June 17, 2022

Christer Loftenius
Washington State Department of Ecology – Eastern Regional Office
4601 North Monroe Street
Spokane, WA 99205-3543

Subject: Progress Report – Preliminary Pilot Study Summary, Warden City Water Supply Wells No. 4 and 5. Washington Facility Site ID No. 2802409; Cleanup Site ID: 1618 Agreed Order No. DE 16890

Dear Christer:

The purpose of this memo is to provide data and a preliminary summary of the Soil Vapor Extraction (SVE) pilot study operations and post-pilot study operations per the *Cleanup Action Implementation Compliance Monitoring Plan* (CAICMP; HDR revised May 2022) *and SVE Performance Test Plan* (PTP; HDR May 2022).

Batch 1/Pilot Study operations began on May 31, 2022 and ended on June 7, 2022. The following table summarizes the activities through June 17, 2022. Full-scale implementation of performance field data and sample collection has been ongoing since June 8, 2022 and will continue in accordance with PTP (HDR May 2022). Treatment batches 2, 3, and 4 began on June 8, 2022, June 15, 2022, and June 17, 2022 respectively.

Date	Activity Description
5/31/2022	Graymar prepares first SVE treatment cell (Batch 1/Pilot Study). HDR (Newcomb) collects pre-treatment soil samples and records field parameters.
6/1/2022	Batch 1/Pilot Study SVE treatment begins. HDR (Newcomb) collects soil vapor samples and records field parameters.
6/2/2022	Batch 1/Pilot Study pre-treatment soil sample analytical report is received. All soil samples results are non-detect for ethylene dibromide (EDB).
6/2/2022 – 6/5/2022	HDR (Newcomb) collects soil vapor samples and records field parameters.
6/5/2022	HDR (Newcomb) collects Batch 1/Pilot Study post-treatment soil samples and records field parameters.
6/7/2022	Batch 1/Pilot Study pre-treatment soil sample analytical report is received. All soil samples results are non-detect for EDB.
6/8/2022	Treatment Batch 2 begins.
6/9/2022	HDR (Urie) collects pre-treatment soil samples and records field parameters.
6/13/2022	Batch 2 pre-treatment soil sample results are received. All results are non-detect for EDB.
6/15/2022	Treatment Batch 3 begins. HDR (Newcomb) collects Batch 3 pre-treatment soil samples and records field parameters. Batch 1/Pilot Study soil vapor sample results are received. All results are non-detect for EDB.
6/16/2022	Batch 3 pre-treatment soil sample results are received. All results are non-detect for EDB.
6/17/2022	Treatment Batch 4 begins.

Simplot/HDR collected field data during the pilot study phase and during the more recent full-scale operations and to date, all EDB results have been non-detect for both soil and vapor. Please see the Attachment A photo log showing the SVE system and current site conditions, the Attachment B Sampling Results Summary Table, the Attachment C laboratory reports from Batch 1/Pilot Study, Batch 2, and Batch 3 (which includes the chain-of-custody forms), and the Attachment D field forms which documents the SVE system parameters.

Due to air flow rate equipment availability and vacuum gauge sensitivity, field balancing of the vacuum system has primarily been achieved by visually balancing the system by adjusting the inlet manifold valves to produce a visually even suction across the top of the treatment cell liner. Indications of airflow restriction within the system have been minimal to date and the system consistently produces a visual suction across the top of the treatment cell. See photo No. 2 in Attachment A.

GrayMar is currently evaluating methods to improve re-coverage of the impacted soil stockpile between treatment batches.

If you have questions please feel free to contact me at (208) 387-7018 or at tyler.allen@hdrinc.com or Molly Dimick of Simplot at (208) 220-6597 or at molly.dimick@simplot.com.

Respectfully,
HDR Engineering, Inc.

Tyler Allen
Senior Environmental Scientist

Attachments:
Attachment A: Photo Log
Attachment B: Sampling Results Summary Table
Attachment C: Laboratory Analytical Results

- Soil Sample Analytical Report (Pilot Test pre-treatment, EDB), Eurofins 6/2/2022
- Soil Sample Analytical Report (Pilot Test post-treatment, EDB), Eurofins 6/7/2022
- Soil Sample Analytical Report (Pilot Test pre-treatment, TOC), Eurofins 6/13/2022
- Soil Sample Analytical Report (Pilot Test post-treatment, TOC), Eurofins 6/17/2022
- Soil Vapor Analytical Report (All Pilot Test vapor samples, EDB), Eurofins 6/15/2022
- Soil Sample Analytical Report (Batch 2 pre-treatment), Eurofins 6/13/2022
- Soil Sample Analytical Report (Batch 3 pre-treatment), Eurofins 6/16/2022

Attachment D: SVE System Parameters Log

CC: Molly Dimick, J.R. Simplot Company
Stacey Lamer, HDR

A

Photo Log

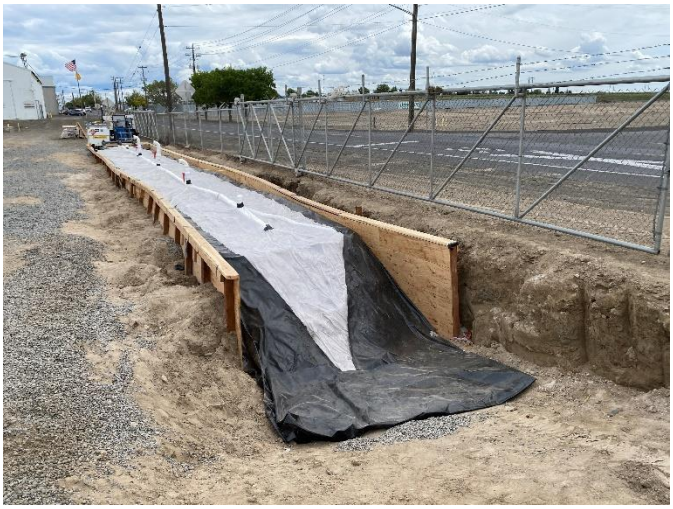

Photo 1. View of loaded treatment cell, facing southeast.

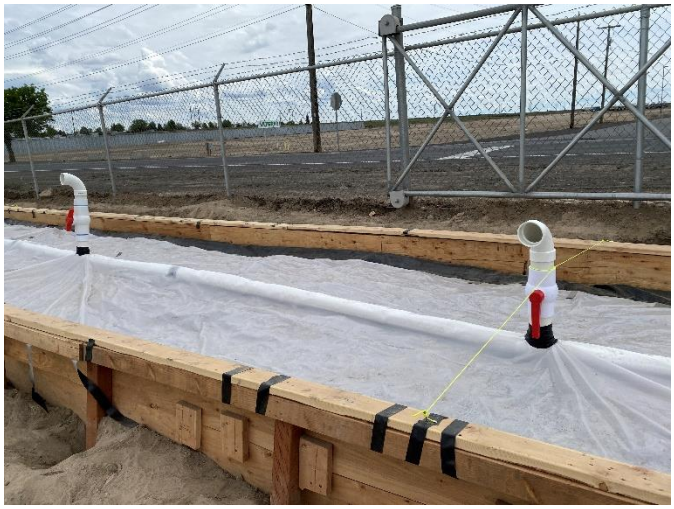

Photo 2. View of tubing on top of treatment cell, facing south. Note vacuum effect on top liner across treatment cell. Suction pulling liner taught against air inlet piping array.

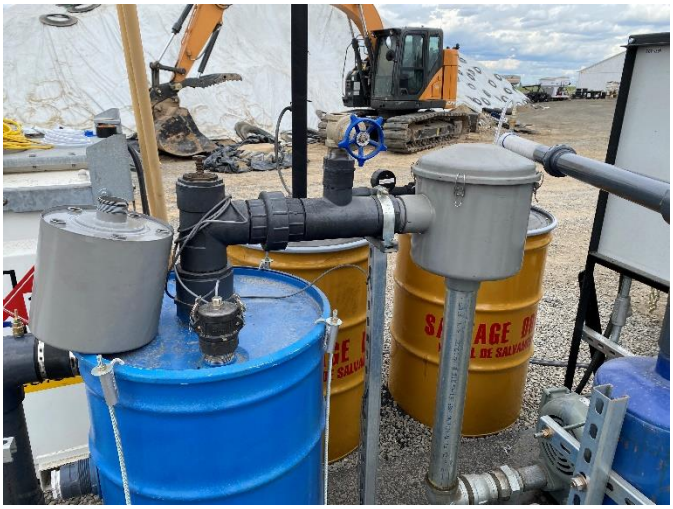

Photo 3. Partial view of SVE system.

