



January 29, 2019

Mr. Dan Zaich
San Rafael City Schools
310 Nova Albion Way
San Rafael, California 94903
c/o Greystone West Company

Via E-Mail: Jamie@greystonewest.com

Subject: Analytical Soil Sampling and Testing Results
Terra Linda H.S. Commons Analytical Testing
320 Nova Albion Way, San Rafael, California 94903
CEL Project No. 84-04548-PWA [40-06259-PW]

Dear Mr. Zaich:

Pursuant to your request, Consolidated Engineering Laboratories (CEL) provided analytical sampling and testing services for on-site soil at the subject site in San Rafael. Two discrete soil samples were collected on January 10th, 2019 by a CEL representative from a couple of stockpiles in a vacant lot on the Terra Linda High School campus. CEL was not made aware of any past environmental issues or concerns at the site. In addition, CEL was not provided a Phase I ESA report for the site.

After sampling, the soil sample was taken to a refrigerator, where it stayed until it was ready to be transported on ice to a California State-Certified laboratory for testing. Proper chain-of-custody procedures were followed. The soil sample was tested on a standard turnaround basis for Volatile Organic Compounds including TPH gas (EPA 8015B), Semi-Volatile Organic Compounds (EPA 8270C), Pesticides (EPA 8081), PCBs (EPA 8082), TPH diesel and motor oil (EPA 8015M), 17 CAM metals (EPA 6010B), and STLC for chromium (Title 22).

It is our understanding that you do not require supplemental consulting including remediation consultation. The summary report prepared by California Laboratory Services details the lab analysis results. These test results were compared to the most recent (February 2016 Rev. 3) SF Bay RWQCB environmental screening levels (ESL's) for shallow soils and residential land use. The metals results were also compared to average background metal concentrations in soils at Lawrence Berkeley National Laboratory (LBNL), and the upper background limit for Arsenic (*Establishing Background Arsenic in Soil of the Urbanized San Francisco Region*, Duverge 2011).

Sample S-1

From the results report, we have concluded that all detected contaminants are either below ESL's, or generally within the range of expected background metal concentrations, with the exceptions listed below. All other test results were reported as non-detectable (ND).

Arsenic (TTL result of 8.3 mg/kg) exceeded the noted SFRWQCB screening level of 0.067 mg/kg. The indicated level is not high enough to warrant STLC testing (>50 mg/kg). The TTL result is below the proposed upper background limit of 11 mg/kg (Duverge 2011) for undifferentiated, urbanized flatland soils of the SF Bay Area.

Chromium (total result of 75 mg/kg) is below the ESL of 5000 mg/kg. However it is high enough to warrant STLC testing (>50 mg/kg), which was run and determined to be Non-Detectable (ND), which means it is well below the established limit of 5 mg/L.

Sample S-2

From the results report, we have concluded that all detected contaminants are either below ESL's, or generally within the range of expected background metal concentrations, with the exceptions listed below. All other test results were reported as non-detectable (ND).

Arsenic (total result of 6.1 mg/kg) exceeded the noted SFRWQCB screening level of 0.067 mg/kg. The indicated level is not high enough to warrant STLC testing (>50 mg/kg). This value is below the STLC limit of 5.0 mg/L. The TTL result is below the proposed upper background limit of 11 mg/kg (Duverge 2011) for undifferentiated, urbanized flatland soils of the SF Bay Area.

Chromium (total result of 100 mg/kg) is high enough to warrant STLC testing (>50 mg/kg), which was run and determined to be 0.17 mg/L. This value is below the STLC limit of 5.0 mg/L.

We note that waste facilities provide their own criteria for acceptance of off-haul material and these results should be provided and screened by them for acceptance or further testing requirements as applicable. We recommend that the results be reviewed immediately to determine whether any additional testing or extraction requirements are warranted. Additional testing may require additional sampling depending on the quantity of sample remaining in the analytical testing laboratory's custody.

January 29, 2019

If you should have any questions regarding this letter or would like to request additional sampling or testing, please contact Nick Anastasio at (925) 314-7100 or nanastasio@ce-labs.com.

It is our pleasure to be of service to you.

Sincerely,

CONSOLIDATED ENGINEERING LABORATORIES



Nick Anastasio
Staff Engineer



Corey T. Dare, PE, GE
Principal Geotechnical Engineer

Attachments: McCampbell Analytical Report (WO1901435)
McCampbell Analytical Report Add-on 1 (WO1901435-A)
McCampbell Analytical Report Add-on 2 (WO1901435-B)

NAA/CTD:pmf



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1901435

Report Created for: Consolidated Engineering Laboratories

2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583

Project Contact: Nick Anastasio

Project P.O.:

Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

Project Received: 01/10/2019

Analytical Report reviewed & approved for release on 01/18/2019 by:

Susan Thompson
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Consolidated Engineering Laboratories
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub
WorkOrder: 1901435

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Consolidated Engineering Laboratories
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub
WorkOrder: 1901435

Analytical Qualifiers

B Analyte detected in the associated Method Blank and in the sample
J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/10/19-1/17/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	ICP-MS2 035SMPL.D	171572

Analytes	Result	RL	DF	Date Analyzed
Antimony	0.91	0.50	1	01/18/2019 12:02
Arsenic	8.3	0.50	1	01/18/2019 12:02
Barium	200	5.0	1	01/18/2019 12:02
Beryllium	0.81	0.50	1	01/18/2019 12:02
Cadmium	ND	0.25	1	01/18/2019 12:02
Chromium	75	0.50	1	01/18/2019 12:02
Cobalt	21	0.50	1	01/18/2019 12:02
Copper	32	0.50	1	01/18/2019 12:02
Lead	9.7	0.50	1	01/18/2019 12:02
Mercury	0.21	0.050	1	01/18/2019 12:02
Molybdenum	0.69	0.50	1	01/18/2019 12:02
Nickel	110	0.50	1	01/18/2019 12:02
Selenium	ND	0.50	1	01/18/2019 12:02
Silver	ND	0.50	1	01/18/2019 12:02
Thallium	ND	0.50	1	01/18/2019 12:02
Vanadium	67	0.50	1	01/18/2019 12:02
Zinc	71	5.0	1	01/18/2019 12:02

Surrogates	REC (%)	Limits	
Terbium	104	70-130	01/18/2019 12:02

Analyst(s): JC



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/10/19-1/17/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	ICP-MS2 074SMPL.D	171272

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	01/15/2019 17:07
Arsenic	6.1		0.50	1	01/15/2019 17:07
Barium	150		5.0	1	01/15/2019 17:07
Beryllium	0.55		0.50	1	01/15/2019 17:07
Cadmium	ND		0.25	1	01/15/2019 17:07
Chromium	100		0.50	1	01/15/2019 17:07
Cobalt	17		0.50	1	01/15/2019 17:07
Copper	18		0.50	1	01/15/2019 17:07
Lead	7.0		0.50	1	01/15/2019 17:07
Mercury	0.057	B	0.050	1	01/15/2019 17:07
Molybdenum	0.51		0.50	1	01/15/2019 17:07
Nickel	92		0.50	1	01/15/2019 17:07
Selenium	ND		0.50	1	01/15/2019 17:07
Silver	ND		0.50	1	01/15/2019 17:07
Thallium	ND		0.50	1	01/15/2019 17:07
Vanadium	59		0.50	1	01/15/2019 17:07
Zinc	39		5.0	1	01/15/2019 17:07

Surrogates	REC (%)	Limits	
Terbium	105	70-130	01/15/2019 17:07

Analyst(s): MIG



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/10/19	BatchID:	171272
Date Analyzed:	1/14/19	Extraction Method:	SW3050B
Instrument:	ICP-MS1, ICP-MS3	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171272

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.094	0.50	-	-	-
Arsenic	ND	0.14	0.50	-	-	-
Barium	ND	0.97	5.0	-	-	-
Beryllium	ND	0.072	0.50	-	-	-
Cadmium	ND	0.058	0.25	-	-	-
Chromium	ND	0.092	0.50	-	-	-
Cobalt	ND	0.056	0.50	-	-	-
Copper	ND	0.069	0.50	-	-	-
Lead	0.19,J	0.094	0.50	-	-	-
Mercury	0.0090,J	0.0050	0.050	-	-	-
Molybdenum	ND	0.23	0.50	-	-	-
Nickel	ND	0.072	0.50	-	-	-
Selenium	ND	0.13	0.50	-	-	-
Silver	ND	0.055	0.50	-	-	-
Thallium	ND	0.10	0.50	-	-	-
Vanadium	ND	0.064	0.50	-	-	-
Zinc	ND	1.4	5.0	-	-	-
Surrogate Recovery						
Terbium	540			500	108	70-130



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/10/19
Date Analyzed: 1/14/19
Instrument: ICP-MS1, ICP-MS3
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171272
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171272

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	56	52	50	112	105	75-125	6.58	20
Arsenic	52	49	50	103	98	75-125	5.41	20
Barium	540	500	500	108	100	75-125	7.22	20
Beryllium	53	50	50	105	99	75-125	5.94	20
Cadmium	52	48	50	103	96	75-125	6.70	20
Chromium	51	49	50	102	97	75-125	4.69	20
Cobalt	52	49	50	105	97	75-125	7.75	20
Copper	51	48	50	103	97	75-125	5.72	20
Lead	52	49	50	104	97	75-125	6.19	20
Mercury	1.4	1.2	1.25	112	99	75-125	11.9	20
Molybdenum	53	49	50	105	98	75-125	6.70	20
Nickel	52	49	50	103	97	75-125	6.19	20
Selenium	52	49	50	104	99	75-125	5.01	20
Silver	52	49	50	105	98	75-125	6.54	20
Thallium	49	47	50	98	93	75-125	5.19	20
Vanadium	51	49	50	101	97	75-125	3.81	20
Zinc	510	490	500	103	97	75-125	5.84	20
Surrogate Recovery								
Terbium	550	510	500	110	102	70-130	6.95	20



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/16/19
Date Analyzed: 1/17/19 - 1/18/19
Instrument: ICP-MS2, ICP-MS3
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171572
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171572

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.094	0.50	-	-	-
Arsenic	ND	0.14	0.50	-	-	-
Barium	ND	0.97	5.0	-	-	-
Beryllium	ND	0.072	0.50	-	-	-
Cadmium	ND	0.058	0.25	-	-	-
Chromium	ND	0.092	0.50	-	-	-
Cobalt	ND	0.056	0.50	-	-	-
Copper	ND	0.069	0.50	-	-	-
Lead	ND	0.094	0.50	-	-	-
Mercury	ND	0.0050	0.050	-	-	-
Molybdenum	ND	0.23	0.50	-	-	-
Nickel	ND	0.072	0.50	-	-	-
Selenium	ND	0.13	0.50	-	-	-
Silver	ND	0.055	0.50	-	-	-
Thallium	ND	0.10	0.50	-	-	-
Vanadium	ND	0.064	0.50	-	-	-
Zinc	ND	1.4	5.0	-	-	-
Surrogate Recovery						
Terbium	470			500	94	70-130



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/16/19
Date Analyzed: 1/17/19 - 1/18/19
Instrument: ICP-MS2, ICP-MS3
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171572
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171572

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	56	55	50	112	110	75-125	1.53	20
Arsenic	49	48	50	98	96	75-125	2.02	20
Barium	510	500	500	102	101	75-125	1.44	20
Beryllium	50	50	50	101	101	75-125	0	20
Cadmium	49	48	50	99	96	75-125	2.64	20
Chromium	50	50	50	99	99	75-125	0	20
Cobalt	48	46	50	95	93	75-125	2.45	20
Copper	50	48	50	99	97	75-125	2.51	20
Lead	48	48	50	97	95	75-125	1.55	20
Mercury	1.2	1.2	1.25	100	100	75-125	0	20
Molybdenum	50	49	50	100	98	75-125	1.82	20
Nickel	50	48	50	99	97	75-125	2.84	20
Selenium	50	49	50	99	99	75-125	0	20
Silver	48	47	50	96	95	75-125	0.946	20
Thallium	49	49	50	97	97	75-125	0	20
Vanadium	49	48	50	98	96	75-125	2.50	20
Zinc	490	480	500	97	96	75-125	1.58	20
Surrogate Recovery								
Terbium	460	440	500	92	89	70-130	3.40	20

McCampbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

☐ WaterTrax

☐ WriteOn

☐ EDF

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1901435

ClientCode: CEL

☐ Excel

☐ EQuIS

☒ Email

☐ HardCopy

☐ ThirdParty

☐ J-flag

☐ Detection Summary

☐ Dry-Weight

Report to:

Nick Anastasio
Consolidated Engineering Laboratories
2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583
(925) 314-7156 FAX: 925.485.5019

Email: nanastasio@ce-labs.com
cc/3rd Party:
PO:
Project: 84-04548-PWA; SRCS Terra Linda HS
Innovation Hub

