

October 6, 2021

File No. 04221030.13

## MEMORANDUM

TO: Mike Davis; Clark County Public Health (CCPH)  
Jennifer Belknap Williamson; City of Vancouver  
Alan Melnick, Travis Dutton, and Melissa Sutton; CCPH  
Andrew Smith, Washington Department of Ecology

FROM: Louis Caruso, LG, and Barbara E. Lary, LG; SCS Engineers

SUBJECT: **Closed Leichner Landfill: Volatile Organic Compound Detections 2020/2021  
Quarterly Groundwater Monitoring Events**

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This memorandum reports the volatile organic compounds (VOCs) results for groundwater samples collected from monitoring wells LB-1S, LB-10SR and LB-27I at the Leichner Landfill in Vancouver, Washington in the first (February) second (May) and third (August) quarters of 2021. This monitoring was performed as part of the ongoing quarterly monitoring of VOCs of these monitoring wells to evaluate the occurrence of anomalous VOCs detected in the groundwater samples collected from these wells, as recommended in the November 18, 2020 Memorandum<sup>1</sup>, that was provided to Washington Department of Ecology and Clark County Public Health.

Chloromethane, chloroform, and bromodichloromethane (BDCM) were initially detected in groundwater collected from these three wells during the July 2020 semiannual monitoring event and verified through resampling in October 2020. The detected VOCs were considered anomalous because (1) they have not been historically detected in groundwater at Leichner Landfill, and (2) VOCs have not been detected in these three monitoring wells since 1999, except for isolated detections of trichloroethene in well LB-10SR and vinyl chloride in well LB-27I, both in 2011<sup>1</sup>.

## 2021 VOC Analytical Results

Table 1 summarizes analytical results for chloromethane, chloroform, and BDCM detected in groundwater collected during quarterly monitoring of wells LB-1S and LB-10SR, and LB-27I in February, May, and August 2021. No VOCs, including chloromethane, chloroform and BDCM were detected above the laboratory reporting limits in groundwater samples from wells in May 2021. Only a low detection of chloroform was detected in LB-27I in August 2021 at 0.6 µg/L, slightly above the method reporting limit of 0.5 µg/L, which is likely attributed to laboratory contaminant.

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<sup>1</sup> SCS, 2020. Memorandum to Mike Davis, CCPH, Regarding: Closed Leichner Landfill: Volatile Organic Compound Detections 2020 Semiannual Groundwater Monitoring Event, November 18.



Since VOCs have not been detected in monitored at wells LB-1S and LB-10SR, and LB-27I during the last three 2021 quarterly monitoring events at Leichner Landfill, we propose to discontinue quarterly monitoring and resume semiannual monitoring of these well in 2022. These results support the conclusion that VOCs detected in July 2020 from these wells were anomalous and do not reflect a change in groundwater conditions at the site. Copies of the February, May, and August 2021 analytical data reports are provided in Attachment 1.

Attachments:

- Table 1 -2020/2021 VOC Detection Results, LB-1S, LB-10SR and LB-27I
- Attachment 1 - February 2021, May 2021, and August 2021 Analytical Data Reports

## TABLE

**Table 1**  
**2020/2021 VOC Detection Results**  
**LB-1S, LB-10SR, and LB-27I**  
**Leichner Landfill**

Location	Sample Number	Date Sampled	Choroform (µg/L)	Chloromethane (µg/L)	Bromodichloromethane (µg/L)
LB-1S	LB-072920-01-1S	7/29/20	0.5 U	<b>0.63</b>	0.5 U
LB-1S	LB-101420-04-1S	10/14/20	<b>3.3</b>	0.5 U	0.5 U
LB-1S	LB-021821-05-1S	2/18/21	0.5 U	0.5 U	0.5 U
LB-1S (Dup)	LB-021821-06-DUP1	2/18/21	0.5 U	0.5 U	0.5 U
LB-1S	LB-051321-03-1S	5/13/21	0.5 U	0.5 U	0.5 U
LB-1S	LB-081021-03-1S	8/10/21	0.5 U	0.5 U	0.5 U
LB-10SR	LB-072920-03-10SR	7/29/20	0.5 U	<b>0.54</b>	0.5 U
LB-10SR	LB-101420-05-10SR	10/14/20	<b>11</b>	0.5 U	<b>1.5</b>
LB -10SR	LB-021821-03-10SR	2/18/21	0.5 U	0.5 U	0.5 U
LB -10SR	LB-051321-04-10SR	5/13/21	0.5 U	0.5 U	0.5 U
LB -10SR (Dup)	LB-051321-05-DUP	5/13/21	0.5 U	0.5 U	0.5 U
LB -10SR	LB-081021-02-10SR	8/10/21	0.5 U	0.5 U	0.5 U
LB-27I	LB-072820-02-27I	7/28/20	<b>1.20</b>	0.5 U	<b>0.91</b>
LB-27I	LB-101420-01-27I	10/14/20	<b>0.88</b>	0.5 U	0.5 U
LB-27I (DUP)	LB-101420-03-DUP	10/14/20	<b>0.80</b>	0.5 U	0.5 U
LB-27I	LB-021921-04-27I	2/19/21	0.5 U	0.5 U	0.5 U
LB-27I (DUP)	LB-021921-05-DUP2	2/19/21	0.5 U	0.5 U	0.5 U
LB-27I	LB-051321-01-27I	5/13/21	0.5 U	0.5 U	0.5 U
LB-27I	LB-080921-02-27I	8/9/21	<b>0.6</b>	0.5 U	0.5 U
Washington Groundwater Quality Criteria* (WAC 173-200-040)			7.0	NA	0.30
<p>Notes:</p> <p>µg/L = micrograms per liter</p> <p>DUP = field duplicate sample</p> <p>NA = not available</p> <p>U = not detected at or above the laboratory method reporting limit indicated</p> <p>VOCs = volatile organic compounds</p> <p><span style="background-color: #cccccc; display: inline-block; width: 100px; height: 1em;"></span> = concentration is above the groundwater quality criteria</p> <p>*Washington state groundwater quality criteria for chloromethane is not available. It should be noted that there is a U.S. Environmental Protection Agency tap water regional screening level (posted May 2020) for chloromethane of 190 micrograms per liter (µg/L).</p>					

## **ATTACHMENT 1**

**February, May and August 2021 Analytical Data Reports**



February 26, 2021

Service Request No:K2101511

David Lamadrid  
SCS Engineers  
15940 SW 72nd Ave  
Portland, OR 97224

**Laboratory Results for: Leichner Landfill**

Dear David,

Enclosed are the results of the sample(s) submitted to our laboratory February 18, 2021  
For your reference, these analyses have been assigned our service request number **K2101511**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626  
PHONE +1 360 577 7222 | FAX +1 360 636 1068  
ALS Group USA, Corp.  
dba ALS Environmental



# Narrative Documents

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



**Client:** SCS Engineers  
**Project:** Lechner Landfill  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Received:** 02/18/2021

**CASE NARRATIVE**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

**Sample Receipt:**

Eight ground water samples were received for analysis at ALS Environmental on 02/18/2021. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

**Metals:**

No significant anomalies were noted with this analysis.

**General Chemistry:**

No significant anomalies were noted with this analysis.

**Volatiles by GC/MS:**

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0222F009.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Approved by 

Date 02/26/2021





**SAMPLE DETECTION SUMMARY**

<b>CLIENT ID: LB-021721-01-27D</b>	<b>Lab ID: K2101511-002</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	207			5.0	mg/L	SM 2540 C
Chloride	7.21			0.20	mg/L	300.0
Nitrate as Nitrogen	3.89			0.10	mg/L	300.0

<b>CLIENT ID: LB-021721-02-13D</b>	<b>Lab ID: K2101511-003</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	179			5.0	mg/L	SM 2540 C
Chloride	5.05			0.20	mg/L	300.0
Nitrate as Nitrogen	4.78			0.10	mg/L	300.0

<b>CLIENT ID: LB-021721-03-26D</b>	<b>Lab ID: K2101511-004</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	197			5.0	mg/L	SM 2540 C
Chloride	6.21			0.20	mg/L	300.0
Nitrate as Nitrogen	5.55			0.10	mg/L	300.0

<b>CLIENT ID: LB-021721-04-5D</b>	<b>Lab ID: K2101511-005</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	215			5.0	mg/L	SM 2540 C
Chloride	7.98			0.20	mg/L	300.0
Nitrate as Nitrogen	0.96			0.10	mg/L	300.0
Manganese, Dissolved	2.5			1.1	ug/L	6010C

<b>CLIENT ID: LB-021821-01-10DR</b>	<b>Lab ID: K2101511-006</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	200			5.0	mg/L	SM 2540 C
Chloride	7.25			0.20	mg/L	300.0
Nitrate as Nitrogen	3.79			0.10	mg/L	300.0

<b>CLIENT ID: LB-021821-02-FB</b>	<b>Lab ID: K2101511-007</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Chloroform	1.4			0.50	ug/L	8260C

<b>CLIENT ID: LB-021821-03-10SR</b>	<b>Lab ID: K2101511-008</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	206			5.0	mg/L	SM 2540 C
Chloride	6.55			0.20	mg/L	300.0
Nitrate as Nitrogen	6.34			0.10	mg/L	300.0



## Sample Receipt Information

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:**K2101511

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2101511-001	Trip Blanks	2/17/2021	0700
K2101511-002	LB-021721-01-27D	2/17/2021	1120
K2101511-003	LB-021721-02-13D	2/17/2021	1225
K2101511-004	LB-021721-03-26D	2/17/2021	1320
K2101511-005	LB-021721-04-5D	2/17/2021	1435
K2101511-006	LB-021821-01-10DR	2/18/2021	0835
K2101511-007	LB-021821-02-FB	2/18/2021	0900
K2101511-008	LB-021821-03-10SR	2/18/2021	0930



# CHAIN OF CUSTODY

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE

OF

SR#

COC#

2101511

PROJECT NAME <i>Leitchner Landfill</i>	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>
PROJECT NUMBER <i>0422103013</i>		Volatiles Organics 624 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>
PROJECT MANAGER <i>Barb Lacy / T Andrews</i>		Gas <input type="checkbox"/> 8021 <input type="checkbox"/> BTEX <input type="checkbox"/>
COMPANY NAME <i>SCS Engineers</i>		Oil & Grease/TRPH <input type="checkbox"/> Oil <input type="checkbox"/>
ADDRESS <i>15940 SW 72nd Ave</i>		1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>
CITY/STATE/ZIP <i>Portland, OR 97224</i>		Pesticides/Herbicides <input type="checkbox"/>
E-MAIL ADDRESS <i>Andrews@scsengineers.com</i>		Chlorophenolics <input type="checkbox"/>
PHONE # <i>503 724-0112</i>	Tri <input type="checkbox"/> 8141 <input type="checkbox"/> 8151 <input type="checkbox"/>	
SAMPLER'S SIGNATURE <i>[Signature]</i>	Metals, Total or (Dissolved) (See List below) <input type="checkbox"/>	
	Cyanide <input type="checkbox"/>	
	(circle) pH, Cond. <input type="checkbox"/> 804 <input type="checkbox"/> PO4, F, NO2, NO3, BOD, TSS, TDS, Turb.	
	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, F-Phos	
	TOX 9020 <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	
	Alkalinity <input type="checkbox"/> CO3 <input type="checkbox"/> HCO3 <input type="checkbox"/>	
	Dioxins/Furans 1813 <input type="checkbox"/> 8290 <input type="checkbox"/>	
	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/>	

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS	Volatiles Organics	Gas	Oil & Grease/TRPH	1664 HEM	1664 SGT	Pesticides/Herbicides	Chlorophenolics	Tri	Metals, Total or (Dissolved)	Cyanide	(circle) pH, Cond.	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, F-Phos	TOX 9020	AOX 1650	Alkalinity	Dioxins/Furans	Dissolved Gases	REMARKS	
Trip Blanks	2-17-21	0700		W	2	X																			
LB-021721-01-270	2-17-21	1120		W	5	X									X		X								
LB-021721-02-130	2-17-21	1225		W	5	X									X		X								
LB-021721-03-260	2-17-21	1320		W	5	X									X		X								
LB-021721-04-50	2-17-21	1435		W	5	X									X		X								
LB-021821-01-100R	2-18-21	0835		W	5	X									X		X								
LB-021821-02-FB	2-18-21	0900		W	5	X									X		X								
LB-021821-03-115R	2-18-21	0930		W	5	X									X		X								

<b>REPORT REQUIREMENTS</b> <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	<b>INVOICE INFORMATION</b> P.O. # _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu <u>Fe</u> Pb Mg <u>Mn</u> Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg <b>*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)</b>
	<b>TURNAROUND REQUIREMENTS</b> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date _____	<b>SPECIAL INSTRUCTIONS/COMMENTS:</b> <i>Metals are field filtered</i> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)

Container Supply Number

115140

<b>RELINQUISHED BY:</b>  Signature: <i>Tan Hultgren</i> Date/Time: <i>2/18/21 0950</i> Firm: <i>SCS</i>	<b>RECEIVED BY:</b>  Signature: <i>[Signature]</i> Date/Time: <i>2/18/21 0950</i> Firm: <i>SCS</i>	<b>RELINQUISHED BY:</b>  Signature: <i>[Signature]</i> Date/Time: <i>2/18/21 1145</i> Firm: <i>[Firm]</i>	<b>RECEIVED BY:</b>  Signature: <i>[Signature]</i> Date/Time: <i>2/18/21 1145</i> Firm: <i>[Firm]</i>
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PM HH

### Cooler Receipt and Preservation Form

Client SCS-Leichner L.F Service Request K21 01511  
Received: 2/18/21 Opened: 2/18/21 By: [Signature] Unloaded: 2/18/21 By: [Signature]

- Samples were received via?  USPS  Fed Ex  UPS  DHL  PDX  Courier  Hand Delivered
  - Samples were received in: (circle)  Cooler  Box  Envelope  Other  NA
  - Were custody seals on coolers? NA  Y  N If yes, how many and where? 1 Front  
If present, were custody seals intact?  Y  N If present, were they signed and dated?  Y  N
  - Was a Temperature Blank present in cooler? NA  Y  N If yes, notate the temperature in the appropriate column below:  
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
  - Were samples received within the method specified temperature ranges? NA  Y  N  
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM.  NA  Y  N
- If applicable, tissue samples were received: **Frozen Partially Thawed Thawed**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number <input checked="" type="checkbox"/> NA	Filed
<u>2.9</u>		<u>IR01</u>	<u>115140</u>	<u>—</u>	<u>—</u>		

- Packing material:  Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Dry Ice  Sleeves
- Were custody papers properly filled out (ink, signed, etc.)? NA  Y  N
- Were samples received in good condition (unbroken)? NA  Y  N
- Were all sample labels complete (ie, analysis, preservation, etc.)? NA  Y  N
- Did all sample labels and tags agree with custody papers? NA  Y  N
- Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y  N
- Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA  Y  N
- Were VOA vials received without headspace? Indicate in the table below. NA  Y  N
- Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: \_\_\_\_\_  
SHORT HOLD TIME



## Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEH	<a href="http://dec.alaska.gov/eh/lab/cs/csapproval.htm">http://dec.alaska.gov/eh/lab/cs/csapproval.htm</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L16-58-R4
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	<a href="http://health.hawaii.gov/">http://health.hawaii.gov/</a>	-
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	03016
Maine DHS	<a href="http://www.maine.gov/dhhs/">http://www.maine.gov/dhhs/</a>	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	WA005
New York - DOH	<a href="https://www.wadsworth.org/regulatory/elap">https://www.wadsworth.org/regulatory/elap</a>	12060
North Carolina DEQ	<a href="https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification">https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/EnvironmentalLabCertification/">http://www.scdhec.gov/environment/EnvironmentalLabCertification/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water">https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.ALSGlobal.com](http://www.ALSGlobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101511

**Sample Name:** Trip Blanks  
**Lab Code:** K2101511-001  
**Sample Matrix:** Ground Water

**Date Collected:** 02/17/21  
**Date Received:** 02/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002  
**Sample Matrix:** Ground Water

**Date Collected:** 02/17/21  
**Date Received:** 02/18/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021721-02-13D  
**Lab Code:** K2101511-003  
**Sample Matrix:** Ground Water

**Date Collected:** 02/17/21  
**Date Received:** 02/18/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004  
**Sample Matrix:** Ground Water

**Date Collected:** 02/17/21  
**Date Received:** 02/18/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101511

**Sample Name:** LB-021721-04-5D  
**Lab Code:** K2101511-005  
**Sample Matrix:** Ground Water

**Date Collected:** 02/17/21  
**Date Received:** 02/18/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-01-10DR  
**Lab Code:** K2101511-006  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/18/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-02-FB  
**Lab Code:** K2101511-007  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/18/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/18/21

**Analysis Method**

300.0

**Extracted/Digested By**

**Analyzed By**

KABROWN

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Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101511

**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/18/21

**Analysis Method**

6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

AMCKORNEY  
MKANALY  
JMADISON



# Sample Results

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 07:00  
**Date Received:** 02/18/21 11:45

**Sample Name:** Trip Blanks  
**Lab Code:** K2101511-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 20:29	*
Benzene	ND U	0.50	1	02/22/21 20:29	
Bromobenzene	ND U	2.0	1	02/22/21 20:29	
Bromochloromethane	ND U	0.50	1	02/22/21 20:29	
Bromodichloromethane	ND U	0.50	1	02/22/21 20:29	
Bromoform	ND U	0.50	1	02/22/21 20:29	
Bromomethane	ND U	0.50	1	02/22/21 20:29	
2-Butanone (MEK)	ND U	20	1	02/22/21 20:29	
n-Butylbenzene	ND U	4.0	1	02/22/21 20:29	
sec-Butylbenzene	ND U	2.0	1	02/22/21 20:29	
tert-Butylbenzene	ND U	2.0	1	02/22/21 20:29	
Carbon Disulfide	ND U	0.50	1	02/22/21 20:29	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 20:29	
Chlorobenzene	ND U	0.50	1	02/22/21 20:29	
Chloroethane	ND U	0.50	1	02/22/21 20:29	
Chloroform	ND U	0.50	1	02/22/21 20:29	
Chloromethane	ND U	0.50	1	02/22/21 20:29	
2-Chlorotoluene	ND U	2.0	1	02/22/21 20:29	
4-Chlorotoluene	ND U	2.0	1	02/22/21 20:29	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 20:29	
Dibromochloromethane	ND U	0.50	1	02/22/21 20:29	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 20:29	
Dibromomethane	ND U	0.50	1	02/22/21 20:29	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 20:29	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 20:29	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 20:29	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 20:29	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 20:29	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 20:29	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 20:29	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 20:29	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 20:29	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 20:29	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 20:29	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 20:29	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 20:29	
Ethylbenzene	ND U	0.50	1	02/22/21 20:29	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 20:29	
2-Hexanone	ND U	20	1	02/22/21 20:29	
Isopropylbenzene	ND U	2.0	1	02/22/21 20:29	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 20:29	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 07:00  
**Date Received:** 02/18/21 11:45

**Sample Name:** Trip Blanks  
**Lab Code:** K2101511-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 20:29	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 20:29	
Methylene Chloride	ND U	2.0	1	02/22/21 20:29	
Naphthalene	ND U	2.0	1	02/22/21 20:29	
n-Propylbenzene	ND U	2.0	1	02/22/21 20:29	
Styrene	ND U	0.50	1	02/22/21 20:29	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 20:29	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 20:29	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 20:29	
Toluene	ND U	0.50	1	02/22/21 20:29	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 20:29	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 20:29	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 20:29	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 20:29	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 20:29	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 20:29	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 20:29	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 20:29	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 20:29	
Vinyl Chloride	ND U	0.50	1	02/22/21 20:29	
o-Xylene	ND U	0.50	1	02/22/21 20:29	
m,p-Xylenes	ND U	0.50	1	02/22/21 20:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	02/22/21 20:29	
Dibromofluoromethane	97	73 - 122	02/22/21 20:29	
Toluene-d8	101	65 - 144	02/22/21 20:29	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 11:20  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 20:56	*
Benzene	ND U	0.50	1	02/22/21 20:56	
Bromobenzene	ND U	2.0	1	02/22/21 20:56	
Bromochloromethane	ND U	0.50	1	02/22/21 20:56	
Bromodichloromethane	ND U	0.50	1	02/22/21 20:56	
Bromoform	ND U	0.50	1	02/22/21 20:56	
Bromomethane	ND U	0.50	1	02/22/21 20:56	
2-Butanone (MEK)	ND U	20	1	02/22/21 20:56	
n-Butylbenzene	ND U	4.0	1	02/22/21 20:56	
sec-Butylbenzene	ND U	2.0	1	02/22/21 20:56	
tert-Butylbenzene	ND U	2.0	1	02/22/21 20:56	
Carbon Disulfide	ND U	0.50	1	02/22/21 20:56	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 20:56	
Chlorobenzene	ND U	0.50	1	02/22/21 20:56	
Chloroethane	ND U	0.50	1	02/22/21 20:56	
Chloroform	ND U	0.50	1	02/22/21 20:56	
Chloromethane	ND U	0.50	1	02/22/21 20:56	
2-Chlorotoluene	ND U	2.0	1	02/22/21 20:56	
4-Chlorotoluene	ND U	2.0	1	02/22/21 20:56	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 20:56	
Dibromochloromethane	ND U	0.50	1	02/22/21 20:56	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 20:56	
Dibromomethane	ND U	0.50	1	02/22/21 20:56	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 20:56	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 20:56	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 20:56	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 20:56	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 20:56	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 20:56	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 20:56	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 20:56	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 20:56	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 20:56	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 20:56	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 20:56	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 20:56	
Ethylbenzene	ND U	0.50	1	02/22/21 20:56	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 20:56	
2-Hexanone	ND U	20	1	02/22/21 20:56	
Isopropylbenzene	ND U	2.0	1	02/22/21 20:56	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 20:56	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 11:20  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 20:56	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 20:56	
Methylene Chloride	ND U	2.0	1	02/22/21 20:56	
Naphthalene	ND U	2.0	1	02/22/21 20:56	
n-Propylbenzene	ND U	2.0	1	02/22/21 20:56	
Styrene	ND U	0.50	1	02/22/21 20:56	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 20:56	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 20:56	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 20:56	
Toluene	ND U	0.50	1	02/22/21 20:56	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 20:56	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 20:56	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 20:56	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 20:56	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 20:56	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 20:56	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 20:56	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 20:56	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 20:56	
Vinyl Chloride	ND U	0.50	1	02/22/21 20:56	
o-Xylene	ND U	0.50	1	02/22/21 20:56	
m,p-Xylenes	ND U	0.50	1	02/22/21 20:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	02/22/21 20:56	
Dibromofluoromethane	96	73 - 122	02/22/21 20:56	
Toluene-d8	99	65 - 144	02/22/21 20:56	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 12:25  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-02-13D  
**Lab Code:** K2101511-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 21:22	*
Benzene	ND U	0.50	1	02/22/21 21:22	
Bromobenzene	ND U	2.0	1	02/22/21 21:22	
Bromochloromethane	ND U	0.50	1	02/22/21 21:22	
Bromodichloromethane	ND U	0.50	1	02/22/21 21:22	
Bromoform	ND U	0.50	1	02/22/21 21:22	
Bromomethane	ND U	0.50	1	02/22/21 21:22	
2-Butanone (MEK)	ND U	20	1	02/22/21 21:22	
n-Butylbenzene	ND U	4.0	1	02/22/21 21:22	
sec-Butylbenzene	ND U	2.0	1	02/22/21 21:22	
tert-Butylbenzene	ND U	2.0	1	02/22/21 21:22	
Carbon Disulfide	ND U	0.50	1	02/22/21 21:22	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 21:22	
Chlorobenzene	ND U	0.50	1	02/22/21 21:22	
Chloroethane	ND U	0.50	1	02/22/21 21:22	
Chloroform	ND U	0.50	1	02/22/21 21:22	
Chloromethane	ND U	0.50	1	02/22/21 21:22	
2-Chlorotoluene	ND U	2.0	1	02/22/21 21:22	
4-Chlorotoluene	ND U	2.0	1	02/22/21 21:22	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 21:22	
Dibromochloromethane	ND U	0.50	1	02/22/21 21:22	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 21:22	
Dibromomethane	ND U	0.50	1	02/22/21 21:22	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 21:22	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 21:22	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 21:22	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 21:22	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 21:22	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 21:22	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 21:22	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 21:22	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 21:22	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 21:22	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 21:22	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 21:22	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 21:22	
Ethylbenzene	ND U	0.50	1	02/22/21 21:22	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 21:22	
2-Hexanone	ND U	20	1	02/22/21 21:22	
Isopropylbenzene	ND U	2.0	1	02/22/21 21:22	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 21:22	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 12:25  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-02-13D  
**Lab Code:** K2101511-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 21:22	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 21:22	
Methylene Chloride	ND U	2.0	1	02/22/21 21:22	
Naphthalene	ND U	2.0	1	02/22/21 21:22	
n-Propylbenzene	ND U	2.0	1	02/22/21 21:22	
Styrene	ND U	0.50	1	02/22/21 21:22	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 21:22	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 21:22	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 21:22	
Toluene	ND U	0.50	1	02/22/21 21:22	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 21:22	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 21:22	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 21:22	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 21:22	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 21:22	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 21:22	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 21:22	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 21:22	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 21:22	
Vinyl Chloride	ND U	0.50	1	02/22/21 21:22	
o-Xylene	ND U	0.50	1	02/22/21 21:22	
m,p-Xylenes	ND U	0.50	1	02/22/21 21:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	02/22/21 21:22	
Dibromofluoromethane	96	73 - 122	02/22/21 21:22	
Toluene-d8	99	65 - 144	02/22/21 21:22	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 13:20  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 21:49	*
Benzene	ND U	0.50	1	02/22/21 21:49	
Bromobenzene	ND U	2.0	1	02/22/21 21:49	
Bromochloromethane	ND U	0.50	1	02/22/21 21:49	
Bromodichloromethane	ND U	0.50	1	02/22/21 21:49	
Bromoform	ND U	0.50	1	02/22/21 21:49	
Bromomethane	ND U	0.50	1	02/22/21 21:49	
2-Butanone (MEK)	ND U	20	1	02/22/21 21:49	
n-Butylbenzene	ND U	4.0	1	02/22/21 21:49	
sec-Butylbenzene	ND U	2.0	1	02/22/21 21:49	
tert-Butylbenzene	ND U	2.0	1	02/22/21 21:49	
Carbon Disulfide	ND U	0.50	1	02/22/21 21:49	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 21:49	
Chlorobenzene	ND U	0.50	1	02/22/21 21:49	
Chloroethane	ND U	0.50	1	02/22/21 21:49	
Chloroform	ND U	0.50	1	02/22/21 21:49	
Chloromethane	ND U	0.50	1	02/22/21 21:49	
2-Chlorotoluene	ND U	2.0	1	02/22/21 21:49	
4-Chlorotoluene	ND U	2.0	1	02/22/21 21:49	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 21:49	
Dibromochloromethane	ND U	0.50	1	02/22/21 21:49	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 21:49	
Dibromomethane	ND U	0.50	1	02/22/21 21:49	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 21:49	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 21:49	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 21:49	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 21:49	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 21:49	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 21:49	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 21:49	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 21:49	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 21:49	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 21:49	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 21:49	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 21:49	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 21:49	
Ethylbenzene	ND U	0.50	1	02/22/21 21:49	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 21:49	
2-Hexanone	ND U	20	1	02/22/21 21:49	
Isopropylbenzene	ND U	2.0	1	02/22/21 21:49	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 21:49	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 13:20  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 21:49	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 21:49	
Methylene Chloride	ND U	2.0	1	02/22/21 21:49	
Naphthalene	ND U	2.0	1	02/22/21 21:49	
n-Propylbenzene	ND U	2.0	1	02/22/21 21:49	
Styrene	ND U	0.50	1	02/22/21 21:49	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 21:49	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 21:49	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 21:49	
Toluene	ND U	0.50	1	02/22/21 21:49	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 21:49	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 21:49	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 21:49	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 21:49	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 21:49	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 21:49	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 21:49	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 21:49	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 21:49	
Vinyl Chloride	ND U	0.50	1	02/22/21 21:49	
o-Xylene	ND U	0.50	1	02/22/21 21:49	
m,p-Xylenes	ND U	0.50	1	02/22/21 21:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	02/22/21 21:49	
Dibromofluoromethane	94	73 - 122	02/22/21 21:49	
Toluene-d8	96	65 - 144	02/22/21 21:49	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 14:35  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-04-5D  
**Lab Code:** K2101511-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 22:15	*
Benzene	ND U	0.50	1	02/22/21 22:15	
Bromobenzene	ND U	2.0	1	02/22/21 22:15	
Bromochloromethane	ND U	0.50	1	02/22/21 22:15	
Bromodichloromethane	ND U	0.50	1	02/22/21 22:15	
Bromoform	ND U	0.50	1	02/22/21 22:15	
Bromomethane	ND U	0.50	1	02/22/21 22:15	
2-Butanone (MEK)	ND U	20	1	02/22/21 22:15	
n-Butylbenzene	ND U	4.0	1	02/22/21 22:15	
sec-Butylbenzene	ND U	2.0	1	02/22/21 22:15	
tert-Butylbenzene	ND U	2.0	1	02/22/21 22:15	
Carbon Disulfide	ND U	0.50	1	02/22/21 22:15	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 22:15	
Chlorobenzene	ND U	0.50	1	02/22/21 22:15	
Chloroethane	ND U	0.50	1	02/22/21 22:15	
Chloroform	ND U	0.50	1	02/22/21 22:15	
Chloromethane	ND U	0.50	1	02/22/21 22:15	
2-Chlorotoluene	ND U	2.0	1	02/22/21 22:15	
4-Chlorotoluene	ND U	2.0	1	02/22/21 22:15	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 22:15	
Dibromochloromethane	ND U	0.50	1	02/22/21 22:15	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 22:15	
Dibromomethane	ND U	0.50	1	02/22/21 22:15	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 22:15	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 22:15	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 22:15	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 22:15	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 22:15	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 22:15	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 22:15	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 22:15	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 22:15	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 22:15	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 22:15	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 22:15	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 22:15	
Ethylbenzene	ND U	0.50	1	02/22/21 22:15	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 22:15	
2-Hexanone	ND U	20	1	02/22/21 22:15	
Isopropylbenzene	ND U	2.0	1	02/22/21 22:15	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 22:15	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21 14:35  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021721-04-5D  
**Lab Code:** K2101511-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 22:15	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 22:15	
Methylene Chloride	ND U	2.0	1	02/22/21 22:15	
Naphthalene	ND U	2.0	1	02/22/21 22:15	
n-Propylbenzene	ND U	2.0	1	02/22/21 22:15	
Styrene	ND U	0.50	1	02/22/21 22:15	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 22:15	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 22:15	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 22:15	
Toluene	ND U	0.50	1	02/22/21 22:15	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 22:15	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 22:15	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 22:15	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 22:15	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 22:15	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 22:15	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 22:15	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 22:15	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 22:15	
Vinyl Chloride	ND U	0.50	1	02/22/21 22:15	
o-Xylene	ND U	0.50	1	02/22/21 22:15	
m,p-Xylenes	ND U	0.50	1	02/22/21 22:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	68 - 117	02/22/21 22:15	
Dibromofluoromethane	95	73 - 122	02/22/21 22:15	
Toluene-d8	101	65 - 144	02/22/21 22:15	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/18/21 08:35  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021821-01-10DR  
**Lab Code:** K2101511-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 22:42	*
Benzene	ND U	0.50	1	02/22/21 22:42	
Bromobenzene	ND U	2.0	1	02/22/21 22:42	
Bromochloromethane	ND U	0.50	1	02/22/21 22:42	
Bromodichloromethane	ND U	0.50	1	02/22/21 22:42	
Bromoform	ND U	0.50	1	02/22/21 22:42	
Bromomethane	ND U	0.50	1	02/22/21 22:42	
2-Butanone (MEK)	ND U	20	1	02/22/21 22:42	
n-Butylbenzene	ND U	4.0	1	02/22/21 22:42	
sec-Butylbenzene	ND U	2.0	1	02/22/21 22:42	
tert-Butylbenzene	ND U	2.0	1	02/22/21 22:42	
Carbon Disulfide	ND U	0.50	1	02/22/21 22:42	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 22:42	
Chlorobenzene	ND U	0.50	1	02/22/21 22:42	
Chloroethane	ND U	0.50	1	02/22/21 22:42	
Chloroform	ND U	0.50	1	02/22/21 22:42	
Chloromethane	ND U	0.50	1	02/22/21 22:42	
2-Chlorotoluene	ND U	2.0	1	02/22/21 22:42	
4-Chlorotoluene	ND U	2.0	1	02/22/21 22:42	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 22:42	
Dibromochloromethane	ND U	0.50	1	02/22/21 22:42	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 22:42	
Dibromomethane	ND U	0.50	1	02/22/21 22:42	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 22:42	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 22:42	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 22:42	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 22:42	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 22:42	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 22:42	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 22:42	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 22:42	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 22:42	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 22:42	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 22:42	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 22:42	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 22:42	
Ethylbenzene	ND U	0.50	1	02/22/21 22:42	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 22:42	
2-Hexanone	ND U	20	1	02/22/21 22:42	
Isopropylbenzene	ND U	2.0	1	02/22/21 22:42	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 22:42	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/18/21 08:35  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021821-01-10DR  
**Lab Code:** K2101511-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 22:42	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 22:42	
Methylene Chloride	ND U	2.0	1	02/22/21 22:42	
Naphthalene	ND U	2.0	1	02/22/21 22:42	
n-Propylbenzene	ND U	2.0	1	02/22/21 22:42	
Styrene	ND U	0.50	1	02/22/21 22:42	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 22:42	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 22:42	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 22:42	
Toluene	ND U	0.50	1	02/22/21 22:42	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 22:42	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 22:42	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 22:42	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 22:42	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 22:42	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 22:42	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 22:42	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 22:42	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 22:42	
Vinyl Chloride	ND U	0.50	1	02/22/21 22:42	
o-Xylene	ND U	0.50	1	02/22/21 22:42	
m,p-Xylenes	ND U	0.50	1	02/22/21 22:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/22/21 22:42	
Dibromofluoromethane	94	73 - 122	02/22/21 22:42	
Toluene-d8	99	65 - 144	02/22/21 22:42	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:00  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021821-02-FB  
**Lab Code:** K2101511-007