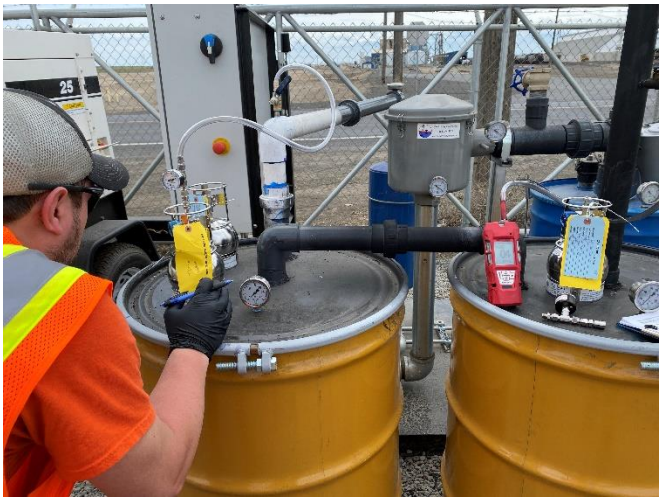

Photo 4. View of soil vapor collection.

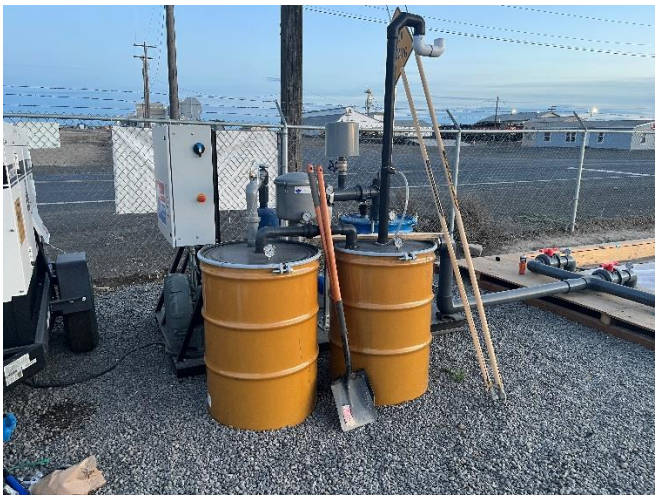

Photo 5. View of SVE equipment.

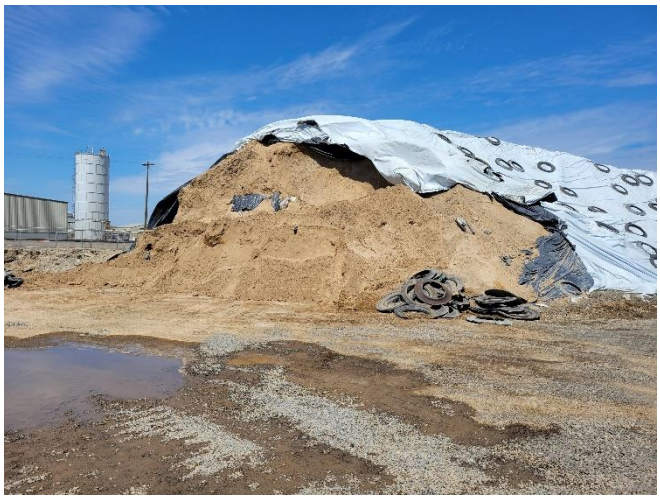

Photo 6. View of contaminated soils pile, facing northwest.

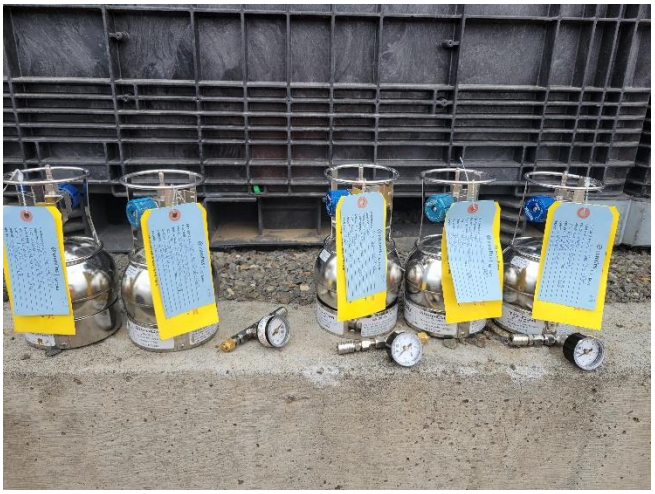

Photo 7. Soil vapor samples collected in summa cannisters.

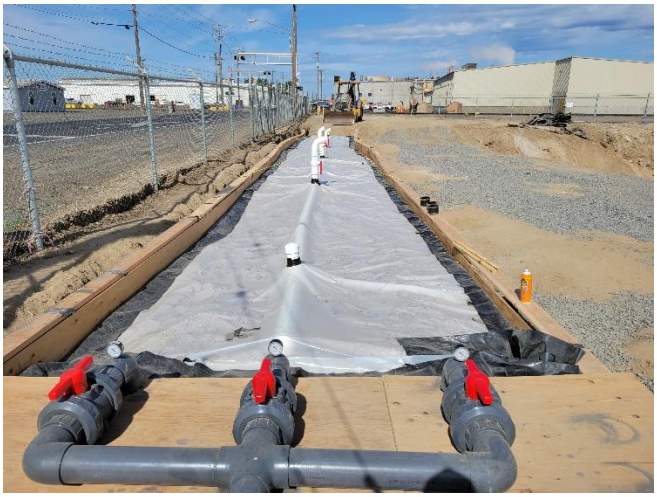

Photo 8. View of SVE treatment cell.

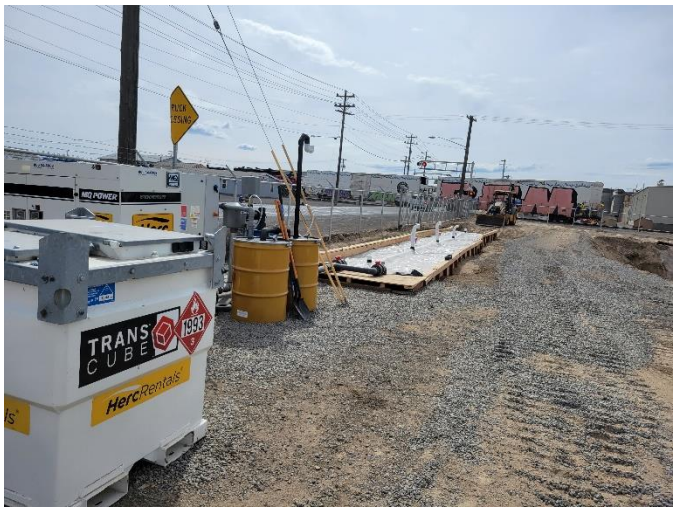

Photo 9. View of SVE layout on southern fence line of Simplot property.

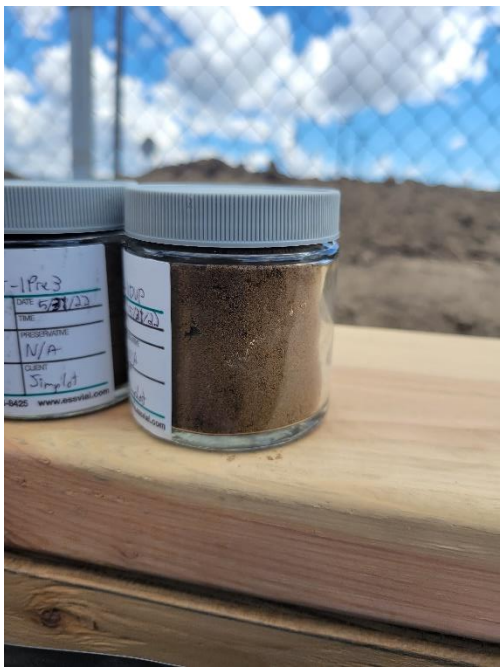

Photo 10. View of soil samples collected in 4-ounce jars.