Bill to:

Accounts Payable
Consolidated Engineering Laboratories
2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583
AccountsPayable@ce-labs.com; pfergu

Requested TAT: 5 days;

Date Received: 01/10/2019

Date Logged: 01/10/2019

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1901435-001	S-1/ NW Corner Of Vacant Lot	Soil	1/10/2019 10:25	<input type="checkbox"/>	A											
1901435-002	S-2/ SE Corner Of Vacant Lot	Soil	1/10/2019 10:30	<input type="checkbox"/>	A											

Test Legend:

1	CAM17MS_TTLC_S
5	
9	

2	
6	
10	

3	
7	
11	

4	
8	
12	

Prepared by: Lilly Ortiz

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: CONSOLIDATED ENGINEERING LABORATORIES

Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

Work Order: 1901435

Client Contact: Nick Anastasio

QC Level: LEVEL 2

Contact's Email: nanastasio@ce-labs.com

Comments

Date Logged: 1/10/2019

☐ WaterTrax

☐ WriteOn

☐ EDF

☐ Excel

☐ EQUIS

☒ Email

☐ HardCopy

☐ ThirdParty

☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1901435-001A	S-1/ NW Corner Of Vacant Lot	Soil	SW6020 (CAM 17)	1	8OZ GJ, Unpres	<input type="checkbox"/>	1/10/2019 10:25	5 days		<input type="checkbox"/>	
1901435-002A	S-2/ SE Corner Of Vacant Lot	Soil	SW6020 (CAM 17)	1	8OZ GJ, Unpres	<input type="checkbox"/>	1/10/2019 10:30	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

[illegible]



Sample Receipt Checklist

Client Name: **Consolidated Engineering Laboratories**
Project: **84-04548-PWA; SRCS Terra Linda HS Innovation Hub**
WorkOrder No: **1901435** Matrix: Soil
Carrier: Laurie Moore (MAI Courier)

Date and Time Received: **1/10/2019 16:00**
Date Logged: **1/10/2019**
Received by: Lilly Ortiz
Logged by: Lilly Ortiz

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 2.3°C	NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1901435 A

Report Created for: Consolidated Engineering Laboratories

2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583

Project Contact: Nick Anastasio

Project P.O.:

Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

Project Received: 01/10/2019

Analytical Report reviewed & approved for release on 01/23/2019 by:

Susan Thompson
Project Manager

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Glossary of Terms & Qualifier Definitions

Client: Consolidated Engineering Laboratories
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub
WorkOrder: 1901435 A

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Consolidated Engineering Laboratories
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub
WorkOrder: 1901435 A

Analytical Qualifiers

J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.

Quality Control Qualifiers

F2 LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.
F3 The surrogate standard recovery and/or RPD is outside of acceptance limits.



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/14/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC20 01161938.D	171399

Analytes	Result	RL	DE	Date Analyzed
Aldrin	ND	0.0010	1	01/16/2019 20:55
a-BHC	ND	0.0010	1	01/16/2019 20:55
b-BHC	ND	0.0010	1	01/16/2019 20:55
d-BHC	ND	0.0010	1	01/16/2019 20:55
g-BHC	0.0024	0.0010	1	01/16/2019 20:55
Chlordane (Technical)	ND	0.025	1	01/16/2019 20:55
a-Chlordane	ND	0.0010	1	01/16/2019 20:55
g-Chlordane	ND	0.0010	1	01/16/2019 20:55
p,p-DDD	ND	0.0010	1	01/16/2019 20:55
p,p-DDE	ND	0.0010	1	01/16/2019 20:55
p,p-DDT	ND	0.0010	1	01/16/2019 20:55
Dieldrin	ND	0.0010	1	01/16/2019 20:55
Endosulfan I	ND	0.0010	1	01/16/2019 20:55
Endosulfan II	ND	0.0010	1	01/16/2019 20:55
Endosulfan sulfate	ND	0.0010	1	01/16/2019 20:55
Endrin	ND	0.0010	1	01/16/2019 20:55
Endrin aldehyde	ND	0.0010	1	01/16/2019 20:55
Endrin ketone	ND	0.0010	1	01/16/2019 20:55
Heptachlor	ND	0.0010	1	01/16/2019 20:55
Heptachlor epoxide	ND	0.0010	1	01/16/2019 20:55
Hexachlorobenzene	ND	0.010	1	01/16/2019 20:55
Hexachlorocyclopentadiene	ND	0.020	1	01/16/2019 20:55
Methoxychlor	ND	0.0010	1	01/16/2019 20:55
Toxaphene	ND	0.050	1	01/16/2019 20:55
Aroclor1016	ND	0.050	1	01/16/2019 20:55
Aroclor1221	ND	0.050	1	01/16/2019 20:55
Aroclor1232	ND	0.050	1	01/16/2019 20:55
Aroclor1242	ND	0.050	1	01/16/2019 20:55
Aroclor1248	ND	0.050	1	01/16/2019 20:55
Aroclor1254	ND	0.050	1	01/16/2019 20:55
Aroclor1260	ND	0.050	1	01/16/2019 20:55
PCBs, total	ND	0.050	1	01/16/2019 20:55

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	126	69-143	01/16/2019 20:55

Analyst(s): CK

(Cont.)



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/14/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	GC20 01161937.D	171399

Analytes	Result	RL	DE	Date Analyzed
Aldrin	ND	0.0010	1	01/16/2019 20:39
a-BHC	ND	0.0010	1	01/16/2019 20:39
b-BHC	ND	0.0010	1	01/16/2019 20:39
d-BHC	ND	0.0010	1	01/16/2019 20:39
g-BHC	ND	0.0010	1	01/16/2019 20:39
Chlordane (Technical)	ND	0.025	1	01/16/2019 20:39
a-Chlordane	ND	0.0010	1	01/16/2019 20:39
g-Chlordane	ND	0.0010	1	01/16/2019 20:39
p,p-DDD	ND	0.0010	1	01/16/2019 20:39
p,p-DDE	ND	0.0010	1	01/16/2019 20:39
p,p-DDT	ND	0.0010	1	01/16/2019 20:39
Dieldrin	ND	0.0010	1	01/16/2019 20:39
Endosulfan I	ND	0.0010	1	01/16/2019 20:39
Endosulfan II	ND	0.0010	1	01/16/2019 20:39
Endosulfan sulfate	ND	0.0010	1	01/16/2019 20:39
Endrin	ND	0.0010	1	01/16/2019 20:39
Endrin aldehyde	ND	0.0010	1	01/16/2019 20:39
Endrin ketone	ND	0.0010	1	01/16/2019 20:39
Heptachlor	ND	0.0010	1	01/16/2019 20:39
Heptachlor epoxide	ND	0.0010	1	01/16/2019 20:39
Hexachlorobenzene	ND	0.010	1	01/16/2019 20:39
Hexachlorocyclopentadiene	ND	0.020	1	01/16/2019 20:39
Methoxychlor	ND	0.0010	1	01/16/2019 20:39
Toxaphene	ND	0.050	1	01/16/2019 20:39
Aroclor1016	ND	0.050	1	01/16/2019 20:39
Aroclor1221	ND	0.050	1	01/16/2019 20:39
Aroclor1232	ND	0.050	1	01/16/2019 20:39
Aroclor1242	ND	0.050	1	01/16/2019 20:39
Aroclor1248	ND	0.050	1	01/16/2019 20:39
Aroclor1254	ND	0.050	1	01/16/2019 20:39
Aroclor1260	ND	0.050	1	01/16/2019 20:39
PCBs, total	ND	0.050	1	01/16/2019 20:39

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	127	69-143	01/16/2019 20:39

Analyst(s): CK



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/15/19-1/22/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC10 01151927.D	171492

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/16/2019 01:43
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/16/2019 01:43
Benzene	ND	0.0050	1	01/16/2019 01:43
Bromobenzene	ND	0.0050	1	01/16/2019 01:43
Bromochloromethane	ND	0.0050	1	01/16/2019 01:43
Bromodichloromethane	ND	0.0050	1	01/16/2019 01:43
Bromoform	ND	0.0050	1	01/16/2019 01:43
Bromomethane	ND	0.0050	1	01/16/2019 01:43
2-Butanone (MEK)	ND	0.020	1	01/16/2019 01:43
t-Butyl alcohol (TBA)	ND	0.050	1	01/16/2019 01:43
n-Butyl benzene	ND	0.0050	1	01/16/2019 01:43
sec-Butyl benzene	ND	0.0050	1	01/16/2019 01:43
tert-Butyl benzene	ND	0.0050	1	01/16/2019 01:43
Carbon Disulfide	ND	0.0050	1	01/16/2019 01:43
Carbon Tetrachloride	ND	0.0050	1	01/16/2019 01:43
Chlorobenzene	ND	0.0050	1	01/16/2019 01:43
Chloroethane	ND	0.0050	1	01/16/2019 01:43
Chloroform	ND	0.0050	1	01/16/2019 01:43
Chloromethane	ND	0.0050	1	01/16/2019 01:43
2-Chlorotoluene	ND	0.0050	1	01/16/2019 01:43
4-Chlorotoluene	ND	0.0050	1	01/16/2019 01:43
Dibromochloromethane	ND	0.0050	1	01/16/2019 01:43
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/16/2019 01:43
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/16/2019 01:43
Dibromomethane	ND	0.0050	1	01/16/2019 01:43
1,2-Dichlorobenzene	ND	0.0050	1	01/16/2019 01:43
1,3-Dichlorobenzene	ND	0.0050	1	01/16/2019 01:43
1,4-Dichlorobenzene	ND	0.0050	1	01/16/2019 01:43
Dichlorodifluoromethane	ND	0.0050	1	01/16/2019 01:43
1,1-Dichloroethane	ND	0.0050	1	01/16/2019 01:43
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/16/2019 01:43
1,1-Dichloroethene	ND	0.0050	1	01/16/2019 01:43
cis-1,2-Dichloroethene	ND	0.0050	1	01/16/2019 01:43
trans-1,2-Dichloroethene	ND	0.0050	1	01/16/2019 01:43
1,2-Dichloropropane	ND	0.0050	1	01/16/2019 01:43
1,3-Dichloropropane	ND	0.0050	1	01/16/2019 01:43
2,2-Dichloropropane	ND	0.0050	1	01/16/2019 01:43

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/15/19-1/22/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC10 01151927.D	171492
Analytes	Result	RL	DF	Date Analyzed	
1,1-Dichloropropene	ND	0.0050	1	01/16/2019 01:43	
cis-1,3-Dichloropropene	ND	0.0050	1	01/16/2019 01:43	
trans-1,3-Dichloropropene	ND	0.0050	1	01/16/2019 01:43	
Diisopropyl ether (DIPE)	ND	0.0050	1	01/16/2019 01:43	
Ethylbenzene	ND	0.0050	1	01/16/2019 01:43	
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/16/2019 01:43	
Freon 113	ND	0.0050	1	01/16/2019 01:43	
Hexachlorobutadiene	ND	0.0050	1	01/16/2019 01:43	
Hexachloroethane	ND	0.0050	1	01/16/2019 01:43	
2-Hexanone	ND	0.0050	1	01/16/2019 01:43	
Isopropylbenzene	ND	0.0050	1	01/16/2019 01:43	
4-Isopropyl toluene	ND	0.0050	1	01/16/2019 01:43	
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/16/2019 01:43	
Methylene chloride	ND	0.010	1	01/16/2019 01:43	
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/16/2019 01:43	
Naphthalene	ND	0.0050	1	01/16/2019 01:43	
n-Propyl benzene	ND	0.0050	1	01/16/2019 01:43	
Styrene	ND	0.0050	1	01/16/2019 01:43	
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/16/2019 01:43	
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/16/2019 01:43	
Tetrachloroethene	ND	0.0050	1	01/16/2019 01:43	
Toluene	ND	0.0050	1	01/16/2019 01:43	
1,2,3-Trichlorobenzene	ND	0.0050	1	01/16/2019 01:43	
1,2,4-Trichlorobenzene	ND	0.0050	1	01/16/2019 01:43	
1,1,1-Trichloroethane	ND	0.0050	1	01/16/2019 01:43	
1,1,2-Trichloroethane	ND	0.0050	1	01/16/2019 01:43	
Trichloroethene	ND	0.0050	1	01/16/2019 01:43	
Trichlorofluoromethane	ND	0.0050	1	01/16/2019 01:43	
1,2,3-Trichloropropane	ND	0.0050	1	01/16/2019 01:43	
1,2,4-Trimethylbenzene	ND	0.0050	1	01/16/2019 01:43	
1,3,5-Trimethylbenzene	ND	0.0050	1	01/16/2019 01:43	
Vinyl Chloride	ND	0.0050	1	01/16/2019 01:43	
m,p-Xylene	0.0052	0.0050	1	01/16/2019 01:43	
o-Xylene	ND	0.0050	1	01/16/2019 01:43	
Xylenes, Total	0.0052	0.0050	1	01/16/2019 01:43	

