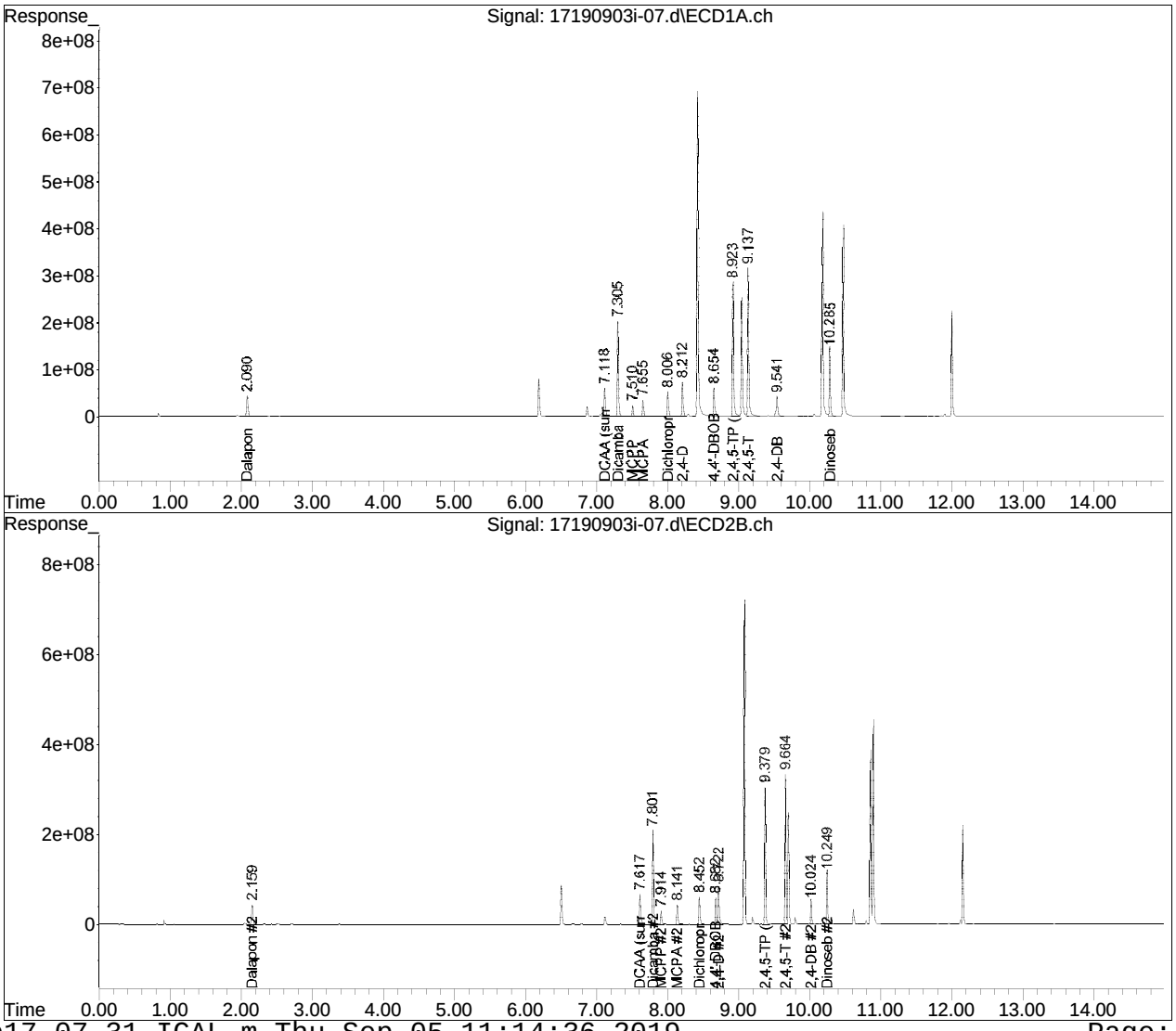
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 12:42 pm
Operator : PEST17:dgm
Sample : il6herb,42e,,9275
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 04 15:52:48 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Wed Sep 04 14:12:12 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

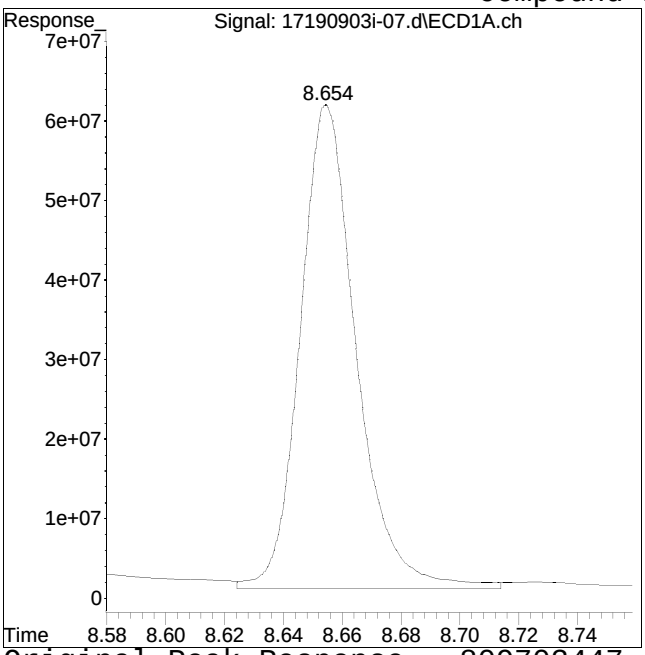


Manual Integration Report

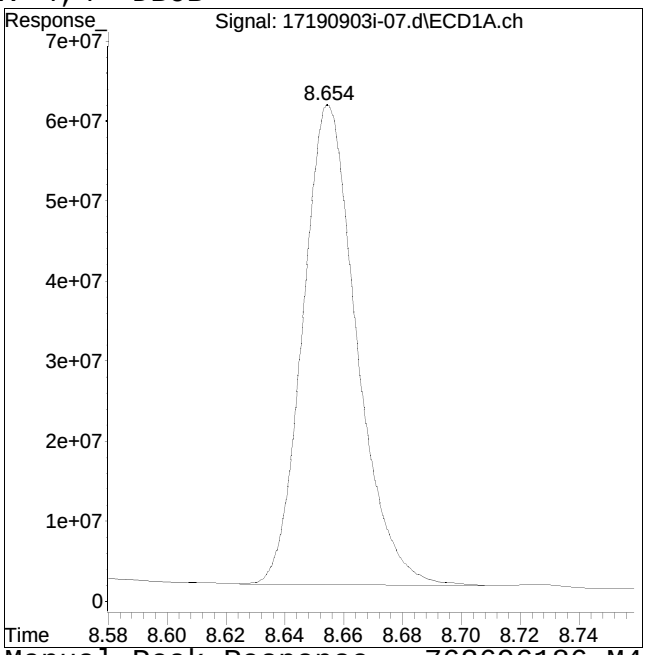
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #1: 4,4'-DBOB



Original Peak Response = 809703447



Manual Peak Response = 762696186 M4

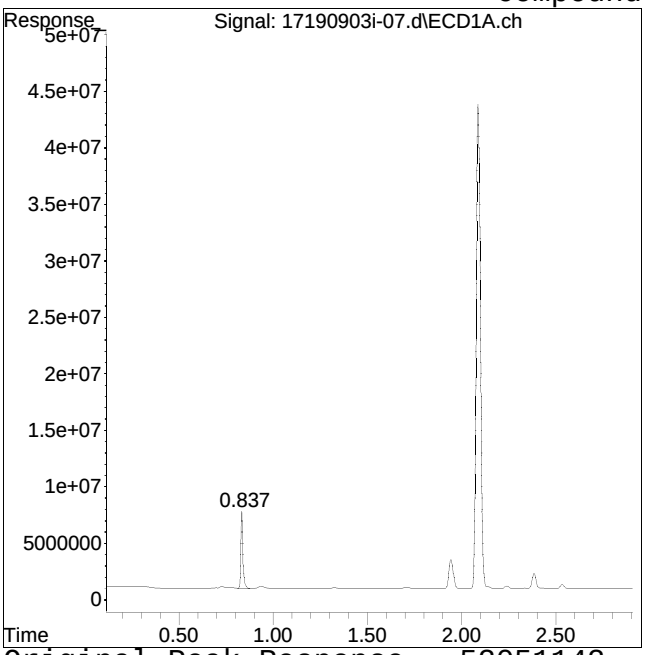
M4 = Poor automated baseline construction.

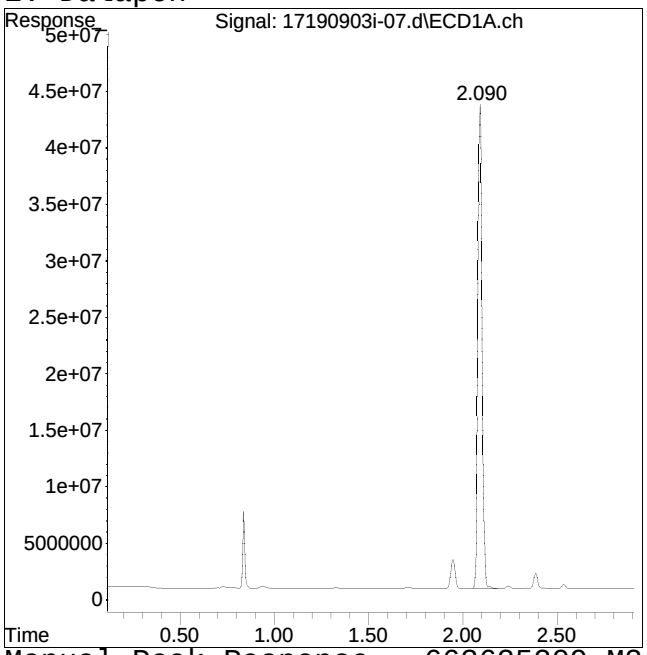
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #2: Dalapon





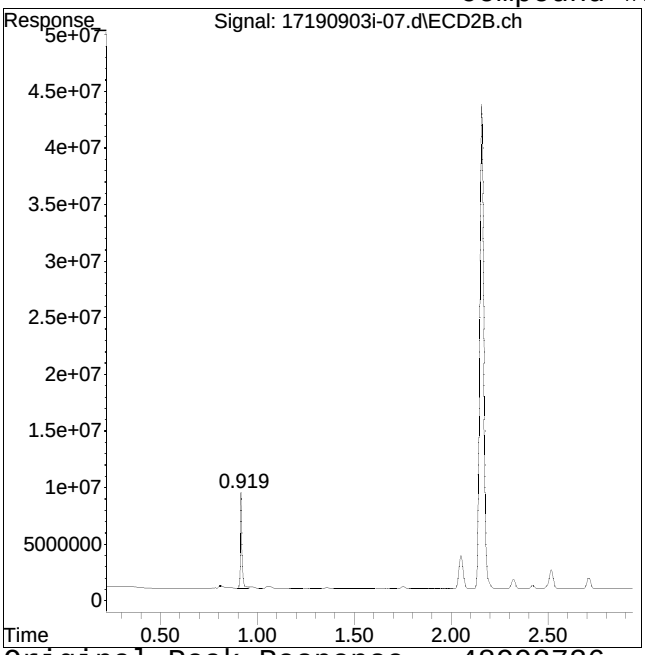
Original Peak Response = 52051142 Manual Peak Response = 663625209 M2
M2 = Peak not found by automatic integration algorithm.

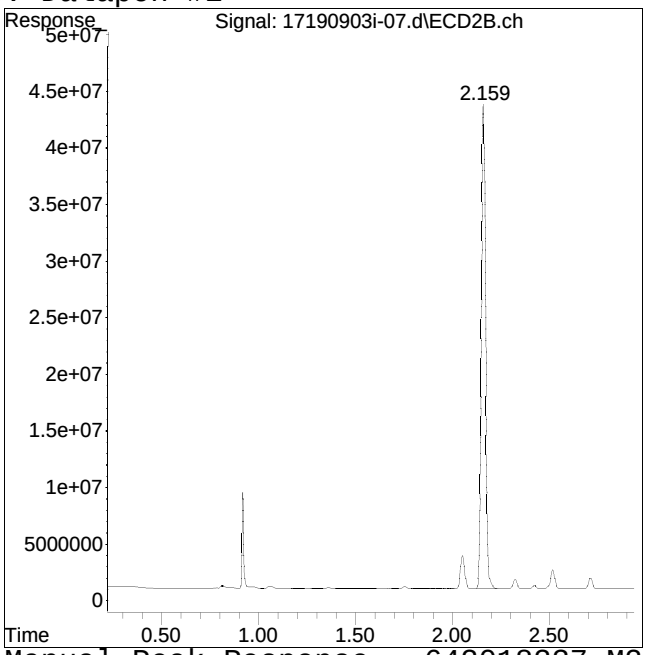
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #15: Dalapon #2





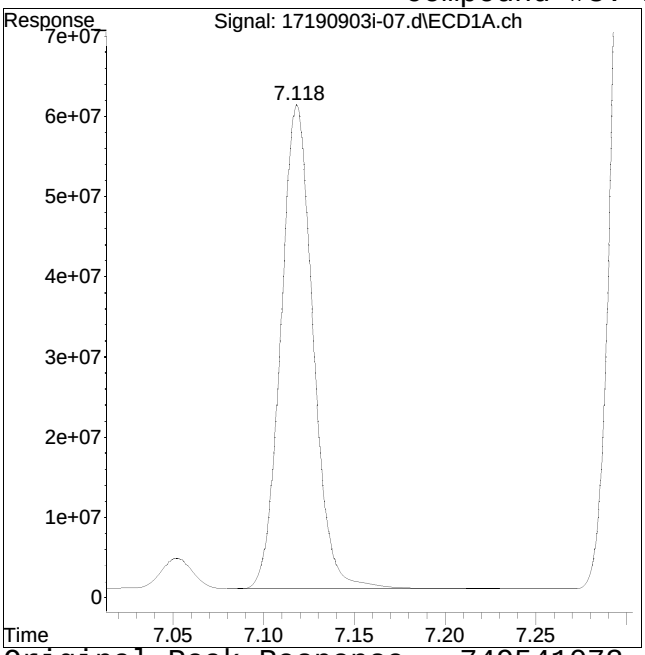
Original Peak Response = 48992736 Manual Peak Response = 642018337 M2
M2 = Peak not found by automatic integration algorithm.

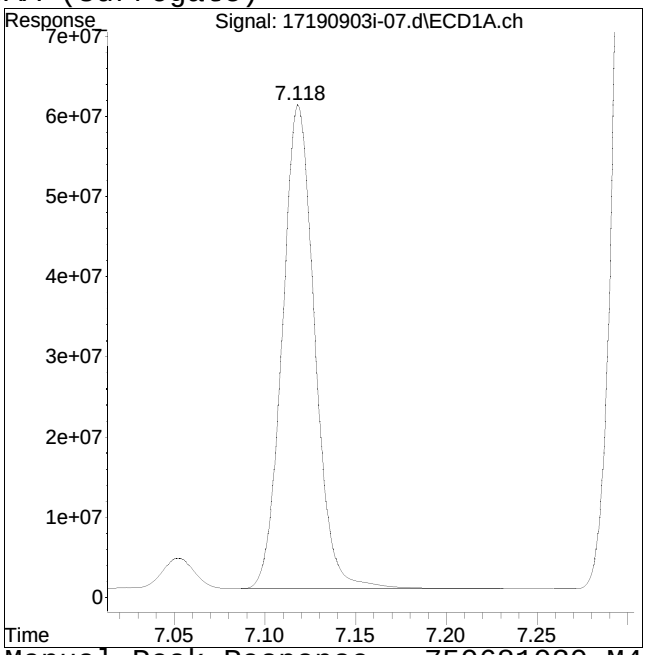
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #3: DCAA (surrogate)





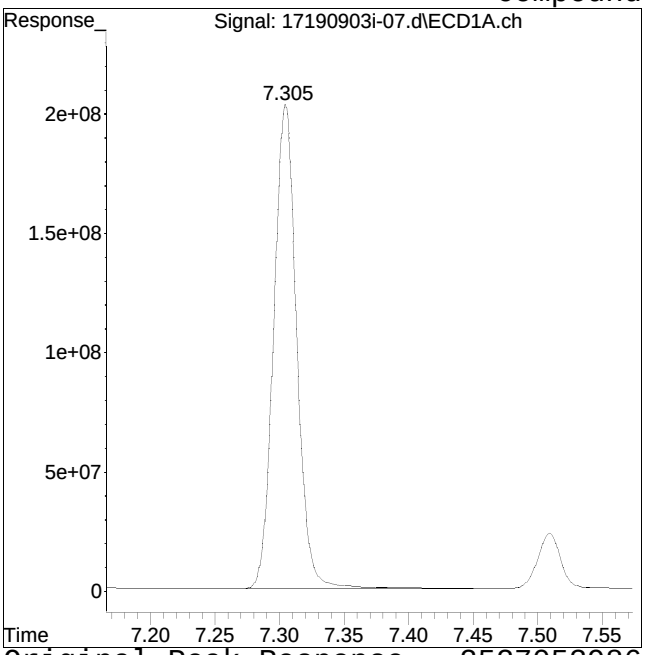
Original Peak Response = 749541073 Manual Peak Response = 750681020 M4
M4 = Poor automated baseline construction.

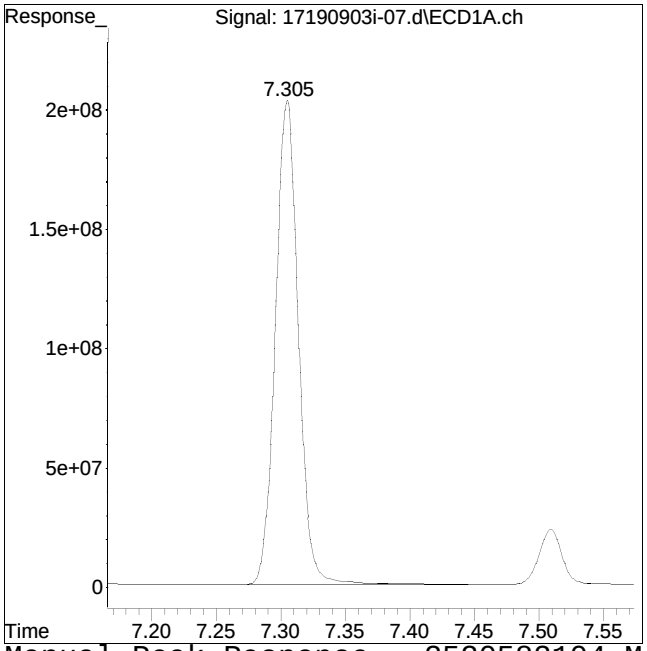
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #4: Dicamba





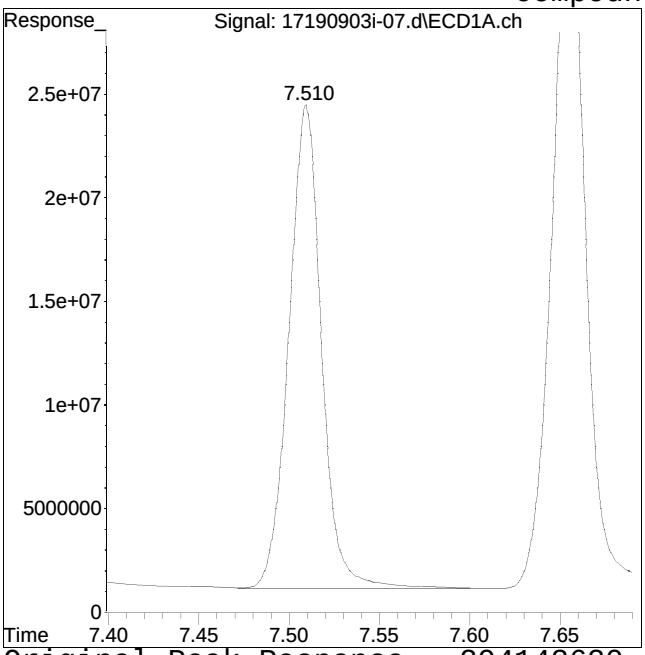
Original Peak Response = 2527053986 Manual Peak Response = 2520582104 M4
M4 = Poor automated baseline construction.

Manual Integration Report

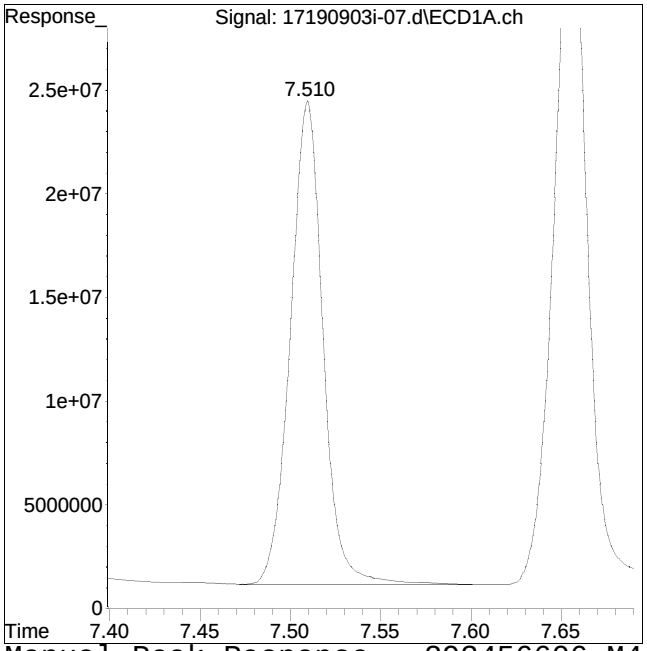
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #5: MCPP



Original Peak Response = 294142620



Manual Peak Response = 293456606 M4

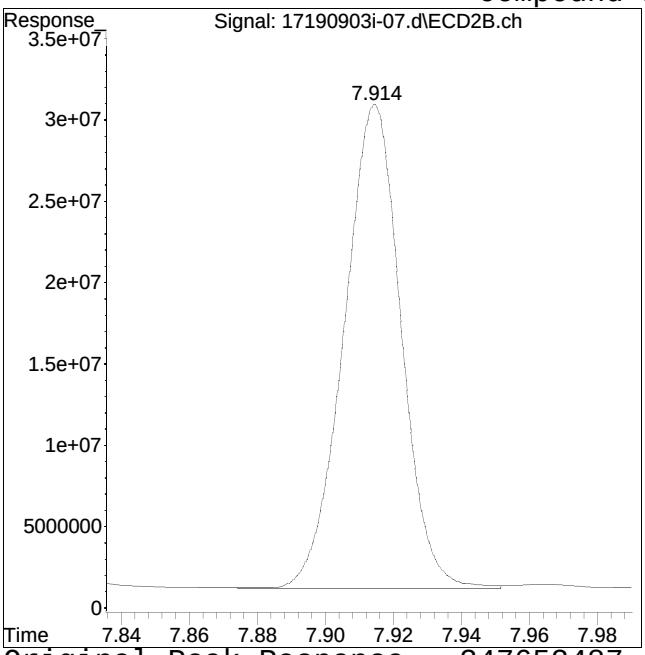
M4 = Poor automated baseline construction.

Manual Integration Report

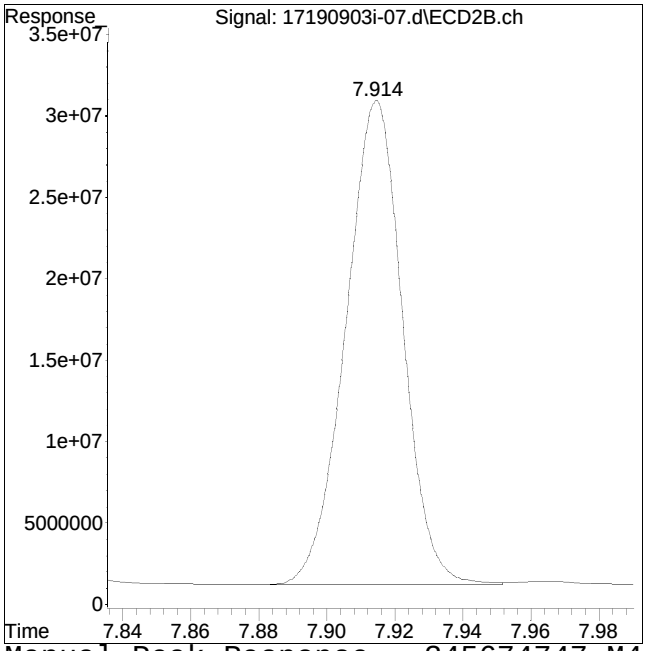
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #18: MCPP #2



Original Peak Response = 347652487

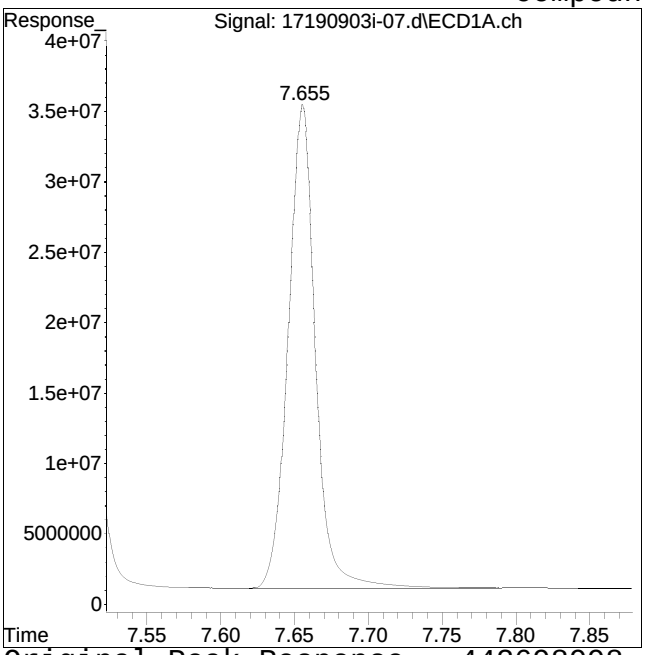


Manual Peak Response = 345674747 M4
M4 = Poor automated baseline construction.

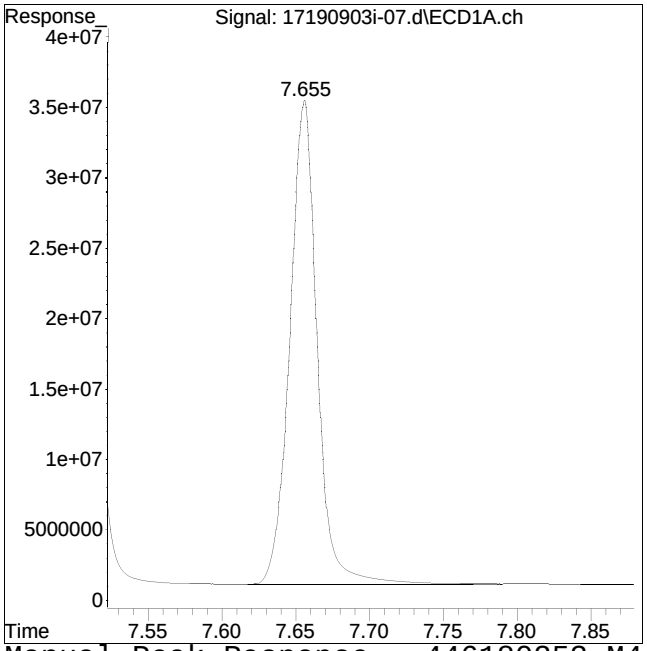
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #6: MCPA



Original Peak Response = 442698998



Manual Peak Response = 446180253 M4

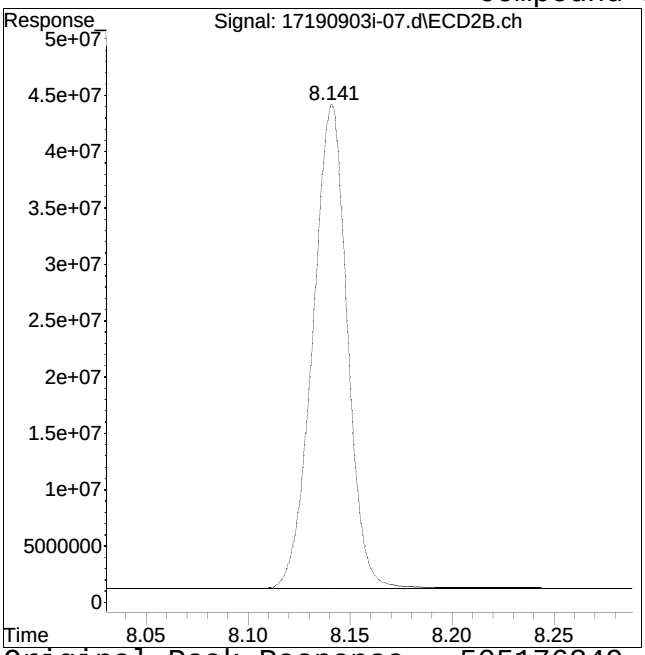
M4 = Poor automated baseline construction.

Manual Integration Report

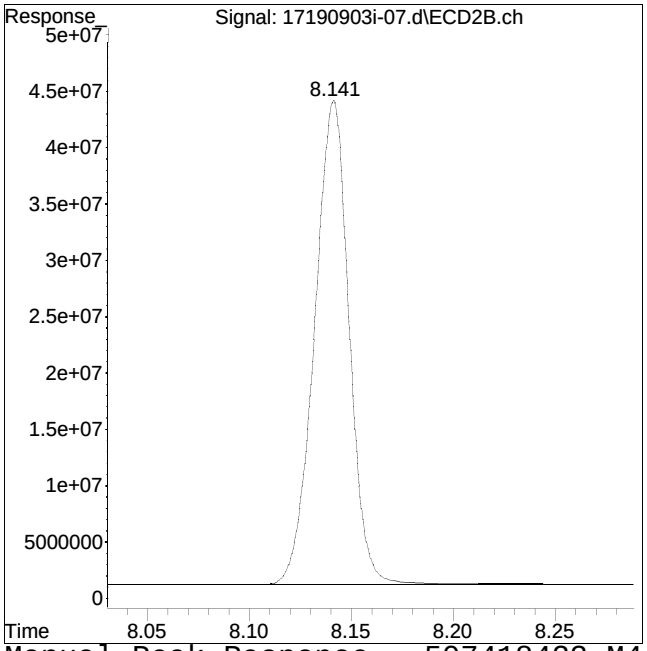
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #19: MCPA #2



Original Peak Response = 505176349



Manual Peak Response = 507418423 M4

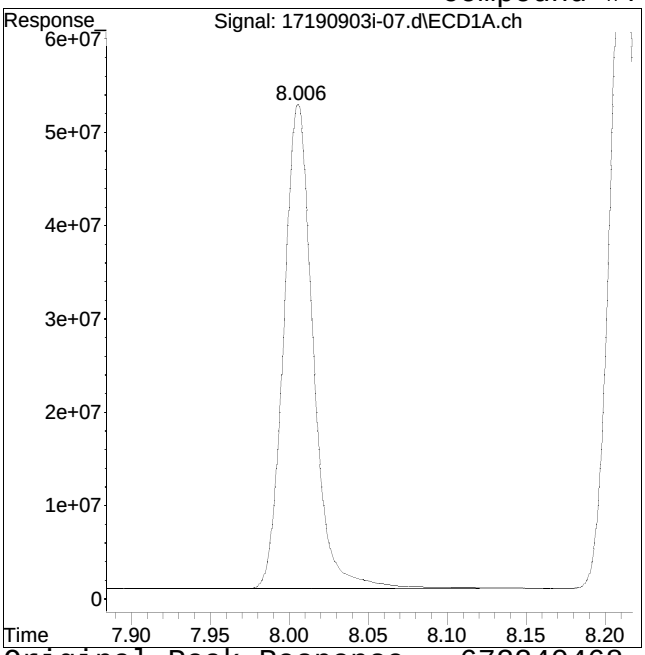
M4 = Poor automated baseline construction.

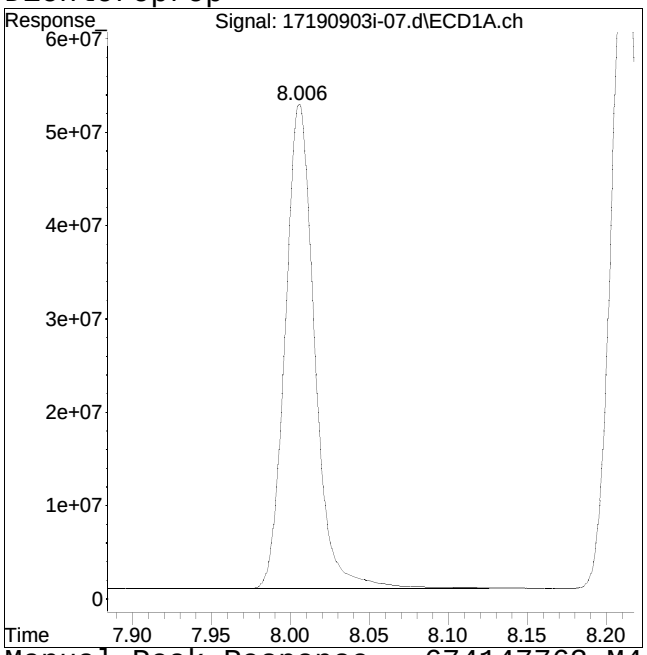
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #7: Dichloroprop





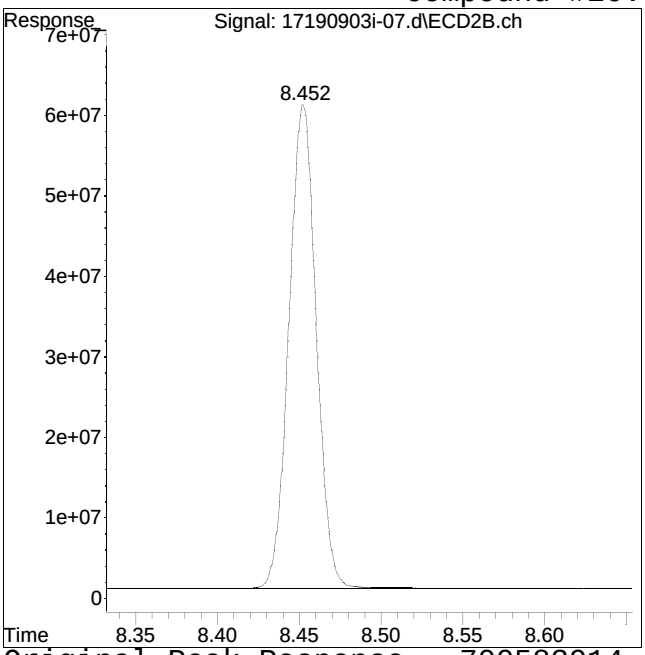
Original Peak Response = 672240468 Manual Peak Response = 674147763 M4
M4 = Poor automated baseline construction.

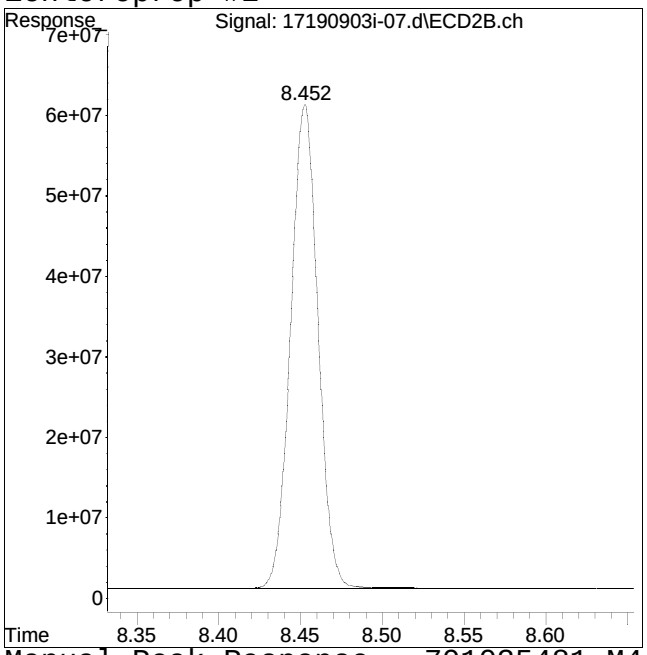
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #20: Dichloroprop #2





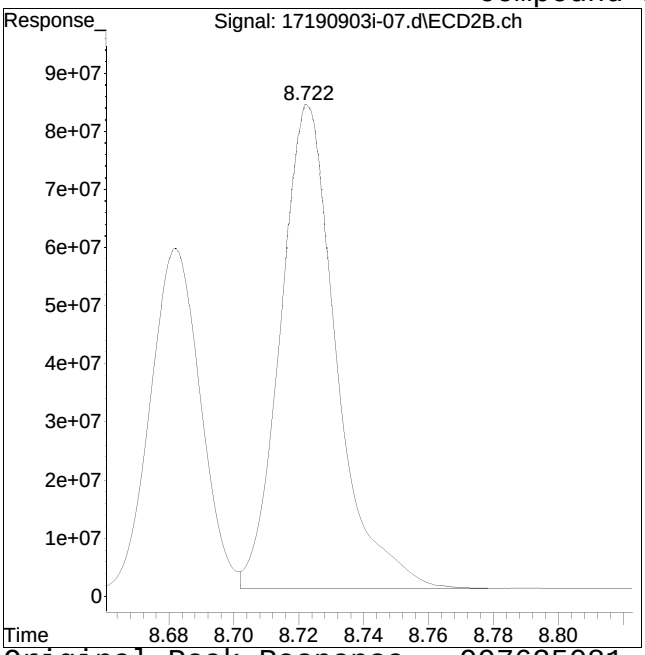
Original Peak Response = 700583914 Manual Peak Response = 701035481 M4
M4 = Poor automated baseline construction.

Manual Integration Report

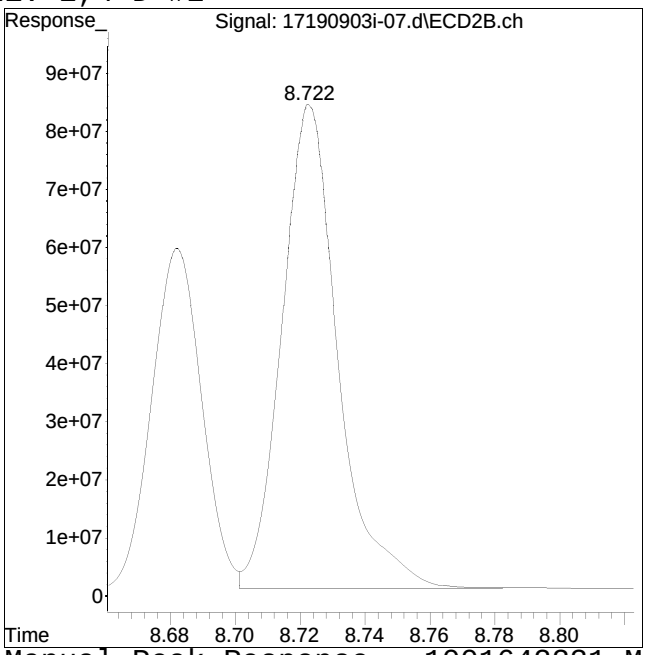
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #21: 2,4-D #2



Original Peak Response = 997635081



Manual Peak Response = 1001642231 M4

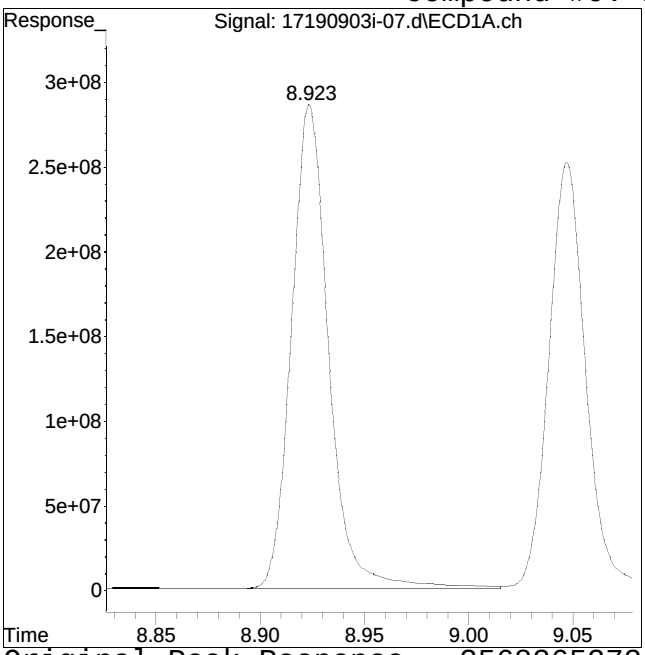
M4 = Poor automated baseline construction.

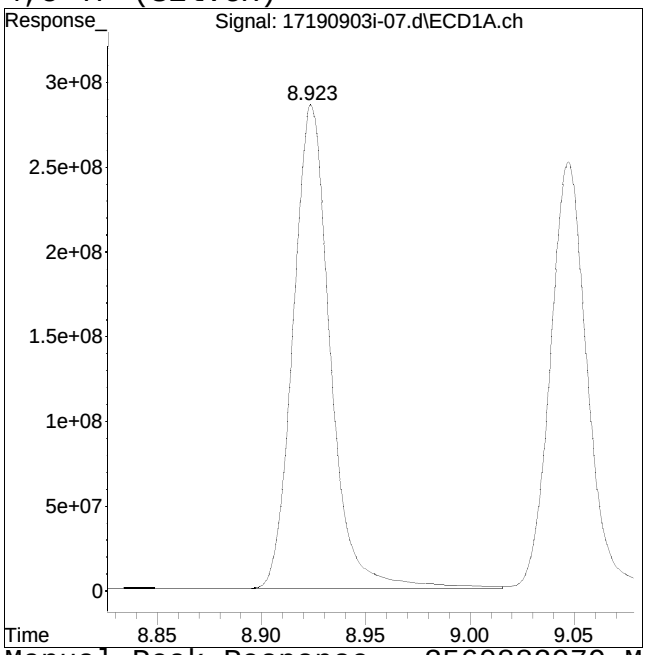
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #9: 2,4,5-TP (Silvex)





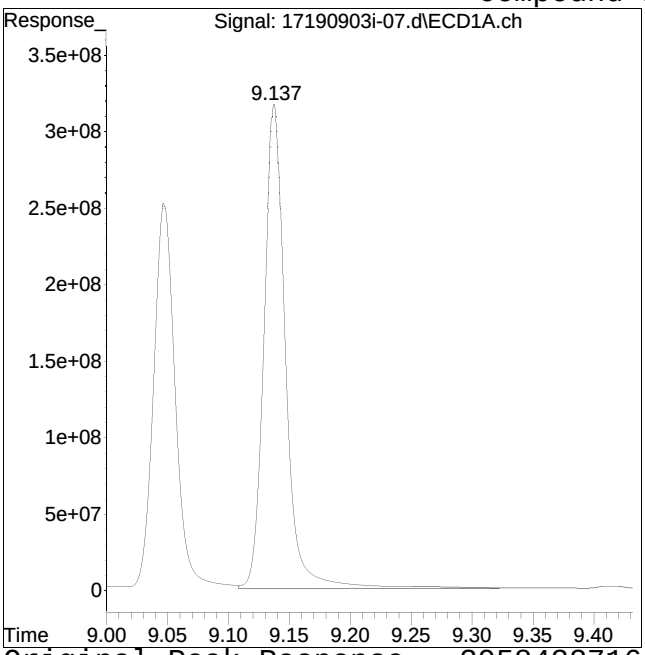
Original Peak Response = 3568265273 Manual Peak Response = 3560882979 M4
M4 = Poor automated baseline construction.

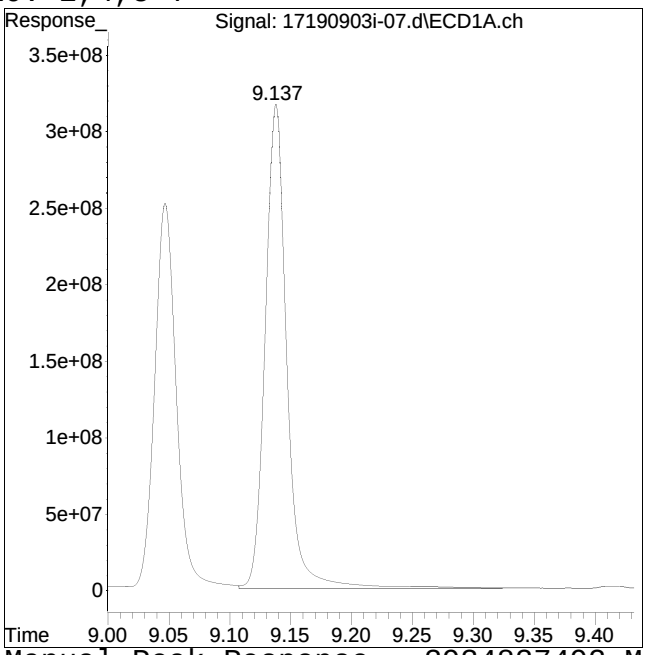
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #10: 2,4,5-T





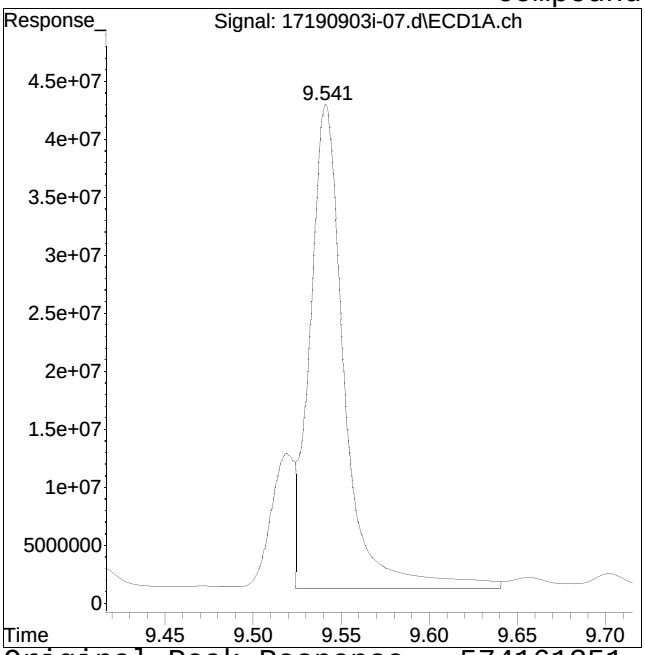
Original Peak Response = 3958432716 Manual Peak Response = 3934837492 M4
M4 = Poor automated baseline construction.

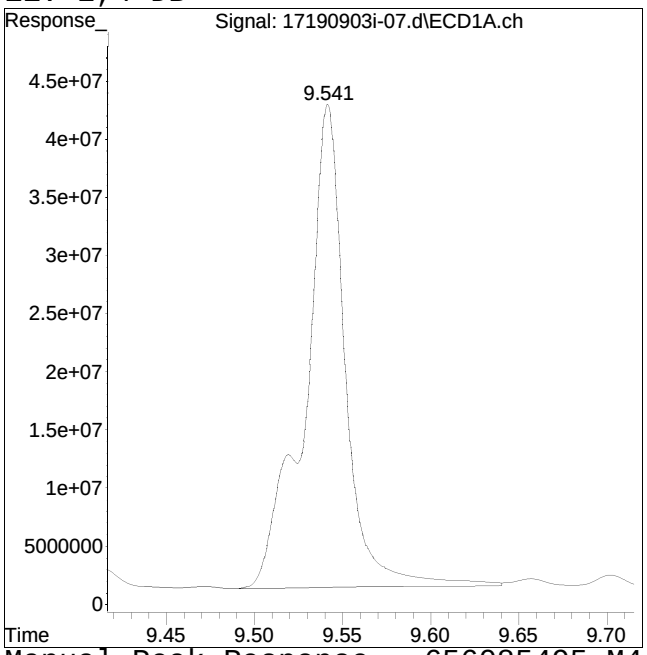
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #11: 2,4-DB





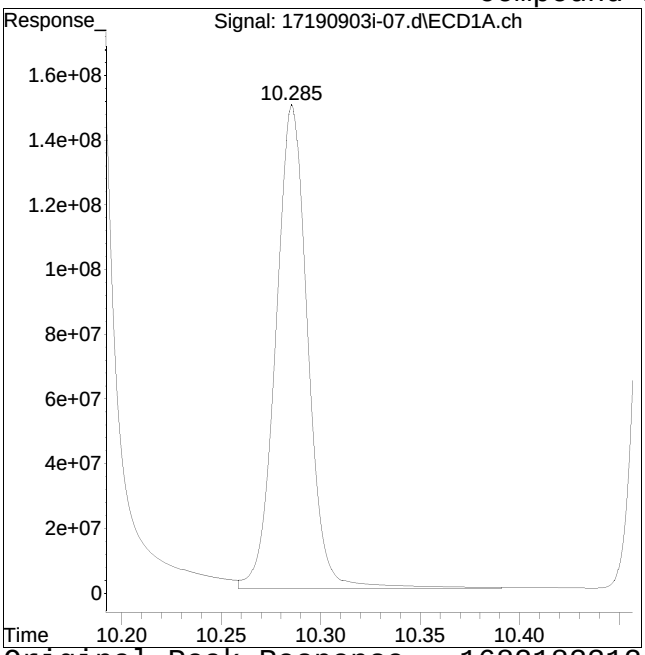
Original Peak Response = 574161351 Manual Peak Response = 656085495 M4
M4 = Poor automated baseline construction.