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 23:08	*
Benzene	ND U	0.50	1	02/22/21 23:08	
Bromobenzene	ND U	2.0	1	02/22/21 23:08	
Bromochloromethane	ND U	0.50	1	02/22/21 23:08	
Bromodichloromethane	ND U	0.50	1	02/22/21 23:08	
Bromoform	ND U	0.50	1	02/22/21 23:08	
Bromomethane	ND U	0.50	1	02/22/21 23:08	
2-Butanone (MEK)	ND U	20	1	02/22/21 23:08	
n-Butylbenzene	ND U	4.0	1	02/22/21 23:08	
sec-Butylbenzene	ND U	2.0	1	02/22/21 23:08	
tert-Butylbenzene	ND U	2.0	1	02/22/21 23:08	
Carbon Disulfide	ND U	0.50	1	02/22/21 23:08	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 23:08	
Chlorobenzene	ND U	0.50	1	02/22/21 23:08	
Chloroethane	ND U	0.50	1	02/22/21 23:08	
Chloroform	1.4	0.50	1	02/22/21 23:08	
Chloromethane	ND U	0.50	1	02/22/21 23:08	
2-Chlorotoluene	ND U	2.0	1	02/22/21 23:08	
4-Chlorotoluene	ND U	2.0	1	02/22/21 23:08	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 23:08	
Dibromochloromethane	ND U	0.50	1	02/22/21 23:08	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 23:08	
Dibromomethane	ND U	0.50	1	02/22/21 23:08	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 23:08	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 23:08	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 23:08	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 23:08	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 23:08	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 23:08	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 23:08	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 23:08	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 23:08	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 23:08	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 23:08	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 23:08	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 23:08	
Ethylbenzene	ND U	0.50	1	02/22/21 23:08	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 23:08	
2-Hexanone	ND U	20	1	02/22/21 23:08	
Isopropylbenzene	ND U	2.0	1	02/22/21 23:08	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 23:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:00  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021821-02-FB  
**Lab Code:** K2101511-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 23:08	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 23:08	
Methylene Chloride	ND U	2.0	1	02/22/21 23:08	
Naphthalene	ND U	2.0	1	02/22/21 23:08	
n-Propylbenzene	ND U	2.0	1	02/22/21 23:08	
Styrene	ND U	0.50	1	02/22/21 23:08	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 23:08	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 23:08	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 23:08	
Toluene	ND U	0.50	1	02/22/21 23:08	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 23:08	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 23:08	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 23:08	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 23:08	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 23:08	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 23:08	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 23:08	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 23:08	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 23:08	
Vinyl Chloride	ND U	0.50	1	02/22/21 23:08	
o-Xylene	ND U	0.50	1	02/22/21 23:08	
m,p-Xylenes	ND U	0.50	1	02/22/21 23:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	02/22/21 23:08	
Dibromofluoromethane	97	73 - 122	02/22/21 23:08	
Toluene-d8	99	65 - 144	02/22/21 23:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:30  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 23:35	*
Benzene	ND U	0.50	1	02/22/21 23:35	
Bromobenzene	ND U	2.0	1	02/22/21 23:35	
Bromochloromethane	ND U	0.50	1	02/22/21 23:35	
Bromodichloromethane	ND U	0.50	1	02/22/21 23:35	
Bromoform	ND U	0.50	1	02/22/21 23:35	
Bromomethane	ND U	0.50	1	02/22/21 23:35	
2-Butanone (MEK)	ND U	20	1	02/22/21 23:35	
n-Butylbenzene	ND U	4.0	1	02/22/21 23:35	
sec-Butylbenzene	ND U	2.0	1	02/22/21 23:35	
tert-Butylbenzene	ND U	2.0	1	02/22/21 23:35	
Carbon Disulfide	ND U	0.50	1	02/22/21 23:35	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 23:35	
Chlorobenzene	ND U	0.50	1	02/22/21 23:35	
Chloroethane	ND U	0.50	1	02/22/21 23:35	
Chloroform	ND U	0.50	1	02/22/21 23:35	
Chloromethane	ND U	0.50	1	02/22/21 23:35	
2-Chlorotoluene	ND U	2.0	1	02/22/21 23:35	
4-Chlorotoluene	ND U	2.0	1	02/22/21 23:35	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 23:35	
Dibromochloromethane	ND U	0.50	1	02/22/21 23:35	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 23:35	
Dibromomethane	ND U	0.50	1	02/22/21 23:35	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 23:35	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 23:35	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 23:35	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 23:35	*
1,1-Dichloroethane	ND U	0.50	1	02/22/21 23:35	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 23:35	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 23:35	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 23:35	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 23:35	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 23:35	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 23:35	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 23:35	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 23:35	
Ethylbenzene	ND U	0.50	1	02/22/21 23:35	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 23:35	
2-Hexanone	ND U	20	1	02/22/21 23:35	
Isopropylbenzene	ND U	2.0	1	02/22/21 23:35	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 23:35	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:30  
**Date Received:** 02/18/21 11:45

**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 23:35	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 23:35	
Methylene Chloride	ND U	2.0	1	02/22/21 23:35	
Naphthalene	ND U	2.0	1	02/22/21 23:35	
n-Propylbenzene	ND U	2.0	1	02/22/21 23:35	
Styrene	ND U	0.50	1	02/22/21 23:35	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 23:35	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 23:35	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 23:35	
Toluene	ND U	0.50	1	02/22/21 23:35	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 23:35	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 23:35	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 23:35	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 23:35	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 23:35	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 23:35	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 23:35	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 23:35	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 23:35	
Vinyl Chloride	ND U	0.50	1	02/22/21 23:35	
o-Xylene	ND U	0.50	1	02/22/21 23:35	
m,p-Xylenes	ND U	0.50	1	02/22/21 23:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	02/22/21 23:35	
Dibromofluoromethane	96	73 - 122	02/22/21 23:35	
Toluene-d8	97	65 - 144	02/22/21 23:35	



# Metals

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002

**Service Request:** K2101511  
**Date Collected:** 02/17/21 11:20  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 13:34	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 13:34	02/24/21	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-02-13D  
**Lab Code:** K2101511-003

**Service Request:** K2101511  
**Date Collected:** 02/17/21 12:25  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 13:45	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 13:45	02/24/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Service Request:** K2101511  
**Date Collected:** 02/17/21 13:20  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 13:48	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 13:48	02/24/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-04-5D  
**Lab Code:** K2101511-005

**Service Request:** K2101511  
**Date Collected:** 02/17/21 14:35  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 13:51	02/24/21	
Manganese	6010C	2.5	ug/L	1.1	1	02/25/21 13:51	02/24/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-01-10DR  
**Lab Code:** K2101511-006

**Service Request:** K2101511  
**Date Collected:** 02/18/21 08:35  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 13:53	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 13:53	02/24/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-02-FB  
**Lab Code:** K2101511-007

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:00  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 14:07	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 14:07	02/24/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:30  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 14:09	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 14:09	02/24/21	



## General Chemistry

**ALS Environmental—Kelso Laboratory**  
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[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002

**Service Request:** K2101511  
**Date Collected:** 02/17/21 11:20  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Chloride	300.0	<b>7.21</b>	mg/L	0.20	2	02/18/21 19:17	
Nitrate as Nitrogen	300.0	<b>3.89</b>	mg/L	0.10	2	02/18/21 19:17	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002

**Service Request:** K2101511  
**Date Collected:** 02/17/21 11:20  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	207	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-02-13D  
**Lab Code:** K2101511-003

**Service Request:** K2101511  
**Date Collected:** 02/17/21 12:25  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	5.05	mg/L	0.20	2	02/18/21 19:29	
Nitrate as Nitrogen	300.0	4.78	mg/L	0.10	2	02/18/21 19:29	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-02-13D  
**Lab Code:** K2101511-003

**Service Request:** K2101511  
**Date Collected:** 02/17/21 12:25  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	179	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Service Request:** K2101511  
**Date Collected:** 02/17/21 13:20  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Chloride	300.0	<b>6.21</b>	mg/L	0.20	2	02/18/21 20:04	
Nitrate as Nitrogen	300.0	<b>5.55</b>	mg/L	0.10	2	02/18/21 20:04	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Service Request:** K2101511  
**Date Collected:** 02/17/21 13:20  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	197	mg/L	5.0	1	02/20/21 09:20	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-04-5D  
**Lab Code:** K2101511-005

**Service Request:** K2101511  
**Date Collected:** 02/17/21 14:35  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Chloride	300.0	<b>7.98</b>	mg/L	0.20	2	02/18/21 21:14	
Nitrate as Nitrogen	300.0	<b>0.96</b>	mg/L	0.10	2	02/18/21 21:14	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021721-04-5D  
**Lab Code:** K2101511-005

**Service Request:** K2101511  
**Date Collected:** 02/17/21 14:35  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	215	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-01-10DR  
**Lab Code:** K2101511-006

**Service Request:** K2101511  
**Date Collected:** 02/18/21 08:35  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	7.25	mg/L	0.20	2	02/18/21 21:26	
Nitrate as Nitrogen	300.0	3.79	mg/L	0.10	2	02/18/21 21:26	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-01-10DR  
**Lab Code:** K2101511-006

**Service Request:** K2101511  
**Date Collected:** 02/18/21 08:35  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	200	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-02-FB  
**Lab Code:** K2101511-007

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:00  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.20	2	02/18/21 21:37	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.10	2	02/18/21 21:37	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-02-FB  
**Lab Code:** K2101511-007

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:00  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:30  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	6.55	mg/L	0.20	2	02/18/21 21:49	
Nitrate as Nitrogen	300.0	6.34	mg/L	0.10	2	02/18/21 21:49	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-03-10SR  
**Lab Code:** K2101511-008

**Service Request:** K2101511  
**Date Collected:** 02/18/21 09:30  
**Date Received:** 02/18/21 11:45  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	206	mg/L	5.0	1	02/20/21 09:20	



## QC Summary Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Extraction Method:** None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68-117	73-122	65-144
Trip Blanks	K2101511-001	83	97	101
LB-021721-01-27D	K2101511-002	82	96	99
LB-021721-02-13D	K2101511-003	83	96	99
LB-021721-03-26D	K2101511-004	84	94	96
LB-021721-04-5D	K2101511-005	85	95	101
LB-021821-01-10DR	K2101511-006	87	94	99
LB-021821-02-FB	K2101511-007	82	97	99
LB-021821-03-10SR	K2101511-008	82	96	97
Method Blank	KQ2102604-05	90	92	96
Lab Control Sample	KQ2102604-03	93	96	100
Duplicate Lab Control Sample	KQ2102604-04	91	94	99
LB-021721-01-27D	KQ2102604-06	92	94	100
LB-021721-01-27D	KQ2102604-07	91	99	101



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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21  
**Date Received:** 02/18/21  
**Date Analyzed:** 02/23/21  
**Date Extracted:** NA

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002  
**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA

Analyte Name	Sample Result	Matrix Spike KQ2102604-06			Duplicate Matrix Spike KQ2102604-07			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Acetone	ND U	55.3	50.0	111	74.3	50.0	149 *	68-134	29	30
Benzene	ND U	8.86	10.0	89	11.0	10.0	110	63-144	21	30
Bromobenzene	ND U	8.31	10.0	83	11.2	10.0	112	72-122	30	30
Bromochloromethane	ND U	8.76	10.0	88	11.2	10.0	112	73-135	25	30
Bromodichloromethane	ND U	8.86	10.0	89	11.5	10.0	115	61-134	26	30
Bromoform	ND U	7.97	10.0	80	10.5	10.0	105	54-140	27	30
Bromomethane	ND U	8.13	10.0	81	10.7	10.0	107	36-127	27	30
2-Butanone (MEK)	ND U	46.6	50.0	93	63.9	50.0	128	65-147	31*	30
n-Butylbenzene	ND U	8.46	10.0	85	10.9	10.0	109	52-144	25	30
sec-Butylbenzene	ND U	8.79	10.0	88	11.4	10.0	114	56-142	26	30
tert-Butylbenzene	ND U	8.56	10.0	86	11.1	10.0	111	59-139	26	30
Carbon Disulfide	ND U	18.9	20.0	94	23.4	20.0	117	52-156	22	30
Carbon Tetrachloride	ND U	9.02	10.0	90	11.7	10.0	117	53-161	26	30
Chlorobenzene	ND U	8.47	10.0	85	10.3	10.0	103	69-126	19	30
Chloroethane	ND U	11.3	10.0	113	13.5	10.0	135	56-147	18	30
Chloroform	ND U	8.66	10.0	87	11.1	10.0	111	64-133	24	30
Chloromethane	ND U	9.96	10.0	100	11.8	10.0	118	49-127	17	30
2-Chlorotoluene	ND U	8.75	10.0	88	11.1	10.0	111	55-139	23	30
4-Chlorotoluene	ND U	8.77	10.0	88	11.2	10.0	112	57-138	24	30
1,2-Dibromo-3-chloropropane	ND U	7.38	10.0	74	9.21	10.0	92	59-133	22	30
Dibromochloromethane	ND U	8.94	10.0	89	11.3	10.0	113	68-125	23	30
1,2-Dibromoethane (EDB)	ND U	7.66	10.0	77	9.74	10.0	97	73-122	24	30
Dibromomethane	ND U	8.53	10.0	85	11.5	10.0	115	68-132	30	30
1,2-Dichlorobenzene	ND U	8.33	10.0	83	11.2	10.0	112	72-119	29	30
1,3-Dichlorobenzene	ND U	8.44	10.0	84	11.0	10.0	110	70-121	26	30
1,4-Dichlorobenzene	ND U	8.15	10.0	82	10.7	10.0	107	72-121	27	30
Dichlorodifluoromethane	ND U	11.0	10.0	110	13.1	10.0	131	29-133	17	30
1,1-Dichloroethane	ND U	8.60	10.0	86	11.2	10.0	112	69-141	26	30
cis-1,2-Dichloroethene	ND U	8.01	10.0	80	10.6	10.0	106	61-139	28	30
trans-1,2-Dichloroethene	ND U	8.43	10.0	84	11.1	10.0	111	65-143	27	30
1,2-Dichloropropane	ND U	8.40	10.0	84	10.7	10.0	107	63-131	24	30
1,3-Dichloropropane	ND U	8.37	10.0	84	10.6	10.0	106	74-121	24	30
2,2-Dichloropropane	ND U	5.92	10.0	59	7.92	10.0	79	39-161	29	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21  
**Date Received:** 02/18/21  
**Date Analyzed:** 02/23/21  
**Date Extracted:** NA

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002  
**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA

Analyte Name	Sample Result	Matrix Spike KQ2102604-06			Duplicate Matrix Spike KQ2102604-07			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1-Dichloropropene	ND U	8.84	10.0	88	11.4	10.0	114	61-148	25	30
cis-1,3-Dichloropropene	ND U	8.09	10.0	81	10.8	10.0	108	66-134	28	30
trans-1,3-Dichloropropene	ND U	6.52	10.0	65	8.67	10.0	87	56-127	28	30
Ethylbenzene	ND U	7.93	10.0	79	9.95	10.0	100	66-136	23	30
Hexachlorobutadiene	ND U	7.94	10.0	79	11.1	10.0	111	60-132	33*	30
2-Hexanone	ND U	39.8	50.0	80	59.7	50.0	119	53-132	40*	30
Isopropylbenzene	ND U	8.35	10.0	84	10.4	10.0	104	58-144	22	30
4-Isopropyltoluene	ND U	8.67	10.0	87	11.4	10.0	114	57-141	27	30
Methyl tert-Butyl Ether	ND U	7.82	10.0	78	11.2	10.0	112	54-126	35*	30
4-Methyl-2-pentanone (MIBK)	ND U	45.4	50.0	91	62.0	50.0	124	64-139	31*	30
Methylene Chloride	ND U	8.96	10.0	90	10.7	10.0	107	70-133	17	30
Naphthalene	ND U	6.19	10.0	62	9.71	10.0	97	52-147	44*	30
n-Propylbenzene	ND U	8.81	10.0	88	11.5	10.0	115	55-144	26	30
Styrene	ND U	8.00	10.0	80	10.2	10.0	102	66-131	24	30
1,1,1,2-Tetrachloroethane	ND U	8.35	10.0	84	10.7	10.0	107	67-127	25	30
1,1,2,2-Tetrachloroethane	ND U	8.52	10.0	85	12.2	10.0	122	72-129	36*	30
Tetrachloroethene (PCE)	ND U	8.23	10.0	82	9.93	10.0	99	61-131	19	30
Toluene	ND U	8.86	10.0	89	11.5	10.0	115	71-136	26	30
1,2,3-Trichlorobenzene	ND U	6.98	10.0	70	10.3	10.0	103	57-137	38*	30
1,2,4-Trichlorobenzene	ND U	7.32	10.0	73	10.0	10.0	100	57-133	31*	30
1,1,2-Trichloroethane	ND U	8.22	10.0	82	10.1	10.0	101	74-124	21	30
1,1,1-Trichloroethane (TCA)	ND U	8.49	10.0	85	10.9	10.0	109	57-151	25	30
Trichloroethene (TCE)	ND U	8.53	10.0	85	10.9	10.0	109	53-139	24	30
Trichlorofluoromethane (CFC 11)	ND U	8.97	10.0	90	11.2	10.0	112	45-124	22	30
1,2,3-Trichloropropane	ND U	8.75	10.0	88	12.3	10.0	123	71-127	33*	30
1,2,4-Trimethylbenzene	ND U	8.51	10.0	85	11.2	10.0	112	61-132	27	30
1,3,5-Trimethylbenzene	ND U	8.44	10.0	84	11.0	10.0	110	60-136	27	30
Vinyl Chloride	ND U	10.6	10.0	106	12.9	10.0	129	49-136	19	30
o-Xylene	ND U	8.06	10.0	81	10.2	10.0	102	67-127	23	30
m,p-Xylenes	ND U	16.2	20.0	81	20.1	20.0	100	67-135	21	30

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2102604-05

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/22/21 16:30	
Benzene	ND U	0.50	1	02/22/21 16:30	
Bromobenzene	ND U	2.0	1	02/22/21 16:30	
Bromochloromethane	ND U	0.50	1	02/22/21 16:30	
Bromodichloromethane	ND U	0.50	1	02/22/21 16:30	
Bromoform	ND U	0.50	1	02/22/21 16:30	
Bromomethane	ND U	0.50	1	02/22/21 16:30	
2-Butanone (MEK)	ND U	20	1	02/22/21 16:30	
n-Butylbenzene	ND U	4.0	1	02/22/21 16:30	
sec-Butylbenzene	ND U	2.0	1	02/22/21 16:30	
tert-Butylbenzene	ND U	2.0	1	02/22/21 16:30	
Carbon Disulfide	ND U	0.50	1	02/22/21 16:30	
Carbon Tetrachloride	ND U	0.50	1	02/22/21 16:30	
Chlorobenzene	ND U	0.50	1	02/22/21 16:30	
Chloroethane	ND U	0.50	1	02/22/21 16:30	
Chloroform	ND U	0.50	1	02/22/21 16:30	
Chloromethane	ND U	0.50	1	02/22/21 16:30	
2-Chlorotoluene	ND U	2.0	1	02/22/21 16:30	
4-Chlorotoluene	ND U	2.0	1	02/22/21 16:30	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/22/21 16:30	
Dibromochloromethane	ND U	0.50	1	02/22/21 16:30	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/22/21 16:30	
Dibromomethane	ND U	0.50	1	02/22/21 16:30	
1,2-Dichlorobenzene	ND U	0.50	1	02/22/21 16:30	
1,3-Dichlorobenzene	ND U	0.50	1	02/22/21 16:30	
1,4-Dichlorobenzene	ND U	0.50	1	02/22/21 16:30	
Dichlorodifluoromethane	ND U	0.50	1	02/22/21 16:30	
1,1-Dichloroethane	ND U	0.50	1	02/22/21 16:30	
cis-1,2-Dichloroethene	ND U	0.50	1	02/22/21 16:30	
trans-1,2-Dichloroethene	ND U	0.50	1	02/22/21 16:30	
1,2-Dichloropropane	ND U	0.50	1	02/22/21 16:30	
1,3-Dichloropropane	ND U	0.50	1	02/22/21 16:30	
2,2-Dichloropropane	ND U	0.50	1	02/22/21 16:30	
1,1-Dichloropropene	ND U	0.50	1	02/22/21 16:30	
cis-1,3-Dichloropropene	ND U	0.50	1	02/22/21 16:30	
trans-1,3-Dichloropropene	ND U	0.50	1	02/22/21 16:30	
Ethylbenzene	ND U	0.50	1	02/22/21 16:30	
Hexachlorobutadiene	ND U	2.0	1	02/22/21 16:30	
2-Hexanone	ND U	20	1	02/22/21 16:30	
Isopropylbenzene	ND U	2.0	1	02/22/21 16:30	
4-Isopropyltoluene	ND U	2.0	1	02/22/21 16:30	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2102604-05

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/22/21 16:30	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/22/21 16:30	
Methylene Chloride	ND U	2.0	1	02/22/21 16:30	
Naphthalene	ND U	2.0	1	02/22/21 16:30	
n-Propylbenzene	ND U	2.0	1	02/22/21 16:30	
Styrene	ND U	0.50	1	02/22/21 16:30	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/22/21 16:30	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/22/21 16:30	
Tetrachloroethene (PCE)	ND U	0.50	1	02/22/21 16:30	
Toluene	ND U	0.50	1	02/22/21 16:30	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/22/21 16:30	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/22/21 16:30	
1,1,2-Trichloroethane	ND U	0.50	1	02/22/21 16:30	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/22/21 16:30	
Trichloroethene (TCE)	ND U	0.50	1	02/22/21 16:30	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/22/21 16:30	
1,2,3-Trichloropropane	ND U	0.50	1	02/22/21 16:30	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/22/21 16:30	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/22/21 16:30	
Vinyl Chloride	ND U	0.50	1	02/22/21 16:30	
o-Xylene	ND U	0.50	1	02/22/21 16:30	
m,p-Xylenes	ND U	0.50	1	02/22/21 16:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	68 - 117	02/22/21 16:30	
Dibromofluoromethane	92	73 - 122	02/22/21 16:30	
Toluene-d8	96	65 - 144	02/22/21 16:30	

ALS Group USA, Corp.  
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QA/QC Report

**Client:** SCS Engineers  
**Project:** Lechner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Analyzed:** 02/22/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 713756

Analyte Name	Lab Control Sample KQ2102604-03			Duplicate Lab Control Sample KQ2102604-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	9.32	10.0	93	9.75	10.0	98	66-124	5	30
1,1,1-Trichloroethane (TCA)	8.51	10.0	85	7.91	10.0	79	59-136	7	30
1,1,2,2-Tetrachloroethane	10.2	10.0	102	10.7	10.0	107	70-127	5	30
1,1,2-Trichloroethane	9.67	10.0	97	10.0	10.0	100	74-118	4	30
1,1-Dichloroethane	9.53	10.0	95	8.93	10.0	89	68-132	7	30
1,1-Dichloropropene	8.56	10.0	86	8.03	10.0	80	59-134	6	30
1,2,3-Trichlorobenzene	9.52	10.0	95	9.95	10.0	100	68-120	4	30
1,2,3-Trichloropropane	10.5	10.0	105	11.6	10.0	116	69-123	10	30
1,2,4-Trichlorobenzene	9.23	10.0	92	9.37	10.0	94	58-126	2	30
1,2,4-Trimethylbenzene	9.61	10.0	96	9.27	10.0	93	63-122	4	30
1,2-Dibromo-3-chloropropane	10.5	10.0	105	8.87	10.0	89	55-132	17	30
1,2-Dibromoethane (EDB)	9.17	10.0	92	10.1	10.0	101	74-118	9	30
1,2-Dichlorobenzene	9.94	10.0	99	10.1	10.0	101	72-115	2	30
1,2-Dichloropropane	9.09	10.0	91	9.31	10.0	93	67-126	2	30
1,3,5-Trimethylbenzene	9.14	10.0	91	9.05	10.0	91	62-126	<1	30
1,3-Dichlorobenzene	9.43	10.0	94	9.61	10.0	96	70-116	2	30
1,3-Dichloropropane	9.69	10.0	97	10.1	10.0	101	75-116	4	30
1,4-Dichlorobenzene	9.54	10.0	95	9.68	10.0	97	73-115	1	30
2,2-Dichloropropane	6.91	10.0	69	6.10	10.0	61	37-145	12	30
2-Butanone (MEK)	59.9	50.0	120	58.9	50.0	118	71-149	2	30
2-Chlorotoluene	9.66	10.0	97	9.21	10.0	92	55-131	5	30
2-Hexanone	51.6	50.0	103	57.2	50.0	114	59-131	10	30
4-Chlorotoluene	9.89	10.0	99	9.78	10.0	98	66-121	1	30
4-Isopropyltoluene	9.30	10.0	93	8.89	10.0	89	61-128	5	30
4-Methyl-2-pentanone (MIBK)	52.4	50.0	105	55.8	50.0	112	64-134	6	30
Acetone	66.1	50.0	132	64.6	50.0	129	68-135	2	30
Benzene	8.98	10.0	90	8.79	10.0	88	69-124	2	30
Bromobenzene	9.69	10.0	97	10.0	10.0	100	72-116	3	30
Bromochloromethane	9.76	10.0	98	9.53	10.0	95	75-131	2	30
Bromodichloromethane	9.97	10.0	100	10.0	10.0	100	63-129	<1	30
Bromoform	10.0	10.0	100	10.5	10.0	105	52-144	4	30
Bromomethane	8.84	10.0	88	8.06	10.0	81	35-113	9	30
Carbon Disulfide	17.9	20.0	90	16.6	20.0	83	46-144	7	30
Carbon Tetrachloride	9.08	10.0	91	8.15	10.0	82	55-140	11	30
Chlorobenzene	9.50	10.0	95	9.43	10.0	94	72-116	<1	30
Chloroethane	10.8	10.0	108	10.1	10.0	101	58-134	7	30
Chloroform	9.33	10.0	93	9.33	10.0	93	70-129	<1	30
Chloromethane	9.74	10.0	97	9.27	10.0	93	34-130	5	30
cis-1,2-Dichloroethene	9.00	10.0	90	8.85	10.0	89	71-118	2	30
cis-1,3-Dichloropropene	9.47	10.0	95	9.55	10.0	96	62-132	<1	30
Dibromochloromethane	10.5	10.0	105	10.8	10.0	108	67-126	3	30

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Analyzed:** 02/22/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 713756

Analyte Name	Lab Control Sample KQ2102604-03			Duplicate Lab Control Sample KQ2102604-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dibromomethane	9.38	10.0	94	9.63	10.0	96	69-128	3	30
Dichlorodifluoromethane	10.2	10.0	102	8.59	10.0	86	32-124	17	30
Ethylbenzene	8.39	10.0	84	8.47	10.0	85	67-121	<1	30
Hexachlorobutadiene	9.35	10.0	94	8.71	10.0	87	57-119	7	30
Isopropylbenzene	8.78	10.0	88	8.26	10.0	83	67-129	6	30
m,p-Xylenes	17.2	20.0	86	16.8	20.0	84	69-121	2	30
Methyl tert-Butyl Ether	9.39	10.0	94	9.50	10.0	95	54-126	1	30
Methylene Chloride	9.24	10.0	92	9.58	10.0	96	71-122	4	30
Naphthalene	9.34	10.0	93	9.20	10.0	92	64-126	2	30
n-Butylbenzene	9.05	10.0	91	8.56	10.0	86	55-130	6	30
n-Propylbenzene	9.34	10.0	93	8.88	10.0	89	61-124	5	30
o-Xylene	8.75	10.0	88	8.97	10.0	90	71-119	2	30
sec-Butylbenzene	8.86	10.0	89	8.58	10.0	86	59-128	3	30
Styrene	9.35	10.0	94	9.40	10.0	94	74-121	<1	30
tert-Butylbenzene	8.99	10.0	90	8.50	10.0	85	61-127	6	30
Tetrachloroethene (PCE)	8.70	10.0	87	8.07	10.0	81	62-126	8	30
Toluene	9.16	10.0	92	8.97	10.0	90	69-124	2	30
trans-1,2-Dichloroethene	8.69	10.0	87	8.36	10.0	84	67-125	4	30
trans-1,3-Dichloropropene	8.54	10.0	85	8.55	10.0	86	59-125	<1	30
Trichloroethene (TCE)	8.65	10.0	87	8.50	10.0	85	67-128	2	30
Trichlorofluoromethane (CFC 11)	8.08	10.0	81	6.85	10.0	69	52-141	16	30
Vinyl Chloride	9.71	10.0	97	8.85	10.0	89	55-123	9	30



# Metals

**ALS Environmental—Kelso Laboratory**  
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Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2102371-02

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/25/21 13:29	02/24/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/25/21 13:29	02/24/21	



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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21  
**Date Received:** 02/18/21  
**Date Analyzed:** 02/25/21  
**Date Extracted:** 02/24/21

**Matrix Spike Summary**  
**Dissolved Metals**

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002  
**Analysis Method:** 6010C  
**Prep Method:** EPA CLP ILM04.0

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
KQ2102371-04

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Iron	ND U	1010	1000	101	75-125
Manganese	ND U	527	500	105	75-125

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21  
**Date Received:** 02/18/21  
**Date Analyzed:** 02/25/21

Replicate Sample Summary

Dissolved Metals

**Sample Name:** LB-021721-01-27D  
**Lab Code:** K2101511-002

**Units:** ug/L  
**Basis:** NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
				KQ2102371-03 Result			
Iron	6010C	21	ND U	ND U	ND	-	20
Manganese	6010C	1.1	ND U	ND U	ND	-	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Analyzed:** 02/25/21

**Lab Control Sample Summary**  
**Dissolved Metals**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
KQ2102371-01

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Iron	6010C	2540	2500	102	80-120
Manganese	6010C	1350	1250	108	80-120



## General Chemistry

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[www.alsglobal.com](http://www.alsglobal.com)

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101511-MB1

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	02/18/21 10:08	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	02/18/21 10:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101511-MB1

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101511-MB2

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	02/18/21 21:02	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	02/18/21 21:02	

ALS Group USA, Corp.  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101511-MB2

**Service Request:** K2101511  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 09:20	



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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:**K2101511  
**Date Collected:**02/17/21  
**Date Received:**02/18/21  
**Date Analyzed:**2/18/21

**Duplicate Matrix Spike Summary  
General Chemistry Parameters**

**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Units:**mg/L  
**Basis:**NA

Analyte Name	Method	Matrix Spike K2101511-004MS					Duplicate Matrix Spike K2101511-004DMS				
		Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Chloride	300.0	6.21	14.2	8.00	99	14.3	8.00	101	90-110	<1	20
Nitrate as Nitrogen	300.0	5.55	13.4	8.00	98	13.5	8.00	99	90-110	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Collected:** 02/17/21  
**Date Received:** 02/18/21  
**Date Analyzed:** 02/18/21

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** LB-021721-03-26D  
**Lab Code:** K2101511-004

**Units:** mg/L  
**Basis:** NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
				K2101511-004DUP Result			
Chloride	300.0	0.20	6.21	6.17	6.19	<1	20
Nitrate as Nitrogen	300.0	0.10	5.55	5.51	5.53	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Analyzed:** 02/18/21 - 02/20/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2101511-LCS1

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	4.93	5.00	99	90-110
Nitrate as Nitrogen	300.0	2.36	2.50	95	90-110
Solids, Total Dissolved	SM 2540 C	928	922	101	85-115

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101511  
**Date Analyzed:** 02/18/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2101511-LCS2

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	4.95	5.00	99	90-110
Nitrate as Nitrogen	300.0	2.37	2.50	95	90-110





February 26, 2021

Service Request No:K2101575

David Lamadrid  
SCS Engineers  
15940 SW 72nd Ave  
Portland, OR 97224

**Laboratory Results for: Leichner Landfill**

Dear David,

Enclosed are the results of the sample(s) submitted to our laboratory February 19, 2021  
For your reference, these analyses have been assigned our service request number **K2101575**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

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# Narrative Documents

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[www.alsglobal.com](http://www.alsglobal.com)



**Client:** SCS Engineers  
**Project:** Lechner Landfill  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Received:** 02/19/2021

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

#### Sample Receipt:

Twelve ground water samples were received for analysis at ALS Environmental on 02/19/2021. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

#### Metals:

No significant anomalies were noted with this analysis.

#### General Chemistry:

No significant anomalies were noted with this analysis.

#### Volatiles by GC/MS:

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS27\0223F003.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The advisory criterion was exceeded for Bromomethane in Laboratory Control Sample (LCS) KQ2102778-03. As per the ALS/Kelso Standard Operating Procedure (SOP) for this method, this compound is not included in the subset of analytes used to control the analysis. The recovery information reported for this analyte is for advisory purposes only. No further corrective action was required.

Approved by

A handwritten signature in black ink, appearing to read "Howard Johnson", written over a horizontal line.

Date

02/26/2021





**SAMPLE DETECTION SUMMARY**

**CLIENT ID: LB-021821-04-1D** **Lab ID: K2101575-002**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	170			5.0	mg/L	SM 2540 C
Chloride	6.10			0.20	mg/L	300.0
Nitrate as Nitrogen	5.65			0.10	mg/L	300.0

**CLIENT ID: LB-021821-05-1S** **Lab ID: K2101575-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	190			5.0	mg/L	SM 2540 C
Chloride	5.67			0.20	mg/L	300.0
Nitrate as Nitrogen	3.91			0.10	mg/L	300.0

**CLIENT ID: LB-021821-06-DUP1** **Lab ID: K2101575-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	198			5.0	mg/L	SM 2540 C
Chloride	5.69			0.20	mg/L	300.0
Nitrate as Nitrogen	3.92			0.10	mg/L	300.0

**CLIENT ID: LB-021821-07-3D** **Lab ID: K2101575-005**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	171			5.0	mg/L	SM 2540 C
Chloride	10.1			0.40	mg/L	300.0
Nitrate as Nitrogen	9.14			0.20	mg/L	300.0

**CLIENT ID: LB-021821-08-3S** **Lab ID: K2101575-006**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	148			5.0	mg/L	SM 2540 C
Chloride	7.00			0.40	mg/L	300.0
Nitrate as Nitrogen	6.82			0.20	mg/L	300.0

**CLIENT ID: LB-021821-09-17D** **Lab ID: K2101575-007**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	200			5.0	mg/L	SM 2540 C
Chloride	11.6			0.40	mg/L	300.0
Iron, Dissolved	106			21	ug/L	6010C
Manganese, Dissolved	4060			1.1	ug/L	6010C

**CLIENT ID: LB-021921-01-20S** **Lab ID: K2101575-008**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	275			5.0	mg/L	SM 2540 C
Chloride	4.61			0.40	mg/L	300.0
Manganese, Dissolved	251			1.1	ug/L	6010C

**CLIENT ID: LB-021921-02-5S** **Lab ID: K2101575-009**

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	140			5.0	mg/L	SM 2540 C
Chloride	6.75			0.40	mg/L	300.0



**SAMPLE DETECTION SUMMARY**

<b>CLIENT ID: LB-021921-02-5S</b>	<b>Lab ID: K2101575-009</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrate as Nitrogen	7.09			0.20	mg/L	300.0

<b>CLIENT ID: LB-021921-03-17I</b>	<b>Lab ID: K2101575-010</b>
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	299			5.0	mg/L	SM 2540 C
Chloride	18.0			0.40	mg/L	300.0
Iron, Dissolved	14500			21	ug/L	6010C
Manganese, Dissolved	2860			1.1	ug/L	6010C

<b>CLIENT ID: LB-021921-04-27I</b>	<b>Lab ID: K2101575-011</b>
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	176			5.0	mg/L	SM 2540 C
Chloride	4.98			0.20	mg/L	300.0
Nitrate as Nitrogen	1.35			0.10	mg/L	300.0
Manganese, Dissolved	79.1			1.1	ug/L	6010C

<b>CLIENT ID: LB-021921-05-DUP2</b>	<b>Lab ID: K2101575-012</b>
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	181			5.0	mg/L	SM 2540 C
Chloride	5.06			0.20	mg/L	300.0
Nitrate as Nitrogen	1.36			0.10	mg/L	300.0
Manganese, Dissolved	82.1			1.1	ug/L	6010C



## Sample Receipt Information

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Lechner Landfill/04221030.13

**Service Request:**K2101575

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2101575-001	Trip Blank	2/18/2021	0950
K2101575-002	LB-021821-04-1D	2/18/2021	1045
K2101575-003	LB-021821-05-1S	2/18/2021	1140
K2101575-004	LB-021821-06-DUP1	2/18/2021	1145
K2101575-005	LB-021821-07-3D	2/18/2021	1300
K2101575-006	LB-021821-08-3S	2/18/2021	1355
K2101575-007	LB-021821-09-17D	2/18/2021	1510
K2101575-008	LB-021921-01-20S	2/19/2021	0810
K2101575-009	LB-021921-02-5S	2/19/2021	0900
K2101575-010	LB-021921-03-17I	2/19/2021	1015
K2101575-011	LB-021921-04-27I	2/19/2021	1125
K2101575-012	LB-021921-05-DUP2	2/19/2021	1130



# CHAIN OF CUSTODY

SR# **K2101575**

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE 1 OF 2 COC# \_\_\_\_\_

PROJECT NAME: <u>Lechner landfill</u>					NUMBER OF CONTAINERS	Semi-volatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>	Hydrocarbons (see below) Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Oil <input type="checkbox"/>	Oil & Grease/TRPH 1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>	Aroclors <input type="checkbox"/> Congeners <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 808 <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> 8141 <input type="checkbox"/> 8151 <input type="checkbox"/>	Metals, Total or Dissolved (See List below) <input type="checkbox"/>	Cyanide <input type="checkbox"/> Hex-Chrom <input type="checkbox"/>	(circle) pH, Cond (Cl, SO <sub>4</sub> , PO <sub>4</sub> , F, NO <sub>2</sub> , NO <sub>3</sub> ), BOD, TSS, TDS, Turb.	(circle) NH <sub>3</sub> -N, COD, TKN, TOC, DOC, NO <sub>2</sub> +NO <sub>3</sub> , T-Phos	TOX-9020 <input type="checkbox"/> AOX-1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Alkalinity <input type="checkbox"/> CO <sub>3</sub> <input type="checkbox"/> HCO <sub>3</sub> <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/> Ethene <input type="checkbox"/>	CO <sub>2</sub> <input type="checkbox"/>	REMARKS																															
PROJECT NUMBER: <u>04221030.13</u>																																																					
PROJECT MANAGER: <u>Barb Lucy / T Andrews</u>																																																					
COMPANY NAME: <u>SCS Engineers</u>																																																					
ADDRESS: <u>15940 SW 72<sup>nd</sup> Ave</u>																																																					
CITY/STATE/ZIP: <u>Portland, OR 97224</u>																																																					
E-MAIL ADDRESS: <u>Tandrews@scsengineers.com</u>																																																					
PHONE # <u>503 724-0112</u> FAX # _____																																																					
SAMPLER'S SIGNATURE: <u>[Signature]</u>																																																					
SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX																																																	
Trip Blank	2-18-21	0950		W	2		X																																														
LB-021821-04-1D	2-18-21	1045		W	5		X					X		X																																							
LB-021821-05-1S	2-18-21	1146		W	5		X					X		X																																							
LB-021821-06-DUP1	2-18-21	1145		W	5		X					X		X																																							
LB-021821-07-3D	2-18-21	1300		W	5		X					X		X																																							
LB-021821-08-3S	2-18-21	1355		W	5		X					X		X																																							
LB-021821-09-17D	2-18-21	1510		W	5		X					X		X																																							
LB-021921-01-20S	2-19-21	0810		W	5		X					X		X																																							
LB-021921-02-5S	2-19-21	0900		W	5		X					X		X																																							
LB-021921-03-17J	2-19-21	1015		W	5		X					X		X																																							