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/15/19-1/22/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC10 01151927.D	171492

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	87	82-136		01/16/2019 01:43
Toluene-d8	100	92-139		01/16/2019 01:43
4-BFB	94	82-135		01/16/2019 01:43
Benzene-d6	79	55-122		01/16/2019 01:43
Ethylbenzene-d10	87	58-141		01/16/2019 01:43
1,2-DCB-d4	64	51-107		01/16/2019 01:43

Analyst(s): KF



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/15/19-1/22/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	GC16 01221921.D	171768

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/22/2019 23:35
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/22/2019 23:35
Benzene	ND	0.0050	1	01/22/2019 23:35
Bromobenzene	ND	0.0050	1	01/22/2019 23:35
Bromochloromethane	ND	0.0050	1	01/22/2019 23:35
Bromodichloromethane	ND	0.0050	1	01/22/2019 23:35
Bromoform	ND	0.0050	1	01/22/2019 23:35
Bromomethane	ND	0.0050	1	01/22/2019 23:35
2-Butanone (MEK)	ND	0.020	1	01/22/2019 23:35
t-Butyl alcohol (TBA)	ND	0.050	1	01/22/2019 23:35
n-Butyl benzene	ND	0.0050	1	01/22/2019 23:35
sec-Butyl benzene	ND	0.0050	1	01/22/2019 23:35
tert-Butyl benzene	ND	0.0050	1	01/22/2019 23:35
Carbon Disulfide	ND	0.0050	1	01/22/2019 23:35
Carbon Tetrachloride	ND	0.0050	1	01/22/2019 23:35
Chlorobenzene	ND	0.0050	1	01/22/2019 23:35
Chloroethane	ND	0.0050	1	01/22/2019 23:35
Chloroform	ND	0.0050	1	01/22/2019 23:35
Chloromethane	ND	0.0050	1	01/22/2019 23:35
2-Chlorotoluene	ND	0.0050	1	01/22/2019 23:35
4-Chlorotoluene	ND	0.0050	1	01/22/2019 23:35
Dibromochloromethane	ND	0.0050	1	01/22/2019 23:35
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/22/2019 23:35
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/22/2019 23:35
Dibromomethane	ND	0.0050	1	01/22/2019 23:35
1,2-Dichlorobenzene	ND	0.0050	1	01/22/2019 23:35
1,3-Dichlorobenzene	ND	0.0050	1	01/22/2019 23:35
1,4-Dichlorobenzene	ND	0.0050	1	01/22/2019 23:35
Dichlorodifluoromethane	ND	0.0050	1	01/22/2019 23:35
1,1-Dichloroethane	ND	0.0050	1	01/22/2019 23:35
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/22/2019 23:35
1,1-Dichloroethene	ND	0.0050	1	01/22/2019 23:35
cis-1,2-Dichloroethene	ND	0.0050	1	01/22/2019 23:35
trans-1,2-Dichloroethene	ND	0.0050	1	01/22/2019 23:35
1,2-Dichloropropane	ND	0.0050	1	01/22/2019 23:35
1,3-Dichloropropane	ND	0.0050	1	01/22/2019 23:35
2,2-Dichloropropane	ND	0.0050	1	01/22/2019 23:35

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/15/19-1/22/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected		Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30		GC16 01221921.D	171768
Analytes	Result	RL	DF	Date Analyzed		
1,1-Dichloropropene	ND	0.0050	1	01/22/2019 23:35		
cis-1,3-Dichloropropene	ND	0.0050	1	01/22/2019 23:35		
trans-1,3-Dichloropropene	ND	0.0050	1	01/22/2019 23:35		
Diisopropyl ether (DIPE)	ND	0.0050	1	01/22/2019 23:35		
Ethylbenzene	ND	0.0050	1	01/22/2019 23:35		
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/22/2019 23:35		
Freon 113	ND	0.0050	1	01/22/2019 23:35		
Hexachlorobutadiene	ND	0.0050	1	01/22/2019 23:35		
Hexachloroethane	ND	0.0050	1	01/22/2019 23:35		
2-Hexanone	ND	0.0050	1	01/22/2019 23:35		
Isopropylbenzene	ND	0.0050	1	01/22/2019 23:35		
4-Isopropyl toluene	ND	0.0050	1	01/22/2019 23:35		
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/22/2019 23:35		
Methylene chloride	ND	0.010	1	01/22/2019 23:35		
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/22/2019 23:35		
Naphthalene	ND	0.0050	1	01/22/2019 23:35		
n-Propyl benzene	ND	0.0050	1	01/22/2019 23:35		
Styrene	ND	0.0050	1	01/22/2019 23:35		
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/22/2019 23:35		
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/22/2019 23:35		
Tetrachloroethene	ND	0.0050	1	01/22/2019 23:35		
Toluene	ND	0.0050	1	01/22/2019 23:35		
1,2,3-Trichlorobenzene	ND	0.0050	1	01/22/2019 23:35		
1,2,4-Trichlorobenzene	ND	0.0050	1	01/22/2019 23:35		
1,1,1-Trichloroethane	ND	0.0050	1	01/22/2019 23:35		
1,1,2-Trichloroethane	ND	0.0050	1	01/22/2019 23:35		
Trichloroethene	ND	0.0050	1	01/22/2019 23:35		
Trichlorofluoromethane	ND	0.0050	1	01/22/2019 23:35		
1,2,3-Trichloropropane	ND	0.0050	1	01/22/2019 23:35		
1,2,4-Trimethylbenzene	ND	0.0050	1	01/22/2019 23:35		
1,3,5-Trimethylbenzene	ND	0.0050	1	01/22/2019 23:35		
Vinyl Chloride	ND	0.0050	1	01/22/2019 23:35		
m,p-Xylene	ND	0.0050	1	01/22/2019 23:35		
o-Xylene	ND	0.0050	1	01/22/2019 23:35		
Xylenes, Total	ND	0.0050	1	01/22/2019 23:35		

(Cont.)



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/15/19-1/22/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	GC16 01221921.D	171768

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	92	66-116		01/22/2019 23:35
Toluene-d8	110	86-110		01/22/2019 23:35
4-BFB	103	71-114		01/22/2019 23:35
Benzene-d6	99	62-122		01/22/2019 23:35
Ethylbenzene-d10	111	69-130		01/22/2019 23:35
1,2-DCB-d4	88	55-108		01/22/2019 23:35

Analyst(s): KF



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/16/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected			Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25			GC17 01161921.D	171531
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed	
Acenaphthene	ND		0.00077	0.0013	1	01/16/2019 18:31	
Acenaphthylene	ND		0.00041	0.0013	1	01/16/2019 18:31	
Acetochlor	ND		0.25	0.25	1	01/16/2019 18:31	
Anthracene	ND		0.00082	0.0013	1	01/16/2019 18:31	
Benzidine	ND		0.67	1.2	1	01/16/2019 18:31	
Benzo (a) anthracene	ND		0.0043	0.0050	1	01/16/2019 18:31	
Benzo (a) pyrene	ND		0.0012	0.0025	1	01/16/2019 18:31	
Benzo (b) fluoranthene	ND		0.00074	0.0013	1	01/16/2019 18:31	
Benzo (g,h,i) perylene	0.0012	J	0.0011	0.0025	1	01/16/2019 18:31	
Benzo (k) fluoranthene	ND		0.00079	0.0013	1	01/16/2019 18:31	
Benzyl Alcohol	ND		0.76	1.2	1	01/16/2019 18:31	
1,1-Biphenyl	0.0037	J	0.0023	0.013	1	01/16/2019 18:31	
Bis (2-chloroethoxy) Methane	ND		0.15	0.25	1	01/16/2019 18:31	
Bis (2-chloroethyl) Ether	ND		0.0016	0.0025	1	01/16/2019 18:31	
Bis (2-chloroisopropyl) Ether	ND		0.0014	0.0025	1	01/16/2019 18:31	
Bis (2-ethylhexyl) Adipate	ND		0.15	0.50	1	01/16/2019 18:31	
Bis (2-ethylhexyl) Phthalate	0.0074		0.0034	0.0050	1	01/16/2019 18:31	
4-Bromophenyl Phenyl Ether	ND		0.15	0.25	1	01/16/2019 18:31	
Butylbenzyl Phthalate	ND		0.021	0.025	1	01/16/2019 18:31	
4-Chloroaniline	ND		0.0016	0.0025	1	01/16/2019 18:31	
4-Chloro-3-methylphenol	ND		0.20	0.25	1	01/16/2019 18:31	
2-Chloronaphthalene	ND		0.14	0.25	1	01/16/2019 18:31	
2-Chlorophenol	ND		0.0020	0.0050	1	01/16/2019 18:31	
4-Chlorophenyl Phenyl Ether	ND		0.16	0.25	1	01/16/2019 18:31	
Chrysene	ND		0.00080	0.0025	1	01/16/2019 18:31	
Dibenzo (a,h) anthracene	ND		0.0015	0.0025	1	01/16/2019 18:31	
Dibenzofuran	ND		0.16	0.25	1	01/16/2019 18:31	
Di-n-butyl Phthalate	ND		0.0020	0.0025	1	01/16/2019 18:31	
1,2-Dichlorobenzene	ND		0.15	0.25	1	01/16/2019 18:31	
1,3-Dichlorobenzene	ND		0.13	0.25	1	01/16/2019 18:31	
1,4-Dichlorobenzene	ND		0.18	0.25	1	01/16/2019 18:31	
3,3-Dichlorobenzidine	ND		0.0016	0.0025	1	01/16/2019 18:31	
2,4-Dichlorophenol	ND		0.0017	0.013	1	01/16/2019 18:31	
Diethyl Phthalate	ND		0.0036	0.0050	1	01/16/2019 18:31	
2,4-Dimethylphenol	ND		0.16	0.25	1	01/16/2019 18:31	
Dimethyl Phthalate	ND		0.0025	0.0025	1	01/16/2019 18:31	
4,6-Dinitro-2-methylphenol	ND		0.81	1.2	1	01/16/2019 18:31	

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/16/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected			Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25			GC17 01161921.D	171531
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed	
2,4-Dinitrophenol	ND		0.051	0.13	1	01/16/2019 18:31	
2,4-Dinitrotoluene	ND		0.0011	0.0063	1	01/16/2019 18:31	
2,6-Dinitrotoluene	ND		0.0013	0.0025	1	01/16/2019 18:31	
Di-n-octyl Phthalate	ND		0.0043	0.0050	1	01/16/2019 18:31	
1,2-Diphenylhydrazine	ND		0.15	0.25	1	01/16/2019 18:31	
Fluoranthene	0.0011	J	0.0011	0.0013	1	01/16/2019 18:31	
Fluorene	ND		0.00086	0.0025	1	01/16/2019 18:31	
Hexachlorobenzene	ND		0.00057	0.0013	1	01/16/2019 18:31	
Hexachlorobutadiene	ND		0.00042	0.0025	1	01/16/2019 18:31	
Hexachlorocyclopentadiene	ND		0.11	2.0	1	01/16/2019 18:31	
Hexachloroethane	ND		0.0011	0.0025	1	01/16/2019 18:31	
Indeno (1,2,3-cd) pyrene	ND		0.0010	0.0025	1	01/16/2019 18:31	
Isophorone	ND		0.15	0.25	1	01/16/2019 18:31	
2-Methylnaphthalene	ND		0.0017	0.0025	1	01/16/2019 18:31	
2-Methylphenol (o-Cresol)	ND		0.27	0.50	1	01/16/2019 18:31	
3 & 4-Methylphenol (m,p-Cresol)	ND		0.24	0.25	1	01/16/2019 18:31	
Naphthalene	0.0020		0.00069	0.0013	1	01/16/2019 18:31	
2-Nitroaniline	ND		0.69	1.2	1	01/16/2019 18:31	
3-Nitroaniline	ND		0.84	1.2	1	01/16/2019 18:31	
4-Nitroaniline	ND		1.1	1.2	1	01/16/2019 18:31	
Nitrobenzene	ND		0.16	0.25	1	01/16/2019 18:31	
2-Nitrophenol	ND		0.66	1.2	1	01/16/2019 18:31	
4-Nitrophenol	ND		0.77	1.2	1	01/16/2019 18:31	
N-Nitrosodiphenylamine	ND		0.15	0.25	1	01/16/2019 18:31	
N-Nitrosodi-n-propylamine	ND		0.14	0.25	1	01/16/2019 18:31	
Pentachlorophenol	ND		0.014	0.031	1	01/16/2019 18:31	
Phenanthrene	0.0066		0.00067	0.0050	1	01/16/2019 18:31	
Phenol	ND		0.00094	0.0050	1	01/16/2019 18:31	
Pyrene	0.0015	J	0.0014	0.0025	1	01/16/2019 18:31	
Pyridine	ND		0.18	0.25	1	01/16/2019 18:31	
1,2,4-Trichlorobenzene	ND		0.15	0.25	1	01/16/2019 18:31	
2,4,5-Trichlorophenol	ND		0.0013	0.0025	1	01/16/2019 18:31	
2,4,6-Trichlorophenol	ND		0.0012	0.013	1	01/16/2019 18:31	