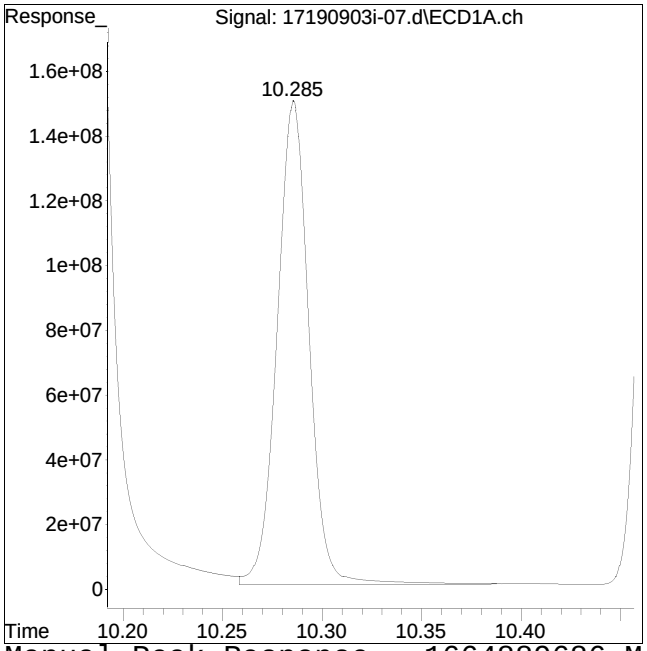
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #12: Dinoseb





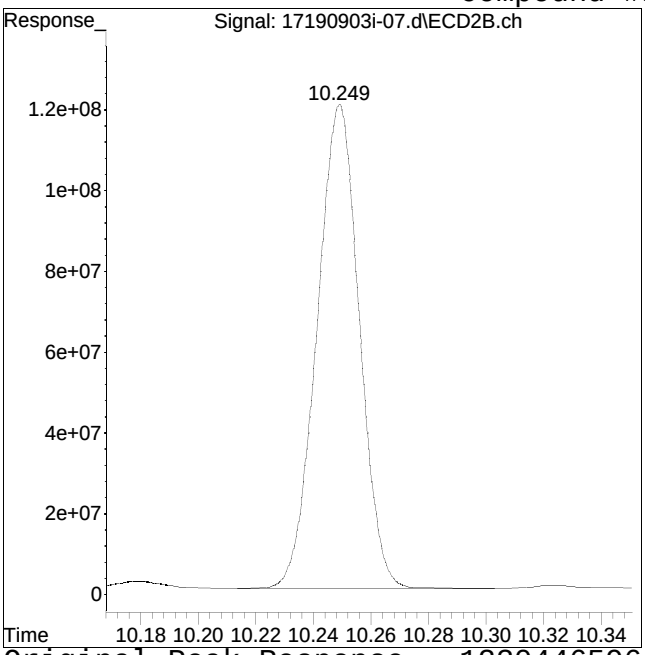
Original Peak Response = 1682183312 Manual Peak Response = 1664889686 M4
M4 = Poor automated baseline construction.

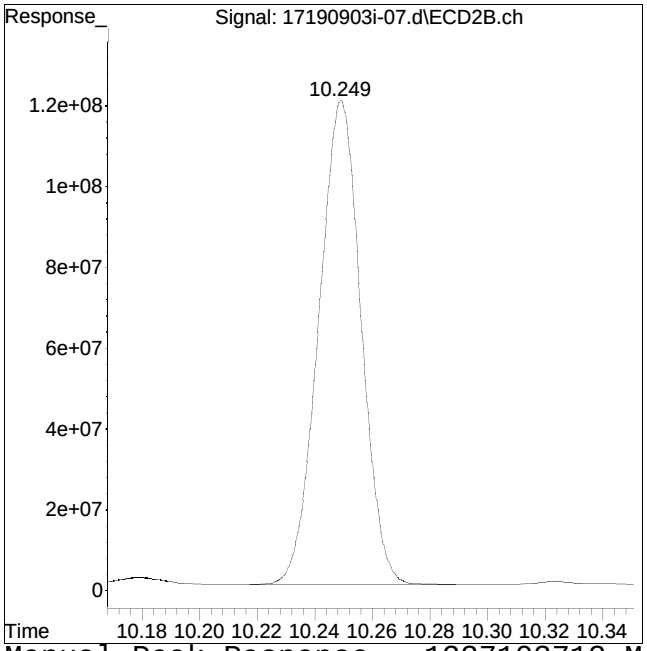
Manual Integration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-07.d
Date Inj'd : 9/3/2019 12:42 pm
Sample : il6herb,42e,,9275

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/4/2019 2:12 pm

Compound #25: Dinoseb #2





Original Peak Response = 1230446596 Manual Peak Response = 1227103713 M4
M4 = Poor automated baseline construction.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 3 Sep 2019   1:01 pm
Operator : PEST17:dgm
Sample   : cicv,42e,,9404
Misc   : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 8   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:06:37 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:06:35 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	93	0.00
2	t	Dalapon	0.182	0.189	-3.8	96	1.25#
3	s	DCAA (surrogate)	0.188	0.205	-9.0	95	0.00
4	t	Dicamba	0.188	0.201	-6.9	102	0.00
5	t	MCPP	18.800	20.813	-10.7	103	0.00
6	t	MCPA	18.600	19.202	-3.2	104	0.00
7	t	Dichloroprop	0.188	0.207	-10.1	112	0.00
8	t	2,4-D	0.188	0.214	-13.8	108	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.217	-14.2	110	0.00
10	t	2,4,5-T	0.190	0.213	-12.1	104	0.00
11	t	2,4-DB	0.192	0.191	0.5	94	0.00
12	t	Dinoseb	0.190	0.217	-14.2	121	0.00

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	95	0.00
2	t	Dalapon	0.182	0.190	-4.4	105	1.23#
3	s	DCAA (surrogate)	0.188	0.193	-2.7	95	0.00
4	t	Dicamba	0.188	0.199	-5.9	104	0.00
5	t	MCPP	18.800	19.767	-5.1	103	0.00
6	t	MCPA	18.600	20.627	-10.9	102	0.00
7	t	Dichloroprop	0.188	0.214	-13.8	115	0.00
8	t	2,4-D	0.188	0.197	-4.8	104	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.218	-14.7	115	0.00
10	t	2,4,5-T	0.190	0.201	-5.8	109	0.00
11	t	2,4-DB	0.192	0.211	-9.9	109	0.00
12	t	Dinoseb	0.190	0.218	-14.7	117	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 3 Sep 2019   1:01 pm
Operator : PEST17:dgm
Sample   : cicv,42e,,9404
Misc   : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 8   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:06:37 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:06:35 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area% Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 1:01 pm
Operator : PEST17:dgm
Sample : cicv,42e,,9404
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:06:37 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:06:35 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.654	8.682	624.4E6	623.0E6	0.250M4	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.119	7.617	82965430	96482410	0.205	0.193
	Spiked Amount	0.500	Range 30 - 150		Recovery =	41.00%	38.60%
	Target Compounds						
2) t	Dalapon	2.092	2.159	66184389	74424426	0.189	0.190M4
4) t	Dicamba	7.305	7.801	248.4E6	279.7E6	0.201	0.199
5) t	MCPP	7.506	7.911	33940933	38918255	20.813	19.767
6) t	MCPA	7.651	8.136	57378377	62599959	19.202	20.627M4
7) t	Dichloroprop	8.007	8.452	82607016	89878469	0.207	0.214
8) t	2,4-D	8.213	8.723	98862955	109.1E6	0.214	0.197
9) t	2,4,5-TP (Si	8.925	9.379	382.6E6	387.5E6	0.217	0.218
10) t	2,4,5-T	9.139	9.664	394.9E6	358.9E6	0.213	0.201
11) t	2,4-DB	9.544	10.025	58059346	66978235	0.191	0.211
12) t	Dinoseb	10.286	10.249	145.3E6	137.5E6	0.217	0.218
	SemiQuant Compounds - Not Calibrated on this Instrument						

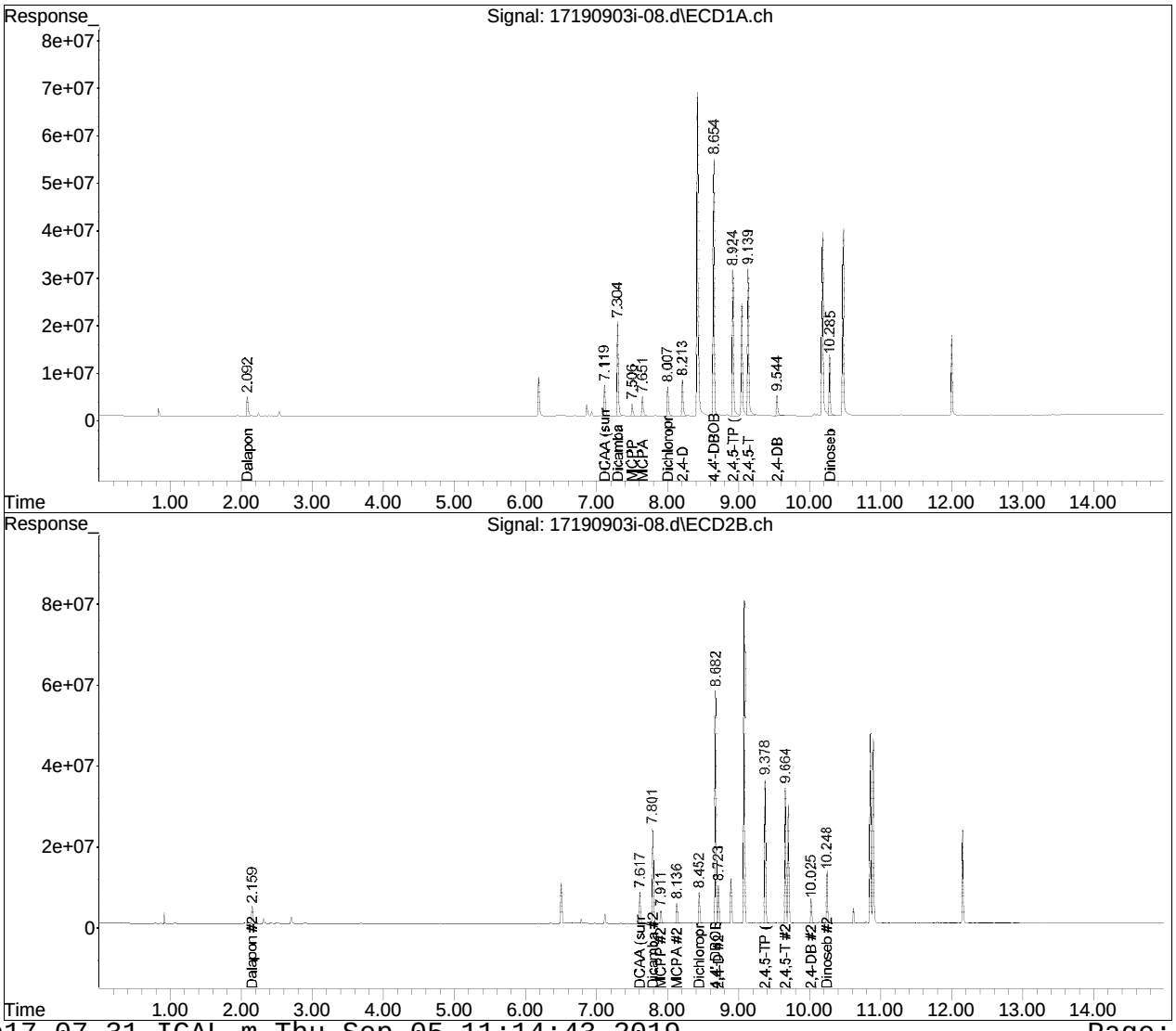
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Sep 2019 1:01 pm
Operator : PEST17:dgm
Sample : cicv,42e,,9404
Misc : wg1280590, (Sig #1); ical (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Sep 05 09:06:37 2019
Quant Method : I:\Pest17\190903ICAL\Herb17_07_31_ICAL.m
Quant Title : herb
QLast Update : Thu Sep 05 09:06:35 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

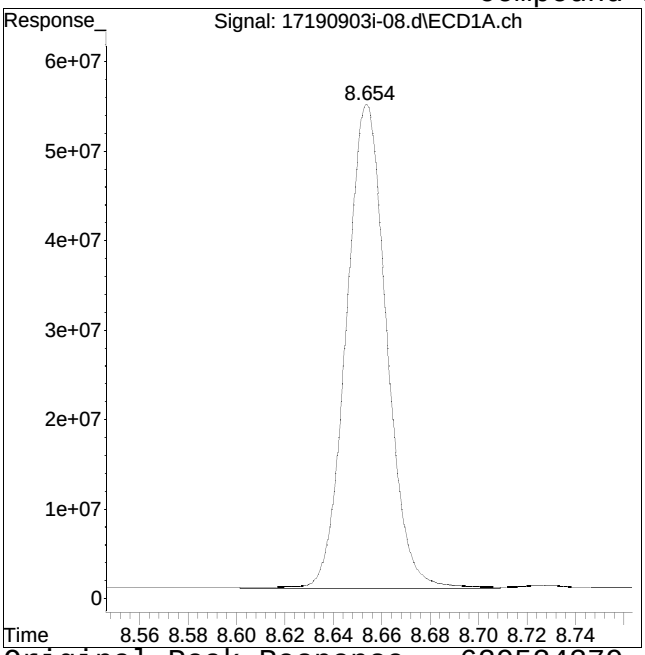


Manual Integration Report

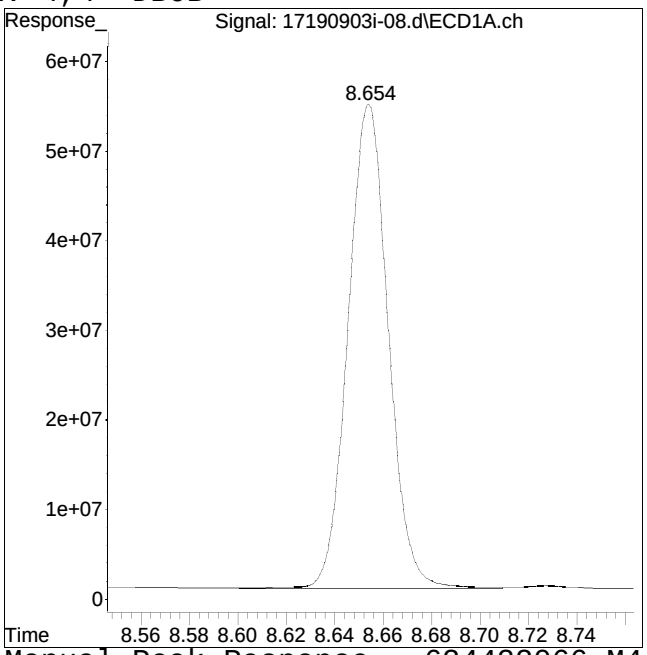
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Date Inj'd : 9/3/2019 1:01 pm
Sample : cicv,42e,,9404

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:06 am

Compound #1: 4,4'-DBOB



Original Peak Response = 629524379



Manual Peak Response = 624422066 M4

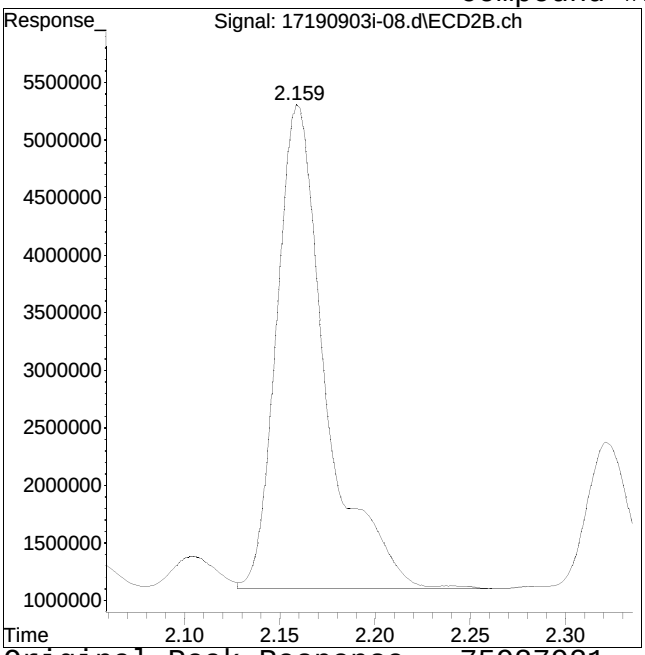
M4 = Poor automated baseline construction.

Manual Integration Report

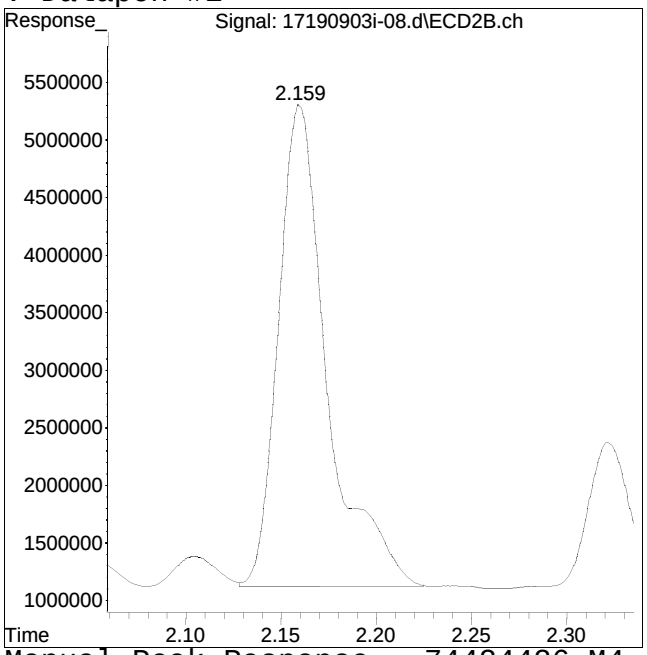
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Date Inj'd : 9/3/2019 1:01 pm
Sample : cicv,42e,,9404

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:06 am

Compound #15: Dalapon #2



Original Peak Response = 75927921



Manual Peak Response = 74424426 M4

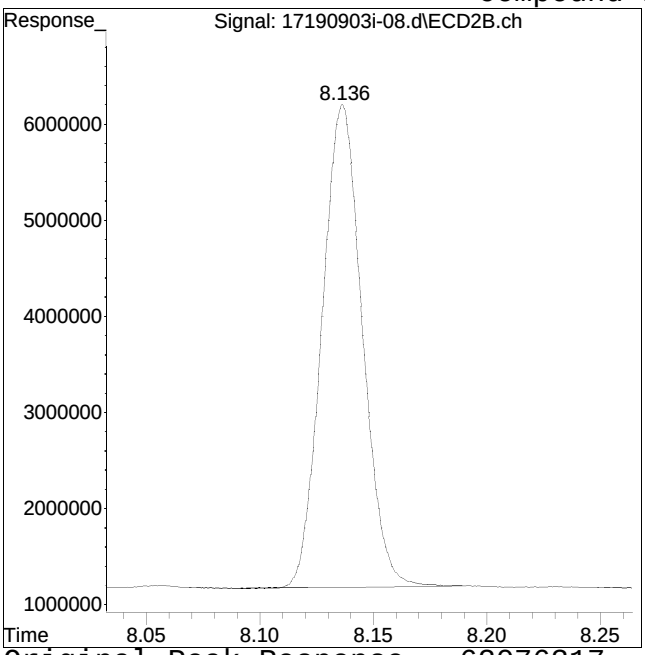
M4 = Poor automated baseline construction.

Manual Integration Report

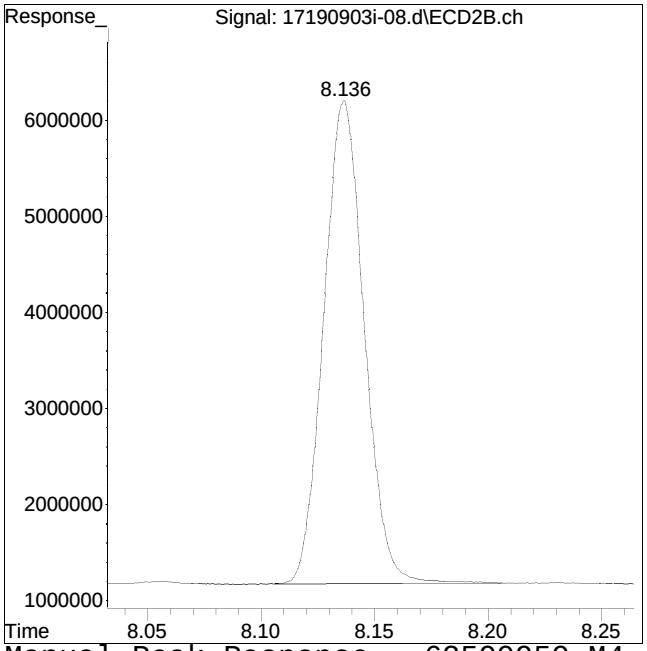
Data Path : I:\Pest17\190903ICAL\
Data File : 17190903i-08.d
Date Inj'd : 9/3/2019 1:01 pm
Sample : cicv,42e,,9404

QMethod : Herb17_07_31_ICAL.m
Operator : PEST17:dgm
Instrument : Pest 17
Quant Date : 9/5/2019 9:06 am

Compound #19: MCPA #2



Original Peak Response = 62076317



Manual Peak Response = 62599959 M4

M4 = Poor automated baseline construction.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 04 2019, 04:48 pm

Work Group: WG1303249 for Department: 2 Organic Preparation

Created: 01-NOV-19 Due: Operator: SD

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1951180-01	WC-1	S	HERB-8151	SOIL	DONE	U	1107	1104	1C	Glass-A.25
L1951180-02	WC-2	S	HERB-8151	SOIL	DONE	U	1107	1104	1C	Glass-A.25
L1951180-03	WC-3	S	HERB-8151	SOIL	DONE	U	1112	1104	1C	Glass-A.25
L1951399-01	PDI-071SC-C-00-08-191028	S	HERB-8151	SOIL	DONE	U	1111	1120	S0	Glass-A.25
L1951399-02	PDI-074SC-C-00-7.3-191028	S	HERB-8151	SOIL	DONE	U	1111	1120	S0	Glass-A.25
L1951399-03	PDI-083SC-C-00-08-191028	S	HERB-8151	SOIL	DONE	U	1111	1120	S0	Glass-A.25
L1951399-04	PDI-015SC-C-00-8.1-191024	S	HERB-8151	SOIL	DONE	U	1107	1120	S0	Glass-A.25
L1951399-05	PDI-026SC-C-00-3.9-191024	S	HERB-8151	SOIL	DONE	U	1107	1120	S0	Glass-A.25
L1951399-06	PDI-037SC-C-00-12.4-191024	S	HERB-8151	SOIL	DONE	U	1107	1120	S0	Glass-A.25
L1951399-07	PDI-073SC-C-00-13.7-191024	S	HERB-8151	SOIL	DONE	U	1107	1120	S0	Glass-A.25
L1951399-08	PDI-019SC-C-00-3.2-191025	S	HERB-8151	SOIL	DONE	U	1108	1120	S0	Glass-A.25
L1951399-09	PDI-095SC-C-00-8.8-191025	S	HERB-8151	SOIL	DONE	U	1108	1120	S0	Glass-A.25
L1951404-01	BIN#1	S	HERB-8151	SOIL	DONE	U	1113	1106	S0	Glass-A.25
L1951404-02	BIN#2	S	HERB-8151	SOIL	DONE	U	1113	1106	S0	Glass-A.25
L1951404-03	BIN#3	S	HERB-8151	SOIL	DONE	U	1113	1106	S0	Glass-A.25
L1951487-01	WCS-19	S	HERB-8151	SOIL	DONE	U	1114	1104	1B	Glass-A.25
L1951487-02	WCS-20	S	HERB-8151	SOIL	DONE	U	1114	1104	1B	Glass-A.25
WG1303249-1	Laboratory Method Bl	S	HERB-8151	SOIL	DONE	U				
WG1303249-2	Laboratory Control S	S	HERB-8151	SOIL	DONE	U				
WG1303249-3	LCS Duplicate	S	HERB-8151	SOIL	DONE	U				

Comments:

WG1303249-3 WG1303249-2

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 04 2019, 04:48 pm

Work Group: WG1303576 for Department: 2 Organic Preparation

Created: 01-NOV-19 Due: Operator: FO

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1950933-02	SOIL-WC001	S	HERB-TCLP*	SOIL	DONE	U	1112	1105	S0	EAmber-A1
L1951259-06	WC-17_0-3	C	HERB-TCLP*	SOIL	DONE	U	1113	1104	1C	EAmber-A1
L1951368-01	195347-01	S	HERB-TCLP*	SOIL	DONE	U	1113	1106	S0	EAmber-A1
L1951392-01	WC-PA-1916-191030-01	S	HERB-TCLP*	SOIL	DONE	U	1113	1104	1C	EAmber-A1
L1951392-02	WC-PA-1917-191030-01	S	HERB-TCLP*	SOIL	DONE	U	1113	1104	1C	EAmber-A1
L1951399-01	PDI-071SC-C-00-08-191028	S	HERB-TCLP*	SOIL	DONE	U	1111	1120	S0	EAmber-A1
L1951399-02	PDI-074SC-C-00-7.3-191028	S	HERB-TCLP*	SOIL	DONE	U	1111	1120	S0	EAmber-A1
L1951399-03	PDI-083SC-C-00-08-191028	S	HERB-TCLP*	SOIL	DONE	U	1111	1120	S0	EAmber-A1
L1951399-04	PDI-015SC-C-00-8.1-191024	S	HERB-TCLP*	SOIL	DONE	U	1107	1120	S0	EAmber-A1
L1951399-05	PDI-026SC-C-00-3.9-191024	S	HERB-TCLP*	SOIL	DONE	U	1107	1120	S0	EAmber-A1
L1951399-06	PDI-037SC-C-00-12.4-191024	S	HERB-TCLP*	SOIL	DONE	U	1107	1120	S0	EAmber-A1
L1951399-07	PDI-073SC-C-00-13.7-191024	S	HERB-TCLP*	SOIL	DONE	U	1107	1120	S0	EAmber-A1
L1951399-08	PDI-019SC-C-00-3.2-191025	S	HERB-TCLP*	SOIL	DONE	U	1108	1120	S0	EAmber-A1
L1951399-09	PDI-095SC-C-00-8.8-191025	S	HERB-TCLP*	SOIL	DONE	U	1108	1120	S0	EAmber-A1
L1951487-01	WCS-19	C	HERB-TCLP*	SOIL	DONE	U	1114	1104	1B	EAmber-A1
L1951487-02	WCS-20	C	HERB-TCLP*	SOIL	DONE	U	1114	1104	1B	EAmber-A1
WG1303576-1	Laboratory Method Bl	S	HERB-TCLP*	SOIL	DONE	U				
WG1303576-2	Laboratory Control S	S	HERB-TCLP*	SOIL	DONE	U				
WG1303576-3	LCS Duplicate	S	HERB-TCLP*	SOIL	DONE	U				

Comments:

WG1303576-3 WG1303576-2

Sequence Logs

Dep.: Pest
Inst: Pest_17
Date: **09/03/19**
Run: **ical**

Method: 8151
GC:

Seq: WG1280590
ICal # 16100

Vial	Data File	Sample	CCAL	notes	initials
1	17190903i-01	blk			
2	17190903i-02	il1herb,42e,,9270			
3	17190903i-03	il2herb,42e,,9271			
4	17190903i-04	il3herb,42e,,9272			
5	17190903i-05	il4herb,42e,,9273			
6	17190903i-06	il5herb,42e,,9274			
7	17190903i-07	il6herb,42e,,9275			
8	17190903i-08	cicv,42e,,9404	Mcpa ↑ AB	dicamba ↓ AB	

ICV → Dichloroprop AB ↑
MCPA AD
Silvex BD

Dep.: Pest
Inst: Pest_17
Date: **11/01/19**
Run: **B**

Method: 8151
GC:

Seq: wg1303698

Vial	Data File	Sample	CCAL	notes	initials
1	17191101b-01	herb cc 9501			
2	17191101b-02	instrument blank			
3	17191101b-03	I1951259-08,42e,,apa			
4	17191101b-04	I1950927-01,42e,,apa			
5	17191101b-05	I1951259-06,42e,,apa			
6	17191101b-06	I1951216-01,42e,,p,apa			
7	17191101b-07	wg1303251-4,42e,,ms,apa			
8	17191101b-08	wg1303251-5,42e,,dup,apa			
9	17191101b-09	I1951216-02,42e,,apa			
10	17191101b-10	herb cc 9501			
11	17191101b-11	wg1303249-1,42e,,50,1			
12	17191101b-12	wg1303249-2,42e,,50,1			
13	17191101b-13	wg1303249-3,42e,,50,1			
14	17191101b-14	I1951180-01,42e,,			
15	17191101b-15	I1951180-02,42e,,			
16	17191101b-16	I1951180-03,42e,,			
17	17191101b-17	I1951399-01,42e,,			
18	17191101b-18	I1951399-02,42e,,			
19	17191101b-19	I1951399-03,42e,,			
20	17191101b-20	I1951399-04,42e,,			
21	17191101b-21	herb cc 9501			
22	17191101b-22	I1951399-05,42e,,			
23	17191101b-23	I1951399-06,42e,,			
24	17191101b-24	I1951399-07,42e,,			
25	17191101b-25	I1951399-08,42e,,			
26	17191101b-26	I1951399-09,42e,,			
27	17191101b-27	I1951404-01,42e,,			
28	17191101b-28	I1951404-02,42e,,			
29	17191101b-29	I1951404-03,42e,,			
30	17191101b-30	I1951487-01,42e,,			
31	17191101b-31	I1951487-02,42e,,			
32	17191101b-32	herb cc 9501			

Dep.: Pest
Inst: Pest_17
Date: **11/02/19**
Run: **a**

Method: 8151
GC:

Seq: wg1303892

Vial	Data File	Sample	CCAL	notes	initials
1	17191102a-01	herb cc 9501			
2	17191102a-02	wg1303576-1,42e,,t			
3	17191102a-03	wg1303576-2,42e,,t			
4	17191102a-04	wg1303576-3,42e,,t			
5	17191102a-05	l1951259-06,42e,,t			
6	17191102a-06	l1951368-01,42e,,t			
7	17191102a-07	wg1303569-1,42e,,t			
8	17191102a-08	wg1303569-2,42e,,t			
9	17191102a-09	wg1303569-3,42e,,t			
10	17191102a-10	l1950775-01,42e,,t			
11	17191102a-11	herb cc 9501			
12	17191102a-12	l1951487-01,42e,,t			
13	17191102a-13	l1951487-02,42e,,t			
14	17191102a-14	l1951392-01,42e,,t			
15	17191102a-15	l1951392-02,42e,,t			
16	17191102a-16	l1950933-02,42e,,t			
17	17191102a-17	l1951399-01,42e,,t			
18	17191102a-18	l1951399-02,42e,,t			
19	17191102a-19	l1951399-03,42e,,t			
20	17191102a-20	l1951399-04,42e,,t			
21	17191102a-21	l1951399-05,42e,,t			
22	17191102a-22	herb cc 9501			
23	17191102a-23	l1951399-06,42e,,t			
24	17191102a-24	l1951399-07,42e,,t			
25	17191102a-25	l1951399-08,42e,,t			
26	17191102a-26	l1951399-09,42e,,t			
27	17191102a-27	wg1303777-1,42e,,t			
28	17191102a-28	wg1303777-2,42e,,t			
29	17191102a-29	wg1303777-3,42e,,t			
30	17191102a-30	l1951056-01,42e,,t			
31	17191102a-31	herb cc 9501			

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   2:28 am
Operator : PEST17:keg
Sample   : wg1303698-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303698,ical16100
ALS Vial : 10   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:47:17 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	91	-0.02
2	t	Dalapon	0.182	0.243	-33.5#	121	0.00
3	s	DCAA (surrogate)	0.188	0.211	-12.2	96	-0.02
4	t	Dicamba	0.188	0.215	-14.4	106	-0.02
5	t	MCPP	18.800	21.286	-13.2	103	-0.02
6	t	MCPA	18.600	19.292	-3.7	102	-0.02
7	t	Dichloroprop	0.188	0.188	0.0	102	-0.02
8	t	2,4-D	0.188	0.211	-12.2	103	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.204	-7.4	101	-0.02
10	t	2,4,5-T	0.190	0.204	-7.4	98	-0.02
11	t	2,4-DB	0.192	0.217	-13.0	104	-0.02
12	t	Dinoseb	0.190	0.332	-74.7#	186	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	98	0.00
2	t	Dalapon	0.182	0.233	-28.0#	133	0.00
3	s	DCAA (surrogate)	0.188	0.201	-6.9	102	0.00
4	t	Dicamba	0.188	0.205	-9.0	110	0.00
5	t	MCPP	18.800	17.492	7.0	93	0.00
6	t	MCPA	18.600	19.075	-2.6	97	0.00
7	t	Dichloroprop	0.188	0.201	-6.9	111	0.00
8	t	2,4-D	0.188	0.209	-11.2	114	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.218	-14.7	118	0.00
10	t	2,4,5-T	0.190	0.221	-16.3#	123	0.00
11	t	2,4-DB	0.192	0.204	-6.2	109	0.00
12	t	Dinoseb	0.190	0.333	-75.3#	185	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   2:28 am
Operator : PEST17:keg
Sample   : wg1303698-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303698,ical16100
ALS Vial : 10   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:47:17 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 2:28 am
Operator : PEST17:keg
Sample : wg1303698-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303698,ical16100
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:47:17 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.620f	8.666	609.3E6	640.9E6	0.250	0.250M3
	System Monitoring Compounds						
3) s	DCAA (surrog	7.082f	7.602	83347917	103.4E6	0.211	0.201
	Spiked Amount	0.500	Range	30 - 150	Recovery =	42.20%	40.20%
	Target Compounds						
2) t	Dalapon	2.078	2.161	82976655	94040116	0.243	0.233
4) t	Dicamba	7.268f	7.784	258.7E6	296.0E6	0.215	0.205
5) t	MCPP	7.468f	7.894	33873638	35427243	21.286M3	17.492
6) t	MCPA	7.615f	8.120	56159247	59551801	19.292	19.075M3
7) t	Dichloroprop	7.970f	8.437	75121929	87290413	0.188	0.201
8) t	2,4-D	8.181f	8.710	94818609	119.1E6	0.211	0.209
9) t	2,4,5-TP (Si	8.893f	9.365	350.5E6	399.9E6	0.204	0.218
10) t	2,4,5-T	9.112f	9.653	369.7E6	406.5E6	0.204	0.221
11) t	2,4-DB	9.515f	10.013	64364335	66598120	0.217M3	0.204
12) t	Dinoseb	10.255f	10.236	222.3E6	216.9E6	0.332	0.333
	SemiQuant Compounds - Not Calibrated on this Instrument						

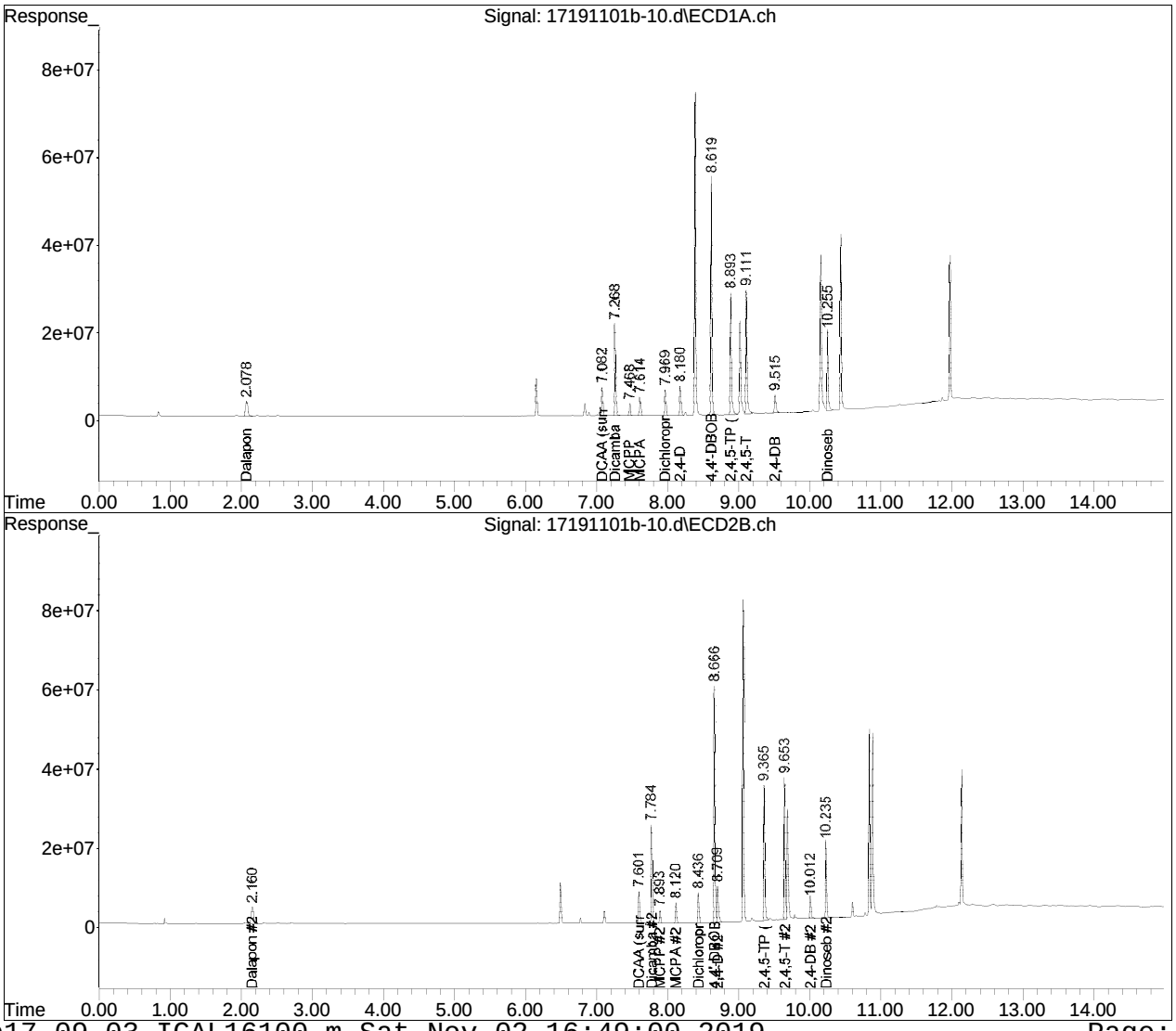
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-10.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 2:28 am
Operator : PEST17:keg
Sample : wg1303698-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303698,ical16100
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:47:17 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

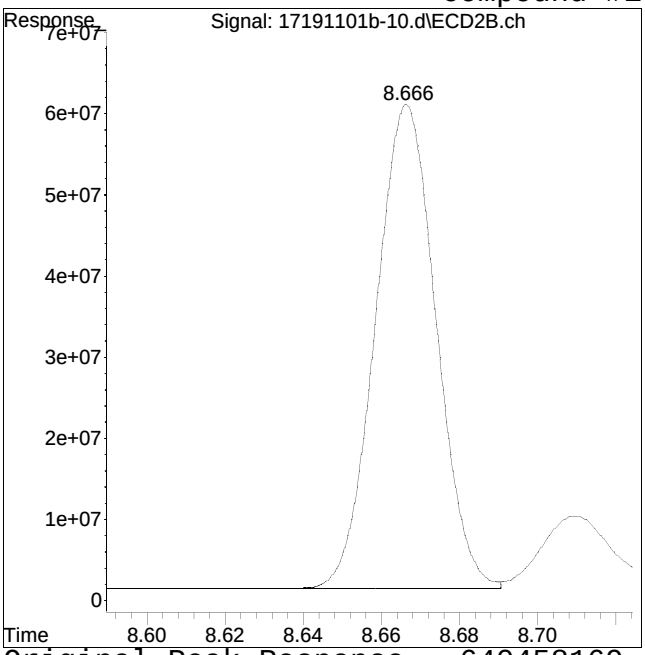
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

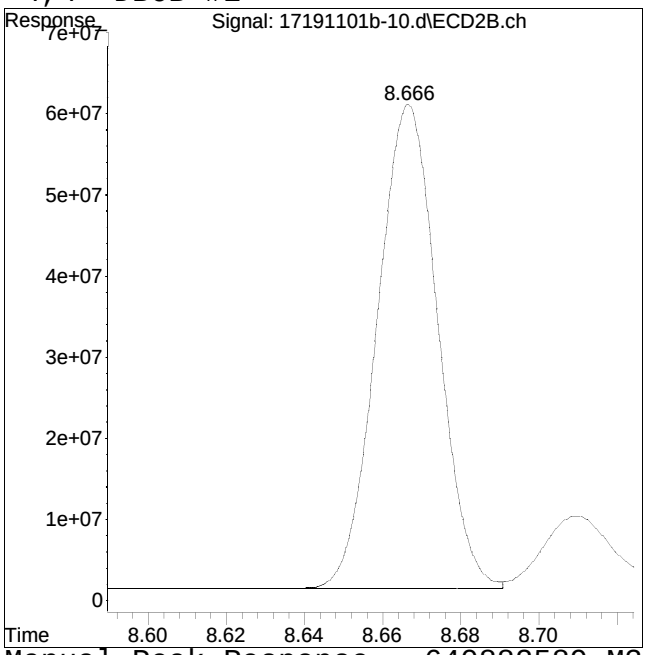


Manual Integration Report

Data Path : I:\Pest17\191101B\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191101b-10.d Operator : PEST17:keg
Date Inj'd : 11/2/2019 2:28 am Instrument : Pest 17
Sample : wg1303698-2,42e,,herb cc 9Quant Date : 11/2/2019 4:46 pm

Compound #14: 4,4'-DBOB #2



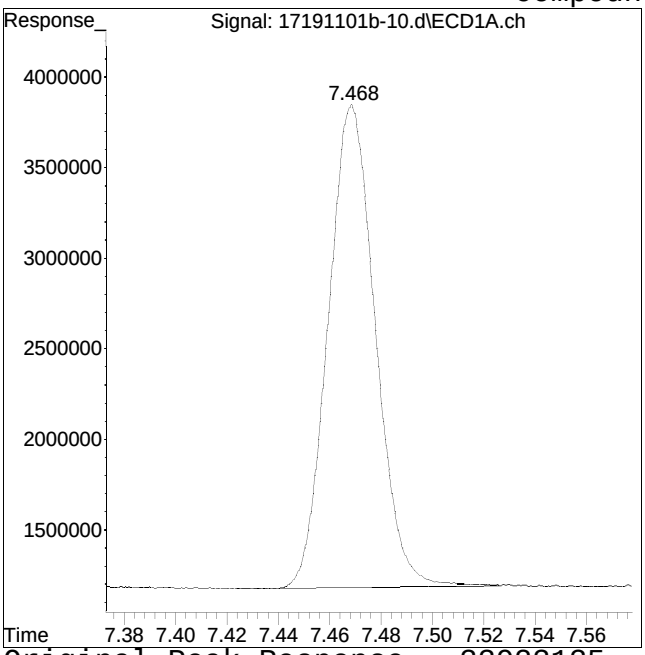


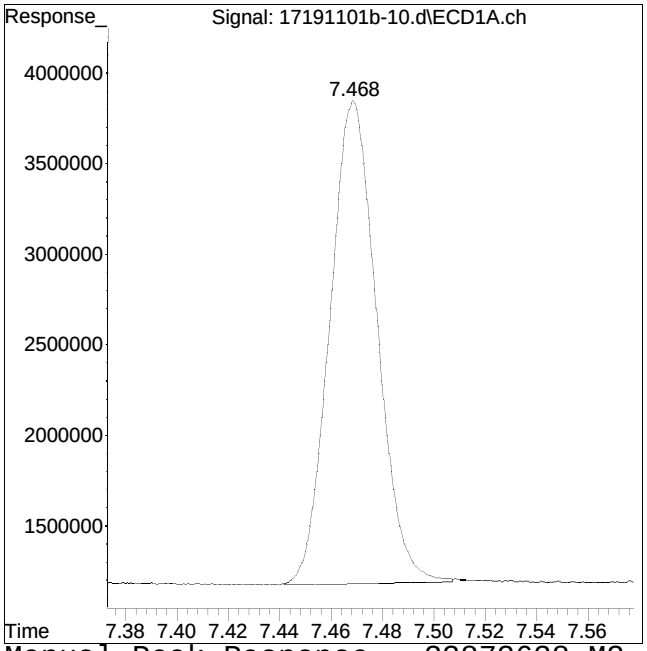
Original Peak Response = 640458169 Manual Peak Response = 640882589 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : I:\Pest17\191101B\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191101b-10.d Operator : PEST17:keg
Date Inj'd : 11/2/2019 2:28 am Instrument : Pest 17
Sample : wg1303698-2,42e,,herb cc 9Quant Date : 11/2/2019 4:46 pm

Compound #5: MCPP



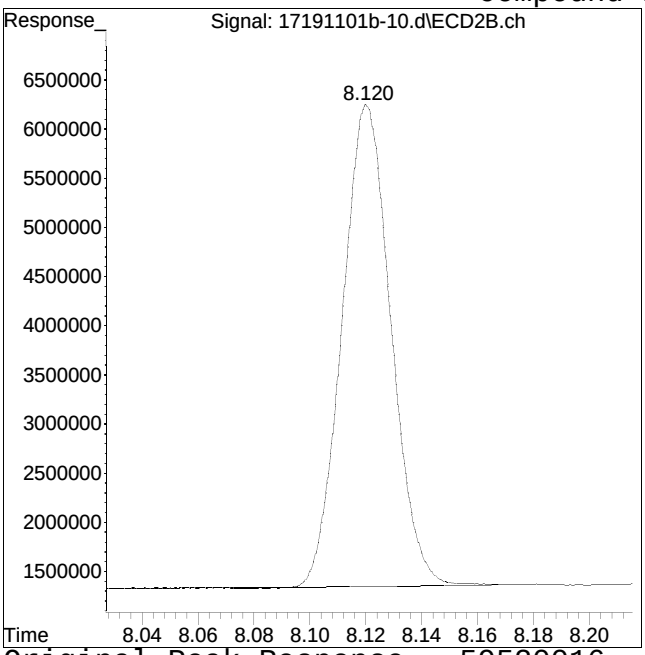


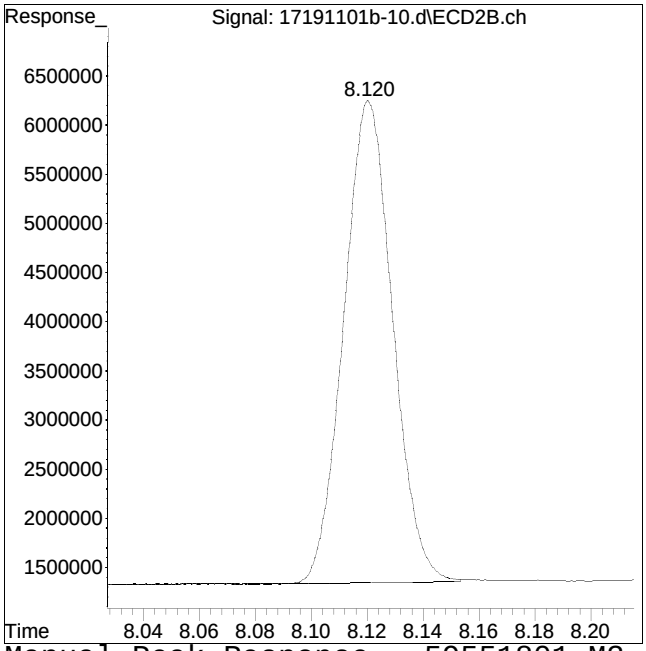
Original Peak Response = 33923135 Manual Peak Response = 33873638 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : I:\Pest17\191101B\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191101b-10.d Operator : PEST17:keg
Date Inj'd : 11/2/2019 2:28 am Instrument : Pest 17
Sample : wg1303698-2,42e,,herb cc 9Quant Date : 11/2/2019 4:46 pm

