

# **ANALYTICAL RESULTS SUMMARY**

GC SEMI-VOLATILES

**PROJECT NAME: R36724** 

TETRA TECH, EMI

240 Continental Drive, Suite 200

Newark, DE - 19713

Phone No: 302-738-7551

**ORDER ID: P4462** 

**ATTENTION: Ava Heiss** 







# Table Of Contents for P4462

1) Signature Page	3
2) Case Narrative	4
2.1) TCLP Herbicide- Case Narrative	4
3) Qualifier Page	6
4) QA Checklist	7
5) TCLP Herbicide Data	8
6) Shipping Document	56
6.1) CHAIN OF CUSTODY	57
6.2) Lab Certificate	58
6.3) Sample Log-In Sheet	59

P4462 **2 of 59** 



# **Cover Page**

Order 1D:	P4402			
Project ID:	R36724			
Client :	Tetra Tech, EMI			
Lab Sampl	e Number	Client Sample Numbe	r	
P4462-02		C0AL2		

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature :	Date:	11/4/2024	

NYDOH CERTIFICATION NO - 11376 NJDEP CERTIFICATION NO - 20012

P4462 **3 of 59** 



# CASE NARRATIVE

Tetra Tech, EMI Project Name: R36724

Project # N/A

Chemtech Project # P4462 Test Name: TCLP Herbicide

# A. Number of Samples and Date of Receipt:

1 Water sample was received on 10/19/2024.

#### **B.** Parameters

According to the Chain of Custody document, the following analyses were requested: TCLP Extraction and TCLP Herbicide. This data package contains results for TCLP Herbicide.

#### C. Analytical Techniques:

The analysis was performed on instrument ECD\_S. The front column is RTX-CLPesticides which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 11139. The rear column is RTX-CLPesticides2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 11324The analysis of TCLP Herbicides was based on method 8151A and extraction was done based on method 3510 and TCLP extraction method was 1311.

### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for WB-301-BOTMS [2,4-DCAA(1) - 28%, 2,4-DCAA(2) - 23%], WB-301-BOTMSD [2,4-DCAA(1) - 28%, 2 and4-DCAA(2) - 22%]due to matrix interference.

The Retention Times were acceptable for all samples.

The MS {P4397-06MS} with File ID: PS028042.D recoveries met the requirements for all compounds except for 2,4,5-TP(Silvex)[212%] due to matrix interference.

The MSD {P4397-06MSD} with File ID: PS028043.D recoveries met the acceptable requirements except for 2,4,5-TP(Silvex)[226%] due to matrix interference.

The RPD met criteria.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

P4462 **4 of 59** 





#### **E. Additional Comments:**

# **F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature						

P4462 5 of 59



# DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. " $10~\mathrm{U}$ ". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	<ul> <li>Indicates an estimated value. This flag is used:</li> <li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li> <li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li> </ul>
В	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

6 of 59

Aliance TECHNICAL GROUP

### APPENDIX A

### **QA REVIEW GENERAL DOCUMENTATION**

Project #: P4462

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page)	<u> </u>
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	<del>'</del> <del>'</del> <del>'</del>
Collect information for each project id from server. Were all requirements followed	<u> </u>
COVER PAGE:	_
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	<u> </u>
CHAIN OF CUSTODY:	_
Do requested analyses on Chain of Custody agree with form I results	<u> </u>
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	<u> </u>
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	_ ✓
ANALYTICAL:	
Was method requirement followed?	<u> </u>
Was client requirement followed?	<u> </u>
Does the case narrative summarize all QC failure?	<del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del>
All runlogs and manual integration are reviewed for requirements	<u></u>
All manual calculations and /or hand notations verified	<u> </u>

QA Review Signature: SOHIL JODHANI Date: 11/04/2024

P4462 **7 of 59** 



# LAB CHRONICLE

**OrderID:** P4462 **OrderDate:** 10/21/2024 10:30:18 AM

Client:Tetra Tech, EMIProject:R36724Contact:Ava HeissLocation:K51

LabID	ClientID	Matrix	Test	Method Sample Date		Prep Date	Anal Date	Received
P4462-02	C0AL2	TCLP			10/17/24			10/19/24
			TCLP Herbicide	8151A		10/24/24	10/24/24	

P4462 8 of 59



Fax: 908 789 8922

Hit Summary Sheet SW-846

SDG No.: P4462 Order ID: P4462

Client: Tetra Tech, EMI Project ID: R36724

Sample ID Client ID Matrix Parameter Concentration C MDL RDL Units

Client ID:

Total Concentration: 0.000

P4462 9 of 59



# SAMPLE DATA

5

A

В

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P4462 **10 of 59** 

Decanted:



Analytical Method:

Prep Method:

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

% Solid:

0

# **Report of Analysis**

Date Collected: Client: Tetra Tech, EMI 10/17/24 Project: Date Received: 10/19/24 R36724 Client Sample ID: C0AL2 SDG No.: P4462 Lab Sample ID: P4462-02 Matrix: **TCLP** 

Sample Wt/Vol: 100 Units: mL Final Vol: 10000 uL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume :

GPC Factor: 1.0 PH:

SW8151A

8151A

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 PS028045.D
 1
 10/24/24 11:28
 10/24/24 20:20
 PB164378

CAS Number	Parameter	Conc.	Qualifie	r MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	4.90	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	4.50	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	411		39 - 175	82%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 11 of 59