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/16/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC17 01161921.D	171531

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
2-Fluorophenol	97			43-142		01/16/2019 18:31
Phenol-d5	100			43-137		01/16/2019 18:31
Nitrobenzene-d5	94			36-128		01/16/2019 18:31
2-Fluorobiphenyl	80			38-120		01/16/2019 18:31
2,4,6-Tribromophenol	82			29-129		01/16/2019 18:31
4-Terphenyl-d14	96			32-123		01/16/2019 18:31

Analyst(s): REB



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/16/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected			Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30			GC17 01161922.D	171531
Analytes	Result	MDL	RL	DF	Date Analyzed		
Acenaphthene	ND	0.00077	0.0013	1	01/16/2019 18:58		
Acenaphthylene	ND	0.00041	0.0013	1	01/16/2019 18:58		
Acetochlor	ND	0.25	0.25	1	01/16/2019 18:58		
Anthracene	ND	0.00082	0.0013	1	01/16/2019 18:58		
Benzidine	ND	0.67	1.2	1	01/16/2019 18:58		
Benzo (a) anthracene	ND	0.0043	0.0050	1	01/16/2019 18:58		
Benzo (a) pyrene	ND	0.0012	0.0025	1	01/16/2019 18:58		
Benzo (b) fluoranthene	ND	0.00074	0.0013	1	01/16/2019 18:58		
Benzo (g,h,i) perylene	ND	0.0011	0.0025	1	01/16/2019 18:58		
Benzo (k) fluoranthene	ND	0.00079	0.0013	1	01/16/2019 18:58		
Benzyl Alcohol	ND	0.76	1.2	1	01/16/2019 18:58		
1,1-Biphenyl	ND	0.0023	0.013	1	01/16/2019 18:58		
Bis (2-chloroethoxy) Methane	ND	0.15	0.25	1	01/16/2019 18:58		
Bis (2-chloroethyl) Ether	ND	0.0016	0.0025	1	01/16/2019 18:58		
Bis (2-chloroisopropyl) Ether	ND	0.0014	0.0025	1	01/16/2019 18:58		
Bis (2-ethylhexyl) Adipate	ND	0.15	0.50	1	01/16/2019 18:58		
Bis (2-ethylhexyl) Phthalate	ND	0.0034	0.0050	1	01/16/2019 18:58		
4-Bromophenyl Phenyl Ether	ND	0.15	0.25	1	01/16/2019 18:58		
Butylbenzyl Phthalate	ND	0.021	0.025	1	01/16/2019 18:58		
4-Chloroaniline	ND	0.0016	0.0025	1	01/16/2019 18:58		
4-Chloro-3-methylphenol	ND	0.20	0.25	1	01/16/2019 18:58		
2-Chloronaphthalene	ND	0.14	0.25	1	01/16/2019 18:58		
2-Chlorophenol	ND	0.0020	0.0050	1	01/16/2019 18:58		
4-Chlorophenyl Phenyl Ether	ND	0.16	0.25	1	01/16/2019 18:58		
Chrysene	ND	0.00080	0.0025	1	01/16/2019 18:58		
Dibenzo (a,h) anthracene	ND	0.0015	0.0025	1	01/16/2019 18:58		
Dibenzofuran	ND	0.16	0.25	1	01/16/2019 18:58		
Di-n-butyl Phthalate	ND	0.0020	0.0025	1	01/16/2019 18:58		
1,2-Dichlorobenzene	ND	0.15	0.25	1	01/16/2019 18:58		
1,3-Dichlorobenzene	ND	0.13	0.25	1	01/16/2019 18:58		
1,4-Dichlorobenzene	ND	0.18	0.25	1	01/16/2019 18:58		
3,3-Dichlorobenzidine	ND	0.0016	0.0025	1	01/16/2019 18:58		
2,4-Dichlorophenol	ND	0.0017	0.013	1	01/16/2019 18:58		
Diethyl Phthalate	ND	0.0036	0.0050	1	01/16/2019 18:58		
2,4-Dimethylphenol	ND	0.16	0.25	1	01/16/2019 18:58		
Dimethyl Phthalate	ND	0.0025	0.0025	1	01/16/2019 18:58		
4,6-Dinitro-2-methylphenol	ND	0.81	1.2	1	01/16/2019 18:58		

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/16/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected			Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30			GC17 01161922.D	171531
Analytes	Result	MDL	RL	DF	Date Analyzed		
2,4-Dinitrophenol	ND	0.051	0.13	1	01/16/2019 18:58		
2,4-Dinitrotoluene	ND	0.0011	0.0063	1	01/16/2019 18:58		
2,6-Dinitrotoluene	ND	0.0013	0.0025	1	01/16/2019 18:58		
Di-n-octyl Phthalate	ND	0.0043	0.0050	1	01/16/2019 18:58		
1,2-Diphenylhydrazine	ND	0.15	0.25	1	01/16/2019 18:58		
Fluoranthene	ND	0.0011	0.0013	1	01/16/2019 18:58		
Fluorene	ND	0.00086	0.0025	1	01/16/2019 18:58		
Hexachlorobenzene	ND	0.00057	0.0013	1	01/16/2019 18:58		
Hexachlorobutadiene	ND	0.00042	0.0025	1	01/16/2019 18:58		
Hexachlorocyclopentadiene	ND	0.11	2.0	1	01/16/2019 18:58		
Hexachloroethane	ND	0.0011	0.0025	1	01/16/2019 18:58		
Indeno (1,2,3-cd) pyrene	ND	0.0010	0.0025	1	01/16/2019 18:58		
Isophorone	ND	0.15	0.25	1	01/16/2019 18:58		
2-Methylnaphthalene	ND	0.0017	0.0025	1	01/16/2019 18:58		
2-Methylphenol (o-Cresol)	ND	0.27	0.50	1	01/16/2019 18:58		
3 & 4-Methylphenol (m,p-Cresol)	ND	0.24	0.25	1	01/16/2019 18:58		
Naphthalene	ND	0.00069	0.0013	1	01/16/2019 18:58		
2-Nitroaniline	ND	0.69	1.2	1	01/16/2019 18:58		
3-Nitroaniline	ND	0.84	1.2	1	01/16/2019 18:58		
4-Nitroaniline	ND	1.1	1.2	1	01/16/2019 18:58		
Nitrobenzene	ND	0.16	0.25	1	01/16/2019 18:58		
2-Nitrophenol	ND	0.66	1.2	1	01/16/2019 18:58		
4-Nitrophenol	ND	0.77	1.2	1	01/16/2019 18:58		
N-Nitrosodiphenylamine	ND	0.15	0.25	1	01/16/2019 18:58		
N-Nitrosodi-n-propylamine	ND	0.14	0.25	1	01/16/2019 18:58		
Pentachlorophenol	ND	0.014	0.031	1	01/16/2019 18:58		
Phenanthrene	ND	0.00067	0.0050	1	01/16/2019 18:58		
Phenol	ND	0.00094	0.0050	1	01/16/2019 18:58		
Pyrene	ND	0.0014	0.0025	1	01/16/2019 18:58		
Pyridine	ND	0.18	0.25	1	01/16/2019 18:58		
1,2,4-Trichlorobenzene	ND	0.15	0.25	1	01/16/2019 18:58		
2,4,5-Trichlorophenol	ND	0.0013	0.0025	1	01/16/2019 18:58		
2,4,6-Trichlorophenol	ND	0.0012	0.013	1	01/16/2019 18:58		

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Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/16/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	GC17 01161922.D	171531

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorophenol	96		43-142		01/16/2019 18:58
Phenol-d5	95		43-137		01/16/2019 18:58
Nitrobenzene-d5	97		36-128		01/16/2019 18:58
2-Fluorobiphenyl	86		38-120		01/16/2019 18:58
2,4,6-Tribromophenol	98		29-129		01/16/2019 18:58
4-Terphenyl-d14	94		32-123		01/16/2019 18:58

Analyst(s): REB



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/14/19-1/18/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC3 01181908.D	171670

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2019 14:19
MTBE	---	0.050	1	01/18/2019 14:19
Benzene	---	0.0050	1	01/18/2019 14:19
Toluene	---	0.0050	1	01/18/2019 14:19
Ethylbenzene	---	0.0050	1	01/18/2019 14:19
m,p-Xylene	---	0.010	1	01/18/2019 14:19
o-Xylene	---	0.0050	1	01/18/2019 14:19
Xylenes	---	0.0050	1	01/18/2019 14:19

Surrogates	REC (%)	Limits	
2-Fluorotoluene	85	62-126	01/18/2019 14:19

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	GC19 01161940.D	171366

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/17/2019 06:20
MTBE	---	0.050	1	01/17/2019 06:20
Benzene	---	0.0050	1	01/17/2019 06:20
Toluene	---	0.0050	1	01/17/2019 06:20
Ethylbenzene	---	0.0050	1	01/17/2019 06:20
m,p-Xylene	---	0.010	1	01/17/2019 06:20
o-Xylene	---	0.0050	1	01/17/2019 06:20
Xylenes	---	0.0050	1	01/17/2019 06:20

Surrogates	REC (%)	Limits	
2-Fluorotoluene	75	62-126	01/17/2019 06:20

Analyst(s): IA



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/14/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	GC39A 01181914.D	171365

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/18/2019 20:03
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/18/2019 20:03

Surrogates	REC (%)	Limits	
C9	92	74-123	01/18/2019 20:03

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	GC39A 01181918.D	171365

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/18/2019 21:26
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/18/2019 21:26

Surrogates	REC (%)	Limits	
C9	91	74-123	01/18/2019 21:26

Analyst(s): JIS



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/14/19	BatchID:	171399
Date Analyzed:	1/15/19	Extraction Method:	SW3550B
Instrument:	GC20	Analytical Method:	SW8081A/8082
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171399

QC Summary Report for SW8081A/8082

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.00027	0.0010	-	-	-
a-BHC	ND	0.00010	0.0010	-	-	-
b-BHC	ND	0.00025	0.0010	-	-	-
d-BHC	ND	0.00037	0.0010	-	-	-
g-BHC	ND	0.000097	0.0010	-	-	-
Chlordane (Technical)	ND	0.016	0.025	-	-	-
a-Chlordane	ND	0.00047	0.0010	-	-	-
g-Chlordane	ND	0.00021	0.0010	-	-	-
p,p-DDD	ND	0.00014	0.0010	-	-	-
p,p-DDE	ND	0.00032	0.0010	-	-	-
p,p-DDT	ND	0.00043	0.0010	-	-	-
Dieldrin	ND	0.00033	0.0010	-	-	-
Endosulfan I	ND	0.00065	0.0010	-	-	-
Endosulfan II	ND	0.00020	0.0010	-	-	-
Endosulfan sulfate	ND	0.00063	0.0010	-	-	-
Endrin	ND	0.00042	0.0010	-	-	-
Endrin aldehyde	ND	0.00020	0.0010	-	-	-
Endrin ketone	ND	0.00013	0.0010	-	-	-
Heptachlor	ND	0.00021	0.0010	-	-	-
Heptachlor epoxide	ND	0.00020	0.0010	-	-	-
Hexachlorobenzene	ND	0.00027	0.010	-	-	-
Hexachlorocyclopentadiene	ND	0.00040	0.020	-	-	-
Methoxychlor	ND	0.00089	0.0010	-	-	-
Toxaphene	ND	0.035	0.050	-	-	-
Aroclor1016	ND	0.0051	0.050	-	-	-
Aroclor1221	ND	0.011	0.050	-	-	-
Aroclor1232	ND	0.0063	0.050	-	-	-
Aroclor1242	ND	0.0067	0.050	-	-	-
Aroclor1248	ND	0.0040	0.050	-	-	-
Aroclor1254	ND	0.0068	0.050	-	-	-
Aroclor1260	ND	0.0061	0.050	-	-	-
PCBs, total	ND	N/A	0.050	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.058			0.050	116	75-136

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Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/14/19
Date Analyzed: 1/15/19
Instrument: GC20
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171399
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS/LCSD-171399