Compound #19: MCPA #2



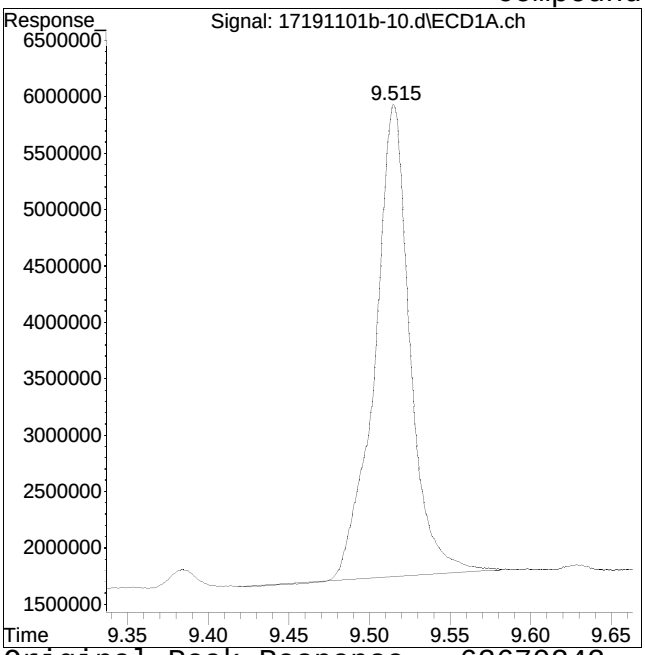


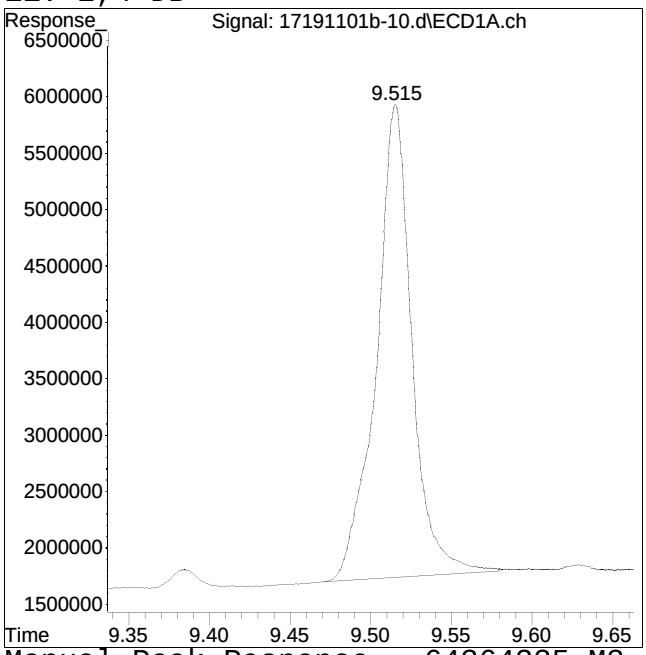
Original Peak Response = 59520016 Manual Peak Response = 59551801 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : I:\Pest17\191101B\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191101b-10.d Operator : PEST17:keg
Date Inj'd : 11/2/2019 2:28 am Instrument : Pest 17
Sample : wg1303698-2,42e,,herb cc 9Quant Date : 11/2/2019 4:46 pm

Compound #11: 2,4-DB





Original Peak Response = 63670242 Manual Peak Response = 64364335 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 4:35 am
Operator : PEST17:jmc
Sample : l1951399-01,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:51:37 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.667	623.3E6	634.1E6	0.250	0.250
Standard Area 1 : #1 = 609345957				Recovery =	102.29%	
Standard Area 1 : #2 = 640882589				Recovery =	98.95%	
System Monitoring Compounds						
3) s DCAA (surrog	7.081f	7.601	130.6E6	164.8E6	0.322	0.324
Spiked Amount	0.500	Range 30 - 150		Recovery =	64.40%	64.80%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

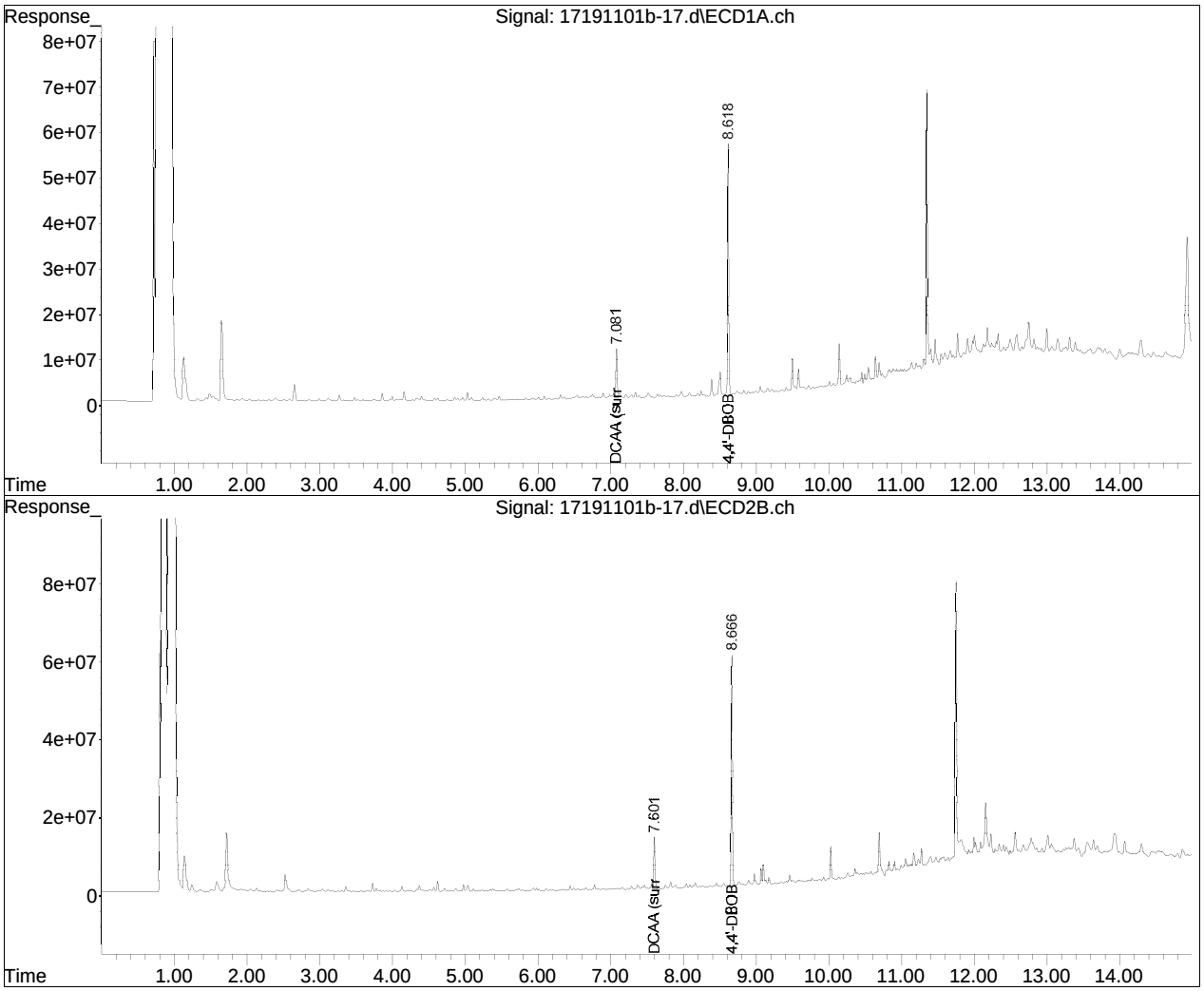
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 4:35 am
Operator : PEST17:jmc
Sample : l1951399-01,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:51:37 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-17.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 4:35 am	Instrument	: Pest 17
Sample	: l1951399-01,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 4:54 am
Operator : PEST17:jmc
Sample : l1951399-02,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:52:44 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.667	640.4E6	662.2E6	0.250	0.250
Standard Area 1 : #1 = 609345957				Recovery =	105.09%	
Standard Area 1 : #2 = 640882589				Recovery =	103.33%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.602	166.9E6	194.0E6	0.401	0.366
Spiked Amount	0.500	Range 30 - 150		Recovery =	80.20%	73.20%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

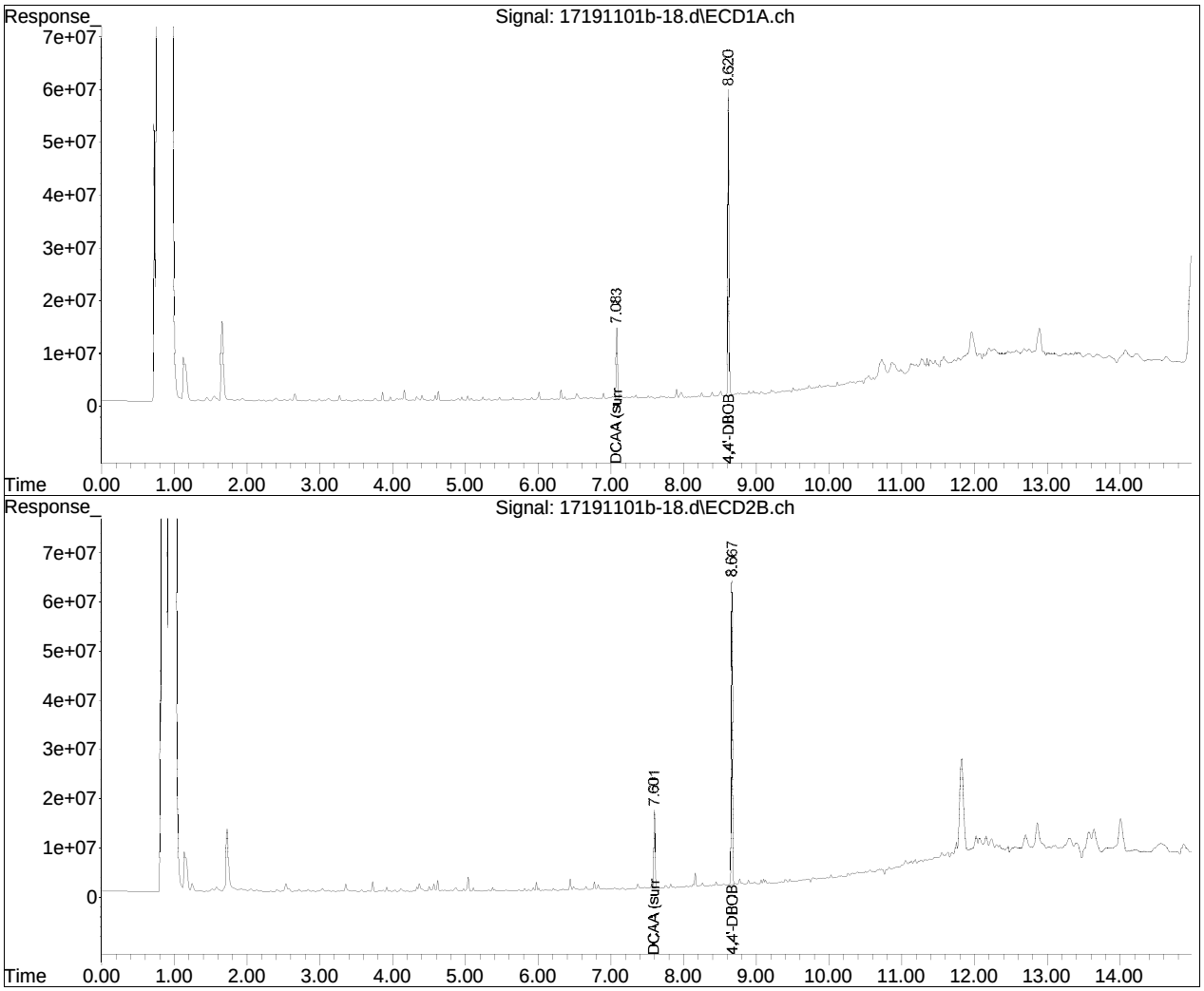
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 4:54 am
Operator : PEST17:jmc
Sample : l1951399-02,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:52:44 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-18.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 4:54 am	Instrument	: Pest 17
Sample	: l1951399-02,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:12 am
Operator : PEST17:jmc
Sample : l1951399-03,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:54:20 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.667	616.6E6	644.3E6	0.250	0.250
Standard Area 1 : #1 = 609345957				Recovery =	101.18%	
Standard Area 1 : #2 = 640882589				Recovery =	100.53%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.601	186.6E6	220.1E6	0.466	0.426
Spiked Amount	0.500	Range 30 - 150		Recovery =	93.20%	85.20%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

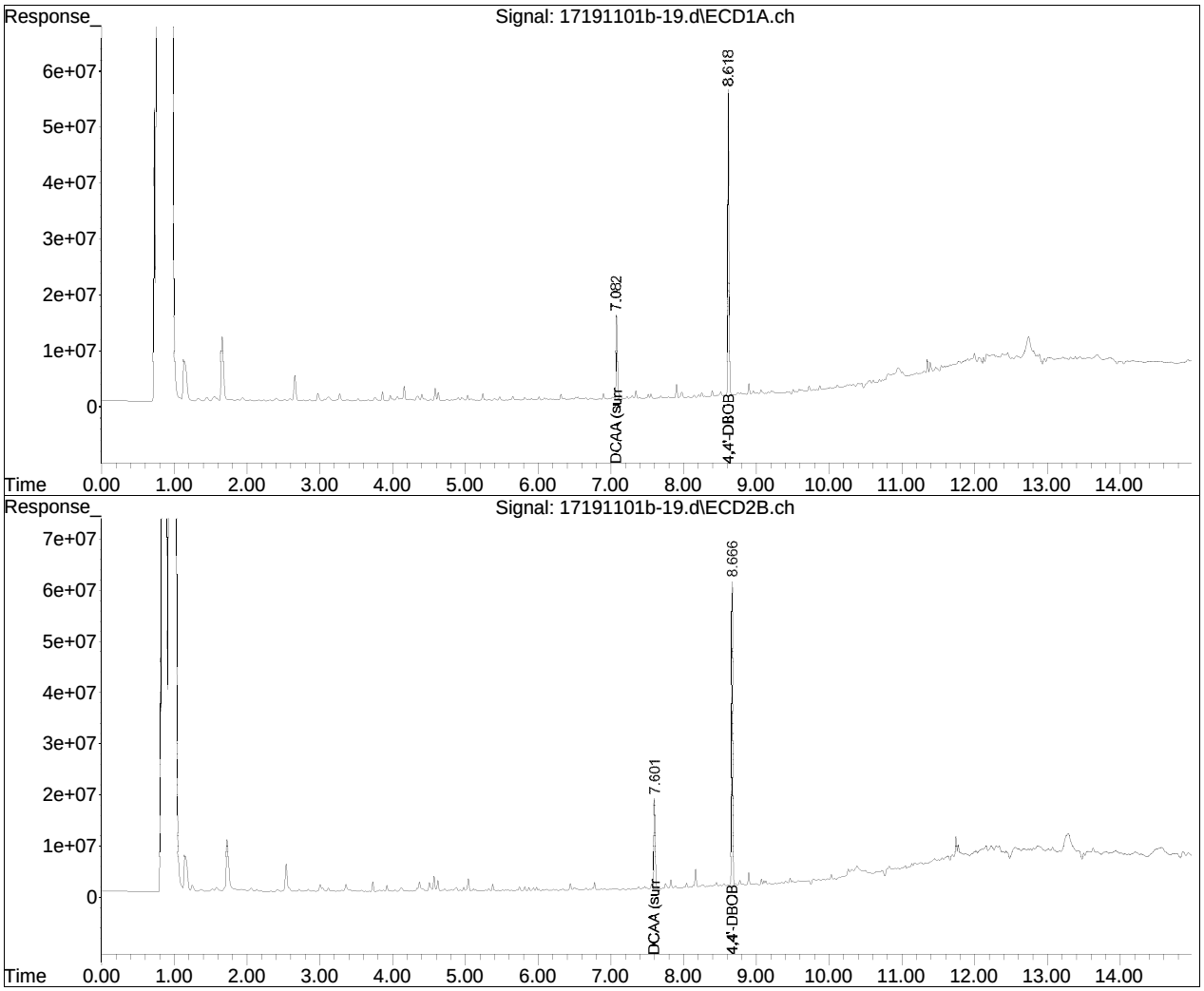
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:12 am
Operator : PEST17:jmc
Sample : l1951399-03,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:54:20 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-19.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 5:12 am	Instrument	: Pest 17
Sample	: l1951399-03,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:30 am
Operator : PEST17:jmc
Sample : l1951399-04,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:55:40 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	697.6E6	719.7E6	0.250	0.250M4
Standard Area 1 : #1 = 609345957				Recovery =	114.48%	
Standard Area 1 : #2 = 640882589				Recovery =	112.30%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.602	162.6E6	192.3E6	0.359	0.333
Spiked Amount	0.500	Range 30 - 150		Recovery =	71.80%	66.60%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

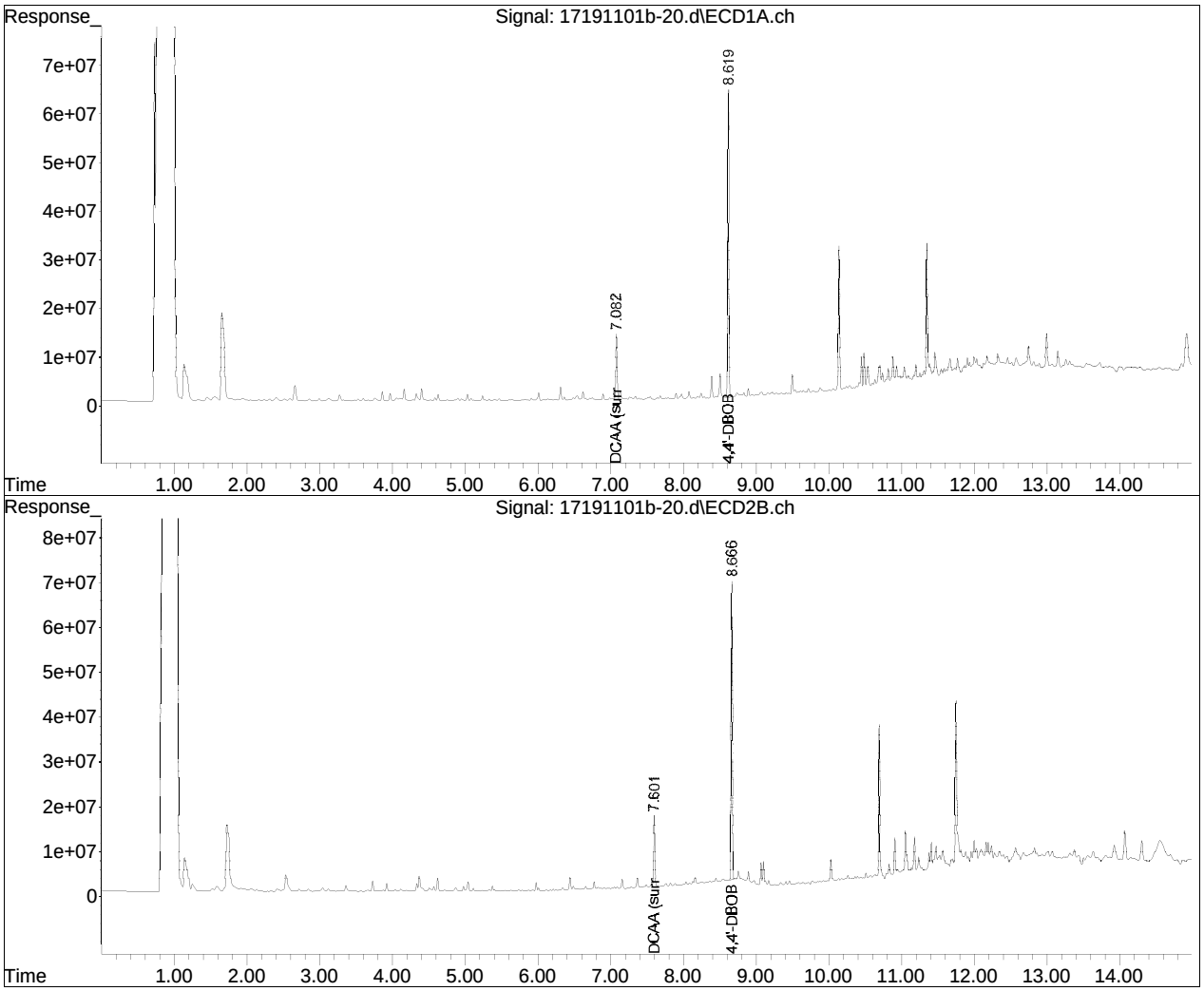
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:30 am
Operator : PEST17:jmc
Sample : l1951399-04,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 14:55:40 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

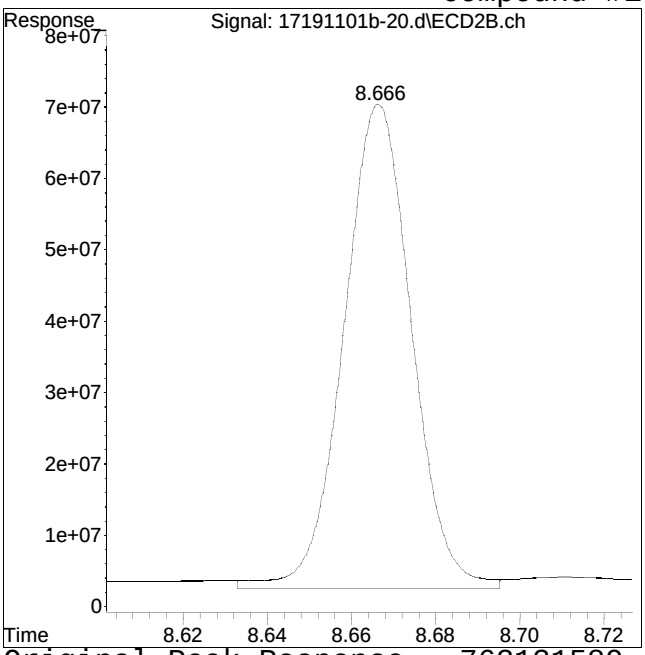


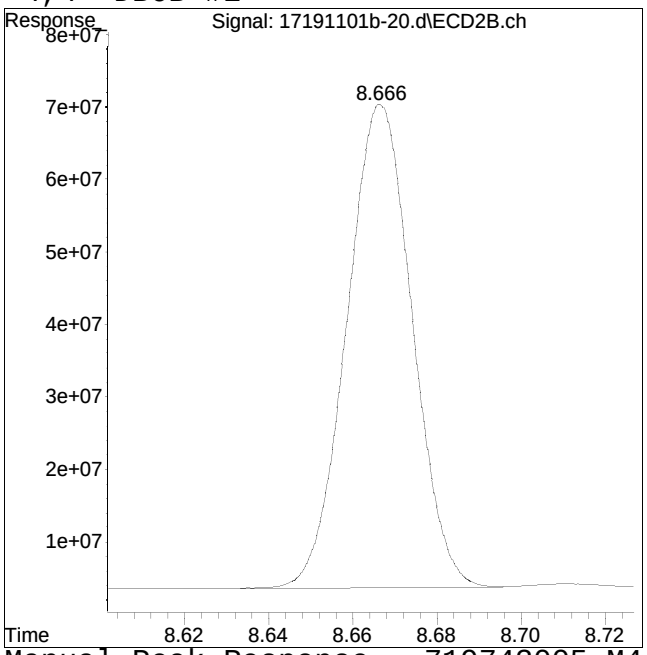
Manual Integration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-20.d
Date Inj'd : 11/2/2019 5:30 am
Sample : l1951399-04,42e,,

QMethod : Herb17_09_03_ICAL16100.m
Operator : PEST17:jmc
Instrument : Pest 17
Quant Date : 11/3/2019 11:31 pm

Compound #14: 4,4'-DBOB #2





Original Peak Response = 763131589 Manual Peak Response = 719743005 M4
M4 = Poor automated baseline construction.

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   5:48 am
Operator : PEST17:keg
Sample   : wg1303698-3,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303698,ical16100
ALS Vial : 21   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:50:06 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	90	-0.02
2	t	Dalapon	0.182	0.225	-23.6#	111	-0.01
3	s	DCAA (surrogate)	0.188	0.211	-12.2	95	-0.02
4	t	Dicamba	0.188	0.216	-14.9	106	-0.02
5	t	MCPP	18.800	21.320	-13.4	102	-0.02
6	t	MCPA	18.600	19.171	-3.1	100	-0.02
7	t	Dichloroprop	0.188	0.189	-0.5	101	-0.02
8	t	2,4-D	0.188	0.213	-13.3	104	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.203	-6.8	100	-0.02
10	t	2,4,5-T	0.190	0.202	-6.3	96	-0.02
11	t	2,4-DB	0.192	0.213	-10.9	102	-0.02
12	t	Dinoseb	0.190	0.356	-87.4#	198	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	95	0.00
2	t	Dalapon	0.182	0.236	-29.7#	132	0.00
3	s	DCAA (surrogate)	0.188	0.205	-9.0	101	0.00
4	t	Dicamba	0.188	0.207	-10.1	109	0.00
5	t	MCPP	18.800	17.544	6.7	92	0.00
6	t	MCPA	18.600	19.233	-3.4	96	0.00
7	t	Dichloroprop	0.188	0.201	-6.9	109	0.00
8	t	2,4-D	0.188	0.211	-12.2	112	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.218	-14.7	115	0.00
10	t	2,4,5-T	0.190	0.222	-16.8#	121	0.00
11	t	2,4-DB	0.192	0.197	-2.6	103	0.00
12	t	Dinoseb	0.190	0.350	-84.2#	190	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   5:48 am
Operator : PEST17:keg
Sample   : wg1303698-3,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303698,ical16100
ALS Vial : 21   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:50:06 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:48 am
Operator : PEST17:keg
Sample : wg1303698-3,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303698,ical16100
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:50:06 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.619f	8.666	604.0E6	626.4E6	0.250	0.250M3
	System Monitoring Compounds						
3) s	DCAA (surrog	7.082f	7.601	82784487	102.8E6	0.211	0.205
	Spiked Amount	0.500	Range 30 - 150		Recovery =	42.20%	41.00%
	Target Compounds						
2) t	Dalapon	2.072	2.157	76181485	92974763	0.225	0.236
4) t	Dicamba	7.267f	7.784	257.1E6	292.5E6	0.216	0.207
5) t	MCPP	7.468f	7.894	33626902	34729195	21.320	17.544
6) t	MCPA	7.614f	8.120	55441281	58686247	19.171	19.233
7) t	Dichloroprop	7.969f	8.436	74734916	85317452	0.189	0.201
8) t	2,4-D	8.180f	8.710	95005567	117.4E6	0.213	0.211
9) t	2,4,5-TP (Si	8.893f	9.365	346.6E6	389.9E6	0.203	0.218
10) t	2,4,5-T	9.111f	9.653	362.8E6	399.1E6	0.202	0.222
11) t	2,4-DB	9.515f	10.012	62833657	63043770	0.213	0.197
12) t	Dinoseb	10.255f	10.235	236.9E6	222.8E6	0.356	0.350
	SemiQuant Compounds - Not Calibrated on this Instrument						

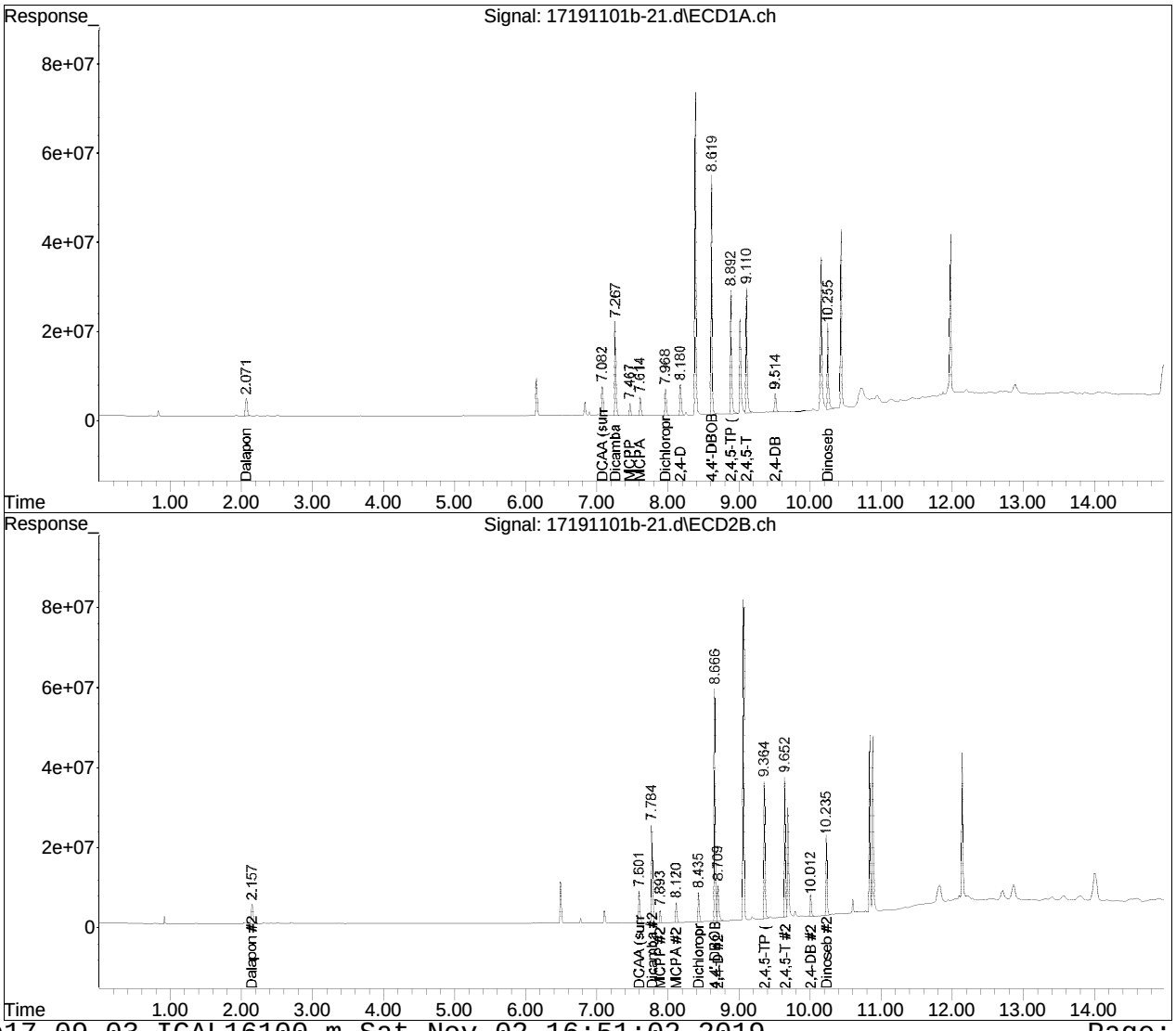
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:48 am
Operator : PEST17:keg
Sample : wg1303698-3,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303698,ical16100
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:50:06 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

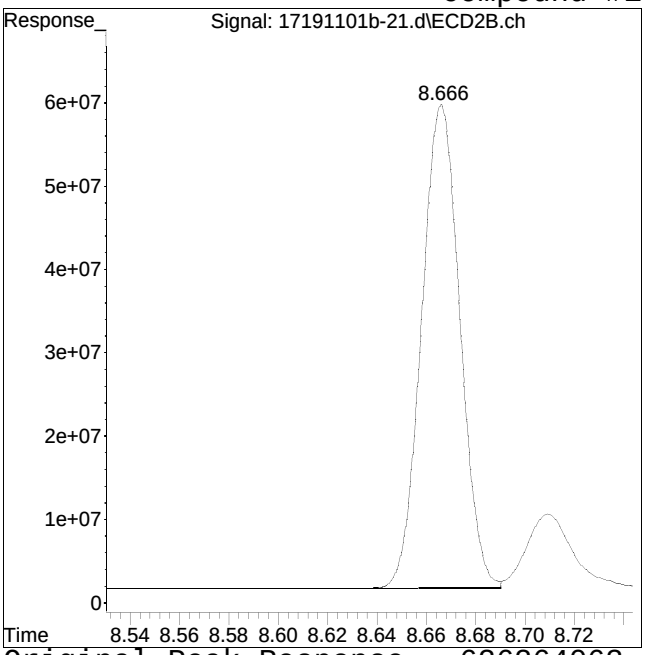
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

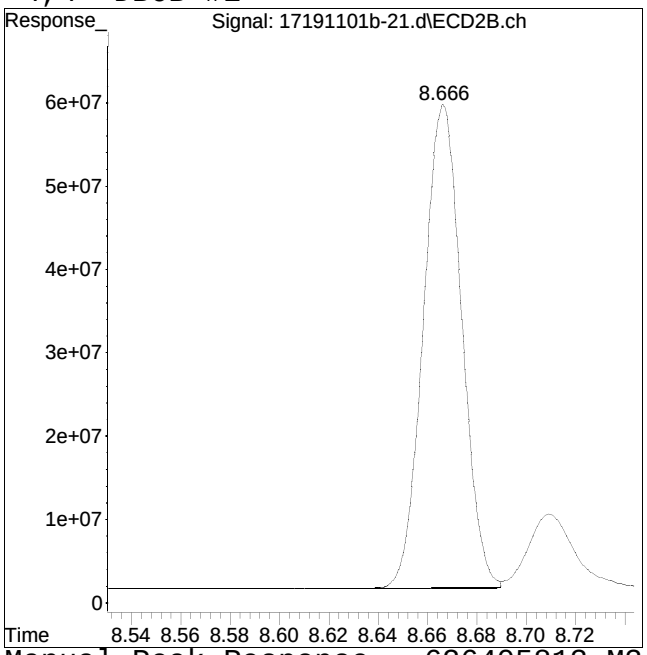


Manual Integration Report

Data Path : I:\Pest17\191101B\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191101b-21.d Operator : PEST17:keg
Date Inj'd : 11/2/2019 5:48 am Instrument : Pest 17
Sample : wg1303698-3,42e,,herb cc 9Quant Date : 11/2/2019 4:49 pm

Compound #14: 4,4'-DBOB #2





Original Peak Response = 626264063 Manual Peak Response = 626405813 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   9:09 am
Operator : PEST17:keg
Sample   : wg1303698-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303698,ical16100
ALS Vial : 32   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:52:14 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	85	-0.02
2	t	Dalapon	0.182	0.246	-35.2#	115	-0.01
3	s	DCAA (surrogate)	0.188	0.213	-13.3	91	-0.02
4	t	Dicamba	0.188	0.216	-14.9	100	-0.02
5	t	MCPP	18.800	21.378	-13.7	96	-0.02
6	t	MCPA	18.600	19.974	-7.4	97	-0.02
7	t	Dichloroprop	0.188	0.189	-0.5	96	-0.02
8	t	2,4-D	0.188	0.214	-13.8	98	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.204	-7.4	94	-0.02
10	t	2,4,5-T	0.190	0.205	-7.9	92	-0.02
11	t	2,4-DB	0.192	0.225	-17.2#	102	-0.02
12	t	Dinoseb	0.190	0.344	-81.1#	181	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	90	0.00
2	t	Dalapon	0.182	0.242	-33.0#	127	0.00
3	s	DCAA (surrogate)	0.188	0.206	-9.6	96	0.00
4	t	Dicamba	0.188	0.208	-10.6	104	0.00
5	t	MCPP	18.800	17.754	5.6	87	0.00
6	t	MCPA	18.600	19.607	-5.4	92	0.00
7	t	Dichloroprop	0.188	0.205	-9.0	104	0.00
8	t	2,4-D	0.188	0.214	-13.8	108	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.222	-16.8#	111	0.00
10	t	2,4,5-T	0.190	0.228	-20.0#	117	0.00
11	t	2,4-DB	0.192	0.203	-5.7	100	0.00
12	t	Dinoseb	0.190	0.355	-86.8#	182	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   9:09 am
Operator : PEST17:keg
Sample   : wg1303698-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303698,ical16100
ALS Vial : 32   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:52:14 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 9:09 am
Operator : PEST17:keg
Sample : wg1303698-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303698,ical16100
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:52:14 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.620f	8.666	570.8E6	590.8E6	0.250	0.250M3
	System Monitoring Compounds						
3) s	DCAA (surrog	7.083f	7.602	78940367	97518002	0.213	0.206
	Spiked Amount	0.500	Range 30 - 150		Recovery =	42.60%	41.20%
	Target Compounds						
2) t	Dalapon	2.073	2.157	78965791	90131847	0.246	0.242
4) t	Dicamba	7.268f	7.785	243.9E6	278.0E6	0.216	0.208
5) t	MCPP	7.469f	7.894	31867504	33149372	21.378	17.754
6) t	MCPA	7.615f	8.120	53777687	56429501	19.974	19.607
7) t	Dichloroprop	7.970f	8.436	70767370	81779796	0.189	0.205
8) t	2,4-D	8.181f	8.710	90246933	112.5E6	0.214	0.214
9) t	2,4,5-TP (Si	8.894f	9.365	328.8E6	374.9E6	0.204	0.222
10) t	2,4,5-T	9.112f	9.653	347.7E6	386.6E6	0.205	0.228
11) t	2,4-DB	9.516f	10.013	62748958	61147888	0.225	0.203
12) t	Dinoseb	10.256f	10.235	216.4E6	213.0E6	0.344	0.355
	SemiQuant Compounds - Not Calibrated on this Instrument						

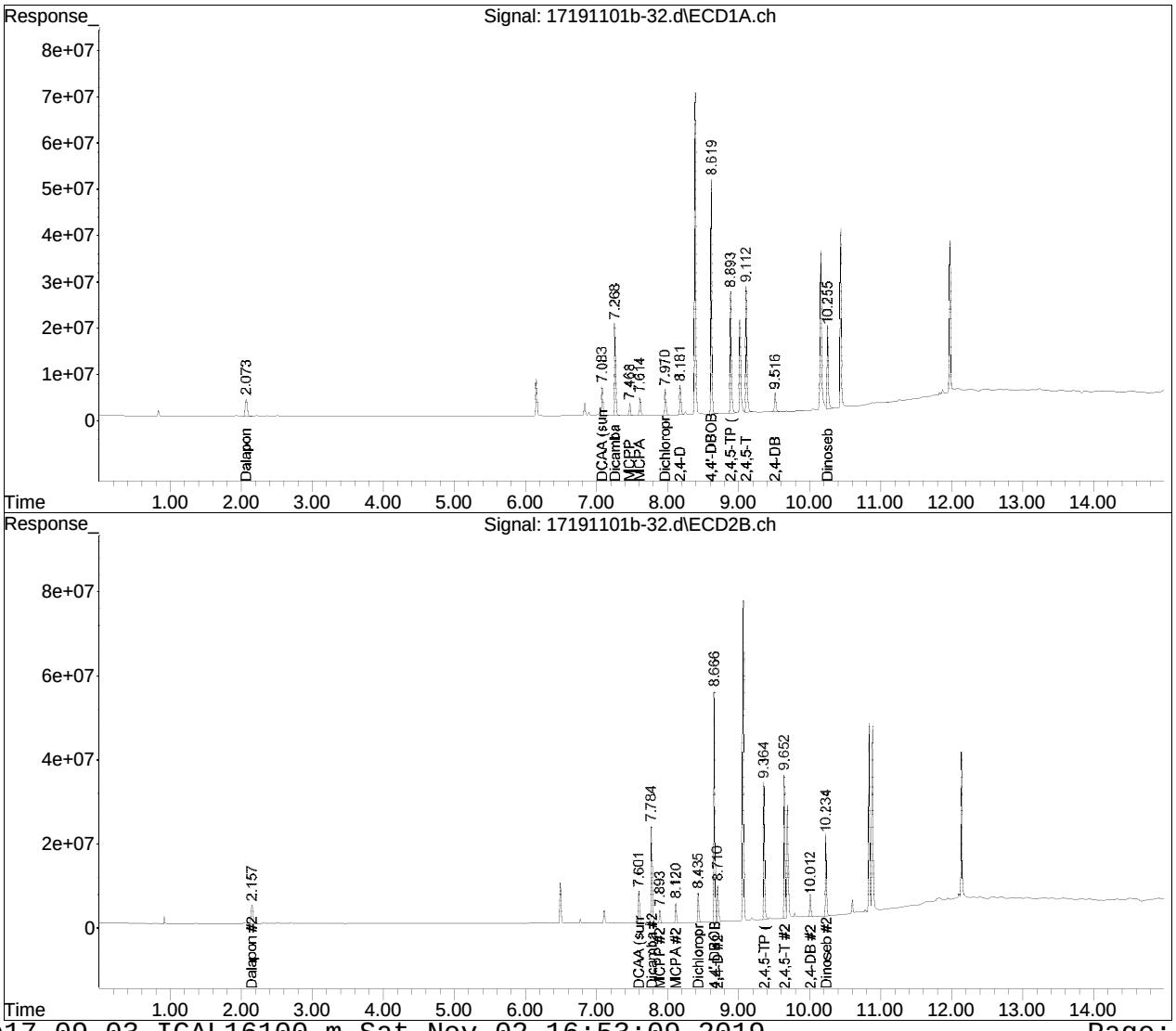
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-32.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 9:09 am
Operator : PEST17:keg
Sample : wg1303698-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303698,ical16100
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 02 16:52:14 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

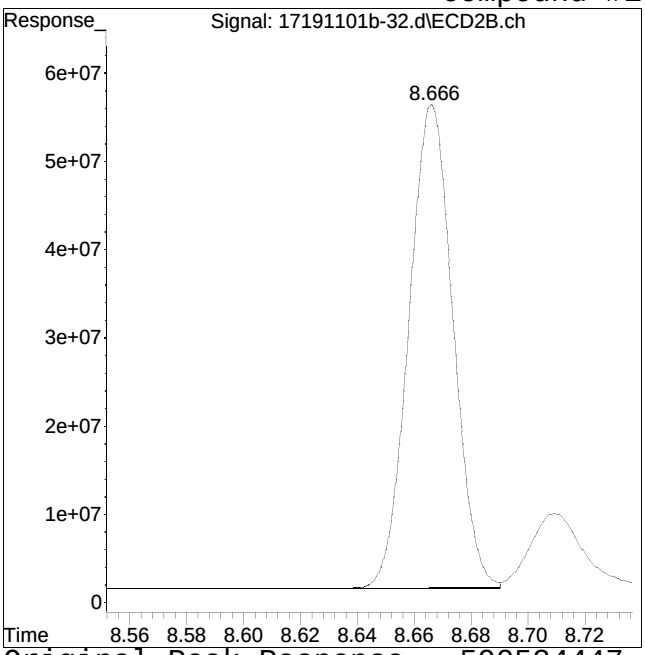
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

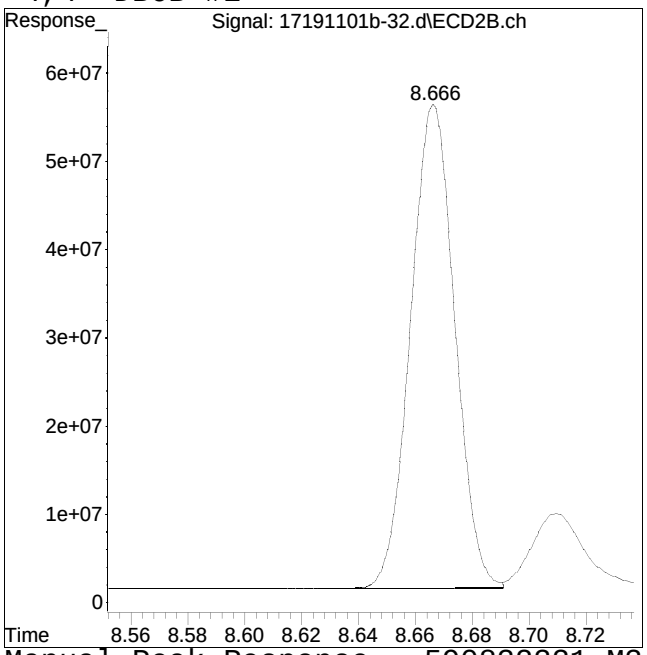


Manual Integration Report

Data Path : I:\Pest17\191101B\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191101b-32.d Operator : PEST17:keg
Date Inj'd : 11/2/2019 9:09 am Instrument : Pest 17
Sample : wg1303698-4,42e,,herb cc 9Quant Date : 11/2/2019 4:51 pm

Compound #14: 4,4'-DBOB #2





Original Peak Response = 590524447 Manual Peak Response = 590832321 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 6:06 am
Operator : PEST17:jmc
Sample : l1951399-05,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:01:54 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-21.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	684.3E6	710.2E6	0.250M2	0.250
Standard Area 1 : #1 = 603954252				Recovery =	113.30%	
Standard Area 1 : #2 = 626405813				Recovery =	113.38%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.602	135.1E6	190.4E6	0.304M2	0.335
Spiked Amount	0.500	Range 30 - 150		Recovery =	60.80%	67.00%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D.
SemiQuant Compounds - Not Calibrated on this Instrument						

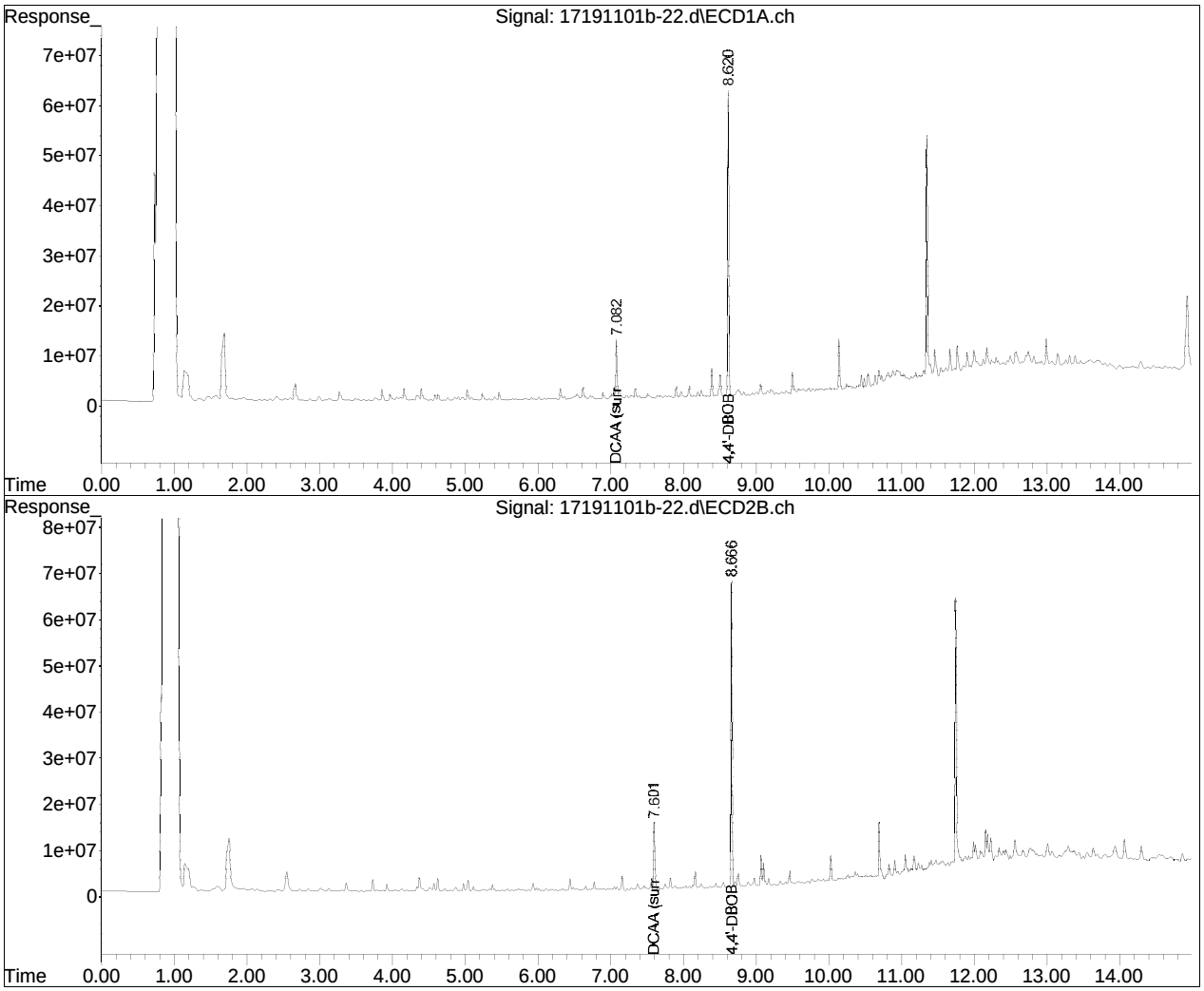
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-21.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 6:06 am
Operator : PEST17:jmc
Sample : l1951399-05,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:01:54 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

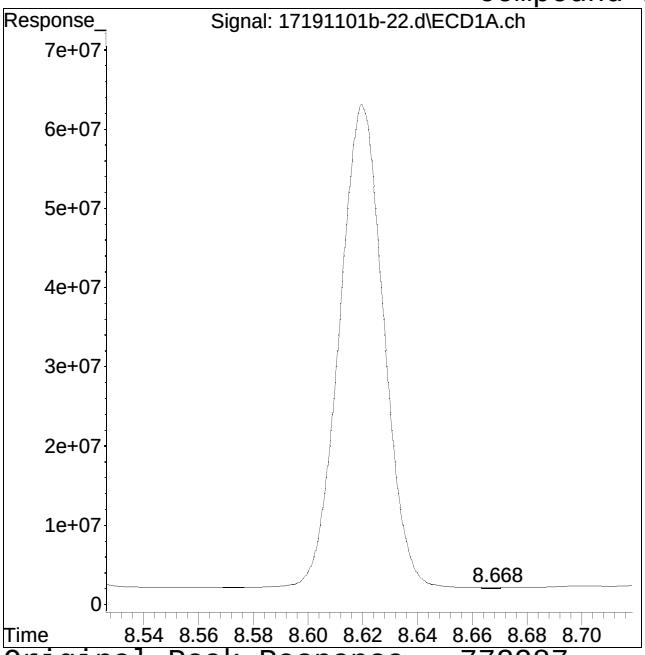


Manual Integration Report

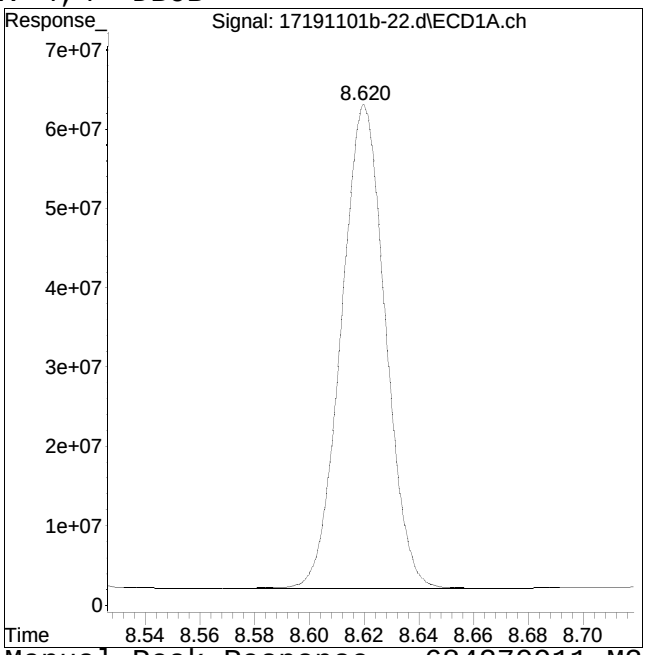
Data Path : I:\Pest17\191101B\
Data File : 17191101b-22.d
Date Inj'd : 11/2/2019 6:06 am
Sample : l1951399-05,42e,,

QMethod : Herb17_09_03_ICAL16100.m
Operator : PEST17:jmc
Instrument : Pest 17
Quant Date : 11/3/2019 11:31 pm

Compound #1: 4,4'-DBOB



Original Peak Response = 772287



Manual Peak Response = 684270911 M2

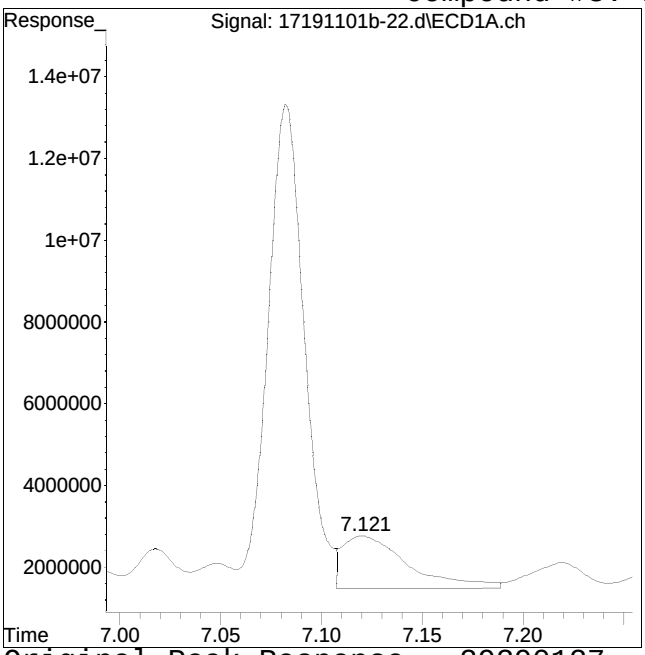
M2 = Peak not found by automatic integration algorithm.