Matrix:

**TCLP** 

# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected:

Project: R36724 Date Received: 10/24/24

Client Sample ID: PB164336TB SDG No.: P4462

Analytical Method: SW8151A % Solid: 0 Decanted:

Sample Wt/Vol: 100 Units: mL Final Vol: 10000 uL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume:

GPC Factor: 1.0 PH:

PB164336TB

Prep Method: 8151A

Lab Sample ID:

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 PS028074.D
 1
 10/24/24 11:28
 10/28/24 13:35
 PB164378

CAS Number	Parameter	Conc.	Qualifi	er MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	4.90	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	4.50	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	345		39 - 175	69%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **12 of 59** 



# QC SUMMARY

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P4462 13 of 59



### **Surrogate Summary**

SDG No.: P4462

Client: Tetra Tech, EMI

Analytical Method: 8151A

							Limits		
ab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Low	High
BLK-PS028007.D	PIBLK-PS028007.D	2,4-DCAA	1	500	489	98		39	175
		2,4-DCAA	2	500	461	92		39	175
BLK-PS028035.D	PIBLK-PS028035.D	2,4-DCAA	1	500	508	102		39	175
		2,4-DCAA	2	500	489	98		39	175
B164378BL	PB164378BL	2,4-DCAA	1	500	510	102		39	175
		2,4-DCAA	2	500	516	103		39	175
B164378BS	PB164378BS	2,4-DCAA	1	500	506	101		39	175
		2,4-DCAA	2	500	542	108		39	175
4397-06MS	WB-301-BOTMS	2,4-DCAA	1	500	138	28	*	39	175
		2,4-DCAA	2	500	114	23	*	39	175
4397-06MSD	WB-301-BOTMSD	2,4-DCAA	1	500	142	28	*	39	175
		2,4-DCAA	2	500	111	22	*	39	175
4462-02	C0AL2	2,4-DCAA	1	500	411	82		39	175
		2,4-DCAA	2	500	366	73		39	175
BLK-PS028046.D	PIBLK-PS028046.D	2,4-DCAA	1	500	506	101		39	175
		2,4-DCAA	2	500	479	96		39	175
BLK-PS028071.D	PIBLK-PS028071.D	2,4-DCAA	1	500	501	100		39	175
		2,4-DCAA	2	500	483	97		39	175
B164336TB	PB164336TB	2,4-DCAA	1	500	345	69		39	175
		2,4-DCAA	2	500	287	57		39	175
BLK-PS028075.D	PIBLK-PS028075.D	2,4-DCAA	1	500	508	102		39	175
		2,4-DCAA	2	500	418	84		39	175

P4462 **14 of 59** 



Fax: 908 789 8922

#### Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4462

Client: Tetra Tech, EMI

Analytical Method: 8151A DataFile: PS028042.D

Sample Rec RPD Limits RPD Lab Sample ID: Parameter Spike Result Result Units Rec Qual RPD Qual Low High WB-301-BOTMS **Client Sample ID:** P4397-06MS 2,4-D 50 0 55.2 ug/L 110 65 135 2,4,5-TP(Silvex) 50 0 106 ug/L 212 62 139

P4462 **15 of 59** 



#### Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4462

Client: Tetra Tech, EMI

Analytical Method: 8151A DataFile: PS028043.D

RPD Sample Rec Limits RPD Lab Sample ID: Parameter Spike Result Result Units Rec Qual RPD Qual Low High WB-301-BOTMSD **Client Sample ID:** 65 P4397-06MSD 2,4-D 50 0 56.6 ug/L 113 3 135 20 2,4,5-TP(Silvex) 50 0 113 ug/L 226 6 62 139 20

P4462 **16 of 59** 





# Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4462

Client: Tetra Tech, EMI

Analytical Method: 8151A Datafile: PS028038.D

								RPD		Limits		E
Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	Qual	Low	High	RPD	F
PB164378BS	2,4-D	5	5.00	ug/L	100				83	130		
	2,4,5-TP(Silvex)	5	5.40	ug/L	108				78	127		

P4462 **17 of 59** 



4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164378BL

Lab Name: CHEMTECH Contract: TETR16

Lab Sample ID: PB164378BL Lab File ID: PS028037.D

Matrix: (soil/water) water Extraction: (Type)

Sulfur Cleanup: (Y/N) N Date Extracted: 10/24/2024

Date Analyzed (1): 10/24/2024 Date Analyzed (2): 10/24/2024

Time Analyzed (1): 17:09 Time Analyzed (2): 17:09

Instrument ID (1): ECD S Instrument ID (2): ECD S

GC Column (1): RTX-CLP ID: 0,32 (mm) GC Column (2): RTX-CLP2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA	LAB	LAB	DATE	DATE
SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED 1	ANALYZED 2
PB164378BS	PB164378BS	PS028038.D	10/24/2024	10/24/2024
WB-301-BOTMS	P4397-06MS	PS028042.D	10/24/2024	10/24/2024
WB-301-BOTMSD	P4397-06MSD	PS028043.D	10/24/2024	10/24/2024
C0AL2	P4462-02	PS028045.D	10/24/2024	10/24/2024
PB164336TB	PB164336TB	PS028074.D	10/28/2024	10/28/2024

COMMENTS:		



# QC SAMPLE DATA

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P4462 19 of 59



# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected:

Project: R36724 Date Received:

Client Sample ID: PB164378BL SDG No.: P4462

Lab Sample ID: PB164378BL Matrix: TCLP

Analytical Method: SW8151A % Solid: 0 Decanted:

Sample Wt/Vol: 1000 Units: mL Final Vol: 10000 uL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume :

GPC Factor: 1.0 PH:

Prep Method: SW3510C

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 PS028037.D
 1
 10/24/24 11:28
 10/24/24 17:09
 PB164378

CAS Number	Parameter	Conc.	Qualifi	er MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	516		39 - 175	103%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **20 of 59** 









10/23/24

# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected:

Project: R36724 Date Received: 10/23/24

Client Sample ID: PIBLK-PS028007.D SDG No.: P4462

Lab Sample ID: I.BLK-PS028007.D Matrix: TCLP

Analytical Method: SW8151A % Solid: 0 Decanted:

Sample Wt/Vol: 1000 Units: mL Final Vol: 10000 uL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume:

GPC Factor: 1.0 PH:

Prep Method: SW3510C

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
PS028007.D 1 10/23/24 PS102324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	489		39 - 175	98%	SPK: 500

#### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **21 of 59** 



Date Collected:

Date Received:

SDG No.:

Matrix:

% Solid:

Final Vol:

Injection Volume:

10/24/24

10/24/24

P4462

**TCLP** 

10000

Decanted:

иL

# **Report of Analysis**

Client: Tetra Tech, EMI

Project: R36724

Client Sample ID: PIBLK-PS028035.D

Lab Sample ID: I.BLK-PS028035.D

Analytical Method: SW8151A

Sample Wt/Vol: 1000 Units: mL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type:

GPC Factor: 1.0 PH:

Prep Method: SW3510C

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
PS028035.D 1 10/24/24 PS102424

CAS Number	Parameter	Conc.	Qualifie	r MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2.4-DCAA	508		39 - 175	102%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **22 of 59** 



# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected: 10/24/24

Project: R36724 Date Received: 10/24/24

**TCLP** 

Client Sample ID: PIBLK-PS028046.D SDG No.: P4462

Lab Sample ID: I.BLK-PS028046.D

Analytical Method: SW8151A % Solid:

Decanted:

Sample Wt/Vol: 1000

Units: mL Final Vol:

0

Soil Aliquot Vol:

Matrix:

10000 иL

uL

Test: TCLP Herbicide

Extraction Type:

PH:

Injection Volume:

GPC Factor: Prep Method:

File ID/Qc Batch:

1.0

SW3510C

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

PS028046.D

10/24/24

PS102424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	506		39 - 175	101%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

23 of 59 P4462



Final Vol:

10000

иL

# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected: 10/28/24

Project: R36724 Date Received: 10/28/24

Client Sample ID: PIBLK-PS028071.D SDG No.: P4462

Lab Sample ID: I.BLK-PS028071.D Matrix: TCLP

Analytical Method: SW8151A % Solid: 0 Decanted:

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume :

GPC Factor: 1.0 PH:

mL

Units:

Prep Method: SW3510C

1000

Sample Wt/Vol:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
PS028071.D 1 10/28/24 PS102824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	501		39 - 175	100%	SPK: 500

#### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **24 of 59** 



# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected: 10/28/24

Project: R36724 Date Received: 10/28/24

Client Sample ID: PIBLK-PS028075.D SDG No.: P4462

Lab Sample ID: I.BLK-PS028075.D Matrix: TCLP

Analytical Method: SW8151A % Solid: 0 Decanted:

Sample Wt/Vol: 1000 Units: mL Final Vol: 10000 uL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume:

GPC Factor: 1.0 PH:

SW3510C

Prep Method:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

PS028075.D 1 10/28/24 PS102824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	508		39 - 175	102%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **25 of 59** 



# **Report of Analysis**

Client: Tetra Tech, EMI Date Collected:

Project: R36724 Date Received:

Client Sample ID: PB164378BS SDG No.: P4462

Lab Sample ID: PB164378BS Matrix: TCLP

Analytical Method: SW8151A % Solid: 0 Decanted:

Sample Wt/Vol: 1000 Units: mL Final Vol: 10000 uL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume:

GPC Factor: 1.0 PH:

Prep Method: SW3510C

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 PS028038.D
 1
 10/24/24 11:28
 10/24/24 17:33
 PB164378

CAS Number	Parameter	Conc.	Qualifier MDL	LOQ / CRQL	Units
TARGETS					
94-75-7	2,4-D	5.00	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	5.40	0.45	2.00	ug/L
SURROGATES					
19719-28-9	2,4-DCAA	542	39 - 175	108%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **26 of 59** 



# **Report of Analysis**

Date Collected: Client: Tetra Tech, EMI 10/10/24 Project: Date Received: R36724 10/11/24 Client Sample ID: WB-301-BOTMS SDG No.: P4462 Lab Sample ID: P4397-06MS Matrix: **TCLP** 

% Solid: Decanted: Analytical Method: SW8151A 0 Sample Wt/Vol: 100 Units: Final Vol: 10000 иL

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type: Injection Volume:

PH: GPC Factor: 1.0

SW3510C

Prep Method:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

PS028042.D 10/24/24 11:28 10/24/24 19:09 PB164378

CAS Number	Parameter	Conc.	Qualifie	r MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	55.2		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	106	P	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	138	*	39 - 175	28%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462