B

Sampling Results Summary Table

Pilot Study Soil Samples

Batch Number	Batch Startup Date	Batch Close Date	Sample Name	Date Collected	Results Received	EDB Result (µg/Kg)	MDL (µg/Kg)	Batch/Sample Notes	Eurofins Job Number
Batch 1/Pilot Pre-Treatment	5/31/2022	6/7/2022	SVE-Soil-May31-1Pre1	5/31/2022	6/2/2022	ND	0.038		590-17643-1
			SVE-Soil-May31-1Pre2	5/31/2022	6/2/2022	ND	0.036		590-17643-1
			SVE-Soil-May31-1Pre3	5/31/2022	6/2/2022	ND	0.037		590-17643-1
			SVE-Soil-May31-1Pre4	5/31/2022	6/2/2022	ND	0.038		590-17643-1
			SVE-Soil-May31-1PreDUP	5/31/2022	6/2/2022	ND	0.035	Duplicate of SVE-Soil-May31-1Pre3	590-17643-1
Batch 1/Pilot Post-Treatment	6/5/2022	6/7/2022	SVE-Soil-June5-1Post1	6/5/2022	6/7/2022	ND	0.038		590-17700-1
			SVE-Soil-June5-1Post2	6/5/2022	6/7/2022	ND	0.038		590-17700-1
			SVE-Soil-June5-1Post3	6/5/2022	6/7/2022	ND	0.037		590-17700-1
			SVE-Soil-June5-1Post4	6/5/2022	6/7/2022	ND	0.037		590-17700-1
			SVE-Soil-June5-1PostDUP2	6/5/2022	6/7/2022	ND	0.038	Duplicate of SVE-Soil-June5-1Post2	590-17700-1
Batch Number	**Batch Startup Date**	**Batch Close Date**	**Sample Name**	**Date Collected**	**Results Received**	**TOC Result (mg/Kg)**	**MDL (mg/Kg)**	**Batch/Sample Notes**	**Eurofins Job Number**
Batch 1/Pilot Pre-Treatment	5/31/2022	6/7/2022	SVE-Soil-May31-1Pre1	5/31/2022	6/2/2022	1400	100		590-17643-2
			SVE-Soil-May31-1Pre2	5/31/2022	6/2/2022	2300	100		590-17643-2
			SVE-Soil-May31-1Pre3	5/31/2022	6/2/2022	1500	100		590-17643-2
			SVE-Soil-May31-1Pre4	5/31/2022	6/2/2022	1900	100		590-17643-2
			SVE-Soil-May31-1PreDUP	5/31/2022	6/2/2022	1700	100	Duplicate of SVE-Soil-May31-1Pre3	590-17643-2
Batch 1/Pilot Post-Treatment	6/5/2022	6/7/2022	SVE-Soil-June5-1Post1	6/5/2022	6/17/2022	1500	100		590-17700-2
			SVE-Soil-June5-1Post2	6/5/2022	6/17/2022	1400	100		590-17700-2
			SVE-Soil-June5-1Post3	6/5/2022	6/17/2022	1200	100		590-17700-2
			SVE-Soil-June5-1Post4	6/5/2022	6/17/2022	1200	100		590-17700-2
			SVE-Soil-June5-1PostDUP2	6/5/2022	6/17/2022	1100	100	Duplicate of SVE-Soil-June5-1Post2	590-17700-2

Pilot Study Vapor Samples

Batch Number	Batch Startup Date	Batch Close Date	Sample Name	Date Collected	Results Received	EDB Result (ppbv)	Report Limit (µg/m3)	Batch/Sample Notes	Eurofins Job Number
Batch 1/Pilot Pre-Treatment	5/31/2022	6/7/2022	SVE-Vap-June1-1Pre1	6/1/2022	6/15/2022	ND	8.4		2206179-01A
			SVE-Vap-June1-1Pre2	6/1/2022	6/15/2022	ND	8.3		2206179-01A
			SVE-Vap-June1-1Pre3	6/1/2022	6/15/2022	ND	8.6		2206179-01A
			SVE-Vap-June1-1Pre4	6/1/2022	6/15/2022	ND	8.2		2206179-01A
			SVE-Vap-June1-DUP1	6/1/2022	6/15/2022	ND	8.5		2206179-01A
			SVE-Vap-June1-1Pre5	6/1/2022	6/15/2022	ND	8.3		2206179-01A
			SVE-Vap-June1-1Pre6	6/1/2022	6/15/2022	ND	8.4		2206179-01A
			SVE-Vap-June1-1Mid1	6/1/2022	6/15/2022	ND	8.4		2206179-01A
			SVE-Vap-June1-1Mid2	6/1/2022	6/15/2022	ND	7.8		2206179-01A
			SVE-Vap-June1-1Mid3	6/1/2022	6/15/2022	ND	7.6		2206179-01A
			SVE-Vap-June1-1Mid4	6/1/2022	6/15/2022	ND	7.9		2206179-01A
			SVE-Vap-June1-1Mid5	6/1/2022	6/15/2022	ND	8.1		2206179-01A
			SVE-Vap-June1-1Mid6	6/1/2022	6/15/2022	ND	8.1		2206179-01A
			SVE-Vap-June1-1Post1	6/1/2022	6/15/2022	ND	9.1		2206179-01A
			SVE-Vap-June1-1Post2	6/1/2022	6/15/2022	ND	8.8		2206179-01A

SVE Operation Soil Samples

Batch Number	Batch Startup Date	Batch Close Date	Sample Name	Date Collected	Results Received	EDB Result (µg/Kg)	MDL (µg/Kg)	Batch/Sample Notes	Eurofins Job Number
Batch 2	6/9/2022	6/14/2022	SVE-Soil-June9-2Pre1	6/9/2022	6/13/2022	ND	0.039		590-17742-1
			SVE-Soil-June9-2Pre2	6/9/2022	6/13/2022	ND	0.039		590-17742-1
			SVE-Soil-June9-2Pre3	6/9/2022	6/13/2022	ND	0.038		590-17742-1
			SVE-Soil-June9-2Pre4	6/9/2022	6/13/2022	ND	0.039		590-17742-1
			SVE-Soil-June9-Dup1	6/9/2022	6/13/2022	ND	0.038	Duplicate of SVE-Soil-June9-2Pre1	590-17742-1
Batch 3	6/15/2022	6/17/2022	SVE-Soil-June15-3Pre1	6/15/2022	6/16/2022	ND	0.038		590-17777-1
			SVE-Soil-June15-3Pre2	6/15/2022	6/16/2022	ND	0.038		590-17777-1
			SVE-Soil-June15-3Pre3	6/15/2022	6/16/2022	ND	0.038		590-17777-1
			SVE-Soil-June15-3Pre4	6/15/2022	6/16/2022	ND	0.037		590-17777-1
			SVE-Soil-June15-3DUP	6/15/2022	6/16/2022	ND	0.038	Duplicate of SVE-Soil-June15-3Pre3	590-17777-1

Sample Set	Lab Report ID	Sample Date	Report Date	Hold Time Met?	Method Blank Qualifier	Surrogate Recovery %	Spike Recovery (LCS)	Field Duplicates	Lab Duplicates	Matrix Spike	Matrix Spike Duplicate	Completeness	Method Detection Limits (MDL)(µg/Kg)	Lab Control Samples	Chain-of-Custody Forms	Lab Qualifiers	Data Validated as Useable Overall	Notes
Pilot Study Soil Samples																		
Batch 1/Pilot Pre-treatment (EDB Results)	590-17643-1	5/31/2022	6/2/2022	Yes	None	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Complete	None	Yes	one revision on lab report due to HDR request to change header
Batch 1/Pilot Post-treatment	590-17700-1	6/5/2022	6/7/2022	Yes	None	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Complete	None	Yes	
Batch 1/Pilot Pre-treatment (TOC Results)	590-17643-2	5/31/2022	6/13/2022	Yes	None	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Complete	None	Yes	
Batch 1/Pilot Post-treatment (TOC Results)	590-17700-2	6/5/2022	6/17/2022	Yes	None	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Complete	None	Yes	
Pilot Study Vapor Samples																		
Batch 1/Pilot Pre-treatment (Vapor Results)	2206179-01A	6/1/2022-6/5/2022	6/15/2022	Yes	None	Pass	Pass	Pass	Pass	N/A	N/A	Pass	Pass	Pass	Pass	None	Yes	
SVE Operation Soil Samples																		
Batch 2 Pre-treatment	590-17742-1	6/9/2022	6/13/2022	Yes	None	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Complete	None	Yes	
Batch 3 Pre-treatment	590-17777-1	6/15/2022	6/16/2022	Yes	None	Pass	Pass	Pass	Pass	Pass	Fail	Pass	Pass	Pass	Complete	None	Yes	

C

Laboratory Analytical Results

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17643-1
Client Project/Site: Simplot Warden
Revision: 1

For:
HDR Inc
1401 E. Trent Ave
Suite 101
Spokane, Washington 99202

Attn: Jered Newcomb

Authorized for release by:
6/2/2022 4:54:05 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@et.eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Job ID: 590-17643-1

Laboratory: Eurofins Spokane

Narrative

Revision
The report being provided is a revision of the original report sent on 6/2/2022. The report (revision 1) is being revised due to: The method header in the final report was revised per the client's request.