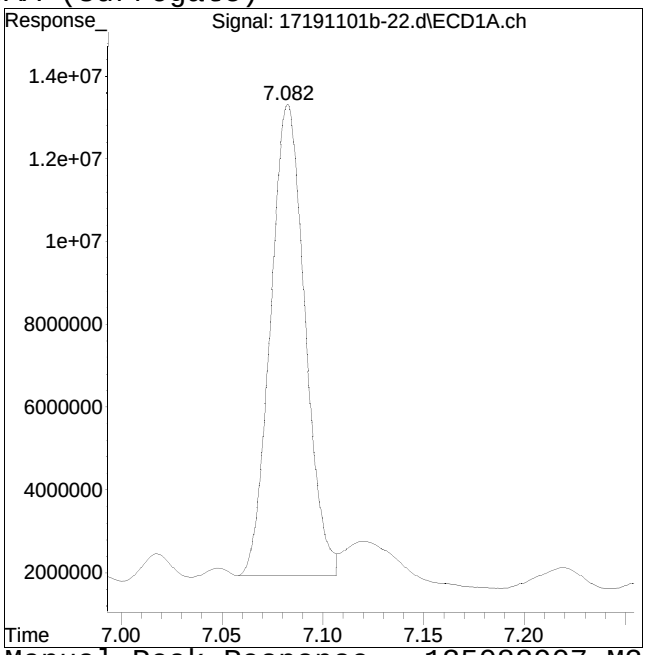
Manual Integration Report

Data Path : I:\Pest17\191101B\
Data File : 17191101b-22.d
Date Inj'd : 11/2/2019 6:06 am
Sample : l1951399-05,42e,,

QMethod : Herb17_09_03_ICAL16100.m
Operator : PEST17:jmc
Instrument : Pest 17
Quant Date : 11/3/2019 11:31 pm

Compound #3: DCAA (surrogate)





Original Peak Response = 29390127 Manual Peak Response = 135082907 M2
M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 6:25 am
Operator : PEST17:jmc
Sample : l1951399-06,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:03:15 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-21.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	636.1E6	666.2E6	0.250	0.250
Standard Area 1 : #1 = 603954252				Recovery =	105.33%	
Standard Area 1 : #2 = 626405813				Recovery =	106.35%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.601	186.7E6	376.0E6	0.452	0.704
Spiked Amount	0.500	Range 30 - 150		Recovery =	90.40%	140.80%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

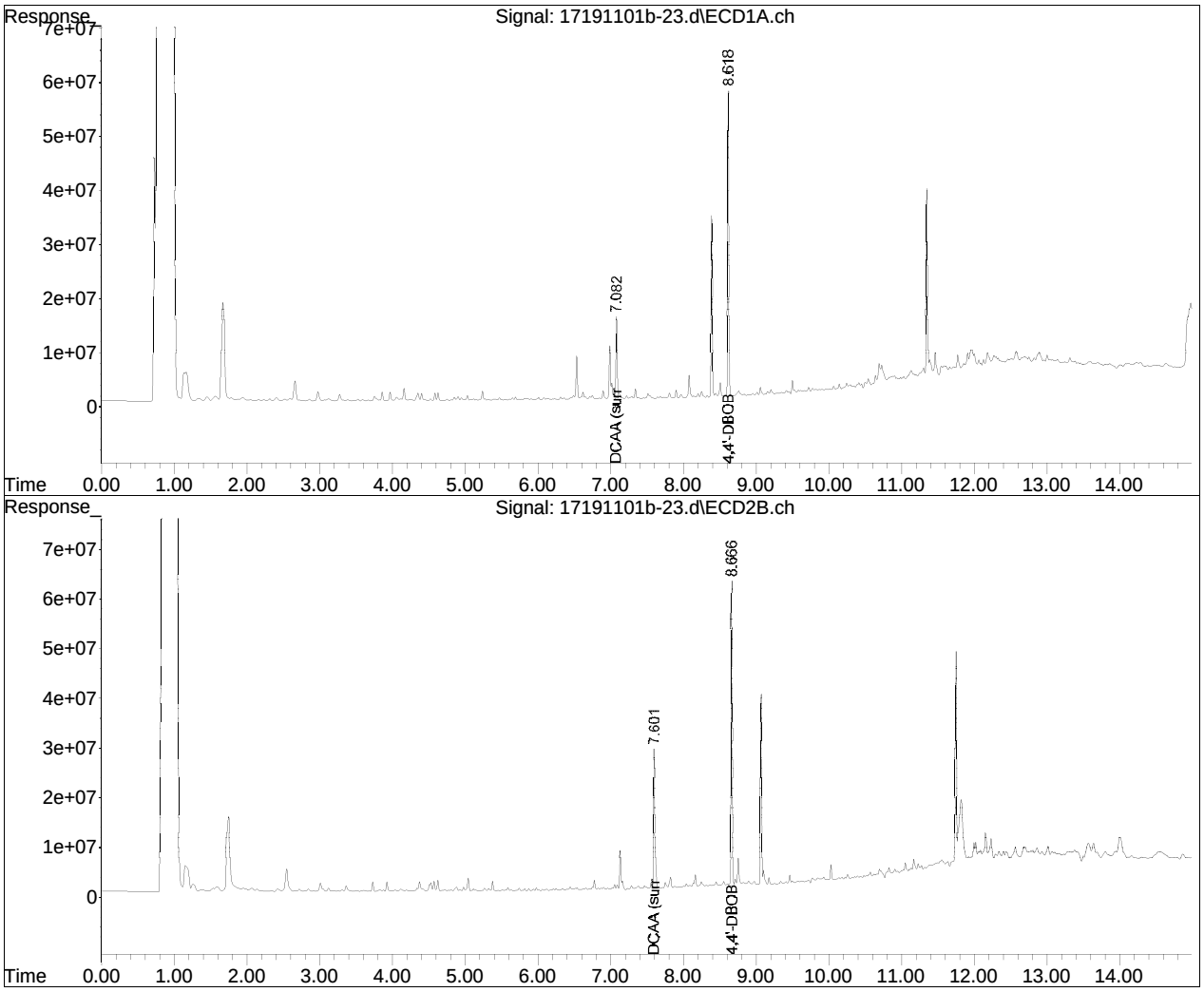
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-21.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 6:25 am
Operator : PEST17:jmc
Sample : l1951399-06,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:03:15 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-23.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 6:25 am	Instrument	: Pest 17
Sample	: l1951399-06,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 6:43 am
Operator : PEST17:jmc
Sample : l1951399-07,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:04:33 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-21.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	739.1E6	750.3E6	0.250	0.250
Standard Area 1 : #1 = 603954252				Recovery =	122.38%	
Standard Area 1 : #2 = 626405813				Recovery =	119.77%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.602	174.9E6	224.1E6	0.364	0.373
Spiked Amount	0.500	Range 30 - 150		Recovery =	72.80%	74.60%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

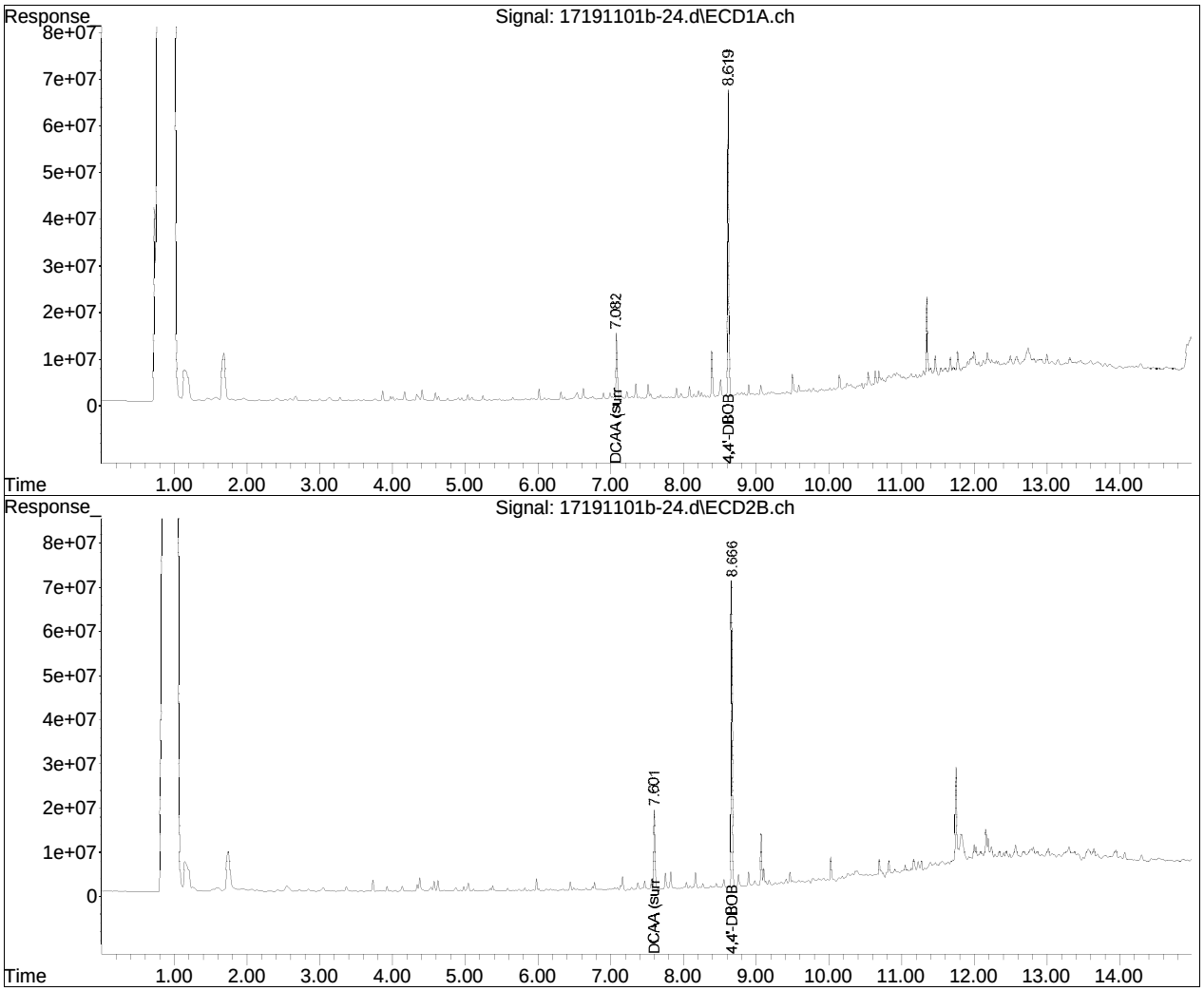
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-21.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 6:43 am
Operator : PEST17:jmc
Sample : l1951399-07,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:04:33 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-24.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 6:43 am	Instrument	: Pest 17
Sample	: l1951399-07,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 7:01 am
Operator : PEST17:jmc
Sample : l1951399-08,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:06:03 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-21.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.667	725.1E6	738.3E6	0.250	0.250
Standard Area 1 : #1 = 603954252				Recovery =	120.06%	
Standard Area 1 : #2 = 626405813				Recovery =	117.86%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.602	196.4E6	223.0E6	0.417	0.377
Spiked Amount	0.500	Range 30 - 150		Recovery =	83.40%	75.40%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

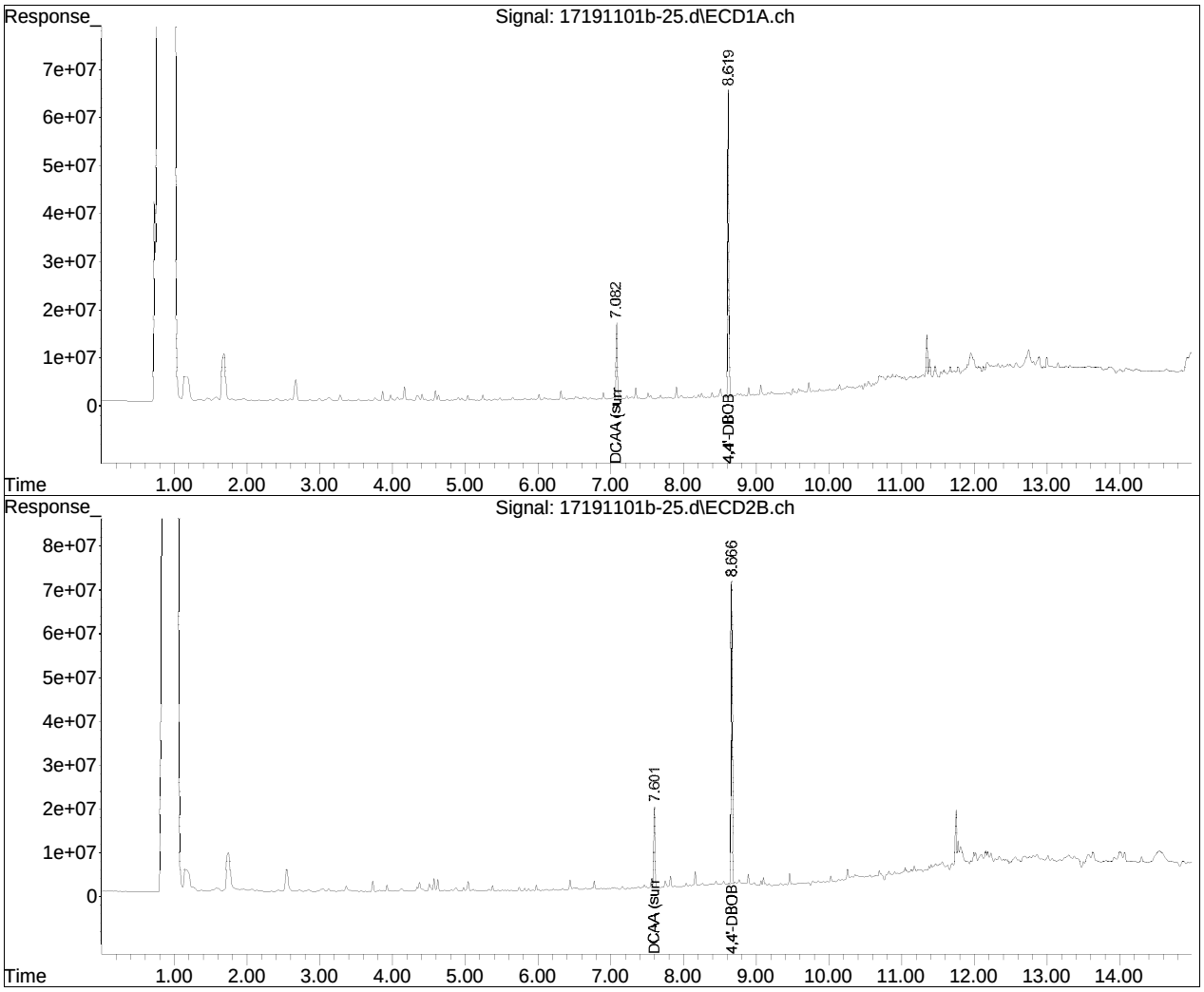
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-21.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 7:01 am
Operator : PEST17:jmc
Sample : l1951399-08,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:06:03 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-25.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 7:01 am	Instrument	: Pest 17
Sample	: l1951399-08,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 7:19 am
Operator : PEST17:jmc
Sample : l1951399-09,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:07:23 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-21.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.667	652.7E6	673.8E6	0.250	0.250
Standard Area 1 : #1 = 603954252				Recovery =	108.07%	
Standard Area 1 : #2 = 626405813				Recovery =	107.57%	
System Monitoring Compounds						
3) s DCAA (surrog	7.084f	7.602	184.2E6	219.7E6	0.434	0.407
Spiked Amount	0.500	Range 30 - 150		Recovery =	86.80%	81.40%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

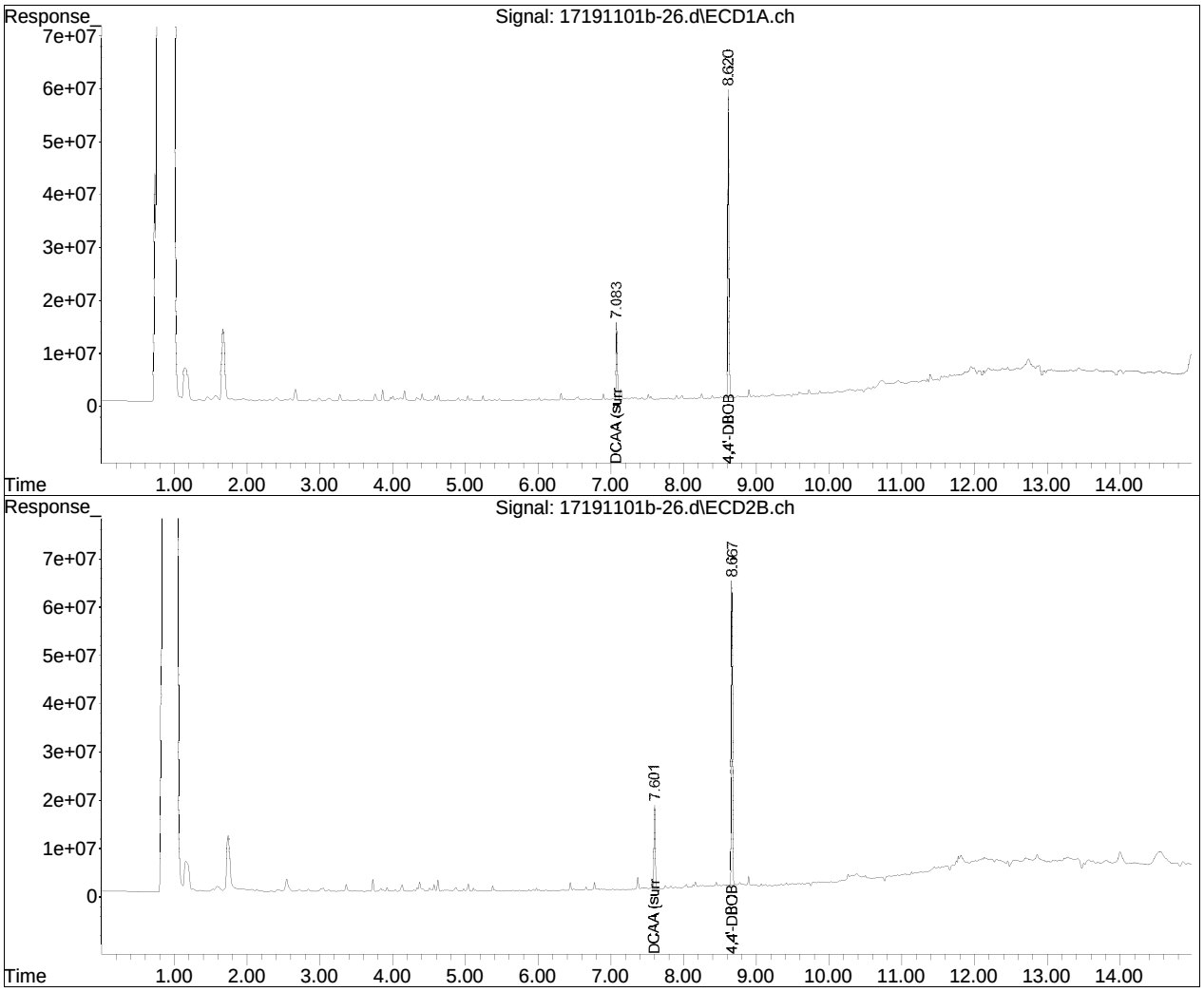
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-21.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 7:19 am
Operator : PEST17:jmc
Sample : l1951399-09,42e,,
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:07:23 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-26.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 7:19 am	Instrument	: Pest 17
Sample	: l1951399-09,42e,,	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-01.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   3:23 pm
Operator : PEST17:jmc
Sample   : wg1303892-1,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 1   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:54:28 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	92	-0.02
2	t	Dalapon	0.182	0.236	-29.7#	120	0.00
3	s	DCAA (surrogate)	0.188	0.210	-11.7	98	-0.02
4	t	Dicamba	0.188	0.214	-13.8	108	-0.02
5	t	MCPP	18.800	21.941	-16.7#	108	-0.02
6	t	MCPA	18.600	19.757	-6.2	105	-0.02
7	t	Dichloroprop	0.188	0.190	-1.1	105	-0.02
8	t	2,4-D	0.188	0.210	-11.7	105	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.205	-7.9	103	-0.02
10	t	2,4,5-T	0.190	0.206	-8.4	100	-0.02
11	t	2,4-DB	0.192	0.224	-16.7#	110	-0.01
12	t	Dinoseb	0.190	0.290	-52.6#	164	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	101	0.00
2	t	Dalapon	0.182	0.229	-25.8#	136	0.00
3	s	DCAA (surrogate)	0.188	0.203	-8.0	107	0.00
4	t	Dicamba	0.188	0.204	-8.5	114	0.00
5	t	MCPP	18.800	17.842	5.1	99	0.00
6	t	MCPA	18.600	19.381	-4.2	103	0.00
7	t	Dichloroprop	0.188	0.205	-9.0	118	0.00
8	t	2,4-D	0.188	0.216	-14.9	122	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.223	-17.4#	125	0.00
10	t	2,4,5-T	0.190	0.225	-18.4#	131	0.00
11	t	2,4-DB	0.192	0.223	-16.1#	124	0.00
12	t	Dinoseb	0.190	0.311	-63.7#	179	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-01.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   3:23 pm
Operator : PEST17:jmc
Sample   : wg1303892-1,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 1   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:54:28 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-01.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 3:23 pm
Operator : PEST17:jmc
Sample : wg1303892-1,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:54:28 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.621f	8.667	620.0E6	665.2E6	0.250M3	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.085f	7.602	84721303	108.4E6	0.210	0.203
	Spiked Amount	0.500	Range 30 - 150		Recovery =	42.00%	40.60%
	Target Compounds						
2) t	Dalapon	2.079	2.159	82323301	95929962	0.236	0.229M3
4) t	Dicamba	7.270f	7.785	261.7E6	306.6E6	0.214	0.204
5) t	MCPP	7.471f	7.894	35527081	37509948	21.941	17.842
6) t	MCPA	7.617f	8.121	58008560	62804139	19.757	19.381M3
7) t	Dichloroprop	7.972f	8.436	77160110	92180156	0.190	0.205M3
8) t	2,4-D	8.183f	8.711	96288580	127.5E6	0.210	0.216
9) t	2,4,5-TP (Si	8.896f	9.366	357.9E6	424.2E6	0.205	0.223
10) t	2,4,5-T	9.114f	9.654	379.5E6	430.1E6	0.206	0.225
11) t	2,4-DB	9.519	10.014	67790718	75862093	0.224	0.223
12) t	Dinoseb	10.257f	10.236	195.9E6	210.0E6	0.290M4	0.311
	SemiQuant Compounds - Not Calibrated on this Instrument						

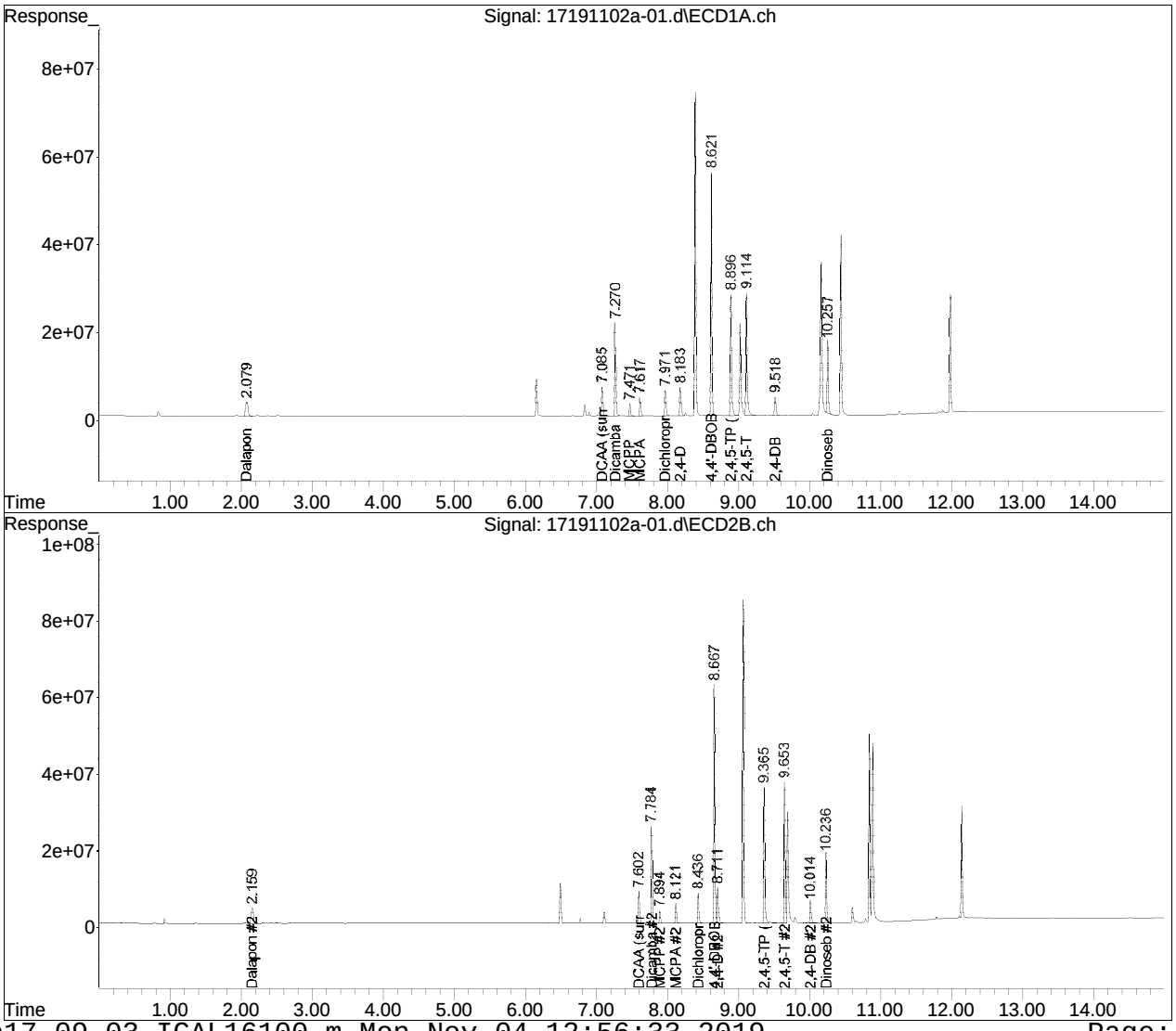
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-01.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 3:23 pm
Operator : PEST17:jmc
Sample : wg1303892-1,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:54:28 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

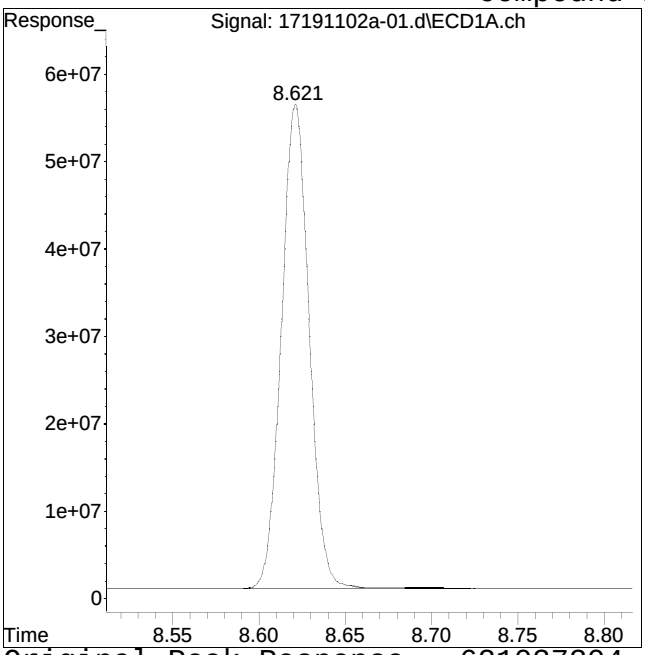
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

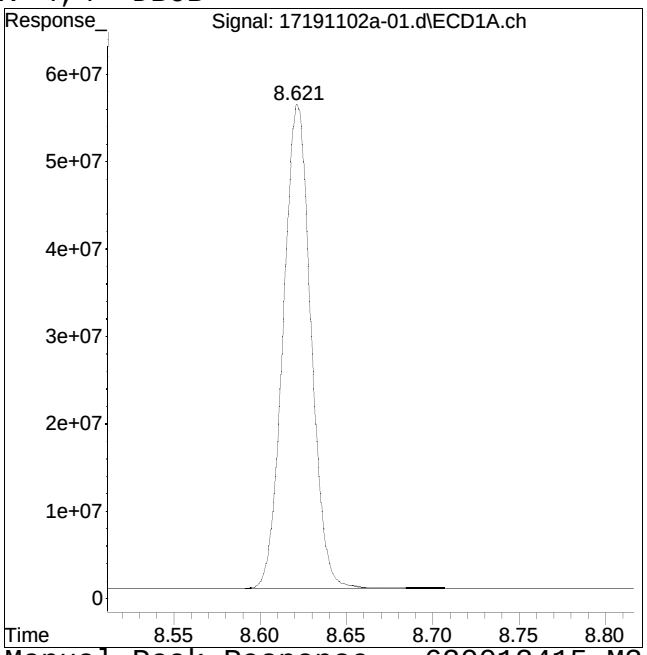


Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-01.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 3:23 pm Instrument : Pest 17
Sample : wg1303892-1,42e,,herb cc 9Quant Date : 11/2/2019 4:55 pm

Compound #1: 4,4'-DBOB



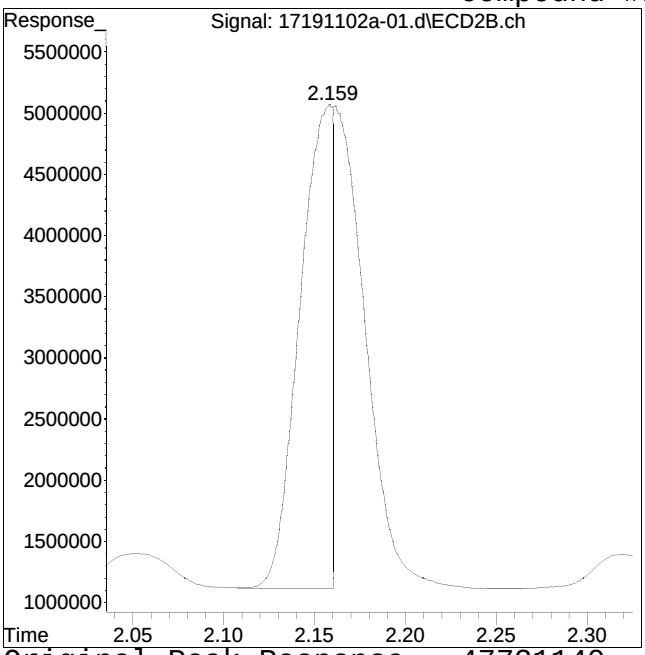


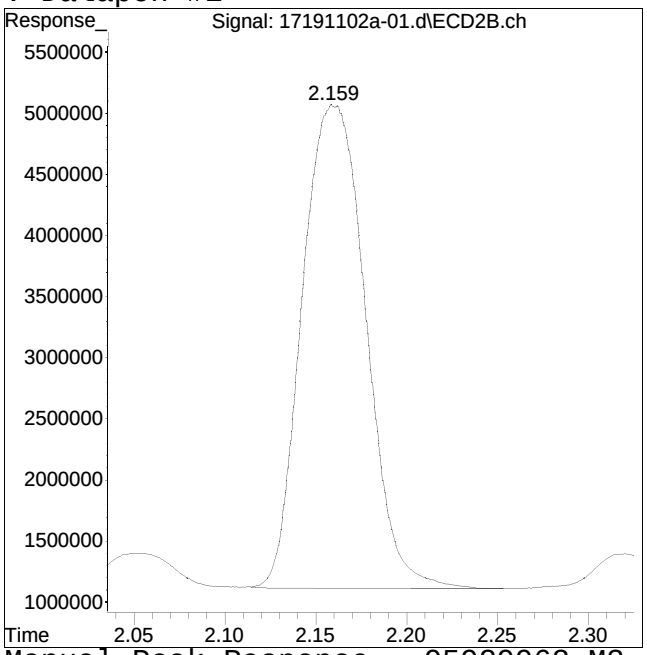
Original Peak Response = 621037304 Manual Peak Response = 620012415 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-01.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 3:23 pm Instrument : Pest 17
Sample : wg1303892-1,42e,,herb cc 9Quant Date : 11/2/2019 4:55 pm

Compound #15: Dalapon #2



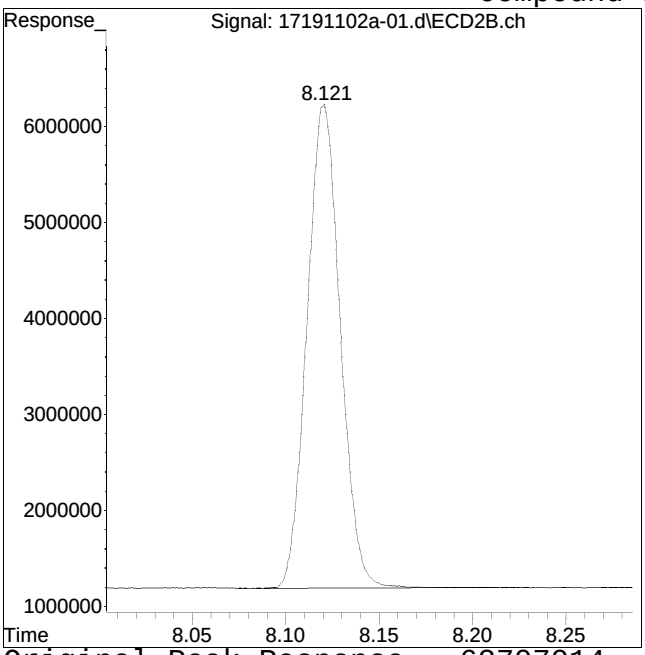


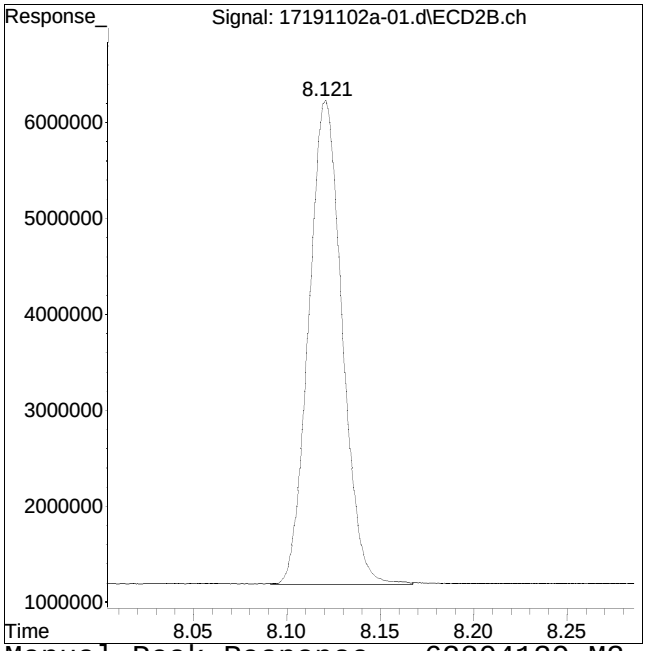
Original Peak Response = 47721140 Manual Peak Response = 95929962 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-01.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 3:23 pm Instrument : Pest 17
Sample : wg1303892-1,42e,,herb cc 9Quant Date : 11/2/2019 4:55 pm

Compound #19: MCPA #2



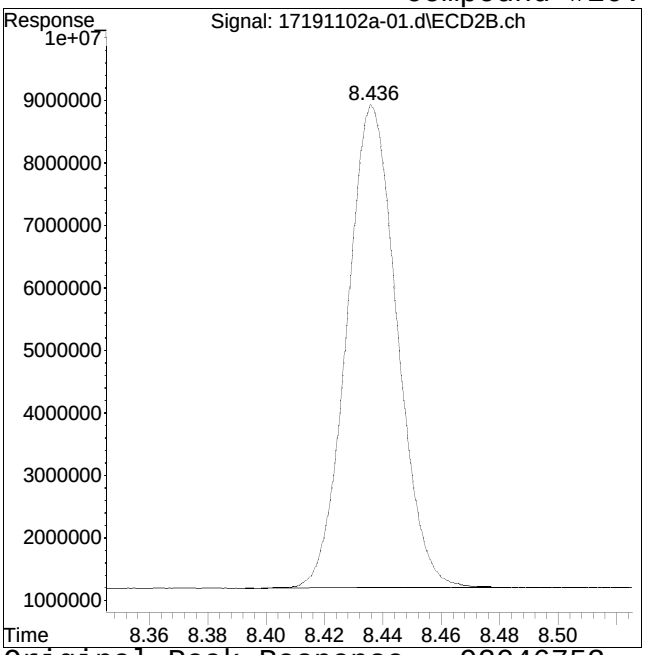


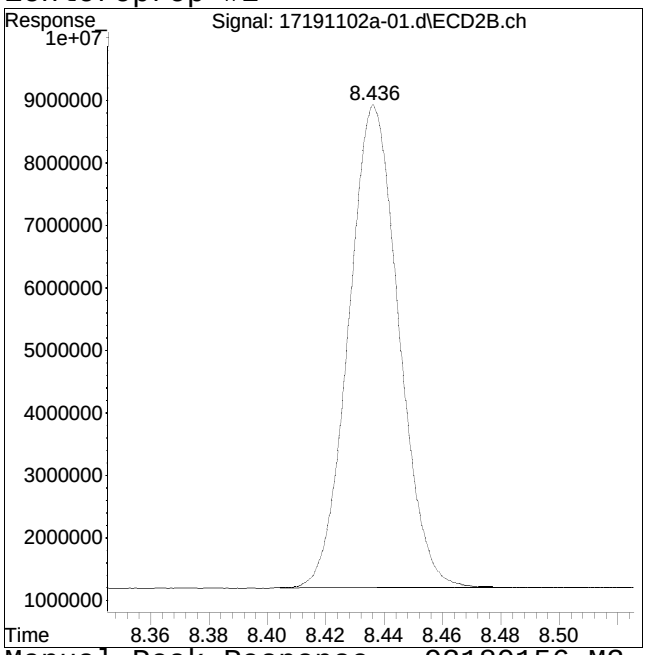
Original Peak Response = 62707014 Manual Peak Response = 62804139 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-01.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 3:23 pm Instrument : Pest 17
Sample : wg1303892-1,42e,,herb cc 9Quant Date : 11/2/2019 4:55 pm

Compound #20: Dichloroprop #2



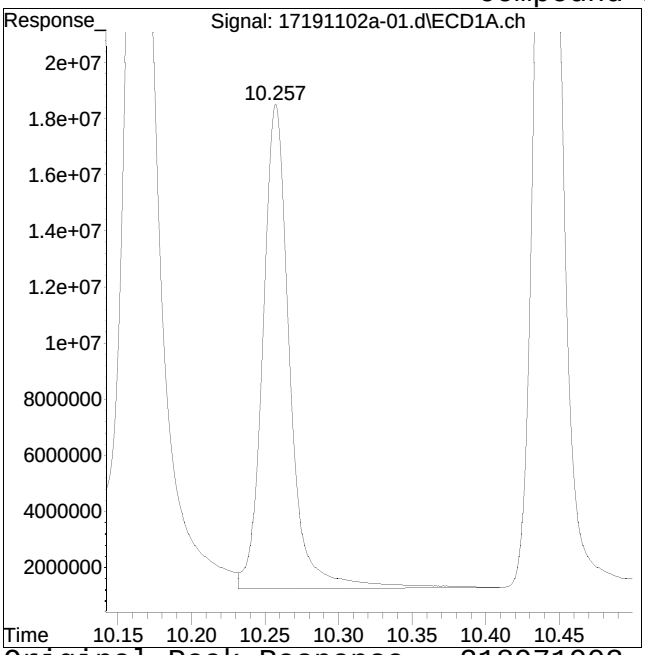


Original Peak Response = 92046753 Manual Peak Response = 92180156 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

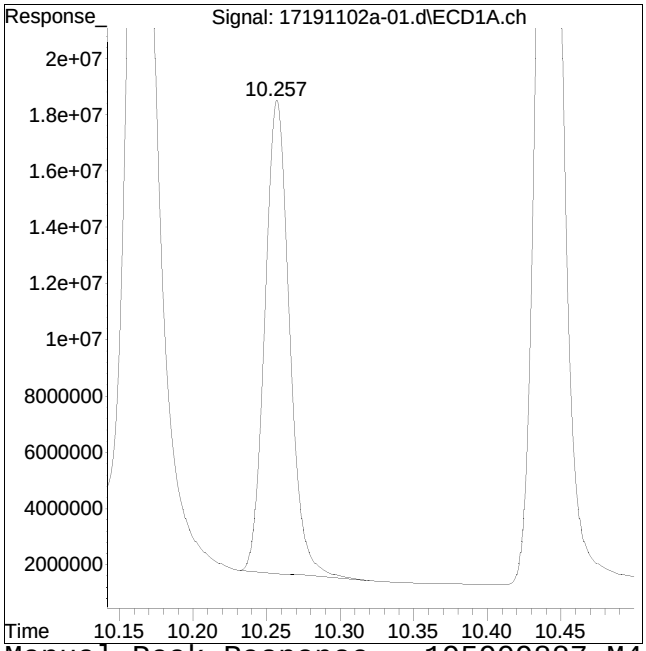
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-01.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 3:23 pm Instrument : Pest 17
Sample : wg1303892-1,42e,,herb cc 9Quant Date : 11/2/2019 4:55 pm