<b>REPORT REQUIREMENTS</b> <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	<b>INVOICE INFORMATION</b> P.O. # _____ Bill To: _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu <u>Fe</u> Pb Mg <u>Mn</u> Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg	
	<b>TURNAROUND REQUIREMENTS</b> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input checked="" type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date _____	<b>*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)</b> SPECIAL INSTRUCTIONS/COMMENTS: <p style="font-size: 2em;">Metals are field filtered</p>	
	<input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)		

Container Supply Number

115140

<b>RELINQUISHED BY:</b> Signature: <u>[Signature]</u> Date/Time: <u>2-19-21 12:11</u> Printed Name: <u>Jan Hulquist</u> Firm: <u>SCS</u>	<b>RECEIVED BY:</b> Signature: <u>[Signature]</u> Date/Time: <u>2/19/21</u> Printed Name: <u>[Signature]</u> Firm: <u>SCS</u>	<b>RELINQUISHED BY:</b> Signature: _____ Date/Time: _____ Printed Name: _____ Firm: _____	<b>RECEIVED BY:</b> Signature: _____ Date/Time: _____ Printed Name: _____ Firm: _____
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# CHAIN OF CUSTODY

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE 2 OF 2 COC#SR# K2101575

PROJECT NAME: Leichter Landfill  
 PROJECT NUMBER: 04221030.13  
 PROJECT MANAGER: Barb Lucy / T Andrews  
 COMPANY NAME: SCS Engineers  
 ADDRESS: 15940 SW 72nd Ave  
 CITY/STATE/ZIP: Portland, OR 97224  
 E-MAIL ADDRESS: Tandrews@scsengineers.com  
 PHONE: 503 724-0112 FAX #  
 SAMPLER'S SIGNATURE: \_\_\_\_\_

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	ANALYSIS PARAMETERS																				REMARKS			
						Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input type="checkbox"/>	Hydrocarbons Gas <input type="checkbox"/> 8021 <input type="checkbox"/>	Oil & Grease/TPH Diesel <input type="checkbox"/> Oil <input type="checkbox"/>	PCBs 1664 HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>	Aroclors <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 8081 <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> 8141 <input type="checkbox"/>	Metals, Total or Dissolved (See List below) PCP <input type="checkbox"/>	Cyanide <input type="checkbox"/>	(circle) pH, Cond (NO3) BOD, TSS <input type="checkbox"/> Turb.	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, T-Phos	Alkalinity <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/>	Ethene <input type="checkbox"/>								
LB-021921-04-272	2-19-21	1125		W	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LB-021921-05-D092	2-19-21	1130		W	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**REPORT REQUIREMENTS**  
 \_\_\_ I. Routine Report: Method Blank, Surrogate, as required  
 \_\_\_ II. Report Dup., MS, MSD as required  
 \_\_\_ III. CLP Like Summary (no raw data)  
 \_\_\_ IV. Data Validation Report  
 \_\_\_ V. EDD

**INVOICE INFORMATION**  
 P.O. # \_\_\_\_\_  
 Bill To: \_\_\_\_\_

**TURNAROUND REQUIREMENTS**  
 \_\_\_ 24 hr. \_\_\_ 48 hr.  
 \_\_\_ 5 day  
 Standard (15 working days)  
 \_\_\_ Provide FAX Results  
 Requested Report Date \_\_\_\_\_

Circle which metals are to be analyzed:  
 Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg  
 Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

**\*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: \_\_\_\_\_ (CIRCLE ONE)**

SPECIAL INSTRUCTIONS/COMMENTS:  
Metals are field filtered

Container Supply Number 115140

Sample Shipment contains USDA regulated soil samples (check box if applicable)

**RELINQUISHED BY:**  
 Signature: [Signature] Date/Time: 2-19-21 1211  
 Printed Name: Tom H. Hays Firm: SCS

**RECEIVED BY:**  
 Signature: [Signature] Date/Time: 2/19/21  
 Printed Name: Ellenow Firm: ACS 1211

**RELINQUISHED BY:**  
 Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Firm: \_\_\_\_\_

**RECEIVED BY:**  
 Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Firm: \_\_\_\_\_

### Cooler Receipt and Preservation Form

Client SLS Service Request K2101875  
 Received: 2/19/21 Opened: 2/19/21 By: [Signature] Unloaded: 2/19/21 By: [Signature]

- Samples were received via? **USPS** **Fed Ex** **UPS** **DHL** **PDX** **Courier** **Hand Delivered**
  - Samples were received in: (circle) **Cooler** **Box** **Envelope** **Other** **NA**
  - Were custody seals on coolers? **NA** **Y** **N** If yes, how many and where? 1 Front  
 If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**
  - Was a Temperature Blank present in cooler? **NA** **Y** **N** If yes, notate the temperature in the appropriate column below:  
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
  - Were samples received within the method specified temperature ranges? **NA** **Y** **N**  
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. **NA** **Y** **N**
- If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified if out of temp	Tracking Number	NA	Filed
<u>N/A</u>	<u>2.6</u>	<u>IR</u>	<u>115140</u>				<u>NA</u>	

- Packing material: **Inserts** **Baggies** **Bubble Wrap** **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves**
- Were custody papers properly filled out (ink, signed, etc.)? **NA** **Y** **N**
- Were samples received in good condition (unbroken) **NA** **Y** **N**
- Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** **Y** **N**
- Did all sample labels and tags agree with custody papers? **NA** **Y** **N**
- Were appropriate bottles/containers and volumes received for the tests indicated? **NA** **Y** **N**
- Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below **NA** **Y** **N**
- Were VOA vials received without headspace? Indicate in the table below. **NA** **Y** **N**
- Was C12/Res negative? **NA** **Y** **N**

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: \_\_\_\_\_  
 \_\_\_\_\_  
**SHORT HOLD TIME**  
 \_\_\_\_\_  
 \_\_\_\_\_



## Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEH	<a href="http://dec.alaska.gov/eh/lab/cs/csapproval.htm">http://dec.alaska.gov/eh/lab/cs/csapproval.htm</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L16-58-R4
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	<a href="http://health.hawaii.gov/">http://health.hawaii.gov/</a>	-
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	03016
Maine DHS	<a href="http://www.maine.gov/dhhs/">http://www.maine.gov/dhhs/</a>	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	WA005
New York - DOH	<a href="https://www.wadsworth.org/regulatory/elap">https://www.wadsworth.org/regulatory/elap</a>	12060
North Carolina DEQ	<a href="https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification">https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/EnvironmentalLabCertification/">http://www.scdhec.gov/environment/EnvironmentalLabCertification/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water">https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.ALSGlobal.com](http://www.ALSGlobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101575

**Sample Name:** Trip Blank  
**Lab Code:** K2101575-001  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101575

**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021821-09-17D  
**Lab Code:** K2101575-007  
**Sample Matrix:** Ground Water

**Date Collected:** 02/18/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0

**Extracted/Digested By**

**Analyzed By**  
KABROWN

ALS Group USA, Corp.  
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Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101575

**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
ABOYER

**Analyzed By**  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021921-02-5S  
**Lab Code:** K2101575-009  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021921-03-17I  
**Lab Code:** K2101575-010  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON

**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C

**Extracted/Digested By**  
ABOYER

**Analyzed By**  
KABROWN  
AMCKORNEY

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Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2101575

**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
MKANALY  
JMADISON

**Sample Name:** LB-021921-05-DUP2  
**Lab Code:** K2101575-012  
**Sample Matrix:** Ground Water

**Date Collected:** 02/19/21  
**Date Received:** 02/19/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JMADISON



# Sample Results

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)





## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 09:50  
**Date Received:** 02/19/21 12:11

**Sample Name:** Trip Blank  
**Lab Code:** K2101575-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 12:37	
Benzene	ND U	0.50	1	02/23/21 12:37	
Bromobenzene	ND U	2.0	1	02/23/21 12:37	
Bromochloromethane	ND U	0.50	1	02/23/21 12:37	
Bromodichloromethane	ND U	0.50	1	02/23/21 12:37	
Bromoform	ND U	0.50	1	02/23/21 12:37	
Bromomethane	ND U	0.50	1	02/23/21 12:37	*
2-Butanone (MEK)	ND U	20	1	02/23/21 12:37	
n-Butylbenzene	ND U	4.0	1	02/23/21 12:37	
sec-Butylbenzene	ND U	2.0	1	02/23/21 12:37	
tert-Butylbenzene	ND U	2.0	1	02/23/21 12:37	
Carbon Disulfide	ND U	0.50	1	02/23/21 12:37	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 12:37	
Chlorobenzene	ND U	0.50	1	02/23/21 12:37	
Chloroethane	ND U	0.50	1	02/23/21 12:37	
Chloroform	ND U	0.50	1	02/23/21 12:37	
Chloromethane	ND U	0.50	1	02/23/21 12:37	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 12:37	
4-Chlorotoluene	ND U	2.0	1	02/23/21 12:37	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 12:37	
Dibromochloromethane	ND U	0.50	1	02/23/21 12:37	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 12:37	
Dibromomethane	ND U	0.50	1	02/23/21 12:37	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 12:37	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 12:37	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 12:37	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 12:37	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 12:37	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 12:37	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 12:37	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 12:37	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 12:37	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 12:37	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 12:37	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 12:37	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 12:37	
Ethylbenzene	ND U	0.50	1	02/23/21 12:37	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 12:37	
2-Hexanone	ND U	20	1	02/23/21 12:37	*
Isopropylbenzene	ND U	2.0	1	02/23/21 12:37	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 12:37	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 09:50  
**Date Received:** 02/19/21 12:11

**Sample Name:** Trip Blank  
**Lab Code:** K2101575-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 12:37	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 12:37	
Methylene Chloride	ND U	2.0	1	02/23/21 12:37	
Naphthalene	ND U	2.0	1	02/23/21 12:37	
n-Propylbenzene	ND U	2.0	1	02/23/21 12:37	
Styrene	ND U	0.50	1	02/23/21 12:37	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 12:37	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 12:37	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 12:37	
Toluene	ND U	0.50	1	02/23/21 12:37	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 12:37	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 12:37	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 12:37	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 12:37	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 12:37	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 12:37	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 12:37	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 12:37	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 12:37	
Vinyl Chloride	ND U	0.50	1	02/23/21 12:37	
o-Xylene	ND U	0.50	1	02/23/21 12:37	
m,p-Xylenes	ND U	0.50	1	02/23/21 12:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	02/23/21 12:37	
Dibromofluoromethane	100	73 - 122	02/23/21 12:37	
Toluene-d8	92	65 - 144	02/23/21 12:37	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 10:45  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 13:00	
Benzene	ND U	0.50	1	02/23/21 13:00	
Bromobenzene	ND U	2.0	1	02/23/21 13:00	
Bromochloromethane	ND U	0.50	1	02/23/21 13:00	
Bromodichloromethane	ND U	0.50	1	02/23/21 13:00	
Bromoform	ND U	0.50	1	02/23/21 13:00	
Bromomethane	ND U	0.50	1	02/23/21 13:00	*
2-Butanone (MEK)	ND U	20	1	02/23/21 13:00	
n-Butylbenzene	ND U	4.0	1	02/23/21 13:00	
sec-Butylbenzene	ND U	2.0	1	02/23/21 13:00	
tert-Butylbenzene	ND U	2.0	1	02/23/21 13:00	
Carbon Disulfide	ND U	0.50	1	02/23/21 13:00	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 13:00	
Chlorobenzene	ND U	0.50	1	02/23/21 13:00	
Chloroethane	ND U	0.50	1	02/23/21 13:00	
Chloroform	ND U	0.50	1	02/23/21 13:00	
Chloromethane	ND U	0.50	1	02/23/21 13:00	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 13:00	
4-Chlorotoluene	ND U	2.0	1	02/23/21 13:00	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 13:00	
Dibromochloromethane	ND U	0.50	1	02/23/21 13:00	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 13:00	
Dibromomethane	ND U	0.50	1	02/23/21 13:00	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 13:00	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 13:00	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 13:00	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 13:00	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 13:00	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 13:00	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 13:00	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 13:00	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 13:00	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 13:00	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 13:00	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 13:00	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 13:00	
Ethylbenzene	ND U	0.50	1	02/23/21 13:00	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 13:00	
2-Hexanone	ND U	20	1	02/23/21 13:00	*
Isopropylbenzene	ND U	2.0	1	02/23/21 13:00	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 13:00	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 10:45  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 13:00	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 13:00	
Methylene Chloride	ND U	2.0	1	02/23/21 13:00	
Naphthalene	ND U	2.0	1	02/23/21 13:00	
n-Propylbenzene	ND U	2.0	1	02/23/21 13:00	
Styrene	ND U	0.50	1	02/23/21 13:00	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 13:00	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 13:00	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 13:00	
Toluene	ND U	0.50	1	02/23/21 13:00	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 13:00	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 13:00	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 13:00	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 13:00	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 13:00	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 13:00	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 13:00	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 13:00	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 13:00	
Vinyl Chloride	ND U	0.50	1	02/23/21 13:00	
o-Xylene	ND U	0.50	1	02/23/21 13:00	
m,p-Xylenes	ND U	0.50	1	02/23/21 13:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	02/23/21 13:00	
Dibromofluoromethane	99	73 - 122	02/23/21 13:00	
Toluene-d8	91	65 - 144	02/23/21 13:00	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:40  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 13:22	
Benzene	ND U	0.50	1	02/23/21 13:22	
Bromobenzene	ND U	2.0	1	02/23/21 13:22	
Bromochloromethane	ND U	0.50	1	02/23/21 13:22	
Bromodichloromethane	ND U	0.50	1	02/23/21 13:22	
Bromoform	ND U	0.50	1	02/23/21 13:22	
Bromomethane	ND U	0.50	1	02/23/21 13:22	*
2-Butanone (MEK)	ND U	20	1	02/23/21 13:22	
n-Butylbenzene	ND U	4.0	1	02/23/21 13:22	
sec-Butylbenzene	ND U	2.0	1	02/23/21 13:22	
tert-Butylbenzene	ND U	2.0	1	02/23/21 13:22	
Carbon Disulfide	ND U	0.50	1	02/23/21 13:22	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 13:22	
Chlorobenzene	ND U	0.50	1	02/23/21 13:22	
Chloroethane	ND U	0.50	1	02/23/21 13:22	
Chloroform	ND U	0.50	1	02/23/21 13:22	
Chloromethane	ND U	0.50	1	02/23/21 13:22	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 13:22	
4-Chlorotoluene	ND U	2.0	1	02/23/21 13:22	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 13:22	
Dibromochloromethane	ND U	0.50	1	02/23/21 13:22	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 13:22	
Dibromomethane	ND U	0.50	1	02/23/21 13:22	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 13:22	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 13:22	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 13:22	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 13:22	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 13:22	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 13:22	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 13:22	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 13:22	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 13:22	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 13:22	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 13:22	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 13:22	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 13:22	
Ethylbenzene	ND U	0.50	1	02/23/21 13:22	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 13:22	
2-Hexanone	ND U	20	1	02/23/21 13:22	*
Isopropylbenzene	ND U	2.0	1	02/23/21 13:22	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 13:22	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:40  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 13:22	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 13:22	
Methylene Chloride	ND U	2.0	1	02/23/21 13:22	
Naphthalene	ND U	2.0	1	02/23/21 13:22	
n-Propylbenzene	ND U	2.0	1	02/23/21 13:22	
Styrene	ND U	0.50	1	02/23/21 13:22	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 13:22	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 13:22	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 13:22	
Toluene	ND U	0.50	1	02/23/21 13:22	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 13:22	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 13:22	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 13:22	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 13:22	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 13:22	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 13:22	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 13:22	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 13:22	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 13:22	
Vinyl Chloride	ND U	0.50	1	02/23/21 13:22	
o-Xylene	ND U	0.50	1	02/23/21 13:22	
m,p-Xylenes	ND U	0.50	1	02/23/21 13:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/23/21 13:22	
Dibromofluoromethane	96	73 - 122	02/23/21 13:22	
Toluene-d8	91	65 - 144	02/23/21 13:22	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:45  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 13:45	
Benzene	ND U	0.50	1	02/23/21 13:45	
Bromobenzene	ND U	2.0	1	02/23/21 13:45	
Bromochloromethane	ND U	0.50	1	02/23/21 13:45	
Bromodichloromethane	ND U	0.50	1	02/23/21 13:45	
Bromoform	ND U	0.50	1	02/23/21 13:45	
Bromomethane	ND U	0.50	1	02/23/21 13:45	*
2-Butanone (MEK)	ND U	20	1	02/23/21 13:45	
n-Butylbenzene	ND U	4.0	1	02/23/21 13:45	
sec-Butylbenzene	ND U	2.0	1	02/23/21 13:45	
tert-Butylbenzene	ND U	2.0	1	02/23/21 13:45	
Carbon Disulfide	ND U	0.50	1	02/23/21 13:45	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 13:45	
Chlorobenzene	ND U	0.50	1	02/23/21 13:45	
Chloroethane	ND U	0.50	1	02/23/21 13:45	
Chloroform	ND U	0.50	1	02/23/21 13:45	
Chloromethane	ND U	0.50	1	02/23/21 13:45	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 13:45	
4-Chlorotoluene	ND U	2.0	1	02/23/21 13:45	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 13:45	
Dibromochloromethane	ND U	0.50	1	02/23/21 13:45	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 13:45	
Dibromomethane	ND U	0.50	1	02/23/21 13:45	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 13:45	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 13:45	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 13:45	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 13:45	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 13:45	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 13:45	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 13:45	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 13:45	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 13:45	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 13:45	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 13:45	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 13:45	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 13:45	
Ethylbenzene	ND U	0.50	1	02/23/21 13:45	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 13:45	
2-Hexanone	ND U	20	1	02/23/21 13:45	*
Isopropylbenzene	ND U	2.0	1	02/23/21 13:45	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 13:45	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:45  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 13:45	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 13:45	
Methylene Chloride	ND U	2.0	1	02/23/21 13:45	
Naphthalene	ND U	2.0	1	02/23/21 13:45	
n-Propylbenzene	ND U	2.0	1	02/23/21 13:45	
Styrene	ND U	0.50	1	02/23/21 13:45	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 13:45	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 13:45	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 13:45	
Toluene	ND U	0.50	1	02/23/21 13:45	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 13:45	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 13:45	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 13:45	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 13:45	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 13:45	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 13:45	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 13:45	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 13:45	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 13:45	
Vinyl Chloride	ND U	0.50	1	02/23/21 13:45	
o-Xylene	ND U	0.50	1	02/23/21 13:45	
m,p-Xylenes	ND U	0.50	1	02/23/21 13:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	02/23/21 13:45	
Dibromofluoromethane	94	73 - 122	02/23/21 13:45	
Toluene-d8	90	65 - 144	02/23/21 13:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:00  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 14:08	
Benzene	ND U	0.50	1	02/23/21 14:08	
Bromobenzene	ND U	2.0	1	02/23/21 14:08	
Bromochloromethane	ND U	0.50	1	02/23/21 14:08	
Bromodichloromethane	ND U	0.50	1	02/23/21 14:08	
Bromoform	ND U	0.50	1	02/23/21 14:08	
Bromomethane	ND U	0.50	1	02/23/21 14:08	*
2-Butanone (MEK)	ND U	20	1	02/23/21 14:08	
n-Butylbenzene	ND U	4.0	1	02/23/21 14:08	
sec-Butylbenzene	ND U	2.0	1	02/23/21 14:08	
tert-Butylbenzene	ND U	2.0	1	02/23/21 14:08	
Carbon Disulfide	ND U	0.50	1	02/23/21 14:08	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 14:08	
Chlorobenzene	ND U	0.50	1	02/23/21 14:08	
Chloroethane	ND U	0.50	1	02/23/21 14:08	
Chloroform	ND U	0.50	1	02/23/21 14:08	
Chloromethane	ND U	0.50	1	02/23/21 14:08	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 14:08	
4-Chlorotoluene	ND U	2.0	1	02/23/21 14:08	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 14:08	
Dibromochloromethane	ND U	0.50	1	02/23/21 14:08	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 14:08	
Dibromomethane	ND U	0.50	1	02/23/21 14:08	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 14:08	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 14:08	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 14:08	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 14:08	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 14:08	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 14:08	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 14:08	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 14:08	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 14:08	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 14:08	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 14:08	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 14:08	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 14:08	
Ethylbenzene	ND U	0.50	1	02/23/21 14:08	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 14:08	
2-Hexanone	ND U	20	1	02/23/21 14:08	*
Isopropylbenzene	ND U	2.0	1	02/23/21 14:08	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 14:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:00  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 14:08	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 14:08	
Methylene Chloride	ND U	2.0	1	02/23/21 14:08	
Naphthalene	ND U	2.0	1	02/23/21 14:08	
n-Propylbenzene	ND U	2.0	1	02/23/21 14:08	
Styrene	ND U	0.50	1	02/23/21 14:08	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 14:08	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 14:08	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 14:08	
Toluene	ND U	0.50	1	02/23/21 14:08	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 14:08	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 14:08	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 14:08	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 14:08	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 14:08	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 14:08	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 14:08	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 14:08	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 14:08	
Vinyl Chloride	ND U	0.50	1	02/23/21 14:08	
o-Xylene	ND U	0.50	1	02/23/21 14:08	
m,p-Xylenes	ND U	0.50	1	02/23/21 14:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/23/21 14:08	
Dibromofluoromethane	101	73 - 122	02/23/21 14:08	
Toluene-d8	92	65 - 144	02/23/21 14:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:55  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 14:31	
Benzene	ND U	0.50	1	02/23/21 14:31	
Bromobenzene	ND U	2.0	1	02/23/21 14:31	
Bromochloromethane	ND U	0.50	1	02/23/21 14:31	
Bromodichloromethane	ND U	0.50	1	02/23/21 14:31	
Bromoform	ND U	0.50	1	02/23/21 14:31	
Bromomethane	ND U	0.50	1	02/23/21 14:31	*
2-Butanone (MEK)	ND U	20	1	02/23/21 14:31	
n-Butylbenzene	ND U	4.0	1	02/23/21 14:31	
sec-Butylbenzene	ND U	2.0	1	02/23/21 14:31	
tert-Butylbenzene	ND U	2.0	1	02/23/21 14:31	
Carbon Disulfide	ND U	0.50	1	02/23/21 14:31	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 14:31	
Chlorobenzene	ND U	0.50	1	02/23/21 14:31	
Chloroethane	ND U	0.50	1	02/23/21 14:31	
Chloroform	ND U	0.50	1	02/23/21 14:31	
Chloromethane	ND U	0.50	1	02/23/21 14:31	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 14:31	
4-Chlorotoluene	ND U	2.0	1	02/23/21 14:31	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 14:31	
Dibromochloromethane	ND U	0.50	1	02/23/21 14:31	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 14:31	
Dibromomethane	ND U	0.50	1	02/23/21 14:31	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 14:31	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 14:31	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 14:31	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 14:31	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 14:31	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 14:31	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 14:31	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 14:31	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 14:31	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 14:31	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 14:31	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 14:31	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 14:31	
Ethylbenzene	ND U	0.50	1	02/23/21 14:31	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 14:31	
2-Hexanone	ND U	20	1	02/23/21 14:31	*
Isopropylbenzene	ND U	2.0	1	02/23/21 14:31	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 14:31	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:55  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 14:31	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 14:31	
Methylene Chloride	ND U	2.0	1	02/23/21 14:31	
Naphthalene	ND U	2.0	1	02/23/21 14:31	
n-Propylbenzene	ND U	2.0	1	02/23/21 14:31	
Styrene	ND U	0.50	1	02/23/21 14:31	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 14:31	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 14:31	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 14:31	
Toluene	ND U	0.50	1	02/23/21 14:31	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 14:31	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 14:31	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 14:31	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 14:31	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 14:31	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 14:31	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 14:31	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 14:31	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 14:31	
Vinyl Chloride	ND U	0.50	1	02/23/21 14:31	
o-Xylene	ND U	0.50	1	02/23/21 14:31	
m,p-Xylenes	ND U	0.50	1	02/23/21 14:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	02/23/21 14:31	
Dibromofluoromethane	98	73 - 122	02/23/21 14:31	
Toluene-d8	91	65 - 144	02/23/21 14:31	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 15:10  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-09-17D  
**Lab Code:** K2101575-007

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 14:54	
Benzene	ND U	0.50	1	02/23/21 14:54	
Bromobenzene	ND U	2.0	1	02/23/21 14:54	
Bromochloromethane	ND U	0.50	1	02/23/21 14:54	
Bromodichloromethane	ND U	0.50	1	02/23/21 14:54	
Bromoform	ND U	0.50	1	02/23/21 14:54	
Bromomethane	ND U	0.50	1	02/23/21 14:54	*
2-Butanone (MEK)	ND U	20	1	02/23/21 14:54	
n-Butylbenzene	ND U	4.0	1	02/23/21 14:54	
sec-Butylbenzene	ND U	2.0	1	02/23/21 14:54	
tert-Butylbenzene	ND U	2.0	1	02/23/21 14:54	
Carbon Disulfide	ND U	0.50	1	02/23/21 14:54	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 14:54	
Chlorobenzene	ND U	0.50	1	02/23/21 14:54	
Chloroethane	ND U	0.50	1	02/23/21 14:54	
Chloroform	ND U	0.50	1	02/23/21 14:54	
Chloromethane	ND U	0.50	1	02/23/21 14:54	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 14:54	
4-Chlorotoluene	ND U	2.0	1	02/23/21 14:54	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 14:54	
Dibromochloromethane	ND U	0.50	1	02/23/21 14:54	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 14:54	
Dibromomethane	ND U	0.50	1	02/23/21 14:54	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 14:54	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 14:54	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 14:54	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 14:54	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 14:54	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 14:54	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 14:54	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 14:54	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 14:54	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 14:54	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 14:54	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 14:54	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 14:54	
Ethylbenzene	ND U	0.50	1	02/23/21 14:54	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 14:54	
2-Hexanone	ND U	20	1	02/23/21 14:54	*
Isopropylbenzene	ND U	2.0	1	02/23/21 14:54	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 14:54	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21 15:10  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021821-09-17D  
**Lab Code:** K2101575-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 14:54	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 14:54	
Methylene Chloride	ND U	2.0	1	02/23/21 14:54	
Naphthalene	ND U	2.0	1	02/23/21 14:54	
n-Propylbenzene	ND U	2.0	1	02/23/21 14:54	
Styrene	ND U	0.50	1	02/23/21 14:54	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 14:54	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 14:54	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 14:54	
Toluene	ND U	0.50	1	02/23/21 14:54	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 14:54	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 14:54	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 14:54	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 14:54	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 14:54	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 14:54	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 14:54	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 14:54	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 14:54	
Vinyl Chloride	ND U	0.50	1	02/23/21 14:54	
o-Xylene	ND U	0.50	1	02/23/21 14:54	
m,p-Xylenes	ND U	0.50	1	02/23/21 14:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/23/21 14:54	
Dibromofluoromethane	100	73 - 122	02/23/21 14:54	
Toluene-d8	92	65 - 144	02/23/21 14:54	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 08:10  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 15:16	
Benzene	ND U	0.50	1	02/23/21 15:16	
Bromobenzene	ND U	2.0	1	02/23/21 15:16	
Bromochloromethane	ND U	0.50	1	02/23/21 15:16	
Bromodichloromethane	ND U	0.50	1	02/23/21 15:16	
Bromoform	ND U	0.50	1	02/23/21 15:16	
Bromomethane	ND U	0.50	1	02/23/21 15:16	*
2-Butanone (MEK)	ND U	20	1	02/23/21 15:16	
n-Butylbenzene	ND U	4.0	1	02/23/21 15:16	
sec-Butylbenzene	ND U	2.0	1	02/23/21 15:16	
tert-Butylbenzene	ND U	2.0	1	02/23/21 15:16	
Carbon Disulfide	ND U	0.50	1	02/23/21 15:16	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 15:16	
Chlorobenzene	ND U	0.50	1	02/23/21 15:16	
Chloroethane	ND U	0.50	1	02/23/21 15:16	
Chloroform	ND U	0.50	1	02/23/21 15:16	
Chloromethane	ND U	0.50	1	02/23/21 15:16	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 15:16	
4-Chlorotoluene	ND U	2.0	1	02/23/21 15:16	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 15:16	
Dibromochloromethane	ND U	0.50	1	02/23/21 15:16	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 15:16	
Dibromomethane	ND U	0.50	1	02/23/21 15:16	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 15:16	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 15:16	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 15:16	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 15:16	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 15:16	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 15:16	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 15:16	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 15:16	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 15:16	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 15:16	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 15:16	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 15:16	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 15:16	
Ethylbenzene	ND U	0.50	1	02/23/21 15:16	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 15:16	
2-Hexanone	ND U	20	1	02/23/21 15:16	*
Isopropylbenzene	ND U	2.0	1	02/23/21 15:16	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 15:16	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 08:10  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 15:16	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 15:16	
Methylene Chloride	ND U	2.0	1	02/23/21 15:16	
Naphthalene	ND U	2.0	1	02/23/21 15:16	
n-Propylbenzene	ND U	2.0	1	02/23/21 15:16	
Styrene	ND U	0.50	1	02/23/21 15:16	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 15:16	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 15:16	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 15:16	
Toluene	ND U	0.50	1	02/23/21 15:16	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 15:16	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 15:16	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 15:16	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 15:16	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 15:16	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 15:16	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 15:16	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 15:16	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 15:16	
Vinyl Chloride	ND U	0.50	1	02/23/21 15:16	
o-Xylene	ND U	0.50	1	02/23/21 15:16	
m,p-Xylenes	ND U	0.50	1	02/23/21 15:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	68 - 117	02/23/21 15:16	
Dibromofluoromethane	101	73 - 122	02/23/21 15:16	
Toluene-d8	92	65 - 144	02/23/21 15:16	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 09:00  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-02-5S  
**Lab Code:** K2101575-009

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 15:39	
Benzene	ND U	0.50	1	02/23/21 15:39	
Bromobenzene	ND U	2.0	1	02/23/21 15:39	
Bromochloromethane	ND U	0.50	1	02/23/21 15:39	
Bromodichloromethane	ND U	0.50	1	02/23/21 15:39	
Bromoform	ND U	0.50	1	02/23/21 15:39	
Bromomethane	ND U	0.50	1	02/23/21 15:39	*
2-Butanone (MEK)	ND U	20	1	02/23/21 15:39	
n-Butylbenzene	ND U	4.0	1	02/23/21 15:39	
sec-Butylbenzene	ND U	2.0	1	02/23/21 15:39	
tert-Butylbenzene	ND U	2.0	1	02/23/21 15:39	
Carbon Disulfide	ND U	0.50	1	02/23/21 15:39	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 15:39	
Chlorobenzene	ND U	0.50	1	02/23/21 15:39	
Chloroethane	ND U	0.50	1	02/23/21 15:39	
Chloroform	ND U	0.50	1	02/23/21 15:39	
Chloromethane	ND U	0.50	1	02/23/21 15:39	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 15:39	
4-Chlorotoluene	ND U	2.0	1	02/23/21 15:39	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 15:39	
Dibromochloromethane	ND U	0.50	1	02/23/21 15:39	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 15:39	
Dibromomethane	ND U	0.50	1	02/23/21 15:39	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 15:39	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 15:39	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 15:39	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 15:39	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 15:39	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 15:39	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 15:39	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 15:39	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 15:39	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 15:39	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 15:39	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 15:39	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 15:39	
Ethylbenzene	ND U	0.50	1	02/23/21 15:39	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 15:39	
2-Hexanone	ND U	20	1	02/23/21 15:39	*
Isopropylbenzene	ND U	2.0	1	02/23/21 15:39	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 15:39	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 09:00  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-02-5S  
**Lab Code:** K2101575-009

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 15:39	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 15:39	
Methylene Chloride	ND U	2.0	1	02/23/21 15:39	
Naphthalene	ND U	2.0	1	02/23/21 15:39	
n-Propylbenzene	ND U	2.0	1	02/23/21 15:39	
Styrene	ND U	0.50	1	02/23/21 15:39	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 15:39	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 15:39	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 15:39	
Toluene	ND U	0.50	1	02/23/21 15:39	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 15:39	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 15:39	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 15:39	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 15:39	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 15:39	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 15:39	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 15:39	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 15:39	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 15:39	
Vinyl Chloride	ND U	0.50	1	02/23/21 15:39	
o-Xylene	ND U	0.50	1	02/23/21 15:39	
m,p-Xylenes	ND U	0.50	1	02/23/21 15:39	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	02/23/21 15:39	
Dibromofluoromethane	99	73 - 122	02/23/21 15:39	
Toluene-d8	92	65 - 144	02/23/21 15:39	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 10:15  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-03-17I  
**Lab Code:** K2101575-010

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 16:02	
Benzene	ND U	0.50	1	02/23/21 16:02	
Bromobenzene	ND U	2.0	1	02/23/21 16:02	
Bromochloromethane	ND U	0.50	1	02/23/21 16:02	
Bromodichloromethane	ND U	0.50	1	02/23/21 16:02	
Bromoform	ND U	0.50	1	02/23/21 16:02	
Bromomethane	ND U	0.50	1	02/23/21 16:02	*
2-Butanone (MEK)	ND U	20	1	02/23/21 16:02	
n-Butylbenzene	ND U	4.0	1	02/23/21 16:02	
sec-Butylbenzene	ND U	2.0	1	02/23/21 16:02	
tert-Butylbenzene	ND U	2.0	1	02/23/21 16:02	
Carbon Disulfide	ND U	0.50	1	02/23/21 16:02	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 16:02	
Chlorobenzene	ND U	0.50	1	02/23/21 16:02	
Chloroethane	ND U	0.50	1	02/23/21 16:02	
Chloroform	ND U	0.50	1	02/23/21 16:02	
Chloromethane	ND U	0.50	1	02/23/21 16:02	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 16:02	
4-Chlorotoluene	ND U	2.0	1	02/23/21 16:02	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 16:02	
Dibromochloromethane	ND U	0.50	1	02/23/21 16:02	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 16:02	
Dibromomethane	ND U	0.50	1	02/23/21 16:02	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 16:02	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 16:02	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 16:02	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 16:02	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 16:02	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 16:02	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 16:02	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 16:02	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 16:02	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 16:02	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 16:02	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 16:02	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 16:02	
Ethylbenzene	ND U	0.50	1	02/23/21 16:02	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 16:02	
2-Hexanone	ND U	20	1	02/23/21 16:02	*
Isopropylbenzene	ND U	2.0	1	02/23/21 16:02	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 16:02	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 10:15  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-03-17I  
**Lab Code:** K2101575-010