QC Summary Report for SW8081A/8082

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.056	0.055	0.050	112	110	92-133	1.95	20
a-BHC	0.054	0.053	0.050	107	106	96-140	1.18	20
b-BHC	0.052	0.050	0.050	104	100	77-137	3.23	20
d-BHC	0.059	0.057	0.050	118	114	89-145	3.56	20
g-BHC	0.055	0.054	0.050	109	107	92-134	1.94	20
a-Chlordane	0.054	0.052	0.050	108	104	72-134	3.87	20
g-Chlordane	0.056	0.054	0.050	112	108	86-132	3.58	20
p,p-DDD	0.045	0.044	0.050	90	87	35-140	3.13	20
p,p-DDE	0.058	0.055	0.050	115	110	83-138	4.35	20
p,p-DDT	0.057	0.053	0.050	114	106	70-137	7.91	20
Dieldrin	0.061	0.059	0.050	122	118	99-141	3.26	20
Endosulfan I	0.053	0.052	0.050	107	103	93-121	3.47	20
Endosulfan II	0.052	0.050	0.050	104	100	74-125	3.90	20
Endosulfan sulfate	0.055	0.053	0.050	111	106	66-138	4.28	20
Endrin	0.060	0.058	0.050	120	116	92-137	4.06	20
Endrin aldehyde	0.056	0.054	0.050	112	108	77-135	3.87	20
Endrin ketone	0.053	0.051	0.050	106	101	72-126	4.74	20
Heptachlor	0.057	0.055	0.050	114	110	89-136	3.66	20
Heptachlor epoxide	0.051	0.050	0.050	102	100	85-121	2.29	20
Hexachlorobenzene	0.047	0.047	0.050	94	93	87-127	0.738	20
Hexachlorocyclopentadiene	0.057	0.060	0.050	114	121	41-145	5.47	20
Methoxychlor	0.057	0.054	0.050	115	108	82-142	6.44	20
Aroclor1016	0.16	0.16	0.15	107	108	90-125	0.277	20
Aroclor1260	0.16	0.16	0.15	109	110	77-122	1.12	20
Surrogate Recovery								
Decachlorobiphenyl	0.060	0.056	0.050	119	111	75-136	6.98	20



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/15/19	BatchID:	171492
Date Analyzed:	1/15/19	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171492

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.039	0.10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0010	0.0050	-	-	-
Benzene	ND	0.0016	0.0050	-	-	-
Bromobenzene	ND	0.0017	0.0050	-	-	-
Bromochloromethane	ND	0.0015	0.0050	-	-	-
Bromodichloromethane	ND	0.0012	0.0050	-	-	-
Bromoform	ND	0.00080	0.0050	-	-	-
Bromomethane	ND	0.0020	0.0050	-	-	-
2-Butanone (MEK)	ND	0.0054	0.020	-	-	-
t-Butyl alcohol (TBA)	ND	0.0053	0.050	-	-	-
n-Butyl benzene	ND	0.0035	0.0050	-	-	-
sec-Butyl benzene	ND	0.0034	0.0050	-	-	-
tert-Butyl benzene	ND	0.0030	0.0050	-	-	-
Carbon Disulfide	ND	0.0017	0.0050	-	-	-
Carbon Tetrachloride	ND	0.0017	0.0050	-	-	-
Chlorobenzene	ND	0.0018	0.0050	-	-	-
Chloroethane	ND	0.0016	0.0050	-	-	-
Chloroform	ND	0.0016	0.0050	-	-	-
Chloromethane	ND	0.0017	0.0050	-	-	-
2-Chlorotoluene	ND	0.0022	0.0050	-	-	-
4-Chlorotoluene	ND	0.0021	0.0050	-	-	-
Dibromochloromethane	ND	0.0011	0.0050	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.0012	0.0040	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0013	0.0040	-	-	-
Dibromomethane	ND	0.0014	0.0050	-	-	-
1,2-Dichlorobenzene	ND	0.0014	0.0050	-	-	-
1,3-Dichlorobenzene	ND	0.0018	0.0050	-	-	-
1,4-Dichlorobenzene	ND	0.0018	0.0050	-	-	-
Dichlorodifluoromethane	ND	0.0011	0.0050	-	-	-
1,1-Dichloroethane	ND	0.0017	0.0050	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0014	0.0040	-	-	-
1,1-Dichloroethene	ND	0.0017	0.0050	-	-	-
cis-1,2-Dichloroethene	ND	0.0015	0.0050	-	-	-
trans-1,2-Dichloroethene	ND	0.0016	0.0050	-	-	-
1,2-Dichloropropane	ND	0.0014	0.0050	-	-	-
1,3-Dichloropropane	ND	0.0016	0.0050	-	-	-
2,2-Dichloropropane	ND	0.0013	0.0050	-	-	-
1,1-Dichloropropene	ND	0.0018	0.0050	-	-	-

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/15/19	BatchID:	171492
Date Analyzed:	1/15/19	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171492

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.0015	0.0050	-	-	-
trans-1,3-Dichloropropene	ND	0.0014	0.0050	-	-	-
Diisopropyl ether (DIPE)	ND	0.0014	0.0050	-	-	-
Ethylbenzene	ND	0.0020	0.0050	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0013	0.0050	-	-	-
Freon 113	ND	0.0016	0.0050	-	-	-
Hexachlorobutadiene	ND	0.0050	0.0050	-	-	-
Hexachloroethane	ND	0.0025	0.0050	-	-	-
2-Hexanone	ND	0.0025	0.0050	-	-	-
Isopropylbenzene	ND	0.0022	0.0050	-	-	-
4-Isopropyl toluene	ND	0.0031	0.0050	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0013	0.0050	-	-	-
Methylene chloride	ND	0.0036	0.010	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.00080	0.0050	-	-	-
Naphthalene	0.00066,J	0.00060	0.0050	-	-	-
n-Propyl benzene	ND	0.0029	0.0050	-	-	-
Styrene	ND	0.0014	0.0050	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0016	0.0050	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0013	0.0050	-	-	-
Tetrachloroethene	ND	0.0023	0.0050	-	-	-
Toluene	ND	0.0022	0.0050	-	-	-
1,2,3-Trichlorobenzene	0.0016,J	0.00070	0.0050	-	-	-
1,2,4-Trichlorobenzene	0.0011,J	0.0011	0.0050	-	-	-
1,1,1-Trichloroethane	ND	0.0018	0.0050	-	-	-
1,1,2-Trichloroethane	ND	0.0016	0.0050	-	-	-
Trichloroethene	ND	0.0017	0.0050	-	-	-
Trichlorofluoromethane	ND	0.0016	0.0050	-	-	-
1,2,3-Trichloropropane	ND	0.0019	0.0050	-	-	-
1,2,4-Trimethylbenzene	ND	0.0024	0.0050	-	-	-
1,3,5-Trimethylbenzene	ND	0.0027	0.0050	-	-	-
Vinyl Chloride	ND	0.0015	0.0050	-	-	-
m,p-Xylene	ND	0.0040	0.0050	-	-	-
o-Xylene	ND	0.0018	0.0050	-	-	-
Xylenes, Total	ND	N/A	0.0050	-	-	-

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/15/19	BatchID:	171492
Date Analyzed:	1/15/19	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171492

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
Dibromofluoromethane	0.11			0.12	85,F3	87-127
Toluene-d8	0.13			0.12	101	93-141
4-BFB	0.012			0.012	95	84-137
Benzene-d6	0.090			0.10	90	67-131
Ethylbenzene-d10	0.10			0.10	105	78-153
1,2-DCB-d4	0.073			0.10	73	63-109

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Quality Control Report

Client: Consolidated Engineering Laboratories

Date Prepared: 1/15/19

Date Analyzed: 1/15/19

Instrument: GC10

Matrix: Soil

Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435

BatchID: 171492

Extraction Method: SW5030B

Analytical Method: SW8260B

Unit: mg/kg

Sample ID: MB/LCS/LCSD-171492

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	0.92	0.85	1	92	85	48-156	7.97	20
tert-Amyl methyl ether (TAME)	0.038	0.035	0.050	76	70	56-115	8.32	20
Benzene	0.043	0.042	0.050	86	85	63-131	2.14	20
Bromobenzene	0.044	0.042	0.050	88	83	66-127	5.83	20
Bromochloromethane	0.040	0.038	0.050	79	76	64-124	3.43	20
Bromodichloromethane	0.037	0.036	0.050	74	71	64-120	4.18	20
Bromoform	0.029	0.030	0.050	58	59	48-92	1.65	20
Bromomethane	0.045	0.041	0.050	89	82	25-163	8.88	20
2-Butanone (MEK)	0.15	0.14	0.20	72	71	51-133	1.74	20
t-Butyl alcohol (TBA)	0.17	0.15	0.20	83	76	52-129	8.60	20
n-Butyl benzene	0.061	0.058	0.050	122	115	83-200	5.76	20
sec-Butyl benzene	0.061	0.056	0.050	123	112	81-199	9.13	20
tert-Butyl benzene	0.059	0.054	0.050	117	108	79-178	7.82	20
Carbon Disulfide	0.041	0.039	0.050	82	78	64-136	4.52	20
Carbon Tetrachloride	0.041	0.040	0.050	82	80	66-140	2.15	20
Chlorobenzene	0.044	0.044	0.050	89	87	73-116	1.58	20
Chloroethane	0.041	0.038	0.050	81	76	35-147	6.46	20
Chloroform	0.043	0.042	0.050	87	83	65-130	3.65	20
Chloromethane	0.033	0.030	0.050	65	59	30-137	9.59	20
2-Chlorotoluene	0.049	0.046	0.050	98	92	75-152	5.66	20
4-Chlorotoluene	0.048	0.045	0.050	96	90	71-148	6.18	20
Dibromochloromethane	0.037	0.036	0.050	74	73	61-106	1.30	20
1,2-Dibromo-3-chloropropane	0.017	0.015	0.020	84	75	36-120	11.1	20
1,2-Dibromoethane (EDB)	0.039	0.038	0.050	78	76	67-118	2.46	20
Dibromomethane	0.037	0.036	0.050	75	72	61-116	3.69	20
1,2-Dichlorobenzene	0.035	0.034	0.050	69	68	59-106	2.05	20
1,3-Dichlorobenzene	0.046	0.044	0.050	92	88	75-129	4.42	20
1,4-Dichlorobenzene	0.043	0.042	0.050	86	84	66-127	2.68	20
Dichlorodifluoromethane	0.023	0.019	0.050	47	37	13-74	22.4,F2	20
1,1-Dichloroethane	0.042	0.041	0.050	85	82	65-134	3.16	20
1,2-Dichloroethane (1,2-DCA)	0.041	0.039	0.050	81	78	57-131	3.95	20
1,1-Dichloroethene	0.042	0.040	0.050	84	80	62-127	4.59	20
cis-1,2-Dichloroethene	0.042	0.040	0.050	84	81	66-130	4.36	20
trans-1,2-Dichloroethene	0.041	0.040	0.050	82	80	60-131	2.56	20
1,2-Dichloropropane	0.040	0.039	0.050	81	79	63-127	2.53	20
1,3-Dichloropropane	0.042	0.040	0.050	83	80	68-124	3.52	20
2,2-Dichloropropane	0.044	0.043	0.050	88	85	63-150	3.71	20
1,1-Dichloropropene	0.045	0.041	0.050	90	83	67-134	7.78	20

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Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/15/19
Date Analyzed: 1/15/19
Instrument: GC10
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171492
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-171492

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.044	0.042	0.050	88	85	65-138	3.84	20
trans-1,3-Dichloropropene	0.041	0.040	0.050	83	80	66-124	3.83	20
Diisopropyl ether (DIPE)	0.041	0.039	0.050	81	78	58-129	4.42	20
Ethylbenzene	0.047	0.046	0.050	94	92	73-145	1.76	20
Ethyl tert-butyl ether (ETBE)	0.040	0.038	0.050	80	76	62-125	5.33	20
Freon 113	0.038	0.037	0.050	76	74	55-116	3.46	20
Hexachlorobutadiene	0.058	0.054	0.050	117	107	75-178	8.30	20
Hexachloroethane	0.047	0.045	0.050	94	91	75-152	3.27	20
2-Hexanone	0.032	0.030	0.050	64	60	41-113	6.93	20
Isopropylbenzene	0.047	0.046	0.050	94	92	67-172	1.30	20
4-Isopropyl toluene	0.060	0.056	0.050	120	112	88-171	6.88	20
Methyl-t-butyl ether (MTBE)	0.041	0.038	0.050	81	77	58-122	5.77	20
Methylene chloride	0.044	0.042	0.050	87	84	57-140	4.16	20
4-Methyl-2-pentanone (MIBK)	0.032	0.030	0.050	65	61	42-117	6.32	20
Naphthalene	0.020	0.020	0.050	40	40	29-65	0	20
n-Propyl benzene	0.060	0.056	0.050	120	112	85-174	7.39	20
Styrene	0.037	0.036	0.050	74	72	63-126	1.63	20
1,1,1,2-Tetrachloroethane	0.040	0.040	0.050	80	79	68-131	1.43	20
1,1,2,2-Tetrachloroethane	0.033	0.033	0.050	65	65	45-121	0	20
Tetrachloroethene	0.048	0.048	0.050	96	95	65-150	0.523	20
Toluene	0.048	0.047	0.050	97	94	72-135	2.59	20
1,2,3-Trichlorobenzene	0.026	0.025	0.050	52	51	35-80	2.05	20
1,2,4-Trichlorobenzene	0.033	0.031	0.050	66	63	45-103	5.39	20
1,1,1-Trichloroethane	0.044	0.043	0.050	88	85	67-137	2.51	20
1,1,2-Trichloroethane	0.039	0.038	0.050	79	76	67-117	3.56	20
Trichloroethene	0.043	0.042	0.050	87	83	62-135	4.29	20
Trichlorofluoromethane	0.041	0.039	0.050	81	78	56-124	4.58	20
1,2,3-Trichloropropane	0.040	0.038	0.050	81	77	58-133	5.19	20
1,2,4-Trimethylbenzene	0.054	0.051	0.050	109	102	78-161	5.96	20
1,3,5-Trimethylbenzene	0.058	0.053	0.050	115	107	85-170	7.67	20
Vinyl Chloride	0.037	0.035	0.050	74	69	32-142	6.86	20
m,p-Xylene	0.092	0.090	0.10	92	90	70-138	2.25	20
o-Xylene	0.043	0.043	0.050	87	85	69-135	1.70	20
Xylenes, Total	0.14	0.13	0.15	90	88	70-137	2.07	20