Compound #12: Dinoseb



Original Peak Response = 218971903



Manual Peak Response = 195909887 M4
M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   7:54 pm
Operator : PEST17:jmc
Sample   : wg1303892-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 11   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:57:46 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	92	-0.02
2	t	Dalapon	0.182	0.239	-31.3#	121	0.00
3	s	DCAA (surrogate)	0.188	0.212	-12.8	98	-0.02
4	t	Dicamba	0.188	0.215	-14.4	108	-0.02
5	t	MCPP	18.800	21.620	-15.0#	105	-0.02
6	t	MCPA	18.600	19.807	-6.5	105	-0.02
7	t	Dichloroprop	0.188	0.189	-0.5	103	-0.02
8	t	2,4-D	0.188	0.212	-12.8	105	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.203	-6.8	101	-0.02
10	t	2,4,5-T	0.190	0.225	-18.4#	109	-0.02
11	t	2,4-DB	0.192	0.221	-15.1#	108	-0.02
12	t	Dinoseb	0.190	0.276	-45.3#	155	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	100	0.00
2	t	Dalapon	0.182	0.232	-27.5#	136	0.02
3	s	DCAA (surrogate)	0.188	0.200	-6.4	104	0.00
4	t	Dicamba	0.188	0.204	-8.5	113	0.00
5	t	MCPP	18.800	17.443	7.2	96	0.00
6	t	MCPA	18.600	19.233	-3.4	101	0.00
7	t	Dichloroprop	0.188	0.203	-8.0	115	0.00
8	t	2,4-D	0.188	0.214	-13.8	120	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.220	-15.8#	123	0.00
10	t	2,4,5-T	0.190	0.224	-17.9#	128	0.00
11	t	2,4-DB	0.192	0.200	-4.2	110	0.00
12	t	Dinoseb	0.190	0.292	-53.7#	166	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019   7:54 pm
Operator : PEST17:jmc
Sample   : wg1303892-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 11   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:57:46 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 7:54 pm
Operator : PEST17:jmc
Sample : wg1303892-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:57:46 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.619f	8.666	616.7E6	658.1E6	0.250	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.082f	7.601	84863937	105.6E6	0.212	0.200
	Spiked Amount	0.500	Range 30 - 150		Recovery =	42.40%	40.00%
	Target Compounds						
2) t	Dalapon	2.091	2.173f	82751338	96247423	0.239	0.232
4) t	Dicamba	7.268f	7.784	261.7E6	303.5E6	0.215	0.204
5) t	MCPP	7.468f	7.893	34820399	36280064	21.620	17.443
6) t	MCPA	7.614f	8.120	57791888	61659095	19.807	19.233
7) t	Dichloroprop	7.969f	8.436	76285933	90459035	0.189	0.203
8) t	2,4-D	8.180f	8.709	96583655	124.8E6	0.212	0.214
9) t	2,4,5-TP (Si	8.893f	9.364	353.0E6	414.2E6	0.203	0.220
10) t	2,4,5-T	9.111f	9.652	413.5E6	423.0E6	0.225	0.224
11) t	2,4-DB	9.515f	10.012	66537593	67108854	0.221	0.200M4
12) t	Dinoseb	10.255f	10.235	185.1E6	194.9E6	0.276M4	0.292
	SemiQuant Compounds - Not Calibrated on this Instrument						

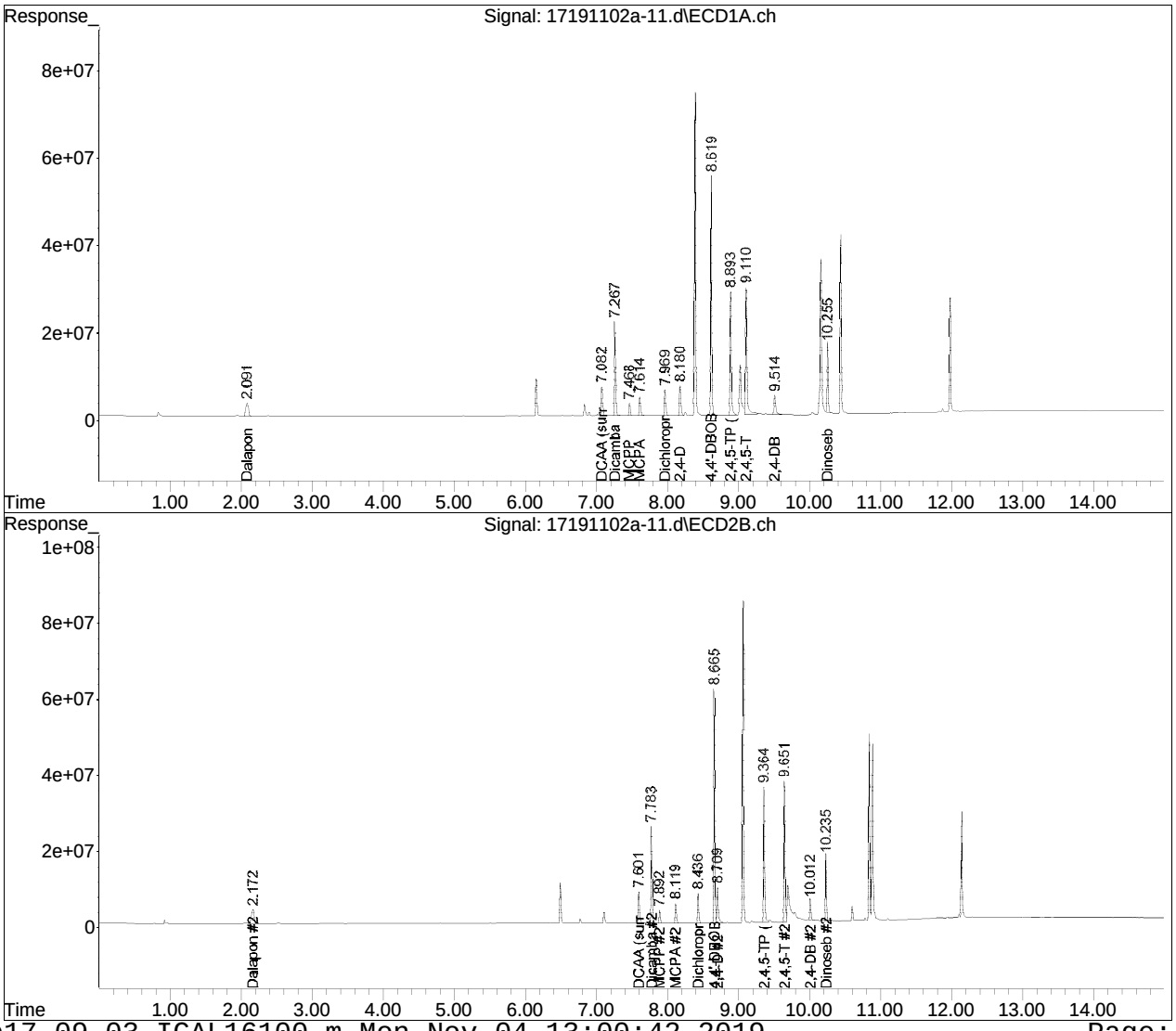
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 7:54 pm
Operator : PEST17:jmc
Sample : wg1303892-2,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 12:57:46 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

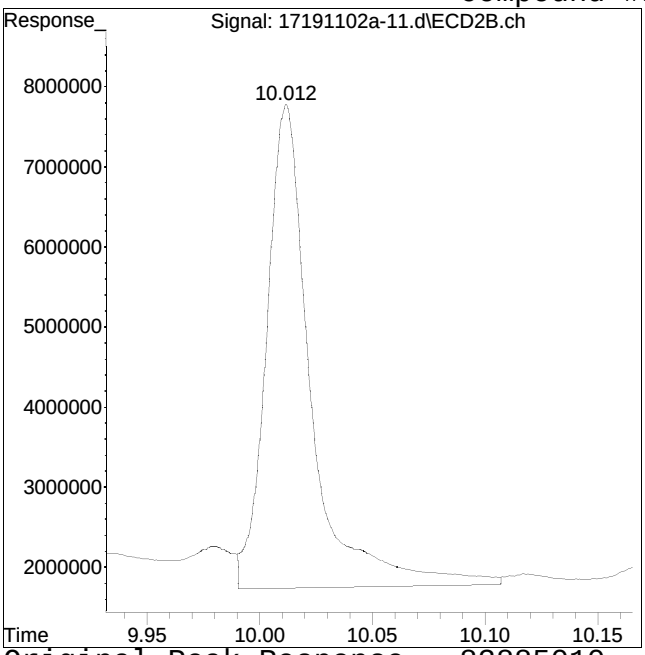
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



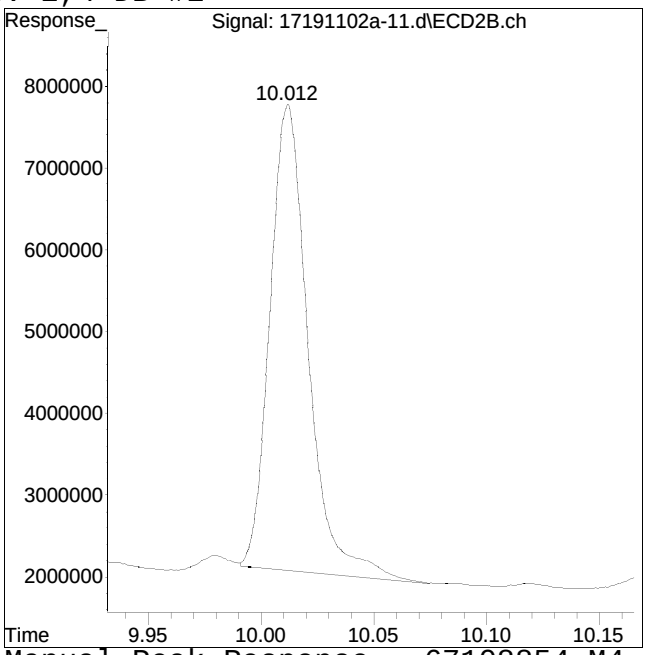
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-11.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 7:54 pm Instrument : Pest 17
Sample : wg1303892-2,42e,,herb cc 9Quant Date : 11/3/2019 12:11 pm

Compound #24: 2,4-DB #2



Original Peak Response = 83885010



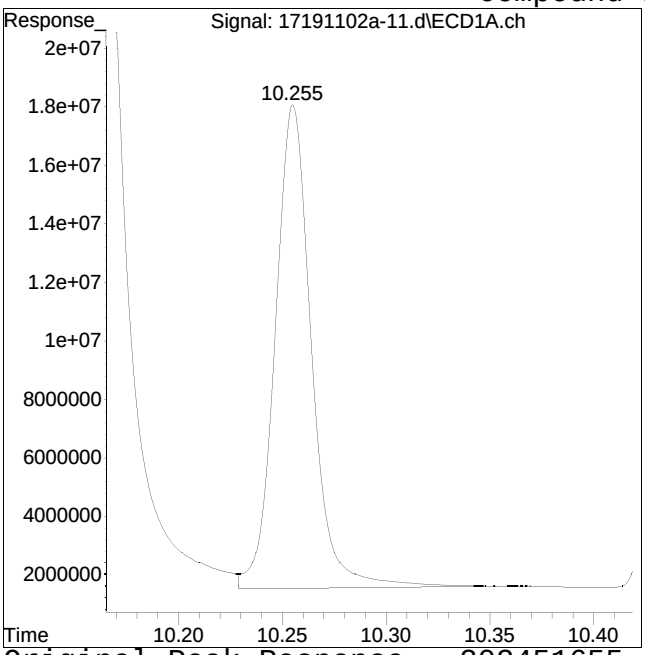
Manual Peak Response = 67108854 M4

M4 = Poor automated baseline construction.

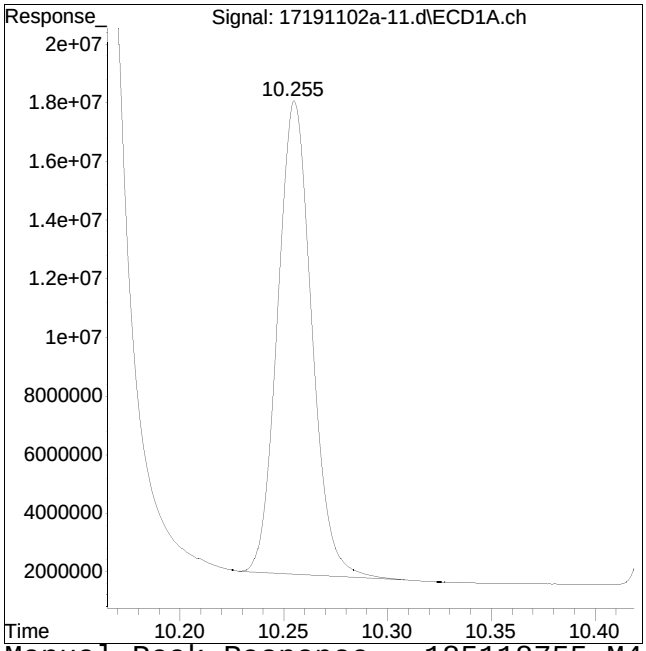
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-11.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 7:54 pm Instrument : Pest 17
Sample : wg1303892-2,42e,,herb cc 9Quant Date : 11/3/2019 12:11 pm

Compound #12: Dinoseb



Original Peak Response = 202451655



Manual Peak Response = 185118755 M4

M4 = Poor automated baseline construction.

Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 9:44 pm
Operator : PEST17:jmc
Sample : l1951399-01,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:34:37 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-11.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	572.3E6	643.2E6	0.250M2	0.250
Standard Area 1 : #1 = 616694067				Recovery =	92.80%	
Standard Area 1 : #2 = 658141714				Recovery =	97.73%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.601	117.3E6	135.7E6	0.316	0.263
Spiked Amount	0.500	Range 30 - 150		Recovery =	63.20%	52.60%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

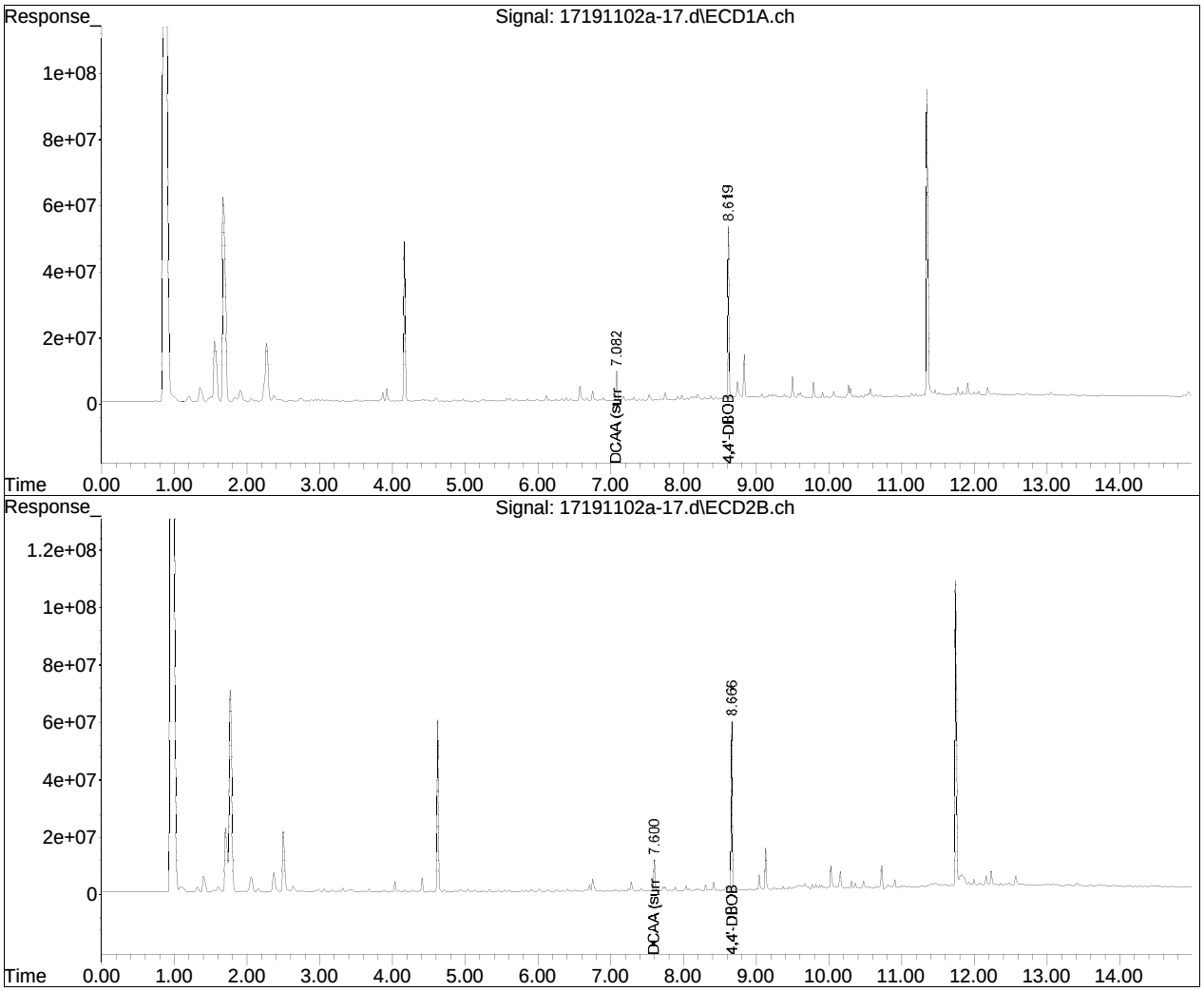
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-11.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-17.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 9:44 pm
Operator : PEST17:jmc
Sample : l1951399-01,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:34:37 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

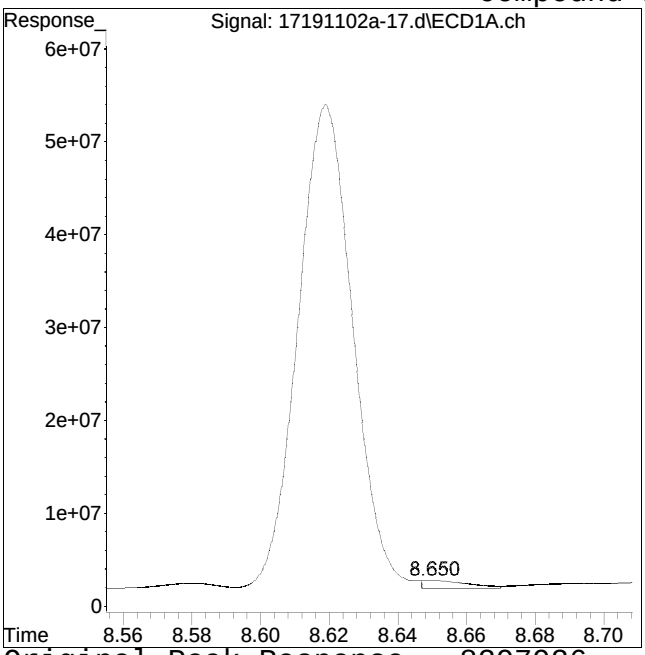


Manual Integration Report

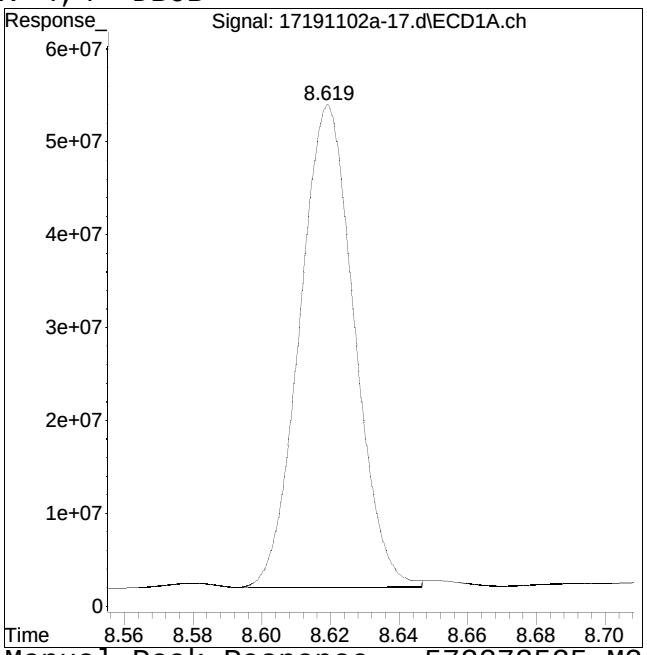
Data Path : I:\Pest17\191102a\
Data File : 17191102a-17.d
Date Inj'd : 11/2/2019 9:44 pm
Sample : l1951399-01,42e,,t

QMethod : Herb17_09_03_ICAL16100.m
Operator : PEST17:jmc
Instrument : Pest 17
Quant Date : 11/4/2019 3:33 pm

Compound #1: 4,4'-DBOB



Original Peak Response = 8297926



Manual Peak Response = 572273525 M2

M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:02 pm
Operator : PEST17:jmc
Sample : l1951399-02,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:36:13 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-11.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	740.0E6	783.2E6	0.250	0.250
Standard Area 1 : #1 = 616694067				Recovery =	119.99%	
Standard Area 1 : #2 = 658141714				Recovery =	118.99%	
System Monitoring Compounds						
3) s DCAA (surrog	7.084f	7.601	85794997	100.2E6	0.178	0.160
Spiked Amount	0.500	Range 30 - 150		Recovery =	35.60%	32.00%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

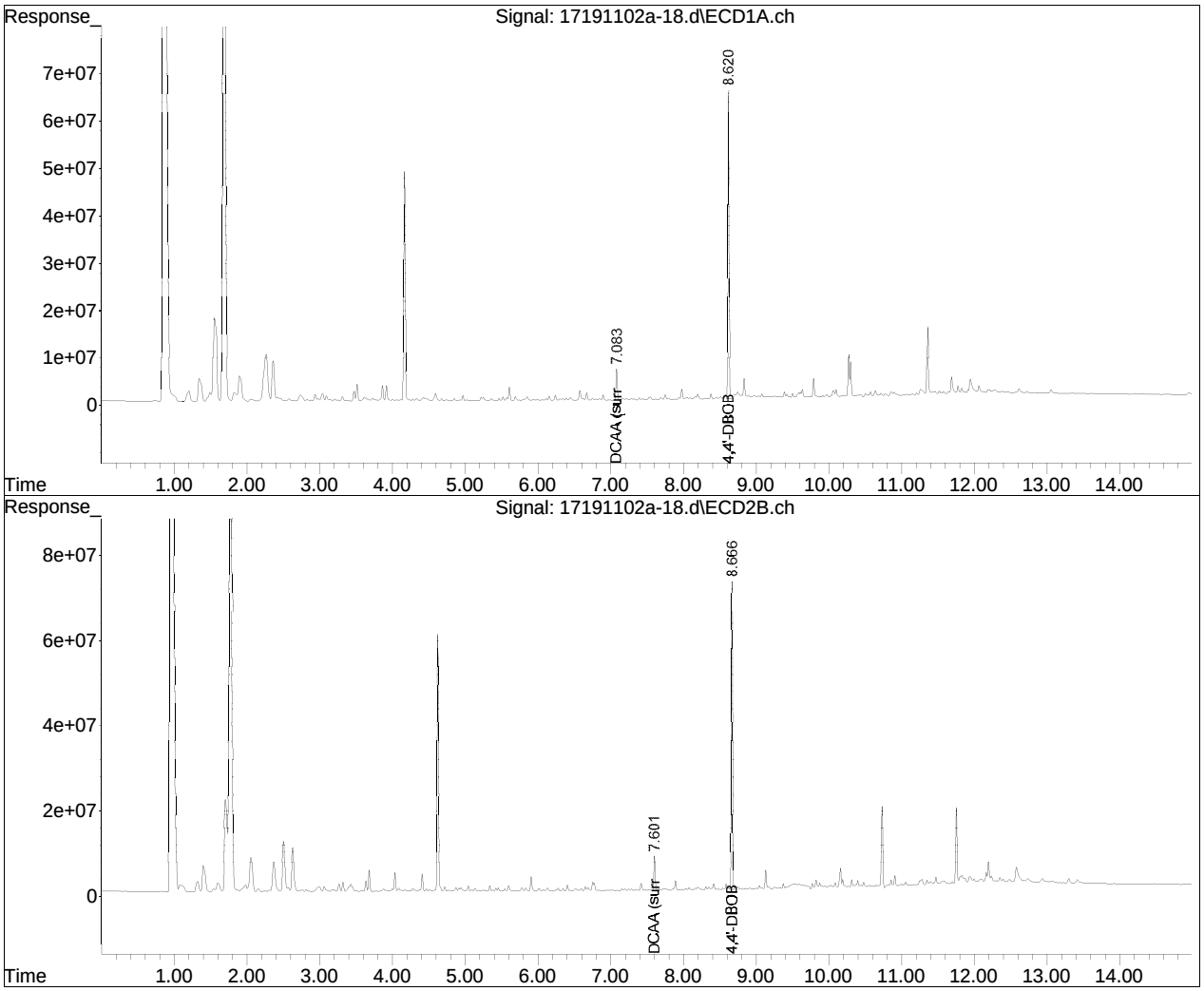
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-11.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-18.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:02 pm
Operator : PEST17:jmc
Sample : l1951399-02,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:36:13 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-18.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 10:02 pm	Instrument	: Pest 17
Sample	: l1951399-02,42e,,t	Quant Date	: 11/4/2019 3:35 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:20 pm
Operator : PEST17:jmc
Sample : l1951399-03,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:36:49 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-11.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	689.8E6	739.7E6	0.250	0.250
Standard Area 1 : #1 = 616694067				Recovery =	111.86%	
Standard Area 1 : #2 = 658141714				Recovery =	112.40%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.601	97050307	115.4E6	0.217	0.195
Spiked Amount	0.500	Range 30 - 150		Recovery =	43.40%	39.00%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D.
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

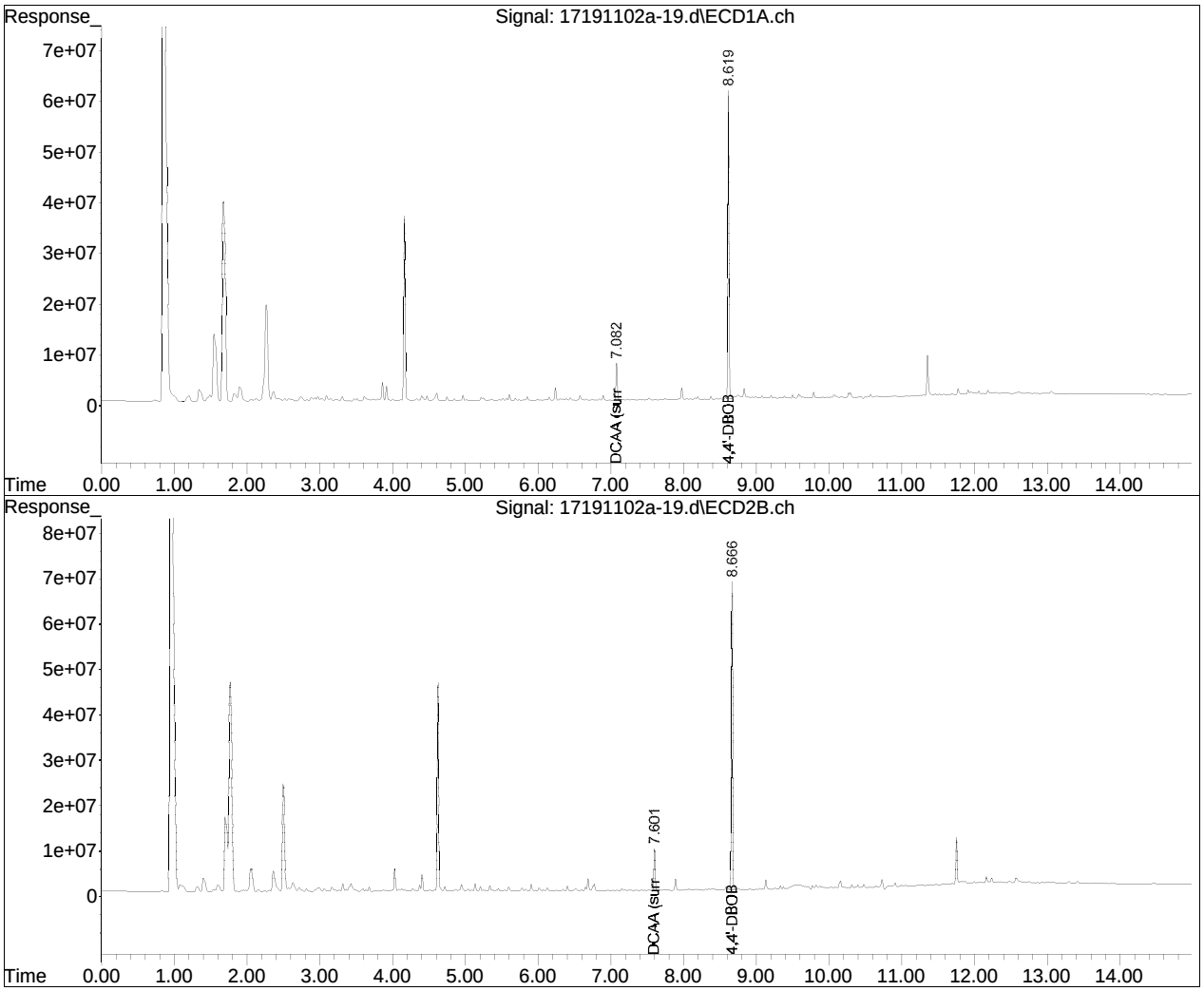
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-11.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-19.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:20 pm
Operator : PEST17:jmc
Sample : l1951399-03,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:36:49 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-19.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 10:20 pm	Instrument	: Pest 17
Sample	: l1951399-03,42e,,t	Quant Date	: 11/4/2019 3:36 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:38 pm
Operator : PEST17:jmc
Sample : l1951399-04,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:37:29 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-11.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	647.8E6	687.1E6	0.250	0.250
Standard Area 1 : #1 = 616694067				Recovery =	105.04%	
Standard Area 1 : #2 = 658141714				Recovery =	104.39%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.601	99300470	118.0E6	0.236	0.214
Spiked Amount 0.500	Range 30 - 150		Recovery =	47.20%	42.80%	
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D.
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

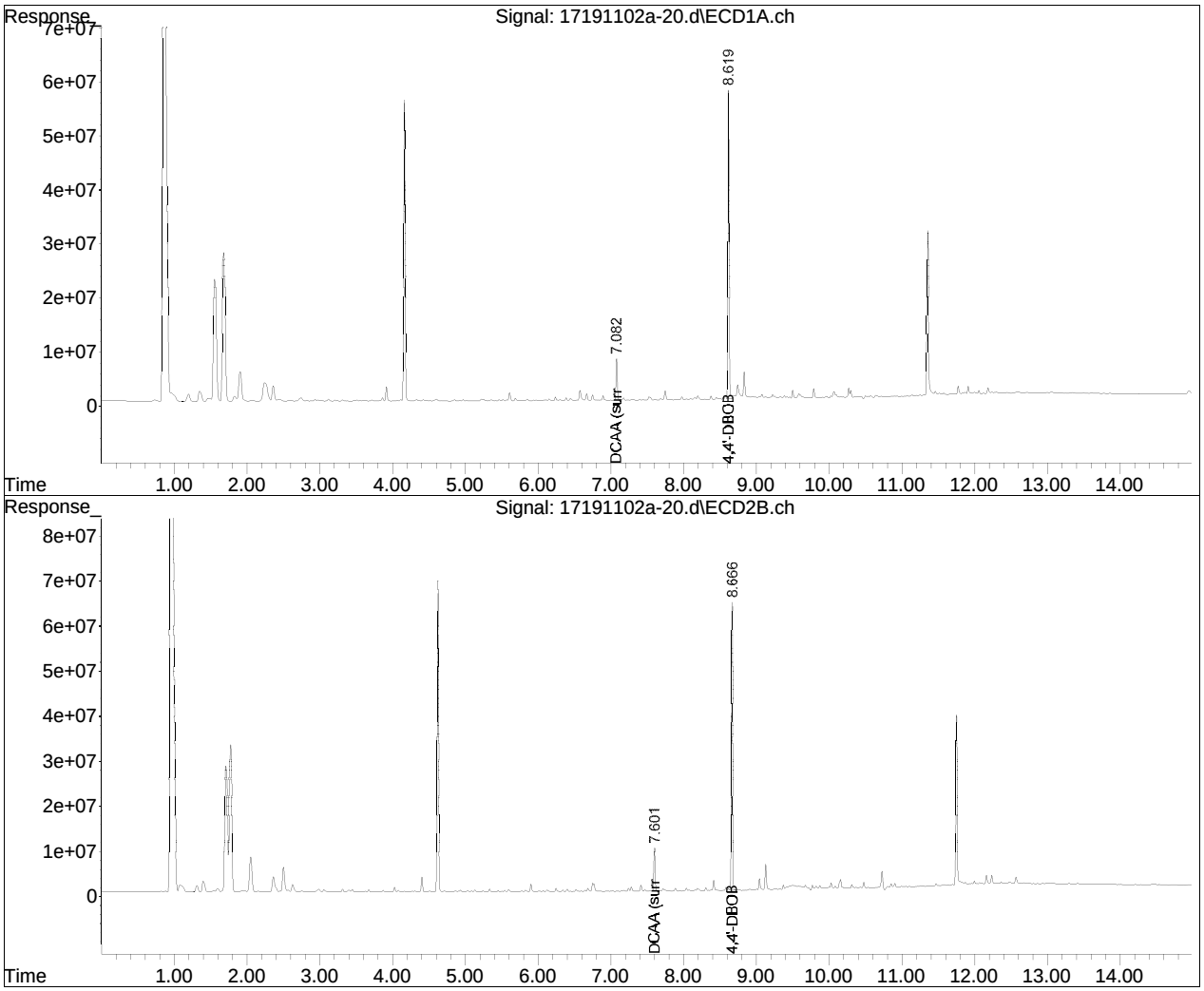
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-11.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-20.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:38 pm
Operator : PEST17:jmc
Sample : l1951399-04,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:37:29 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-20.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 10:38 pm	Instrument	: Pest 17
Sample	: l1951399-04,42e,,t	Quant Date	: 11/4/2019 3:37 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:57 pm
Operator : PEST17:jmc
Sample : l1951399-05,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:38:29 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-11.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	638.6E6	688.1E6	0.250	0.250
Standard Area 1 : #1 = 616694067				Recovery =	103.56%	
Standard Area 1 : #2 = 658141714				Recovery =	104.56%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.601	119.6E6	137.5E6	0.288	0.249
Spiked Amount	0.500	Range 30 - 150		Recovery =	57.60%	49.80%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

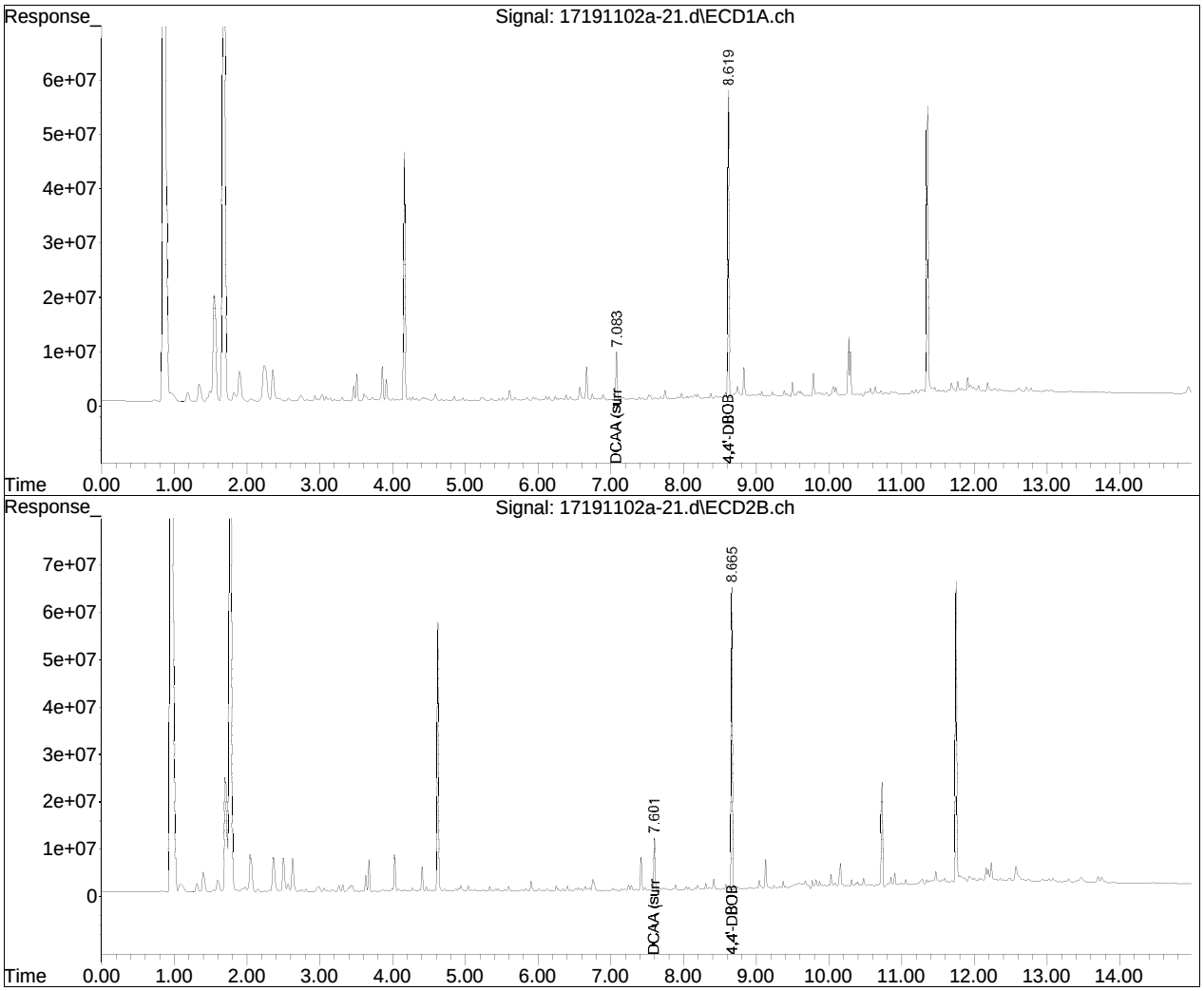
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-11.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-21.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 10:57 pm
Operator : PEST17:jmc
Sample : l1951399-05,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:38:29 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-21.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 10:57 pm	Instrument	: Pest 17
Sample	: l1951399-05,42e,,t	Quant Date	: 11/4/2019 3:37 pm

There are no manual integrations or false positives in this file.

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019 11:15 pm
Operator : PEST17:jmc
Sample   : wg1303892-3,42e,, herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 22   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 03 12:17:34 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	90	-0.02
2	t	Dalapon	0.182	0.230	-26.4#	114	-0.02
3	s	DCAA (surrogate)	0.188	0.213	-13.3	97	-0.02
4	t	Dicamba	0.188	0.216	-14.9	106	-0.02
5	t	MCPP	18.800	21.992	-17.0#	105	-0.02
6	t	MCPA	18.600	20.173	-8.5	104	-0.02
7	t	Dichloroprop	0.188	0.193	-2.7	103	-0.02
8	t	2,4-D	0.188	0.214	-13.8	104	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.205	-7.9	101	-0.02
10	t	2,4,5-T	0.190	0.225	-18.4#	107	-0.02
11	t	2,4-DB	0.192	0.226	-17.7#	108	-0.02
12	t	Dinoseb	0.190	0.309	-62.6#	171	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	99	0.00
2	t	Dalapon	0.182	0.223	-22.5#	129	0.00
3	s	DCAA (surrogate)	0.188	0.202	-7.4	103	0.00
4	t	Dicamba	0.188	0.204	-8.5	111	0.00
5	t	MCPP	18.800	18.101	3.7	98	0.00
6	t	MCPA	18.600	19.494	-4.8	101	0.00
7	t	Dichloroprop	0.188	0.204	-8.5	114	0.00
8	t	2,4-D	0.188	0.216	-14.9	119	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.221	-16.3#	121	0.00
10	t	2,4,5-T	0.190	0.225	-18.4#	127	0.00
11	t	2,4-DB	0.192	0.212	-10.4	115	0.00
12	t	Dinoseb	0.190	0.330	-73.7#	185	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 2 Nov 2019 11:15 pm
Operator : PEST17:jmc
Sample   : wg1303892-3,42e,, herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 22   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 03 12:17:34 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 11:15 pm
Operator : PEST17:jmc
Sample : wg1303892-3,42e,, herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 03 12:17:34 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.619f	8.666	605.7E6	648.3E6	0.250	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.082f	7.600	83958127	105.1E6	0.213	0.202
	Spiked Amount	0.500	Range 30 - 150		Recovery =	42.60%	40.40%
	Target Compounds						
2) t	Dalapon	2.067f	2.153	78080898	90947650	0.230	0.223
4) t	Dicamba	7.267f	7.783	258.4E6	298.8E6	0.216	0.204
5) t	MCPP	7.468f	7.893	34787928	37086402	21.992	18.101
6) t	MCPA	7.614f	8.119	57427698	61564203	20.173	19.494
7) t	Dichloroprop	7.969f	8.435	76239284	89683219	0.193	0.204
8) t	2,4-D	8.179f	8.708	95772325	124.2E6	0.214	0.216
9) t	2,4,5-TP (Si	8.892f	9.364	351.0E6	408.8E6	0.205	0.221
10) t	2,4,5-T	9.110f	9.652	404.7E6	418.6E6	0.225	0.225
11) t	2,4-DB	9.513f	10.011	66733809	70234900	0.226	0.212
12) t	Dinoseb	10.254f	10.235	204.7E6	217.2E6	0.309M4	0.330
	SemiQuant Compounds - Not Calibrated on this Instrument						

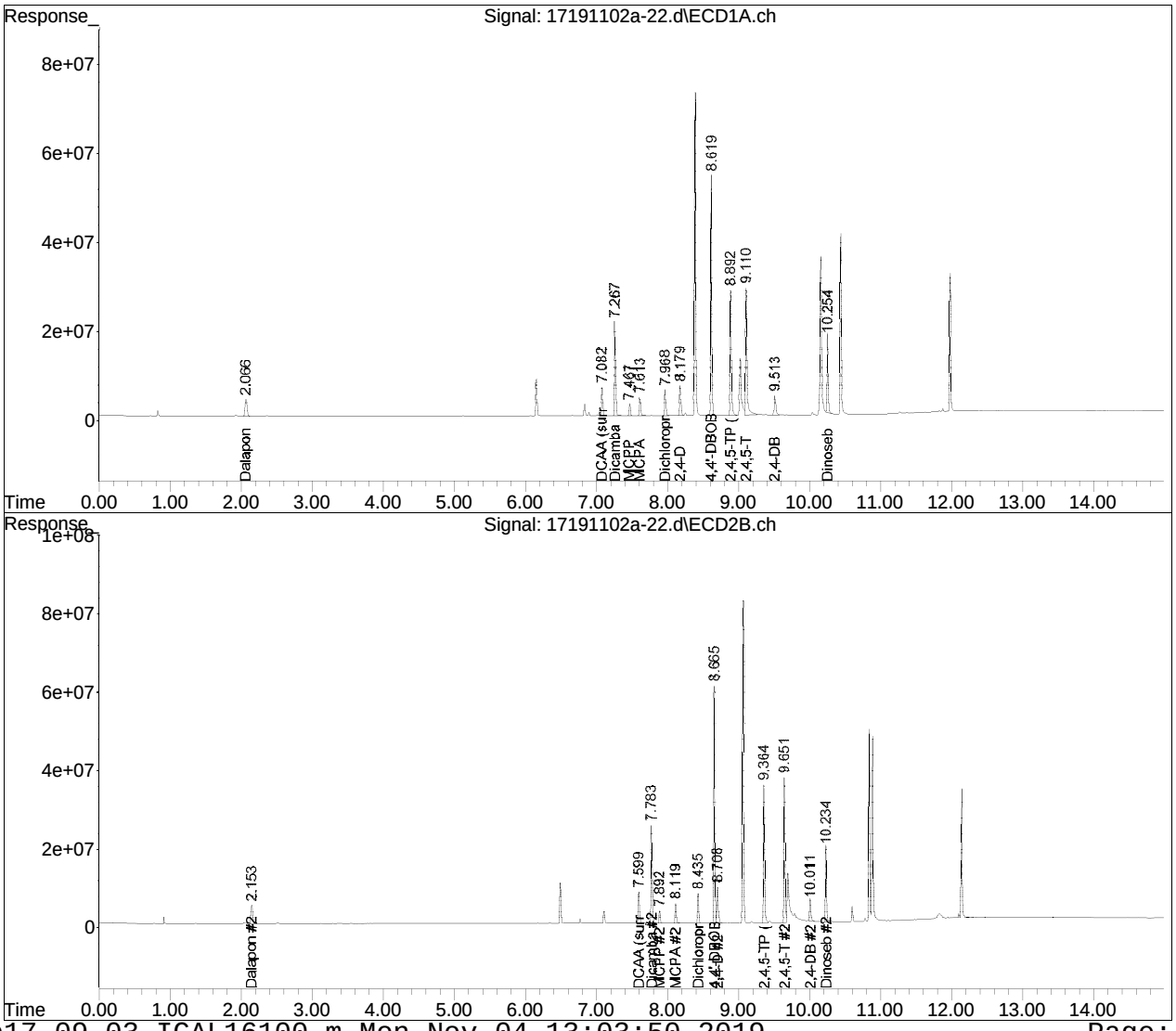
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-22.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 11:15 pm
Operator : PEST17:jmc
Sample : wg1303892-3,42e,, herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 03 12:17:34 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

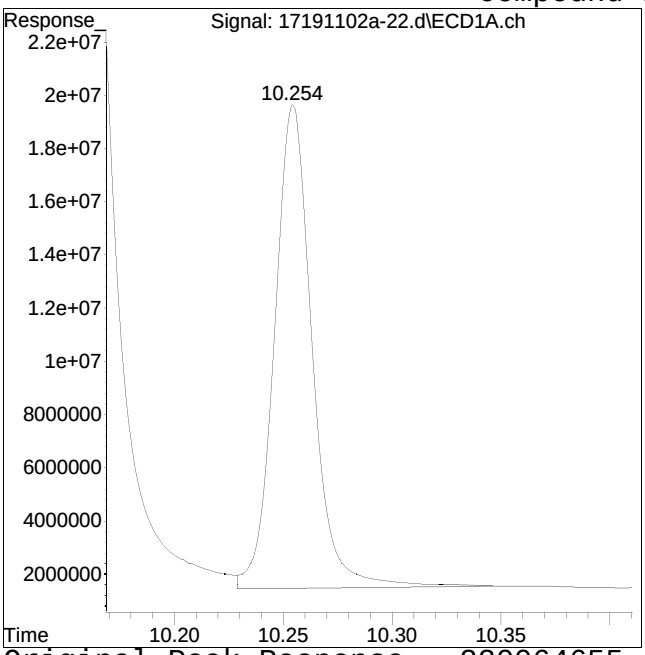
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



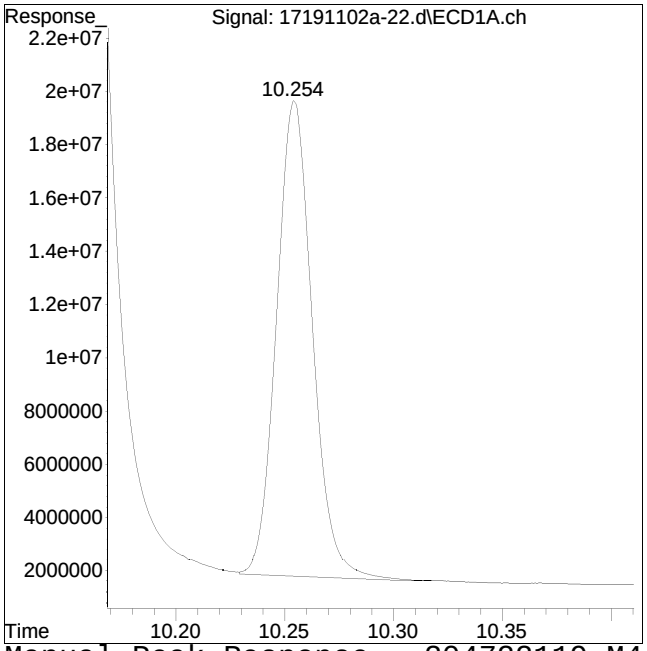
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-22.d Operator : PEST17:jmc
Date Inj'd : 11/2/2019 11:15 pm Instrument : Pest 17
Sample : wg1303892-3,42e,, herb cc Quant Date : 11/3/2019 12:14 pm