Receipt
The samples were received on 6/1/2022 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17643-1	SVE-Soil-May31-1Pre1	Solid	05/31/22 15:50	06/01/22 08:20
590-17643-2	SVE-Soil-May31-1Pre2	Solid	05/31/22 16:10	06/01/22 08:20
590-17643-3	SVE-Soil-May31-1Pre3	Solid	05/31/22 16:05	06/01/22 08:20
590-17643-4	SVE-Soil-May31-1DUP	Solid	05/31/22 15:30	06/01/22 08:20
590-17643-5	SVE-Soil-May31-1Pre4	Solid	05/31/22 16:20	06/01/22 08:20
590-17643-6	Trip Blanks	Solid	05/31/22 00:00	06/01/22 08:20

Definitions/Glossary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Client Sample ID: SVE-Soil-May31-1Pre1

Lab Sample ID: 590-17643-1
Date Collected: 05/31/22 15:50
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 88.8

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/01/22 15:31	06/01/22 17:02	1

Client Sample ID: SVE-Soil-May31-1Pre2

Lab Sample ID: 590-17643-2
Date Collected: 05/31/22 16:10
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.4

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.052	0.036	ug/Kg	☼	06/01/22 15:31	06/01/22 17:51	1

Client Sample ID: SVE-Soil-May31-1Pre3

Lab Sample ID: 590-17643-3
Date Collected: 05/31/22 16:05
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.0

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.053	0.037	ug/Kg	☼	06/01/22 15:31	06/01/22 18:07	1

Client Sample ID: SVE-Soil-May31-1DUP

Lab Sample ID: 590-17643-4
Date Collected: 05/31/22 15:30
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.4

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.038	ug/Kg	☼	06/01/22 15:31	06/01/22 18:24	1

Client Sample ID: SVE-Soil-May31-1Pre4

Lab Sample ID: 590-17643-5
Date Collected: 05/31/22 16:20
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.3

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/01/22 15:31	06/01/22 18:40	1

Client Sample ID: Trip Blanks

Lab Sample ID: 590-17643-6
Date Collected: 05/31/22 00:00
Matrix: Solid
Date Received: 06/01/22 08:20

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.050	0.035	ug/Kg		06/01/22 15:31	06/01/22 19:13	1

Method: 8011 - EDB

Lab Sample ID: MB 590-36348/2-A
Matrix: Solid
Analysis Batch: 36349

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.050	0.035	ug/Kg		06/01/22 15:31	06/01/22 16:13	1

Lab Sample ID: LCS 590-36348/3-A
Matrix: Solid
Analysis Batch: 36349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36348

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)			1.00	1.14		ug/Kg		114	60 - 140		

Lab Sample ID: 590-17643-1 MS
Matrix: Solid
Analysis Batch: 36349

Client Sample ID: SVE-Soil-May31-1Pre1
Prep Type: Total/NA
Prep Batch: 36348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)	ND		1.08	0.793		ug/Kg	☼	74	60 - 140		

Lab Sample ID: 590-17643-1 MSD
Matrix: Solid
Analysis Batch: 36349

Client Sample ID: SVE-Soil-May31-1Pre1
Prep Type: Total/NA
Prep Batch: 36348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND		1.07	0.840		ug/Kg	☼	79	60 - 140	6	20

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Client Sample ID: SVE-Soil-May31-1Pre1
Lab Sample ID: 590-17643-1
Date Collected: 05/31/22 15:50
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36336	06/01/22 10:58	M1V	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre1
Lab Sample ID: 590-17643-1
Date Collected: 05/31/22 15:50
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.50 g	2 mL	36348	06/01/22 15:31	NMI	TAL SPK
Total/NA	Analysis	8011		1			36349	06/01/22 17:02	NMI	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre2
Lab Sample ID: 590-17643-2
Date Collected: 05/31/22 16:10
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36336	06/01/22 10:58	M1V	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre2
Lab Sample ID: 590-17643-2
Date Collected: 05/31/22 16:10
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.82 g	2 mL	36348	06/01/22 15:31	NMI	TAL SPK
Total/NA	Analysis	8011		1			36349	06/01/22 17:51	NMI	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre3
Lab Sample ID: 590-17643-3
Date Collected: 05/31/22 16:05
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36336	06/01/22 10:58	M1V	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre3
Lab Sample ID: 590-17643-3
Date Collected: 05/31/22 16:05
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.58 g	2 mL	36348	06/01/22 15:31	NMI	TAL SPK
Total/NA	Analysis	8011		1			36349	06/01/22 18:07	NMI	TAL SPK

Client Sample ID: SVE-Soil-May31-1DUP
Lab Sample ID: 590-17643-4
Date Collected: 05/31/22 15:30
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36336	06/01/22 10:58	M1V	TAL SPK

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Client Sample ID: SVE-Soil-May31-1DUP
Lab Sample ID: 590-17643-4
Date Collected: 05/31/22 15:30
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.25 g	2 mL	36348	06/01/22 15:31	NMI	TAL SPK
Total/NA	Analysis	8011		1			36349	06/01/22 18:24	NMI	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre4
Lab Sample ID: 590-17643-5
Date Collected: 05/31/22 16:20
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36336	06/01/22 10:58	M1V	TAL SPK

Client Sample ID: SVE-Soil-May31-1Pre4
Lab Sample ID: 590-17643-5
Date Collected: 05/31/22 16:20
Matrix: Solid
Date Received: 06/01/22 08:20
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.42 g	2 mL	36348	06/01/22 15:31	NMI	TAL SPK
Total/NA	Analysis	8011		1			36349	06/01/22 18:40	NMI	TAL SPK

Client Sample ID: Trip Blanks
Lab Sample ID: 590-17643-6
Date Collected: 05/31/22 00:00
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.06 g	2 mL	36348	06/01/22 15:31	NMI	TAL SPK
Total/NA	Analysis	8011		1			36349	06/01/22 19:13	NMI	TAL SPK

Laboratory References:
TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-1

Method	Method Description	Protocol	Laboratory
8011	EDB	EPA	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
8011	Microextraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Phone (509) 924-9290

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Jered Newcomb, JAN	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-7430-2162.1
Client Contact: Jered Newcomb	Phone: 509-899-4371	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin:	Page: Page 1 of
Company: HDR Inc	PWSID:			Job #:

Address: 835 N Post St. Ste. 101	Due Date Requested:	Analysis Requested
City: Spokane	TAT Requested (days): 24 hour	
State, Zip: WA, 99202	Compliance Project: Δ Yes Δ No	
Phone: 509-899-4371	PO #: Purchase Order Requested	
Email: jered.newcomb@hdrinc.com/Tyler.Allen@hdrinc.com Stacey.Lamer@hdrinc.com	WO #:	
Project Name: Simplot Warden	Project #: 59002373	
Site: Warden WA	SSOW#:	

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060 Standard Soil TOC	8011 EDB	MOISTURE CONTENT												Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N														
SVE-Soil-May31 1Pre1	5/31/2022	1550	G	S	N	Y	X	X	X													
SVE-Soil-May31 1Pre2	5/31/2022	1610	G	S	N		X	X	X													
SVE-Soil-May31 1Pre3	5/31/2022	1605	G	S	N		X	X	X													
~~SVE-Soil-May31-1Pre4~~	~~5/31/2022~~	~~1605~~	~~G~~	~~S~~	~~N~~		~~X~~	~~X~~	~~X~~													
SVE-Soil-May31 1DUP	5/31/2022	1530	G	S	N		X	X	X													
SVE-Soil-May31-1Pre4	5/31/2022	1620	G	S	N		X	X	X													
Trip Blanks	5/31/2022	-	-	S	N		X	X	X													

590-17643 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Jered Newcomb	5/31/22 1705	HDR		5/31/22 1705	HDR
2		6/1/2022 0820		Dragged Broderick	06/01/22 0820	EUROFINS Spokane
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 2.3 C Corr Temp 2.4 C

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17643-1

Login Number: 17643
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17700-1
Client Project/Site: Simplot Warden

For:
HDR Inc
1401 E. Trent Ave
Suite 101
Spokane, Washington 99202

Attn: Jered Newcomb

Authorized for release by:
6/7/2022 2:14:27 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@et.eurofinsus.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Job ID: 590-17700-1

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 6/6/2022 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

Receipt Exceptions
The following sample was listed on the Chain of Custody (COC); however, no sample was received: Trip Blank (590-17700-6).