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/15/19	BatchID:	171492
Date Analyzed:	1/15/19	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171492

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.11	0.11	0.12	86, F3	86, F3	87-127	0	20
Toluene-d8	0.13	0.13	0.12	101	102	93-141	0.517	20
4-BFB	0.012	0.011	0.012	96	92	84-137	5.16	20
Benzene-d6	0.093	0.092	0.10	93	92	67-131	1.63	20
Ethylbenzene-d10	0.10	0.10	0.10	102	101	78-153	0.930	20
1,2-DCB-d4	0.076	0.075	0.10	76	75	63-109	1.12	20



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/22/19	BatchID:	171768
Date Analyzed:	1/22/19	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171768

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.039	0.10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0010	0.0050	-	-	-
Benzene	ND	0.0016	0.0050	-	-	-
Bromobenzene	ND	0.0017	0.0050	-	-	-
Bromochloromethane	ND	0.0015	0.0050	-	-	-
Bromodichloromethane	ND	0.0012	0.0050	-	-	-
Bromoform	ND	0.00080	0.0050	-	-	-
Bromomethane	ND	0.0020	0.0050	-	-	-
2-Butanone (MEK)	ND	0.0054	0.020	-	-	-
t-Butyl alcohol (TBA)	ND	0.0053	0.050	-	-	-
n-Butyl benzene	ND	0.0035	0.0050	-	-	-
sec-Butyl benzene	ND	0.0034	0.0050	-	-	-
tert-Butyl benzene	ND	0.0030	0.0050	-	-	-
Carbon Disulfide	ND	0.0017	0.0050	-	-	-
Carbon Tetrachloride	ND	0.0017	0.0050	-	-	-
Chlorobenzene	ND	0.0018	0.0050	-	-	-
Chloroethane	ND	0.0016	0.0050	-	-	-
Chloroform	ND	0.0016	0.0050	-	-	-
Chloromethane	ND	0.0017	0.0050	-	-	-
2-Chlorotoluene	ND	0.0022	0.0050	-	-	-
4-Chlorotoluene	ND	0.0021	0.0050	-	-	-
Dibromochloromethane	ND	0.0011	0.0050	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.0012	0.0040	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0013	0.0040	-	-	-
Dibromomethane	ND	0.0014	0.0050	-	-	-
1,2-Dichlorobenzene	ND	0.0014	0.0050	-	-	-
1,3-Dichlorobenzene	ND	0.0018	0.0050	-	-	-
1,4-Dichlorobenzene	ND	0.0018	0.0050	-	-	-
Dichlorodifluoromethane	ND	0.0011	0.0050	-	-	-
1,1-Dichloroethane	ND	0.0017	0.0050	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0014	0.0040	-	-	-
1,1-Dichloroethene	ND	0.0017	0.0050	-	-	-
cis-1,2-Dichloroethene	ND	0.0015	0.0050	-	-	-
trans-1,2-Dichloroethene	ND	0.0016	0.0050	-	-	-
1,2-Dichloropropane	ND	0.0014	0.0050	-	-	-
1,3-Dichloropropane	ND	0.0016	0.0050	-	-	-
2,2-Dichloropropane	ND	0.0013	0.0050	-	-	-
1,1-Dichloropropene	ND	0.0018	0.0050	-	-	-

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/22/19	BatchID:	171768
Date Analyzed:	1/22/19	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171768

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.0015	0.0050	-	-	-
trans-1,3-Dichloropropene	ND	0.0014	0.0050	-	-	-
Diisopropyl ether (DIPE)	ND	0.0014	0.0050	-	-	-
Ethylbenzene	ND	0.0020	0.0050	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0013	0.0050	-	-	-
Freon 113	ND	0.0016	0.0050	-	-	-
Hexachlorobutadiene	ND	0.0050	0.0050	-	-	-
Hexachloroethane	ND	0.0025	0.0050	-	-	-
2-Hexanone	ND	0.0025	0.0050	-	-	-
Isopropylbenzene	ND	0.0022	0.0050	-	-	-
4-Isopropyl toluene	ND	0.0031	0.0050	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0013	0.0050	-	-	-
Methylene chloride	ND	0.0036	0.010	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.00080	0.0050	-	-	-
Naphthalene	0.0018,J	0.00060	0.0050	-	-	-
n-Propyl benzene	ND	0.0029	0.0050	-	-	-
Styrene	0.0025,J	0.0014	0.0050	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0016	0.0050	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0013	0.0050	-	-	-
Tetrachloroethene	ND	0.0023	0.0050	-	-	-
Toluene	ND	0.0022	0.0050	-	-	-
1,2,3-Trichlorobenzene	0.0013,J	0.00070	0.0050	-	-	-
1,2,4-Trichlorobenzene	ND	0.0011	0.0050	-	-	-
1,1,1-Trichloroethane	ND	0.0018	0.0050	-	-	-
1,1,2-Trichloroethane	ND	0.0016	0.0050	-	-	-
Trichloroethene	ND	0.0017	0.0050	-	-	-
Trichlorofluoromethane	ND	0.0016	0.0050	-	-	-
1,2,3-Trichloropropane	ND	0.0019	0.0050	-	-	-
1,2,4-Trimethylbenzene	ND	0.0024	0.0050	-	-	-
1,3,5-Trimethylbenzene	ND	0.0027	0.0050	-	-	-
Vinyl Chloride	ND	0.0015	0.0050	-	-	-
m,p-Xylene	ND	0.0040	0.0050	-	-	-
o-Xylene	ND	0.0018	0.0050	-	-	-
Xylenes, Total	ND	N/A	0.0050	-	-	-

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Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/22/19
Date Analyzed: 1/22/19
Instrument: GC16
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171768
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-171768

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
Dibromofluoromethane	0.11			0.12	90	66-112
Toluene-d8	0.14			0.12	110,F3	92-109
4-BFB	0.013			0.012	108	72-112
Benzene-d6	0.11			0.10	112	81-126
Ethylbenzene-d10	0.12			0.10	121	92-138
1,2-DCB-d4	0.093			0.10	93	68-108

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/22/19	BatchID:	171768
Date Analyzed:	1/22/19	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171768

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	1.0	1.0	1	101	101	59-127	0	20
tert-Amyl methyl ether (TAME)	0.045	0.046	0.050	90	92	54-98	2.27	20
Benzene	0.053	0.054	0.050	107	108	71-115	1.43	20
Bromobenzene	0.056	0.057	0.050	111	113	69-120	1.81	20
Bromochloromethane	0.051	0.052	0.050	103	105	63-117	1.65	20
Bromodichloromethane	0.050	0.050	0.050	99	100	61-109	0.475	20
Bromoform	0.034	0.034	0.050	69	68	46-87	1.52	20
Bromomethane	0.065	0.063	0.050	129	125	22-195	3.12	20
2-Butanone (MEK)	0.18	0.19	0.20	91	93	53-124	2.12	20
t-Butyl alcohol (TBA)	0.17	0.17	0.20	84	85	29-142	1.07	20
n-Butyl benzene	0.073	0.073	0.050	147	147	102-169	0	20
sec-Butyl benzene	0.073	0.072	0.050	147	143	100-166	2.52	20
tert-Butyl benzene	0.071	0.070	0.050	142	140	91-153	1.40	20
Carbon Disulfide	0.054	0.054	0.050	107	108	60-125	0.667	20
Carbon Tetrachloride	0.054	0.054	0.050	107	108	69-124	0.524	20
Chlorobenzene	0.054	0.054	0.050	109	108	73-116	0.576	20
Chloroethane	0.053	0.052	0.050	106	104	47-140	2.29	20
Chloroform	0.054	0.054	0.050	107	108	69-118	1.00	20
Chloromethane	0.046	0.047	0.050	92	93	30-132	1.08	20
2-Chlorotoluene	0.067	0.067	0.050	133	134	75-147	0.820	20
4-Chlorotoluene	0.063	0.063	0.050	126	126	75-137	0	20
Dibromochloromethane	0.043	0.043	0.050	86	86	57-105	0	20
1,2-Dibromo-3-chloropropane	0.014	0.015	0.020	72	77	36-103	5.81	20
1,2-Dibromoethane (EDB)	0.051	0.050	0.050	102, F2	101	66-101	1.11	20
Dibromomethane	0.046	0.047	0.050	93	95	61-103	1.94	20
1,2-Dichlorobenzene	0.047	0.048	0.050	94	95	59-104	1.26	20
1,3-Dichlorobenzene	0.060	0.060	0.050	119	120	70-133	0.129	20
1,4-Dichlorobenzene	0.054	0.054	0.050	108	108	68-123	0	20
Dichlorodifluoromethane	0.025	0.024	0.050	51	49	13-107	4.39	20
1,1-Dichloroethane	0.055	0.055	0.050	109	110	69-118	0.417	20
1,2-Dichloroethane (1,2-DCA)	0.049	0.050	0.050	99	100	59-112	1.19	20
1,1-Dichloroethene	0.053	0.054	0.050	106	108	69-126	1.68	20
cis-1,2-Dichloroethene	0.054	0.055	0.050	109	109	69-116	0	20
trans-1,2-Dichloroethene	0.055	0.056	0.050	110	112	73-116	1.51	20
1,2-Dichloropropane	0.052	0.053	0.050	105	105	65-111	0	20
1,3-Dichloropropane	0.052	0.051	0.050	103	102	67-110	1.12	20
2,2-Dichloropropane	0.056	0.057	0.050	112	114	65-125	1.39	20
1,1-Dichloropropene	0.054	0.055	0.050	109	110	70-123	1.10	20

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/22/19	BatchID:	171768
Date Analyzed:	1/22/19	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171768

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.057	0.056	0.050	114	112	68-126	1.94	20
trans-1,3-Dichloropropene	0.054	0.053	0.050	108	106	69-117	1.21	20
Diisopropyl ether (DIPE)	0.050	0.051	0.050	101	102	57-110	1.85	20
Ethylbenzene	0.061	0.060	0.050	122	121	80-128	1.04	20
Ethyl tert-butyl ether (ETBE)	0.049	0.050	0.050	97	99	54-106	1.77	20
Freon 113	0.047	0.048	0.050	95	96	60-108	1.69	20
Hexachlorobutadiene	0.070	0.071	0.050	140	141	67-182	0.418	20
Hexachloroethane	0.063	0.063	0.050	125	125	85-156	0	20
2-Hexanone	0.040	0.040	0.050	81	80	37-90	0.733	20
Isopropylbenzene	0.062	0.062	0.050	125	123	64-167	1.36	20
4-Isopropyl toluene	0.070	0.069	0.050	141	139	88-167	1.13	20
Methyl-t-butyl ether (MTBE)	0.047	0.048	0.050	94	95	60-102	1.41	20
Methylene chloride	0.050	0.051	0.050	100	101	71-117	1.08	20
4-Methyl-2-pentanone (MIBK)	0.042	0.041	0.050	84	83	48-90	1.69	20
Naphthalene	0.025	0.024	0.050	50	49	29-65	2.09	20
n-Propyl benzene	0.075	0.075	0.050	149	149	88-161	0	20
Styrene	0.056	0.055	0.050	113, F2	111, F2	70-108	1.70	20
1,1,1,2-Tetrachloroethane	0.054	0.053	0.050	108	107	69-117	1.08	20
1,1,2,2-Tetrachloroethane	0.044	0.045	0.050	88	90	53-96	2.16	20
Tetrachloroethene	0.062	0.061	0.050	123	121	78-128	1.63	20
Toluene	0.060	0.059	0.050	119	117	78-121	1.63	20
1,2,3-Trichlorobenzene	0.030	0.031	0.050	60	61	35-80	1.95	20
1,2,4-Trichlorobenzene	0.040	0.041	0.050	80	81	46-101	1.65	20
1,1,1-Trichloroethane	0.054	0.054	0.050	108	109	69-121	0.983	20
1,1,2-Trichloroethane	0.050	0.050	0.050	100	101	64-104	0.801	20
Trichloroethene	0.053	0.054	0.050	107	108	73-118	1.50	20
Trichlorofluoromethane	0.047	0.048	0.050	95	96	31-119	1.71	20
1,2,3-Trichloropropane	0.049	0.049	0.050	98	99	65-107	0.938	20
1,2,4-Trimethylbenzene	0.066	0.066	0.050	131	132	80-147	0.209	20
1,3,5-Trimethylbenzene	0.069	0.069	0.050	138	138	83-156	0	20
Vinyl Chloride	0.049	0.047	0.050	97	95	40-125	2.90	20
m,p-Xylene	0.12	0.12	0.10	123, F2	120	80-122	2.01	20
o-Xylene	0.057	0.056	0.050	113	111	79-116	1.95	20
Xylenes, Total	0.18	0.18	0.15	120	117	70-130	1.99	20