Compound #12: Dinoseb



Original Peak Response = 220064655



Manual Peak Response = 204722119 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 3 Nov 2019   1:59 am
Operator : PEST17:jmc
Sample   : wg1303892-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 31   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:05:00 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	i	4,4'-DBOB	0.250	0.250	0.0	99	-0.02
2	t	Dalapon	0.182	0.219	-20.3#	120	-0.01
3	s	DCAA (surrogate)	0.188	0.207	-10.1	103	-0.02
4	t	Dicamba	0.188	0.211	-12.2	114	-0.02
5	t	MCPP	18.800	21.306	-13.3	112	-0.02
6	t	MCPA	18.600	18.556	0.2	109	-0.02
7	t	Dichloroprop	0.188	0.187	0.5	111	-0.02
8	t	2,4-D	0.188	0.211	-12.2	113	-0.02
9	t	2,4,5-TP (Silvex)	0.190	0.203	-6.8	110	-0.02
10	t	2,4,5-T	0.190	0.199	-4.7	105	-0.02
11	t	2,4-DB	0.192	0.220	-14.6	116	-0.02
12	t	Dinoseb	0.190	0.310	-63.2#	189	-0.02

Signal #2

1	i	4,4'-DBOB	0.250	0.250	0.0	108	0.00
2	t	Dalapon	0.182	0.215	-18.1#	136	0.00
3	s	DCAA (surrogate)	0.188	0.197	-4.8	110	0.00
4	t	Dicamba	0.188	0.201	-6.9	120	0.00
5	t	MCPP	18.800	17.792	5.4	105	0.00
6	t	MCPA	18.600	19.467	-4.7	110	0.00
7	t	Dichloroprop	0.188	0.201	-6.9	123	0.00
8	t	2,4-D	0.188	0.212	-12.8	128	0.00
9	t	2,4,5-TP (Silvex)	0.190	0.219	-15.3#	131	0.00
10	t	2,4,5-T	0.190	0.222	-16.8#	137	0.00
11	t	2,4-DB	0.192	0.212	-10.4	125	0.00
12	t	Dinoseb	0.190	0.339	-78.4#	208	0.00

Evaluate Continuing Calibration Report - Not Founds

Evaluate Continuing Calibration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On   : 3 Nov 2019   1:59 am
Operator : PEST17:jmc
Sample   : wg1303892-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc   : wg1303892,ical16100
ALS Vial : 31   Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:05:00 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   :
Signal #1 Phase :   Signal #2 Phase:
Signal #1 Info :   Signal #2 Info :

Min. RRF   :   0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15%   Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Nov 2019 1:59 am
Operator : PEST17:jmc
Sample : wg1303892-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:05:00 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Sub List : Default - All compounds listed

	Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
	Internal Standards						
1) i	4,4'-DBOB	8.619f	8.666	667.2E6	707.5E6	0.250	0.250
	System Monitoring Compounds						
3) s	DCAA (surrog	7.082f	7.600	89778539	111.9E6	0.207	0.197
	Spiked Amount	0.500	Range	30 - 150	Recovery =	41.40%	39.40%
	Target Compounds						
2) t	Dalapon	2.072	2.156	82144830	95893112	0.219	0.215
4) t	Dicamba	7.267f	7.783	277.8E6	320.6E6	0.211	0.201
5) t	MCPP	7.468f	7.893	37124594	39783745	21.306	17.792
6) t	MCPA	7.614f	8.119	60014560	67093993	18.556	19.467M4
7) t	Dichloroprop	7.969f	8.435	82183944	96541328	0.187	0.201
8) t	2,4-D	8.179f	8.708	103.9E6	133.2E6	0.211	0.212
9) t	2,4,5-TP (Si	8.892f	9.364	382.9E6	442.6E6	0.203	0.219
10) t	2,4,5-T	9.110f	9.651	395.7E6	451.4E6	0.199M4	0.222
11) t	2,4-DB	9.514f	10.011	71677359	76716572	0.220	0.212
12) t	Dinoseb	10.254f	10.234	226.3E6	243.8E6	0.310M4	0.339
	SemiQuant Compounds - Not Calibrated on this Instrument						

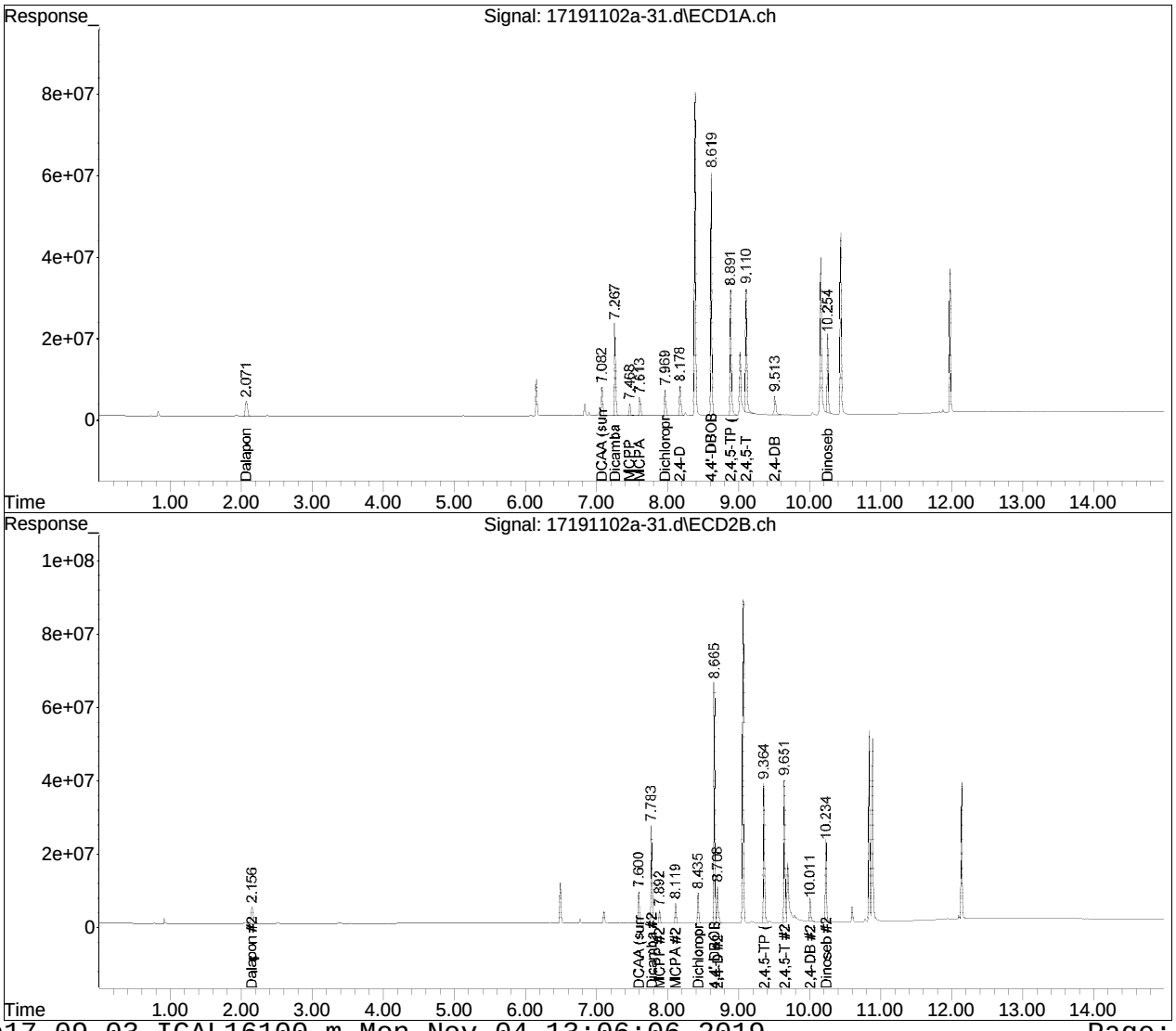
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-31.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Nov 2019 1:59 am
Operator : PEST17:jmc
Sample : wg1303892-4,42e,,herb cc 9501 (Sig #1); herb cc 9501 (Sig #2)
Misc : wg1303892,ical16100
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:05:00 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

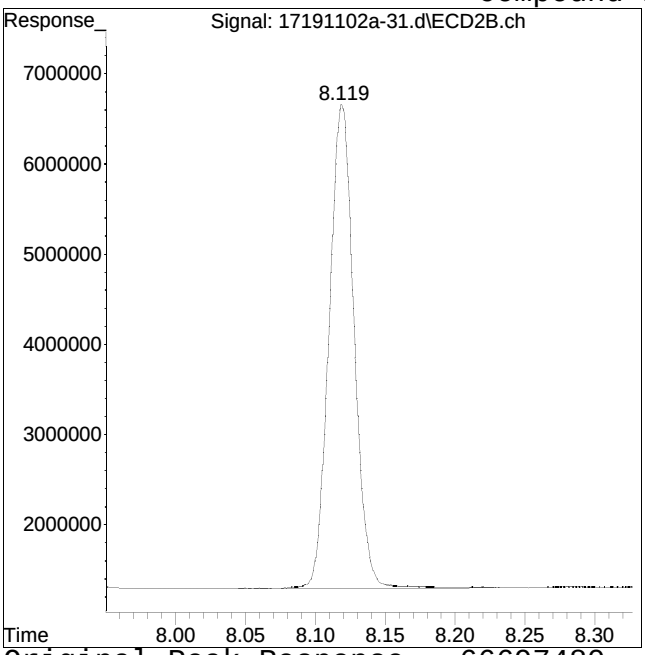
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



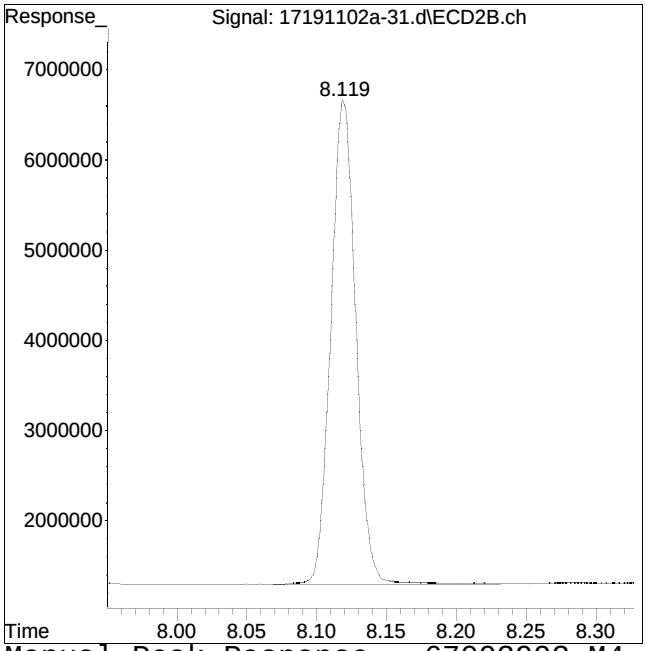
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-31.d Operator : PEST17:jmc
Date Inj'd : 11/3/2019 1:59 am Instrument : Pest 17
Sample : wg1303892-4,42e,,herb cc 9Quant Date : 11/3/2019 12:21 pm

Compound #19: MCPA #2



Original Peak Response = 66697480



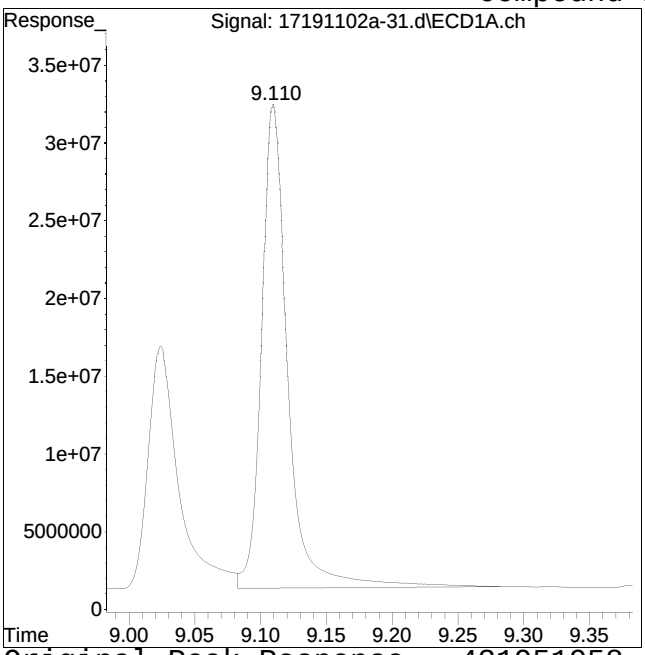
Manual Peak Response = 67093993 M4

M4 = Poor automated baseline construction.

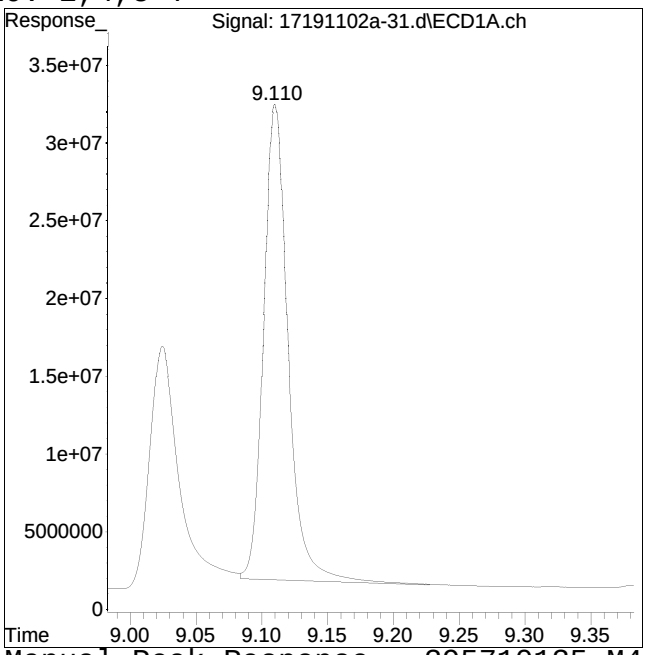
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-31.d Operator : PEST17:jmc
Date Inj'd : 11/3/2019 1:59 am Instrument : Pest 17
Sample : wg1303892-4,42e,,herb cc 9Quant Date : 11/3/2019 12:21 pm

Compound #10: 2,4,5-T



Original Peak Response = 431951958

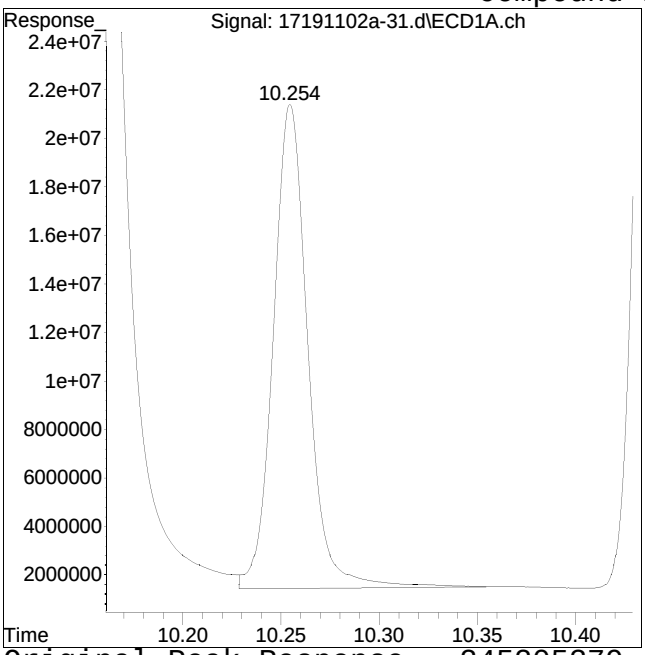


Manual Peak Response = 395710135 M4
M4 = Poor automated baseline construction.

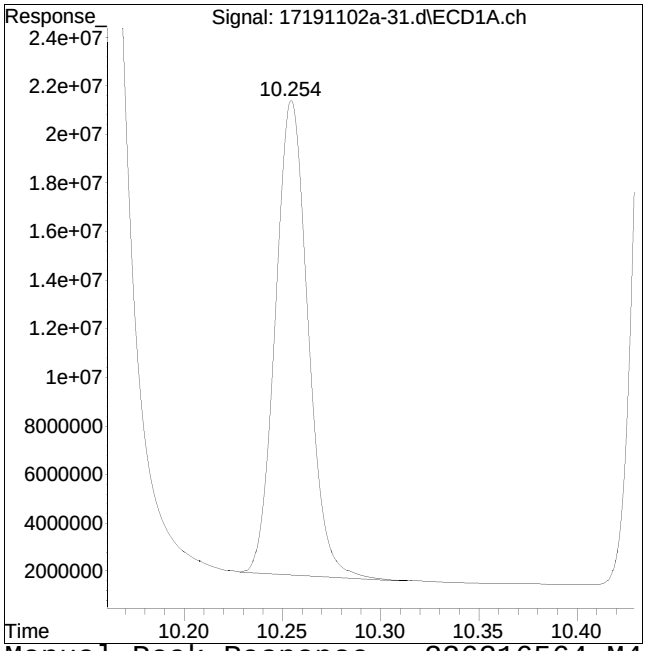
Manual Integration Report

Data Path : I:\Pest17\191102a\ QMethod : Herb17_09_03_ICAL16100.m
Data File : 17191102a-31.d Operator : PEST17:jmc
Date Inj'd : 11/3/2019 1:59 am Instrument : Pest 17
Sample : wg1303892-4,42e,,herb cc 9Quant Date : 11/3/2019 12:21 pm

Compound #12: Dinoseb



Original Peak Response = 245205379



Manual Peak Response = 226316564 M4

M4 = Poor automated baseline construction.

Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 11:33 pm
Operator : PEST17:jmc
Sample : l1951399-06,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:39:25 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-22.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	684.0E6	710.5E6	0.250	0.250
Standard Area 1 : #1 = 605691130				Recovery =	112.92%	
Standard Area 1 : #2 = 648321228				Recovery =	109.59%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.601	101.1E6	118.6E6	0.227	0.208
Spiked Amount	0.500	Range 30 - 150		Recovery =	45.40%	41.60%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

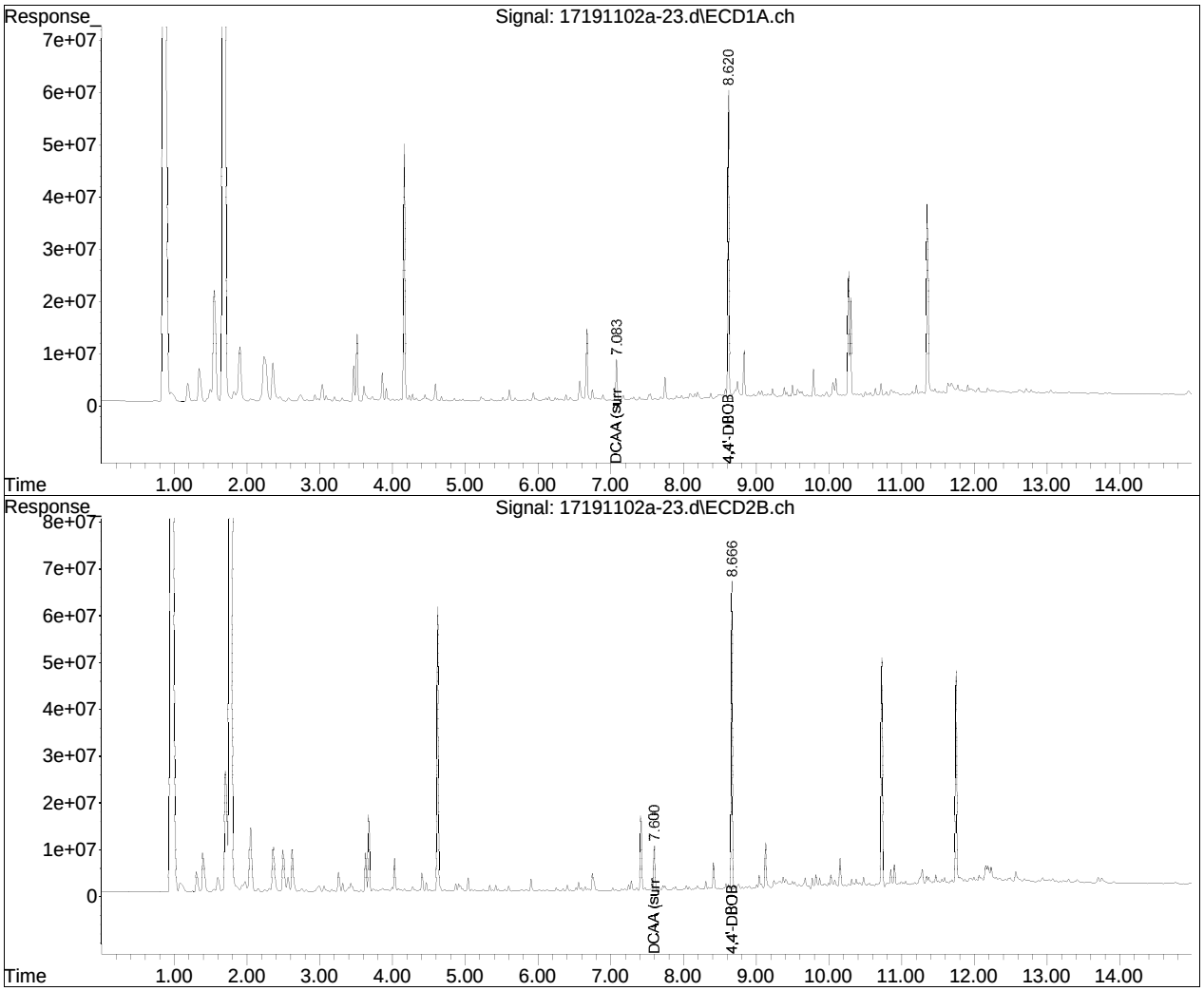
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-22.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-23.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 11:33 pm
Operator : PEST17:jmc
Sample : l1951399-06,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:39:25 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-23.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 11:33 pm	Instrument	: Pest 17
Sample	: l1951399-06,42e,,t	Quant Date	: 11/4/2019 3:38 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 11:51 pm
Operator : PEST17:jmc
Sample : l1951399-07,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:40:10 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-22.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	647.4E6	671.7E6	0.250	0.250
Standard Area 1 : #1 = 605691130				Recovery =	106.89%	
Standard Area 1 : #2 = 648321228				Recovery =	103.61%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.600	115.2E6	130.8E6	0.274	0.243
Spiked Amount	0.500	Range 30 - 150		Recovery =	54.80%	48.60%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D.	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

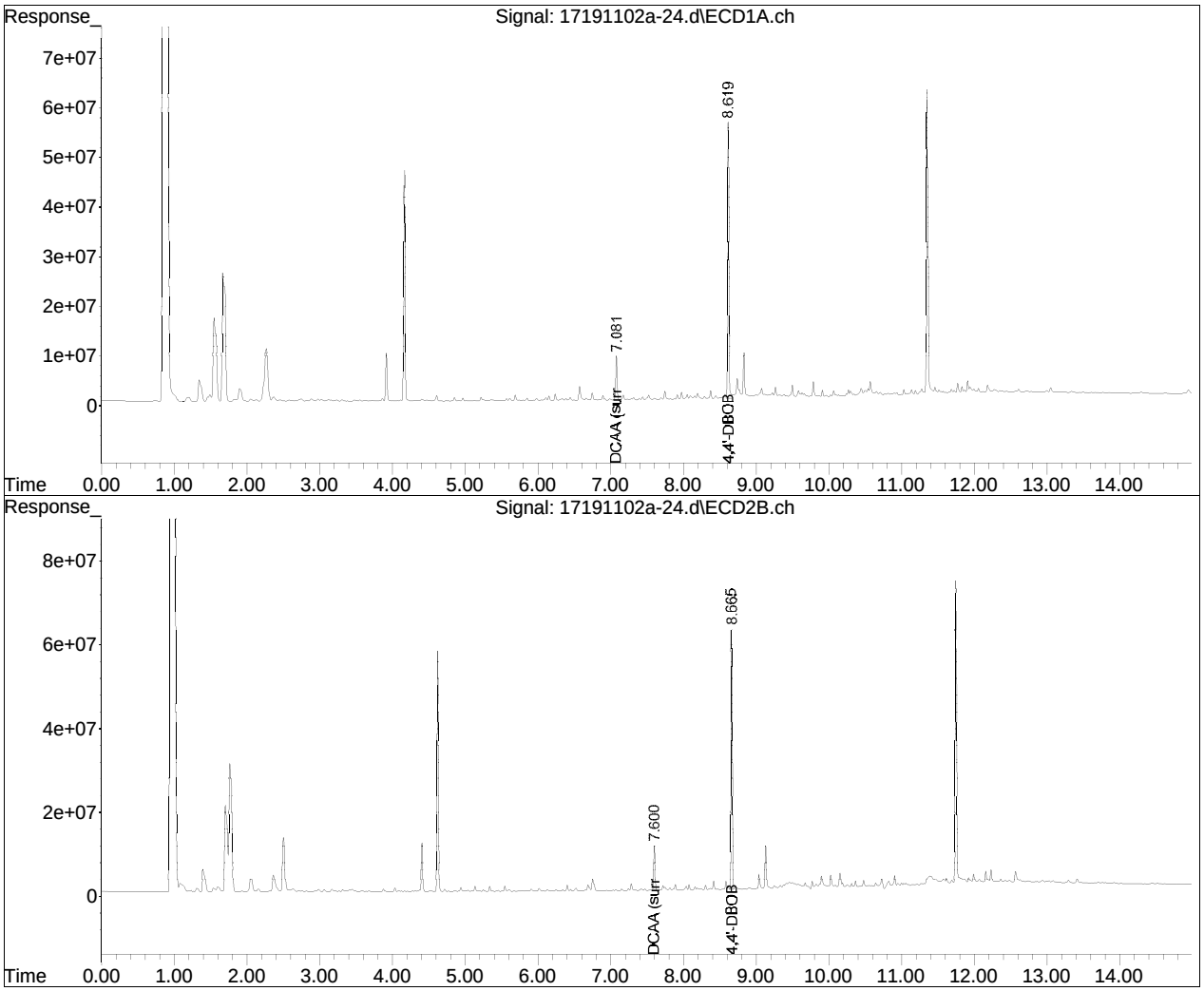
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-22.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-24.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 11:51 pm
Operator : PEST17:jmc
Sample : l1951399-07,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:40:10 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-24.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 11:51 pm	Instrument	: Pest 17
Sample	: l1951399-07,42e,,t	Quant Date	: 11/4/2019 3:39 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Nov 2019 12:10 am
Operator : PEST17:jmc
Sample : l1951399-08,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:41:10 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-22.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	710.0E6	748.3E6	0.250	0.250
Standard Area 1 : #1 = 605691130				Recovery =	117.22%	
Standard Area 1 : #2 = 648321228				Recovery =	115.42%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.601	113.6E6	131.3E6	0.246	0.219
Spiked Amount	0.500	Range 30 - 150		Recovery =	49.20%	43.80%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D.
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

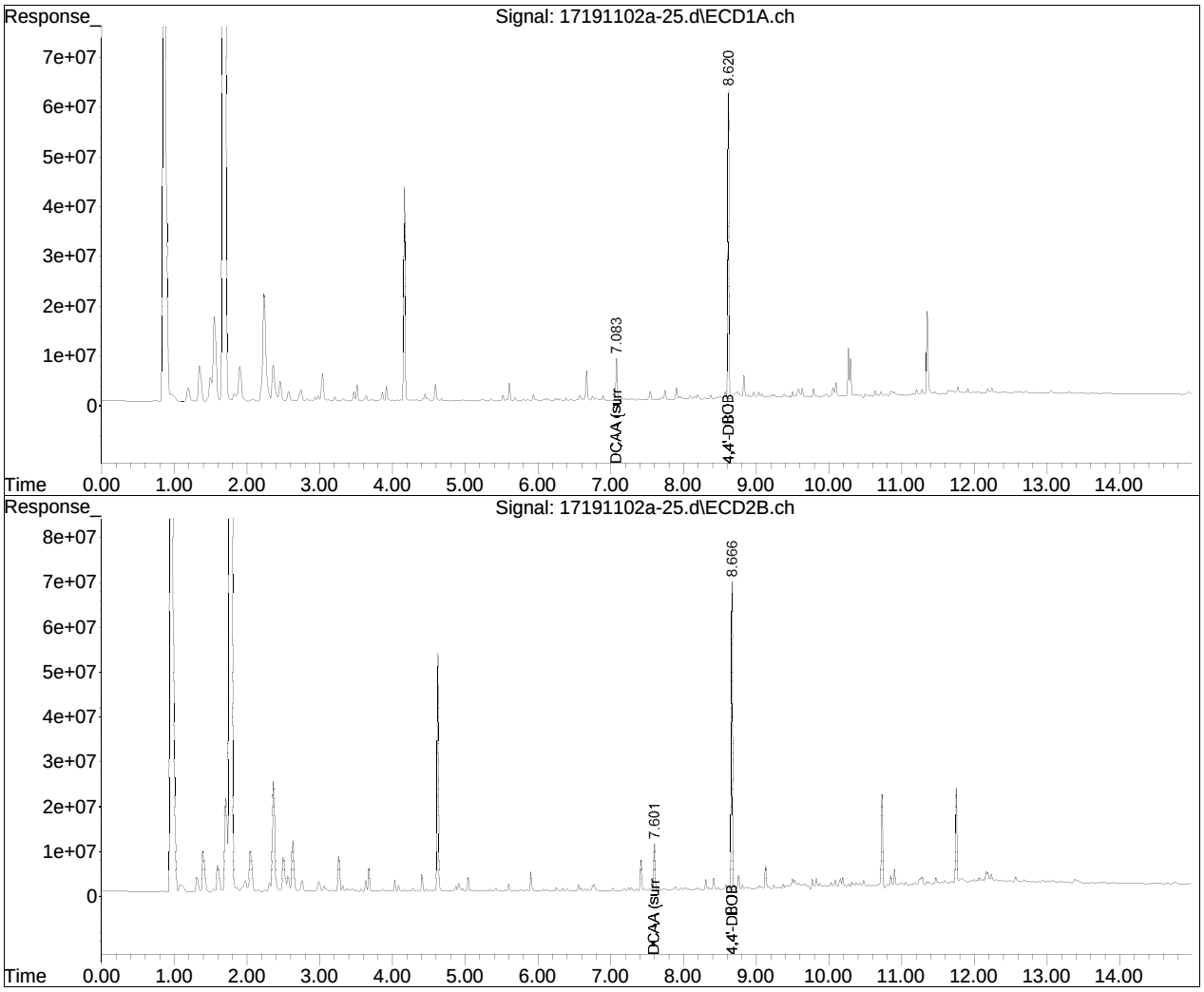
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-22.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-25.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Nov 2019 12:10 am
Operator : PEST17:jmc
Sample : l1951399-08,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:41:10 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-25.d	Operator	: PEST17:jmc
Date Inj'd	: 11/3/2019 12:10 am	Instrument	: Pest 17
Sample	: l1951399-08,42e,,t	Quant Date	: 11/4/2019 3:40 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Nov 2019 12:28 am
Operator : PEST17:jmc
Sample : l1951399-09,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:41:41 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-22.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.618f	8.666	709.8E6	756.1E6	0.250	0.250
Standard Area 1 : #1 = 605691130				Recovery =	117.18%	
Standard Area 1 : #2 = 648321228				Recovery =	116.62%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.601	94524016	111.6E6	0.205	0.184
Spiked Amount	0.500	Range 30 - 150		Recovery =	41.00%	36.80%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D.
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D.
SemiQuant Compounds - Not Calibrated on this Instrument						

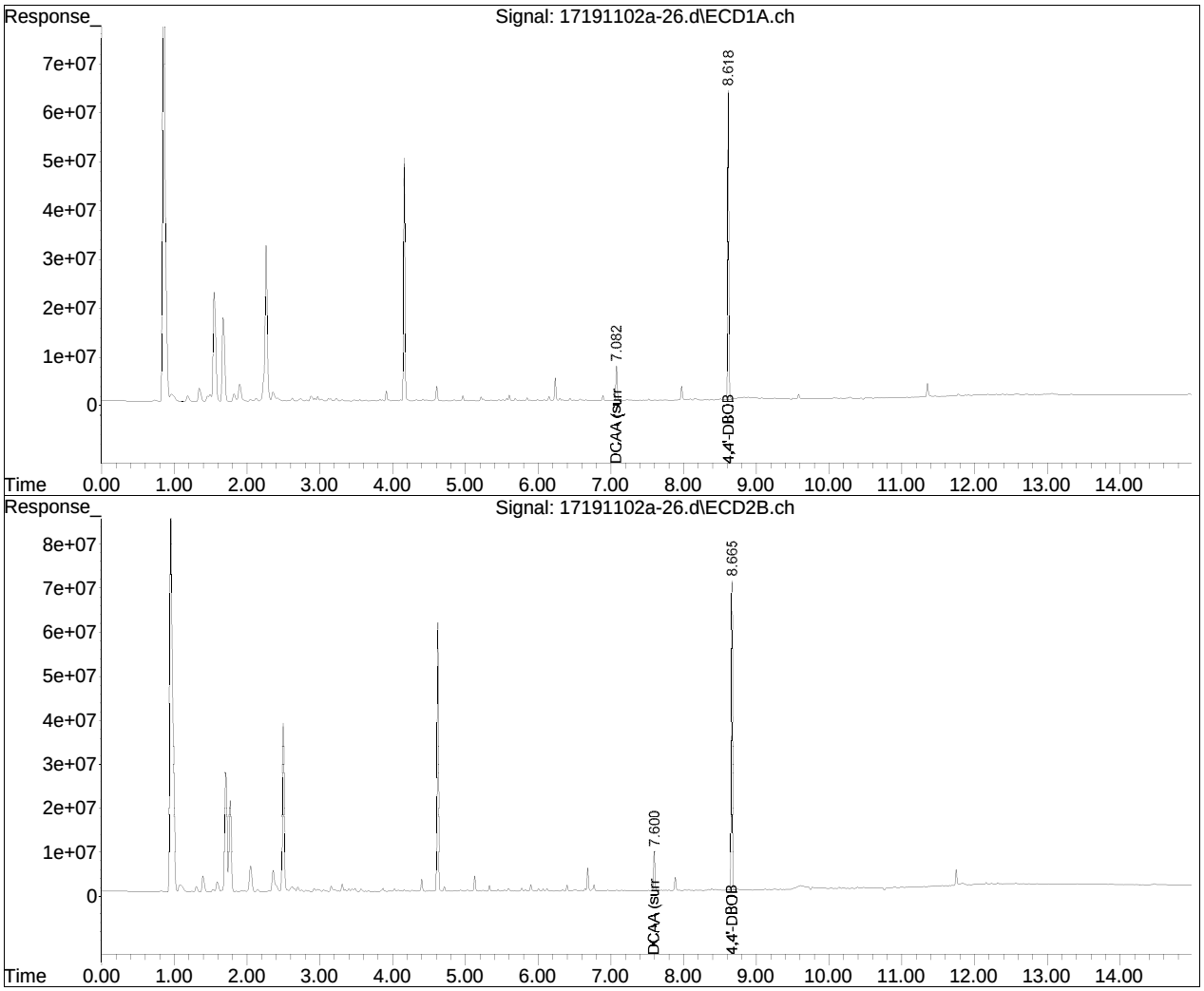
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-22.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-26.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 3 Nov 2019 12:28 am
Operator : PEST17:jmc
Sample : l1951399-09,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 15:41:41 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-26.d	Operator	: PEST17:jmc
Date Inj'd	: 11/3/2019 12:28 am	Instrument	: Pest 17
Sample	: l1951399-09,42e,,t	Quant Date	: 11/4/2019 3:41 pm

There are no manual integrations or false positives in this file.

Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 2:46 am
Operator : PEST17:jmc
Sample : wg1303249-1,42e,,50,1
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 11:45:19 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.619f	8.666	754.0E6	781.8E6	0.250	0.250
Standard Area 1 : #1 = 609345957				Recovery =	123.74%	
Standard Area 1 : #2 = 640882589				Recovery =	121.98%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.602	190.8E6	226.1E6	0.390	0.361
Spiked Amount	0.500	Range 30 - 150		Recovery =	78.00%	72.20%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D. d	N.D. d
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D. d	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

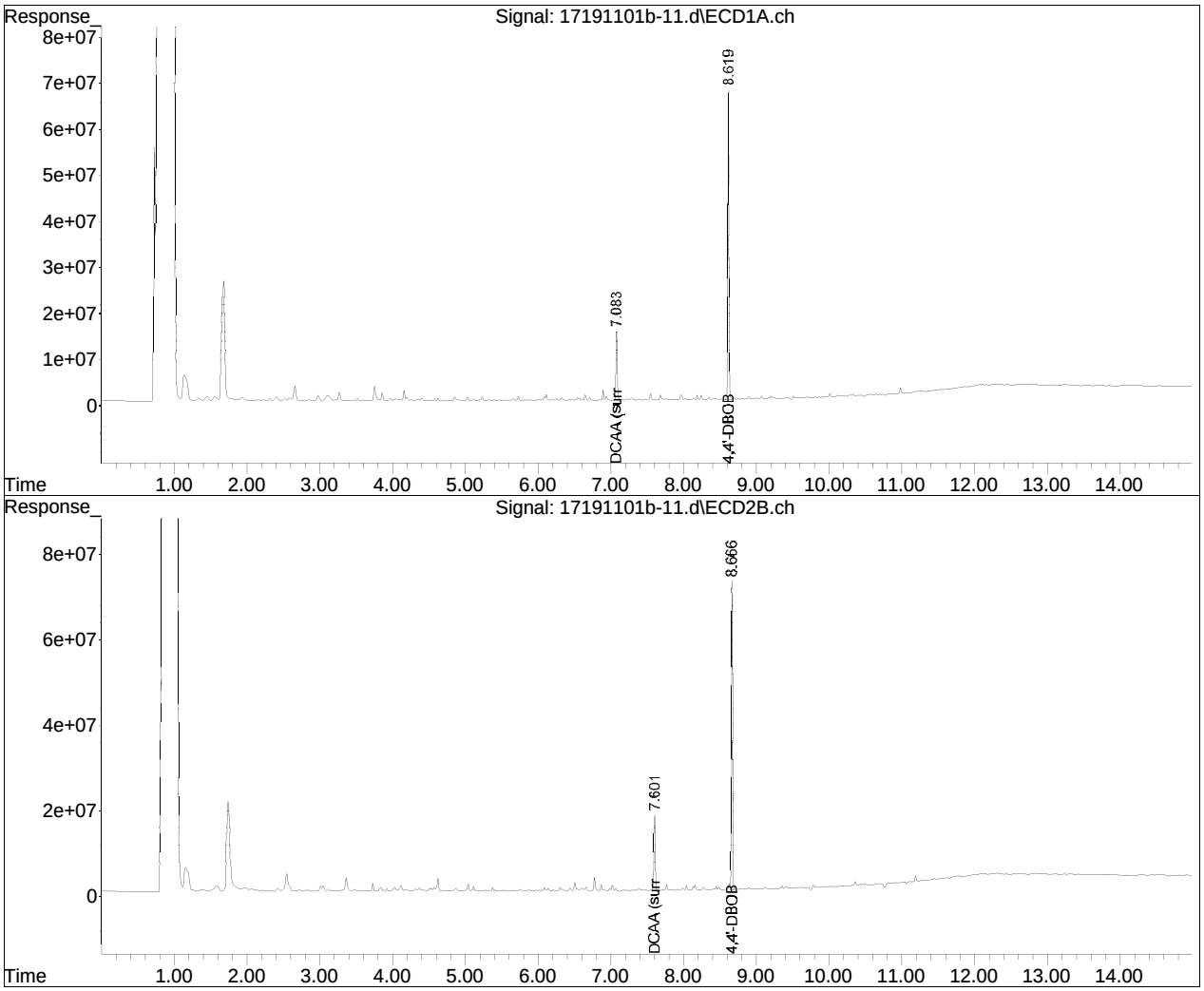
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-11.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 2:46 am
Operator : PEST17:jmc
Sample : wg1303249-1,42e,,50,1
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 11:45:19 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191101B\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191101b-11.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 2:46 am	Instrument	: Pest 17
Sample	: wg1303249-1,42e,,50,1	Quant Date	: 11/3/2019 11:31 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:10 pm
Operator : PEST17:jmc
Sample : wg1303576-1,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:11:41 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-01.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.629	8.666	620.3E6	674.5E6	0.250	0.250
Standard Area 1 : #1 = 620012415				Recovery =	100.04%	
Standard Area 1 : #2 = 665231401				Recovery =	101.39%	
System Monitoring Compounds						
3) s DCAA (surrog	7.095	7.601	131.3E6	154.2E6	0.326	0.285
Spiked Amount	0.500	Range 30 - 150		Recovery =	65.20%	57.00%
Target Compounds						
8) t 2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) t 2,4,5-TP (Si	0.000	0.000	0	0	N.D.	N.D. d
SemiQuant Compounds - Not Calibrated on this Instrument						

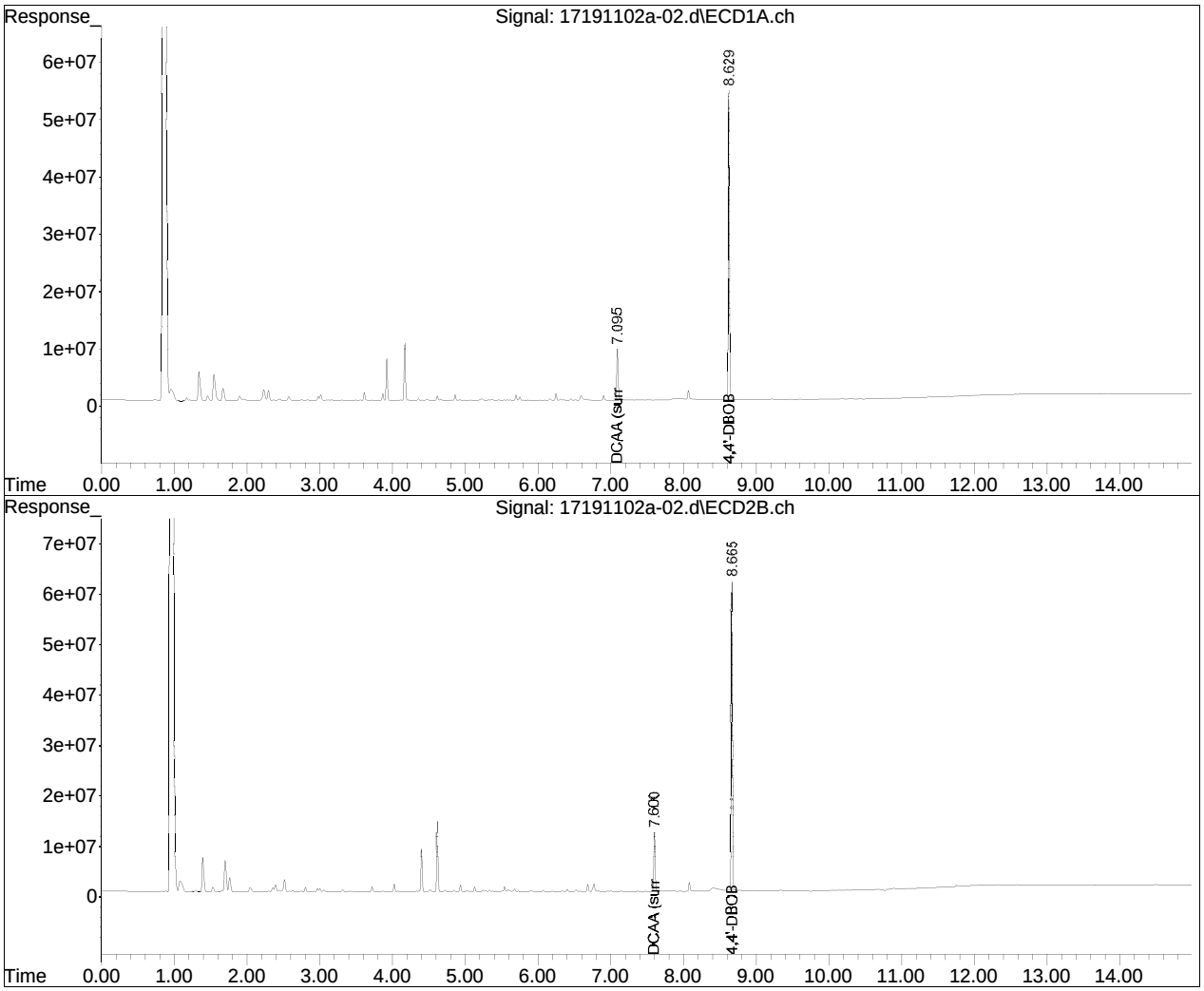
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-01.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-02.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:10 pm
Operator : PEST17:jmc
Sample : wg1303576-1,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:11:41 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-02.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 5:10 pm	Instrument	: Pest 17
Sample	: wg1303576-1,42e,,t	Quant Date	: 11/4/2019 1:11 pm

There are no manual integrations or false positives in this file.

LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 3:04 am
Operator : PEST17:jmc
Sample : wg1303249-2,42e,,50,1
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 11:47:33 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	714.3E6	719.5E6	0.250	0.250
Standard Area 1 : #1 = 609345957				Recovery =	117.22%	
Standard Area 1 : #2 = 640882589				Recovery =	112.26%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.600	198.6E6	253.3E6	0.428	0.439
Spiked Amount	0.500	Range 30 - 150		Recovery =	85.60%	87.80%
Target Compounds						
8) t 2,4-D	8.177f	8.707	265.9E6	293.8E6	0.504	0.460
9) t 2,4,5-TP (Si	8.890f	9.363	1002.1E6	961.1E6	0.497	0.473
SemiQuant Compounds - Not Calibrated on this Instrument						

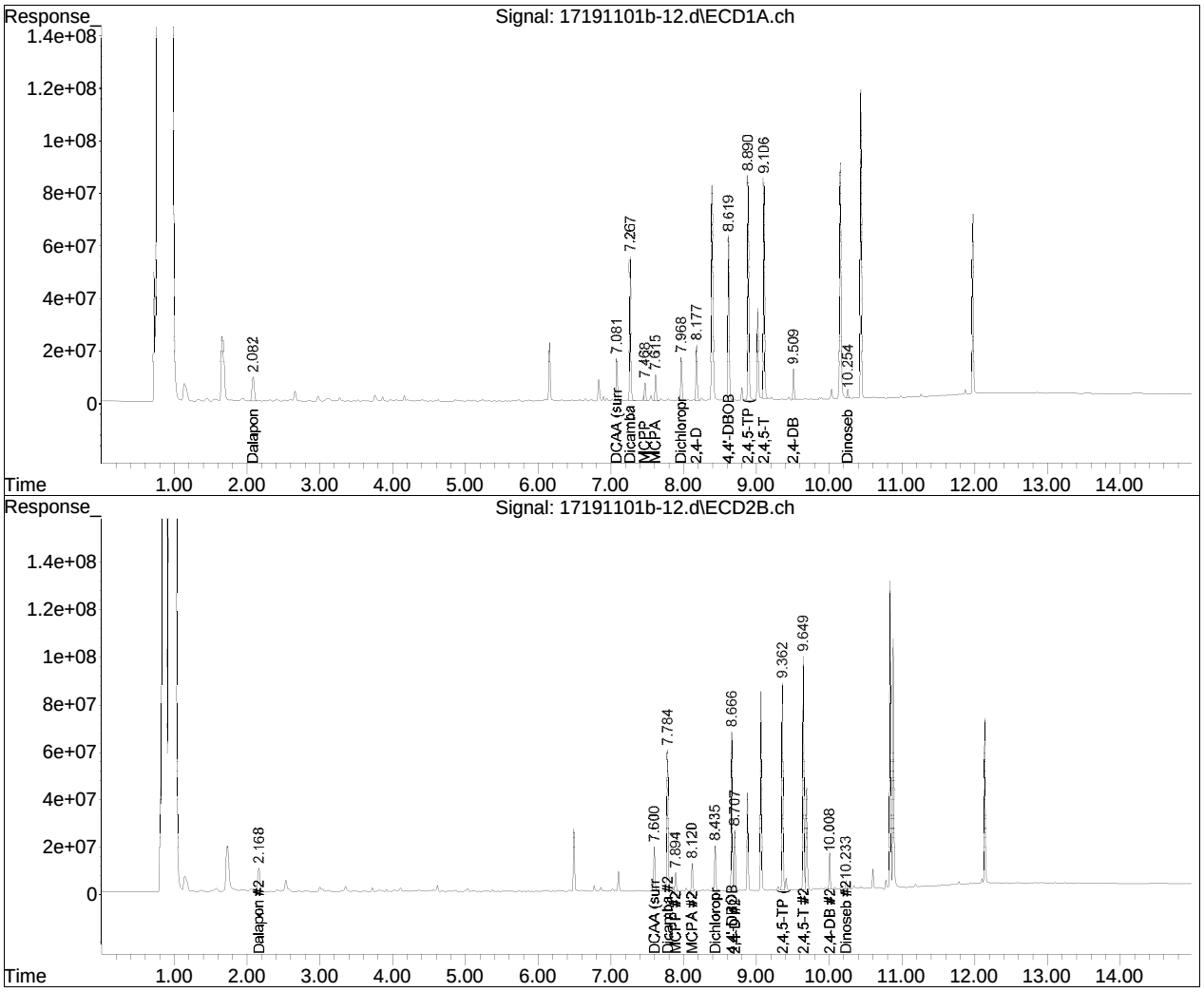
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-12.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 3:04 am
Operator : PEST17:jmc
Sample : wg1303249-2,42e,,50,1
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 11:47:33 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:29 pm
Operator : PEST17:jmc
Sample : wg1303576-2,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:11:58 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-01.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.622f	8.666	623.6E6	706.1E6	0.250	0.250
Standard Area 1 : #1 = 620012415				Recovery =	100.58%	
Standard Area 1 : #2 = 665231401				Recovery =	106.15%	
System Monitoring Compounds						
3) s DCAA (surrog	7.085f	7.600	131.6E6	227.7E6	0.325	0.402
Spiked Amount	0.500	Range 30 - 150		Recovery =	65.00%	80.40%
Target Compounds						
8) t 2,4-D	8.180f	8.707	223.5E6	282.6E6	0.485	0.451
9) t 2,4,5-TP (Si	8.893f	9.363	455.7E6	578.2E6	0.259	0.288
SemiQuant Compounds - Not Calibrated on this Instrument						

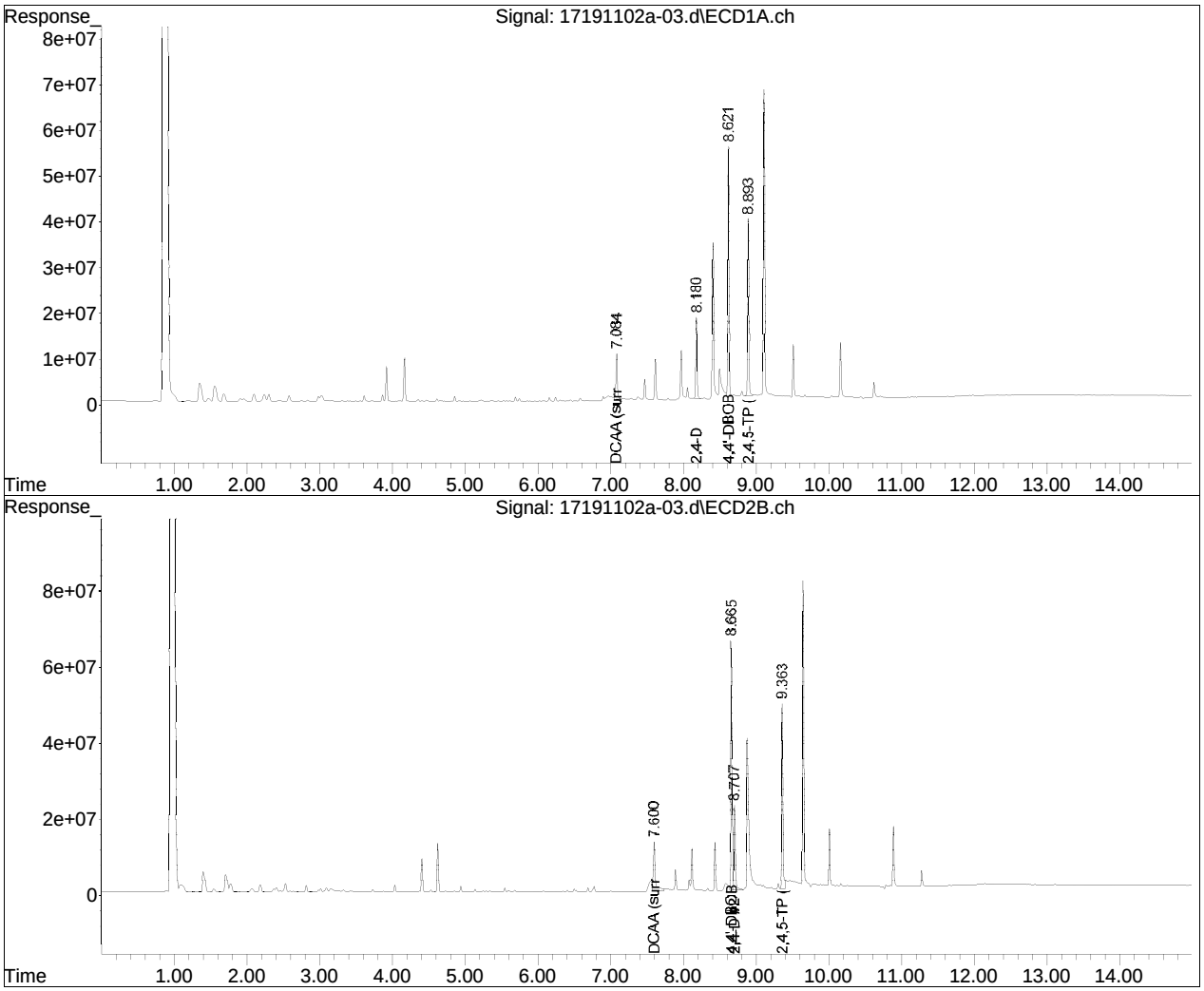
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-01.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-03.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:29 pm
Operator : PEST17:jmc
Sample : wg1303576-2,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:11:58 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Manual Integration Report

Data Path	: I:\Pest17\191102a\	QMethod	: Herb17_09_03_ICAL16100.m
Data File	: 17191102a-03.d	Operator	: PEST17:jmc
Date Inj'd	: 11/2/2019 5:29 pm	Instrument	: Pest 17
Sample	: wg1303576-2,42e,,t	Quant Date	: 11/4/2019 1:11 pm

There are no manual integrations or false positives in this file.

LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 3:22 am
Operator : PEST17:jmc
Sample : wg1303249-3,42e,,50,1
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 11:49:38 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191101B\17191101b-10.d
Sub List : Default - All compounds listed

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.620f	8.666	706.2E6	713.5E6	0.250	0.250
Standard Area 1 : #1 = 609345957				Recovery =	115.89%	
Standard Area 1 : #2 = 640882589				Recovery =	111.33%	
System Monitoring Compounds						
3) s DCAA (surrog	7.082f	7.601	190.5E6	235.7E6	0.415	0.412
Spiked Amount	0.500	Range 30 - 150		Recovery =	83.00%	82.40%
Target Compounds						
8) t 2,4-D	8.178f	8.707	251.1E6	275.9E6	0.481	0.436
9) t 2,4,5-TP (Si	8.891f	9.363	944.8E6	922.9E6	0.474	0.458
SemiQuant Compounds - Not Calibrated on this Instrument						

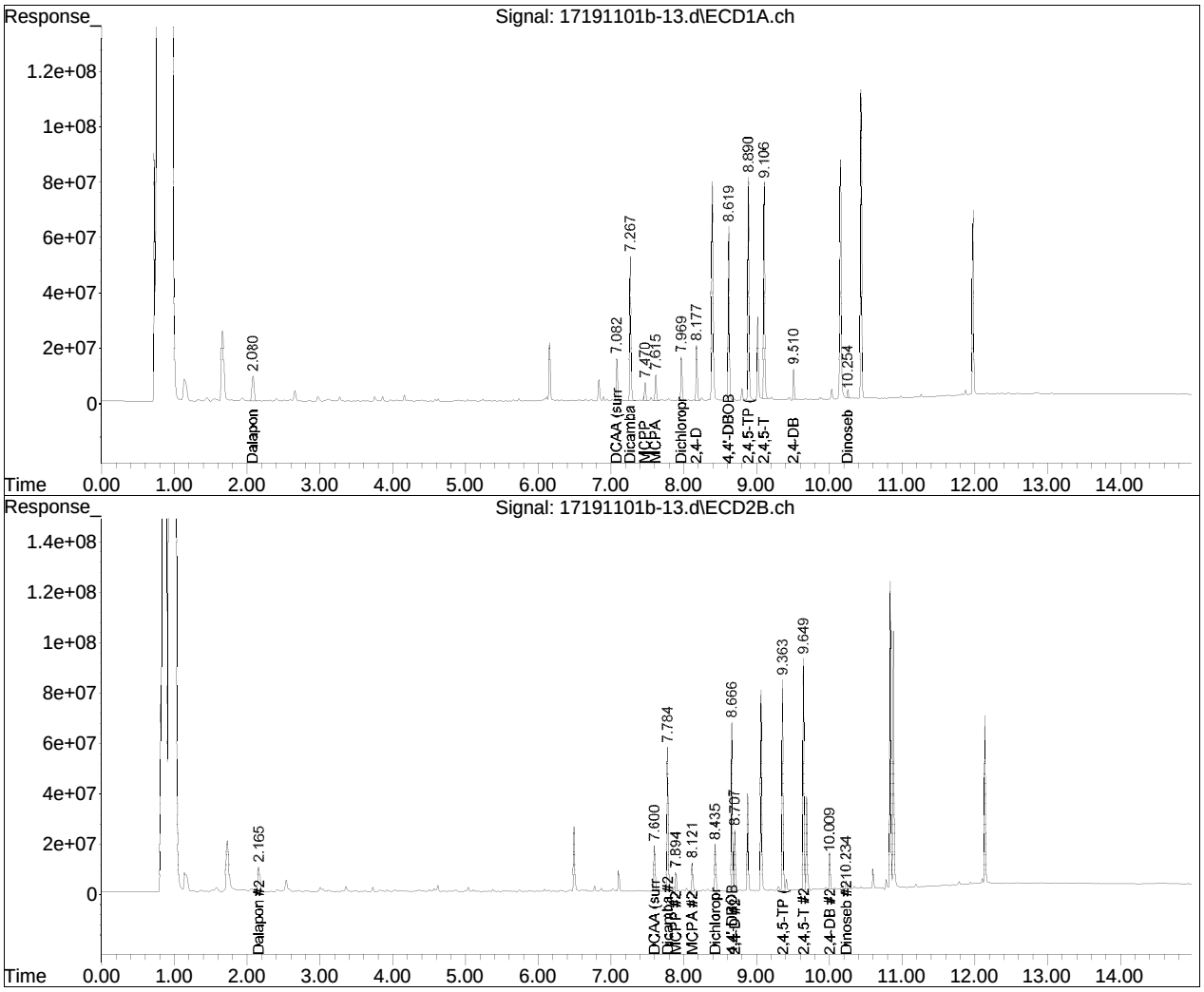
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : Default - All compounds listedb-10.d••d)

Data Path : I:\Pest17\191101B\
Data File : 17191101b-13.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 3:22 am
Operator : PEST17:jmc
Sample : wg1303249-3,42e,,50,1
Misc : wg1303698,wg1303249,ical16100
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 11:49:38 2019
Quant Method : I:\Pest17\191101B\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:47 pm
Operator : PEST17:jmc
Sample : wg1303576-3,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:12:55 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

CCAL FILE(s) : 1 - I:\Pest17\191102a\17191102a-01.d
Sub List : HERB-TCLP - TCLP

Compound	RT#1	RT#2	Resp#1	Resp#2	mg/l	mg/l
Internal Standards						
1) i 4,4'-DBOB	8.621f	8.666	743.0E6	684.4E6	0.250	0.250
Standard Area 1 : #1 = 620012415				Recovery =	119.84%	
Standard Area 1 : #2 = 665231401				Recovery =	102.88%	
System Monitoring Compounds						
3) s DCAA (surrog	7.083f	7.600	162.8E6	161.6E6	0.337M3	0.295M4
Spiked Amount 0.500	Range 30 - 150		Recovery =	67.40%	59.00%	
Target Compounds						
8) t 2,4-D	8.179f	8.707	271.3E6	335.9E6	0.494	0.553
9) t 2,4,5-TP (Si	8.892f	9.363	515.6E6	547.7E6	0.246	0.281
SemiQuant Compounds - Not Calibrated on this Instrument						

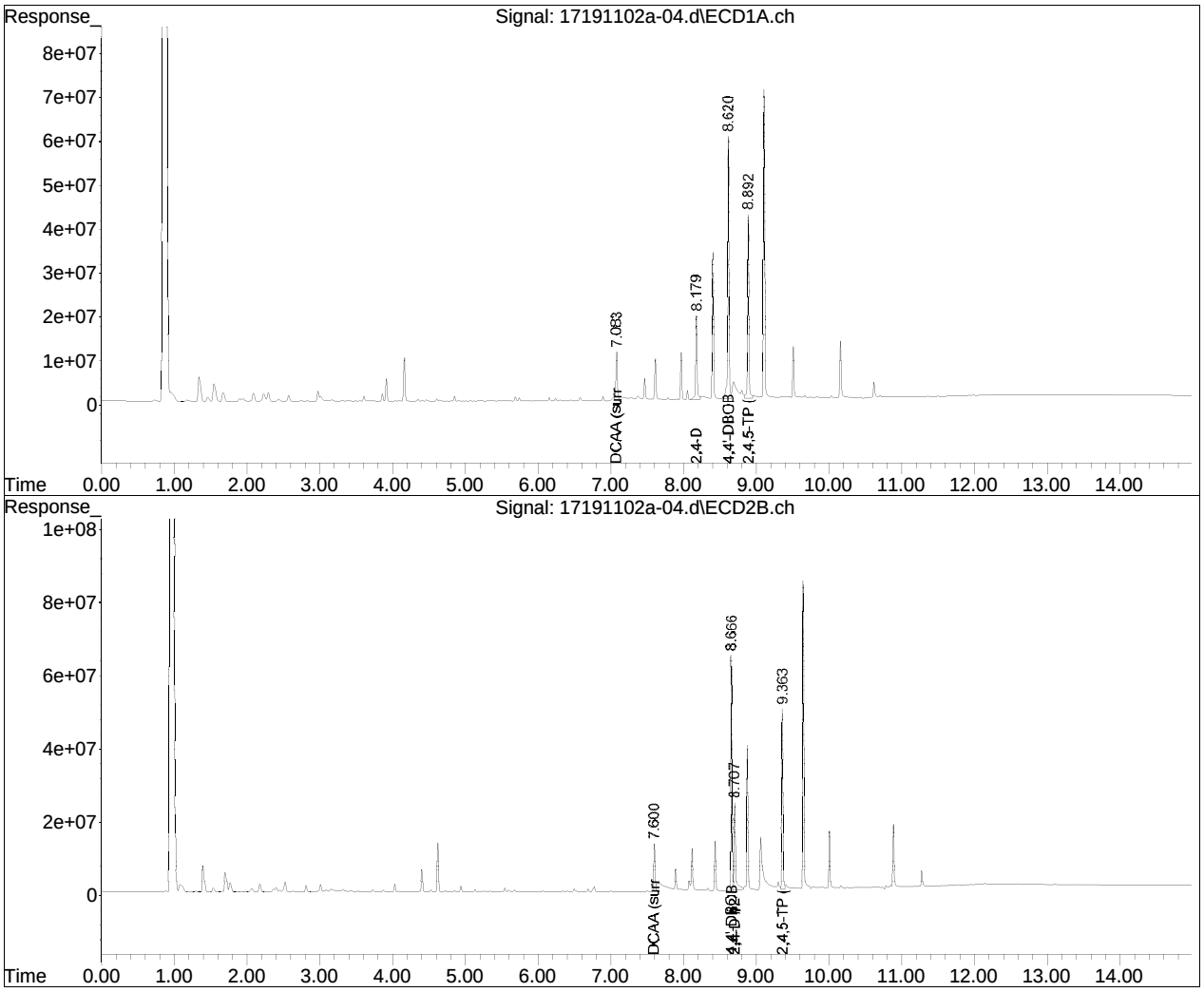
(f)=RT Delta > 1/2 Window (D)=Amounts differ by > 40% (m)=manual int.
(#)=Recovery Exceeds Compound Acceptance Limits.
(I,C,F) I=Interference, C=Coelluting Calibration Peak, F=Fails CC Criteria.

Sub List : HERB-TCLP - TCLP1102a\17191102a-01.d••d)

Data Path : I:\Pest17\191102a\
Data File : 17191102a-04.d
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 2 Nov 2019 5:47 pm
Operator : PEST17:jmc
Sample : wg1303576-3,42e,,t
Misc : wg1303892,wg1303576,ical16100
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Nov 04 13:12:55 2019
Quant Method : I:\Pest17\191102a\Herb17_09_03_ICAL16100.m
Quant Title : herb
QLast Update : Thu Oct 24 23:26:33 2019
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

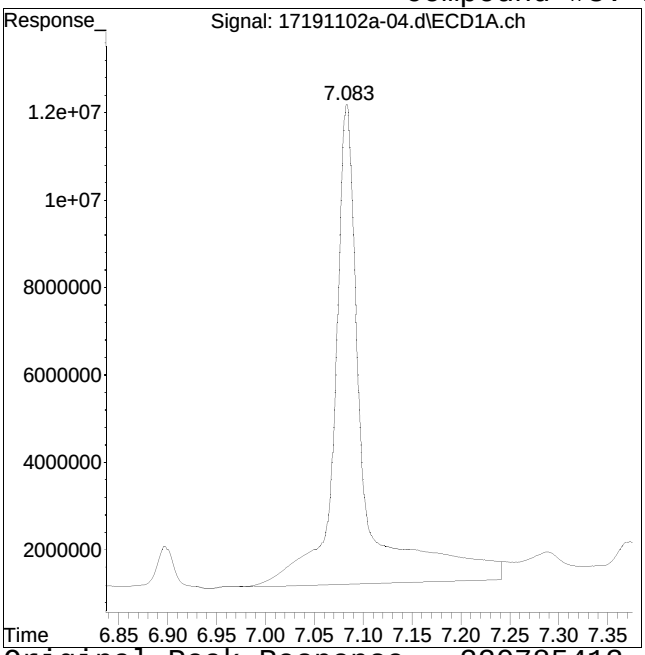


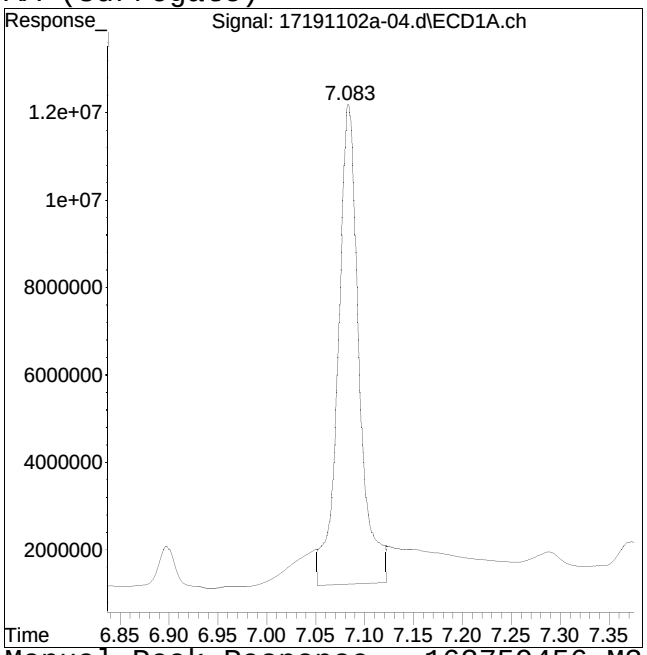
Manual Integration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-04.d
Date Inj'd : 11/2/2019 5:47 pm
Sample : wg1303576-3,42e,,t

QMethod : Herb17_09_03_ICAL16100.m
Operator : PEST17:jmc
Instrument : Pest 17
Quant Date : 11/4/2019 1:12 pm

Compound #3: DCAA (surrogate)





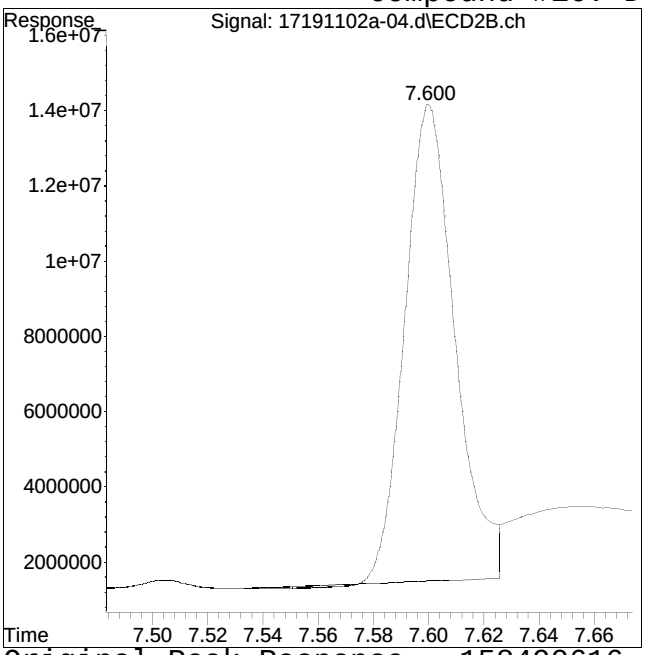
Original Peak Response = 220785413 Manual Peak Response = 162759456 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

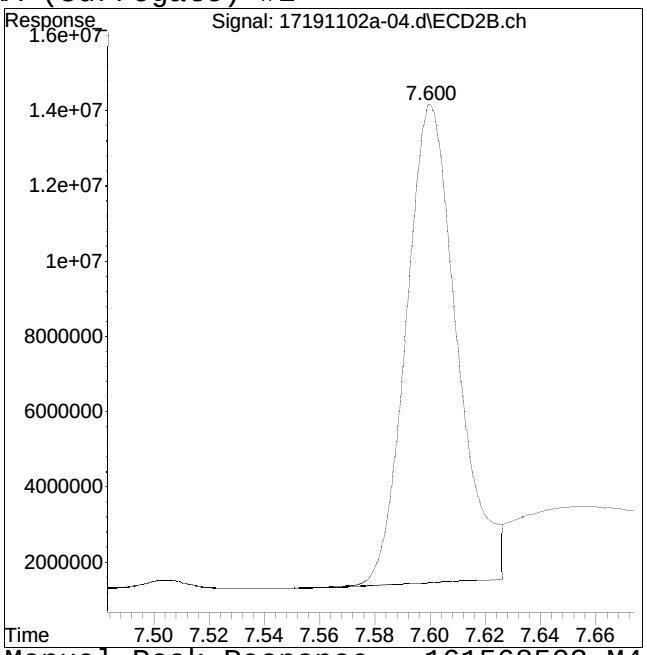
Manual Integration Report

Data Path : I:\Pest17\191102a\
Data File : 17191102a-04.d
Date Inj'd : 11/2/2019 5:47 pm
Sample : wg1303576-3,42e,,t

QMethod : Herb17_09_03_ICAL16100.m
Operator : PEST17:jmc
Instrument : Pest 17
Quant Date : 11/4/2019 1:12 pm

Compound #16: DCAA (surrogate) #2





Original Peak Response = 158490616 Manual Peak Response = 161568503 M4
M4 = Poor automated baseline construction.

Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG1303249

Prep Method: EPA 8151A
Solvent Type: DCM/Acetone **Lot #:** AD01819
Surrogate Type: Herbicide **Lot #:** PP9529
Spike Type: Herbicides **Lot #:** PP9530
Spike Verify by: SD
Lims Spikelot: HERB8151

Additional Reagents/Stds

Acidified Na2SO4	AS103119
DCM	DX321
H2SO4	2019081325

Conc.Method: S-EVAP/N-EVAP
Solvent Type: Diethyl ether
Lot #: 19080331

Additional Reagents/Stds

12N H2SO4	12A102919
37% KOH	K102119
Acidified Na2SO4	AS110119
DCM	DX321
Diazomethane	D103019
Hexane	DX463
Isooctane	SHBJ6126
Methanol	58228
Silicic Acid	MKCD7973

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Extraction | **Concentration**

Sample/ Type	Extract Date	Analyst	Sample Weight g	Balance Id	Ph	Surr Amt ml	Spike Amt ml	Extract Unit Id	Conc Date	Analyst	Ph	Conc Volume		Hydrolysis Stop
L1951180-01 SOIL	11/01/19 00:17	Samy Dakkash	30.24	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951180-02 SOIL	11/01/19 00:17	Samy Dakkash	30.19	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951180-03 SOIL	11/01/19 00:17	Samy Dakkash	30.28	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-01 SOIL	11/01/19 00:17	Samy Dakkash	30.43	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-02 SOIL	11/01/19 00:17	Samy Dakkash	30.64	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00

Reported: 04-NOV-19 04:48 PM

ORGANIC ELN REPORT

Workgroup: WG1303249

Sample/ Type	Extraction								Concentration					
	Extract Date	Analyst	Sample Weight g	Balance Id	Ph	Surr Amt ml	Spike Amt ml	Extract Unit Id	Conc Date	Analyst	Ph	Conc Volume	Hydrolysis Stop	
L1951399-03 SOIL	11/01/19 00:17	Samy Dakkash	30.92	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-04 SOIL	11/01/19 00:17	Samy Dakkash	30.47	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-05 SOIL	11/01/19 00:17	Samy Dakkash	30.58	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-06 SOIL	11/01/19 00:17	Samy Dakkash	30.33	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-07 SOIL	11/01/19 00:17	Samy Dakkash	30.61	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-08 SOIL	11/01/19 00:17	Samy Dakkash	30.50	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951399-09 SOIL	11/01/19 00:17	Samy Dakkash	30.82	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951404-01 SAMP	11/01/19 00:20	Samy Dakkash	30.69	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951404-02 SAMP	11/01/19 00:20	Samy Dakkash	30.15	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951404-03 SAMP	11/01/19 00:20	Samy Dakkash	30.38	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00

Reported: 04-NOV-19 04:48 PM

ORGANIC ELN REPORT

Workgroup: WG1303249

Sample/ Type	Extraction								Concentration					
	Extract Date	Analyst	Sample Weight **g**	Balance Id	Ph	Surr Amt **ml**	Spike Amt **ml**	Extract Unit Id	Conc Date	Analyst	Ph	Conc Volume		Hydrolysis Stop
L1951487-01 SOIL	11/01/19 00:20	Samy Dakkash	30.31	37	<2	.5		4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
L1951487-02 SOIL	11/01/19 00:20	Samy Dakkash	30.57	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
WG1303249-1 BLANK	11/01/19 00:17	Samy Dakkash	30.54	37	<2	.5		3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
	WG1303251,WG1303250													
WG1303249-2 LCS	11/01/19 00:17	Samy Dakkash	30.26	37	<2	.5	.5	3	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00
WG1303249-3 LCSD	11/01/19 00:17	Samy Dakkash	30.80	37	<2	.5	.5	4	11/01/19 18:30	Eric Asamoah	PH>12/ <2	0.5	11/01/19 06:30	11/01/19 08:00

Reported: 04-NOV-19 04:48 PM

ORGANIC ELN REPORT

Workgroup: WG1303576

Prep Method: EPA 8151A
Solvent Type: Diethyl ether **Lot #:** 19080331
Surrogate Type: Herbicide **Lot #:** 9529
Spike Type: Herbicides **Lot #:** 9530
Spike Verify by: FO
Lims Spikelot: HERB8151
Additional Reagents/Stds **TCLP Extraction Date** 10/31/19 07:06

12N H2SO4	12A102919
25% NaOH	NA102519
Acidified Na2SO4	AS110119
DCM	DX321
Diethyl ether	19080331
Na2S2O3	N/A
NaCl	19D0856817

Conc.Method: S-EVAP/N-EVAP
Solvent Type: Benzene
Lot #: 57300
Additional Reagents/Stds

Acidified Na2SO4	AS110119
BF3 Methanol	BCCB0936

Cleanup 1
Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**
Additional Reagents/Stds

Extraction **Concentration**

Sample/ Type	Extract Date	Analyst	Sample Vol ml	Ph	Trc Check	Surr Amt ml	Spike Amt ml	Hydrolysis Start	Hydrolysis Stop	Conc Date	Analyst	Conc Volume ml	Methylation Date	ml ml	Final Vol ml
L1950933-02 SOIL	11/02/19 05:11 **10/31/19 07:06**	Samy Dakkash	200	PH>12/< 2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
L1951259-06 SOIL	11/01/19 15:46 **10/31/19 11:53**	Frederick Opoku	200	PH>12/< 2	N/A	.25		11/01/19 17:00	11/01/19 18:30	11/02/19 05:00	Samy Dakkash	5	11/02/19 07:25	2/5	5
L1951368-01 SOIL	11/01/19 15:46 **10/31/19 07:06**	Frederick Opoku	200	PH>12/< 2	N/A	.25		11/01/19 17:00	11/01/19 18:30	11/02/19 05:00	Samy Dakkash	5	11/02/19 07:22	2/5	5
L1951392-01 SOIL	11/02/19 05:11 **11/01/19 00:01**	Samy Dakkash	200	PH>12/< 2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
L1951392-02 SOIL	11/02/19 05:11 **11/01/19 00:01**	Samy Dakkash	200	PH>12/< 2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5

Reported: 04-NOV-19 04:48 PM

ORGANIC ELN REPORT

Workgroup: WG1303576

Sample/ Type	Extraction									Concentration					
	Extract Date	Analyst	Sample Vol **ml**	Ph	Trc Check	Surr Amt **ml**	Spike Amt **ml**	Hydrolysis Start	Hydrolysis Stop	Conc Date	Analyst	Conc Volume **ml**	Methylation Date	ml **ml**	Final Vol **ml**
L1951399-01 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-02 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-03 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-04 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-05 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-06 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-07 SOIL	11/02/19 05:11	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-08 SOIL	11/02/19 06:04	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951399-09 SOIL	11/02/19 06:04	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														
L1951487-01 SOIL	11/02/19 06:04	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
	11/01/19 07:36														

Reported: 04-NOV-19 04:48 PM

ORGANIC ELN REPORT

Workgroup: WG1303576

Sample/ Type	Extraction									Concentration					
	Extract Date	Analyst	Sample Vol **ml**	Ph	Trc Check	Surr Amt **ml**	Spike Amt **ml**	Hydrolysis Start	Hydrolysis Stop	Conc Date	Analyst	Conc Volume **ml**	Methylation Date	ml **ml**	Final Vol **ml**
L1951487-02 SOIL	11/02/19 06:04 **11/01/19 07:36**	Samy Dakkash	200	PH>12/<2	N/A	.25		11/02/19 05:50	11/02/19 07:20	11/02/19 13:00	Armia Rashed	5	11/02/19 15:44	2/5	5
WG1303576-1 BLANK	11/01/19 15:46	Frederick Opoku	200	PH>12/<2	N/A	.25		11/01/19 17:00	11/01/19 18:30	11/02/19 05:00	Samy Dakkash	5	11/02/19 07:21	2/5	5
WG1303576-2 LCS	11/01/19 15:46	Frederick Opoku	200	PH>12/<2	N/A	.25	.25	11/01/19 17:00	11/01/19 18:30	11/02/19 05:00	Samy Dakkash	5	11/02/19 07:21	2/5	5
WG1303576-3 LCSD	11/01/19 15:46	Frederick Opoku	200	PH>12/<2	N/A	.25	.25	11/01/19 17:00	11/01/19 18:30	11/02/19 05:00	Samy Dakkash	5	11/02/19 07:22	2/5	5

Reported: 04-NOV-19 04:48 PM

Wet Chemistry

Total Solids / Percent Moisture Analysis

Sample Raw Data

Wet Chemistry Gravimetric ELN

Printed: NOV-01-19 03:40:29

WorkGroup WG1302897
Title Solids, Total
Method SM2540G
Instrumen BALANCE#47

Temp In (C)	105	**Temp In (C)**		**Temp In (C)**		**Temp In (C)**	
Temp Out (C)	105	**Temp Out (C)**		**Temp Out (C)**		**Temp Out (C)**	
Time In	31-OCT-19 11:51	**Time In**		**Time In**		**Time In**	
Time Out	31-OCT-19 20:03	**Time Out**		**Time Out**		**Time Out**	

Sample #	Analysis Date	Analyst	Tare Weight (gm)	Gross Weight (gm)	Net Weight (1) (gm)	Net Weight (2) (gm)	Net Weight (3) (gm)	Net Weight (4) (gm)	Result %	Comment
L1949707-01	31-OCT-19 11:40	ROMANY IBRAHIM	1.16	7.05	7				99.15	
L1949707-02	31-OCT-19 11:40	ROMANY IBRAHIM	1.16	9.67	7.55				75.09	
L1949707-03	31-OCT-19 11:40	ROMANY IBRAHIM	1.13	8.21	4.21				43.50	
L1949715-01	31-OCT-19 11:40	ROMANY IBRAHIM	1.15	8.7	7.15				79.47	
L1949715-02	31-OCT-19 11:40	ROMANY IBRAHIM	1.16	8.98	7.75				84.27	
L1949715-03	31-OCT-19 11:40	ROMANY IBRAHIM	1.14	8.38	6.81				78.31	
L1951399-01	31-OCT-19 11:40	ROMANY IBRAHIM	1.14	8.19	5.71				64.82	
L1951399-02	31-OCT-19 11:40	ROMANY IBRAHIM	1.15	8.56	5.14				53.85	
L1951399-03	31-OCT-19 11:40	ROMANY IBRAHIM	1.14	8.43	5.3				57.06	
L1951399-04	31-OCT-19 11:40	ROMANY IBRAHIM	1.15	9.3	8.15				85.89	
L1951399-05	31-OCT-19 11:40	ROMANY IBRAHIM	1.16	8.52	6.97				78.94	
L1951399-06	31-OCT-19 11:40	ROMANY IBRAHIM	1.15	8.3	6.28				71.75	
L1951399-07	31-OCT-19 11:40	ROMANY IBRAHIM	1.16	8.75	6.02				64.03	
L1951399-08	31-OCT-19 11:40	ROMANY IBRAHIM	1.18	8.57	6.09				66.44	
L1951399-09	31-OCT-19 11:40	ROMANY IBRAHIM	1.18	8.94	5.57				56.57	
WG1302897-1	31-OCT-19 11:40	ROMANY IBRAHIM	1.14	8.15	5.59				63.48	

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 01 2019, 07:43 pm

Work Group: WG1302897 for Department: 7 Wet Chemistry

Created: 31-OCT-19 Due: Operator: RI

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1949707-01	BD-1	S	TS	SOIL	DONE	U	1025	1121	S0	Plastic-A-TS
L1949707-02	BD-2	S	TS	SOIL	DONE	U	1025	1121	S0	Plastic-A-TS
L1949707-03	BD-3	S	TS	SOIL	DONE	U	1025	1121	S0	Plastic-A-TS
L1949715-01	GD-1	S	TS	SOIL	DONE	U	1025	1105	S0	Plastic-A-TS
L1949715-02	GD-2	S	TS	SOIL	DONE	U	1025	1105	S0	Plastic-A-TS
L1949715-03	GD-3	S	TS	SOIL	DONE	U	1025	1105	S0	Plastic-A-TS
L1951399-01	PDI-071SC-C-00-08-191028	S	TS	SOIL	DONE	U	1104	1120	S0	Plastic-A-TS
L1951399-02	PDI-074SC-C-00-7.3-191028	S	TS	SOIL	DONE	U	1104	1120	S0	Plastic-A-TS
L1951399-03	PDI-083SC-C-00-08-191028	S	TS	SOIL	DONE	U	1104	1120	S0	Plastic-A-TS
L1951399-04	PDI-015SC-C-00-8.1-191024	S	TS	SOIL	DONE	U	1031	1120	S0	Plastic-A-TS
L1951399-05	PDI-026SC-C-00-3.9-191024	S	TS	SOIL	DONE	U	1031	1120	S0	Plastic-A-TS
L1951399-06	PDI-037SC-C-00-12.4-191024	S	TS	SOIL	DONE	U	1031	1120	S0	Plastic-A-TS
L1951399-07	PDI-073SC-C-00-13.7-191024	S	TS	SOIL	DONE	U	1031	1120	S0	Plastic-A-TS
L1951399-08	PDI-019SC-C-00-3.2-191025	S	TS	SOIL	DONE	U	1101	1120	S0	Plastic-A-TS
L1951399-09	PDI-095SC-C-00-8.8-191025	S	TS	SOIL	DONE	U	1101	1120	S0	Plastic-A-TS
WG1302897-1	Duplicate Sample	S	TS	SOIL	DONE	U				

Comments:

WG1302897-1 L1951399-01

pH
Analysis

Sample Raw Data

ALPHA ANALYTICAL LABS

WET CHEMISTRY DEPARTMENT

pH

Last Change 01/03/11
File pH.xlt

Sample Number: _____

Client: _____

Analysis: pH

Method: EPA 9045C

Product: pH-9045
Analyte: pH,
Analysis Date: 10/31/2019 18:06
Technician: as
Work group: wg1303156
RL: None

	Sample Number	Meter	Matrix	Comments		RESULT pH, SU	
DUP	WG1303156-2	White	Soil/Solid		1	7.46	L1951180-01
	L1951180-01	White	Soil/Solid		1	7.48	
	L1951180-02	White	Soil/Solid		1	6.42	
	L1951180-03	White	Soil/Solid		1	7.78	
	L1951216-01	White	Soil/Solid		1	6.55	
	L1951216-02	White	Soil/Solid		1	7.56	
	L1951392-01	White	Soil/Solid		1	10.65	
	L1951392-02	White	Soil/Solid		1	10.25	
	L1951399-01	White	Soil/Solid		1	6.16	
	L1951399-02	White	Soil/Solid		1	6.21	
	L1951399-03	White	Soil/Solid		1	6.41	
	L1951399-04	White	Soil/Solid		1	6.15	
	L1951399-05	White	Soil/Solid		1	5.86	
	L1951399-06	White	Soil/Solid		1	5.33	
	L1951399-07	White	Soil/Solid		1	6.29	
	L1951399-08	White	Soil/Solid		1	6.07	
	L1951399-09	White	Soil/Solid		1	6.49	
					1		
					1		
					1		
					1		

	Sample Number	Meter			True Value of Lcs	Result	%
LCS	WG1303156-1	White			7	7.01	100

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 18 2019, 12:36 pm

Work Group: WG1303156 for Department: 7 Wet Chemistry

Created: 31-OCT-19 Due: Operator: as

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1951180-01	WC-1	C	PH-9045	SOIL	DONE	U	1025	1104	1C	Glass-A.25
L1951180-02	WC-2	C	PH-9045	SOIL	DONE	U	1025	1104	1C	Glass-A.25
L1951180-03	WC-3	C	PH-9045	SOIL	DONE	U	1030	1104	1C	Glass-A.25
L1951216-01	NATIVE	C	PH-9045	SOIL	DONE	U	1031	1106	S0	Glass-A.25
L1951216-02	FILL	C	PH-9045	SOIL	DONE	U	1031	1106	S0	Glass-A.25
L1951392-01	WC-PA-1916-191030-01	S	PH-9045	SOIL	DONE	U	1031	1104	1C	Glass-A.25
L1951392-02	WC-PA-1917-191030-01	S	PH-9045	SOIL	DONE	U	1031	1104	1C	Glass-A.25
L1951399-01	PDI-071SC-C-00-08-191028	S	PH-9045	SOIL	DONE	U	1029	1118	S0	Glass-A.25
L1951399-02	PDI-074SC-C-00-7.3-191028	S	PH-9045	SOIL	DONE	U	1029	1118	S0	Glass-A.25
L1951399-03	PDI-083SC-C-00-08-191028	S	PH-9045	SOIL	DONE	U	1029	1118	S0	Glass-A.25
L1951399-04	PDI-015SC-C-00-8.1-191024	S	PH-9045	SOIL	DONE	U	1025	1118	S0	Glass-A.25
L1951399-05	PDI-026SC-C-00-3.9-191024	S	PH-9045	SOIL	DONE	U	1025	1118	S0	Glass-A.25
L1951399-06	PDI-037SC-C-00-12.4-191024	S	PH-9045	SOIL	DONE	U	1025	1118	S0	Glass-A.25
L1951399-07	PDI-073SC-C-00-13.7-191024	S	PH-9045	SOIL	DONE	U	1025	1118	S0	Glass-A.25
L1951399-08	PDI-019SC-C-00-3.2-191025	S	PH-9045	SOIL	DONE	U	1026	1118	S0	Glass-A.25
L1951399-09	PDI-095SC-C-00-8.8-191025	S	PH-9045	SOIL	DONE	U	1026	1118	S0	Glass-A.25
WG1303156-1	Laboratory Control S	S	PH-9045	SOIL	DONE	U				
WG1303156-2	Duplicate Sample	S	PH-9045	SOIL	DONE	U				

Comments:

WG1303156-2 L1951180-01

Sample Preparation

From Page No. ____

Sample	Temp (°C)	Weight (g)	Meter	Method	Reading	
LCS(wc26675)	I	—	White 3	9045 D	7.00	10/31/19
51200-01D	20.4	15.3			7.01	7:52
-01	20.5	15.4			7.08	AM
-02	20.9	15.3			7.80	
51259-06	21.1	16.0			7.91	
LCS(wc26675)	—	—	↓	↓	6.97	
LCS(wc26675)	—	—	White	—	7.01	10/31/19
51426-1D	20.4	I		4500	5.75	18:06
-1	20.3	I		↓	5.76	PM
51180-1D	20.6	20.2		9045D	5.46	
-1	20.6	20.5			5.48	
-2	20.8	20.7			6.42	
-3	20.9	20.3			7.78	
51216-1	20.7	20.1			6.50	
-2	21.0	20.6			6.56	
51392-1	20.8	20.2			10.65	
-2	21.0	20.0			10.25	
CCV(wc26675)	—	—			7.04	
51394-1	21.4	20.5			6.16	
-2	20.6	20.0			6.31	
-3	20.3	20.7			6.41	
-4	21.5	20.1			6.15	
-5	21.2	20.0			5.86	
-6	21.0	20.7			5.38	
-7	21.3	20.2			6.29	
-8	20.9	20.8			6.07	
-9	20.6	19.7			6.49	
LCS(wc26675)	—	—	↓	—	7.06	

To Page No. ____

Witnessed & Understood by me, Date | Invented by: Date

Recorded by:

Ignitability Analysis

Sample Raw Data

ALPHA ANALYTICAL LABS
WET CHEMISTRY DEPARTMENT

LAST CHANGED BY/ON: OFF
File ignitability.xlt

Sample #:

Analysis: IGNITABILITY
Method: D10

Sample Weight (g):

Product: IGNIT-TEST
Analyte: Ignitability
Analysis Date: 11/1/2019 10:46
Technician: MY
Work Group: WG1303350

NOTE: Columns H through S need only be populated if sample is ignitable
If Sample is ignitable, leave Ignitability blank

	Sample Number	Source of Material	Description of Material	Particle Size	Preliminary Burning Time (sec)	Ignitability	Date of Burn Rate Test	Temperature of Test Material (oC)	Air Velocity Through Fume Hood (m/s)	Time Between Flame and Ignition (Rep1)	Burning Time Over 100mm (Rep1)	Burning Rate (Rep1)	Time Between Flame and Ignition (Rep2)	Burning Time Over 100mm (Rep2)	Burning Rate (Rep2)	Time Between Flame and Ignition (Rep3)	Burning Time Over 100mm (Rep3)	Burning Rate (Rep3)
Samp. 1	L951180-01	Unknown	Non-Metallic - Damp Soil	Medium	120	NI												
Samp. 2	L951180-02	Unknown	Non-Metallic - Damp Soil	Medium	120	NI												
Samp. 3	L951180-03	Unknown	Non-Metallic - Damp Soil	Medium	120	NI												
Samp. 4	L951259-06	Unknown	Non-Metallic - Damp Soil	Medium	120	NI												
Samp. 5	L951399-01	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 6	L951399-02	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 7	L951399-03	Unknown	Non-Metallic - Wet Clay	Medium	120	NI												
Samp. 8	L951399-04	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 9	L951399-05	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 10	L951399-06	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 11	L951399-07	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 12	L951399-08	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 13	L951399-09	Unknown	Non-Metallic - Wet Soil	Medium	120	NI												
Samp. 14	L951639-02	Unknown	Non-Metallic - Damp Soil	Medium	120	NI												
Samp. 15	L951640-01	Unknown	Non-Metallic - Damp Soil	Medium	120	NI												
Samp. 16																		
Samp. 17																		
Samp. 18																		
Samp. 19																		
Samp. 20																		
Samp. 21																		
Samp. 22																		
Samp. 23																		
Samp. 24																		
Samp. 25																		

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 18 2019, 12:37 pm

Work Group: WG1303350 for Department: 7 Wet Chemistry

Created: 01-NOV-19 Due: Operator: MV

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1951180-01	WC-1	C	IGNIT-1030	SOIL	DONE	U	1107	1104	1C	Glass-A.25
L1951180-02	WC-2	C	IGNIT-1030	SOIL	DONE	U	1107	1104	1C	Glass-A.25
L1951180-03	WC-3	C	IGNIT-1030	SOIL	DONE	U	1112	1104	1C	Glass-A.25
L1951259-06	WC-17_0-3	C	IGNIT-1030	SOIL	DONE	U	1113	1104	1C	Glass-A.25
L1951399-01	PDI-071SC-C-00-08-191028	S	IGNIT-1030	SOIL	DONE	U	1111	1118	S0	Glass-A.25
L1951399-02	PDI-074SC-C-00-7.3-191028	S	IGNIT-1030	SOIL	DONE	U	1111	1118	S0	Glass-A.25
L1951399-03	PDI-083SC-C-00-08-191028	S	IGNIT-1030	SOIL	DONE	U	1111	1118	S0	Glass-A.25
L1951399-04	PDI-015SC-C-00-8.1-191024	S	IGNIT-1030	SOIL	DONE	U	1107	1118	S0	Glass-A.25
L1951399-05	PDI-026SC-C-00-3.9-191024	S	IGNIT-1030	SOIL	DONE	U	1107	1118	S0	Glass-A.25
L1951399-06	PDI-037SC-C-00-12.4-191024	S	IGNIT-1030	SOIL	DONE	U	1107	1118	S0	Glass-A.25
L1951399-07	PDI-073SC-C-00-13.7-191024	S	IGNIT-1030	SOIL	DONE	U	1107	1118	S0	Glass-A.25
L1951399-08	PDI-019SC-C-00-3.2-191025	S	IGNIT-1030	SOIL	DONE	U	1108	1118	S0	Glass-A.25
L1951399-09	PDI-095SC-C-00-8.8-191025	S	IGNIT-1030	SOIL	DONE	U	1108	1118	S0	Glass-A.25
L1951639-02	STOCKPILE COMP	C	IGNIT-1030	SOIL	DONE	U	1114	1113	1C	Glass-A.25
L1951640-01	TRIM STOCKPILE COMP	C	IGNIT-1030	SOIL	DONE	U	1114	1111	S0	Glass-A.25

Sample Preparation

Sample	Description	Ambient Temp (°C)	Flame Temp (°C)	Air Flow (m/sec)	Analyst	Date (Month/Day/Year)	Start Time	Results (No Ignition-NI or Ignition- I)
51180-01	Damp soil med	22.8	>1000	1.09	MV	6/1/15	10:46	NI
-02	" "							
-03	" "							
51399-01	Wet soil med							
-02	" "							
-03	Wet clay med							
-04	Wet soil med							
-05	" "							
-06	" "							
-07	" "							
-08	" "							
-09	" "							
51639-02	Damp soil med							
51640-01	" "							
51259-06	Damp soil med							
				MV				