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 16:02	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 16:02	
Methylene Chloride	ND U	2.0	1	02/23/21 16:02	
Naphthalene	ND U	2.0	1	02/23/21 16:02	
n-Propylbenzene	ND U	2.0	1	02/23/21 16:02	
Styrene	ND U	0.50	1	02/23/21 16:02	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 16:02	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 16:02	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 16:02	
Toluene	ND U	0.50	1	02/23/21 16:02	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 16:02	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 16:02	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 16:02	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 16:02	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 16:02	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 16:02	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 16:02	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 16:02	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 16:02	
Vinyl Chloride	ND U	0.50	1	02/23/21 16:02	
o-Xylene	ND U	0.50	1	02/23/21 16:02	
m,p-Xylenes	ND U	0.50	1	02/23/21 16:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/23/21 16:02	
Dibromofluoromethane	99	73 - 122	02/23/21 16:02	
Toluene-d8	93	65 - 144	02/23/21 16:02	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:25  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 16:25	
Benzene	ND U	0.50	1	02/23/21 16:25	
Bromobenzene	ND U	2.0	1	02/23/21 16:25	
Bromochloromethane	ND U	0.50	1	02/23/21 16:25	
Bromodichloromethane	ND U	0.50	1	02/23/21 16:25	
Bromoform	ND U	0.50	1	02/23/21 16:25	
Bromomethane	ND U	0.50	1	02/23/21 16:25	*
2-Butanone (MEK)	ND U	20	1	02/23/21 16:25	
n-Butylbenzene	ND U	4.0	1	02/23/21 16:25	
sec-Butylbenzene	ND U	2.0	1	02/23/21 16:25	
tert-Butylbenzene	ND U	2.0	1	02/23/21 16:25	
Carbon Disulfide	ND U	0.50	1	02/23/21 16:25	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 16:25	
Chlorobenzene	ND U	0.50	1	02/23/21 16:25	
Chloroethane	ND U	0.50	1	02/23/21 16:25	
Chloroform	ND U	0.50	1	02/23/21 16:25	
Chloromethane	ND U	0.50	1	02/23/21 16:25	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 16:25	
4-Chlorotoluene	ND U	2.0	1	02/23/21 16:25	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 16:25	
Dibromochloromethane	ND U	0.50	1	02/23/21 16:25	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 16:25	
Dibromomethane	ND U	0.50	1	02/23/21 16:25	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 16:25	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 16:25	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 16:25	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 16:25	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 16:25	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 16:25	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 16:25	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 16:25	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 16:25	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 16:25	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 16:25	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 16:25	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 16:25	
Ethylbenzene	ND U	0.50	1	02/23/21 16:25	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 16:25	
2-Hexanone	ND U	20	1	02/23/21 16:25	*
Isopropylbenzene	ND U	2.0	1	02/23/21 16:25	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 16:25	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:25  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 16:25	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 16:25	
Methylene Chloride	ND U	2.0	1	02/23/21 16:25	
Naphthalene	ND U	2.0	1	02/23/21 16:25	
n-Propylbenzene	ND U	2.0	1	02/23/21 16:25	
Styrene	ND U	0.50	1	02/23/21 16:25	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 16:25	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 16:25	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 16:25	
Toluene	ND U	0.50	1	02/23/21 16:25	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 16:25	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 16:25	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 16:25	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 16:25	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 16:25	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 16:25	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 16:25	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 16:25	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 16:25	
Vinyl Chloride	ND U	0.50	1	02/23/21 16:25	
o-Xylene	ND U	0.50	1	02/23/21 16:25	
m,p-Xylenes	ND U	0.50	1	02/23/21 16:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	02/23/21 16:25	
Dibromofluoromethane	99	73 - 122	02/23/21 16:25	
Toluene-d8	92	65 - 144	02/23/21 16:25	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:30  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-05-DUP2  
**Lab Code:** K2101575-012

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 16:47	
Benzene	ND U	0.50	1	02/23/21 16:47	
Bromobenzene	ND U	2.0	1	02/23/21 16:47	
Bromochloromethane	ND U	0.50	1	02/23/21 16:47	
Bromodichloromethane	ND U	0.50	1	02/23/21 16:47	
Bromoform	ND U	0.50	1	02/23/21 16:47	
Bromomethane	ND U	0.50	1	02/23/21 16:47	*
2-Butanone (MEK)	ND U	20	1	02/23/21 16:47	
n-Butylbenzene	ND U	4.0	1	02/23/21 16:47	
sec-Butylbenzene	ND U	2.0	1	02/23/21 16:47	
tert-Butylbenzene	ND U	2.0	1	02/23/21 16:47	
Carbon Disulfide	ND U	0.50	1	02/23/21 16:47	*
Carbon Tetrachloride	ND U	0.50	1	02/23/21 16:47	
Chlorobenzene	ND U	0.50	1	02/23/21 16:47	
Chloroethane	ND U	0.50	1	02/23/21 16:47	
Chloroform	ND U	0.50	1	02/23/21 16:47	
Chloromethane	ND U	0.50	1	02/23/21 16:47	*
2-Chlorotoluene	ND U	2.0	1	02/23/21 16:47	
4-Chlorotoluene	ND U	2.0	1	02/23/21 16:47	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 16:47	
Dibromochloromethane	ND U	0.50	1	02/23/21 16:47	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 16:47	
Dibromomethane	ND U	0.50	1	02/23/21 16:47	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 16:47	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 16:47	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 16:47	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 16:47	*
1,1-Dichloroethane	ND U	0.50	1	02/23/21 16:47	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 16:47	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 16:47	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 16:47	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 16:47	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 16:47	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 16:47	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 16:47	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 16:47	
Ethylbenzene	ND U	0.50	1	02/23/21 16:47	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 16:47	
2-Hexanone	ND U	20	1	02/23/21 16:47	*
Isopropylbenzene	ND U	2.0	1	02/23/21 16:47	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 16:47	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:30  
**Date Received:** 02/19/21 12:11

**Sample Name:** LB-021921-05-DUP2  
**Lab Code:** K2101575-012

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 16:47	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 16:47	
Methylene Chloride	ND U	2.0	1	02/23/21 16:47	
Naphthalene	ND U	2.0	1	02/23/21 16:47	
n-Propylbenzene	ND U	2.0	1	02/23/21 16:47	
Styrene	ND U	0.50	1	02/23/21 16:47	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 16:47	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 16:47	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 16:47	
Toluene	ND U	0.50	1	02/23/21 16:47	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 16:47	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 16:47	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 16:47	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 16:47	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 16:47	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 16:47	*
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 16:47	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 16:47	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 16:47	
Vinyl Chloride	ND U	0.50	1	02/23/21 16:47	
o-Xylene	ND U	0.50	1	02/23/21 16:47	
m,p-Xylenes	ND U	0.50	1	02/23/21 16:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/23/21 16:47	
Dibromofluoromethane	101	73 - 122	02/23/21 16:47	
Toluene-d8	92	65 - 144	02/23/21 16:47	



# Metals

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
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ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002

**Service Request:** K2101575  
**Date Collected:** 02/18/21 10:45  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 09:54	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 09:54	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:40  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:05	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 10:05	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:45  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:07	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 10:07	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:00  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:10	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 10:10	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:55  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:13	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 10:13	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-09-17D  
**Lab Code:** K2101575-007

**Service Request:** K2101575  
**Date Collected:** 02/18/21 15:10  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	106	ug/L	21	1	02/24/21 10:23	02/20/21	
Manganese	6010C	4060	ug/L	1.1	1	02/24/21 10:23	02/20/21	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008

**Service Request:** K2101575  
**Date Collected:** 02/19/21 08:10  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:26	02/20/21	
Manganese	6010C	251	ug/L	1.1	1	02/24/21 10:26	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-02-5S  
**Lab Code:** K2101575-009

**Service Request:** K2101575  
**Date Collected:** 02/19/21 09:00  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:29	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 10:29	02/20/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-03-17I  
**Lab Code:** K2101575-010

**Service Request:** K2101575  
**Date Collected:** 02/19/21 10:15  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	14500	ug/L	21	1	02/24/21 10:32	02/20/21	
Manganese	6010C	2860	ug/L	1.1	1	02/24/21 10:32	02/20/21	

ALS Group USA, Corp.  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:25  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:34	02/20/21	
Manganese	6010C	79.1	ug/L	1.1	1	02/24/21 10:34	02/20/21	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-05-DUP2  
**Lab Code:** K2101575-012

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:30  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 10:37	02/20/21	
Manganese	6010C	82.1	ug/L	1.1	1	02/24/21 10:37	02/20/21	



## General Chemistry

**ALS Environmental—Kelso Laboratory**  
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ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002

**Service Request:** K2101575  
**Date Collected:** 02/18/21 10:45  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	<b>6.10</b>	mg/L	0.20	2	02/19/21 17:28	
Nitrate as Nitrogen	300.0	<b>5.65</b>	mg/L	0.10	2	02/19/21 17:28	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002

**Service Request:** K2101575  
**Date Collected:** 02/18/21 10:45  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	170	mg/L	5.0	1	02/20/21 09:20	



ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:40  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	5.67	mg/L	0.20	2	02/19/21 17:40	
Nitrate as Nitrogen	300.0	3.91	mg/L	0.10	2	02/19/21 17:40	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:40  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	<b>190</b>	mg/L	5.0	1	02/20/21 09:20	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:45  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Chloride	300.0	<b>5.69</b>	mg/L	0.20	2	02/19/21 18:16	
Nitrate as Nitrogen	300.0	<b>3.92</b>	mg/L	0.10	2	02/19/21 18:16	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Service Request:** K2101575  
**Date Collected:** 02/18/21 11:45  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	198	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:00  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	<b>10.1</b>	mg/L	0.40	4	02/19/21 19:02	
Nitrate as Nitrogen	300.0	<b>9.14</b>	mg/L	0.20	4	02/19/21 19:02	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:00  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	171	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:55  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	7.00	mg/L	0.40	4	02/19/21 19:14	
Nitrate as Nitrogen	300.0	6.82	mg/L	0.20	4	02/19/21 19:14	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006

**Service Request:** K2101575  
**Date Collected:** 02/18/21 13:55  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	148	mg/L	5.0	1	02/20/21 10:45	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-09-17D  
**Lab Code:** K2101575-007

**Service Request:** K2101575  
**Date Collected:** 02/18/21 15:10  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	11.6	mg/L	0.40	4	02/19/21 19:25	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	4	02/19/21 19:25	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021821-09-17D  
**Lab Code:** K2101575-007

**Service Request:** K2101575  
**Date Collected:** 02/18/21 15:10  
**Date Received:** 02/19/21 12:11

**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	200	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008

**Service Request:** K2101575  
**Date Collected:** 02/19/21 08:10  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	4.61	mg/L	0.40	4	02/19/21 19:37	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	4	02/19/21 19:37	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-01-20S  
**Lab Code:** K2101575-008

**Service Request:** K2101575  
**Date Collected:** 02/19/21 08:10  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	275	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-02-5S  
**Lab Code:** K2101575-009

**Service Request:** K2101575  
**Date Collected:** 02/19/21 09:00  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	6.75	mg/L	0.40	4	02/19/21 19:49	
Nitrate as Nitrogen	300.0	7.09	mg/L	0.20	4	02/19/21 19:49	

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dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-02-5S  
**Lab Code:** K2101575-009

**Service Request:** K2101575  
**Date Collected:** 02/19/21 09:00  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	140	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-03-17I  
**Lab Code:** K2101575-010

**Service Request:** K2101575  
**Date Collected:** 02/19/21 10:15  
**Date Received:** 02/19/21 12:11

**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	<b>18.0</b>	mg/L	0.40	4	02/19/21 20:00	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	4	02/19/21 20:00	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-03-17I  
**Lab Code:** K2101575-010

**Service Request:** K2101575  
**Date Collected:** 02/19/21 10:15  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	299	mg/L	5.0	1	02/20/21 10:45	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:25  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	4.98	mg/L	0.20	2	02/19/21 20:35	
Nitrate as Nitrogen	300.0	1.35	mg/L	0.10	2	02/19/21 20:35	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-04-27I  
**Lab Code:** K2101575-011

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:25  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	176	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-05-DUP2  
**Lab Code:** K2101575-012

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:30  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	<b>5.06</b>	mg/L	0.20	2	02/19/21 20:47	
Nitrate as Nitrogen	300.0	<b>1.36</b>	mg/L	0.10	2	02/19/21 20:47	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-021921-05-DUP2  
**Lab Code:** K2101575-012

**Service Request:** K2101575  
**Date Collected:** 02/19/21 11:30  
**Date Received:** 02/19/21 12:11  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	181	mg/L	5.0	1	02/20/21 10:45	



# QC Summary Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Extraction Method:** None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68-117	73-122	65-144
Trip Blank	K2101575-001	88	100	92
LB-021821-04-1D	K2101575-002	86	99	91
LB-021821-05-1S	K2101575-003	87	96	91
LB-021821-06-DUP1	K2101575-004	88	94	90
LB-021821-07-3D	K2101575-005	87	101	92
LB-021821-08-3S	K2101575-006	88	98	91
LB-021821-09-17D	K2101575-007	87	100	92
LB-021921-01-20S	K2101575-008	85	101	92
LB-021921-02-5S	K2101575-009	88	99	92
LB-021921-03-17I	K2101575-010	87	99	93
LB-021921-04-27I	K2101575-011	88	99	92
LB-021921-05-DUP2	K2101575-012	87	101	92
Method Blank	KQ2102778-05	87	100	92
Lab Control Sample	KQ2102778-03	98	101	97
Duplicate Lab Control Sample	KQ2102778-04	100	99	99

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2102778-05

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	02/23/21 12:12	
Benzene	ND U	0.50	1	02/23/21 12:12	
Bromobenzene	ND U	2.0	1	02/23/21 12:12	
Bromochloromethane	ND U	0.50	1	02/23/21 12:12	
Bromodichloromethane	ND U	0.50	1	02/23/21 12:12	
Bromoform	ND U	0.50	1	02/23/21 12:12	
Bromomethane	ND U	0.50	1	02/23/21 12:12	
2-Butanone (MEK)	ND U	20	1	02/23/21 12:12	
n-Butylbenzene	ND U	4.0	1	02/23/21 12:12	
sec-Butylbenzene	ND U	2.0	1	02/23/21 12:12	
tert-Butylbenzene	ND U	2.0	1	02/23/21 12:12	
Carbon Disulfide	ND U	0.50	1	02/23/21 12:12	
Carbon Tetrachloride	ND U	0.50	1	02/23/21 12:12	
Chlorobenzene	ND U	0.50	1	02/23/21 12:12	
Chloroethane	ND U	0.50	1	02/23/21 12:12	
Chloroform	ND U	0.50	1	02/23/21 12:12	
Chloromethane	ND U	0.50	1	02/23/21 12:12	
2-Chlorotoluene	ND U	2.0	1	02/23/21 12:12	
4-Chlorotoluene	ND U	2.0	1	02/23/21 12:12	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	02/23/21 12:12	
Dibromochloromethane	ND U	0.50	1	02/23/21 12:12	
1,2-Dibromoethane (EDB)	ND U	2.0	1	02/23/21 12:12	
Dibromomethane	ND U	0.50	1	02/23/21 12:12	
1,2-Dichlorobenzene	ND U	0.50	1	02/23/21 12:12	
1,3-Dichlorobenzene	ND U	0.50	1	02/23/21 12:12	
1,4-Dichlorobenzene	ND U	0.50	1	02/23/21 12:12	
Dichlorodifluoromethane	ND U	0.50	1	02/23/21 12:12	
1,1-Dichloroethane	ND U	0.50	1	02/23/21 12:12	
cis-1,2-Dichloroethene	ND U	0.50	1	02/23/21 12:12	
trans-1,2-Dichloroethene	ND U	0.50	1	02/23/21 12:12	
1,2-Dichloropropane	ND U	0.50	1	02/23/21 12:12	
1,3-Dichloropropane	ND U	0.50	1	02/23/21 12:12	
2,2-Dichloropropane	ND U	0.50	1	02/23/21 12:12	
1,1-Dichloropropene	ND U	0.50	1	02/23/21 12:12	
cis-1,3-Dichloropropene	ND U	0.50	1	02/23/21 12:12	
trans-1,3-Dichloropropene	ND U	0.50	1	02/23/21 12:12	
Ethylbenzene	ND U	0.50	1	02/23/21 12:12	
Hexachlorobutadiene	ND U	2.0	1	02/23/21 12:12	
2-Hexanone	ND U	20	1	02/23/21 12:12	
Isopropylbenzene	ND U	2.0	1	02/23/21 12:12	
4-Isopropyltoluene	ND U	2.0	1	02/23/21 12:12	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2102778-05

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	02/23/21 12:12	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	02/23/21 12:12	
Methylene Chloride	ND U	2.0	1	02/23/21 12:12	
Naphthalene	ND U	2.0	1	02/23/21 12:12	
n-Propylbenzene	ND U	2.0	1	02/23/21 12:12	
Styrene	ND U	0.50	1	02/23/21 12:12	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	02/23/21 12:12	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	02/23/21 12:12	
Tetrachloroethene (PCE)	ND U	0.50	1	02/23/21 12:12	
Toluene	ND U	0.50	1	02/23/21 12:12	
1,2,3-Trichlorobenzene	ND U	2.0	1	02/23/21 12:12	
1,2,4-Trichlorobenzene	ND U	2.0	1	02/23/21 12:12	
1,1,2-Trichloroethane	ND U	0.50	1	02/23/21 12:12	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	02/23/21 12:12	
Trichloroethene (TCE)	ND U	0.50	1	02/23/21 12:12	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	02/23/21 12:12	
1,2,3-Trichloropropane	ND U	0.50	1	02/23/21 12:12	
1,2,4-Trimethylbenzene	ND U	2.0	1	02/23/21 12:12	
1,3,5-Trimethylbenzene	ND U	2.0	1	02/23/21 12:12	
Vinyl Chloride	ND U	0.50	1	02/23/21 12:12	
o-Xylene	ND U	0.50	1	02/23/21 12:12	
m,p-Xylenes	ND U	0.50	1	02/23/21 12:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/23/21 12:12	
Dibromofluoromethane	100	73 - 122	02/23/21 12:12	
Toluene-d8	92	65 - 144	02/23/21 12:12	

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Lechner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Analyzed:** 02/23/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 713900

Analyte Name	Lab Control Sample KQ2102778-03			Duplicate Lab Control Sample KQ2102778-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	9.03	10.0	90	8.78	10.0	88	66-124	3	30
1,1,1-Trichloroethane (TCA)	8.28	10.0	83	7.75	10.0	78	59-136	7	30
1,1,2,2-Tetrachloroethane	9.94	10.0	99	10.3	10.0	103	70-127	3	30
1,1,2-Trichloroethane	9.55	10.0	96	9.73	10.0	97	74-118	2	30
1,1-Dichloroethane	8.89	10.0	89	8.24	10.0	82	68-132	8	30
1,1-Dichloropropene	8.26	10.0	83	7.61	10.0	76	59-134	8	30
1,2,3-Trichlorobenzene	9.32	10.0	93	9.03	10.0	90	68-120	3	30
1,2,3-Trichloropropane	9.71	10.0	97	9.85	10.0	99	69-123	1	30
1,2,4-Trichlorobenzene	9.49	10.0	95	9.36	10.0	94	58-126	1	30
1,2,4-Trimethylbenzene	8.92	10.0	89	8.45	10.0	85	63-122	5	30
1,2-Dibromo-3-chloropropane	9.86	10.0	99	9.72	10.0	97	55-132	1	30
1,2-Dibromoethane (EDB)	9.64	10.0	96	9.62	10.0	96	74-118	<1	30
1,2-Dichlorobenzene	9.32	10.0	93	9.05	10.0	91	72-115	3	30
1,2-Dichloropropane	9.40	10.0	94	8.76	10.0	88	67-126	7	30
1,3,5-Trimethylbenzene	8.50	10.0	85	8.02	10.0	80	62-126	6	30
1,3-Dichlorobenzene	9.12	10.0	91	8.56	10.0	86	70-116	6	30
1,3-Dichloropropane	9.82	10.0	98	9.87	10.0	99	75-116	<1	30
1,4-Dichlorobenzene	9.18	10.0	92	8.67	10.0	87	73-115	6	30
2,2-Dichloropropane	8.64	10.0	86	7.81	10.0	78	37-145	10	30
2-Butanone (MEK)	58.9	50.0	118	60.0	50.0	120	71-149	2	30
2-Chlorotoluene	8.52	10.0	85	8.02	10.0	80	55-131	6	30
2-Hexanone	47.4	50.0	95	50.7	50.0	101	59-131	7	30
4-Chlorotoluene	8.58	10.0	86	8.11	10.0	81	66-121	6	30
4-Isopropyltoluene	8.86	10.0	89	8.32	10.0	83	61-128	6	30
4-Methyl-2-pentanone (MIBK)	63.0	50.0	126	63.4	50.0	127	64-134	<1	30
Acetone	58.7	50.0	117	59.2	50.0	118	68-135	<1	30
Benzene	8.93	10.0	89	8.33	10.0	83	69-124	7	30
Bromobenzene	8.70	10.0	87	8.50	10.0	85	72-116	2	30
Bromochloromethane	10.4	10.0	104	10.1	10.0	101	75-131	3	30
Bromodichloromethane	9.49	10.0	95	9.07	10.0	91	63-129	5	30
Bromoform	9.78	10.0	98	10.1	10.0	101	52-144	3	30
Bromomethane	11.9	10.0	119 *	10.8	10.0	108	35-113	10	30
Carbon Disulfide	16.6	20.0	83	15.4	20.0	77	46-144	8	30
Carbon Tetrachloride	8.14	10.0	81	7.34	10.0	73	55-140	10	30
Chlorobenzene	9.21	10.0	92	8.93	10.0	89	72-116	3	30
Chloroethane	10.9	10.0	109	9.84	10.0	98	58-134	10	30
Chloroform	9.10	10.0	91	8.51	10.0	85	70-129	7	30
Chloromethane	8.21	10.0	82	7.33	10.0	73	34-130	11	30
cis-1,2-Dichloroethene	8.83	10.0	88	8.20	10.0	82	71-118	7	30
cis-1,3-Dichloropropene	9.95	10.0	100	9.72	10.0	97	62-132	2	30
Dibromochloromethane	9.37	10.0	94	9.40	10.0	94	67-126	<1	30

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Analyzed:** 02/23/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 713900

Analyte Name	Lab Control Sample KQ2102778-03			Duplicate Lab Control Sample KQ2102778-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dibromomethane	10.5	10.0	105	10.1	10.0	101	69-128	3	30
Dichlorodifluoromethane	6.38	10.0	64	5.85	10.0	59	32-124	9	30
Ethylbenzene	8.82	10.0	88	8.43	10.0	84	67-121	5	30
Hexachlorobutadiene	8.32	10.0	83	7.81	10.0	78	57-119	6	30
Isopropylbenzene	8.65	10.0	87	8.18	10.0	82	67-129	6	30
m,p-Xylenes	18.3	20.0	91	17.3	20.0	86	69-121	6	30
Methyl tert-Butyl Ether	10.6	10.0	106	10.4	10.0	104	54-126	2	30
Methylene Chloride	9.01	10.0	90	8.47	10.0	85	71-122	6	30
Naphthalene	8.80	10.0	88	9.17	10.0	92	64-126	4	30
n-Butylbenzene	7.87	10.0	79	7.40	10.0	74	55-130	6	30
n-Propylbenzene	8.13	10.0	81	7.59	10.0	76	61-124	7	30
o-Xylene	9.41	10.0	94	8.98	10.0	90	71-119	5	30
sec-Butylbenzene	8.25	10.0	83	7.72	10.0	77	59-128	7	30
Styrene	9.69	10.0	97	9.05	10.0	91	74-121	7	30
tert-Butylbenzene	7.93	10.0	79	7.42	10.0	74	61-127	7	30
Tetrachloroethene (PCE)	8.02	10.0	80	7.61	10.0	76	62-126	5	30
Toluene	9.35	10.0	94	8.92	10.0	89	69-124	5	30
trans-1,2-Dichloroethene	8.65	10.0	87	7.74	10.0	77	67-125	11	30
trans-1,3-Dichloropropene	9.50	10.0	95	9.30	10.0	93	59-125	2	30
Trichloroethene (TCE)	7.96	10.0	80	7.39	10.0	74	67-128	7	30
Trichlorofluoromethane (CFC 11)	6.87	10.0	69	6.37	10.0	64	52-141	8	30
Vinyl Chloride	10.2	10.0	102	9.33	10.0	93	55-123	9	30



# Metals

**ALS Environmental—Kelso Laboratory**  
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Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2102423-02

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	02/24/21 09:49	02/20/21	
Manganese	6010C	ND U	ug/L	1.1	1	02/24/21 09:49	02/20/21	

ALS Group USA, Corp.  
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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21  
**Date Received:** 02/19/21  
**Date Analyzed:** 02/24/21  
**Date Extracted:** 02/20/21

**Matrix Spike Summary**  
**Dissolved Metals**

**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002  
**Analysis Method:** 6010C  
**Prep Method:** EPA CLP ILM04.0

**Units:** ug/L  
**Basis:** NA

**Matrix Spike**  
KQ2102423-04

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Iron	ND U	990	1000	99	75-125
Manganese	ND U	503	500	101	75-125

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21  
**Date Received:** 02/19/21  
**Date Analyzed:** 02/24/21

Replicate Sample Summary

Dissolved Metals

**Sample Name:** LB-021821-04-1D  
**Lab Code:** K2101575-002

**Units:** ug/L  
**Basis:** NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
				KQ2102423-03 Result			
Iron	6010C	21	ND U	ND U	ND	-	20
Manganese	6010C	1.1	ND U	ND U	ND	-	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Analyzed:** 02/24/21

**Lab Control Sample Summary**  
**Dissolved Metals**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
KQ2102423-01

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Iron	6010C	2640	2500	106	80-120
Manganese	6010C	1320	1250	105	80-120





## General Chemistry

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ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101575-MB1

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	02/19/21 10:06	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	02/19/21 10:06	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101575-MB1

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101575-MB2

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 10:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101575-MB3

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 09:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2101575-MB4

**Service Request:** K2101575  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	02/20/21 09:20	

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:**K2101575  
**Date Collected:**02/18/21  
**Date Received:**02/19/21  
**Date Analyzed:**2/19/21

**Duplicate Matrix Spike Summary  
General Chemistry Parameters**

**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Units:**mg/L  
**Basis:**NA

Analyte Name	Method	Matrix Spike K2101575-004MS					Duplicate Matrix Spike K2101575-004DMS				
		Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Chloride	300.0	5.69	13.6	8.00	99	13.6	8.00	99	90-110	<1	20
Nitrate as Nitrogen	300.0	3.92	11.8	8.00	99	11.8	8.00	98	90-110	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21  
**Date Received:** 02/19/21  
**Date Analyzed:** 02/20/21

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** LB-021821-05-1S  
**Lab Code:** K2101575-003

**Units:** mg/L  
**Basis:** NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample K2101575-003DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Solids, Total Dissolved	SM 2540 C	5.0	190	188	189	<1	5

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21  
**Date Received:** 02/19/21  
**Date Analyzed:** 02/19/21 - 02/20/21

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** LB-021821-06-DUP1  
**Lab Code:** K2101575-004

**Units:** mg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>MRL</b>	<b>Sample Result</b>	<b>Duplicate Sample K2101575-004DUP Result</b>	<b>Average</b>	<b>RPD</b>	<b>RPD Limit</b>
Chloride	300.0	0.20	5.69	5.65	5.67	<1	20
Nitrate as Nitrogen	300.0	0.10	3.92	3.90	3.91	<1	20
Solids, Total Dissolved	SM 2540 C	5.0	198	189	194	4	5

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21  
**Date Received:** 02/19/21  
**Date Analyzed:** 02/20/21

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** LB-021821-07-3D  
**Lab Code:** K2101575-005

**Units:** mg/L  
**Basis:** NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample K2101575-005DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Solids, Total Dissolved	SM 2540 C	5.0	171	175	173	3	5

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Collected:** 02/18/21  
**Date Received:** 02/19/21  
**Date Analyzed:** 02/20/21

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** LB-021821-08-3S  
**Lab Code:** K2101575-006

**Units:** mg/L  
**Basis:** NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample K2101575-006DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Solids, Total Dissolved	SM 2540 C	5.0	148	155	151	4	5

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Analyzed:** 02/19/21 - 02/20/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2101575-LCS1

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	5.03	5.00	101	90-110
Nitrate as Nitrogen	300.0	2.40	2.50	96	90-110
Solids, Total Dissolved	SM 2540 C	920	922	100	85-115

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2101575  
**Date Analyzed:** 02/20/21  
**Date Extracted:** NA

**Lab Control Sample Summary**  
**Solids, Total Dissolved**

**Analysis Method:** SM 2540 C  
**Prep Method:** None

**Units:** mg/L  
**Basis:** NA  
**Analysis Lot:** 713639

<b>Sample Name</b>	<b>Lab Code</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Lab Control Sample	K2101575-LCS2	928	922	101	85-115





May 28, 2021

Service Request No:K2105413

Tiffany Andrews  
SCS Engineers  
15940 SW 72nd Ave  
Portland, OR 97224

**Laboratory Results for: Leichner Lanfill**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory May 14, 2021  
For your reference, these analyses have been assigned our service request number **K2105413**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

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dba ALS Environmental



# Narrative Documents

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**Client:** SCS Engineers  
**Project:** Leichner Lanfill  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Received:** 05/14/2021

**CASE NARRATIVE**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

**Sample Receipt:**

Six ground water samples were received for analysis at ALS Environmental on 05/14/2021. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

**Volatiles by GC/MS:**

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0520F007.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0524F002.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Approved by 

Date 05/28/2021



## Sample Receipt Information

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13

**Service Request:**K2105413

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2105413-001	LB-051321-01-27I	5/13/2021	1120
K2105413-002	LB-051321-03-1S	5/13/2021	1225
K2105413-003	LB-051321-02-FB	5/13/2021	1150
K2105413-004	LB-051321-04-10SR	5/13/2021	1320
K2105413-005	LB-051321-05-DUP	5/13/2021	1325
K2105413-006	Trip Blank	5/13/2021	



ADDRESS 1317 South 13th Ave., Kelso, WA 98626  
 PHONE 1 360 577 7222 FAX 1 360 636 1068

# Chain of Custody

Work Order No.:

K2105413 Rev

Part of the ALS Group A Campbell Brothers Limited Company

<b>Project Manager:</b> Tiffany Andrews				<b>Bill to:</b> Same			
<b>Client Name:</b> Leichner Landfill				<b>Company:</b>			
<b>Address:</b> 15940 SW 72nd Avenue				<b>Address:</b>			
<b>City, State ZIP:</b> Portland, OR 97224				<b>City, State ZIP:</b>			
<b>Email:</b> tandrews@scsengineers.com		<b>Phone:</b> 503-724-0112		<b>Email:</b>			
<b>Project Name:</b> Leichner Special Event		<b>REQUESTED ANALYSIS</b>				<b>TAT</b>	
<b>Project Number:</b> 04221030.12						<input type="checkbox"/> Routine 21day <input type="checkbox"/> Same Day 100% <input type="checkbox"/> Next Day *** <input type="checkbox"/> 3 Day <input type="checkbox"/> 5 Day 50%	
<b>P.O. Number:</b>						<b>Surcharges.</b> Please call for availability	
<b>Sampler's Name:</b> Kara Kingen						<b>Due Date:</b>	
<b>SAMPLE RECEIPT</b>						<b>Comments</b>	
<b>Temperature (°C):</b>		<b>Temp Blank Present:</b>		No. of Containers 8260 (VCCs)		CI and TDS are Field Filtered	
<b>Received Intact:</b> Yes No N/A		<b>Wet Ice / Blue Ice:</b>					
<b>Cooler Custody Seals:</b> Yes No N/A		<b>Total Containers:</b>					
<b>Sample Custody Seals:</b> Yes No N/A							
<b>Sample Identification</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Time Sampled</b>	<b>Lab ID</b>			
LB-051321-01-271	W	5/13/2021	11:20		3	X	
LB-051321-03-1S	W	5/13/2021	12:25		3	X	
LB-051321-02-BB	W	5/13/2021	11:50		3	X	
LB-051321-04-10SR	W	5/13/2021	13:20		3	X	
LB-051321-05-DUP	W	5/13/2021	13:25		3	X	
<b>Dissolved</b>		Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr				<b>Additional Methods Available Upon Request</b>	
<b>Total</b>		Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr					
<b>RELINQUISHED BY</b>				<b>RECEIVED BY</b>			
<b>Print Name</b>		<b>Signature</b>		<b>Date/Time</b>		<b>Signature</b>	
Kara Kingen		Kara Kingen		5/14/2021 @0845			



# CHAIN OF CUSTODY


SR# K2105413

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE 1 OF 1 COC#           

PROJECT NAME <u>Leichner Landfill</u>				
PROJECT NUMBER <u>04221030-13</u>				
PROJECT MANAGER <u>Tiffany Andrews</u>				
COMPANY NAME <u>SCS Engineers</u>				
ADDRESS <u>15960 SW 72nd Ave</u>				
CITY/STATE/ZIP <u>Portland, OR 97224</u>				
E-MAIL ADDRESS <u>T.Andrews@scsengineers.com</u>				
PHONE # <u>503.424.0112</u> FAX # <u>          </u>				
SAMPLER'S SIGNATURE <u>[Signature]</u>				

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	ANALYZES																					REMARKS		
						Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>	Hydrocarbons Gas <input type="checkbox"/> 8021 <input type="checkbox"/> BTEX <input type="checkbox"/>	Oil & Grease/TRPH 1664 <input type="checkbox"/> Diesel <input type="checkbox"/> Oil <input type="checkbox"/>	PCBs 1664 <input type="checkbox"/> HEM <input type="checkbox"/> 1664 SGT <input type="checkbox"/>	Aroclors <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 8081 <input type="checkbox"/> Congeners <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> 8141 <input type="checkbox"/> 8151 <input type="checkbox"/>	Metals, Total or Dissolved (See List below) <input type="checkbox"/>	PCP <input type="checkbox"/>	Cyanide <input type="checkbox"/>	Hex-Chrom <input type="checkbox"/>	(circle) pH, Cond., Cl, SO4, PO4, F, NO2, NO3, EOD, TSS, TDS, Turb. <input type="checkbox"/>	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, T-Phos <input type="checkbox"/>	AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Alkalinity <input type="checkbox"/> CO3 <input type="checkbox"/> HCO3 <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/>	CO2 <input type="checkbox"/>					
LB-051321-01-27I	5/13/21	1120		W				X																					
LB-051321-03-18	5/13/21	1225		W				X																					
LB-051321-02-FB	5/13/21	1150		W				X																					
LB-051321-04-10SR	5/13/21	1320		W				X																					
LB-051321-05-DUP	5/13/21	1325		W				X																					

<b>REPORT REQUIREMENTS</b> <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	<b>INVOICE INFORMATION</b> P.O. # _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg <b>*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)</b>
	<b>TURNAROUND REQUIREMENTS</b> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input type="checkbox"/> Standard (15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date _____	SPECIAL INSTRUCTIONS/COMMENTS: <div style="text-align: right;"> <b>Container Supply Number</b>              116431         </div> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)

<b>RELINQUISHED BY:</b> <u>[Signature]</u> Signature _____ Date/Time <u>5/14/21 0845</u> Printed Name <u>Kors Kamen</u> Firm <u>SCS</u>	<b>RECEIVED BY:</b> <u>[Signature]</u> Signature _____ Date/Time <u>5/14/21 0845</u> Printed Name _____ Firm _____	<b>RELINQUISHED BY:</b> <u>[Signature]</u> Signature _____ Date/Time <u>5/14/21 1215</u> Printed Name _____ Firm _____	<b>RECEIVED BY:</b> <u>[Signature]</u> Signature _____ Date/Time <u>5/14/21 1215</u> Printed Name _____ Firm _____
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PM HH

### Cooler Receipt and Preservation Form

Client SGJ Service Request K21 OS413  
Received: 5114121 Opened: 5114121 By: BR Unloaded: 5114121 By: BR

- 1. Samples were received via?  USPS  Fed Ex  UPS  DHL  PDX  Courier  Hand Delivered
  - 2. Samples were received in: (circle)  Cooler  Box  Envelope  Other  NA
  - 3. Were custody seals on coolers?  NA  Y  N If yes, how many and where? Front  
If present, were custody seals intact?  Y  N If present, were they signed and dated?  Y  N
  - 4. Was a Temperature Blank present in cooler?  NA  Y  N If yes, notate the temperature in the appropriate column below:  
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
  - 5. Were samples received within the method specified temperature ranges?  NA  Y  N  
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM.  NA  Y  N
- If applicable, tissue samples were received: **Frozen Partially Thawed Thawed**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>4.1</u>	<u>-</u>	<u>1202</u>					

- 6. Packing material:  Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Dry Ice  Sleeves
- 7. Were custody papers properly filled out (ink, signed, etc.)?  NA  Y  N
- 8. Were samples received in good condition (unbroken)  NA  Y  N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)?  NA  Y  N
- 10. Did all sample labels and tags agree with custody papers?  NA  Y  N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated?  NA  Y  N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below  NA  Y  N
- 13. Were VOA vials received without headspace? Indicate in the table below.  NA  Y  N
- 14. Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.