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17700-1	SVE-Soil-June5-1Post1	Solid	06/05/22 12:59	06/06/22 10:40
590-17700-2	SVE-Soil-June5-1Post2	Solid	06/05/22 13:23	06/06/22 10:40
590-17700-3	SVE-Soil-June5-1Post3	Solid	06/05/22 13:47	06/06/22 10:40
590-17700-4	SVE-Soil-June5-1Post4	Solid	06/05/22 14:15	06/06/22 10:40
590-17700-5	SVE-Soil-June5-Dup2	Solid	06/05/22 13:34	06/06/22 10:40

Definitions/Glossary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Client Sample ID: SVE-Soil-June5-1Post1

Lab Sample ID: 590-17700-1
Date Collected: 06/05/22 12:59
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 90.4

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/07/22 09:12	06/07/22 10:23	1

Client Sample ID: SVE-Soil-June5-1Post2

Lab Sample ID: 590-17700-2
Date Collected: 06/05/22 13:23
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 91.4

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/07/22 09:12	06/07/22 11:11	1

Client Sample ID: SVE-Soil-June5-1Post3

Lab Sample ID: 590-17700-3
Date Collected: 06/05/22 13:47
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 90.8

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.053	0.037	ug/Kg	☼	06/07/22 09:12	06/07/22 11:28	1

Client Sample ID: SVE-Soil-June5-1Post4

Lab Sample ID: 590-17700-4
Date Collected: 06/05/22 14:15
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 89.9

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.052	0.037	ug/Kg	☼	06/07/22 09:12	06/07/22 11:44	1

Client Sample ID: SVE-Soil-June5-Dup2

Lab Sample ID: 590-17700-5
Date Collected: 06/05/22 13:34
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 90.8

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/07/22 09:12	06/07/22 12:00	1

QC Sample Results

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Method: 8011 - EDB

Lab Sample ID: MB 590-36411/2-A
Matrix: Solid
Analysis Batch: 36412

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36411

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.050	0.035	ug/Kg		06/07/22 09:12	06/07/22 09:50	1

Lab Sample ID: LCS 590-36411/3-A
Matrix: Solid
Analysis Batch: 36412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36411

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)			1.00	1.34		ug/Kg		134	60 - 140		

Lab Sample ID: 590-17700-1 MS
Matrix: Solid
Analysis Batch: 36412

Client Sample ID: SVE-Soil-June5-1Post1
Prep Type: Total/NA
Prep Batch: 36411

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)	ND		1.06	0.933		ug/Kg	☼	88	60 - 140		

Lab Sample ID: 590-17700-1 MSD
Matrix: Solid
Analysis Batch: 36412

Client Sample ID: SVE-Soil-June5-1Post1
Prep Type: Total/NA
Prep Batch: 36411

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND		1.09	0.760		ug/Kg	☼	70	60 - 140	20	20

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Client Sample ID: SVE-Soil-June5-1Post1
Lab Sample ID: 590-17700-1
Date Collected: 06/05/22 12:59
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36397	06/06/22 11:22	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-1Post1
Lab Sample ID: 590-17700-1
Date Collected: 06/05/22 12:59
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.28 g	2 mL	36411	06/07/22 09:12	NMI	TAL SPK
Total/NA	Analysis	8011		1			36412	06/07/22 10:23	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-1Post2
Lab Sample ID: 590-17700-2
Date Collected: 06/05/22 13:23
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36397	06/06/22 11:22	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-1Post2
Lab Sample ID: 590-17700-2
Date Collected: 06/05/22 13:23
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.19 g	2 mL	36411	06/07/22 09:12	NMI	TAL SPK
Total/NA	Analysis	8011		1			36412	06/07/22 11:11	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-1Post3
Lab Sample ID: 590-17700-3
Date Collected: 06/05/22 13:47
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36397	06/06/22 11:22	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-1Post3
Lab Sample ID: 590-17700-3
Date Collected: 06/05/22 13:47
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.32 g	2 mL	36411	06/07/22 09:12	NMI	TAL SPK
Total/NA	Analysis	8011		1			36412	06/07/22 11:28	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-1Post4
Lab Sample ID: 590-17700-4
Date Collected: 06/05/22 14:15
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36397	06/06/22 11:22	NMI	TAL SPK

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Client Sample ID: SVE-Soil-June5-1Post4

Lab Sample ID: 590-17700-4
Date Collected: 06/05/22 14:15
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.65 g	2 mL	36411	06/07/22 09:12	NMI	TAL SPK
Total/NA	Analysis	8011		1			36412	06/07/22 11:44	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-Dup2

Lab Sample ID: 590-17700-5
Date Collected: 06/05/22 13:34
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36397	06/06/22 11:22	NMI	TAL SPK

Client Sample ID: SVE-Soil-June5-Dup2

Lab Sample ID: 590-17700-5
Date Collected: 06/05/22 13:34
Matrix: Solid
Date Received: 06/06/22 10:40
Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.13 g	2 mL	36411	06/07/22 09:12	NMI	TAL SPK
Total/NA	Analysis	8011		1			36412	06/07/22 12:00	NMI	TAL SPK

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-1

Method	Method Description	Protocol	Laboratory
8011	EDB	EPA	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
8011	Microextraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Phone (509) 924-9290

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Blake Urie, BU	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-7430-2162.2
Client Contact: Jered Newcomb	Phone: 208-340-1305	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: WA	Page: ~~Page 2 of 4~~ 1 of 1
Company: HDR Inc	PWSID:			Job #:
Address: 1401 E. Trent Ave Suite 101	Due Date Requested:			
City: Spokane	TAT Requested (days): 24 hr (EDB)			
State, Zip: WA, 99202	Compliance Project: ∆ Yes ∆ No			
Phone: 509-899-4271	PO #: Purchase Order Requested			
Email: jered.newcomb@hdrinc.com	WO #:			
Project Name: Simplot Warden	Project #: 59002373			
Site: Warden WA	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060 Standard Soil TOC	8011 EDB	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
SVE-Soil-June 5-1Post1	6/5/22	1259	G	Solid	N		X	X		
SVE-Soil-June 5-1Post2		1323		Solid	N		X	X		
SVE-Soil-June 5-1Post3		1347		Solid	N		X	X		
SVE-Soil-June 5-1Post4		1415		Solid	N		X	X		
SVE-Soil-June 5-DUP2		1334		Solid	N		X	X		
Trip Blank	—	—	G	Solid	N		X			
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

590-17700 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II III IV Other (specify)

Special Instructions/QC Requirements: TOC standard TAT

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		06/05/22 1545	HDR		6/6/22 10:40	EET SPO
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No (X) | Custody Seal No: 176697

Cooler Temperature(s) °C and Other Remarks: 3.7°C Corr IR006

6/7/2022

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17700-1

Login Number: 17700
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17643-2
Client Project/Site: Simplot Warden

For:
HDR Inc
1401 E. Trent Ave
Suite 101
Spokane, Washington 99202

Attn: Jered Newcomb

Authorized for release by:
6/13/2022 3:40:16 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@et.eurofinsus.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Job ID: 590-17643-2

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 6/1/2022 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4º C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17643-1	SVE-Soil-May31-1Pre1	Solid	05/31/22 15:50	06/01/22 08:20
590-17643-2	SVE-Soil-May31-1Pre2	Solid	05/31/22 16:10	06/01/22 08:20
590-17643-3	SVE-Soil-May31-1Pre3	Solid	05/31/22 16:05	06/01/22 08:20
590-17643-4	SVE-Soil-May31-1DUP	Solid	05/31/22 15:30	06/01/22 08:20
590-17643-5	SVE-Soil-May31-1Pre4	Solid	05/31/22 16:20	06/01/22 08:20

Definitions/Glossary

Client: HDR Inc
Job ID: 590-17643-2
Project/Site: Simplot Warden

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Client Sample ID: SVE-Soil-May31-1Pre1

Lab Sample ID: 590-17643-1
Date Collected: 05/31/22 15:50
Matrix: Solid
Date Received: 06/01/22 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1400	F2	300	100	mg/Kg			06/10/22 00:23	1

Client Sample ID: SVE-Soil-May31-1Pre2

Lab Sample ID: 590-17643-2
Date Collected: 05/31/22 16:10
Matrix: Solid
Date Received: 06/01/22 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	2300		300	100	mg/Kg			06/10/22 02:31	1

Client Sample ID: SVE-Soil-May31-1Pre3

Lab Sample ID: 590-17643-3
Date Collected: 05/31/22 16:05
Matrix: Solid
Date Received: 06/01/22 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1500		300	100	mg/Kg			06/10/22 02:43	1

Client Sample ID: SVE-Soil-May31-1DUP

Lab Sample ID: 590-17643-4
Date Collected: 05/31/22 15:30
Matrix: Solid
Date Received: 06/01/22 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1700		300	100	mg/Kg			06/10/22 02:56	1

Client Sample ID: SVE-Soil-May31-1Pre4

Lab Sample ID: 590-17643-5
Date Collected: 05/31/22 16:20
Matrix: Solid
Date Received: 06/01/22 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1900		300	100	mg/Kg			06/10/22 03:09	1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 410-264133/38
Matrix: Solid
Analysis Batch: 264133