Date Collected:

Date Received:

Injection Volume:

SDG No.:

Matrix:

% Solid:

10/10/24

10/11/24

P4462

**TCLP** 

10000

Decanted:

иL

# **Report of Analysis**

Client: Tetra Tech, EMI

Project: R36724

Client Sample ID: WB-301-BOTMSD

Lab Sample ID: P4397-06MSD

Analytical Method: SW8151A

Sample Wt/Vol: 100 Units: mL Final Vol:

Soil Aliquot Vol: uL Test: TCLP Herbicide

Extraction Type:

GPC Factor: 1.0 PH:

Prep Method: SW3510C

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 PS028043.D
 1
 10/24/24 11:28
 10/24/24 19:32
 PB164378

CAS Number	Parameter	Conc.	Qualifie	er MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	56.6		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	113	P	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	142	*	39 - 175	28%	SPK: 500

#### Comments:

U = Not Detected

LOO = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

P4462 **28 of 59** 



# CALIBRATION SUMMARY

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P4462

29 of 59



RETENTION TIMES OF INITIAL CALIBRATION

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Instrument ID: ECD\_S Calibration Date(s): 10/23/2024 10/23/2024

Calibration Times: 11:28 13:04

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID:	RT	$200 = \underline{PS}$	2S028008.D	RT 500 =	PS028009.D
$RT 750 = \underline{PS}$	8028010.D RT 1	1000 = <u>PS</u>	S028011.D	RT 1500 =	PS028012.D

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WIN	DOW TO
2,4,5-TP(Silvex)	9.03	9.03	9.03	9.03	9.03	9.03	8.93	9.13
2,4-D	8.18	8.18	8.18	8.18	8.18	8.18	8.08	8.28
2,4-DCAA	7.09	7.09	7.09	7.09	7.09	7.09	6.99	7.19

P4462 **30 of 59** 



#### RETENTION TIMES OF INITIAL CALIBRATION

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Instrument ID: ECD\_S Calibration Date(s): 10/23/2024 10/23/2024

Calibration Times: 11:28 13:04

GC Column: RTX-CLP2 ID: 0.32 (mm)

LAB FILE ID:		RT 200 =	PS028008.D	RT 500 =	PS028009.D	
RT 750 =	PS028010.D	RT 1000 =	PS028011.D	RT 1500 =	PS028012.D	

COMPOUND	RT 200	RT 500	RT 750	RT 1000	RT 1500	MEAN RT	RT WIN	NDOW TO
2,4,5-TP(Silvex)	9.73	9.73	9.73	9.73	9.72	9.73	9.63	9.83
2,4-D	8.84	8.84	8.84	8.84	8.84	8.84	8.74	8.94
2,4-DCAA	7.61	7.62	7.61	7.62	7.61	7.61	7.51	7.71

P4462 **31 of 59** 



#### CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract:	TETR16	
	•	

 Lab Code:
 CHEM
 Case No.:
 P4462
 SAS No.:
 P4462
 SDG NO.:
 P4462

Instrument ID: <u>ECD\_S</u> Calibration Date(s): 10/23/2024 10/23/2024

Calibration Times: 11:28 13:04

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID:  CF 750 = PS028010.I			28008.D 28011.D		PS028009.D PS028012.D		
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	19584000000	16293000000	15358800000	15287500000	14230600000	16150800000	13
2,4-D	4140980000	3388880000	3183890000	3192570000	3036110000	3388490000	13
2,4-DCAA	3343560000	2711910000	2549070000	2475610000	2404680000	2696970000	14

P4462 **32 of 59** 



ECD\_S

**Instrument ID:** 

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

#### CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract:	TETR16				
I -b C-J	CHEM	C N	D4463	CACN-	D4463

 Lab Code:
 CHEM
 Case No.:
 P4462
 SAS No.:
 P4462
 SDG NO.:
 P4462

Calibration Date(s): 10/23/2024 10/23/2024

Calibration Times: 11:28 13:04

GC Column: RTX-CLP2 ID: 0.32 (mm)

LAB FILE ID:  CF 750 = PS028010.I			28008.D 28011.D		PS028009.D PS028012.D		
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	4575720000	4585960000	4376840000	4595510000	4689140000	4564630000	3
2,4-D	1125240000	990045000	959343000	966564000	944531000	997145000	7
2,4-DCAA	1149150000	929743000	912345000	889645000	862510000	948678000	12

P4462 **33 of 59** 



### INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract:	TETR16												
Lab Code:	СНЕМ		Case No.:		P4462		SAS No.:	<u>P446</u>	2	SDG NO.:	P4462		
Instrument ID:	_				-		Date(s) Analyz	æd:					
GC Column:			ID:	_	(mm)	)							

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM TO		CALIBRATION FACTOR	
		1					
		2					
		3					
		4					
		5					

P4462 **34 of 59** 



#### **CALIBRATION VERIFICATION SUMMARY**

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Continuing Calib Date: 10/24/2024 Initial Calibration Date(s): 10/23/2024 10/23/2024

Continuing Calib Time: 11:25 Initial Calibration Time(s): 11:28 13:04

GC Column: RTX-CLP ID: 0.32 (mm)