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1951399
Client:	Anchor QEA, LLC 1201 3rd Ave Suite 2600 Seattle, WA 98101
ATTN:	Delaney Peterson
Phone:	(206) 287-9130
Project Name:	GASCO PDI
Project Number:	000029-02.59
Report Date:	11/13/19

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1951399-01	PDI-071SC-C-00-08-191028	SEDIMENT	SEATTLE, WA	10/28/19 10:00	10/30/19
L1951399-02	PDI-074SC-C-00-7.3-191028	SEDIMENT	SEATTLE, WA	10/28/19 09:05	10/30/19
L1951399-03	PDI-083SC-C-00-08-191028	SEDIMENT	SEATTLE, WA	10/28/19 14:52	10/30/19
L1951399-04	PDI-015SC-C-00-8.1-191024	SEDIMENT	SEATTLE, WA	10/24/19 13:17	10/30/19
L1951399-05	PDI-026SC-C-00-3.9-191024	SEDIMENT	SEATTLE, WA	10/24/19 09:58	10/30/19
L1951399-06	PDI-037SC-C-00-12.4-191024	SEDIMENT	SEATTLE, WA	10/24/19 11:36	10/30/19
L1951399-07	PDI-073SC-C-00-13.7-191024	SEDIMENT	SEATTLE, WA	10/24/19 14:31	10/30/19
L1951399-08	PDI-019SC-C-00-3.2-191025	SEDIMENT	SEATTLE, WA	10/25/19 11:06	10/30/19
L1951399-09	PDI-095SC-C-00-8.8-191025	SEDIMENT	SEATTLE, WA	10/25/19 09:51	10/30/19

Project Name:	GASCO PDI	**Lab Number:**	L1951399
Project Number:	000029-02.59	**Report Date:**	11/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 11/13/19

ORGANICS

PESTICIDES

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-01
Client ID: PDI-071SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 10:00
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 21:44
Analyst: JMC
Percent Solids: 65%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	63		30-150	A
DCAA	53		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-01
Client ID: PDI-071SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 10:00
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 04:35
Analyst: JMC
Percent Solids: 65%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	254	16.0	1	A
2,4,5-TP (Silvex)	ND		ug/kg	254	6.74	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	64		30-150	A
DCAA	65		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-02
Client ID: PDI-074SC-C-00-7.3-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 09:05
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 22:02
Analyst: JMC
Percent Solids: 54%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	36		30-150	A
DCAA	32		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-02
Client ID: PDI-074SC-C-00-7.3-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 09:05
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 04:54
Analyst: JMC
Percent Solids: 54%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	303	19.1	1	A
2,4,5-TP (Silvex)	ND		ug/kg	303	8.07	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	80		30-150	A
DCAA	73		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-03
Client ID: PDI-083SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 14:52
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 22:20
Analyst: JMC
Percent Solids: 57%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	43		30-150	A
DCAA	39		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-03
Client ID: PDI-083SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 14:52
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 05:12
Analyst: JMC
Percent Solids: 57%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	283	17.8	1	A
2,4,5-TP (Silvex)	ND		ug/kg	283	7.53	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	85		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-04
Client ID: PDI-015SC-C-00-8.1-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 13:17
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 22:38
Analyst: JMC
Percent Solids: 86%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	47		30-150	A
DCAA	43		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-04
Client ID: PDI-015SC-C-00-8.1-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 13:17
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 05:30
Analyst: JMC
Percent Solids: 86%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	191	12.0	1	A
2,4,5-TP (Silvex)	ND		ug/kg	191	5.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	72		30-150	A
DCAA	67		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-05
Client ID: PDI-026SC-C-00-3.9-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 09:58
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 22:57
Analyst: JMC
Percent Solids: 79%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	58		30-150	A
DCAA	50		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-05
Client ID: PDI-026SC-C-00-3.9-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 09:58
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 06:06
Analyst: JMC
Percent Solids: 79%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	207	13.0	1	A
2,4,5-TP (Silvex)	ND		ug/kg	207	5.51	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	61		30-150	A
DCAA	67		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-06
Client ID: PDI-037SC-C-00-12.4-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 11:36
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 23:33
Analyst: JMC
Percent Solids: 72%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	45		30-150	A
DCAA	42		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-06
Client ID: PDI-037SC-C-00-12.4-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 11:36
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 06:25
Analyst: JMC
Percent Solids: 72%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	230	14.5	1	A
2,4,5-TP (Silvex)	ND		ug/kg	230	6.11	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	90		30-150	A
DCAA	141		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-07
Client ID: PDI-073SC-C-00-13.7-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 14:31
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 23:51
Analyst: JMC
Percent Solids: 64%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 05:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	55		30-150	A
DCAA	49		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-07
Client ID: PDI-073SC-C-00-13.7-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 14:31
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 06:43
Analyst: JMC
Percent Solids: 64%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	255	16.1	1	A
2,4,5-TP (Silvex)	ND		ug/kg	255	6.79	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	73		30-150	A
DCAA	75		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-08
Client ID: PDI-019SC-C-00-3.2-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 11:06
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/03/19 00:10
Analyst: JMC
Percent Solids: 66%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 06:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	49		30-150	A
DCAA	44		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-08
Client ID: PDI-019SC-C-00-3.2-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 11:06
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 07:01
Analyst: JMC
Percent Solids: 66%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	247	15.6	1	A
2,4,5-TP (Silvex)	ND		ug/kg	247	6.57	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	83		30-150	A
DCAA	75		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-09
Client ID: PDI-095SC-C-00-8.8-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 09:51
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/03/19 00:28
Analyst: JMC
Percent Solids: 57%
TCLP/SPLP Ext. Date: 11/01/19 07:36
Methylation Date: 11/02/19 15:44

Extraction Method: EPA 8151A
Extraction Date: 11/02/19 06:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
TCLP Herbicides by EPA 1311 - Westborough Lab							
2,4-D	ND		mg/l	0.025	0.001	1	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	41		30-150	A
DCAA	37		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-09
Client ID: PDI-095SC-C-00-8.8-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 09:51
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 1,8151A
Analytical Date: 11/02/19 07:19
Analyst: JMC
Percent Solids: 57%
Methylation Date: 11/01/19 19:55

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	287	18.0	1	A
2,4,5-TP (Silvex)	ND		ug/kg	287	7.62	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	87		30-150	A
DCAA	81		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 11/02/19 02:46
Analyst: JMC

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 00:17

Methylation Date: 11/01/19 19:55

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1303249-1						
2,4-D	ND		ug/kg	164	10.3	A
2,4,5-TP (Silvex)	ND		ug/kg	164	4.35	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	78		30-150	A
DCAA	72		30-150	B

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 11/02/19 17:10
Analyst: JMC
TCLP/SPLP Extraction Date:
Methylation Date: 11/02/19 07:21

Extraction Method: EPA 8151A
Extraction Date: 11/01/19 15:46

Parameter	Result	Qualifier	Units	RL	MDL	Column
TCLP Herbicides by EPA 1311 - Westborough Lab for sample(s): 01-09 Batch: WG1303576-1						
2,4-D	ND		mg/l	0.025	0.001	A
2,4,5-TP (Silvex)	ND		mg/l	0.005	0.001	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	65		30-150	A
DCAA	57		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1303249-2 WG1303249-3									
2,4-D	101		96		30-150	5		30	A
2,4,5-TP (Silvex)	99		95		30-150	4		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	86		83		30-150	A
DCAA	88		82		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
TCLP Herbicides by EPA 1311 - Westborough Lab Associated sample(s): 01-09 Batch: WG1303576-2 WG1303576-3									
2,4-D	97		99		30-150	2		25	A
2,4,5-TP (Silvex)	52		49		30-150	6		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	65		67		30-150	A
DCAA	80		59		30-150	B

INORGANICS
&
MISCELLANEOUS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-01
Client ID: PDI-071SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 10:00
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-02
Client ID: PDI-074SC-C-00-7.3-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 09:05
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-03
Client ID: PDI-083SC-C-00-08-191028
Sample Location: SEATTLE, WA
Sample Depth:
Matrix: Sediment

Date Collected: 10/28/19 14:52
Date Received: 10/30/19
Field Prep: Not Specified

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Clay
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-04
Client ID: PDI-015SC-C-00-8.1-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 13:17
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-05
Client ID: PDI-026SC-C-00-3.9-191024
Sample Location: SEATTLE, WA
Sample Depth:
Matrix: Sediment

Date Collected: 10/24/19 09:58
Date Received: 10/30/19
Field Prep: Not Specified

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-06
Client ID: PDI-037SC-C-00-12.4-191024
Sample Location: SEATTLE, WA
Date Collected: 10/24/19 11:36
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-07
Client ID: PDI-073SC-C-00-13.7-191024
Sample Location: SEATTLE, WA
Date Collected: 10/24/19 14:31
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-08
Client ID: PDI-019SC-C-00-3.2-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 11:06
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59
Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-09
Client ID: PDI-095SC-C-00-8.8-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 09:51
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Test Material Information

Source of Material:	Unknown
Description of Material:	Non-Metallic - Wet Soil
Particle Size:	Medium
Preliminary Burning Time (sec):	120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	11/01/19 10:46	1,1030	MV

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-01
Client ID: PDI-071SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 10:00
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	64.8		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	6.2	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-02
Client ID: PDI-074SC-C-00-7.3-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 09:05
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	53.8		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	6.2	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-03
Client ID: PDI-083SC-C-00-08-191028
Sample Location: SEATTLE, WA

Date Collected: 10/28/19 14:52
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	57.1		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	6.4	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-04
Client ID: PDI-015SC-C-00-8.1-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 13:17
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.9		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	6.2	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-05
Client ID: PDI-026SC-C-00-3.9-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 09:58
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.9		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	5.9	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-06
Client ID: PDI-037SC-C-00-12.4-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 11:36
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	71.8		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	5.3	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-07
Client ID: PDI-073SC-C-00-13.7-191024
Sample Location: SEATTLE, WA

Date Collected: 10/24/19 14:31
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	64.0		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	6.3	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-08
Client ID: PDI-019SC-C-00-3.2-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 11:06
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	66.4		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH (H)	6.1		SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

SAMPLE RESULTS

Lab ID: L1951399-09
Client ID: PDI-095SC-C-00-8.8-191025
Sample Location: SEATTLE, WA

Date Collected: 10/25/19 09:51
Date Received: 10/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	56.6		%	0.100	NA	1	-	10/31/19 11:40	121,2540G	RI
pH	6.5	(H)	SU	-	NA	1	-	10/31/19 18:06	1,9045D	AS

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO PDI

Project Number: 000029-02.59

Lab Number: L1951399

Report Date: 11/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG1303156-1								
pH	100		-		99-101	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: GASCO PDI

Project Number: 000029-02.59

Lab Number: L1951399

Report Date: 11/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1302897-1 QC Sample: L1951399-01 Client ID: PDI-071SC-C-00-08-191028						
Solids, Total	64.8	63.5	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1303156-2 QC Sample: L1951180-01 Client ID: DUP Sample						
pH	7.5	7.5	SU	0		5

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1951399-01A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-01X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-01X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-02A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-02X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-02X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-03A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-03X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-03X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-04A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-04X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-04X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-05A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-05X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-05X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-06A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-06X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-06X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-07A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-07X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-07X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-

*Values in parentheses indicate holding time in days

Project Name: GASCO PDI
Project Number: 000029-02.59

Lab Number: L1951399
Report Date: 11/13/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1951399-08A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-08X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-08X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-
L1951399-09A	Glass 500ml/16oz unpreserved	A	NA		2.0	Y	Present/Intact		IGNIT-1030(14),TS(7),PH-9045(1),HERB-8151(14)
L1951399-09X	Amber 1000ml unpreserved Extracts	A	NA		2.0	Y	Present/Intact		HERB-TCLP*(14)
L1951399-09X9	Tumble Vessel	A	NA		2.0	Y	Present/Intact		-

*Values in parentheses indicate holding time in days

Project Name:	GASCO PDI	**Lab Number:**	L1951399
Project Number:	000029-02.59	**Report Date:**	11/13/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	GASCO PDI	**Lab Number:**	L1951399
Project Number:	000029-02.59	**Report Date:**	11/13/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GASCO PDI	**Lab Number:**	L1951399
Project Number:	000029-02.59	**Report Date:**	11/13/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

L1951399

COC ID: AWHL-20191028-103448
Sample Custodian: SN
Lab: Alpha Analytical

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-071SC-C-00-08-191028	N	SE	10/28/2019	10:00	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
002	PDI-074SC-C-00-7.3-191028	N	SE	10/28/2019	9:05	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
003	PDI-083SC-C-00-08-191028	N	SE	10/28/2019	14:52	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: Sasha Norwood	Print Name	Print Name	Print Name: LANBAILEY	Print Name	Print Name
Company: Anchor QEA	Company: Fedex	Company: fedex	Company: AHL	Company	Company
Date/Time: 10/29/19 @ 0830	Date/Time	Date/Time	Date/Time: 10/30/19 09:59	Date/Time	Date/Time

Date Printed: 10/28/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: AWHL-20191025-092034

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

Sample Custodian: CO, SN, BJ, SS
Lab: Alpha Analytical

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-015SC-C-00-8.1-191024	N	SE	10/24/2019	13:17	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
002	PDI-026SC-C-00-3.9-191024	N	SE	10/24/2019	9:58	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
004	PDI-037SC-C-00-12.4-191024	N	SE	10/24/2019	11:36	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
005	PDI-073SC-C-00-13.7-191024	N	SE	10/24/2019	14:31	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Print Name: Sasha Norwood	Print Name:	Print Name:	Print Name: Kim BAILEY	Print Name:	Print Name:
Company: Anchor QEA	Company: fedex	Company: fedex	Company: AAL	Company:	Company:
Date/Time: 10/24/19 @ 0830	Date/Time:	Date/Time:	Date/Time: 10/30/19 09:59	Date/Time:	Date/Time:

Date Printed: 10/25/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: AWHL-20191025-111702

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

Sample Custodian: CO, SN, BJ, SS
Lab: Alpha Analytical

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-019SC-C-00-3.2-191025	N	SE	10/25/2019	11:06	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C
002	PDI-095SC-C-00-8.8-191025	N	SE	10/25/2019	9:51	1	☐				
								Herbicides	SW8151A	30	4°C
								Ignitability	SW1030	30	4°C
								pH	SW9045D	30	4°C
								TCLP Herbicides	SW8151A	30	4°C
								Total solids (ALPHA)	SM2540G	30	4°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: Sasha Norwood	Print Name	Print Name	Print Name: Kim BAILEY	Print Name	Print Name
Company: Anchor QEA	Company: Fedex	Company: Fedex	Company: AAL	Company	Company
Date/Time: 10/29/19 @ 0830	Date/Time	Date/Time	Date/Time: 10/30/19 09:59	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 10/25/2019

ORIGIN ID:BNOA (503) 718-2323
APEX LABS
APEX LABORATORIES
12232 SW GARDEN PL

TIGARD, OR 97223
UNITED STATES US

SHIP DATE: 29OCT19
ACTWGT: 50.00 LB
CAD: 4716258/INET4160

BILL THIRD PARTY

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ALPHA ANALYTICAL
320 FORBES BLVD.

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PO: DEPT

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Apex Laboratories, LLC
Custody Seal
12232 SW Garden Pl. Tigard, OR 97223
Phone (503)718-2323 Fax (503)718-0333
Cooler 1 of 1
Date 10/29/19

Alpha
Summary Forms

Organic Summary Forms

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-01	**Date Collected**	: 10/28/19 10:00
Client ID	: PDI-071SC-C-00-08-191028	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 04:35
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-17	**Analyst**	: JMC
Sample Amount	: 30.43 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 65
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	254	16.0	U
93-72-1	2,4,5-TP (Silvex)	ND	254	6.74	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-01	**Date Collected**	: 10/28/19 10:00
Client ID	: PDI-071SC-C-00-08-191028	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 21:44
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-17	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 65
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-02	**Date Collected**	: 10/28/19 09:05
Client ID	: PDI-074SC-C-00-7.3-191028	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 04:54
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-18	**Analyst**	: JMC
Sample Amount	: 30.64 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 54
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	303	19.1	U
93-72-1	2,4,5-TP (Silvex)	ND	303	8.07	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-02	**Date Collected**	: 10/28/19 09:05
Client ID	: PDI-074SC-C-00-7.3-191028	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 22:02
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-18	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 54
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-03	**Date Collected**	: 10/28/19 14:52
Client ID	: PDI-083SC-C-00-08-191028	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 05:12
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-19	**Analyst**	: JMC
Sample Amount	: 30.92 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 57
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	283	17.8	U
93-72-1	2,4,5-TP (Silvex)	ND	283	7.53	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-03	**Date Collected**	: 10/28/19 14:52
Client ID	: PDI-083SC-C-00-08-191028	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 22:20
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-19	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 57
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-04	**Date Collected**	: 10/24/19 13:17
Client ID	: PDI-015SC-C-00-8.1-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 05:30
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-20	**Analyst**	: JMC
Sample Amount	: 30.47 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 86
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	191	12.0	U
93-72-1	2,4,5-TP (Silvex)	ND	191	5.08	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-04	**Date Collected**	: 10/24/19 13:17
Client ID	: PDI-015SC-C-00-8.1-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 22:38
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-20	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 86
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-05	**Date Collected**	: 10/24/19 09:58
Client ID	: PDI-026SC-C-00-3.9-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 06:06
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-22	**Analyst**	: JMC
Sample Amount	: 30.58 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 79
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	207	13.0	U
93-72-1	2,4,5-TP (Silvex)	ND	207	5.51	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-05	**Date Collected**	: 10/24/19 09:58
Client ID	: PDI-026SC-C-00-3.9-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 22:57
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-21	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 79
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-06	**Date Collected**	: 10/24/19 11:36
Client ID	: PDI-037SC-C-00-12.4-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 06:25
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-23	**Analyst**	: JMC
Sample Amount	: 30.33 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 72
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	230	14.5	U
93-72-1	2,4,5-TP (Silvex)	ND	230	6.11	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-06	**Date Collected**	: 10/24/19 11:36
Client ID	: PDI-037SC-C-00-12.4-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 23:33
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-23	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 72
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-07	**Date Collected**	: 10/24/19 14:31
Client ID	: PDI-073SC-C-00-13.7-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 06:43
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-24	**Analyst**	: JMC
Sample Amount	: 30.61 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 64
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	255	16.1	U
93-72-1	2,4,5-TP (Silvex)	ND	255	6.79	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-07	**Date Collected**	: 10/24/19 14:31
Client ID	: PDI-073SC-C-00-13.7-191024	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 23:51
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-24	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 64
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-08	**Date Collected**	: 10/25/19 11:06
Client ID	: PDI-019SC-C-00-3.2-191025	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 07:01
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-25	**Analyst**	: JMC
Sample Amount	: 30.5 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 66
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	247	15.6	U
93-72-1	2,4,5-TP (Silvex)	ND	247	6.57	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-08	**Date Collected**	: 10/25/19 11:06
Client ID	: PDI-019SC-C-00-3.2-191025	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/03/19 00:10
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-25	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 66
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-09	**Date Collected**	: 10/25/19 09:51
Client ID	: PDI-095SC-C-00-8.8-191025	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/02/19 07:19
Sample Matrix	: Sediment	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-26	**Analyst**	: JMC
Sample Amount	: 30.82 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: 57
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	287	18.0	U
93-72-1	2,4,5-TP (Silvex)	ND	287	7.62	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: L1951399-09	**Date Collected**	: 10/25/19 09:51
Client ID	: PDI-095SC-C-00-8.8-191025	**Date Received**	: 10/30/19
Sample Location	: SEATTLE, WA	**Date Analyzed**	: 11/03/19 00:28
Sample Matrix	: Sediment	**Date Extracted**	: 11/02/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-26	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: 57
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Results Summary
Form 1
Chlorinated Herbicides by GC

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: WG1303249-1	**Date Collected**	: NA
Client ID	: WG1303249-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/02/19 02:46
Sample Matrix	: SOIL	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191101b-11	**Analyst**	: JMC
Sample Amount	: 30.54 g	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 10000 uL	**%Solids**	: NA
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		ug/Kg			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	164	10.3	U
93-72-1	2,4,5-TP (Silvex)	ND	164	4.35	U

Results Summary
Form 1
TCLP Herbicides by EPA 1311

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab ID	: WG1303576-1	**Date Collected**	: NA
Client ID	: WG1303576-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 11/02/19 17:10
Sample Matrix	: SOIL	**Date Extracted**	: 11/01/19
Analytical Method	: 1,8151A	**Dilution Factor**	: 1
Lab File ID	: 17191102a-02	**Analyst**	: JMC
Sample Amount	: 200 ml	**Instrument ID**	: PEST17
Extraction Method	: EPA 8151A	**GC Column**	: STX-CLP1
Extract Volume	: 5000 uL	**%Solids**	: NA
GPC Cleanup	: N	**Injection Volume**	: 1 uL
Sulfur Cleanup	: N		

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
94-75-7	2,4-D	ND	0.025	0.001	U
93-72-1	2,4,5-TP (Silvex)	ND	0.005	0.001	U

Surrogate Recovery Summary
Form 2
Pesticides

Client: Anchor QEA, LLC
Project Name: GASCO PDI

Lab Number: L1951399
Project Number: 000029-02.59
Matrix: Sediment

GC Column 1: STX-CLP1
GC Column 2: STX-CLP2

CLIENT ID (LAB SAMPLE NO.)	1 %REC	2 %REC	1 %REC	2 %REC	OTHER (1)	OTHER (2)	TOT OUT
PDI-071SC-C-00-08-191028 (L1951399-01)	63	65	--	--			0
PDI-074SC-C-00-7.3-191028 (L1951399-02)	36	73	--	--			0
PDI-083SC-C-00-08-191028 (L1951399-03)	43	85	--	--			0
PDI-015SC-C-00-8.1-191024 (L1951399-04)	47	67	--	--			0
PDI-026SC-C-00-3.9-191024 (L1951399-05)	58	67	--	--			0
PDI-037SC-C-00-12.4-191024 (L1951399-06)	45	141	--	--			0
PDI-073SC-C-00-13.7-191024 (L1951399-07)	55	75	--	--			0
PDI-019SC-C-00-3.2-191025 (L1951399-08)	49	75	--	--			0
PDI-095SC-C-00-8.8-191025 (L1951399-09)	41	81	--	--			0
WG1303576-1BLANK	65	57	--	--			0
WG1303576-2LCS	65	80	--	--			0
WG1303576-3LCSD	67	59	--	--			0

QC LIMITS
(30-150) S1 = DCAA

*** Values outside of QC limits**

FORM II HERB-TCLP*

Surrogate Recovery Summary
Form 2
Pesticides

Client: Anchor QEA, LLC
Project Name: GASCO PDI

Lab Number: L1951399
Project Number: 000029-02.59
Matrix: Sediment

GC Column 1: STX-CLP1
GC Column 2: STX-CLP2

CLIENT ID (LAB SAMPLE NO.)	1 %REC	2 %REC	1 %REC	2 %REC	OTHER (1)	OTHER (2)	TOT OUT
PDI-071SC-C-00-08-191028 (L1951399-01)	64	65	--	--			0
PDI-074SC-C-00-7.3-191028 (L1951399-02)	80	73	--	--			0
PDI-083SC-C-00-08-191028 (L1951399-03)	93	85	--	--			0
PDI-015SC-C-00-8.1-191024 (L1951399-04)	72	67	--	--			0
PDI-026SC-C-00-3.9-191024 (L1951399-05)	61	67	--	--			0
PDI-037SC-C-00-12.4-191024 (L1951399-06)	90	141	--	--			0
PDI-073SC-C-00-13.7-191024 (L1951399-07)	73	75	--	--			0
PDI-019SC-C-00-3.2-191025 (L1951399-08)	83	75	--	--			0
PDI-095SC-C-00-8.8-191025 (L1951399-09)	87	81	--	--			0
WG1303249-1BLANK	78	72	--	--			0
WG1303249-2LCS	86	88	--	--			0
WG1303249-3LCSD	83	82	--	--			0

QC LIMITS
(30-150) S1 = DCAA

*** Values outside of QC limits**

FORM II HERB-TCLP*

Laboratory Control Sample Summary
Form 3
Pesticides

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Matrix	: SOIL		
LCS Sample ID	: WG1303249-2	**Analysis Date** : 11/02/19 03:04	**File ID** : 17191101b-12
LCSD Sample ID	: WG1303249-3	**Analysis Date** : 11/02/19 03:22	**File ID** : 17191101b-13

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/kg)	Found (ug/kg)	%R	True (ug/kg)	Found (ug/kg)	%R	RPD	Recovery Limits	RPD Limit
2,4-D	165	166	101	162	156	96	5	30-150	30
2,4,5-TP (Silvex)	165	164	99	162	154	95	4	30-150	30

Laboratory Control Sample Summary
Form 3
Pesticides

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Matrix	: SOIL		
LCS Sample ID	: WG1303576-2	**Analysis Date** : 11/02/19 17:29	**File ID** : 17191102a-03
LCSD Sample ID	: WG1303576-3	**Analysis Date** : 11/02/19 17:47	**File ID** : 17191102a-04

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
2,4-D	0.0125	0.012	97	0.0125	0.012	99	2	30-150	25
2,4,5-TP (Silvex)	0.0125	0.006	52	0.0125	0.006	49	6	30-150	25

Method Blank Summary
Form 4
Pesticides

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab Sample ID	: WG1303249-1	**Lab File ID**	: 17191101b-11
Matrix	: SOIL	**Extraction Date**	: 11/01/19
Analysis Date (1)	: 11/02/19 02:46	**Analysis Date (2)**	: 11/02/19 02:46
Instrument ID (1)	: PEST17	**Instrument ID (2)**	: PEST17

Client Sample No.	Lab Sample ID	Analysis Date 1	Analysis Date 2
WG1303249-2LCS	WG1303249-2	11/02/19 03:04	11/02/19 03:04
WG1303249-3LCSD	WG1303249-3	11/02/19 03:22	11/02/19 03:22
PDI-071SC-C-00-08-191028	L1951399-01	11/02/19 04:35	11/02/19 04:35
PDI-074SC-C-00-7.3-191028	L1951399-02	11/02/19 04:54	11/02/19 04:54
PDI-083SC-C-00-08-191028	L1951399-03	11/02/19 05:12	11/02/19 05:12
PDI-015SC-C-00-8.1-191024	L1951399-04	11/02/19 05:30	11/02/19 05:30
PDI-026SC-C-00-3.9-191024	L1951399-05	11/02/19 06:06	11/02/19 06:06
PDI-037SC-C-00-12.4-191024	L1951399-06	11/02/19 06:25	11/02/19 06:25
PDI-073SC-C-00-13.7-191024	L1951399-07	11/02/19 06:43	11/02/19 06:43
PDI-019SC-C-00-3.2-191025	L1951399-08	11/02/19 07:01	11/02/19 07:01
PDI-095SC-C-00-8.8-191025	L1951399-09	11/02/19 07:19	11/02/19 07:19

Method Blank Summary
Form 4
Pesticides

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Lab Sample ID	: WG1303576-1	**Lab File ID**	: 17191102a-02
Matrix	: SOIL	**Extraction Date**	: 11/01/19
Analysis Date (1)	: 11/02/19 17:10	**Analysis Date (2)**	: 11/02/19 17:10
Instrument ID (1)	: PEST17	**Instrument ID (2)**	: PEST17

Client Sample No.	Lab Sample ID	Analysis Date 1	Analysis Date 2
WG1303576-2LCS	WG1303576-2	11/02/19 17:29	11/02/19 17:29
WG1303576-3LCSD	WG1303576-3	11/02/19 17:47	11/02/19 17:47
PDI-071SC-C-00-08-191028	L1951399-01	11/02/19 21:44	11/02/19 21:44
PDI-074SC-C-00-7.3-191028	L1951399-02	11/02/19 22:02	11/02/19 22:02
PDI-083SC-C-00-08-191028	L1951399-03	11/02/19 22:20	11/02/19 22:20
PDI-015SC-C-00-8.1-191024	L1951399-04	11/02/19 22:38	11/02/19 22:38
PDI-026SC-C-00-3.9-191024	L1951399-05	11/02/19 22:57	11/02/19 22:57
PDI-037SC-C-00-12.4-191024	L1951399-06	11/02/19 23:33	11/02/19 23:33
PDI-073SC-C-00-13.7-191024	L1951399-07	11/02/19 23:51	11/02/19 23:51
PDI-019SC-C-00-3.2-191025	L1951399-08	11/03/19 00:10	11/03/19 00:10
PDI-095SC-C-00-8.8-191025	L1951399-09	11/03/19 00:28	11/03/19 00:28

Initial Calibration Summary
Form 6
Pesticides

Client	**: Anchor QEA, LLC**	**Lab Number**	**: L1951399**
Project Name	**: GASCO PDI**	**Project Number**	**: 000029-02.59**
Instrument ID	**: PEST17**	**Ical Ref**	**: ICAL16100**
Calibration dates	**: 09/03/19 11:08 09/03/19 12:42**		

Calibration Files
1 =17190903i-02.d 2 =17190903i-03.d 3 =17190903i-04.d 4 =17190903i-05.d 5 =17190903i-06.d
6 =17190903i-07.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	4,4'-DBOB	----------ISTD----------							
2)	t	Dalapon	0.164	0.149	0.140	0.145	0.124	0.120	0.140	11.83
3)	s	DCAA (surrogate)	0.195	0.173	0.172	0.159	0.145	0.131	0.162	14.04
4)	t	Dicamba	0.541	0.495	0.481	0.536	0.470	0.439	0.494	7.97
5)	t	MCPP	0.001	0.001	0.001	0.001	0.001	0.001	0.001	16.81
6)	t	MCPA		0.001	0.001	0.001	0.001	0.001	*L	0.9954
7)	t	Dichloroprop		0.155	0.146	0.152	0.129	0.118	*L	0.9949
8)	t	2,4-D	0.213	0.191	0.181	0.195	0.170	0.158	0.185	10.58
9)	t	2,4,5-TP (Silvex)	0.743	0.682	0.681	0.756	0.665		0.706	5.81
10)	t	2,4,5-T	0.760	0.728	0.740	0.830	0.724	0.679	0.743	6.72
11)	t	2,4-DB	0.131	0.125	0.120	0.129	0.115	0.112	0.122	6.14
12)	t	Dinoseb	0.229	0.227	0.234	0.294	0.279	0.287	*L	0.9983

Initial Calibration Summary
Form 6
Pesticides

Client	**: Anchor QEA, LLC**	**Lab Number**	**: L1951399**
Project Name	**: GASCO PDI**	**Project Number**	**: 000029-02.59**
Instrument ID	**: PEST17**	**Ical Ref**	**: ICAL16100**
Calibration dates	**: 09/03/19 11:08 09/03/19 12:42**		

Signal #2 Calibration Files

1 =17190903i-02.d 2 =17190903i-03.d 3 =17190903i-04.d 4 =17190903i-05.d 5 =17190903i-06.d

6 =17190903i-07.d

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	i	4,4'-DBOB	----------ISTD----------							
2)	t	Dalapon	0.206	0.166	0.148	0.150	0.133	0.141	0.157	16.77
3)	s	DCAA (surrogate)	0.236	0.208	0.206	0.193	0.181	0.178	0.200	10.78
4)	t	Dicamba	0.621	0.563	0.542	0.595	0.531	0.533	0.564	6.51
5)	t	MCPP	0.001	0.001	0.001	0.001	0.001	0.001	0.001	7.61
6)	t	MCPA		0.001	0.001	0.001	0.001	0.001	0.001	10.35
7)	t	Dichloroprop		0.167	0.159	0.170	0.151	0.149	*L	0.9988
8)	t	2,4-D	0.248	0.219	0.211	0.232	0.209	0.212	0.222	6.81
9)	t	2,4,5-TP (Sil	0.727	0.682	0.677	0.760	0.691		*L	0.9968
10)	t	2,4,5-T	0.771	0.677	0.659	0.753	0.709	0.735	0.717	6.10
11)	t	2,4-DB	0.137	0.126	0.121	0.135	0.123	0.123	0.128	5.43
12)	t	Dinoseb	0.260	0.237	0.235	0.270	0.249	0.257	*L	0.9987

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 02:28	
Lab File ID	: 17191101b-10		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303698-2		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	91	-.02
Dalapon	0.182	0.243	-	-33.5*	15	121	0
DCAA (surrogate)	0.188	0.211	-	-12.2	15	96	-.02
Dicamba	0.188	0.215	-	-14.4	15	106	-.02
MCPP	18.8	21.286	-	-13.2	15	103	-.02
MCPA	18.6	19.292	-	-3.7	15	102	-.02
Dichloroprop	0.188	0.188	-	0	15	102	-.02
2,4-D	0.188	0.211	-	-12.2	15	103	-.02
2,4,5-TP (Silvex)	0.19	0.204	-	-7.4	15	101	-.02
2,4,5-T	0.19	0.204	-	-7.4	15	98	-.02
2,4-DB	0.192	0.217	-	-13	15	104	-.02
Dinoseb	0.19	0.332	-	-74.7*	15	186	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 02:28	
Lab File ID	: 17191101b-10		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303698-2		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	98	0
Dalapon	0.182	0.233	-	-28*	15	133	0
DCAA (surrogate)	0.188	0.201	-	-6.9	15	102	0
Dicamba	0.188	0.205	-	-9	15	110	0
MCPP	18.8	17.492	-	7	15	93	0
MCPA	18.6	19.075	-	-2.6	15	97	0
Dichloroprop	0.188	0.201	-	-6.9	15	111	0
2,4-D	0.188	0.209	-	-11.2	15	114	0
2,4,5-TP (Silvex)	0.19	0.218	-	-14.7	15	118	0
2,4,5-T	0.19	0.221	-	-16.3*	15	123	0
2,4-DB	0.192	0.204	-	-6.2	15	109	0
Dinoseb	0.19	0.333	-	-75.3*	15	185	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 05:48	
Lab File ID	: 17191101b-21		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303698-3		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	90	-.02
Dalapon	0.182	0.225	-	-23.6*	15	111	-.01
DCAA (surrogate)	0.188	0.211	-	-12.2	15	95	-.02
Dicamba	0.188	0.216	-	-14.9	15	106	-.02
MCPP	18.8	21.32	-	-13.4	15	102	-.02
MCPA	18.6	19.171	-	-3.1	15	100	-.02
Dichloroprop	0.188	0.189	-	-0.5	15	101	-.02
2,4-D	0.188	0.213	-	-13.3	15	104	-.02
2,4,5-TP (Silvex)	0.19	0.203	-	-6.8	15	100	-.02
2,4,5-T	0.19	0.202	-	-6.3	15	96	-.02
2,4-DB	0.192	0.213	-	-10.9	15	102	-.02
Dinoseb	0.19	0.356	-	-87.4*	15	198	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 05:48	
Lab File ID	: 17191101b-21		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303698-3		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	95	0
Dalapon	0.182	0.236	-	-29.7*	15	132	0
DCAA (surrogate)	0.188	0.205	-	-9	15	101	0
Dicamba	0.188	0.207	-	-10.1	15	109	0
MCPP	18.8	17.544	-	6.7	15	92	0
MCPA	18.6	19.233	-	-3.4	15	96	0
Dichloroprop	0.188	0.201	-	-6.9	15	109	0
2,4-D	0.188	0.211	-	-12.2	15	112	0
2,4,5-TP (Silvex)	0.19	0.218	-	-14.7	15	115	0
2,4,5-T	0.19	0.222	-	-16.8*	15	121	0
2,4-DB	0.192	0.197	-	-2.6	15	103	0
Dinoseb	0.19	0.35	-	-84.2*	15	190	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 09:09	
Lab File ID	: 17191101b-32		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303698-4		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	85	-.02
Dalapon	0.182	0.246	-	-35.2*	15	115	-.01
DCAA (surrogate)	0.188	0.213	-	-13.3	15	91	-.02
Dicamba	0.188	0.216	-	-14.9	15	100	-.02
MCPP	18.8	21.378	-	-13.7	15	96	-.02
MCPA	18.6	19.974	-	-7.4	15	97	-.02
Dichloroprop	0.188	0.189	-	-0.5	15	96	-.02
2,4-D	0.188	0.214	-	-13.8	15	98	-.02
2,4,5-TP (Silvex)	0.19	0.204	-	-7.4	15	94	-.02
2,4,5-T	0.19	0.205	-	-7.9	15	92	-.02
2,4-DB	0.192	0.225	-	-17.2*	15	102	-.02
Dinoseb	0.19	0.344	-	-81.1*	15	181	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 09:09	
Lab File ID	: 17191101b-32		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303698-4		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	90	0
Dalapon	0.182	0.242	-	-33*	15	127	0
DCAA (surrogate)	0.188	0.206	-	-9.6	15	96	0
Dicamba	0.188	0.208	-	-10.6	15	104	0
MCPP	18.8	17.754	-	5.6	15	87	0
MCPA	18.6	19.607	-	-5.4	15	92	0
Dichloroprop	0.188	0.205	-	-9	15	104	0
2,4-D	0.188	0.214	-	-13.8	15	108	0
2,4,5-TP (Silvex)	0.19	0.222	-	-16.8*	15	111	0
2,4,5-T	0.19	0.228	-	-20*	15	117	0
2,4-DB	0.192	0.203	-	-5.7	15	100	0
Dinoseb	0.19	0.355	-	-86.8*	15	182	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 15:23	
Lab File ID	: 17191102a-01		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-1		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	92	-.02
Dalapon	0.182	0.236	-	-29.7*	15	120	0
DCAA (surrogate)	0.188	0.21	-	-11.7	15	98	-.02
Dicamba	0.188	0.214	-	-13.8	15	108	-.02
MCPP	18.8	21.941	-	-16.7*	15	108	-.02
MCPA	18.6	19.757	-	-6.2	15	105	-.02
Dichloroprop	0.188	0.19	-	-1.1	15	105	-.02
2,4-D	0.188	0.21	-	-11.7	15	105	-.02
2,4,5-TP (Silvex)	0.19	0.205	-	-7.9	15	103	-.02
2,4,5-T	0.19	0.206	-	-8.4	15	100	-.02
2,4-DB	0.192	0.224	-	-16.7*	15	110	-.01
Dinoseb	0.19	0.29	-	-52.6*	15	164	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 15:23	
Lab File ID	: 17191102a-01		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-1		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	101	0
Dalapon	0.182	0.229	-	-25.8*	15	136	0
DCAA (surrogate)	0.188	0.203	-	-8	15	107	0
Dicamba	0.188	0.204	-	-8.5	15	114	0
MCPP	18.8	17.842	-	5.1	15	99	0
MCPA	18.6	19.381	-	-4.2	15	103	0
Dichloroprop	0.188	0.205	-	-9	15	118	0
2,4-D	0.188	0.216	-	-14.9	15	122	0
2,4,5-TP (Silvex)	0.19	0.223	-	-17.4*	15	125	0
2,4,5-T	0.19	0.225	-	-18.4*	15	131	0
2,4-DB	0.192	0.223	-	-16.1*	15	124	0
Dinoseb	0.19	0.311	-	-63.7*	15	179	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 19:54	
Lab File ID	: 17191102a-11		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-2		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	92	-.02
Dalapon	0.182	0.239	-	-31.3*	15	121	0
DCAA (surrogate)	0.188	0.212	-	-12.8	15	98	-.02
Dicamba	0.188	0.215	-	-14.4	15	108	-.02
MCPP	18.8	21.62	-	-15	15	105	-.02
MCPA	18.6	19.807	-	-6.5	15	105	-.02
Dichloroprop	0.188	0.189	-	-0.5	15	103	-.02
2,4-D	0.188	0.212	-	-12.8	15	105	-.02
2,4,5-TP (Silvex)	0.19	0.203	-	-6.8	15	101	-.02
2,4,5-T	0.19	0.225	-	-18.4*	15	109	-.02
2,4-DB	0.192	0.221	-	-15.1*	15	108	-.02
Dinoseb	0.19	0.276	-	-45.3*	15	155	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 19:54	
Lab File ID	: 17191102a-11		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-2		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	100	0
Dalapon	0.182	0.232	-	-27.5*	15	136	.02
DCAA (surrogate)	0.188	0.2	-	-6.4	15	104	0
Dicamba	0.188	0.204	-	-8.5	15	113	0
MCPP	18.8	17.443	-	7.2	15	96	0
MCPA	18.6	19.233	-	-3.4	15	101	0
Dichloroprop	0.188	0.203	-	-8	15	115	0
2,4-D	0.188	0.214	-	-13.8	15	120	0
2,4,5-TP (Silvex)	0.19	0.22	-	-15.8*	15	123	0
2,4,5-T	0.19	0.224	-	-17.9*	15	128	0
2,4-DB	0.192	0.2	-	-4.2	15	110	0
Dinoseb	0.19	0.292	-	-53.7*	15	166	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 23:15	
Lab File ID	: 17191102a-22		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-3		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	90	-.02
Dalapon	0.182	0.23	-	-26.4*	15	114	-.02
DCAA (surrogate)	0.188	0.213	-	-13.3	15	97	-.02
Dicamba	0.188	0.216	-	-14.9	15	106	-.02
MCPP	18.8	21.992	-	-17*	15	105	-.02
MCPA	18.6	20.173	-	-8.5	15	104	-.02
Dichloroprop	0.188	0.193	-	-2.7	15	103	-.02
2,4-D	0.188	0.214	-	-13.8	15	104	-.02
2,4,5-TP (Silvex)	0.19	0.205	-	-7.9	15	101	-.02
2,4,5-T	0.19	0.225	-	-18.4*	15	107	-.02
2,4-DB	0.192	0.226	-	-17.7*	15	108	-.02
Dinoseb	0.19	0.309	-	-62.6*	15	171	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/02/19 23:15	
Lab File ID	: 17191102a-22		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-3		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	99	0
Dalapon	0.182	0.223	-	-22.5*	15	129	0
DCAA (surrogate)	0.188	0.202	-	-7.4	15	103	0
Dicamba	0.188	0.204	-	-8.5	15	111	0
MCPP	18.8	18.101	-	3.7	15	98	0
MCPA	18.6	19.494	-	-4.8	15	101	0
Dichloroprop	0.188	0.204	-	-8.5	15	114	0
2,4-D	0.188	0.216	-	-14.9	15	119	0
2,4,5-TP (Silvex)	0.19	0.221	-	-16.3*	15	121	0
2,4,5-T	0.19	0.225	-	-18.4*	15	127	0
2,4-DB	0.192	0.212	-	-10.4	15	115	0
Dinoseb	0.19	0.33	-	-73.7*	15	185	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/03/19 01:59	
Lab File ID	: 17191102a-31		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-4		**Init. Calib. Times**	: 11:08	12:42
Channel	: A				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	99	-.02
Dalapon	0.182	0.219	-	-20.3*	15	120	-.01
DCAA (surrogate)	0.188	0.207	-	-10.1	15	103	-.02
Dicamba	0.188	0.211	-	-12.2	15	114	-.02
MCPP	18.8	21.306	-	-13.3	15	112	-.02
MCPA	18.6	18.556	-	0.2	15	109	-.02
Dichloroprop	0.188	0.187	-	0.5	15	111	-.02
2,4-D	0.188	0.211	-	-12.2	15	113	-.02
2,4,5-TP (Silvex)	0.19	0.203	-	-6.8	15	110	-.02
2,4,5-T	0.19	0.199	-	-4.7	15	105	-.02
2,4-DB	0.192	0.22	-	-14.6	15	116	-.02
Dinoseb	0.19	0.31	-	-63.2*	15	189	-.02

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Pesticides

Client	: Anchor QEA, LLC		**Lab Number**	: L1951399	
Project Name	: GASCO PDI		**Project Number**	: 000029-02.59	
Instrument ID	: PEST17		**Calibration Date**	: 11/03/19 01:59	
Lab File ID	: 17191102a-31		**Init. Calib. Date(s)**	: 09/03/19	09/03/19
Sample No	: WG1303892-4		**Init. Calib. Times**	: 11:08	12:42
Channel	: B				

Compound	Amount	Calc.	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	0.25	0.25	-	0	15	108	0
Dalapon	0.182	0.215	-	-18.1*	15	136	0
DCAA (surrogate)	0.188	0.197	-	-4.8	15	110	0
Dicamba	0.188	0.201	-	-6.9	15	120	0
MCPP	18.8	17.792	-	5.4	15	105	0
MCPA	18.6	19.467	-	-4.7	15	110	0
Dichloroprop	0.188	0.201	-	-6.9	15	123	0
2,4-D	0.188	0.212	-	-12.8	15	128	0
2,4,5-TP (Silvex)	0.19	0.219	-	-15.3*	15	131	0
2,4,5-T	0.19	0.222	-	-16.8*	15	137	0
2,4-DB	0.192	0.212	-	-10.4	15	125	0
Dinoseb	0.19	0.339	-	-78.4*	15	208	0

* Value outside of QC limits.

Analytical Sequence
Form 8b
Pesticides

Client	: Anchor QEA, LLC	**Lab Number**	: L1951399
Project Name	: GASCO PDI	**Project Number**	: 000029-02.59
Instrument ID	: PEST17	**Initial Calib. Date(s)**	: 09/03/19 09/03/19

Client ID	Lab ID	Date/Time Analyzed
Herbecides Level 1	R1227491-1	09/03/19 11:08
Herbecides Level 2	R1227491-2	09/03/19 11:26
Herbecides Level 3	R1227491-3	09/03/19 11:45
Herbecides Level 4	R1227491-4	09/03/19 12:04
Herbecides Level 5	R1227491-5	09/03/19 12:23
Herbecides Level 6	R1227491-6	09/03/19 12:42
R1227491-7 ICV	R1227491-7	09/03/19 13:01
WG1303698-2 CCAL	WG1303698-2	11/02/19 02:28
WG1303249-1 BLANK	WG1303249-1	11/02/19 02:46
WG1303249-2 LCS	WG1303249-2	11/02/19 03:04
WG1303249-3 LCSD	WG1303249-3	11/02/19 03:22
PDI-071SC-C-00-08-191028	L1951399-01	11/02/19 04:35
PDI-074SC-C-00-7.3-191028	L1951399-02	11/02/19 04:54
PDI-083SC-C-00-08-191028	L1951399-03	11/02/19 05:12
PDI-015SC-C-00-8.1-191024	L1951399-04	11/02/19 05:30
WG1303698-3 CCAL	WG1303698-3	11/02/19 05:48
PDI-026SC-C-00-3.9-191024	L1951399-05	11/02/19 06:06
PDI-037SC-C-00-12.4-191024	L1951399-06	11/02/19 06:25
PDI-073SC-C-00-13.7-191024	L1951399-07	11/02/19 06:43
PDI-019SC-C-00-3.2-191025	L1951399-08	11/02/19 07:01
PDI-095SC-C-00-8.8-191025	L1951399-09	11/02/19 07:19
WG1303698-4 CCAL	WG1303698-4	11/02/19 09:09
WG1303892-1 CCAL	WG1303892-1	11/02/19 15:23
WG1303576-1 BLANK	WG1303576-1	11/02/19 17:10
WG1303576-2 LCS	WG1303576-2	11/02/19 17:29
WG1303576-3 LCSD	WG1303576-3	11/02/19 17:47
WG1303892-2 CCAL	WG1303892-2	11/02/19 19:54
PDI-071SC-C-00-08-191028	L1951399-01	11/02/19 21:44
PDI-074SC-C-00-7.3-191028	L1951399-02	11/02/19 22:02
PDI-083SC-C-00-08-191028	L1951399-03	11/02/19 22:20
PDI-015SC-C-00-8.1-191024	L1951399-04	11/02/19 22:38
PDI-026SC-C-00-3.9-191024	L1951399-05	11/02/19 22:57
WG1303892-3 CCAL	WG1303892-3	11/02/19 23:15
PDI-037SC-C-00-12.4-191024	L1951399-06	11/02/19 23:33
PDI-073SC-C-00-13.7-191024	L1951399-07	11/02/19 23:51
PDI-019SC-C-00-3.2-191025	L1951399-08	11/03/19 00:10
PDI-095SC-C-00-8.8-191025	L1951399-09	11/03/19 00:28
WG1303892-4 CCAL	WG1303892-4	11/03/19 01:59

Identification Summary
Form 10
Pesticides

Client	**: Anchor QEA, LLC**	**Lab Number**	**: L1951399**
Project Name	**: GASCO PDI**	**Project Number**	**: 000029-02.59**

No Detections Found