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		300	100	mg/Kg			06/10/22 00:11	1

Lab Sample ID: LCS 410-264133/37
Matrix: Solid
Analysis Batch: 264133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			3810	5730		mg/Kg		150	50 - 153		

Lab Sample ID: 590-17643-1 MS
Matrix: Solid
Analysis Batch: 264133

Client Sample ID: SVE-Soil-May31-1Pre1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	1400	F2	4220	4650		mg/Kg		77	50 - 153		

Lab Sample ID: 590-17643-1 MSD
Matrix: Solid
Analysis Batch: 264133

Client Sample ID: SVE-Soil-May31-1Pre1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	1400	F2	4560	7080	F2	mg/Kg		125	50 - 153	41	20

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Client Sample ID: SVE-Soil-May31-1Pre1
Lab Sample ID: 590-17643-1
Date Collected: 05/31/22 15:50
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			264133	06/10/22 00:23	P684	ELLE

Client Sample ID: SVE-Soil-May31-1Pre2
Lab Sample ID: 590-17643-2
Date Collected: 05/31/22 16:10
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			264133	06/10/22 02:31	P684	ELLE

Client Sample ID: SVE-Soil-May31-1Pre3
Lab Sample ID: 590-17643-3
Date Collected: 05/31/22 16:05
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			264133	06/10/22 02:43	P684	ELLE

Client Sample ID: SVE-Soil-May31-1DUP
Lab Sample ID: 590-17643-4
Date Collected: 05/31/22 15:30
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			264133	06/10/22 02:56	P684	ELLE

Client Sample ID: SVE-Soil-May31-1Pre4
Lab Sample ID: 590-17643-5
Date Collected: 05/31/22 16:20
Matrix: Solid
Date Received: 06/01/22 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			264133	06/10/22 03:09	P684	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	11-30-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-23
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22 *
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-23
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23
Texas	NELAP	T104704194-21-40	08-31-22
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-11-23
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	07-01-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17643-2

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-6854.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Washington		Job #: 590-17643-2
Address: 2425 New Holland Pike, ,	Due Date Requested: ~~6/2/2022~~ 6/4/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Simplot Warden	Project #: 59002373			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SVE-Soil-May31-1Pre1 (590-17643-1)	5/31/22	15:50 Pacific		Solid			X	1	
SVE-Soil-May31-1Pre1 (590-17643-1MS)	5/31/22	15:50 Pacific	MS	Solid			X	1	
SVE-Soil-May31-1Pre1 (590-17643-1MSD)	5/31/22	15:50 Pacific	MSD	Solid			X	1	
SVE-Soil-May31-1Pre2 (590-17643-2)	5/31/22	16:10 Pacific		Solid			X	1	
SVE-Soil-May31-1Pre3 (590-17643-3)	5/31/22	16:05 Pacific		Solid			X	1	
SVE-Soil-May31-1DUP (590-17643-4)	5/31/22	15:30 Pacific		Solid			X	1	
SVE-Soil-May31-1Pre4 (590-17643-5)	5/31/22	16:20 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
M. Vaughn	~~6/1/22~~ 6/1/22 1700	EETSP			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				6/2/22 1121	ELKT

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.4

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17643-2

Login Number: 17643
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17643-2

Login Number: 17643
List Number: 2
Creator: McCaskey, Jonathan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 06/02/22 11:31 AM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17700-2
Client Project/Site: Simplot Warden

For:
HDR Inc
1401 E. Trent Ave
Suite 101
Spokane, Washington 99202

Attn: Jered Newcomb

Authorized for release by:
6/17/2022 10:35:32 AM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@et.eurofinsus.com

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Job ID: 590-17700-2

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 6/6/2022 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17700-1	SVE-Soil-June5-1Post1	Solid	06/05/22 12:59	06/06/22 10:40
590-17700-2	SVE-Soil-June5-1Post2	Solid	06/05/22 13:23	06/06/22 10:40
590-17700-3	SVE-Soil-June5-1Post3	Solid	06/05/22 13:47	06/06/22 10:40
590-17700-4	SVE-Soil-June5-1Post4	Solid	06/05/22 14:15	06/06/22 10:40
590-17700-5	SVE-Soil-June5-Dup2	Solid	06/05/22 13:34	06/06/22 10:40

Definitions/Glossary

Client: HDR Inc
Job ID: 590-17700-2
Project/Site: Simplot Warden

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Client Sample ID: SVE-Soil-June5-1Post1
Lab Sample ID: 590-17700-1
Date Collected: 06/05/22 12:59
Matrix: Solid
Date Received: 06/06/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1500		300	100	mg/Kg			06/15/22 20:44	1

Client Sample ID: SVE-Soil-June5-1Post2
Lab Sample ID: 590-17700-2
Date Collected: 06/05/22 13:23
Matrix: Solid
Date Received: 06/06/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1400		300	100	mg/Kg			06/15/22 20:57	1

Client Sample ID: SVE-Soil-June5-1Post3
Lab Sample ID: 590-17700-3
Date Collected: 06/05/22 13:47
Matrix: Solid
Date Received: 06/06/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1200		300	100	mg/Kg			06/15/22 21:10	1

Client Sample ID: SVE-Soil-June5-1Post4
Lab Sample ID: 590-17700-4
Date Collected: 06/05/22 14:15
Matrix: Solid
Date Received: 06/06/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1200		300	100	mg/Kg			06/15/22 21:22	1

Client Sample ID: SVE-Soil-June5-Dup2
Lab Sample ID: 590-17700-5
Date Collected: 06/05/22 13:34
Matrix: Solid
Date Received: 06/06/22 10:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1100		300	100	mg/Kg			06/15/22 21:35	1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 410-266079/10
Matrix: Solid
Analysis Batch: 266079

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		300	100	mg/Kg			06/15/22 17:33	1

Lab Sample ID: MB 410-266079/39
Matrix: Solid
Analysis Batch: 266079

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		300	100	mg/Kg			06/15/22 23:42	1

Lab Sample ID: LCS 410-266079/38
Matrix: Solid
Analysis Batch: 266079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	3810	2630		mg/Kg		69	50 - 153

Lab Sample ID: LCS 410-266079/9
Matrix: Solid
Analysis Batch: 266079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	3810	4360		mg/Kg		114	50 - 153

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Client Sample ID: SVE-Soil-June5-1Post1
Lab Sample ID: 590-17700-1
Date Collected: 06/05/22 12:59
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			266079	06/15/22 20:44	P684	ELLE

Client Sample ID: SVE-Soil-June5-1Post2
Lab Sample ID: 590-17700-2
Date Collected: 06/05/22 13:23
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			266079	06/15/22 20:57	P684	ELLE

Client Sample ID: SVE-Soil-June5-1Post3
Lab Sample ID: 590-17700-3
Date Collected: 06/05/22 13:47
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			266079	06/15/22 21:10	P684	ELLE

Client Sample ID: SVE-Soil-June5-1Post4
Lab Sample ID: 590-17700-4
Date Collected: 06/05/22 14:15
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			266079	06/15/22 21:22	P684	ELLE

Client Sample ID: SVE-Soil-June5-Dup2
Lab Sample ID: 590-17700-5
Date Collected: 06/05/22 13:34
Matrix: Solid
Date Received: 06/06/22 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1			266079	06/15/22 21:35	P684	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	11-30-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-23
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22 *
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	01-01-23
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-23
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23
Texas	NELAP	T104704194-21-40	08-31-22
USDA	US Federal Programs	P330-19-00197	07-03-22
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-15-23
Washington	State	C457	04-11-23
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	07-01-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17700-2

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Phone (509) 924-9290

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Blake Urie, BU	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-7430-2162.2
Client Contact: Jered Newcomb	Phone: 208-340-1305	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: WA	Page: ~~Page 2 of 4~~ 1 of 1
Company: HDR Inc	PWSID:			Job #:
Address: 1401 E. Trent Ave Suite 101	Due Date Requested:			
City: Spokane	TAT Requested (days): 24 hr (EDB)			
State, Zip: WA, 99202	Compliance Project: ∆ Yes ∆ No			
Phone: 509-899-4271	PO #: Purchase Order Requested			
Email: jered.newcomb@hdrinc.com	WO #:			
Project Name: Simplot Warden	Project #: 59002373			
Site: Warden WA	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060 Standard Soil TOC	8011 EDB	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
SVE-Soil-June 5-1Post1	6/5/22	1259	G	Solid	N		X	X		
SVE-Soil-June 5-1Post2		1323		Solid	N		X	X		
SVE-Soil-June 5-1Post3		1347		Solid	N		X	X		
SVE-Soil-June 5-1Post4		1415		Solid	N		X	X		
SVE-Soil-June 5-DUP2		1334		Solid	N		X	X		
Trip Blank	—	—	G	Solid	N		X			
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