COMPOUND	CCAL	AVG	RT WI	NDOW	DIFF
COMICCIAL	RT	RT	FROM	TO	RT
2,4-DCAA	7.09	7.09	6.99	7.19	0.00
2,4-D	8.18	8.18	8.08	8.28	0.00
2,4,5-TP(Silvex)	9.03	9.03	8.93	9.13	0.00

P4462 **35 of 59** 



**Continuing Calib Time:** 

GC Column:

284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900, Fax: 908 789 8922

#### **CALIBRATION VERIFICATION SUMMARY**

TETR16 **Contract:** 

RTX-CLP2

Lab Code: **CHEM** P4462 SAS No.: P4462 SDG NO.: P4462 Case No.:

0.32

ID:

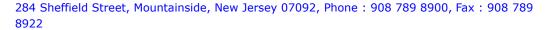
10/23/2024 10/23/2024 **Continuing Calib Date:** 10/24/2024 **Initial Calibration Date(s):** 11:25 11:28 13:04

**Initial Calibration Time(s):** 

(mm)

COMPOUND	CCAL RT	AVG RT	RT WII FROM	NDOW TO	DIFF RT
2,4-DCAA	7.61	7.61	7.51	7.71	0.00
2,4-D	8.84	8.84	8.74	8.94	0.00
2,4,5-TP(Silvex)	9.73	9.73	9.63	9.83	0.00

P4462 36 of 59





**Contract:** 

### **CALIBRATION VERIFICATION SUMMARY**

Lab Code:	CHEM	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462	

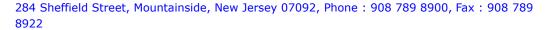
GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 10/23/2024 10/23/2024

Client Sample No.: CCAL01 Date Analyzed: 10/24/2024

Lab Sample No.: HSTDCCC750 Data File: PS028036.D Time Analyzed: 11:25

COMPOUND	RT	RT WIN FROM	TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.028	8.929	9.129	684.860	712.500	-3.9
2,4-D	8.176	8.077	8.277	665.580	705.000	-5.6
2,4-DCAA	7.091	6.991	7.191	709.960	750.000	-5.3

P4462 **37 of 59** 





**Contract:** 

### **CALIBRATION VERIFICATION SUMMARY**

	CHEM	C N	D4462	CACN	D4463	CDC NO	D4462
Lab Code:	CHEM	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 10/23/2024 10/23/2024

Client Sample No.: CCAL01 Date Analyzed: 10/24/2024

Lab Sample No.: HSTDCCC750 Data File: PS028036.D Time Analyzed: 11:25

COMPOUND	RT	RT WIN	DOW	CALC	NOM	%D
COMPOUND	Ki	FROM	ТО	AMOUNT(ng)	AMOUNT(ng)	/0D
2,4,5-TP(Silvex)	9.725	9.625	9.825	736.810	712.500	3.4
2,4-D	8.835	8.737	8.937	709.890	705.000	0.7
2,4-DCAA	7.613	7.514	7.714	733.180	750.000	-2.2

P4462 **38 of 59** 



### **CALIBRATION VERIFICATION SUMMARY**

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Continuing Calib Date: 10/24/2024 Initial Calibration Date(s): 10/23/2024 10/23/2024

Continuing Calib Time: 21:08 Initial Calibration Time(s): 11:28 13:04

GC Column: RTX-CLP ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WII	NDOW TO	DIFF RT
2,4-DCAA	7.09	7.09	6.99	7.19	0.00
2,4-D	8.18	8.18	8.08	8.28	0.00
2,4,5-TP(Silvex)	9.03	9.03	8.93	9.13	0.00

P4462 **39 of 59** 



### **CALIBRATION VERIFICATION SUMMARY**

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Continuing Calib Date: 10/24/2024 Initial Calibration Date(s): 10/23/2024 10/23/2024

Continuing Calib Time: 21:08 Initial Calibration Time(s): 11:28 13:04

GC Column: RTX-CLP2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM TO		DIFF RT
2,4-DCAA	7.61	7.61	7.51	7.71	0.00
2,4-D	8.83	8.84	8.74	8.94	0.01
2,4,5-TP(Silvex)	9.72	9.73	9.63	9.83	0.01

P4462 **40 of 59** 





**Contract:** 

### CALIBRATION VERIFICATION SUMMARY

			<u> </u>				
Lab Code:	CHEM	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462
					-		

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 10/23/2024 10/23/2024

Client Sample No.: CCAL02 Date Analyzed: 10/24/2024

Lab Sample No.: HSTDCCC750 Data File: PS028047.D Time Analyzed: 21:08

COMPOUND	RT	RT WIN	DOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.027	8.929	9.129	693.140	, 0,	-2.7
2,4-D	8.176	8.077	8.277	681.790	705.000	-3.3
2,4-DCAA	7.090	6.991	7.191	722.190	750.000	-3.7

P4462 **41 of 59** 



### **CALIBRATION VERIFICATION SUMMARY**

Contract:	TETR16							
Lab Code:	СНЕМ	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462	
GC Column:	RTX-CLP2	ID:	0.32 (mm)	Initi. Calib. Date(s):	10/23/2024	1	10/23/2024	

Client Sample No.: CCAL02 Date Analyzed: 10/24/2024

Lab Sample No.: HSTDCCC750 Data File: PS028047.D Time Analyzed: 21:08

COMPOUND	RT	RT WIN FROM	DOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.723	9.625	9.825	791.420	712.500	11.1
2,4-D	8.833	8.737	8.937	737.820	705.000	4.7
2,4-DCAA	7.612	7.514	7.714	784.260	750.000	4.6