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/22/19	BatchID:	171768
Date Analyzed:	1/22/19	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171768

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.12	0.12	0.12	95	95	66-112	0	20
Toluene-d8	0.14	0.14	0.12	112, F3	109, F3	92-109	2.47	20
4-BFB	0.014	0.014	0.012	110	111	72-112	0.860	20
Benzene-d6	0.11	0.11	0.10	110	110	81-126	0	20
Ethylbenzene-d10	0.13	0.12	0.10	126	122	92-138	2.78	20
1,2-DCB-d4	0.099	0.099	0.10	99	99	68-108	0	20



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/16/19	BatchID:	171531
Date Analyzed:	1/16/19	Extraction Method:	SW3550B
Instrument:	GC21	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171531

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.00077	0.0013	-	-	-
Acenaphthylene	ND	0.00041	0.0013	-	-	-
Acetochlor	ND	0.25	0.25	-	-	-
Anthracene	ND	0.00082	0.0013	-	-	-
Benzidine	ND	0.67	1.2	-	-	-
Benzo (a) anthracene	ND	0.0043	0.0050	-	-	-
Benzo (a) pyrene	ND	0.0012	0.0025	-	-	-
Benzo (b) fluoranthene	ND	0.00074	0.0013	-	-	-
Benzo (g,h,i) perylene	ND	0.0011	0.0025	-	-	-
Benzo (k) fluoranthene	ND	0.00079	0.0013	-	-	-
Benzyl Alcohol	ND	0.76	1.2	-	-	-
1,1-Biphenyl	ND	0.0023	0.013	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.15	0.25	-	-	-
Bis (2-chloroethyl) Ether	ND	0.0016	0.0025	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.0014	0.0025	-	-	-
Bis (2-ethylhexyl) Adipate	ND	0.15	0.50	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.0034	0.0050	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.15	0.25	-	-	-
Butylbenzyl Phthalate	ND	0.021	0.025	-	-	-
4-Chloroaniline	ND	0.0016	0.0025	-	-	-
4-Chloro-3-methylphenol	ND	0.20	0.25	-	-	-
2-Chloronaphthalene	ND	0.14	0.25	-	-	-
2-Chlorophenol	ND	0.0020	0.0050	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.16	0.25	-	-	-
Chrysene	ND	0.00080	0.0025	-	-	-
Dibenzo (a,h) anthracene	ND	0.0015	0.0025	-	-	-
Dibenzofuran	ND	0.16	0.25	-	-	-
Di-n-butyl Phthalate	ND	0.0020	0.0025	-	-	-
1,2-Dichlorobenzene	ND	0.15	0.25	-	-	-
1,3-Dichlorobenzene	ND	0.13	0.25	-	-	-
1,4-Dichlorobenzene	ND	0.18	0.25	-	-	-
3,3-Dichlorobenzidine	ND	0.0016	0.0025	-	-	-
2,4-Dichlorophenol	ND	0.0017	0.013	-	-	-
Diethyl Phthalate	ND	0.0036	0.0050	-	-	-
2,4-Dimethylphenol	ND	0.16	0.25	-	-	-
Dimethyl Phthalate	ND	0.0025	0.0025	-	-	-
4,6-Dinitro-2-methylphenol	ND	0.81	1.2	-	-	-
2,4-Dinitrophenol	ND	0.051	0.13	-	-	-

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/16/19	BatchID:	171531
Date Analyzed:	1/16/19	Extraction Method:	SW3550B
Instrument:	GC21	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171531

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
2,4-Dinitrotoluene	ND	0.0011	0.0063	-	-	-
2,6-Dinitrotoluene	ND	0.0013	0.0025	-	-	-
Di-n-octyl Phthalate	ND	0.0043	0.0050	-	-	-
1,2-Diphenylhydrazine	ND	0.15	0.25	-	-	-
Fluoranthene	ND	0.0011	0.0013	-	-	-
Fluorene	ND	0.00086	0.0025	-	-	-
Hexachlorobenzene	ND	0.00057	0.0013	-	-	-
Hexachlorobutadiene	ND	0.00042	0.0025	-	-	-
Hexachlorocyclopentadiene	ND	0.11	2.0	-	-	-
Hexachloroethane	ND	0.0011	0.0025	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.0010	0.0025	-	-	-
Isophorone	ND	0.15	0.25	-	-	-
2-Methylnaphthalene	ND	0.0017	0.0025	-	-	-
2-Methylphenol (o-Cresol)	ND	0.27	0.50	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.24	0.25	-	-	-
Naphthalene	ND	0.00069	0.0013	-	-	-
2-Nitroaniline	ND	0.69	1.2	-	-	-
3-Nitroaniline	ND	0.84	1.2	-	-	-
4-Nitroaniline	ND	1.1	1.2	-	-	-
Nitrobenzene	ND	0.16	0.25	-	-	-
2-Nitrophenol	ND	0.66	1.2	-	-	-
4-Nitrophenol	ND	0.77	1.2	-	-	-
N-Nitrosodimethylamine	ND	0.65	1.2	-	-	-
N-Nitrosodiphenylamine	ND	0.15	0.25	-	-	-
N-Nitrosodi-n-propylamine	ND	0.14	0.25	-	-	-
Pentachlorophenol	ND	0.014	0.031	-	-	-
Phenanthrene	ND	0.00067	0.0050	-	-	-
Phenol	ND	0.00094	0.0050	-	-	-
Pyrene	ND	0.0014	0.0025	-	-	-
Pyridine	ND	0.18	0.25	-	-	-
1,2,4-Trichlorobenzene	ND	0.15	0.25	-	-	-
2,4,5-Trichlorophenol	ND	0.0013	0.0025	-	-	-
2,4,6-Trichlorophenol	ND	0.0012	0.013	-	-	-

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Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/16/19	BatchID:	171531
Date Analyzed:	1/16/19	Extraction Method:	SW3550B
Instrument:	GC21	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171531

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
2-Fluorophenol	1.4			1.25	112	54-131
Phenol-d5	1.3			1.25	106	52-129
Nitrobenzene-d5	1.1			1.25	89	43-127
2-Fluorobiphenyl	1.1			1.25	85	42-116
2,4,6-Tribromophenol	1.2			1.25	94	39-119
4-Terphenyl-d14	1.0			1.25	83	36-118



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/16/19	BatchID:	171531
Date Analyzed:	1/16/19	Extraction Method:	SW3550B
Instrument:	GC21	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171531

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	0.12	0.13	0.12	98	101	44-111	2.47	30
Acenaphthylene	0.13	0.13	0.12	108	105	41-110	2.19	30
Anthracene	0.13	0.13	0.12	106	105	45-108	0.969	30
Benzidine	7.1	6.7	12.5	57, F2	53, F2	3-51	6.66	30
Benzo (a) anthracene	0.12	0.12	0.12	95	97	41-104	2.82	30
Benzo (a) pyrene	0.14	0.14	0.12	110	114	36-117	3.93	30
Benzo (b) fluoranthene	0.13	0.14	0.12	107	112	35-114	4.55	30
Benzo (g,h,i) perylene	0.13	0.13	0.12	104	104	35-105	0	30
Benzo (k) fluoranthene	0.11	0.12	0.12	92	96	36-115	5.14	30
Benzyl Alcohol	11	11	12.5	91	91	26-136	0	30
Bis (2-chloroethoxy) Methane	2.6	2.6	2.5	102	105	46-116	2.63	30
Bis (2-chloroethyl) Ether	0.11	0.11	0.12	92	89	49-116	2.85	30
Bis (2-chloroisopropyl) Ether	0.12	0.12	0.12	94	97	40-136	2.79	30
Bis (2-ethylhexyl) Adipate	2.8	2.8	2.5	112	110	40-114	1.66	30
Bis (2-ethylhexyl) Phthalate	0.16	0.16	0.12	130, F2	126, F2	33-123	2.75	30
4-Bromophenyl Phenyl Ether	2.6	2.7	2.5	105	107	41-111	1.97	30
Butylbenzyl Phthalate	0.15	0.15	0.12	120, F2	117	38-119	2.02	30
4-Chloroaniline	0.11	0.10	0.12	84	82	31-91	2.36	30
4-Chloro-3-methylphenol	2.7	2.9	2.5	110	115	50-124	4.48	30
2-Chloronaphthalene	2.4	2.5	2.5	96	98	47-111	2.36	30
2-Chlorophenol	0.13	0.13	0.12	107	107	57-118	0	30
4-Chlorophenyl Phenyl Ether	2.4	2.5	2.5	96	100	49-109	3.69	30
Chrysene	0.12	0.12	0.12	94	97	38-106	3.60	30
Dibenzo (a,h) anthracene	0.14	0.13	0.12	110	107	36-111	2.29	30
Dibenzofuran	2.5	2.6	2.5	99	103	48-108	4.44	30
Di-n-butyl Phthalate	0.14	0.14	0.12	115	114	42-115	0.893	30
1,2-Dichlorobenzene	2.3	2.3	2.5	94	92	50-108	1.34	30
1,3-Dichlorobenzene	2.4	2.3	2.5	95	93	49-107	2.44	30
1,4-Dichlorobenzene	2.2	2.2	2.5	90	88	50-106	1.73	30
3,3-Dichlorobenzidine	0.10	0.10	0.12	83, F2	83, F2	17-81	0	30
2,4-Dichlorophenol	2.8	2.9	2.5	111	115	55-120	3.12	30
Diethyl Phthalate	0.13	0.13	0.12	100	104	45-123	3.34	30
2,4-Dimethylphenol	3.1	2.9	2.5	122	117	48-122	4.22	30
Dimethyl Phthalate	0.13	0.13	0.12	101	106	42-116	5.05	30
4,6-Dinitro-2-methylphenol	9.9	11	12.5	79	85	12-106	7.63	30
2,4-Dinitrophenol	0.40	0.43	0.62	64	69	6-97	8.64	30
2,4-Dinitrotoluene	0.11	0.12	0.12	90	94	45-115	4.81	30
2,6-Dinitrotoluene	0.12	0.13	0.12	99	103	45-111	3.76	30

(Cont.)