**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEH	<a href="http://dec.alaska.gov/eh/lab/cs/csapproval.htm">http://dec.alaska.gov/eh/lab/cs/csapproval.htm</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L16-58-R4
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	<a href="http://health.hawaii.gov/">http://health.hawaii.gov/</a>	-
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	03016
Maine DHS	<a href="http://www.maine.gov/dhhs/">http://www.maine.gov/dhhs/</a>	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	WA005
New York - DOH	<a href="https://www.wadsworth.org/regulatory/elap">https://www.wadsworth.org/regulatory/elap</a>	12060
North Carolina DEQ	<a href="https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification">https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/EnvironmentalLabCertification/">http://www.scdhec.gov/environment/EnvironmentalLabCertification/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water">https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.ALSGlobal.com](http://www.ALSGlobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13

**Service Request:** K2105413

**Sample Name:** LB-051321-01-27I  
**Lab Code:** K2105413-001  
**Sample Matrix:** Ground Water

**Date Collected:** 05/13/21  
**Date Received:** 05/14/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-051321-03-1S  
**Lab Code:** K2105413-002  
**Sample Matrix:** Ground Water

**Date Collected:** 05/13/21  
**Date Received:** 05/14/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-051321-02-FB  
**Lab Code:** K2105413-003  
**Sample Matrix:** Ground Water

**Date Collected:** 05/13/21  
**Date Received:** 05/14/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-051321-04-10SR  
**Lab Code:** K2105413-004  
**Sample Matrix:** Ground Water

**Date Collected:** 05/13/21  
**Date Received:** 05/14/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-051321-05-DUP  
**Lab Code:** K2105413-005  
**Sample Matrix:** Ground Water

**Date Collected:** 05/13/21  
**Date Received:** 05/14/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**ALS Group USA, Corp.**

dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13

**Service Request:** K2105413

**Sample Name:** Trip Blank  
**Lab Code:** K2105413-006  
**Sample Matrix:** Ground Water

**Date Collected:** 05/13/21  
**Date Received:** 05/14/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY



# Sample Results

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 11:20  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-01-27I  
**Lab Code:** K2105413-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/20/21 16:16	
Benzene	ND U	0.50	1	05/20/21 16:16	
Bromobenzene	ND U	2.0	1	05/20/21 16:16	
Bromochloromethane	ND U	0.50	1	05/20/21 16:16	
Bromodichloromethane	ND U	0.50	1	05/20/21 16:16	
Bromoform	ND U	0.50	1	05/20/21 16:16	
Bromomethane	ND U	0.50	1	05/20/21 16:16	*
2-Butanone (MEK)	ND U	20	1	05/20/21 16:16	
n-Butylbenzene	ND U	4.0	1	05/20/21 16:16	
sec-Butylbenzene	ND U	2.0	1	05/20/21 16:16	
tert-Butylbenzene	ND U	2.0	1	05/20/21 16:16	
Carbon Disulfide	ND U	0.50	1	05/20/21 16:16	
Carbon Tetrachloride	ND U	0.50	1	05/20/21 16:16	
Chlorobenzene	ND U	0.50	1	05/20/21 16:16	
Chloroethane	ND U	0.50	1	05/20/21 16:16	
Chloroform	ND U	0.50	1	05/20/21 16:16	
Chloromethane	ND U	0.50	1	05/20/21 16:16	
2-Chlorotoluene	ND U	2.0	1	05/20/21 16:16	
4-Chlorotoluene	ND U	2.0	1	05/20/21 16:16	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/20/21 16:16	
Dibromochloromethane	ND U	0.50	1	05/20/21 16:16	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/20/21 16:16	
Dibromomethane	ND U	0.50	1	05/20/21 16:16	
1,2-Dichlorobenzene	ND U	0.50	1	05/20/21 16:16	
1,3-Dichlorobenzene	ND U	0.50	1	05/20/21 16:16	
1,4-Dichlorobenzene	ND U	0.50	1	05/20/21 16:16	
Dichlorodifluoromethane	ND U	0.50	1	05/20/21 16:16	
1,1-Dichloroethane	ND U	0.50	1	05/20/21 16:16	
cis-1,2-Dichloroethene	ND U	0.50	1	05/20/21 16:16	
trans-1,2-Dichloroethene	ND U	0.50	1	05/20/21 16:16	
1,2-Dichloropropane	ND U	0.50	1	05/20/21 16:16	
1,3-Dichloropropane	ND U	0.50	1	05/20/21 16:16	
2,2-Dichloropropane	ND U	0.50	1	05/20/21 16:16	*
1,1-Dichloropropene	ND U	0.50	1	05/20/21 16:16	
cis-1,3-Dichloropropene	ND U	0.50	1	05/20/21 16:16	
trans-1,3-Dichloropropene	ND U	0.50	1	05/20/21 16:16	
Ethylbenzene	ND U	0.50	1	05/20/21 16:16	
Hexachlorobutadiene	ND U	2.0	1	05/20/21 16:16	
2-Hexanone	ND U	20	1	05/20/21 16:16	
Isopropylbenzene	ND U	2.0	1	05/20/21 16:16	
4-Isopropyltoluene	ND U	2.0	1	05/20/21 16:16	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 11:20  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-01-27I  
**Lab Code:** K2105413-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/20/21 16:16	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/20/21 16:16	
Methylene Chloride	ND U	2.0	1	05/20/21 16:16	
Naphthalene	ND U	2.0	1	05/20/21 16:16	*
n-Propylbenzene	ND U	2.0	1	05/20/21 16:16	
Styrene	ND U	0.50	1	05/20/21 16:16	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/20/21 16:16	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/20/21 16:16	
Tetrachloroethene (PCE)	ND U	0.50	1	05/20/21 16:16	
Toluene	ND U	0.50	1	05/20/21 16:16	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/20/21 16:16	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/20/21 16:16	
1,1,2-Trichloroethane	ND U	0.50	1	05/20/21 16:16	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/20/21 16:16	
Trichloroethene (TCE)	ND U	0.50	1	05/20/21 16:16	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/20/21 16:16	
1,2,3-Trichloropropane	ND U	0.50	1	05/20/21 16:16	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/20/21 16:16	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/20/21 16:16	
Vinyl Chloride	ND U	0.50	1	05/20/21 16:16	
o-Xylene	ND U	0.50	1	05/20/21 16:16	
m,p-Xylenes	ND U	0.50	1	05/20/21 16:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	68 - 117	05/20/21 16:16	
Dibromofluoromethane	93	73 - 122	05/20/21 16:16	
Toluene-d8	96	65 - 144	05/20/21 16:16	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 12:25  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-03-1S  
**Lab Code:** K2105413-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/20/21 16:42	
Benzene	ND U	0.50	1	05/20/21 16:42	
Bromobenzene	ND U	2.0	1	05/20/21 16:42	
Bromochloromethane	ND U	0.50	1	05/20/21 16:42	
Bromodichloromethane	ND U	0.50	1	05/20/21 16:42	
Bromoform	ND U	0.50	1	05/20/21 16:42	
Bromomethane	ND U	0.50	1	05/20/21 16:42	*
2-Butanone (MEK)	ND U	20	1	05/20/21 16:42	
n-Butylbenzene	ND U	4.0	1	05/20/21 16:42	
sec-Butylbenzene	ND U	2.0	1	05/20/21 16:42	
tert-Butylbenzene	ND U	2.0	1	05/20/21 16:42	
Carbon Disulfide	ND U	0.50	1	05/20/21 16:42	
Carbon Tetrachloride	ND U	0.50	1	05/20/21 16:42	
Chlorobenzene	ND U	0.50	1	05/20/21 16:42	
Chloroethane	ND U	0.50	1	05/20/21 16:42	
Chloroform	ND U	0.50	1	05/20/21 16:42	
Chloromethane	ND U	0.50	1	05/20/21 16:42	
2-Chlorotoluene	ND U	2.0	1	05/20/21 16:42	
4-Chlorotoluene	ND U	2.0	1	05/20/21 16:42	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/20/21 16:42	
Dibromochloromethane	ND U	0.50	1	05/20/21 16:42	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/20/21 16:42	
Dibromomethane	ND U	0.50	1	05/20/21 16:42	
1,2-Dichlorobenzene	ND U	0.50	1	05/20/21 16:42	
1,3-Dichlorobenzene	ND U	0.50	1	05/20/21 16:42	
1,4-Dichlorobenzene	ND U	0.50	1	05/20/21 16:42	
Dichlorodifluoromethane	ND U	0.50	1	05/20/21 16:42	
1,1-Dichloroethane	ND U	0.50	1	05/20/21 16:42	
cis-1,2-Dichloroethene	ND U	0.50	1	05/20/21 16:42	
trans-1,2-Dichloroethene	ND U	0.50	1	05/20/21 16:42	
1,2-Dichloropropane	ND U	0.50	1	05/20/21 16:42	
1,3-Dichloropropane	ND U	0.50	1	05/20/21 16:42	
2,2-Dichloropropane	ND U	0.50	1	05/20/21 16:42	*
1,1-Dichloropropene	ND U	0.50	1	05/20/21 16:42	
cis-1,3-Dichloropropene	ND U	0.50	1	05/20/21 16:42	
trans-1,3-Dichloropropene	ND U	0.50	1	05/20/21 16:42	
Ethylbenzene	ND U	0.50	1	05/20/21 16:42	
Hexachlorobutadiene	ND U	2.0	1	05/20/21 16:42	
2-Hexanone	ND U	20	1	05/20/21 16:42	
Isopropylbenzene	ND U	2.0	1	05/20/21 16:42	
4-Isopropyltoluene	ND U	2.0	1	05/20/21 16:42	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 12:25  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-03-1S  
**Lab Code:** K2105413-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/20/21 16:42	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/20/21 16:42	
Methylene Chloride	ND U	2.0	1	05/20/21 16:42	
Naphthalene	ND U	2.0	1	05/20/21 16:42	*
n-Propylbenzene	ND U	2.0	1	05/20/21 16:42	
Styrene	ND U	0.50	1	05/20/21 16:42	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/20/21 16:42	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/20/21 16:42	
Tetrachloroethene (PCE)	ND U	0.50	1	05/20/21 16:42	
Toluene	ND U	0.50	1	05/20/21 16:42	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/20/21 16:42	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/20/21 16:42	
1,1,2-Trichloroethane	ND U	0.50	1	05/20/21 16:42	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/20/21 16:42	
Trichloroethene (TCE)	ND U	0.50	1	05/20/21 16:42	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/20/21 16:42	
1,2,3-Trichloropropane	ND U	0.50	1	05/20/21 16:42	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/20/21 16:42	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/20/21 16:42	
Vinyl Chloride	ND U	0.50	1	05/20/21 16:42	
o-Xylene	ND U	0.50	1	05/20/21 16:42	
m,p-Xylenes	ND U	0.50	1	05/20/21 16:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	05/20/21 16:42	
Dibromofluoromethane	93	73 - 122	05/20/21 16:42	
Toluene-d8	96	65 - 144	05/20/21 16:42	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 11:50  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-02-FB  
**Lab Code:** K2105413-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/20/21 17:09	
Benzene	ND U	0.50	1	05/20/21 17:09	
Bromobenzene	ND U	2.0	1	05/20/21 17:09	
Bromochloromethane	ND U	0.50	1	05/20/21 17:09	
Bromodichloromethane	ND U	0.50	1	05/20/21 17:09	
Bromoform	ND U	0.50	1	05/20/21 17:09	
Bromomethane	ND U	0.50	1	05/20/21 17:09	*
2-Butanone (MEK)	ND U	20	1	05/20/21 17:09	
n-Butylbenzene	ND U	4.0	1	05/20/21 17:09	
sec-Butylbenzene	ND U	2.0	1	05/20/21 17:09	
tert-Butylbenzene	ND U	2.0	1	05/20/21 17:09	
Carbon Disulfide	ND U	0.50	1	05/20/21 17:09	
Carbon Tetrachloride	ND U	0.50	1	05/20/21 17:09	
Chlorobenzene	ND U	0.50	1	05/20/21 17:09	
Chloroethane	ND U	0.50	1	05/20/21 17:09	
Chloroform	ND U	0.50	1	05/20/21 17:09	
Chloromethane	ND U	0.50	1	05/20/21 17:09	
2-Chlorotoluene	ND U	2.0	1	05/20/21 17:09	
4-Chlorotoluene	ND U	2.0	1	05/20/21 17:09	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/20/21 17:09	
Dibromochloromethane	ND U	0.50	1	05/20/21 17:09	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/20/21 17:09	
Dibromomethane	ND U	0.50	1	05/20/21 17:09	
1,2-Dichlorobenzene	ND U	0.50	1	05/20/21 17:09	
1,3-Dichlorobenzene	ND U	0.50	1	05/20/21 17:09	
1,4-Dichlorobenzene	ND U	0.50	1	05/20/21 17:09	
Dichlorodifluoromethane	ND U	0.50	1	05/20/21 17:09	
1,1-Dichloroethane	ND U	0.50	1	05/20/21 17:09	
cis-1,2-Dichloroethene	ND U	0.50	1	05/20/21 17:09	
trans-1,2-Dichloroethene	ND U	0.50	1	05/20/21 17:09	
1,2-Dichloropropane	ND U	0.50	1	05/20/21 17:09	
1,3-Dichloropropane	ND U	0.50	1	05/20/21 17:09	
2,2-Dichloropropane	ND U	0.50	1	05/20/21 17:09	*
1,1-Dichloropropene	ND U	0.50	1	05/20/21 17:09	
cis-1,3-Dichloropropene	ND U	0.50	1	05/20/21 17:09	
trans-1,3-Dichloropropene	ND U	0.50	1	05/20/21 17:09	
Ethylbenzene	ND U	0.50	1	05/20/21 17:09	
Hexachlorobutadiene	ND U	2.0	1	05/20/21 17:09	
2-Hexanone	ND U	20	1	05/20/21 17:09	
Isopropylbenzene	ND U	2.0	1	05/20/21 17:09	
4-Isopropyltoluene	ND U	2.0	1	05/20/21 17:09	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 11:50  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-02-FB  
**Lab Code:** K2105413-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/20/21 17:09	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/20/21 17:09	
Methylene Chloride	ND U	2.0	1	05/20/21 17:09	
Naphthalene	ND U	2.0	1	05/20/21 17:09	*
n-Propylbenzene	ND U	2.0	1	05/20/21 17:09	
Styrene	ND U	0.50	1	05/20/21 17:09	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/20/21 17:09	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/20/21 17:09	
Tetrachloroethene (PCE)	ND U	0.50	1	05/20/21 17:09	
Toluene	ND U	0.50	1	05/20/21 17:09	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/20/21 17:09	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/20/21 17:09	
1,1,2-Trichloroethane	ND U	0.50	1	05/20/21 17:09	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/20/21 17:09	
Trichloroethene (TCE)	ND U	0.50	1	05/20/21 17:09	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/20/21 17:09	
1,2,3-Trichloropropane	ND U	0.50	1	05/20/21 17:09	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/20/21 17:09	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/20/21 17:09	
Vinyl Chloride	ND U	0.50	1	05/20/21 17:09	
o-Xylene	ND U	0.50	1	05/20/21 17:09	
m,p-Xylenes	ND U	0.50	1	05/20/21 17:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	05/20/21 17:09	
Dibromofluoromethane	92	73 - 122	05/20/21 17:09	
Toluene-d8	93	65 - 144	05/20/21 17:09	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 13:20  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-04-10SR  
**Lab Code:** K2105413-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/20/21 17:35	
Benzene	ND U	0.50	1	05/20/21 17:35	
Bromobenzene	ND U	2.0	1	05/20/21 17:35	
Bromochloromethane	ND U	0.50	1	05/20/21 17:35	
Bromodichloromethane	ND U	0.50	1	05/20/21 17:35	
Bromoform	ND U	0.50	1	05/20/21 17:35	
Bromomethane	ND U	0.50	1	05/20/21 17:35	*
2-Butanone (MEK)	ND U	20	1	05/20/21 17:35	
n-Butylbenzene	ND U	4.0	1	05/20/21 17:35	
sec-Butylbenzene	ND U	2.0	1	05/20/21 17:35	
tert-Butylbenzene	ND U	2.0	1	05/20/21 17:35	
Carbon Disulfide	ND U	0.50	1	05/20/21 17:35	
Carbon Tetrachloride	ND U	0.50	1	05/20/21 17:35	
Chlorobenzene	ND U	0.50	1	05/20/21 17:35	
Chloroethane	ND U	0.50	1	05/20/21 17:35	
Chloroform	ND U	0.50	1	05/20/21 17:35	
Chloromethane	ND U	0.50	1	05/20/21 17:35	
2-Chlorotoluene	ND U	2.0	1	05/20/21 17:35	
4-Chlorotoluene	ND U	2.0	1	05/20/21 17:35	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/20/21 17:35	
Dibromochloromethane	ND U	0.50	1	05/20/21 17:35	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/20/21 17:35	
Dibromomethane	ND U	0.50	1	05/20/21 17:35	
1,2-Dichlorobenzene	ND U	0.50	1	05/20/21 17:35	
1,3-Dichlorobenzene	ND U	0.50	1	05/20/21 17:35	
1,4-Dichlorobenzene	ND U	0.50	1	05/20/21 17:35	
Dichlorodifluoromethane	ND U	0.50	1	05/20/21 17:35	
1,1-Dichloroethane	ND U	0.50	1	05/20/21 17:35	
cis-1,2-Dichloroethene	ND U	0.50	1	05/20/21 17:35	
trans-1,2-Dichloroethene	ND U	0.50	1	05/20/21 17:35	
1,2-Dichloropropane	ND U	0.50	1	05/20/21 17:35	
1,3-Dichloropropane	ND U	0.50	1	05/20/21 17:35	
2,2-Dichloropropane	ND U	0.50	1	05/20/21 17:35	*
1,1-Dichloropropene	ND U	0.50	1	05/20/21 17:35	
cis-1,3-Dichloropropene	ND U	0.50	1	05/20/21 17:35	
trans-1,3-Dichloropropene	ND U	0.50	1	05/20/21 17:35	
Ethylbenzene	ND U	0.50	1	05/20/21 17:35	
Hexachlorobutadiene	ND U	2.0	1	05/20/21 17:35	
2-Hexanone	ND U	20	1	05/20/21 17:35	
Isopropylbenzene	ND U	2.0	1	05/20/21 17:35	
4-Isopropyltoluene	ND U	2.0	1	05/20/21 17:35	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 13:20  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-04-10SR  
**Lab Code:** K2105413-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/20/21 17:35	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/20/21 17:35	
Methylene Chloride	ND U	2.0	1	05/20/21 17:35	
Naphthalene	ND U	2.0	1	05/20/21 17:35	*
n-Propylbenzene	ND U	2.0	1	05/20/21 17:35	
Styrene	ND U	0.50	1	05/20/21 17:35	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/20/21 17:35	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/20/21 17:35	
Tetrachloroethene (PCE)	ND U	0.50	1	05/20/21 17:35	
Toluene	ND U	0.50	1	05/20/21 17:35	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/20/21 17:35	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/20/21 17:35	
1,1,2-Trichloroethane	ND U	0.50	1	05/20/21 17:35	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/20/21 17:35	
Trichloroethene (TCE)	ND U	0.50	1	05/20/21 17:35	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/20/21 17:35	
1,2,3-Trichloropropane	ND U	0.50	1	05/20/21 17:35	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/20/21 17:35	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/20/21 17:35	
Vinyl Chloride	ND U	0.50	1	05/20/21 17:35	
o-Xylene	ND U	0.50	1	05/20/21 17:35	
m,p-Xylenes	ND U	0.50	1	05/20/21 17:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	05/20/21 17:35	
Dibromofluoromethane	91	73 - 122	05/20/21 17:35	
Toluene-d8	97	65 - 144	05/20/21 17:35	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 13:25  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-05-DUP  
**Lab Code:** K2105413-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/24/21 13:27	
Benzene	ND U	0.50	1	05/24/21 13:27	
Bromobenzene	ND U	2.0	1	05/24/21 13:27	
Bromochloromethane	ND U	0.50	1	05/24/21 13:27	
Bromodichloromethane	ND U	0.50	1	05/24/21 13:27	
Bromoform	ND U	0.50	1	05/24/21 13:27	
Bromomethane	ND U	0.50	1	05/24/21 13:27	*
2-Butanone (MEK)	ND U	20	1	05/24/21 13:27	
n-Butylbenzene	ND U	4.0	1	05/24/21 13:27	
sec-Butylbenzene	ND U	2.0	1	05/24/21 13:27	
tert-Butylbenzene	ND U	2.0	1	05/24/21 13:27	
Carbon Disulfide	ND U	0.50	1	05/24/21 13:27	
Carbon Tetrachloride	ND U	0.50	1	05/24/21 13:27	
Chlorobenzene	ND U	0.50	1	05/24/21 13:27	
Chloroethane	ND U	0.50	1	05/24/21 13:27	
Chloroform	ND U	0.50	1	05/24/21 13:27	
Chloromethane	ND U	0.50	1	05/24/21 13:27	
2-Chlorotoluene	ND U	2.0	1	05/24/21 13:27	
4-Chlorotoluene	ND U	2.0	1	05/24/21 13:27	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/24/21 13:27	
Dibromochloromethane	ND U	0.50	1	05/24/21 13:27	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/24/21 13:27	
Dibromomethane	ND U	0.50	1	05/24/21 13:27	
1,2-Dichlorobenzene	ND U	0.50	1	05/24/21 13:27	
1,3-Dichlorobenzene	ND U	0.50	1	05/24/21 13:27	
1,4-Dichlorobenzene	ND U	0.50	1	05/24/21 13:27	
Dichlorodifluoromethane	ND U	0.50	1	05/24/21 13:27	
1,1-Dichloroethane	ND U	0.50	1	05/24/21 13:27	
cis-1,2-Dichloroethene	ND U	0.50	1	05/24/21 13:27	
trans-1,2-Dichloroethene	ND U	0.50	1	05/24/21 13:27	
1,2-Dichloropropane	ND U	0.50	1	05/24/21 13:27	
1,3-Dichloropropane	ND U	0.50	1	05/24/21 13:27	
2,2-Dichloropropane	ND U	0.50	1	05/24/21 13:27	*
1,1-Dichloropropene	ND U	0.50	1	05/24/21 13:27	
cis-1,3-Dichloropropene	ND U	0.50	1	05/24/21 13:27	
trans-1,3-Dichloropropene	ND U	0.50	1	05/24/21 13:27	
Ethylbenzene	ND U	0.50	1	05/24/21 13:27	
Hexachlorobutadiene	ND U	2.0	1	05/24/21 13:27	
2-Hexanone	ND U	20	1	05/24/21 13:27	*
Isopropylbenzene	ND U	2.0	1	05/24/21 13:27	
4-Isopropyltoluene	ND U	2.0	1	05/24/21 13:27	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21 13:25  
**Date Received:** 05/14/21 12:15

**Sample Name:** LB-051321-05-DUP  
**Lab Code:** K2105413-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/24/21 13:27	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/24/21 13:27	
Methylene Chloride	ND U	2.0	1	05/24/21 13:27	
Naphthalene	ND U	2.0	1	05/24/21 13:27	
n-Propylbenzene	ND U	2.0	1	05/24/21 13:27	
Styrene	ND U	0.50	1	05/24/21 13:27	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/24/21 13:27	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/24/21 13:27	
Tetrachloroethene (PCE)	ND U	0.50	1	05/24/21 13:27	
Toluene	ND U	0.50	1	05/24/21 13:27	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/24/21 13:27	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/24/21 13:27	
1,1,2-Trichloroethane	ND U	0.50	1	05/24/21 13:27	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/24/21 13:27	
Trichloroethene (TCE)	ND U	0.50	1	05/24/21 13:27	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/24/21 13:27	
1,2,3-Trichloropropane	ND U	0.50	1	05/24/21 13:27	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/24/21 13:27	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/24/21 13:27	
Vinyl Chloride	ND U	0.50	1	05/24/21 13:27	
o-Xylene	ND U	0.50	1	05/24/21 13:27	
m,p-Xylenes	ND U	0.50	1	05/24/21 13:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	05/24/21 13:27	
Dibromofluoromethane	93	73 - 122	05/24/21 13:27	
Toluene-d8	97	65 - 144	05/24/21 13:27	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21  
**Date Received:** 05/14/21 12:15

**Sample Name:** Trip Blank  
**Lab Code:** K2105413-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/20/21 18:02	
Benzene	ND U	0.50	1	05/20/21 18:02	
Bromobenzene	ND U	2.0	1	05/20/21 18:02	
Bromochloromethane	ND U	0.50	1	05/20/21 18:02	
Bromodichloromethane	ND U	0.50	1	05/20/21 18:02	
Bromoform	ND U	0.50	1	05/20/21 18:02	
Bromomethane	ND U	0.50	1	05/20/21 18:02	*
2-Butanone (MEK)	ND U	20	1	05/20/21 18:02	
n-Butylbenzene	ND U	4.0	1	05/20/21 18:02	
sec-Butylbenzene	ND U	2.0	1	05/20/21 18:02	
tert-Butylbenzene	ND U	2.0	1	05/20/21 18:02	
Carbon Disulfide	ND U	0.50	1	05/20/21 18:02	
Carbon Tetrachloride	ND U	0.50	1	05/20/21 18:02	
Chlorobenzene	ND U	0.50	1	05/20/21 18:02	
Chloroethane	ND U	0.50	1	05/20/21 18:02	
Chloroform	ND U	0.50	1	05/20/21 18:02	
Chloromethane	ND U	0.50	1	05/20/21 18:02	
2-Chlorotoluene	ND U	2.0	1	05/20/21 18:02	
4-Chlorotoluene	ND U	2.0	1	05/20/21 18:02	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/20/21 18:02	
Dibromochloromethane	ND U	0.50	1	05/20/21 18:02	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/20/21 18:02	
Dibromomethane	ND U	0.50	1	05/20/21 18:02	
1,2-Dichlorobenzene	ND U	0.50	1	05/20/21 18:02	
1,3-Dichlorobenzene	ND U	0.50	1	05/20/21 18:02	
1,4-Dichlorobenzene	ND U	0.50	1	05/20/21 18:02	
Dichlorodifluoromethane	ND U	0.50	1	05/20/21 18:02	
1,1-Dichloroethane	ND U	0.50	1	05/20/21 18:02	
cis-1,2-Dichloroethene	ND U	0.50	1	05/20/21 18:02	
trans-1,2-Dichloroethene	ND U	0.50	1	05/20/21 18:02	
1,2-Dichloropropane	ND U	0.50	1	05/20/21 18:02	
1,3-Dichloropropane	ND U	0.50	1	05/20/21 18:02	
2,2-Dichloropropane	ND U	0.50	1	05/20/21 18:02	*
1,1-Dichloropropene	ND U	0.50	1	05/20/21 18:02	
cis-1,3-Dichloropropene	ND U	0.50	1	05/20/21 18:02	
trans-1,3-Dichloropropene	ND U	0.50	1	05/20/21 18:02	
Ethylbenzene	ND U	0.50	1	05/20/21 18:02	
Hexachlorobutadiene	ND U	2.0	1	05/20/21 18:02	
2-Hexanone	ND U	20	1	05/20/21 18:02	
Isopropylbenzene	ND U	2.0	1	05/20/21 18:02	
4-Isopropyltoluene	ND U	2.0	1	05/20/21 18:02	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Collected:** 05/13/21  
**Date Received:** 05/14/21 12:15

**Sample Name:** Trip Blank  
**Lab Code:** K2105413-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/20/21 18:02	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/20/21 18:02	
Methylene Chloride	ND U	2.0	1	05/20/21 18:02	
Naphthalene	ND U	2.0	1	05/20/21 18:02	*
n-Propylbenzene	ND U	2.0	1	05/20/21 18:02	
Styrene	ND U	0.50	1	05/20/21 18:02	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/20/21 18:02	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/20/21 18:02	
Tetrachloroethene (PCE)	ND U	0.50	1	05/20/21 18:02	
Toluene	ND U	0.50	1	05/20/21 18:02	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/20/21 18:02	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/20/21 18:02	
1,1,2-Trichloroethane	ND U	0.50	1	05/20/21 18:02	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/20/21 18:02	
Trichloroethene (TCE)	ND U	0.50	1	05/20/21 18:02	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/20/21 18:02	
1,2,3-Trichloropropane	ND U	0.50	1	05/20/21 18:02	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/20/21 18:02	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/20/21 18:02	
Vinyl Chloride	ND U	0.50	1	05/20/21 18:02	
o-Xylene	ND U	0.50	1	05/20/21 18:02	
m,p-Xylenes	ND U	0.50	1	05/20/21 18:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	05/20/21 18:02	
Dibromofluoromethane	93	73 - 122	05/20/21 18:02	
Toluene-d8	97	65 - 144	05/20/21 18:02	



## QC Summary Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Extraction Method:** None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68-117	73-122	65-144
LB-051321-01-27I	K2105413-001	89	93	96
LB-051321-03-1S	K2105413-002	86	93	96
LB-051321-02-FB	K2105413-003	87	92	93
LB-051321-04-10SR	K2105413-004	86	91	97
LB-051321-05-DUP	K2105413-005	87	93	97
Trip Blank	K2105413-006	84	93	97
Method Blank	KQ2109518-05	88	91	96
Method Blank	KQ2109560-05	91	92	95
Lab Control Sample	KQ2109518-03	95	91	100
Duplicate Lab Control Sample	KQ2109518-04	94	90	101
Lab Control Sample	KQ2109560-03	96	93	97
Duplicate Lab Control Sample	KQ2109560-04	95	93	97

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2109518-05

**Service Request:** K2105413  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/20/21 14:57	
Benzene	ND U	0.50	1	05/20/21 14:57	
Bromobenzene	ND U	2.0	1	05/20/21 14:57	
Bromochloromethane	ND U	0.50	1	05/20/21 14:57	
Bromodichloromethane	ND U	0.50	1	05/20/21 14:57	
Bromoform	ND U	0.50	1	05/20/21 14:57	
Bromomethane	ND U	0.50	1	05/20/21 14:57	
2-Butanone (MEK)	ND U	20	1	05/20/21 14:57	
n-Butylbenzene	ND U	4.0	1	05/20/21 14:57	
sec-Butylbenzene	ND U	2.0	1	05/20/21 14:57	
tert-Butylbenzene	ND U	2.0	1	05/20/21 14:57	
Carbon Disulfide	ND U	0.50	1	05/20/21 14:57	
Carbon Tetrachloride	ND U	0.50	1	05/20/21 14:57	
Chlorobenzene	ND U	0.50	1	05/20/21 14:57	
Chloroethane	ND U	0.50	1	05/20/21 14:57	
Chloroform	ND U	0.50	1	05/20/21 14:57	
Chloromethane	ND U	0.50	1	05/20/21 14:57	
2-Chlorotoluene	ND U	2.0	1	05/20/21 14:57	
4-Chlorotoluene	ND U	2.0	1	05/20/21 14:57	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/20/21 14:57	
Dibromochloromethane	ND U	0.50	1	05/20/21 14:57	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/20/21 14:57	
Dibromomethane	ND U	0.50	1	05/20/21 14:57	
1,2-Dichlorobenzene	ND U	0.50	1	05/20/21 14:57	
1,3-Dichlorobenzene	ND U	0.50	1	05/20/21 14:57	
1,4-Dichlorobenzene	ND U	0.50	1	05/20/21 14:57	
Dichlorodifluoromethane	ND U	0.50	1	05/20/21 14:57	
1,1-Dichloroethane	ND U	0.50	1	05/20/21 14:57	
cis-1,2-Dichloroethene	ND U	0.50	1	05/20/21 14:57	
trans-1,2-Dichloroethene	ND U	0.50	1	05/20/21 14:57	
1,2-Dichloropropane	ND U	0.50	1	05/20/21 14:57	
1,3-Dichloropropane	ND U	0.50	1	05/20/21 14:57	
2,2-Dichloropropane	ND U	0.50	1	05/20/21 14:57	
1,1-Dichloropropene	ND U	0.50	1	05/20/21 14:57	
cis-1,3-Dichloropropene	ND U	0.50	1	05/20/21 14:57	
trans-1,3-Dichloropropene	ND U	0.50	1	05/20/21 14:57	
Ethylbenzene	ND U	0.50	1	05/20/21 14:57	
Hexachlorobutadiene	ND U	2.0	1	05/20/21 14:57	
2-Hexanone	ND U	20	1	05/20/21 14:57	
Isopropylbenzene	ND U	2.0	1	05/20/21 14:57	
4-Isopropyltoluene	ND U	2.0	1	05/20/21 14:57	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2109518-05

**Service Request:** K2105413  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/20/21 14:57	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/20/21 14:57	
Methylene Chloride	ND U	2.0	1	05/20/21 14:57	
Naphthalene	ND U	2.0	1	05/20/21 14:57	
n-Propylbenzene	ND U	2.0	1	05/20/21 14:57	
Styrene	ND U	0.50	1	05/20/21 14:57	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/20/21 14:57	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/20/21 14:57	
Tetrachloroethene (PCE)	ND U	0.50	1	05/20/21 14:57	
Toluene	ND U	0.50	1	05/20/21 14:57	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/20/21 14:57	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/20/21 14:57	
1,1,2-Trichloroethane	ND U	0.50	1	05/20/21 14:57	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/20/21 14:57	
Trichloroethene (TCE)	ND U	0.50	1	05/20/21 14:57	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/20/21 14:57	
1,2,3-Trichloropropane	ND U	0.50	1	05/20/21 14:57	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/20/21 14:57	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/20/21 14:57	
Vinyl Chloride	ND U	0.50	1	05/20/21 14:57	
o-Xylene	ND U	0.50	1	05/20/21 14:57	
m,p-Xylenes	ND U	0.50	1	05/20/21 14:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	05/20/21 14:57	
Dibromofluoromethane	91	73 - 122	05/20/21 14:57	
Toluene-d8	96	65 - 144	05/20/21 14:57	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2109560-05

**Service Request:** K2105413  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	05/24/21 12:32	
Benzene	ND U	0.50	1	05/24/21 12:32	
Bromobenzene	ND U	2.0	1	05/24/21 12:32	
Bromochloromethane	ND U	0.50	1	05/24/21 12:32	
Bromodichloromethane	ND U	0.50	1	05/24/21 12:32	
Bromoform	ND U	0.50	1	05/24/21 12:32	
Bromomethane	ND U	0.50	1	05/24/21 12:32	
2-Butanone (MEK)	ND U	20	1	05/24/21 12:32	
n-Butylbenzene	ND U	4.0	1	05/24/21 12:32	
sec-Butylbenzene	ND U	2.0	1	05/24/21 12:32	
tert-Butylbenzene	ND U	2.0	1	05/24/21 12:32	
Carbon Disulfide	ND U	0.50	1	05/24/21 12:32	
Carbon Tetrachloride	ND U	0.50	1	05/24/21 12:32	
Chlorobenzene	ND U	0.50	1	05/24/21 12:32	
Chloroethane	ND U	0.50	1	05/24/21 12:32	
Chloroform	ND U	0.50	1	05/24/21 12:32	
Chloromethane	ND U	0.50	1	05/24/21 12:32	
2-Chlorotoluene	ND U	2.0	1	05/24/21 12:32	
4-Chlorotoluene	ND U	2.0	1	05/24/21 12:32	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	05/24/21 12:32	
Dibromochloromethane	ND U	0.50	1	05/24/21 12:32	
1,2-Dibromoethane (EDB)	ND U	2.0	1	05/24/21 12:32	
Dibromomethane	ND U	0.50	1	05/24/21 12:32	
1,2-Dichlorobenzene	ND U	0.50	1	05/24/21 12:32	
1,3-Dichlorobenzene	ND U	0.50	1	05/24/21 12:32	
1,4-Dichlorobenzene	ND U	0.50	1	05/24/21 12:32	
Dichlorodifluoromethane	ND U	0.50	1	05/24/21 12:32	
1,1-Dichloroethane	ND U	0.50	1	05/24/21 12:32	
cis-1,2-Dichloroethene	ND U	0.50	1	05/24/21 12:32	
trans-1,2-Dichloroethene	ND U	0.50	1	05/24/21 12:32	
1,2-Dichloropropane	ND U	0.50	1	05/24/21 12:32	
1,3-Dichloropropane	ND U	0.50	1	05/24/21 12:32	
2,2-Dichloropropane	ND U	0.50	1	05/24/21 12:32	
1,1-Dichloropropene	ND U	0.50	1	05/24/21 12:32	
cis-1,3-Dichloropropene	ND U	0.50	1	05/24/21 12:32	
trans-1,3-Dichloropropene	ND U	0.50	1	05/24/21 12:32	
Ethylbenzene	ND U	0.50	1	05/24/21 12:32	
Hexachlorobutadiene	ND U	2.0	1	05/24/21 12:32	
2-Hexanone	ND U	20	1	05/24/21 12:32	
Isopropylbenzene	ND U	2.0	1	05/24/21 12:32	
4-Isopropyltoluene	ND U	2.0	1	05/24/21 12:32	