P4462 **42 of 59** 



**Continuing Calib Time:** 

P4462

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

11:28

13:04

### **CALIBRATION VERIFICATION SUMMARY**

Contract: TETR16

10:32

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Continuing Calib Date: 10/28/2024 Initial Calibration Date(s): 10/23/2024 10/23/2024

**Initial Calibration Time(s):** 

GC Column: RTX-CLP ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WII	NDOW I to	DIFF RT
2,4-DCAA	7.09	7.09	6.99	7.19	0.00
2,4-D	8.17	8.18	8.08	8.28	0.01
2,4,5-TP(Silvex)	9.03	9.03	8.93	9.13	0.01

43 of 59

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**Continuing Calib Time:** 

P4462

284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900,

### **CALIBRATION VERIFICATION SUMMARY**

TETR16 **Contract:** 

10:32

Lab Code: **CHEM** P4462 SAS No.: P4462 SDG NO.: P4462 Case No.:

10/28/2024 10/23/2024 10/23/2024 **Continuing Calib Date: Initial Calibration Date(s):** 

**Initial Calibration Time(s):** 

(mm)

GC Column: RTX-CLP2 ID: 0.32

COMPOUND	CCAL RT	AVG RT	RT WII FROM	NDOW TO	DIFF RT
2,4-DCAA	7.61	7.61	7.51	7.71	0.00
2,4-D	8.83	8.84	8.74	8.94	0.01
2,4,5-TP(Silvex)	9.72	9.73	9.63	9.83	0.01

44 of 59

Fax: 908 789 8922

11:28

13:04





**Contract:** 

### CALIBRATION VERIFICATION SUMMARY

Lab Code:	CHEM	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462	

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 10/23/2024 10/23/2024

Client Sample No.: CCAL03 Date Analyzed: 10/28/2024

Lab Sample No.: HSTDCCC750 Data File: PS028072.D Time Analyzed: 10:32

COMPOUND	RT	RT WIN FROM	DOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.025	8.929	9.129	699.070	712.500	-1.9
2,4-D	8.173	8.077	8.277	675.860	705.000	-4.1
2,4-DCAA	7.088	6.991	7.191	727.270	750.000	-3.0

P4462 **45 of 59** 





### **CALIBRATION VERIFICATION SUMMARY**

Contract:	TETR16						
Lab Code:	СНЕМ	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462
GC Column:	RTX-CLP2	ID:	<u>0.32</u> (mm)	Initi. Calib. Date(s):	10/23/2024	<u> </u>	10/23/2024

Client Sample No.: CCAL03 Date Analyzed: 10/28/2024

Lab Sample No.: HSTDCCC750 Data File: PS028072.D Time Analyzed: 10:32

COMPOUND	RT	RT WIN		CALC	NOM AMOUNT(** ->)	%D
		FROM	TO	AMOUNT(ng)	AMOUNT(ng)	
2,4,5-TP(Silvex)	9.719	9.625	9.825	764.520	712.500	7.3
2,4-D	8.832	8.737	8.937	690.400	705.000	-2.1
2,4-DCAA	7.609	7.514	7.714	754.150	750.000	0.6

P4462 **46 of 59** 



### **CALIBRATION VERIFICATION SUMMARY**

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Continuing Calib Date: 10/28/2024 Initial Calibration Date(s): 10/23/2024 10/23/2024

Continuing Calib Time: 17:17 Initial Calibration Time(s): 11:28 13:04

GC Column: RTX-CLP ID: 0.32 (mm)

COMPOUND	CCAL	AVG	RT WI	NDOW	DIFF
COMPOUND	RT	RT	FROM	ТО	RT
2,4-DCAA	7.09	7.09	6.99	7.19	0.00
2,4-D	8.18	8.18	8.08	8.28	0.00
2,4,5-TP(Silvex)	9.03	9.03	8.93	9.13	0.00

P4462 **47 of 59** 



### **CALIBRATION VERIFICATION SUMMARY**

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Continuing Calib Date: 10/28/2024 Initial Calibration Date(s): 10/23/2024 10/23/2024

Continuing Calib Time: 17:17 Initial Calibration Time(s): 11:28 13:04

GC Column: RTX-CLP2 ID: 0.32 (mm)

COMPOUND	CCAL	AVG	RT WI	NDOW	DIFF
COMPOUND	RT	RT	RT FROM TO		RT
2,4-DCAA	7.61	7.61	7.51	7.71	0.00
2,4-D	8.83	8.84	8.74	8.94	0.01
2,4,5-TP(Silvex)	9.72	9.73	9.63	9.83	0.01

P4462 **48 of 59** 





### **CALIBRATION VERIFICATION SUMMARY**

Contract:	TETR16						
Lab Code:	СНЕМ	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462
GC Column:	RTX-CLP	ID:	<u>0.32</u> (mm)	Initi. Calib. Date(s):	10/23/2024	<u>.                                    </u>	10/23/2024

Client Sample No.: CCAL04 Date Analyzed: 10/28/2024

Lab Sample No.: HSTDCCC750 Data File: PS028076.D Time Analyzed: 17:17

COMPOUND	RT	RT WIN FROM	DOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.029	8.929	9.129	715.650	712.500	0.4
2,4-D	8.176	8.077	8.277	699.590	705.000	-0.8
2,4-DCAA	7.090	6.991	7.191	733.900	750.000	-2.1