590-17700 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II III IV Other (specify)

Special Instructions/QC Requirements: TOC standard TAT

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		06/05/22 1545	HDR		6/6/22 10:40	EET SPO
2						
3						

Custody Seals Intact: ∆ Yes ∆ No (X)
Custody Seal No: 176697

Cooler Temperature(s) °C and Other Remarks: 3.7°C CorR IR006

6/17/2022

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-6869.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Washington		Job #: 590-17700-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 6/7/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Simplot Warden	Project #: 59002373			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SVE-Soil-June5-1Post1 (590-17700-1)	6/5/22	12:59 Pacific		Solid			X	1	
SVE-Soil-June5-1Post2 (590-17700-2)	6/5/22	13:23 Pacific		Solid			X	1	
SVE-Soil-June5-1Post3 (590-17700-3)	6/5/22	13:47 Pacific		Solid			X	1	
SVE-Soil-June5-1Post4 (590-17700-4)	6/5/22	14:15 Pacific		Solid			X	1	
SVE-Soil-June5-Dup2 (590-17700-5)	6/5/22	13:34 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6/6/22 14:00	~~ET~~ SBO			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/7/22 1048	Company ET

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17700-2

Login Number: 17700
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17700-2

Login Number: 17700
List Number: 2
Creator: Foreman, Leah M

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 06/07/22 02:02 PM

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	

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6/15/2022
Mr. Tyler Allen
HDR, Inc.
412 E. Parkcenter
Suite 100
Boise ID 83706

Project Name: Simplot-Warden
Project #: 10331653
Workorder #: 2206179

Dear Mr. Tyler Allen

The following report includes the data for the above referenced project for sample(s) received on 6/8/2022 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Monica Tran at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2206179

Work Order Summary

CLIENT:	Mr. Tyler Allen HDR, Inc. 412 E. Parkcenter Suite 100 Boise, ID 83706	**BILL TO:**	Accounts Payable HDR, Inc. 412 E. Parkcenter Blvd Suite 100 Boise, ID 83706
PHONE:	(208) 387-7000	**P.O. #**	10331653
FAX:		**PROJECT #**	10331653 Simplot-Warden
DATE RECEIVED:	06/08/2022	**CONTACT:**	Monica Tran
DATE COMPLETED:	06/14/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-Vap-June1-1Pre1	TO-15	6.9 "Hg	10.1 psi
02A	SVE-Vap-June1-1Pre2	TO-15	6.7 "Hg	10 psi
03A	SVE-Vap-June1-1Pre3	TO-15	7.6 "Hg	9.9 psi
04A	SVE-Vap-June1-1Pre4	TO-15	6.3 "Hg	10 psi
05A	SVE-Vap-June1-DUP1	TO-15	7.3 "Hg	9.9 psi
06A	SVE-Vap-June1-1Pre5	TO-15	6.7 "Hg	10 psi
07A	SVE-Vap-June1-1Pre6	TO-15	7.1 "Hg	9.9 psi
08A	SVE-Vap-June2-1Mid1	TO-15	7.1 "Hg	9.9 psi
09A	SVE-Vap-June2-1Mid2	TO-15	5.3 "Hg	9.9 psi
10A	SVE-Vap-June3-1Mid3	TO-15	4.5 "Hg	9.9 psi
11A	SVE-Vap-June3-1Mid4	TO-15	5.5 "Hg	10 psi
12A	SVE-Vap-June4-1Mid5	TO-15	6.3 "Hg	9.8 psi
13A	SVE-Vap-June4-1Mid6	TO-15	6.1 "Hg	9.9 psi
14A	SVE-Vap-June5-1Post1	TO-15	8.8 "Hg	9.9 psi
15A	SVE-Vap-June5-1Post2	TO-15	8 "Hg	9.9 psi
16A	Lab Blank	TO-15	NA	NA
17A	CCV	TO-15	NA	NA
18A	LCS	TO-15	NA	NA
18AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 06/14/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
HDR, Inc.
Workorder# 2206179

Fifteen 1 Liter Summa Canister samples were received on June 08, 2022. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody (COC) information for sample SVE-Vap-June1-1Pre2 did not match the information on the canister with regard to canister barcode. The sample labeled 1L1805 on the COC is labeled as 1L1802 on the canister. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVE-Vap-June1-1Pre1

Lab ID#: 2206179-01A

No Detections Were Found.

Client Sample ID: SVE-Vap-June1-1Pre2

Lab ID#: 2206179-02A

No Detections Were Found.

Client Sample ID: SVE-Vap-June1-1Pre3

Lab ID#: 2206179-03A

No Detections Were Found.

Client Sample ID: SVE-Vap-June1-1Pre4

Lab ID#: 2206179-04A

No Detections Were Found.

Client Sample ID: SVE-Vap-June1-DUP1

Lab ID#: 2206179-05A

No Detections Were Found.

Client Sample ID: SVE-Vap-June1-1Pre5

Lab ID#: 2206179-06A

No Detections Were Found.

Client Sample ID: SVE-Vap-June1-1Pre6

Lab ID#: 2206179-07A

No Detections Were Found.

Client Sample ID: SVE-Vap-June2-1Mid1

Lab ID#: 2206179-08A

No Detections Were Found.

Client Sample ID: SVE-Vap-June2-1Mid2

Lab ID#: 2206179-09A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVE-Vap-June2-1Mid2

Lab ID#: 2206179-09A

No Detections Were Found.

Client Sample ID: SVE-Vap-June3-1Mid3

Lab ID#: 2206179-10A

No Detections Were Found.

Client Sample ID: SVE-Vap-June3-1Mid4

Lab ID#: 2206179-11A

No Detections Were Found.

Client Sample ID: SVE-Vap-June4-1Mid5

Lab ID#: 2206179-12A

No Detections Were Found.

Client Sample ID: SVE-Vap-June4-1Mid6

Lab ID#: 2206179-13A

No Detections Were Found.

Client Sample ID: SVE-Vap-June5-1Post1

Lab ID#: 2206179-14A

No Detections Were Found.

Client Sample ID: SVE-Vap-June5-1Post2

Lab ID#: 2206179-15A

No Detections Were Found.

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Client Sample ID: SVE-Vap-June1-1Pre1

Lab ID#: 2206179-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061311**	**Date of Collection: 6/1/22 8:33:00 AM**	
Dil. Factor:	**2.19**	**Date of Analysis: 6/13/22 03:51 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: SVE-Vap-June1-1Pre2

Lab ID#: 2206179-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061312**	**Date of Collection: 6/1/22 8:37:00 AM**	
Dil. Factor:	**2.16**	**Date of Analysis: 6/13/22 04:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-Vap-June1-1Pre3

Lab ID#: 2206179-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061313**	**Date of Collection: 6/1/22 1:32:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 6/13/22 05:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: SVE-Vap-June1-1Pre4

Lab ID#: 2206179-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061314**	**Date of Collection: 6/1/22 1:37:00 PM**	
Dil. Factor:	**2.13**	**Date of Analysis: 6/13/22 05:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-Vap-June1-DUP1

Lab ID#: 2206179-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061315**	**Date of Collection: 6/1/22 10:05:00 AM**	
Dil. Factor:	**2.21**	**Date of Analysis: 6/13/22 06:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: SVE-Vap-June1-1Pre5

Lab ID#: 2206179-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061316**	**Date of Collection: 6/1/22 5:24:00 PM**	
Dil. Factor:	**2.16**	**Date of Analysis: 6/13/22 06:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: SVE-Vap-June1-1Pre6

Lab ID#: 2206179-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061318**	**Date of Collection: 6/1/22 5:27:00 PM**	
Dil. Factor:	**2.19**	**Date of Analysis: 6/13/22 09:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-Vap-June2-1Mid1

Lab ID#: 2206179-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061319**	**Date of Collection: 6/2/22 12:09:00 PM**	
Dil. Factor:	**2.19**	**Date of Analysis: 6/13/22 10:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: SVE-Vap-June2-1Mid2

Lab ID#: 2206179-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061320**	**Date of Collection: 6/2/22 12:12:00 PM**	
Dil. Factor:	**2.03**	**Date of Analysis: 6/13/22 10:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: SVE-Vap-June3-1Mid3

Lab ID#: 2206179-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061321**	**Date of Collection: 6/3/22 11:41:00 AM**	
Dil. Factor:	**1.97**	**Date of Analysis: 6/13/22 11:20 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	0.98	Not Detected	7.6	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-Vap-June3-1Mid4