**ALS Group USA, Corp.**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2109560-05

**Service Request:** K2105413  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	05/24/21 12:32	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	05/24/21 12:32	
Methylene Chloride	ND U	2.0	1	05/24/21 12:32	
Naphthalene	ND U	2.0	1	05/24/21 12:32	
n-Propylbenzene	ND U	2.0	1	05/24/21 12:32	
Styrene	ND U	0.50	1	05/24/21 12:32	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	05/24/21 12:32	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	05/24/21 12:32	
Tetrachloroethene (PCE)	ND U	0.50	1	05/24/21 12:32	
Toluene	ND U	0.50	1	05/24/21 12:32	
1,2,3-Trichlorobenzene	ND U	2.0	1	05/24/21 12:32	
1,2,4-Trichlorobenzene	ND U	2.0	1	05/24/21 12:32	
1,1,2-Trichloroethane	ND U	0.50	1	05/24/21 12:32	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	05/24/21 12:32	
Trichloroethene (TCE)	ND U	0.50	1	05/24/21 12:32	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	05/24/21 12:32	
1,2,3-Trichloropropane	ND U	0.50	1	05/24/21 12:32	
1,2,4-Trimethylbenzene	ND U	2.0	1	05/24/21 12:32	
1,3,5-Trimethylbenzene	ND U	2.0	1	05/24/21 12:32	
Vinyl Chloride	ND U	0.50	1	05/24/21 12:32	
o-Xylene	ND U	0.50	1	05/24/21 12:32	
m,p-Xylenes	ND U	0.50	1	05/24/21 12:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	68 - 117	05/24/21 12:32	
Dibromofluoromethane	92	73 - 122	05/24/21 12:32	
Toluene-d8	95	65 - 144	05/24/21 12:32	

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Lechner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Analyzed:** 05/20/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 724325

Analyte Name	Lab Control Sample KQ2109518-03			Duplicate Lab Control Sample KQ2109518-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	9.44	10.0	94	8.90	10.0	89	66-124	6	30
1,1,1-Trichloroethane (TCA)	7.71	10.0	77	7.57	10.0	76	59-136	2	30
1,1,2,2-Tetrachloroethane	9.74	10.0	97	9.12	10.0	91	70-127	7	30
1,1,2-Trichloroethane	9.05	10.0	91	9.00	10.0	90	74-118	<1	30
1,1-Dichloroethane	8.50	10.0	85	8.15	10.0	82	68-132	4	30
1,1-Dichloropropene	8.54	10.0	85	7.99	10.0	80	59-134	7	30
1,2,3-Trichlorobenzene	8.68	10.0	87	8.51	10.0	85	68-120	2	30
1,2,3-Trichloropropane	9.71	10.0	97	9.50	10.0	95	69-123	2	30
1,2,4-Trichlorobenzene	8.58	10.0	86	8.36	10.0	84	58-126	3	30
1,2,4-Trimethylbenzene	8.97	10.0	90	8.50	10.0	85	63-122	5	30
1,2-Dibromo-3-chloropropane	8.60	10.0	86	8.51	10.0	85	55-132	1	30
1,2-Dibromoethane (EDB)	8.73	10.0	87	8.72	10.0	87	74-118	<1	30
1,2-Dichlorobenzene	9.20	10.0	92	8.81	10.0	88	72-115	4	30
1,2-Dichloropropane	8.73	10.0	87	8.39	10.0	84	67-126	4	30
1,3,5-Trimethylbenzene	9.11	10.0	91	8.54	10.0	85	62-126	6	30
1,3-Dichlorobenzene	9.02	10.0	90	8.45	10.0	85	70-116	7	30
1,3-Dichloropropane	9.28	10.0	93	8.79	10.0	88	75-116	5	30
1,4-Dichlorobenzene	8.96	10.0	90	8.54	10.0	85	73-115	5	30
2,2-Dichloropropane	6.22	10.0	62	5.91	10.0	59	37-145	5	30
2-Butanone (MEK)	97.0	100	97	93.0	100	93	71-149	4	30
2-Chlorotoluene	8.80	10.0	88	8.44	10.0	84	55-131	4	30
2-Hexanone	87.5	100	88	89.6	100	90	59-131	2	30
4-Chlorotoluene	9.07	10.0	91	8.61	10.0	86	66-121	5	30
4-Isopropyltoluene	8.80	10.0	88	8.44	10.0	84	61-128	4	30
4-Methyl-2-pentanone (MIBK)	92.7	100	93	91.6	100	92	64-134	1	30
Acetone	97.5	100	98	93.9	100	94	68-135	4	30
Benzene	8.63	10.0	86	8.38	10.0	84	69-124	3	30
Bromobenzene	9.07	10.0	91	8.79	10.0	88	72-116	3	30
Bromochloromethane	9.13	10.0	91	8.71	10.0	87	75-131	5	30
Bromodichloromethane	8.87	10.0	89	8.60	10.0	86	63-129	3	30
Bromoform	9.73	10.0	97	9.25	10.0	93	52-144	5	30
Bromomethane	7.55	10.0	76	7.30	10.0	73	35-113	3	30
Carbon Disulfide	8.14	10.0	81	7.25	10.0	73	46-144	12	30
Carbon Tetrachloride	8.64	10.0	86	8.24	10.0	82	55-140	5	30
Chlorobenzene	9.21	10.0	92	8.71	10.0	87	72-116	6	30
Chloroethane	9.02	10.0	90	8.68	10.0	87	58-134	4	30
Chloroform	8.42	10.0	84	8.15	10.0	82	70-129	3	30
Chloromethane	9.21	10.0	92	8.78	10.0	88	34-130	5	30
cis-1,2-Dichloroethene	8.52	10.0	85	8.41	10.0	84	71-118	1	30
cis-1,3-Dichloropropene	8.57	10.0	86	8.23	10.0	82	62-132	4	30
Dibromochloromethane	10.9	10.0	109	10.0	10.0	100	67-126	9	30

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Analyzed:** 05/20/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 724325

Analyte Name	Lab Control Sample KQ2109518-03			Duplicate Lab Control Sample KQ2109518-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dibromomethane	8.42	10.0	84	8.23	10.0	82	69-128	2	30
Dichlorodifluoromethane	9.56	10.0	96	8.85	10.0	89	32-124	8	30
Ethylbenzene	8.88	10.0	89	8.10	10.0	81	67-121	9	30
Hexachlorobutadiene	9.02	10.0	90	8.56	10.0	86	57-119	5	30
Isopropylbenzene	8.91	10.0	89	8.34	10.0	83	67-129	7	30
m,p-Xylenes	17.7	20.0	89	16.6	20.0	83	69-121	7	30
Methyl tert-Butyl Ether	15.3	20.0	77	15.2	20.0	76	54-126	<1	30
Methylene Chloride	9.09	10.0	91	8.53	10.0	85	71-122	6	30
Naphthalene	8.38	10.0	84	7.88	10.0	79	64-126	6	30
n-Butylbenzene	8.63	10.0	86	8.25	10.0	83	55-130	5	30
n-Propylbenzene	9.14	10.0	91	8.63	10.0	86	61-124	6	30
o-Xylene	8.93	10.0	89	8.29	10.0	83	71-119	7	30
sec-Butylbenzene	8.89	10.0	89	8.29	10.0	83	59-128	7	30
Styrene	9.14	10.0	91	8.64	10.0	86	74-121	6	30
tert-Butylbenzene	8.62	10.0	86	8.13	10.0	81	61-127	6	30
Tetrachloroethene (PCE)	9.11	10.0	91	8.43	10.0	84	62-126	8	30
Toluene	8.95	10.0	90	8.66	10.0	87	69-124	3	30
trans-1,2-Dichloroethene	8.67	10.0	87	8.11	10.0	81	67-125	7	30
trans-1,3-Dichloropropene	7.75	10.0	78	7.50	10.0	75	59-125	3	30
Trichloroethene (TCE)	8.57	10.0	86	8.11	10.0	81	67-128	6	30
Trichlorofluoromethane (CFC 11)	7.69	10.0	77	7.37	10.0	74	52-141	4	30
Vinyl Chloride	8.87	10.0	89	8.29	10.0	83	55-123	7	30

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Lechner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Analyzed:** 05/24/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 724687

Analyte Name	Lab Control Sample KQ2109560-03			Duplicate Lab Control Sample KQ2109560-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	10.3	10.0	103	10.1	10.0	101	66-124	2	30
1,1,1-Trichloroethane (TCA)	9.03	10.0	90	8.90	10.0	89	59-136	1	30
1,1,2,2-Tetrachloroethane	10.6	10.0	106	10.6	10.0	106	70-127	<1	30
1,1,2-Trichloroethane	10.4	10.0	104	10.2	10.0	102	74-118	2	30
1,1-Dichloroethane	9.33	10.0	93	9.44	10.0	94	68-132	1	30
1,1-Dichloropropene	9.44	10.0	94	9.24	10.0	92	59-134	2	30
1,2,3-Trichlorobenzene	9.72	10.0	97	10.3	10.0	103	68-120	6	30
1,2,3-Trichloropropane	10.4	10.0	104	10.6	10.0	106	69-123	2	30
1,2,4-Trichlorobenzene	9.90	10.0	99	10.3	10.0	103	58-126	4	30
1,2,4-Trimethylbenzene	9.90	10.0	99	10.1	10.0	101	63-122	2	30
1,2-Dibromo-3-chloropropane	9.87	10.0	99	9.93	10.0	99	55-132	<1	30
1,2-Dibromoethane (EDB)	9.78	10.0	98	9.54	10.0	95	74-118	2	30
1,2-Dichlorobenzene	10.4	10.0	104	10.1	10.0	101	72-115	3	30
1,2-Dichloropropane	9.44	10.0	94	9.51	10.0	95	67-126	<1	30
1,3,5-Trimethylbenzene	9.73	10.0	97	9.81	10.0	98	62-126	<1	30
1,3-Dichlorobenzene	10.1	10.0	101	9.89	10.0	99	70-116	2	30
1,3-Dichloropropane	10.0	10.0	100	9.96	10.0	100	75-116	<1	30
1,4-Dichlorobenzene	9.97	10.0	100	9.98	10.0	100	73-115	<1	30
2,2-Dichloropropane	7.29	10.0	73	7.11	10.0	71	37-145	3	30
2-Butanone (MEK)	94.3	100	94	96.7	100	97	71-149	2	30
2-Chlorotoluene	9.68	10.0	97	9.72	10.0	97	55-131	<1	30
2-Hexanone	86.0	100	86	86.1	100	86	59-131	<1	30
4-Chlorotoluene	9.97	10.0	100	10.0	10.0	100	66-121	<1	30
4-Isopropyltoluene	9.83	10.0	98	9.76	10.0	98	61-128	<1	30
4-Methyl-2-pentanone (MIBK)	89.4	100	89	88.2	100	88	64-134	1	30
Acetone	93.9	100	94	91.7	100	92	68-135	2	30
Benzene	9.47	10.0	95	9.35	10.0	94	69-124	1	30
Bromobenzene	9.96	10.0	100	10.3	10.0	103	72-116	4	30
Bromochloromethane	9.71	10.0	97	9.66	10.0	97	75-131	<1	30
Bromodichloromethane	10.0	10.0	100	9.85	10.0	99	63-129	2	30
Bromoform	10.7	10.0	107	10.4	10.0	104	52-144	2	30
Bromomethane	7.76	10.0	78	7.73	10.0	77	35-113	<1	30
Carbon Disulfide	8.28	10.0	83	8.26	10.0	83	46-144	<1	30
Carbon Tetrachloride	9.70	10.0	97	9.51	10.0	95	55-140	2	30
Chlorobenzene	9.77	10.0	98	9.72	10.0	97	72-116	<1	30
Chloroethane	9.27	10.0	93	9.36	10.0	94	58-134	<1	30
Chloroform	9.23	10.0	92	9.20	10.0	92	70-129	<1	30
Chloromethane	9.32	10.0	93	9.17	10.0	92	34-130	2	30
cis-1,2-Dichloroethene	9.49	10.0	95	9.39	10.0	94	71-118	1	30
cis-1,3-Dichloropropene	9.33	10.0	93	9.38	10.0	94	62-132	<1	30
Dibromochloromethane	11.9	10.0	119	11.1	10.0	111	67-126	7	30

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2105413  
**Date Analyzed:** 05/24/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 724687

Analyte Name	Lab Control Sample KQ2109560-03			Duplicate Lab Control Sample KQ2109560-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dibromomethane	8.76	10.0	88	9.70	10.0	97	69-128	10	30
Dichlorodifluoromethane	9.05	10.0	91	9.20	10.0	92	32-124	2	30
Ethylbenzene	9.16	10.0	92	9.43	10.0	94	67-121	3	30
Hexachlorobutadiene	10.9	10.0	109	10.7	10.0	107	57-119	2	30
Isopropylbenzene	9.52	10.0	95	9.57	10.0	96	67-129	<1	30
m,p-Xylenes	19.1	20.0	95	18.8	20.0	94	69-121	1	30
Methyl tert-Butyl Ether	17.7	20.0	89	17.1	20.0	85	54-126	4	30
Methylene Chloride	9.75	10.0	98	9.45	10.0	95	71-122	3	30
Naphthalene	9.12	10.0	91	9.78	10.0	98	64-126	7	30
n-Butylbenzene	9.69	10.0	97	9.62	10.0	96	55-130	<1	30
n-Propylbenzene	10.0	10.0	100	10.1	10.0	101	61-124	<1	30
o-Xylene	9.57	10.0	96	9.38	10.0	94	71-119	2	30
sec-Butylbenzene	9.62	10.0	96	9.61	10.0	96	59-128	<1	30
Styrene	9.83	10.0	98	9.57	10.0	96	74-121	3	30
tert-Butylbenzene	9.56	10.0	96	9.64	10.0	96	61-127	<1	30
Tetrachloroethene (PCE)	9.90	10.0	99	9.50	10.0	95	62-126	4	30
Toluene	9.73	10.0	97	9.63	10.0	96	69-124	1	30
trans-1,2-Dichloroethene	9.56	10.0	96	9.50	10.0	95	67-125	<1	30
trans-1,3-Dichloropropene	8.48	10.0	85	8.55	10.0	86	59-125	<1	30
Trichloroethene (TCE)	9.28	10.0	93	9.20	10.0	92	67-128	<1	30
Trichlorofluoromethane (CFC 11)	8.64	10.0	86	8.38	10.0	84	52-141	3	30
Vinyl Chloride	9.28	10.0	93	8.96	10.0	90	55-123	4	30





September 03, 2021

Service Request No:K2109260

Tiffany Andrews  
SCS Engineers  
15940 SW 72nd Ave  
Portland, OR 97224

**Laboratory Results for: Leichner Lanfill**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory August 10, 2021  
For your reference, these analyses have been assigned our service request number **K2109260**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

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ALS Group USA, Corp.  
dba ALS Environmental



# Narrative Documents

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



**Client:** SCS Engineers  
**Project:** Leichner Lanfill  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Received:** 08/10/2021

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

#### Sample Receipt:

Five ground water samples were received for analysis at ALS Environmental on 08/10/2021. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

#### Metals:

No significant anomalies were noted with this analysis.

#### General Chemistry:

No significant anomalies were noted with this analysis.

#### Volatiles by GC/MS:

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0816F0003.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Method 8260C, 08/16/2021: The Trip Blank analyzed with this sample contained a low level of Toluene above the Method Reporting Limit (MRL). The associated field samples did not contain the analyte in question. The issue was narrated. No further corrective action was required.

The advisory criterion was exceeded for Dibromochloromethane in the replicate Laboratory Control Samples (LCS/DLCS) KQ2115824-03 and KQ2115824-04. As per the ALS/Kelso Standard Operating Procedure (SOP) for this method, this compound is not included in the subset of analytes used to control the analysis. The recovery information reported for this analyte is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Approved by



Date

09/03/2021



**SAMPLE DETECTION SUMMARY**

<b>CLIENT ID: TB1</b>	<b>Lab ID: K2109260-001</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	0.63			0.50	ug/L	8260C

<b>CLIENT ID: LB-080921-01-5S</b>	<b>Lab ID: K2109260-002</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	161			5.0	mg/L	SM 2540 C
Chloride	4.25			0.20	mg/L	300.0
Nitrate as Nitrogen	4.48			0.10	mg/L	300.0

<b>CLIENT ID: LB-080921-02-27I</b>	<b>Lab ID: K2109260-003</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	177			5.0	mg/L	SM 2540 C
Chloride	6.38			0.20	mg/L	300.0
Nitrate as Nitrogen	3.06			0.10	mg/L	300.0
Manganese, Dissolved	11.2			1.1	ug/L	6010C
Chloroform	0.61			0.50	ug/L	8260C

<b>CLIENT ID: LB-080921-03-13I</b>	<b>Lab ID: K2109260-004</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	199			5.0	mg/L	SM 2540 C
Chloride	6.85			0.20	mg/L	300.0
Nitrate as Nitrogen	5.13			0.10	mg/L	300.0
Manganese, Dissolved	1.9			1.1	ug/L	6010C

<b>CLIENT ID: LB-080921-04-Dup</b>	<b>Lab ID: K2109260-005</b>
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Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	191			5.0	mg/L	SM 2540 C
Chloride	6.82			0.20	mg/L	300.0
Nitrate as Nitrogen	5.15			0.10	mg/L	300.0
Manganese, Dissolved	1.4			1.1	ug/L	6010C



## Sample Receipt Information

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Lechner Lanfill/04221030.13

**Service Request:**K2109260

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2109260-001	TB1	8/9/2021	1130
K2109260-002	LB-080921-01-5S	8/9/2021	1245
K2109260-003	LB-080921-02-27I	8/9/2021	1345
K2109260-004	LB-080921-03-13I	8/9/2021	1440
K2109260-005	LB-080921-04-Dup	8/9/2021	1445




# CHAIN OF CUSTODY

SR# K2109260

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE 1 OF 1 COC# \_\_\_\_\_

PROJECT NAME <u>Leichter Landfill</u>					NUMBER OF CONTAINERS	Semi-volatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>	Hydrocarbons Gas <input type="checkbox"/> 8021 <input type="checkbox"/> BTEX <input type="checkbox"/>	Oil & Grease/TRPH Diesel <input type="checkbox"/> Oil <input type="checkbox"/>	1664 HEM <input type="checkbox"/>	1664 SGT <input type="checkbox"/>	PCBs	Aroclors <input type="checkbox"/>	Congeners <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 8081 <input type="checkbox"/>	Chlorophenolics Tri <input type="checkbox"/> 8141 <input type="checkbox"/>	Metals Total (See List below)	8151M <input type="checkbox"/>	PCP <input type="checkbox"/>	Cyanide <input type="checkbox"/>	Hex-Chrom <input type="checkbox"/>	pH, Cond, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS, Turb, DOC, NH3-N, COD, TKN, TOC, TOX 9020 <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Alkalinity <input type="checkbox"/> CO3 <input type="checkbox"/> HCO3 <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases RSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/> Ethene <input type="checkbox"/>	REMARKS
PROJECT NUMBER <u>042210.30.13</u>																										
PROJECT MANAGER <u>Barb hary / T Andrews</u>																										
COMPANY NAME <u>SCS Engineers</u>																										
ADDRESS <u>15440 SW 72nd Ave</u>																										
CITY/STATE/ZIP <u>Portland, OR 97204</u>																										
E-MAIL ADDRESS <u>Tandrews@scsengineers.com</u>																										
PHONE # <u>503 724-0112</u>																										
SAMPLER'S SIGNATURE <u>[Signature]</u>																										
SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX																						
TB1	8/9/21	1130		W	2		X																			
LB-080921-01-5S	8/9/21	1245		W	5		X																			
LB-080921-02-2FI	8/9/21	1345		W	5		X																			
LB-080921-03-13I	8/9/21	1340		W	5		X																			
LB-080921-04-DV	8/9/21	1445		W	5		X																			

<b>REPORT REQUIREMENTS</b> <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	<b>INVOICE INFORMATION</b> P.O. # _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu <u>Fe</u> Pb Mg <u>Mn</u> Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg <b>*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)</b> <b>Container Supply Number</b>  115140
	<b>TURNAROUND REQUIREMENTS</b> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (15 working days) <input type="checkbox"/> Provide FAX Results Requested Report Date _____	<b>SPECIAL INSTRUCTIONS/COMMENTS:</b> <u>Metals are field filtered</u> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)

<b>RELINQUISHED BY:</b> <u>[Signature]</u> Signature <u>T Andrews</u> Printed Name <u>8/10/21</u> Date/Time <u>SCS</u> Firm	<b>RECEIVED BY:</b> <u>[Signature]</u> Signature <u>ALC 1150</u> Printed Name <u>8/10/21</u> Date/Time <u>ALS 1150</u> Firm	<b>RELINQUISHED BY:</b> <u>[Signature]</u> Signature <u>ALC 1410</u> Printed Name <u>8/10/21</u> Date/Time <u>ALS 1410</u> Firm	<b>RECEIVED BY:</b> <u>[Signature]</u> Signature <u>AS</u> Printed Name <u>8/10/21</u> Date/Time <u>1410</u> Firm
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PM H2

### Cooler Receipt and Preservation Form

Client SES Engineers Service Request K21 091260  
Received: 8-10-21 Opened: 8-10-21 By: SW Unloaded: 8-10-21 By: SW

- 1. Samples were received via?  USPS  Fed Ex  UPS  DHL  PDX  Courier  Hand Delivered
  - 2. Samples were received in: (circle)  Cooler  Box  Envelope  Other  NA
  - 3. Were custody seals on coolers? NA  Y  N If yes, how many and where? 1 front  
If present, were custody seals intact?  Y  N If present, were they signed and dated?  Y  N
  - 4. Was a Temperature Blank present in cooler? NA  Y  N If yes, notate the temperature in the appropriate column below:  
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
  - 5. Were samples received within the method specified temperature ranges? NA  Y  N  
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM.  NA  Y  N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID <input checked="" type="checkbox"/> NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number <input checked="" type="checkbox"/> NA	Filed
<u>-</u>	<u>3.3</u>	<u>1207</u>					

- 6. Packing material: Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Dry Ice  Sleeves
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA  Y  N
- 8. Were samples received in good condition (unbroken) NA  Y  N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA  Y  N
- 10. Did all sample labels and tags agree with custody papers? NA  Y  N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y  N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA  Y  N
- 13. Were VOA vials received without headspace? Indicate in the table below.  NA  Y  N
- 14. Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: \_\_\_\_\_

# SHORT HOLD TIME



# Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.



**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEH	<a href="http://dec.alaska.gov/eh/lab/cs/csapproval.htm">http://dec.alaska.gov/eh/lab/cs/csapproval.htm</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L16-58-R4
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	<a href="http://health.hawaii.gov/">http://health.hawaii.gov/</a>	-
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	03016
Maine DHS	<a href="http://www.maine.gov/dhhs/">http://www.maine.gov/dhhs/</a>	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	WA005
New York - DOH	<a href="https://www.wadsworth.org/regulatory/elap">https://www.wadsworth.org/regulatory/elap</a>	12060
North Carolina DEQ	<a href="https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification">https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/EnvironmentalLabCertification/">http://www.scdhec.gov/environment/EnvironmentalLabCertification/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water">https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.ALSGlobal.com](http://www.ALSGlobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13

**Service Request:** K2109260

**Sample Name:** TB1  
**Lab Code:** K2109260-001  
**Sample Matrix:** Ground Water

**Date Collected:** 08/9/21  
**Date Received:** 08/10/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** LB-080921-01-5S  
**Lab Code:** K2109260-002  
**Sample Matrix:** Ground Water

**Date Collected:** 08/9/21  
**Date Received:** 08/10/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JSANCHEZ

ABOYER

**Sample Name:** LB-080921-02-27I  
**Lab Code:** K2109260-003  
**Sample Matrix:** Ground Water

**Date Collected:** 08/9/21  
**Date Received:** 08/10/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JSANCHEZ

ABOYER

**Sample Name:** LB-080921-03-13I  
**Lab Code:** K2109260-004  
**Sample Matrix:** Ground Water

**Date Collected:** 08/9/21  
**Date Received:** 08/10/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

**Analyzed By**  
KABROWN  
AMCKORNEY  
MKANALY  
JSANCHEZ

ABOYER

**ALS Group USA, Corp.**  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13

**Service Request:** K2109260

**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005  
**Sample Matrix:** Ground Water

**Date Collected:** 08/9/21  
**Date Received:** 08/10/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

KABROWN  
AMCKORNEY  
MKANALY  
JSANCHEZ



# Sample Results

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 11:30  
**Date Received:** 08/10/21 14:10

**Sample Name:** TB1  
**Lab Code:** K2109260-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/16/21 16:48	
Benzene	ND U	0.50	1	08/16/21 16:48	
Bromobenzene	ND U	2.0	1	08/16/21 16:48	
Bromochloromethane	ND U	0.50	1	08/16/21 16:48	
Bromodichloromethane	ND U	0.50	1	08/16/21 16:48	
Bromoform	ND U	0.50	1	08/16/21 16:48	
Bromomethane	ND U	0.50	1	08/16/21 16:48	*
2-Butanone (MEK)	ND U	20	1	08/16/21 16:48	
n-Butylbenzene	ND U	4.0	1	08/16/21 16:48	
sec-Butylbenzene	ND U	2.0	1	08/16/21 16:48	
tert-Butylbenzene	ND U	2.0	1	08/16/21 16:48	
Carbon Disulfide	ND U	0.50	1	08/16/21 16:48	
Carbon Tetrachloride	ND U	0.50	1	08/16/21 16:48	
Chlorobenzene	ND U	0.50	1	08/16/21 16:48	
Chloroethane	ND U	0.50	1	08/16/21 16:48	
Chloroform	ND U	0.50	1	08/16/21 16:48	
Chloromethane	ND U	0.50	1	08/16/21 16:48	*
2-Chlorotoluene	ND U	2.0	1	08/16/21 16:48	
4-Chlorotoluene	ND U	2.0	1	08/16/21 16:48	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/16/21 16:48	
Dibromochloromethane	ND U	0.50	1	08/16/21 16:48	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/16/21 16:48	
Dibromomethane	ND U	0.50	1	08/16/21 16:48	
1,2-Dichlorobenzene	ND U	0.50	1	08/16/21 16:48	
1,3-Dichlorobenzene	ND U	0.50	1	08/16/21 16:48	
1,4-Dichlorobenzene	ND U	0.50	1	08/16/21 16:48	
Dichlorodifluoromethane	ND U	0.50	1	08/16/21 16:48	
1,1-Dichloroethane	ND U	0.50	1	08/16/21 16:48	
cis-1,2-Dichloroethene	ND U	0.50	1	08/16/21 16:48	
trans-1,2-Dichloroethene	ND U	0.50	1	08/16/21 16:48	
1,2-Dichloropropane	ND U	0.50	1	08/16/21 16:48	
1,3-Dichloropropane	ND U	0.50	1	08/16/21 16:48	
2,2-Dichloropropane	ND U	0.50	1	08/16/21 16:48	
1,1-Dichloropropene	ND U	0.50	1	08/16/21 16:48	
cis-1,3-Dichloropropene	ND U	0.50	1	08/16/21 16:48	
trans-1,3-Dichloropropene	ND U	0.50	1	08/16/21 16:48	
Ethylbenzene	ND U	0.50	1	08/16/21 16:48	
Hexachlorobutadiene	ND U	2.0	1	08/16/21 16:48	
2-Hexanone	ND U	20	1	08/16/21 16:48	
Isopropylbenzene	ND U	2.0	1	08/16/21 16:48	
4-Isopropyltoluene	ND U	2.0	1	08/16/21 16:48	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 11:30  
**Date Received:** 08/10/21 14:10

**Sample Name:** TB1  
**Lab Code:** K2109260-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/16/21 16:48	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/16/21 16:48	
Methylene Chloride	ND U	2.0	1	08/16/21 16:48	
Naphthalene	ND U	2.0	1	08/16/21 16:48	*
n-Propylbenzene	ND U	2.0	1	08/16/21 16:48	
Styrene	ND U	0.50	1	08/16/21 16:48	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/16/21 16:48	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/16/21 16:48	
Tetrachloroethene (PCE)	ND U	0.50	1	08/16/21 16:48	
Toluene	<b>0.63</b>	0.50	1	08/16/21 16:48	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/16/21 16:48	*
1,2,4-Trichlorobenzene	ND U	2.0	1	08/16/21 16:48	
1,1,2-Trichloroethane	ND U	0.50	1	08/16/21 16:48	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/16/21 16:48	
Trichloroethene (TCE)	ND U	0.50	1	08/16/21 16:48	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/16/21 16:48	
1,2,3-Trichloropropane	ND U	0.50	1	08/16/21 16:48	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/16/21 16:48	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/16/21 16:48	
Vinyl Chloride	ND U	0.50	1	08/16/21 16:48	
o-Xylene	ND U	0.50	1	08/16/21 16:48	
m,p-Xylenes	ND U	0.50	1	08/16/21 16:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	68 - 117	08/16/21 16:48	
Dibromofluoromethane	108	73 - 122	08/16/21 16:48	
Toluene-d8	100	65 - 144	08/16/21 16:48	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 12:45  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-01-5S  
**Lab Code:** K2109260-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/16/21 17:14	
Benzene	ND U	0.50	1	08/16/21 17:14	
Bromobenzene	ND U	2.0	1	08/16/21 17:14	
Bromochloromethane	ND U	0.50	1	08/16/21 17:14	
Bromodichloromethane	ND U	0.50	1	08/16/21 17:14	
Bromoform	ND U	0.50	1	08/16/21 17:14	
Bromomethane	ND U	0.50	1	08/16/21 17:14	*
2-Butanone (MEK)	ND U	20	1	08/16/21 17:14	
n-Butylbenzene	ND U	4.0	1	08/16/21 17:14	
sec-Butylbenzene	ND U	2.0	1	08/16/21 17:14	
tert-Butylbenzene	ND U	2.0	1	08/16/21 17:14	
Carbon Disulfide	ND U	0.50	1	08/16/21 17:14	
Carbon Tetrachloride	ND U	0.50	1	08/16/21 17:14	
Chlorobenzene	ND U	0.50	1	08/16/21 17:14	
Chloroethane	ND U	0.50	1	08/16/21 17:14	
Chloroform	ND U	0.50	1	08/16/21 17:14	
Chloromethane	ND U	0.50	1	08/16/21 17:14	*
2-Chlorotoluene	ND U	2.0	1	08/16/21 17:14	
4-Chlorotoluene	ND U	2.0	1	08/16/21 17:14	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/16/21 17:14	
Dibromochloromethane	ND U	0.50	1	08/16/21 17:14	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/16/21 17:14	
Dibromomethane	ND U	0.50	1	08/16/21 17:14	
1,2-Dichlorobenzene	ND U	0.50	1	08/16/21 17:14	
1,3-Dichlorobenzene	ND U	0.50	1	08/16/21 17:14	
1,4-Dichlorobenzene	ND U	0.50	1	08/16/21 17:14	
Dichlorodifluoromethane	ND U	0.50	1	08/16/21 17:14	
1,1-Dichloroethane	ND U	0.50	1	08/16/21 17:14	
cis-1,2-Dichloroethene	ND U	0.50	1	08/16/21 17:14	
trans-1,2-Dichloroethene	ND U	0.50	1	08/16/21 17:14	
1,2-Dichloropropane	ND U	0.50	1	08/16/21 17:14	
1,3-Dichloropropane	ND U	0.50	1	08/16/21 17:14	
2,2-Dichloropropane	ND U	0.50	1	08/16/21 17:14	
1,1-Dichloropropene	ND U	0.50	1	08/16/21 17:14	
cis-1,3-Dichloropropene	ND U	0.50	1	08/16/21 17:14	
trans-1,3-Dichloropropene	ND U	0.50	1	08/16/21 17:14	
Ethylbenzene	ND U	0.50	1	08/16/21 17:14	
Hexachlorobutadiene	ND U	2.0	1	08/16/21 17:14	
2-Hexanone	ND U	20	1	08/16/21 17:14	
Isopropylbenzene	ND U	2.0	1	08/16/21 17:14	
4-Isopropyltoluene	ND U	2.0	1	08/16/21 17:14	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 12:45  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-01-5S  
**Lab Code:** K2109260-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/16/21 17:14	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/16/21 17:14	
Methylene Chloride	ND U	2.0	1	08/16/21 17:14	
Naphthalene	ND U	2.0	1	08/16/21 17:14	*
n-Propylbenzene	ND U	2.0	1	08/16/21 17:14	
Styrene	ND U	0.50	1	08/16/21 17:14	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/16/21 17:14	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/16/21 17:14	
Tetrachloroethene (PCE)	ND U	0.50	1	08/16/21 17:14	
Toluene	ND U	0.50	1	08/16/21 17:14	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/16/21 17:14	*
1,2,4-Trichlorobenzene	ND U	2.0	1	08/16/21 17:14	
1,1,2-Trichloroethane	ND U	0.50	1	08/16/21 17:14	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/16/21 17:14	
Trichloroethene (TCE)	ND U	0.50	1	08/16/21 17:14	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/16/21 17:14	
1,2,3-Trichloropropane	ND U	0.50	1	08/16/21 17:14	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/16/21 17:14	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/16/21 17:14	
Vinyl Chloride	ND U	0.50	1	08/16/21 17:14	
o-Xylene	ND U	0.50	1	08/16/21 17:14	
m,p-Xylenes	ND U	0.50	1	08/16/21 17:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	68 - 117	08/16/21 17:14	
Dibromofluoromethane	110	73 - 122	08/16/21 17:14	
Toluene-d8	104	65 - 144	08/16/21 17:14	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 13:45  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-02-271  
**Lab Code:** K2109260-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/16/21 17:41	
Benzene	ND U	0.50	1	08/16/21 17:41	
Bromobenzene	ND U	2.0	1	08/16/21 17:41	
Bromochloromethane	ND U	0.50	1	08/16/21 17:41	
Bromodichloromethane	ND U	0.50	1	08/16/21 17:41	
Bromoform	ND U	0.50	1	08/16/21 17:41	
Bromomethane	ND U	0.50	1	08/16/21 17:41	*
2-Butanone (MEK)	ND U	20	1	08/16/21 17:41	
n-Butylbenzene	ND U	4.0	1	08/16/21 17:41	
sec-Butylbenzene	ND U	2.0	1	08/16/21 17:41	
tert-Butylbenzene	ND U	2.0	1	08/16/21 17:41	
Carbon Disulfide	ND U	0.50	1	08/16/21 17:41	
Carbon Tetrachloride	ND U	0.50	1	08/16/21 17:41	
Chlorobenzene	ND U	0.50	1	08/16/21 17:41	
Chloroethane	ND U	0.50	1	08/16/21 17:41	
Chloroform	<b>0.61</b>	0.50	1	08/16/21 17:41	
Chloromethane	ND U	0.50	1	08/16/21 17:41	*
2-Chlorotoluene	ND U	2.0	1	08/16/21 17:41	
4-Chlorotoluene	ND U	2.0	1	08/16/21 17:41	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/16/21 17:41	
Dibromochloromethane	ND U	0.50	1	08/16/21 17:41	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/16/21 17:41	
Dibromomethane	ND U	0.50	1	08/16/21 17:41	
1,2-Dichlorobenzene	ND U	0.50	1	08/16/21 17:41	
1,3-Dichlorobenzene	ND U	0.50	1	08/16/21 17:41	
1,4-Dichlorobenzene	ND U	0.50	1	08/16/21 17:41	
Dichlorodifluoromethane	ND U	0.50	1	08/16/21 17:41	
1,1-Dichloroethane	ND U	0.50	1	08/16/21 17:41	
cis-1,2-Dichloroethene	ND U	0.50	1	08/16/21 17:41	
trans-1,2-Dichloroethene	ND U	0.50	1	08/16/21 17:41	
1,2-Dichloropropane	ND U	0.50	1	08/16/21 17:41	
1,3-Dichloropropane	ND U	0.50	1	08/16/21 17:41	
2,2-Dichloropropane	ND U	0.50	1	08/16/21 17:41	
1,1-Dichloropropene	ND U	0.50	1	08/16/21 17:41	
cis-1,3-Dichloropropene	ND U	0.50	1	08/16/21 17:41	
trans-1,3-Dichloropropene	ND U	0.50	1	08/16/21 17:41	
Ethylbenzene	ND U	0.50	1	08/16/21 17:41	
Hexachlorobutadiene	ND U	2.0	1	08/16/21 17:41	
2-Hexanone	ND U	20	1	08/16/21 17:41	
Isopropylbenzene	ND U	2.0	1	08/16/21 17:41	
4-Isopropyltoluene	ND U	2.0	1	08/16/21 17:41	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 13:45  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-02-27I  
**Lab Code:** K2109260-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/16/21 17:41	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/16/21 17:41	
Methylene Chloride	ND U	2.0	1	08/16/21 17:41	
Naphthalene	ND U	2.0	1	08/16/21 17:41	*
n-Propylbenzene	ND U	2.0	1	08/16/21 17:41	
Styrene	ND U	0.50	1	08/16/21 17:41	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/16/21 17:41	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/16/21 17:41	
Tetrachloroethene (PCE)	ND U	0.50	1	08/16/21 17:41	
Toluene	ND U	0.50	1	08/16/21 17:41	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/16/21 17:41	*
1,2,4-Trichlorobenzene	ND U	2.0	1	08/16/21 17:41	
1,1,2-Trichloroethane	ND U	0.50	1	08/16/21 17:41	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/16/21 17:41	
Trichloroethene (TCE)	ND U	0.50	1	08/16/21 17:41	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/16/21 17:41	
1,2,3-Trichloropropane	ND U	0.50	1	08/16/21 17:41	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/16/21 17:41	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/16/21 17:41	
Vinyl Chloride	ND U	0.50	1	08/16/21 17:41	
o-Xylene	ND U	0.50	1	08/16/21 17:41	
m,p-Xylenes	ND U	0.50	1	08/16/21 17:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	78	68 - 117	08/16/21 17:41	
Dibromofluoromethane	106	73 - 122	08/16/21 17:41	
Toluene-d8	102	65 - 144	08/16/21 17:41	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:40  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-03-13I  
**Lab Code:** K2109260-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/16/21 18:08	
Benzene	ND U	0.50	1	08/16/21 18:08	
Bromobenzene	ND U	2.0	1	08/16/21 18:08	
Bromochloromethane	ND U	0.50	1	08/16/21 18:08	
Bromodichloromethane	ND U	0.50	1	08/16/21 18:08	
Bromoform	ND U	0.50	1	08/16/21 18:08	
Bromomethane	ND U	0.50	1	08/16/21 18:08	*
2-Butanone (MEK)	ND U	20	1	08/16/21 18:08	
n-Butylbenzene	ND U	4.0	1	08/16/21 18:08	
sec-Butylbenzene	ND U	2.0	1	08/16/21 18:08	
tert-Butylbenzene	ND U	2.0	1	08/16/21 18:08	
Carbon Disulfide	ND U	0.50	1	08/16/21 18:08	
Carbon Tetrachloride	ND U	0.50	1	08/16/21 18:08	
Chlorobenzene	ND U	0.50	1	08/16/21 18:08	
Chloroethane	ND U	0.50	1	08/16/21 18:08	
Chloroform	ND U	0.50	1	08/16/21 18:08	
Chloromethane	ND U	0.50	1	08/16/21 18:08	*
2-Chlorotoluene	ND U	2.0	1	08/16/21 18:08	
4-Chlorotoluene	ND U	2.0	1	08/16/21 18:08	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/16/21 18:08	
Dibromochloromethane	ND U	0.50	1	08/16/21 18:08	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/16/21 18:08	
Dibromomethane	ND U	0.50	1	08/16/21 18:08	
1,2-Dichlorobenzene	ND U	0.50	1	08/16/21 18:08	
1,3-Dichlorobenzene	ND U	0.50	1	08/16/21 18:08	
1,4-Dichlorobenzene	ND U	0.50	1	08/16/21 18:08	
Dichlorodifluoromethane	ND U	0.50	1	08/16/21 18:08	
1,1-Dichloroethane	ND U	0.50	1	08/16/21 18:08	
cis-1,2-Dichloroethene	ND U	0.50	1	08/16/21 18:08	
trans-1,2-Dichloroethene	ND U	0.50	1	08/16/21 18:08	
1,2-Dichloropropane	ND U	0.50	1	08/16/21 18:08	
1,3-Dichloropropane	ND U	0.50	1	08/16/21 18:08	
2,2-Dichloropropane	ND U	0.50	1	08/16/21 18:08	
1,1-Dichloropropene	ND U	0.50	1	08/16/21 18:08	
cis-1,3-Dichloropropene	ND U	0.50	1	08/16/21 18:08	
trans-1,3-Dichloropropene	ND U	0.50	1	08/16/21 18:08	
Ethylbenzene	ND U	0.50	1	08/16/21 18:08	
Hexachlorobutadiene	ND U	2.0	1	08/16/21 18:08	
2-Hexanone	ND U	20	1	08/16/21 18:08	
Isopropylbenzene	ND U	2.0	1	08/16/21 18:08	
4-Isopropyltoluene	ND U	2.0	1	08/16/21 18:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:40  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-03-13I  
**Lab Code:** K2109260-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/16/21 18:08	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/16/21 18:08	
Methylene Chloride	ND U	2.0	1	08/16/21 18:08	
Naphthalene	ND U	2.0	1	08/16/21 18:08	*
n-Propylbenzene	ND U	2.0	1	08/16/21 18:08	
Styrene	ND U	0.50	1	08/16/21 18:08	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/16/21 18:08	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/16/21 18:08	
Tetrachloroethene (PCE)	ND U	0.50	1	08/16/21 18:08	
Toluene	ND U	0.50	1	08/16/21 18:08	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/16/21 18:08	*
1,2,4-Trichlorobenzene	ND U	2.0	1	08/16/21 18:08	
1,1,2-Trichloroethane	ND U	0.50	1	08/16/21 18:08	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/16/21 18:08	
Trichloroethene (TCE)	ND U	0.50	1	08/16/21 18:08	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/16/21 18:08	
1,2,3-Trichloropropane	ND U	0.50	1	08/16/21 18:08	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/16/21 18:08	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/16/21 18:08	
Vinyl Chloride	ND U	0.50	1	08/16/21 18:08	
o-Xylene	ND U	0.50	1	08/16/21 18:08	
m,p-Xylenes	ND U	0.50	1	08/16/21 18:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	79	68 - 117	08/16/21 18:08	
Dibromofluoromethane	107	73 - 122	08/16/21 18:08	
Toluene-d8	101	65 - 144	08/16/21 18:08	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:45  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/16/21 18:34	
Benzene	ND U	0.50	1	08/16/21 18:34	
Bromobenzene	ND U	2.0	1	08/16/21 18:34	
Bromochloromethane	ND U	0.50	1	08/16/21 18:34	
Bromodichloromethane	ND U	0.50	1	08/16/21 18:34	
Bromoform	ND U	0.50	1	08/16/21 18:34	
Bromomethane	ND U	0.50	1	08/16/21 18:34	*
2-Butanone (MEK)	ND U	20	1	08/16/21 18:34	
n-Butylbenzene	ND U	4.0	1	08/16/21 18:34	
sec-Butylbenzene	ND U	2.0	1	08/16/21 18:34	
tert-Butylbenzene	ND U	2.0	1	08/16/21 18:34	
Carbon Disulfide	ND U	0.50	1	08/16/21 18:34	
Carbon Tetrachloride	ND U	0.50	1	08/16/21 18:34	
Chlorobenzene	ND U	0.50	1	08/16/21 18:34	
Chloroethane	ND U	0.50	1	08/16/21 18:34	
Chloroform	ND U	0.50	1	08/16/21 18:34	
Chloromethane	ND U	0.50	1	08/16/21 18:34	*
2-Chlorotoluene	ND U	2.0	1	08/16/21 18:34	
4-Chlorotoluene	ND U	2.0	1	08/16/21 18:34	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/16/21 18:34	
Dibromochloromethane	ND U	0.50	1	08/16/21 18:34	*
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/16/21 18:34	
Dibromomethane	ND U	0.50	1	08/16/21 18:34	
1,2-Dichlorobenzene	ND U	0.50	1	08/16/21 18:34	
1,3-Dichlorobenzene	ND U	0.50	1	08/16/21 18:34	
1,4-Dichlorobenzene	ND U	0.50	1	08/16/21 18:34	
Dichlorodifluoromethane	ND U	0.50	1	08/16/21 18:34	
1,1-Dichloroethane	ND U	0.50	1	08/16/21 18:34	
cis-1,2-Dichloroethene	ND U	0.50	1	08/16/21 18:34	
trans-1,2-Dichloroethene	ND U	0.50	1	08/16/21 18:34	
1,2-Dichloropropane	ND U	0.50	1	08/16/21 18:34	
1,3-Dichloropropane	ND U	0.50	1	08/16/21 18:34	
2,2-Dichloropropane	ND U	0.50	1	08/16/21 18:34	
1,1-Dichloropropene	ND U	0.50	1	08/16/21 18:34	
cis-1,3-Dichloropropene	ND U	0.50	1	08/16/21 18:34	
trans-1,3-Dichloropropene	ND U	0.50	1	08/16/21 18:34	
Ethylbenzene	ND U	0.50	1	08/16/21 18:34	
Hexachlorobutadiene	ND U	2.0	1	08/16/21 18:34	
2-Hexanone	ND U	20	1	08/16/21 18:34	
Isopropylbenzene	ND U	2.0	1	08/16/21 18:34	
4-Isopropyltoluene	ND U	2.0	1	08/16/21 18:34	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:45  
**Date Received:** 08/10/21 14:10