P4462 **49 of 59** 



**Contract:** 

### CALIBRATION VERIFICATION SUMMARY

Lab Code:	CHEM	Case No.:	P4462	SAS No.:	P4462	SDG NO.:	P4462

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 10/23/2024 10/23/2024

Client Sample No.: CCAL04 Date Analyzed: 10/28/2024

Lab Sample No.: HSTDCCC750 Data File: PS028076.D Time Analyzed: 17:17

COMPOUND	RT	RT WIN	DOW	CALC	NOM	%D
	1(1	FROM	TO	AMOUNT(ng)	AMOUNT(ng)	/ <b>UD</b>
2,4,5-TP(Silvex)	9.719	9.625	9.825	743.740	712.500	4.4
2,4-D	8.829	8.737	8.937	729.960	705.000	3.5
2,4-DCAA	7.606	7.514	7.714	729.190	750.000	-2.8

P4462 **50 of 59** 



### **Analytical Sequence**

Client: Tetra Tech, EMI SDG No.: P4462

Project: R36724 Instrument ID: ECD\_S

GC Column: RTX-CLP ID: 0.32 (mm) Inst. Calib. Date(s): 10/23/2024 10/23/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT#	RT#
I.BLK	I.BLK	10/23/2024	11:04	PS028007.D	7.09	0.00
HSTDICC200	HSTDICC200	10/23/2024	11:28	PS028008.D	7.09	0.00
HSTDICC500	HSTDICC500	10/23/2024	11:52	PS028009.D	7.09	0.00
HSTDICC750	HSTDICC750	10/23/2024	12:16	PS028010.D	7.09	0.00
HSTDICC1000	HSTDICC1000	10/23/2024	12:40	PS028011.D	7.09	0.00
HSTDICC1500	HSTDICC1500	10/23/2024	13:04	PS028012.D	7.09	0.00
I.BLK	I.BLK	10/24/2024	11:01	PS028035.D	7.09	0.00
HSTDCCC750	HSTDCCC750	10/24/2024	11:25	PS028036.D	7.09	0.00
PB164378BL	PB164378BL	10/24/2024	17:09	PS028037.D	7.09	0.00
PB164378BS	PB164378BS	10/24/2024	17:33	PS028038.D	7.09	0.00
WB-301-BOTMS	P4397-06MS	10/24/2024	19:09	PS028042.D	7.09	0.00
WB-301-BOTMSD	P4397-06MSD	10/24/2024	19:32	PS028043.D	7.09	0.00
C0AL2	P4462-02	10/24/2024	20:20	PS028045.D	7.09	0.00
I.BLK	I.BLK	10/24/2024	20:44	PS028046.D	7.09	0.00
HSTDCCC750	HSTDCCC750	10/24/2024	21:08	PS028047.D	7.09	0.00
I.BLK	I.BLK	10/28/2024	10:08	PS028071.D	7.09	0.00
HSTDCCC750	HSTDCCC750	10/28/2024	10:32	PS028072.D	7.09	0.00
PB164336TB	PB164336TB	10/28/2024	13:35	PS028074.D	7.09	0.00
I.BLK	I.BLK	10/28/2024	13:59	PS028075.D	7.09	0.00
HSTDCCC750	HSTDCCC750	10/28/2024	17:17	PS028076.D	7.09	0.00

P4462 **51 of 59** 



### **Analytical Sequence**

Client: Tetra Tech, EMI SDG No.: P4462

Project: R36724 Instrument ID: ECD\_S

GC Column: RTX-CLP2 ID: 0.32 (mm) Inst. Calib. Date(s): 10/23/2024 10/23/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT#	RT#
I.BLK	I.BLK	10/23/2024	11:04	PS028007.D	7.62	0.00
HSTDICC200	HSTDICC200	10/23/2024	11:28	PS028008.D	7.61	0.00
HSTDICC500	HSTDICC500	10/23/2024	11:52	PS028009.D	7.62	0.00
HSTDICC750	HSTDICC750	10/23/2024	12:16	PS028010.D	7.61	0.00
HSTDICC1000	HSTDICC1000	10/23/2024	12:40	PS028011.D	7.62	0.00
HSTDICC1500	HSTDICC1500	10/23/2024	13:04	PS028012.D	7.61	0.00
I.BLK	I,BLK	10/24/2024	11:01	PS028035.D	7.61	0.00
HSTDCCC750	HSTDCCC750	10/24/2024	11:25	PS028036.D	7.61	0.00
PB164378BL	PB164378BL	10/24/2024	17:09	PS028037.D	7.61	0.00
PB164378BS	PB164378BS	10/24/2024	17:33	PS028038.D	7.61	0.00
WB-301-BOTMS	P4397-06MS	10/24/2024	19:09	PS028042.D	7.61	0.00
WB-301-BOTMSD	P4397-06MSD	10/24/2024	19:32	PS028043.D	7.61	0.00
C0AL2	P4462-02	10/24/2024	20:20	PS028045.D	7.61	0.00
I.BLK	I,BLK	10/24/2024	20:44	PS028046.D	7.61	0.00
HSTDCCC750	HSTDCCC750	10/24/2024	21:08	PS028047.D	7.61	0.00
I.BLK	I.BLK	10/28/2024	10:08	PS028071.D	7.61	0.00
HSTDCCC750	HSTDCCC750	10/28/2024	10:32	PS028072.D	7.61	0.00
PB164336TB	PB164336TB	10/28/2024	13:35	PS028074.D	7.61	0.00
I.BLK	I.BLK	10/28/2024	13:59	PS028075.D	7.61	0.0
HSTDCCC750	HSTDCCC750	10/28/2024	17:17	PS028076.D	7.61	0.0