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/16/19
Date Analyzed: 1/16/19
Instrument: GC21
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171531
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171531

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Di-n-octyl Phthalate	0.17	0.17	0.12	132	137	27-149	3.48	30
1,2-Diphenylhydrazine	2.6	2.6	2.5	104	104	45-112	0	30
Fluoranthene	0.13	0.13	0.12	105	105	45-105	0	30
Fluorene	0.12	0.13	0.12	98	101	51-124	3.86	30
Hexachlorobenzene	0.12	0.12	0.12	96	97	41-106	1.36	30
Hexachlorobutadiene	0.13	0.13	0.12	103	105	45-113	1.55	30
Hexachlorocyclopentadiene	10	10	12.5	80	81	12-120	1.36	30
Hexachloroethane	0.10	0.099	0.12	81	79	49-106	1.89	30
Indeno (1,2,3-cd) pyrene	0.13	0.13	0.12	105	106	37-106	0.845	30
Isophorone	2.6	2.6	2.5	105	106	47-111	1.19	30
2-Methylnaphthalene	0.13	0.13	0.12	102	106	46-123	3.76	30
2-Methylphenol (o-Cresol)	2.3	2.5	2.5	92	98	52-120	6.76	30
3 & 4-Methylphenol (m,p-Cresol)	2.5	2.6	2.5	99	104	54-123	4.59	30
Naphthalene	0.12	0.13	0.12	100	101	38-115	0.880	30
2-Nitroaniline	12	13	12.5	97	104	46-120	6.69	30
3-Nitroaniline	9.4	9.5	12.5	75	76	32-98	0.510	30
4-Nitroaniline	10	11	12.5	81	85	43-108	5.01	30
Nitrobenzene	2.6	2.5	2.5	103	101	46-116	1.41	30
2-Nitrophenol	14	15	12.5	113	117	52-119	3.27	30
4-Nitrophenol	11	12	12.5	88	94	41-115	7.13	30
N-Nitrosodiphenylamine	2.4	2.5	2.5	97	100	45-110	2.56	30
N-Nitrosodi-n-propylamine	2.6	2.5	2.5	103	101	47-112	1.59	30
Pentachlorophenol	0.62	0.64	0.62	100	102	25-108	1.65	30
Phenanthrene	0.11	0.12	0.12	91	94	44-105	3.25	30
Phenol	0.47	0.46	0.50	94	92	26-129	2.22	30
Pyrene	0.13	0.13	0.12	101	103	36-108	1.66	30
Pyridine	1.9	1.8	2.5	78	72	28-81	7.37	30
1,2,4-Trichlorobenzene	2.6	2.6	2.5	103	103	47-114	0	30
2,4,5-Trichlorophenol	0.14	0.13	0.12	109	104	47-115	4.83	30
2,4,6-Trichlorophenol	0.14	0.14	0.12	112	110	42-113	1.39	30

(Cont.)



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/16/19	BatchID:	171531
Date Analyzed:	1/16/19	Extraction Method:	SW3550B
Instrument:	GC21	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171531

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	1.2	1.3	1.25	99	104	54-131	4.53	30
Phenol-d5	1.2	1.3	1.25	97	100	52-129	3.48	30
Nitrobenzene-d5	1.2	1.3	1.25	98	103	43-127	4.99	30
2-Fluorobiphenyl	1.1	1.2	1.25	92	100	42-116	8.54	30
2,4,6-Tribromophenol	1.0	1.1	1.25	82	89	39-119	8.46	30
4-Terphenyl-d14	1.2	1.2	1.25	95	98	36-118	3.47	30



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/14/19
Date Analyzed: 1/15/19
Instrument: GC3
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171366
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171366

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	0.15,J	0.090	1.0	-	-	-
MTBE	ND	0.0023	0.050	-	-	-
Benzene	ND	0.0010	0.0050	-	-	-
Toluene	ND	0.0012	0.0050	-	-	-
Ethylbenzene	ND	0.0020	0.0050	-	-	-
m,p-Xylene	ND	0.0013	0.010	-	-	-
o-Xylene	ND	0.0013	0.0050	-	-	-
Xylenes	ND	N/A	0.0050	-	-	-
Surrogate Recovery						
2-Fluorotoluene	0.090			0.10	90	75-134

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.61	0.61	0.60	102	101	82-118	0.555	20
MTBE	0.081	0.082	0.10	81	82	61-119	1.32	20
Benzene	0.10	0.095	0.10	100	95	77-128	5.21	20
Toluene	0.10	0.098	0.10	104	98	74-132	6.08	20
Ethylbenzene	0.10	0.097	0.10	102	97	84-127	5.35	20
m,p-Xylene	0.21	0.20	0.20	104	98	80-120	5.66	20
o-Xylene	0.099	0.095	0.10	99	95	80-120	3.68	20
Xylenes	0.31	0.29	0.30	102	97	86-129	5.02	20
Surrogate Recovery								
2-Fluorotoluene	0.096	0.090	0.10	96	90	75-134	6.67	20

(Cont.)



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/17/19
Date Analyzed: 1/18/19
Instrument: GC7
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171670
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171670

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	0.090	1.0	-	-	-
MTBE	ND	0.0023	0.050	-	-	-
Benzene	ND	0.0010	0.0050	-	-	-
Toluene	ND	0.0012	0.0050	-	-	-
Ethylbenzene	ND	0.0020	0.0050	-	-	-
m,p-Xylene	ND	0.0013	0.010	-	-	-
o-Xylene	ND	0.0013	0.0050	-	-	-
Xylenes	ND	N/A	0.0050	-	-	-
Surrogate Recovery						
2-Fluorotoluene	0.080			0.10	79	75-134

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.59	0.58	0.60	98	97	82-118	0.741	20
MTBE	0.095	0.088	0.10	95	88	61-119	7.28	20
Benzene	0.11	0.10	0.10	115	102	77-128	11.2	20
Toluene	0.12	0.11	0.10	116	105	74-132	9.67	20
Ethylbenzene	0.11	0.10	0.10	110	102	84-127	8.07	20
m,p-Xylene	0.24	0.22	0.20	118	111	80-120	6.10	20
o-Xylene	0.11	0.10	0.10	110	104	80-120	4.93	20
Xylenes	0.35	0.33	0.30	115	109	86-129	5.73	20
Surrogate Recovery								
2-Fluorotoluene	0.084	0.080	0.10	84	80	75-134	4.31	20



Quality Control Report

Client: Consolidated Engineering Laboratories
Date Prepared: 1/14/19
Date Analyzed: 1/14/19
Instrument: GC9b
Matrix: Soil
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
BatchID: 171365
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-171365

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	0.86	1.0	-	-	-
TPH-Motor Oil (C18-C36)	3.7,J	3.5	5.0	-	-	-

Surrogate Recovery

C9	24			25	95	72-122
----	----	--	--	----	----	--------

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	42	44	40	106	109	75-128	2.92	30

Surrogate Recovery

C9	23	24	25	94	94	72-122	0	30
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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1901435 A

ClientCode: CEL

☐ WaterTrax ☐ WriteOn ☐ EDF

☐ Excel ☐ EQuIS ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

☐ Detection Summary ☐ Dry-Weight

Report to:

Nick Anastasio
Consolidated Engineering Laboratories
2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583
(925) 314-7156 FAX: 925.485.5019

Email: nanastasio@ce-labs.com
cc/3rd Party:
PO:
Project: 84-04548-PWA; SRCS Terra Linda HS
Innovation Hub

Bill to:

Accounts Payable
Consolidated Engineering Laboratories
2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583
AccountsPayable@ce-labs.com; pfergu

Requested TAT: 5 days;

Date Received: 01/10/2019

Date Logged: 01/10/2019

Date Add-On: 01/11/2019

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1901435-001	S-1/ NW Corner Of Vacant Lot	Soil	1/10/2019 10:25	<input type="checkbox"/>	A	A	A	A	A							
1901435-002	S-2/ SE Corner Of Vacant Lot	Soil	1/10/2019 10:30	<input type="checkbox"/>	A	A	A	A	A							

Test Legend:

1	8081PCB_S	2	8260B_S	3	8270_SCSM_S [J]	4	G-MBTX_S
5	TPH(DMO)_S	6		7		8	
9		10		11		12	

Prepared by: Lilly Ortiz

Add-On Prepared By: Lilly Ortiz

Comments: Additional analysis added 1/11/19

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



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1534 Willow Pass Road, Pittsburg, CA 94565-1701
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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: CONSOLIDATED ENGINEERING LABORATORIE **Project:** 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

Client Contact: Nick Anastasio

Contact's Email nanastasio@ce-labs.com

Comments: Additional analysis added 1/11/19

Work Order: 1901435

QC Level: LEVEL 2

Date Logged: 1/10/2019

Date Add-On: 1/11/2019

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1901435-001A	S-1/ NW Corner Of Vacant Lot	Soil	Multi-Range TPH(g,d,mo)	1	8OZ GJ, Unpres	1/10/2019 10:25	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)				5 days		<input type="checkbox"/>	
			SW8260B (VOCs)				5 days		<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)				5 days		<input type="checkbox"/>	
1901435-002A	S-2/ SE Corner Of Vacant Lot	Soil	Multi-Range TPH(g,d,mo)	1	8OZ GJ, Unpres	1/10/2019 10:30	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)				5 days		<input type="checkbox"/>	
			SW8260B (VOCs)				5 days		<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)				5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



McCAMPBELL ANALYTICAL, INC.

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Report To: Nick Anastasio

Bill To: CEL

Company: Consolidated Engineering Laboratories (CEL)

Email: nanastasio@ce-labs.com

Alt Email:

Tele: (925) 984-6365

Project Name: SRCS Terra Linda HS Innovation Hub Project #: 84-04548-PWA

Project Location: Terra Linda HS, San Rafael, CA

PO #

Sampler Signature:

Nick Martens

[illegible]

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Tuck Armstrong	1-10-19	1:45	LM Moore	1/10/19	1:50
LM Moore	1/10/19	1:00	LM Moore	1/10/19	1:00

Comments / Instructions

Client may need other tests run, I will let you know when they figure it out.

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 22.1 °C Initials LC

* Added per email 11/11/19



McC Campbell Analytical, Inc.

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Analytical Report

WorkOrder: 1901435 B

Report Created for: Consolidated Engineering Laboratories

2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583

Project Contact: Nick Anastasio

Project P.O.:

Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

Project Received: 01/10/2019

Analytical Report reviewed & approved for release on 01/28/2019 by:

Susan Thompson
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Consolidated Engineering Laboratories
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub
WorkOrder: 1901435 B

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Analytical Report

Client: Consolidated Engineering Laboratories
Date Received: 1/10/19 16:00
Date Prepared: 1/22/19-1/26/19
Project: 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

WorkOrder: 1901435
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-1/ NW Corner Of Vacant Lot	1901435-001A	Soil	01/10/2019 10:25	ICP-MS1 150SMPL.D	171800

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	01/25/2019 23:10

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
S-2/ SE Corner Of Vacant Lot	1901435-002A	Soil	01/10/2019 10:30	ICP-MS1 060SMPL.D	172061

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.17	0.10	1	01/28/2019 17:38

Analyst(s): MIG



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/22/19	BatchID:	171800
Date Analyzed:	1/24/19	Extraction Method:	CA Title 22
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/L
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-171800

QC Summary Report for Metals (STLC)

Analyte	MB Result	MDL	RL			
Chromium	ND	0.10	0.10	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chromium	9.6	9.2	10	96	92	75-125	3.69	20

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP



Quality Control Report

Client:	Consolidated Engineering Laboratories	WorkOrder:	1901435
Date Prepared:	1/26/19	BatchID:	172061
Date Analyzed:	1/28/19	Extraction Method:	CA Title 22
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/L
Project:	84-04548-PWA; SRCS Terra Linda HS Innovation Hub	Sample ID:	MB/LCS/LCSD-172061

QC Summary Report for Metals (STLC)

Analyte	MB Result	MDL	RL			
Chromium	ND	0.10	0.10	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chromium	9.7	9.6	10	97	96	75-125	1.02	20



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CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1901435 **B** ClientCode: CEL

☐ Excel ☐ EQuIS ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:

Nick Anastasio
Consolidated Engineering Laboratories
2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583
(925) 314-7156 FAX: 925.485.5019

Email: nanastasio@ce-labs.com
cc/3rd Party:
PO:
Project: 84-04548-PWA; SRCS Terra Linda HS
Innovation Hub

Bill to:

Accounts Payable
Consolidated Engineering Laboratories
2001 Crow Canyon Road, Suite 100
San Ramon, CA 94583
AccountsPayable@ce-labs.com; pfergu

Requested TAT: **5 days;**

Date Received: 01/10/2019

Date Logged: 01/10/2019

Date Add-On: 01/22/2019

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1901435-001	S-1/ NW Corner Of Vacant Lot	Soil	1/10/2019 10:25	<input type="checkbox"/>	A											
1901435-002	S-2/ SE Corner Of Vacant Lot	Soil	1/10/2019 10:30	<input type="checkbox"/>	A											

Test Legend:

1	CRMS_STLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Lilly Ortiz

Add-On Prepared By: Maria Venegas

Comments: Additional analysis added 1/11/19. STLC Cr added to both samples 1/22/19 STAT.

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



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WORK ORDER SUMMARY

Client Name: CONSOLIDATED ENGINEERING LABORATORIE **Project:** 84-04548-PWA; SRCS Terra Linda HS Innovation Hub

Client Contact: Nick Anastasio

Contact's Email nanastasio@ce-labs.com

Comments: Additional analysis added 1/11/19. STLC Cr added to both samples 1/22/19 STAT.

Work Order: 1901435

QC Level: LEVEL 2

Date Logged: 1/10/2019

Date Add-On: 1/22/2019

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1901435-001A	S-1/ NW Corner Of Vacant Lot	Soil	SW6020 (Chromium) (STLC)	1	8OZ GJ, Unpres	1/10/2019 10:25	5 days*		<input type="checkbox"/>	
1901435-002A	S-2/ SE Corner Of Vacant Lot	Soil	SW6020 (Chromium) (STLC)	1	8OZ GJ, Unpres	1/10/2019 10:30	5 days*		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

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