**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/16/21 18:34	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/16/21 18:34	
Methylene Chloride	ND U	2.0	1	08/16/21 18:34	
Naphthalene	ND U	2.0	1	08/16/21 18:34	*
n-Propylbenzene	ND U	2.0	1	08/16/21 18:34	
Styrene	ND U	0.50	1	08/16/21 18:34	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/16/21 18:34	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/16/21 18:34	
Tetrachloroethene (PCE)	ND U	0.50	1	08/16/21 18:34	
Toluene	ND U	0.50	1	08/16/21 18:34	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/16/21 18:34	*
1,2,4-Trichlorobenzene	ND U	2.0	1	08/16/21 18:34	
1,1,2-Trichloroethane	ND U	0.50	1	08/16/21 18:34	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/16/21 18:34	
Trichloroethene (TCE)	ND U	0.50	1	08/16/21 18:34	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/16/21 18:34	
1,2,3-Trichloropropane	ND U	0.50	1	08/16/21 18:34	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/16/21 18:34	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/16/21 18:34	
Vinyl Chloride	ND U	0.50	1	08/16/21 18:34	
o-Xylene	ND U	0.50	1	08/16/21 18:34	
m,p-Xylenes	ND U	0.50	1	08/16/21 18:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	08/16/21 18:34	
Dibromofluoromethane	113	73 - 122	08/16/21 18:34	
Toluene-d8	104	65 - 144	08/16/21 18:34	





# Metals

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-01-5S  
**Lab Code:** K2109260-002

**Service Request:** K2109260  
**Date Collected:** 08/09/21 12:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 09:57	08/19/21	
Manganese	6010C	ND U	ug/L	1.1	1	09/02/21 09:57	08/19/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-02-27I  
**Lab Code:** K2109260-003

**Service Request:** K2109260  
**Date Collected:** 08/09/21 13:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 10:00	08/19/21	
Manganese	6010C	11.2	ug/L	1.1	1	09/02/21 10:00	08/19/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-03-13I  
**Lab Code:** K2109260-004

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:40  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 10:34	08/19/21	
Manganese	6010C	1.9	ug/L	1.1	1	09/02/21 10:34	08/19/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 10:36	08/19/21	
Manganese	6010C	1.4	ug/L	1.1	1	09/02/21 10:36	08/19/21	



## General Chemistry

**ALS Environmental—Kelso Laboratory**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-01-5S  
**Lab Code:** K2109260-002

**Service Request:** K2109260  
**Date Collected:** 08/09/21 12:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	4.25	mg/L	0.20	2	08/10/21 21:20	
Nitrate as Nitrogen	300.0	4.48	mg/L	0.10	2	08/10/21 21:20	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-01-5S  
**Lab Code:** K2109260-002

**Service Request:** K2109260  
**Date Collected:** 08/09/21 12:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	161	mg/L	5.0	1	08/11/21 09:10	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-02-27I  
**Lab Code:** K2109260-003

**Service Request:** K2109260  
**Date Collected:** 08/09/21 13:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	6.38	mg/L	0.20	2	08/10/21 21:29	
Nitrate as Nitrogen	300.0	3.06	mg/L	0.10	2	08/10/21 21:29	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-02-27I  
**Lab Code:** K2109260-003

**Service Request:** K2109260  
**Date Collected:** 08/09/21 13:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	177	mg/L	5.0	1	08/11/21 09:10	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-03-13I  
**Lab Code:** K2109260-004

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:40  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Chloride	300.0	<b>6.85</b>	mg/L	0.20	2	08/10/21 21:39	
Nitrate as Nitrogen	300.0	<b>5.13</b>	mg/L	0.10	2	08/10/21 21:39	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-03-13I  
**Lab Code:** K2109260-004

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:40  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	199	mg/L	5.0	1	08/11/21 09:10	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Chloride	300.0	<b>6.82</b>	mg/L	0.20	2	08/10/21 21:49	
Nitrate as Nitrogen	300.0	<b>5.15</b>	mg/L	0.10	2	08/10/21 21:49	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005

**Service Request:** K2109260  
**Date Collected:** 08/09/21 14:45  
**Date Received:** 08/10/21 14:10  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	191	mg/L	5.0	1	08/11/21 09:10	



# QC Summary Forms

**ALS Environmental—Kelso Laboratory**  
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## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
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Phone (360) 577-7222 Fax (360) 425-9096  
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**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Extraction Method:** None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68-117	73-122	65-144
TB1	K2109260-001	81	108	100
LB-080921-01-5S	K2109260-002	81	110	104
LB-080921-02-27I	K2109260-003	78	106	102
LB-080921-03-13I	K2109260-004	79	107	101
LB-080921-04-Dup	K2109260-005	83	113	104
Method Blank	KQ2115824-05	82	105	102
Lab Control Sample	KQ2115824-03	93	100	102
Duplicate Lab Control Sample	KQ2115824-04	95	102	104

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2115824-05

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/16/21 12:23	
Benzene	ND U	0.50	1	08/16/21 12:23	
Bromobenzene	ND U	2.0	1	08/16/21 12:23	
Bromochloromethane	ND U	0.50	1	08/16/21 12:23	
Bromodichloromethane	ND U	0.50	1	08/16/21 12:23	
Bromoform	ND U	0.50	1	08/16/21 12:23	
Bromomethane	ND U	0.50	1	08/16/21 12:23	
2-Butanone (MEK)	ND U	20	1	08/16/21 12:23	
n-Butylbenzene	ND U	4.0	1	08/16/21 12:23	
sec-Butylbenzene	ND U	2.0	1	08/16/21 12:23	
tert-Butylbenzene	ND U	2.0	1	08/16/21 12:23	
Carbon Disulfide	ND U	0.50	1	08/16/21 12:23	
Carbon Tetrachloride	ND U	0.50	1	08/16/21 12:23	
Chlorobenzene	ND U	0.50	1	08/16/21 12:23	
Chloroethane	ND U	0.50	1	08/16/21 12:23	
Chloroform	ND U	0.50	1	08/16/21 12:23	
Chloromethane	ND U	0.50	1	08/16/21 12:23	
2-Chlorotoluene	ND U	2.0	1	08/16/21 12:23	
4-Chlorotoluene	ND U	2.0	1	08/16/21 12:23	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/16/21 12:23	
Dibromochloromethane	ND U	0.50	1	08/16/21 12:23	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/16/21 12:23	
Dibromomethane	ND U	0.50	1	08/16/21 12:23	
1,2-Dichlorobenzene	ND U	0.50	1	08/16/21 12:23	
1,3-Dichlorobenzene	ND U	0.50	1	08/16/21 12:23	
1,4-Dichlorobenzene	ND U	0.50	1	08/16/21 12:23	
Dichlorodifluoromethane	ND U	0.50	1	08/16/21 12:23	
1,1-Dichloroethane	ND U	0.50	1	08/16/21 12:23	
cis-1,2-Dichloroethene	ND U	0.50	1	08/16/21 12:23	
trans-1,2-Dichloroethene	ND U	0.50	1	08/16/21 12:23	
1,2-Dichloropropane	ND U	0.50	1	08/16/21 12:23	
1,3-Dichloropropane	ND U	0.50	1	08/16/21 12:23	
2,2-Dichloropropane	ND U	0.50	1	08/16/21 12:23	
1,1-Dichloropropene	ND U	0.50	1	08/16/21 12:23	
cis-1,3-Dichloropropene	ND U	0.50	1	08/16/21 12:23	
trans-1,3-Dichloropropene	ND U	0.50	1	08/16/21 12:23	
Ethylbenzene	ND U	0.50	1	08/16/21 12:23	
Hexachlorobutadiene	ND U	2.0	1	08/16/21 12:23	
2-Hexanone	ND U	20	1	08/16/21 12:23	
Isopropylbenzene	ND U	2.0	1	08/16/21 12:23	
4-Isopropyltoluene	ND U	2.0	1	08/16/21 12:23	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2115824-05

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/16/21 12:23	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/16/21 12:23	
Methylene Chloride	ND U	2.0	1	08/16/21 12:23	
Naphthalene	ND U	2.0	1	08/16/21 12:23	
n-Propylbenzene	ND U	2.0	1	08/16/21 12:23	
Styrene	ND U	0.50	1	08/16/21 12:23	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/16/21 12:23	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/16/21 12:23	
Tetrachloroethene (PCE)	ND U	0.50	1	08/16/21 12:23	
Toluene	ND U	0.50	1	08/16/21 12:23	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/16/21 12:23	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/16/21 12:23	
1,1,2-Trichloroethane	ND U	0.50	1	08/16/21 12:23	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/16/21 12:23	
Trichloroethene (TCE)	ND U	0.50	1	08/16/21 12:23	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/16/21 12:23	
1,2,3-Trichloropropane	ND U	0.50	1	08/16/21 12:23	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/16/21 12:23	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/16/21 12:23	
Vinyl Chloride	ND U	0.50	1	08/16/21 12:23	
o-Xylene	ND U	0.50	1	08/16/21 12:23	
m,p-Xylenes	ND U	0.50	1	08/16/21 12:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	08/16/21 12:23	
Dibromofluoromethane	105	73 - 122	08/16/21 12:23	
Toluene-d8	102	65 - 144	08/16/21 12:23	

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Lechner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Analyzed:** 08/16/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 735147

Analyte Name	Lab Control Sample KQ2115824-03			Duplicate Lab Control Sample KQ2115824-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	10.9	10.0	109	10.4	10.0	104	66-124	5	30
1,1,1-Trichloroethane (TCA)	10.4	10.0	104	10.9	10.0	109	59-136	4	30
1,1,2,2-Tetrachloroethane	9.42	10.0	94	9.22	10.0	92	70-127	2	30
1,1,2-Trichloroethane	9.55	10.0	96	9.83	10.0	98	74-118	3	30
1,1-Dichloroethane	10.0	10.0	100	10.0	10.0	100	68-132	<1	30
1,1-Dichloropropene	9.75	10.0	98	9.25	10.0	93	59-134	5	30
1,2,3-Trichlorobenzene	8.62	10.0	86	8.72	10.0	87	68-120	1	30
1,2,3-Trichloropropane	11.0	10.0	110	11.1	10.0	111	69-123	<1	30
1,2,4-Trichlorobenzene	9.00	10.0	90	8.79	10.0	88	58-126	2	30
1,2,4-Trimethylbenzene	9.10	10.0	91	8.95	10.0	90	63-122	2	30
1,2-Dibromo-3-chloropropane	10.4	10.0	104	9.90	10.0	99	55-132	5	30
1,2-Dibromoethane (EDB)	9.76	10.0	98	9.66	10.0	97	74-118	1	30
1,2-Dichlorobenzene	9.60	10.0	96	8.89	10.0	89	72-115	8	30
1,2-Dichloropropane	9.93	10.0	99	9.64	10.0	96	67-126	3	30
1,3,5-Trimethylbenzene	9.12	10.0	91	8.64	10.0	86	62-126	5	30
1,3-Dichlorobenzene	9.30	10.0	93	8.88	10.0	89	70-116	5	30
1,3-Dichloropropane	9.40	10.0	94	9.43	10.0	94	75-116	<1	30
1,4-Dichlorobenzene	9.54	10.0	95	9.10	10.0	91	73-115	5	30
2,2-Dichloropropane	9.85	10.0	99	9.64	10.0	96	37-145	2	30
2-Butanone (MEK)	104	100	104	101	100	101	71-149	3	30
2-Chlorotoluene	8.78	10.0	88	8.74	10.0	87	55-131	<1	30
2-Hexanone	89.4	100	89	87.6	100	88	59-131	2	30
4-Chlorotoluene	9.20	10.0	92	8.89	10.0	89	66-121	3	30
4-Isopropyltoluene	8.88	10.0	89	8.55	10.0	86	61-128	4	30
4-Methyl-2-pentanone (MIBK)	98.2	100	98	96.5	100	96	64-134	2	30
Acetone	100	100	100	97.9	100	98	68-135	3	30
Benzene	10.1	10.0	101	9.89	10.0	99	69-124	2	30
Bromobenzene	9.85	10.0	99	9.44	10.0	94	72-116	4	30
Bromochloromethane	10.4	10.0	104	10.1	10.0	101	75-131	4	30
Bromodichloromethane	11.4	10.0	114	11.5	10.0	115	63-129	<1	30
Bromoform	11.7	10.0	117	11.8	10.0	118	52-144	<1	30
Bromomethane	7.16	10.0	72	7.12	10.0	71	35-113	<1	30
Carbon Disulfide	9.39	10.0	94	9.37	10.0	94	46-144	<1	30
Carbon Tetrachloride	11.5	10.0	115	11.5	10.0	115	55-140	<1	30
Chlorobenzene	9.73	10.0	97	9.27	10.0	93	72-116	5	30
Chloroethane	10.2	10.0	102	10.8	10.0	108	58-134	5	30
Chloroform	10.1	10.0	101	10.7	10.0	107	70-129	5	30
Chloromethane	7.30	10.0	73	7.52	10.0	75	34-130	3	30
cis-1,2-Dichloroethene	10.0	10.0	100	9.75	10.0	98	71-118	3	30
cis-1,3-Dichloropropene	10.5	10.0	105	10.5	10.0	105	62-132	<1	30
Dibromochloromethane	12.9	10.0	129 *	12.7	10.0	127 *	67-126	1	30

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Analyzed:** 08/16/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 735147

Analyte Name	Lab Control Sample KQ2115824-03			Duplicate Lab Control Sample KQ2115824-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dibromomethane	10.4	10.0	104	10.7	10.0	107	69-128	4	30
Dichlorodifluoromethane	8.98	10.0	90	8.73	10.0	87	32-124	3	30
Ethylbenzene	9.29	10.0	93	9.14	10.0	91	67-121	2	30
Hexachlorobutadiene	10.3	10.0	103	9.93	10.0	99	57-119	3	30
Isopropylbenzene	9.12	10.0	91	9.07	10.0	91	67-129	<1	30
m,p-Xylenes	18.3	20.0	92	18.2	20.0	91	69-121	<1	30
Methyl tert-Butyl Ether	18.7	20.0	93	18.6	20.0	93	54-126	<1	30
Methylene Chloride	9.29	10.0	93	9.05	10.0	91	71-122	3	30
Naphthalene	7.42	10.0	74	7.34	10.0	73	64-126	1	30
n-Butylbenzene	8.37	10.0	84	8.11	10.0	81	55-130	3	30
n-Propylbenzene	9.17	10.0	92	8.93	10.0	89	61-124	3	30
o-Xylene	8.98	10.0	90	8.78	10.0	88	71-119	2	30
sec-Butylbenzene	8.88	10.0	89	8.32	10.0	83	59-128	7	30
Styrene	9.68	10.0	97	8.90	10.0	89	74-121	8	30
tert-Butylbenzene	8.82	10.0	88	8.39	10.0	84	61-127	5	30
Tetrachloroethene (PCE)	10.0	10.0	100	9.74	10.0	97	62-126	3	30
Toluene	10.3	10.0	103	10.5	10.0	105	69-124	2	30
trans-1,2-Dichloroethene	10.1	10.0	101	9.70	10.0	97	67-125	4	30
trans-1,3-Dichloropropene	9.66	10.0	97	9.42	10.0	94	59-125	3	30
Trichloroethene (TCE)	9.79	10.0	98	9.86	10.0	99	67-128	<1	30
Trichlorofluoromethane (CFC 11)	9.80	10.0	98	9.93	10.0	99	52-141	1	30
Vinyl Chloride	9.13	10.0	91	9.42	10.0	94	55-123	3	30



# Metals

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2115398-02

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 09:50	08/19/21	
Manganese	6010C	ND U	ug/L	1.1	1	09/02/21 09:50	08/19/21	

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Analyzed:** 09/02/21

**Lab Control Sample Summary**  
**Dissolved Metals**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
KQ2115398-01

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Iron	6010C	2600	2500	104	80-120
Manganese	6010C	1300	1250	104	80-120





# General Chemistry

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[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109260-MB1

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	08/10/21 12:07	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	08/10/21 12:07	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109260-MB1

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/11/21 09:10	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109260-MB2

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	08/10/21 20:02	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	08/10/21 20:02	

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109260-MB2

**Service Request:** K2109260  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/11/21 09:10	

ALS Group USA, Corp.

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QA/QC Report

**Client:** SCS Engineers  
**Project** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Collected:** 08/09/21  
**Date Received:** 08/10/21  
**Date Analyzed:** 08/11/21

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** LB-080921-04-Dup  
**Lab Code:** K2109260-005

**Units:** mg/L  
**Basis:** NA

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>MRL</u>	<u>Sample Result</u>	<u>Duplicate Sample K2109260- 005DUP Result</u>	<u>Average</u>	<u>RPD</u>	<u>RPD Limit</u>
Solids, Total Dissolved	SM 2540 C	5.0	191	193	192	<1	5

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Analyzed:** 08/10/21 - 08/11/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2109260-LCS1

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	4.68	5.00	94	90-110
Nitrate as Nitrogen	300.0	2.38	2.50	95	90-110
Solids, Total Dissolved	SM 2540 C	917	922	99	85-115

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Lanfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109260  
**Date Analyzed:** 08/10/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2109260-LCS2

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	4.74	5.00	95	90-110
Nitrate as Nitrogen	300.0	2.39	2.50	96	90-110







September 03, 2021

Service Request No:K2109352

Tiffany Andrews  
SCS Engineers  
15940 SW 72nd Ave  
Portland, OR 97224

**Laboratory Results for: Leichner Landfill**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory August 11, 2021  
For your reference, these analyses have been assigned our service request number **K2109352**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at [howard.holmes@alsglobal.com](mailto:howard.holmes@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Howard Holmes  
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626  
PHONE +1 360 577 7222 | FAX +1 360 636 1068  
ALS Group USA, Corp.  
dba ALS Environmental



# Narrative Documents

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Leichner Landfill  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Received:** 08/11/2021

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

#### Sample Receipt:

Six ground water samples were received for analysis at ALS Environmental on 08/11/2021. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

#### Metals:

No significant anomalies were noted with this analysis.

#### General Chemistry:

Method 300.0, 08/12/2021: Samples LB-081021-01-FB and LB-081021-01-10SR were received with insufficient holding time remaining. Additionally, sample LB-081021-01-10SR was initially over range and required subsequent dilution. The analysis was performed as soon as possible after receipt by the laboratory. The data was flagged to indicate the holding time violation.

#### Volatiles by GC/MS:

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0819F005.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Method 8260C, 08/19/2021: The Trip Blank (TB2) analyzed with these samples contained low levels of Toluene above the Method Reporting Limit (MRL). The associated field samples did not contain the analyte in question. No further corrective action was taken.

Approved by



Date

09/03/2021



**SAMPLE DETECTION SUMMARY**

<b>CLIENT ID: TB2</b>	<b>Lab ID: K2109352-001</b>
-----------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	0.50			0.50	ug/L	8260C

<b>CLIENT ID: LB-081021-02-10SR</b>	<b>Lab ID: K2109352-003</b>
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	235			5.0	mg/L	SM 2540 C
Chloride	5.65			0.20	mg/L	300.0
Nitrate as Nitrogen	15.2			0.50	mg/L	300.0
Manganese, Dissolved	3.0			1.1	ug/L	6010C

<b>CLIENT ID: LB-081021-03-1S</b>	<b>Lab ID: K2109352-004</b>
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	191			5.0	mg/L	SM 2540 C
Chloride	6.11			0.20	mg/L	300.0
Nitrate as Nitrogen	5.01			0.10	mg/L	300.0

<b>CLIENT ID: LB-081021-04-26I</b>	<b>Lab ID: K2109352-005</b>
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	191			5.0	mg/L	SM 2540 C
Chloride	6.81			0.20	mg/L	300.0
Nitrate as Nitrogen	4.49			0.10	mg/L	300.0
Manganese, Dissolved	3.5			1.1	ug/L	6010C

<b>CLIENT ID: LB-081021-05-6S</b>	<b>Lab ID: K2109352-006</b>
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Solids, Total Dissolved	163			5.0	mg/L	SM 2540 C
Chloride	4.62			0.20	mg/L	300.0
Nitrate as Nitrogen	1.72			0.10	mg/L	300.0



## Sample Receipt Information

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** SCS Engineers  
**Project:** Lechner Landfill/04221030.13

**Service Request:**K2109352

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2109352-001	TB2	8/10/2021	0700
K2109352-002	LB-081021-01-FB	8/10/2021	0745
K2109352-003	LB-081021-02-10SR	8/10/2021	0830
K2109352-004	LB-081021-03-1S	8/10/2021	1140
K2109352-005	LB-081021-04-26I	8/10/2021	1225
K2109352-006	LB-081021-05-6S	8/10/2021	1310



# CHAIN OF CUSTODY

SR# K2109352

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE      OF      COC#     

PROJECT NAME <u>Heichner Landfill</u>	NUMBER OF CONTAINERS
PROJECT NUMBER <u>0422103013</u>	
PROJECT MANAGER <u>Barb Lucy / T Andrews</u>	
COMPANY NAME <u>SCS Engineers</u>	
ADDRESS <u>15940 SW 72nd Ave</u>	
CITY/STATE/ZIP <u>Portland, OR 97224</u>	
E-MAIL ADDRESS <u>Tandrews@scsengineers.com</u>	
PHONE # <u>503 724-0112</u>	FAX # <u>    </u>
SAMPLER'S SIGNATURE 	

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 <input type="checkbox"/> 8270 <input type="checkbox"/> 8270LL <input type="checkbox"/> SIM PAH <input type="checkbox"/>	Volatile Organics 624 <input type="checkbox"/> 8267 <input type="checkbox"/>	Hydrocarbons (*see below) Gas <input type="checkbox"/> 8021 <input type="checkbox"/> BTEX <input type="checkbox"/>	Oil & Grease/TRPH 1664 HEM <input type="checkbox"/> Oil <input type="checkbox"/>	PCBs 1664 SGT <input type="checkbox"/>	Aroclors <input type="checkbox"/>	Congeners <input type="checkbox"/>	Pesticides/Herbicides 608 <input type="checkbox"/> 8081 <input type="checkbox"/> 814 <input type="checkbox"/>	Chlorophenolics - 8151M Tri <input type="checkbox"/> Tetra <input type="checkbox"/> 8151 <input type="checkbox"/>	Metals, Total or Dissolved (See List below) <input type="checkbox"/> RCP <input type="checkbox"/>	Cyanide <input type="checkbox"/>	Hex-Chrom <input type="checkbox"/>	(circle) pH, Cond. <input type="checkbox"/> (circle) BOD, TSS <input type="checkbox"/> (circle) NH <sub>3</sub> -N, COD, TKN, TOC, DOC, NO <sub>2</sub> -N, NO <sub>3</sub> -N, Turb. <input type="checkbox"/>	TOX 9020 <input type="checkbox"/> AOX 1650 <input type="checkbox"/> 506 <input type="checkbox"/>	Alkalinity <input type="checkbox"/> CO <sub>3</sub> <input type="checkbox"/> HCO <sub>3</sub> <input type="checkbox"/>	Dioxins/Furans 1613 <input type="checkbox"/> 8290 <input type="checkbox"/>	Dissolved Gases FSK 175 <input type="checkbox"/> Methane <input type="checkbox"/> Ethane <input type="checkbox"/> Ethene <input type="checkbox"/>	REMARKS		
TB2	8/10/21	0700	W	2		X																			
LB-081021-01-FB	8/10/21	0745	W	5		X								X			X								
LB-081021-02-10CR	8/10/21	0830	W	5		X								X			X								
LB-081021-03-15	8/10/21	1140	W	5		X								X			X								
LB-081021-04-26T	8/10/21	1225	W	5		X								X			X								
LB-081021-05-65	8/10/21	1310	W	5		X								X			X								

<b>REPORT REQUIREMENTS</b> <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	<b>INVOICE INFORMATION</b> P.O. # _____ Bill To: _____	Circle which metals are to be analyzed: Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu <u>Fe</u> Pb Mg <u>Mn</u> Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg
	<b>TURNAROUND REQUIREMENTS</b> _____ 24 hr. _____ 48 hr. _____ 5 day <input checked="" type="checkbox"/> Standard (15 working days) _____ Provide FAX Results Requested Report Date _____	<b>*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)</b> SPECIAL INSTRUCTIONS/COMMENTS: <u>Metals are field filtered</u> <input type="checkbox"/> Sample Shipment contains USDA regulated soil samples (check box if applicable)

 Container Supply Number  
  
 115140

<b>RELINQUISHED BY:</b>  Signature _____ Date/Time <u>8/11/21</u> Printed Name <u>Andrews</u> Firm _____	<b>RECEIVED BY:</b>  Signature _____ Date/Time <u>8/11/21</u> Printed Name <u>Monahan</u> Firm <u>ALS</u>	<b>RELINQUISHED BY:</b>  Signature _____ Date/Time <u>8/11/21</u> Printed Name _____ Firm <u>1750</u>	<b>RECEIVED BY:</b>  Signature _____ Date/Time <u>8/11/21 1750</u> Printed Name <u>Monahan</u> Firm <u>ALS</u>
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PM     

### Cooler Receipt and Preservation Form

Client SCS Service Request K21 09352  
Received: 8/11/21 Opened: 8/11/21 By: AP Unloaded: 8/11/21 By: AP

- 1. Samples were received via?  USPS  Fed Ex  UPS  DHL  PDX  Courier  Hand Delivered
  - 2. Samples were received in: (circle)  Cooler  Box  Envelope  Other  NA
  - 3. Were custody seals on coolers? NA  Y  N If yes, how many and where? 1 front  
If present, were custody seals intact?  Y  N If present, were they signed and dated?  Y  N
  - 4. Was a Temperature Blank present in cooler? NA  Y  N If yes, notate the temperature in the appropriate column below:  
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
  - 5. Were samples received within the method specified temperature ranges? NA  Y  N  
If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM.  NA  Y  N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID/NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number	Filed
—	0.9	1 (2)		—	—	NA	

- 6. Packing material:  Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Dry Ice  Sleeves
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA  Y  N
- 8. Were samples received in good condition (unbroken)? NA  Y  N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA  Y  N
- 10. Did all sample labels and tags agree with custody papers? NA  Y  N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y  N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA  Y  N
- 13. Were VOA vials received without headspace? Indicate in the table below.  NA  Y  N
- 14. Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEH	<a href="http://dec.alaska.gov/eh/lab/cs/csapproval.htm">http://dec.alaska.gov/eh/lab/cs/csapproval.htm</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L16-58-R4
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	<a href="http://health.hawaii.gov/">http://health.hawaii.gov/</a>	-
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	03016
Maine DHS	<a href="http://www.maine.gov/dhhs/">http://www.maine.gov/dhhs/</a>	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	WA005
New York - DOH	<a href="https://www.wadsworth.org/regulatory/elap">https://www.wadsworth.org/regulatory/elap</a>	12060
North Carolina DEQ	<a href="https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification">https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/EnvironmentalLabCertification/">http://www.scdhec.gov/environment/EnvironmentalLabCertification/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water">https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.ALSGlobal.com](http://www.ALSGlobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2109352

**Sample Name:** TB2  
**Lab Code:** K2109352-001  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
GROETTGER

**Sample Name:** LB-081021-01-FB  
**Lab Code:** K2109352-002  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
ABOYER

**Analyzed By**  
ESCHLOSS  
AMCKORNEY  
GROETTGER  
JSANCHEZ

**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**  
300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**  
ABOYER

**Analyzed By**  
ESCHLOSS  
AMCKORNEY  
GROETTGER  
JSANCHEZ

**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003.R01  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**  
300.0

**Extracted/Digested By**

**Analyzed By**  
ESCHLOSS

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13

**Service Request:** K2109352

**Sample Name:** LB-081021-03-1S  
**Lab Code:** K2109352-004  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

ESCHLOSS  
AMCKORNEY  
GROETTGER  
JSANCHEZ

**Sample Name:** LB-081021-04-26I  
**Lab Code:** K2109352-005  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

ESCHLOSS  
AMCKORNEY  
GROETTGER  
JSANCHEZ

**Sample Name:** LB-081021-05-6S  
**Lab Code:** K2109352-006  
**Sample Matrix:** Ground Water

**Date Collected:** 08/10/21  
**Date Received:** 08/11/21

**Analysis Method**

300.0  
6010C  
8260C  
SM 2540 C

**Extracted/Digested By**

ABOYER

**Analyzed By**

ESCHLOSS  
AMCKORNEY  
GROETTGER  
JSANCHEZ



# Sample Results

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)





## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:00  
**Date Received:** 08/11/21 17:50