P4462 **52 of 59** 



### COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB164378BS

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Lab Sample ID: PB164378BS Date(s) Analyzed: 10/24/2024 10/24/2024

Instrument ID (1): ECD\_S Instrument ID (2): ECD\_S

GC Column: (1): RTX-CLP ID: 0.32 (mm) GC Column:(2): RTX-CLP2 ID: 0.32 (mm)

ANALYTE	COL	RT	RT WII FROM	NDOW TO	CONCENTRATION	%RPD
2,4,5-TP(Silvex)	1	9.03	8.98	9.08	4.90	
	2	9.72	9.67	9.77	5.40	9.7
2,4-D	1	8.18	8.13	8.23	4.90	
	2	8.84	8.79	8.89	5.00	2

P4462 53 of 59



### COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WB-301-BOTMS

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Lab Sample ID: P4397-06MS Date(s) Analyzed: 10/24/2024 10/24/2024

Instrument ID (1): ECD\_S Instrument ID (2): ECD\_S

GC Column: (1): RTX-CLP ID: 0.32 (mm) GC Column:(2): RTX-CLP2 ID: 0.32 (mm)

ANALYTE	COL	RT	RT WII FROM	NDOW TO	CONCENTRATION	%RPD
2,4,5-TP(Silvex)	1	9.03	8.98	9.08	47.3	
	2	9.73	9.68	9.78	106	76.6
2,4-D	1	8.18	8.13	8.23	49.0	
	2	8.84	8.79	8.89	55.2	11.9

P4462 **54 of 59** 



### COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WB-301-BOTMSD

Contract: TETR16

Lab Code: CHEM Case No.: P4462 SAS No.: P4462 SDG NO.: P4462

Lab Sample ID: P4397-06MSD Date(s) Analyzed: 10/24/2024 10/24/2024

Instrument ID (1): ECD\_S Instrument ID (2): ECD\_S

GC Column: (1): RTX-CLP ID: 0.32 (mm) GC Column:(2): RTX-CLP2 ID: 0.32 (mm)

ANALYTE	COL	RT	RT WII FROM	NDOW TO	CONCENTRATION	%RPD
2,4-D	1	8.18	8.13	8.23	49.2	
	2	8.83	8.78	8.88	56.6	14
2,4,5-TP(Silvex)	1	9.03	8.98	9.08	47.5	
	2	9.73	9.68	9.78	113	81.6

P4462 55 of 59



### SHIPPING DOCUMENTS

P4462 **56 of 59** 

DateShipped: 10/18/2024

AirbillNo: 7793 3879 2277

CarrierName: FedEx

### USEPA CLP COC (LAB COPY) CHAIN OF CUSTODY RECORD

PHAMS

No: 3-101824-092513-0037

Lab: Alliance Technical Group, LLC Chemtech Lab
Lab Contact: Yazmeen Gomez

Lab Phone: 908-728-3147

DAS #: R36724 Cooler #:

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use — Only
IDW-W	C0AL2	Water/ START	Grab	T_HERB(21 Day)	1760 (<6 C), 1761 (<6 C) (2)	IDW	10/17/2024 08:00	

	•	000	Shipment for Case Complete? Y
Special Instructions:	Sople: Iha	6 Karon	Samples Transferred From Chain of Custody #
Analysis Key: T_HERB	=TCLP Herbicides		

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Dațe/Time	Sample Condition Upon Receipt
	Shan/ Jet Jel	10-18-24	alem	10/19/24	2-1
				10:15	them #1
					Per blu hu
					Casa Sur In



Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

### 6 6.3

## FORM DC-1 SAMPLE LOG-IN SHEET

MA No. N/A	Case Number R36724 SDG No.
	Received By (Signature)
Log-in Date 10/21/2024	Received By (Print Name)
Page_1_of	Lab Name : Alliance Technical Group, LLC

12.Time Received	Lab	11. Date Received at	agree ?	and Sample Tags	Reports/Chain of	10. Does information on Traffic		Numbers	9. Sample Tags		Condition	8. Sample	Temperature	7. Shipping Container	Indicator Bottle	Temperature		Shipping Container ID No.	5. Airbill No. and		4. Airbill	Custody Records	Reports/Chain Of	2. Custody Seal Nos.	I. Custody Seal (s)	Remarks:
10:15	10/19/2024					Yes	Report	Listed on Traffic	Absent			Intact	1.1	3 1 Degree C		Present		1	779338792277		Drecent		Present	n/a	Present, Intact	
_	23	22	21	20	19	18	17	16	15	14	13	12	ı	10	9	œ	7	o	σ	4	ω	2	н			
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C0AL2	EPA Sample #		
3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Water Sample pH	Aqueous	
1971	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		Sample Tag #		Corresponding
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P4462-02	Assigned Lab #		ق
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Intact	of Sample Shipment, etc.	Remarks: Condition	

# \* Contact SMO and attach record of resolution

Reviewed By	Logbook No.	N/A
Date	Logbook Page No.	N/A