**Sample Name:** TB2  
**Lab Code:** K2109352-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 16:45	
Benzene	ND U	0.50	1	08/19/21 16:45	
Bromobenzene	ND U	2.0	1	08/19/21 16:45	
Bromochloromethane	ND U	0.50	1	08/19/21 16:45	
Bromodichloromethane	ND U	0.50	1	08/19/21 16:45	*
Bromoform	ND U	0.50	1	08/19/21 16:45	
Bromomethane	ND U	0.50	1	08/19/21 16:45	
2-Butanone (MEK)	ND U	20	1	08/19/21 16:45	
n-Butylbenzene	ND U	4.0	1	08/19/21 16:45	*
sec-Butylbenzene	ND U	2.0	1	08/19/21 16:45	
tert-Butylbenzene	ND U	2.0	1	08/19/21 16:45	*
Carbon Disulfide	ND U	0.50	1	08/19/21 16:45	*
Carbon Tetrachloride	ND U	0.50	1	08/19/21 16:45	
Chlorobenzene	ND U	0.50	1	08/19/21 16:45	
Chloroethane	ND U	0.50	1	08/19/21 16:45	
Chloroform	ND U	0.50	1	08/19/21 16:45	
Chloromethane	ND U	0.50	1	08/19/21 16:45	*
2-Chlorotoluene	ND U	2.0	1	08/19/21 16:45	
4-Chlorotoluene	ND U	2.0	1	08/19/21 16:45	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 16:45	
Dibromochloromethane	ND U	0.50	1	08/19/21 16:45	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 16:45	
Dibromomethane	ND U	0.50	1	08/19/21 16:45	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 16:45	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 16:45	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 16:45	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 16:45	*
1,1-Dichloroethane	ND U	0.50	1	08/19/21 16:45	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 16:45	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 16:45	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 16:45	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 16:45	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 16:45	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 16:45	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 16:45	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 16:45	
Ethylbenzene	ND U	0.50	1	08/19/21 16:45	*
Hexachlorobutadiene	ND U	2.0	1	08/19/21 16:45	
2-Hexanone	ND U	20	1	08/19/21 16:45	
Isopropylbenzene	ND U	2.0	1	08/19/21 16:45	*
4-Isopropyltoluene	ND U	2.0	1	08/19/21 16:45	

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:00  
**Date Received:** 08/11/21 17:50

**Sample Name:** TB2  
**Lab Code:** K2109352-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 16:45	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 16:45	
Methylene Chloride	ND U	2.0	1	08/19/21 16:45	
Naphthalene	ND U	2.0	1	08/19/21 16:45	*
n-Propylbenzene	ND U	2.0	1	08/19/21 16:45	
Styrene	ND U	0.50	1	08/19/21 16:45	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 16:45	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 16:45	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 16:45	
Toluene	<b>0.50</b>	0.50	1	08/19/21 16:45	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 16:45	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 16:45	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 16:45	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 16:45	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 16:45	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 16:45	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 16:45	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 16:45	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 16:45	
Vinyl Chloride	ND U	0.50	1	08/19/21 16:45	*
o-Xylene	ND U	0.50	1	08/19/21 16:45	
m,p-Xylenes	ND U	0.50	1	08/19/21 16:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	08/19/21 16:45	
Dibromofluoromethane	110	73 - 122	08/19/21 16:45	
Toluene-d8	105	65 - 144	08/19/21 16:45	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:45  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-01-FB  
**Lab Code:** K2109352-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 17:12	
Benzene	ND U	0.50	1	08/19/21 17:12	
Bromobenzene	ND U	2.0	1	08/19/21 17:12	
Bromochloromethane	ND U	0.50	1	08/19/21 17:12	
Bromodichloromethane	ND U	0.50	1	08/19/21 17:12	*
Bromoform	ND U	0.50	1	08/19/21 17:12	
Bromomethane	ND U	0.50	1	08/19/21 17:12	
2-Butanone (MEK)	ND U	20	1	08/19/21 17:12	
n-Butylbenzene	ND U	4.0	1	08/19/21 17:12	*
sec-Butylbenzene	ND U	2.0	1	08/19/21 17:12	
tert-Butylbenzene	ND U	2.0	1	08/19/21 17:12	*
Carbon Disulfide	ND U	0.50	1	08/19/21 17:12	*
Carbon Tetrachloride	ND U	0.50	1	08/19/21 17:12	
Chlorobenzene	ND U	0.50	1	08/19/21 17:12	
Chloroethane	ND U	0.50	1	08/19/21 17:12	
Chloroform	ND U	0.50	1	08/19/21 17:12	
Chloromethane	ND U	0.50	1	08/19/21 17:12	*
2-Chlorotoluene	ND U	2.0	1	08/19/21 17:12	
4-Chlorotoluene	ND U	2.0	1	08/19/21 17:12	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 17:12	
Dibromochloromethane	ND U	0.50	1	08/19/21 17:12	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 17:12	
Dibromomethane	ND U	0.50	1	08/19/21 17:12	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 17:12	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 17:12	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 17:12	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 17:12	*
1,1-Dichloroethane	ND U	0.50	1	08/19/21 17:12	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 17:12	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 17:12	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 17:12	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 17:12	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 17:12	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 17:12	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 17:12	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 17:12	
Ethylbenzene	ND U	0.50	1	08/19/21 17:12	*
Hexachlorobutadiene	ND U	2.0	1	08/19/21 17:12	
2-Hexanone	ND U	20	1	08/19/21 17:12	
Isopropylbenzene	ND U	2.0	1	08/19/21 17:12	*
4-Isopropyltoluene	ND U	2.0	1	08/19/21 17:12	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:45  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-01-FB  
**Lab Code:** K2109352-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 17:12	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 17:12	
Methylene Chloride	ND U	2.0	1	08/19/21 17:12	
Naphthalene	ND U	2.0	1	08/19/21 17:12	*
n-Propylbenzene	ND U	2.0	1	08/19/21 17:12	
Styrene	ND U	0.50	1	08/19/21 17:12	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 17:12	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 17:12	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 17:12	
Toluene	ND U	0.50	1	08/19/21 17:12	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 17:12	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 17:12	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 17:12	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 17:12	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 17:12	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 17:12	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 17:12	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 17:12	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 17:12	
Vinyl Chloride	ND U	0.50	1	08/19/21 17:12	*
o-Xylene	ND U	0.50	1	08/19/21 17:12	
m,p-Xylenes	ND U	0.50	1	08/19/21 17:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	80	68 - 117	08/19/21 17:12	
Dibromofluoromethane	100	73 - 122	08/19/21 17:12	
Toluene-d8	102	65 - 144	08/19/21 17:12	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 08:30  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 17:39	
Benzene	ND U	0.50	1	08/19/21 17:39	
Bromobenzene	ND U	2.0	1	08/19/21 17:39	
Bromochloromethane	ND U	0.50	1	08/19/21 17:39	
Bromodichloromethane	ND U	0.50	1	08/19/21 17:39	*
Bromoform	ND U	0.50	1	08/19/21 17:39	
Bromomethane	ND U	0.50	1	08/19/21 17:39	
2-Butanone (MEK)	ND U	20	1	08/19/21 17:39	
n-Butylbenzene	ND U	4.0	1	08/19/21 17:39	*
sec-Butylbenzene	ND U	2.0	1	08/19/21 17:39	
tert-Butylbenzene	ND U	2.0	1	08/19/21 17:39	*
Carbon Disulfide	ND U	0.50	1	08/19/21 17:39	*
Carbon Tetrachloride	ND U	0.50	1	08/19/21 17:39	
Chlorobenzene	ND U	0.50	1	08/19/21 17:39	
Chloroethane	ND U	0.50	1	08/19/21 17:39	
Chloroform	ND U	0.50	1	08/19/21 17:39	
Chloromethane	ND U	0.50	1	08/19/21 17:39	*
2-Chlorotoluene	ND U	2.0	1	08/19/21 17:39	
4-Chlorotoluene	ND U	2.0	1	08/19/21 17:39	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 17:39	
Dibromochloromethane	ND U	0.50	1	08/19/21 17:39	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 17:39	
Dibromomethane	ND U	0.50	1	08/19/21 17:39	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 17:39	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 17:39	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 17:39	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 17:39	*
1,1-Dichloroethane	ND U	0.50	1	08/19/21 17:39	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 17:39	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 17:39	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 17:39	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 17:39	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 17:39	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 17:39	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 17:39	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 17:39	
Ethylbenzene	ND U	0.50	1	08/19/21 17:39	*
Hexachlorobutadiene	ND U	2.0	1	08/19/21 17:39	
2-Hexanone	ND U	20	1	08/19/21 17:39	
Isopropylbenzene	ND U	2.0	1	08/19/21 17:39	*
4-Isopropyltoluene	ND U	2.0	1	08/19/21 17:39	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 08:30  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 17:39	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 17:39	
Methylene Chloride	ND U	2.0	1	08/19/21 17:39	
Naphthalene	ND U	2.0	1	08/19/21 17:39	*
n-Propylbenzene	ND U	2.0	1	08/19/21 17:39	
Styrene	ND U	0.50	1	08/19/21 17:39	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 17:39	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 17:39	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 17:39	
Toluene	ND U	0.50	1	08/19/21 17:39	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 17:39	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 17:39	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 17:39	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 17:39	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 17:39	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 17:39	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 17:39	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 17:39	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 17:39	
Vinyl Chloride	ND U	0.50	1	08/19/21 17:39	*
o-Xylene	ND U	0.50	1	08/19/21 17:39	
m,p-Xylenes	ND U	0.50	1	08/19/21 17:39	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	75	68 - 117	08/19/21 17:39	
Dibromofluoromethane	108	73 - 122	08/19/21 17:39	
Toluene-d8	106	65 - 144	08/19/21 17:39	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 11:40  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-03-1S  
**Lab Code:** K2109352-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 18:05	
Benzene	ND U	0.50	1	08/19/21 18:05	
Bromobenzene	ND U	2.0	1	08/19/21 18:05	
Bromochloromethane	ND U	0.50	1	08/19/21 18:05	
Bromodichloromethane	ND U	0.50	1	08/19/21 18:05	*
Bromoform	ND U	0.50	1	08/19/21 18:05	
Bromomethane	ND U	0.50	1	08/19/21 18:05	
2-Butanone (MEK)	ND U	20	1	08/19/21 18:05	
n-Butylbenzene	ND U	4.0	1	08/19/21 18:05	*
sec-Butylbenzene	ND U	2.0	1	08/19/21 18:05	
tert-Butylbenzene	ND U	2.0	1	08/19/21 18:05	*
Carbon Disulfide	ND U	0.50	1	08/19/21 18:05	*
Carbon Tetrachloride	ND U	0.50	1	08/19/21 18:05	
Chlorobenzene	ND U	0.50	1	08/19/21 18:05	
Chloroethane	ND U	0.50	1	08/19/21 18:05	
Chloroform	ND U	0.50	1	08/19/21 18:05	
Chloromethane	ND U	0.50	1	08/19/21 18:05	*
2-Chlorotoluene	ND U	2.0	1	08/19/21 18:05	
4-Chlorotoluene	ND U	2.0	1	08/19/21 18:05	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 18:05	
Dibromochloromethane	ND U	0.50	1	08/19/21 18:05	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 18:05	
Dibromomethane	ND U	0.50	1	08/19/21 18:05	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 18:05	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 18:05	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 18:05	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 18:05	*
1,1-Dichloroethane	ND U	0.50	1	08/19/21 18:05	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 18:05	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 18:05	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 18:05	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 18:05	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 18:05	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 18:05	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 18:05	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 18:05	
Ethylbenzene	ND U	0.50	1	08/19/21 18:05	*
Hexachlorobutadiene	ND U	2.0	1	08/19/21 18:05	
2-Hexanone	ND U	20	1	08/19/21 18:05	
Isopropylbenzene	ND U	2.0	1	08/19/21 18:05	*
4-Isopropyltoluene	ND U	2.0	1	08/19/21 18:05	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 11:40  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-03-1S  
**Lab Code:** K2109352-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 18:05	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 18:05	
Methylene Chloride	ND U	2.0	1	08/19/21 18:05	
Naphthalene	ND U	2.0	1	08/19/21 18:05	*
n-Propylbenzene	ND U	2.0	1	08/19/21 18:05	
Styrene	ND U	0.50	1	08/19/21 18:05	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 18:05	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 18:05	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 18:05	
Toluene	ND U	0.50	1	08/19/21 18:05	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 18:05	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 18:05	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 18:05	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 18:05	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 18:05	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 18:05	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 18:05	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 18:05	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 18:05	
Vinyl Chloride	ND U	0.50	1	08/19/21 18:05	*
o-Xylene	ND U	0.50	1	08/19/21 18:05	
m,p-Xylenes	ND U	0.50	1	08/19/21 18:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	68 - 117	08/19/21 18:05	
Dibromofluoromethane	109	73 - 122	08/19/21 18:05	
Toluene-d8	104	65 - 144	08/19/21 18:05	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 12:25  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-04-26I  
**Lab Code:** K2109352-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 18:32	
Benzene	ND U	0.50	1	08/19/21 18:32	
Bromobenzene	ND U	2.0	1	08/19/21 18:32	
Bromochloromethane	ND U	0.50	1	08/19/21 18:32	
Bromodichloromethane	ND U	0.50	1	08/19/21 18:32	*
Bromoform	ND U	0.50	1	08/19/21 18:32	
Bromomethane	ND U	0.50	1	08/19/21 18:32	
2-Butanone (MEK)	ND U	20	1	08/19/21 18:32	
n-Butylbenzene	ND U	4.0	1	08/19/21 18:32	*
sec-Butylbenzene	ND U	2.0	1	08/19/21 18:32	
tert-Butylbenzene	ND U	2.0	1	08/19/21 18:32	*
Carbon Disulfide	ND U	0.50	1	08/19/21 18:32	*
Carbon Tetrachloride	ND U	0.50	1	08/19/21 18:32	
Chlorobenzene	ND U	0.50	1	08/19/21 18:32	
Chloroethane	ND U	0.50	1	08/19/21 18:32	
Chloroform	ND U	0.50	1	08/19/21 18:32	
Chloromethane	ND U	0.50	1	08/19/21 18:32	*
2-Chlorotoluene	ND U	2.0	1	08/19/21 18:32	
4-Chlorotoluene	ND U	2.0	1	08/19/21 18:32	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 18:32	
Dibromochloromethane	ND U	0.50	1	08/19/21 18:32	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 18:32	
Dibromomethane	ND U	0.50	1	08/19/21 18:32	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 18:32	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 18:32	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 18:32	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 18:32	*
1,1-Dichloroethane	ND U	0.50	1	08/19/21 18:32	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 18:32	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 18:32	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 18:32	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 18:32	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 18:32	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 18:32	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 18:32	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 18:32	
Ethylbenzene	ND U	0.50	1	08/19/21 18:32	*
Hexachlorobutadiene	ND U	2.0	1	08/19/21 18:32	
2-Hexanone	ND U	20	1	08/19/21 18:32	
Isopropylbenzene	ND U	2.0	1	08/19/21 18:32	*
4-Isopropyltoluene	ND U	2.0	1	08/19/21 18:32	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 12:25  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-04-26I  
**Lab Code:** K2109352-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 18:32	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 18:32	
Methylene Chloride	ND U	2.0	1	08/19/21 18:32	
Naphthalene	ND U	2.0	1	08/19/21 18:32	*
n-Propylbenzene	ND U	2.0	1	08/19/21 18:32	
Styrene	ND U	0.50	1	08/19/21 18:32	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 18:32	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 18:32	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 18:32	
Toluene	ND U	0.50	1	08/19/21 18:32	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 18:32	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 18:32	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 18:32	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 18:32	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 18:32	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 18:32	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 18:32	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 18:32	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 18:32	
Vinyl Chloride	ND U	0.50	1	08/19/21 18:32	*
o-Xylene	ND U	0.50	1	08/19/21 18:32	
m,p-Xylenes	ND U	0.50	1	08/19/21 18:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	80	68 - 117	08/19/21 18:32	
Dibromofluoromethane	103	73 - 122	08/19/21 18:32	
Toluene-d8	102	65 - 144	08/19/21 18:32	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 13:10  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-05-6S  
**Lab Code:** K2109352-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 18:58	
Benzene	ND U	0.50	1	08/19/21 18:58	
Bromobenzene	ND U	2.0	1	08/19/21 18:58	
Bromochloromethane	ND U	0.50	1	08/19/21 18:58	
Bromodichloromethane	ND U	0.50	1	08/19/21 18:58	*
Bromoform	ND U	0.50	1	08/19/21 18:58	
Bromomethane	ND U	0.50	1	08/19/21 18:58	
2-Butanone (MEK)	ND U	20	1	08/19/21 18:58	
n-Butylbenzene	ND U	4.0	1	08/19/21 18:58	*
sec-Butylbenzene	ND U	2.0	1	08/19/21 18:58	
tert-Butylbenzene	ND U	2.0	1	08/19/21 18:58	*
Carbon Disulfide	ND U	0.50	1	08/19/21 18:58	*
Carbon Tetrachloride	ND U	0.50	1	08/19/21 18:58	
Chlorobenzene	ND U	0.50	1	08/19/21 18:58	
Chloroethane	ND U	0.50	1	08/19/21 18:58	
Chloroform	ND U	0.50	1	08/19/21 18:58	
Chloromethane	ND U	0.50	1	08/19/21 18:58	*
2-Chlorotoluene	ND U	2.0	1	08/19/21 18:58	
4-Chlorotoluene	ND U	2.0	1	08/19/21 18:58	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 18:58	
Dibromochloromethane	ND U	0.50	1	08/19/21 18:58	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 18:58	
Dibromomethane	ND U	0.50	1	08/19/21 18:58	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 18:58	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 18:58	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 18:58	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 18:58	*
1,1-Dichloroethane	ND U	0.50	1	08/19/21 18:58	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 18:58	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 18:58	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 18:58	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 18:58	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 18:58	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 18:58	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 18:58	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 18:58	
Ethylbenzene	ND U	0.50	1	08/19/21 18:58	*
Hexachlorobutadiene	ND U	2.0	1	08/19/21 18:58	
2-Hexanone	ND U	20	1	08/19/21 18:58	
Isopropylbenzene	ND U	2.0	1	08/19/21 18:58	*
4-Isopropyltoluene	ND U	2.0	1	08/19/21 18:58	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Collected:** 08/10/21 13:10  
**Date Received:** 08/11/21 17:50

**Sample Name:** LB-081021-05-6S  
**Lab Code:** K2109352-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 18:58	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 18:58	
Methylene Chloride	ND U	2.0	1	08/19/21 18:58	
Naphthalene	ND U	2.0	1	08/19/21 18:58	*
n-Propylbenzene	ND U	2.0	1	08/19/21 18:58	
Styrene	ND U	0.50	1	08/19/21 18:58	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 18:58	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 18:58	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 18:58	
Toluene	ND U	0.50	1	08/19/21 18:58	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 18:58	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 18:58	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 18:58	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 18:58	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 18:58	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 18:58	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 18:58	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 18:58	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 18:58	
Vinyl Chloride	ND U	0.50	1	08/19/21 18:58	*
o-Xylene	ND U	0.50	1	08/19/21 18:58	
m,p-Xylenes	ND U	0.50	1	08/19/21 18:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	68 - 117	08/19/21 18:58	
Dibromofluoromethane	107	73 - 122	08/19/21 18:58	
Toluene-d8	100	65 - 144	08/19/21 18:58	



# Metals

**ALS Environmental—Kelso Laboratory**  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-01-FB  
**Lab Code:** K2109352-002

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:45  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 10:39	08/19/21	
Manganese	6010C	ND U	ug/L	1.1	1	09/02/21 10:39	08/19/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003

**Service Request:** K2109352  
**Date Collected:** 08/10/21 08:30  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 10:54	08/19/21	
Manganese	6010C	3.0	ug/L	1.1	1	09/02/21 10:54	08/19/21	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-03-1S  
**Lab Code:** K2109352-004

**Service Request:** K2109352  
**Date Collected:** 08/10/21 11:40  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 10:56	08/19/21	
Manganese	6010C	ND U	ug/L	1.1	1	09/02/21 10:56	08/19/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-04-26I  
**Lab Code:** K2109352-005

**Service Request:** K2109352  
**Date Collected:** 08/10/21 12:25  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 11:06	08/19/21	
Manganese	6010C	3.5	ug/L	1.1	1	09/02/21 11:06	08/19/21	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-05-6S  
**Lab Code:** K2109352-006

**Service Request:** K2109352  
**Date Collected:** 08/10/21 13:10  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 11:09	08/19/21	
Manganese	6010C	ND U	ug/L	1.1	1	09/02/21 11:09	08/19/21	



## General Chemistry

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-01-FB  
**Lab Code:** K2109352-002

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:45  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.20	2	08/12/21 11:59	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.10	2	08/12/21 11:59	*

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-01-FB  
**Lab Code:** K2109352-002

**Service Request:** K2109352  
**Date Collected:** 08/10/21 07:45  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/16/21 10:03	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003

**Service Request:** K2109352  
**Date Collected:** 08/10/21 08:30  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	5.65	mg/L	0.20	2	08/12/21 12:09	
Nitrate as Nitrogen	300.0	15.2	mg/L	0.50	10	08/17/21 14:39	*

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-02-10SR  
**Lab Code:** K2109352-003

**Service Request:** K2109352  
**Date Collected:** 08/10/21 08:30  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	235	mg/L	5.0	1	08/11/21 09:10	



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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-03-1S  
**Lab Code:** K2109352-004

**Service Request:** K2109352  
**Date Collected:** 08/10/21 11:40  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Chloride	300.0	<b>6.11</b>	mg/L	0.20	2	08/12/21 11:31	
Nitrate as Nitrogen	300.0	<b>5.01</b>	mg/L	0.10	2	08/12/21 11:31	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-03-1S  
**Lab Code:** K2109352-004

**Service Request:** K2109352  
**Date Collected:** 08/10/21 11:40  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	191	mg/L	5.0	1	08/11/21 09:10	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-04-26I  
**Lab Code:** K2109352-005

**Service Request:** K2109352  
**Date Collected:** 08/10/21 12:25  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	6.81	mg/L	0.20	2	08/12/21 11:40	
Nitrate as Nitrogen	300.0	4.49	mg/L	0.10	2	08/12/21 11:40	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-04-26I  
**Lab Code:** K2109352-005

**Service Request:** K2109352  
**Date Collected:** 08/10/21 12:25  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	191	mg/L	5.0	1	08/11/21 09:10	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-05-6S  
**Lab Code:** K2109352-006

**Service Request:** K2109352  
**Date Collected:** 08/10/21 13:10  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<b>Analyte Name</b>	<b>Analysis Method</b>	<b>Result</b>	<b>Units</b>	<b>MRL</b>	<b>Dil.</b>	<b>Date Analyzed</b>	<b>Q</b>
Chloride	300.0	<b>4.62</b>	mg/L	0.20	2	08/12/21 11:50	
Nitrate as Nitrogen	300.0	<b>1.72</b>	mg/L	0.10	2	08/12/21 11:50	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** LB-081021-05-6S  
**Lab Code:** K2109352-006

**Service Request:** K2109352  
**Date Collected:** 08/10/21 13:10  
**Date Received:** 08/11/21 17:50  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	163	mg/L	5.0	1	08/11/21 09:10	



# QC Summary Forms

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## Volatile Organic Compounds by GC/MS

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**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Extraction Method:** None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68-117	73-122	65-144
TB2	K2109352-001	84	110	105
LB-081021-01-FB	K2109352-002	80	100	102
LB-081021-02-10SR	K2109352-003	75	108	106
LB-081021-03-1S	K2109352-004	81	109	104
LB-081021-04-26I	K2109352-005	80	103	102
LB-081021-05-6S	K2109352-006	81	107	100
Method Blank	KQ2116037-05	82	107	103
Lab Control Sample	KQ2116037-03	88	99	103
Duplicate Lab Control Sample	KQ2116037-04	86	103	105

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2116037-05

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	08/19/21 13:14	
Benzene	ND U	0.50	1	08/19/21 13:14	
Bromobenzene	ND U	2.0	1	08/19/21 13:14	
Bromochloromethane	ND U	0.50	1	08/19/21 13:14	
Bromodichloromethane	ND U	0.50	1	08/19/21 13:14	
Bromoform	ND U	0.50	1	08/19/21 13:14	
Bromomethane	ND U	0.50	1	08/19/21 13:14	
2-Butanone (MEK)	ND U	20	1	08/19/21 13:14	
n-Butylbenzene	ND U	4.0	1	08/19/21 13:14	
sec-Butylbenzene	ND U	2.0	1	08/19/21 13:14	
tert-Butylbenzene	ND U	2.0	1	08/19/21 13:14	
Carbon Disulfide	ND U	0.50	1	08/19/21 13:14	
Carbon Tetrachloride	ND U	0.50	1	08/19/21 13:14	
Chlorobenzene	ND U	0.50	1	08/19/21 13:14	
Chloroethane	ND U	0.50	1	08/19/21 13:14	
Chloroform	ND U	0.50	1	08/19/21 13:14	
Chloromethane	ND U	0.50	1	08/19/21 13:14	
2-Chlorotoluene	ND U	2.0	1	08/19/21 13:14	
4-Chlorotoluene	ND U	2.0	1	08/19/21 13:14	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	08/19/21 13:14	
Dibromochloromethane	ND U	0.50	1	08/19/21 13:14	
1,2-Dibromoethane (EDB)	ND U	2.0	1	08/19/21 13:14	
Dibromomethane	ND U	0.50	1	08/19/21 13:14	
1,2-Dichlorobenzene	ND U	0.50	1	08/19/21 13:14	
1,3-Dichlorobenzene	ND U	0.50	1	08/19/21 13:14	
1,4-Dichlorobenzene	ND U	0.50	1	08/19/21 13:14	
Dichlorodifluoromethane	ND U	0.50	1	08/19/21 13:14	
1,1-Dichloroethane	ND U	0.50	1	08/19/21 13:14	
cis-1,2-Dichloroethene	ND U	0.50	1	08/19/21 13:14	
trans-1,2-Dichloroethene	ND U	0.50	1	08/19/21 13:14	
1,2-Dichloropropane	ND U	0.50	1	08/19/21 13:14	
1,3-Dichloropropane	ND U	0.50	1	08/19/21 13:14	
2,2-Dichloropropane	ND U	0.50	1	08/19/21 13:14	
1,1-Dichloropropene	ND U	0.50	1	08/19/21 13:14	
cis-1,3-Dichloropropene	ND U	0.50	1	08/19/21 13:14	
trans-1,3-Dichloropropene	ND U	0.50	1	08/19/21 13:14	
Ethylbenzene	ND U	0.50	1	08/19/21 13:14	
Hexachlorobutadiene	ND U	2.0	1	08/19/21 13:14	
2-Hexanone	ND U	20	1	08/19/21 13:14	
Isopropylbenzene	ND U	2.0	1	08/19/21 13:14	
4-Isopropyltoluene	ND U	2.0	1	08/19/21 13:14	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2116037-05

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methyl tert-Butyl Ether	ND U	0.50	1	08/19/21 13:14	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	08/19/21 13:14	
Methylene Chloride	ND U	2.0	1	08/19/21 13:14	
Naphthalene	ND U	2.0	1	08/19/21 13:14	
n-Propylbenzene	ND U	2.0	1	08/19/21 13:14	
Styrene	ND U	0.50	1	08/19/21 13:14	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	08/19/21 13:14	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	08/19/21 13:14	
Tetrachloroethene (PCE)	ND U	0.50	1	08/19/21 13:14	
Toluene	ND U	0.50	1	08/19/21 13:14	
1,2,3-Trichlorobenzene	ND U	2.0	1	08/19/21 13:14	
1,2,4-Trichlorobenzene	ND U	2.0	1	08/19/21 13:14	
1,1,2-Trichloroethane	ND U	0.50	1	08/19/21 13:14	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	08/19/21 13:14	
Trichloroethene (TCE)	ND U	0.50	1	08/19/21 13:14	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	08/19/21 13:14	
1,2,3-Trichloropropane	ND U	0.50	1	08/19/21 13:14	
1,2,4-Trimethylbenzene	ND U	2.0	1	08/19/21 13:14	
1,3,5-Trimethylbenzene	ND U	2.0	1	08/19/21 13:14	
Vinyl Chloride	ND U	0.50	1	08/19/21 13:14	
o-Xylene	ND U	0.50	1	08/19/21 13:14	
m,p-Xylenes	ND U	0.50	1	08/19/21 13:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	08/19/21 13:14	
Dibromofluoromethane	107	73 - 122	08/19/21 13:14	
Toluene-d8	103	65 - 144	08/19/21 13:14	

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Lechner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Analyzed:** 08/19/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 735652

Analyte Name	Lab Control Sample KQ2116037-03			Duplicate Lab Control Sample KQ2116037-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	9.78	10.0	98	9.58	10.0	96	66-124	2	30
1,1,1-Trichloroethane (TCA)	10.5	10.0	105	10.7	10.0	107	59-136	2	30
1,1,2,2-Tetrachloroethane	9.31	10.0	93	8.91	10.0	89	70-127	4	30
1,1,2-Trichloroethane	9.10	10.0	91	8.72	10.0	87	74-118	4	30
1,1-Dichloroethane	9.61	10.0	96	9.37	10.0	94	68-132	3	30
1,1-Dichloropropene	9.79	10.0	98	9.21	10.0	92	59-134	6	30
1,2,3-Trichlorobenzene	8.12	10.0	81	7.87	10.0	79	68-120	3	30
1,2,3-Trichloropropane	9.48	10.0	95	9.48	10.0	95	69-123	<1	30
1,2,4-Trichlorobenzene	8.30	10.0	83	8.03	10.0	80	58-126	3	30
1,2,4-Trimethylbenzene	8.89	10.0	89	8.50	10.0	85	63-122	4	30
1,2-Dibromo-3-chloropropane	9.14	10.0	91	9.52	10.0	95	55-132	4	30
1,2-Dibromoethane (EDB)	9.12	10.0	91	8.85	10.0	89	74-118	3	30
1,2-Dichlorobenzene	9.09	10.0	91	8.94	10.0	89	72-115	2	30
1,2-Dichloropropane	9.49	10.0	95	9.37	10.0	94	67-126	1	30
1,3,5-Trimethylbenzene	8.64	10.0	86	8.23	10.0	82	62-126	5	30
1,3-Dichlorobenzene	9.07	10.0	91	8.52	10.0	85	70-116	6	30
1,3-Dichloropropane	9.04	10.0	90	8.70	10.0	87	75-116	4	30
1,4-Dichlorobenzene	9.24	10.0	92	8.70	10.0	87	73-115	6	30
2,2-Dichloropropane	9.35	10.0	94	8.89	10.0	89	37-145	5	30
2-Butanone (MEK)	55.0	50.0	110	53.0	50.0	106	71-149	4	30
2-Chlorotoluene	8.80	10.0	88	8.54	10.0	85	55-131	3	30
2-Hexanone	45.9	50.0	92	44.1	50.0	88	59-131	4	30
4-Chlorotoluene	9.15	10.0	92	8.74	10.0	87	66-121	5	30
4-Isopropyltoluene	8.82	10.0	88	8.35	10.0	84	61-128	5	30
4-Methyl-2-pentanone (MIBK)	48.5	50.0	97	50.7	50.0	101	64-134	4	30
Acetone	45.9	50.0	92	49.2	50.0	98	68-135	7	30
Benzene	9.84	10.0	98	9.69	10.0	97	69-124	2	30
Bromobenzene	9.46	10.0	95	9.03	10.0	90	72-116	5	30
Bromochloromethane	10.2	10.0	102	10.1	10.0	101	75-131	1	30
Bromodichloromethane	11.1	10.0	111	10.6	10.0	106	63-129	4	30
Bromoform	10.1	10.0	101	10.5	10.0	105	52-144	4	30
Bromomethane	7.15	10.0	72	7.01	10.0	70	35-113	2	30
Carbon Disulfide	18.9	20.0	94	18.6	20.0	93	46-144	1	30
Carbon Tetrachloride	11.5	10.0	115	10.8	10.0	108	55-140	6	30
Chlorobenzene	9.13	10.0	91	8.63	10.0	86	72-116	6	30
Chloroethane	9.71	10.0	97	9.45	10.0	95	58-134	3	30
Chloroform	10.2	10.0	102	10.1	10.0	101	70-129	1	30
Chloromethane	8.19	10.0	82	7.59	10.0	76	34-130	8	30
cis-1,2-Dichloroethene	9.50	10.0	95	9.50	10.0	95	71-118	<1	30
cis-1,3-Dichloropropene	10.4	10.0	104	10.2	10.0	102	62-132	2	30
Dibromochloromethane	10.9	10.0	109	10.9	10.0	109	67-126	<1	30

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Analyzed:** 08/19/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 735652

Analyte Name	Lab Control Sample KQ2116037-03			Duplicate Lab Control Sample KQ2116037-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Dibromomethane	10.4	10.0	104	9.93	10.0	99	69-128	4	30
Dichlorodifluoromethane	9.19	10.0	92	8.99	10.0	90	32-124	2	30
Ethylbenzene	8.64	10.0	86	8.43	10.0	84	67-121	2	30
Hexachlorobutadiene	10.4	10.0	104	9.78	10.0	98	57-119	6	30
Isopropylbenzene	8.68	10.0	87	8.20	10.0	82	67-129	6	30
m,p-Xylenes	17.9	20.0	89	16.2	20.0	81	69-121	9	30
Methyl tert-Butyl Ether	8.96	10.0	90	8.84	10.0	88	54-126	1	30
Methylene Chloride	9.84	10.0	98	9.10	10.0	91	71-122	8	30
Naphthalene	7.01	10.0	70	6.84	10.0	68	64-126	2	30
n-Butylbenzene	8.20	10.0	82	8.10	10.0	81	55-130	1	30
n-Propylbenzene	8.80	10.0	88	8.50	10.0	85	61-124	3	30
o-Xylene	8.65	10.0	87	8.04	10.0	80	71-119	7	30
sec-Butylbenzene	8.63	10.0	86	8.32	10.0	83	59-128	4	30
Styrene	8.60	10.0	86	8.65	10.0	87	74-121	<1	30
tert-Butylbenzene	8.35	10.0	84	8.08	10.0	81	61-127	3	30
Tetrachloroethene (PCE)	9.84	10.0	98	9.53	10.0	95	62-126	3	30
Toluene	10.2	10.0	102	10.2	10.0	102	69-124	<1	30
trans-1,2-Dichloroethene	9.72	10.0	97	9.63	10.0	96	67-125	<1	30
trans-1,3-Dichloropropene	8.81	10.0	88	8.58	10.0	86	59-125	3	30
Trichloroethene (TCE)	10.2	10.0	102	9.43	10.0	94	67-128	8	30
Trichlorofluoromethane (CFC 11)	8.91	10.0	89	8.73	10.0	87	52-141	2	30
Vinyl Chloride	8.45	10.0	85	8.08	10.0	81	55-123	4	30



# Metals

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2115398-02

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron	6010C	ND U	ug/L	21	1	09/02/21 09:50	08/19/21	
Manganese	6010C	ND U	ug/L	1.1	1	09/02/21 09:50	08/19/21	

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Analyzed:** 09/02/21

**Lab Control Sample Summary**  
**Dissolved Metals**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
KQ2115398-01

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Iron	6010C	2600	2500	104	80-120
Manganese	6010C	1300	1250	104	80-120





## General Chemistry

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ALS Group USA, Corp.  
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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109352-MB1

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	08/12/21 11:06	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	08/12/21 11:06	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109352-MB1

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/11/21 09:10	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109352-MB2

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Nitrate as Nitrogen	300.0	ND U	mg/L	0.050	1	08/17/21 13:53	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109352-MB2

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/11/21 09:10	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109352-MB3

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/16/21 10:03	

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Analytical Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water  
**Sample Name:** Method Blank  
**Lab Code:** K2109352-MB4

**Service Request:** K2109352  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

<u>Analyte Name</u>	<u>Analysis Method</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Dil.</u>	<u>Date Analyzed</u>	<u>Q</u>
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	5.0	1	08/16/21 10:03	

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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Analyzed:** 08/11/21 - 08/12/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2109352-LCS1

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Chloride	300.0	4.71	5.00	94	90-110
Nitrate as Nitrogen	300.0	2.42	2.50	97	90-110
Solids, Total Dissolved	SM 2540 C	917	922	99	85-115



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QA/QC Report

**Client:** SCS Engineers  
**Project:** Leichner Landfill/04221030.13  
**Sample Matrix:** Ground Water

**Service Request:** K2109352  
**Date Analyzed:** 08/16/21 - 08/17/21

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**mg/L  
**Basis:**NA

**Lab Control Sample**  
K2109352-LCS2

<b>Analyte Name</b>	<b>Analytical Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Nitrate as Nitrogen	300.0	2.39	2.50	95	90-110
Solids, Total Dissolved	SM 2540 C	918	922	100	85-115