Lab ID#: 2206179-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061322**	**Date of Collection: 6/3/22 11:45:00 AM**	
Dil. Factor:	**2.06**	**Date of Analysis: 6/13/22 11:55 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-Vap-June4-1Mid5

Lab ID#: 2206179-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061323**	**Date of Collection: 6/4/22 12:49:00 PM**	
Dil. Factor:	**2.11**	**Date of Analysis: 6/14/22 12:30 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-Vap-June4-1Mid6

Lab ID#: 2206179-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061324**	**Date of Collection: 6/4/22 12:54:00 PM**	
Dil. Factor:	**2.10**	**Date of Analysis: 6/14/22 01:04 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SVE-Vap-June5-1Post1

Lab ID#: 2206179-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061325**	**Date of Collection: 6/5/22 12:15:00 PM**	
Dil. Factor:	**2.37**	**Date of Analysis: 6/14/22 01:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: SVE-Vap-June5-1Post2

Lab ID#: 2206179-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061326**	**Date of Collection: 6/5/22 12:20:00 PM**	
Dil. Factor:	**2.28**	**Date of Analysis: 6/14/22 02:14 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2206179-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061305c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/13/22 11:24 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: CCV

Lab ID#: 2206179-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/13/22 08:33 AM**	

Compound	%Recovery
1,2-Dibromoethane (EDB)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: LCS

Lab ID#: 2206179-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/13/22 09:05 AM**	

Compound	%Recovery	Method Limits
1,2-Dibromoethane (EDB)	100	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 2206179-18AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j061304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/13/22 09:36 AM**	

Compound	%Recovery	Method Limits
1,2-Dibromoethane (EDB)	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	103	70-130

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17742-1
Client Project/Site: Simplot Warden

For:
HDR Inc
1401 E. Trent Ave
Suite 101
Spokane, Washington 99202

Attn: Jered Newcomb

Authorized for release by:
6/13/2022 4:00:36 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@et.eurofinsus.com

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Job ID: 590-17742-1

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 6/10/2022 8:56 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.9º C.

Receipt Exceptions
The following sample was listed on the Chain of Custody (COC); however, no sample was received: Trip Blank (590-17742-6). An empty jar was received labeled trip blank but did not contain lab sand which is required to perform the analysis.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17742-1	SVE-Soil-June9-2Pre1	Solid	06/09/22 09:25	06/10/22 08:56
590-17742-2	SVE-Soil-June9-2Pre2	Solid	06/09/22 09:45	06/10/22 08:56
590-17742-3	SVE-Soil-June9-2Pre3	Solid	06/09/22 09:56	06/10/22 08:56
590-17742-4	SVE-Soil-June9-2Pre4	Solid	06/09/22 10:10	06/10/22 08:56
590-17742-5	SVE-Soil-June9-Dup1	Solid	06/09/22 09:03	06/10/22 08:56

Definitions/Glossary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Client Sample ID: SVE-Soil-June9-2Pre1

Lab Sample ID: 590-17742-1
Date Collected: 06/09/22 09:25
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.039	ug/Kg	☼	06/10/22 15:03	06/10/22 17:39	1

Client Sample ID: SVE-Soil-June9-2Pre2

Lab Sample ID: 590-17742-2
Date Collected: 06/09/22 09:45
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.039	ug/Kg	☼	06/10/22 15:03	06/10/22 18:28	1

Client Sample ID: SVE-Soil-June9-2Pre3

Lab Sample ID: 590-17742-3
Date Collected: 06/09/22 09:56
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.2

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/10/22 15:03	06/10/22 18:45	1

Client Sample ID: SVE-Soil-June9-2Pre4

Lab Sample ID: 590-17742-4
Date Collected: 06/09/22 10:10
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.2

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.039	ug/Kg	☼	06/10/22 15:03	06/10/22 19:01	1

Client Sample ID: SVE-Soil-June9-Dup1

Lab Sample ID: 590-17742-5
Date Collected: 06/09/22 09:03
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 91.1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/10/22 15:03	06/10/22 19:18	1

Method: 8011 - EDB

Lab Sample ID: MB 590-36484/2-A
Matrix: Solid
Analysis Batch: 36487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36484

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.050	0.035	ug/Kg		06/10/22 15:03	06/10/22 17:06	1

Lab Sample ID: LCS 590-36484/3-A
Matrix: Solid
Analysis Batch: 36487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36484

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)			1.00	1.26		ug/Kg		126	60 - 140		

Lab Sample ID: 590-17742-1 MS
Matrix: Solid
Analysis Batch: 36487

Client Sample ID: SVE-Soil-June9-2Pre1
Prep Type: Total/NA
Prep Batch: 36484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromoethane (EDB)	ND		1.10	0.756		ug/Kg	☼	69	60 - 140		

Lab Sample ID: 590-17742-1 MSD
Matrix: Solid
Analysis Batch: 36487

Client Sample ID: SVE-Soil-June9-2Pre1
Prep Type: Total/NA
Prep Batch: 36484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND		1.09	0.734		ug/Kg	☼	67	60 - 140	3	20

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Client Sample ID: SVE-Soil-June9-2Pre1
Lab Sample ID: 590-17742-1
Date Collected: 06/09/22 09:25
Matrix: Solid
Date Received: 06/10/22 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36490	06/11/22 17:31	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-2Pre1
Lab Sample ID: 590-17742-1
Date Collected: 06/09/22 09:25
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.00 g	2 mL	36484	06/10/22 15:03	NMI	TAL SPK
Total/NA	Analysis	8011		1			36487	06/10/22 17:39	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-2Pre2
Lab Sample ID: 590-17742-2
Date Collected: 06/09/22 09:45
Matrix: Solid
Date Received: 06/10/22 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36490	06/11/22 17:31	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-2Pre2
Lab Sample ID: 590-17742-2
Date Collected: 06/09/22 09:45
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.08 g	2 mL	36484	06/10/22 15:03	NMI	TAL SPK
Total/NA	Analysis	8011		1			36487	06/10/22 18:28	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-2Pre3
Lab Sample ID: 590-17742-3
Date Collected: 06/09/22 09:56
Matrix: Solid
Date Received: 06/10/22 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36490	06/11/22 17:31	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-2Pre3
Lab Sample ID: 590-17742-3
Date Collected: 06/09/22 09:56
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.31 g	2 mL	36484	06/10/22 15:03	NMI	TAL SPK
Total/NA	Analysis	8011		1			36487	06/10/22 18:45	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-2Pre4
Lab Sample ID: 590-17742-4
Date Collected: 06/09/22 10:10
Matrix: Solid
Date Received: 06/10/22 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36490	06/11/22 17:31	NMI	TAL SPK

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Client Sample ID: SVE-Soil-June9-2Pre4

Lab Sample ID: 590-17742-4
Date Collected: 06/09/22 10:10
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.00 g	2 mL	36484	06/10/22 15:03	NMI	TAL SPK
Total/NA	Analysis	8011		1			36487	06/10/22 19:01	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-Dup1

Lab Sample ID: 590-17742-5
Date Collected: 06/09/22 09:03
Matrix: Solid
Date Received: 06/10/22 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36490	06/11/22 17:31	NMI	TAL SPK

Client Sample ID: SVE-Soil-June9-Dup1

Lab Sample ID: 590-17742-5
Date Collected: 06/09/22 09:03
Matrix: Solid
Date Received: 06/10/22 08:56
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.17 g	2 mL	36484	06/10/22 15:03	NMI	TAL SPK
Total/NA	Analysis	8011		1			36487	06/10/22 19:18	NMI	TAL SPK

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17742-1

Method	Method Description	Protocol	Laboratory
8011	EDB	EPA	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
8011	Microextraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

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Client Information	Sampler: Blake Une, BU	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-7430-2162.1
Client Contact: Jered Newcomb	Phone: 208-340-1305	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: WA	Page: Page 1 of 1
Company: HDR Inc	PWSID:			Job #:
Address: 1401 E. Trent Ave Suite 101	Due Date Requested			
City: Spokane	TAT Requested (days): 24 hr (EDR)			
State, Zip: WA, 99202	Compliance Project: Δ Yes Δ No			
Phone: 509 899 4371	PO #: Purchase Order Requested			
Email: jered.newcomb@hdrinc.com	WO #:			
Project Name: Simplot Warden	Project #: 59002373			
Site: Warden, WA	SSOW#:			

Analysis Requested

Preservation Codes.

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060 Standard Soil TOC	8011 EDB	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
SVE-Soil-June9-2Pre1	06/09/22	0925	G	Solid	N		X	X		
SVE-Soil-June9-2Pre2		0945		Solid	N		X	X		
SVE-Soil-June9-2Pre3		0956		Solid	N		X	X		
SVE-Soil-June9-2Pre4		1010		Solid	N		X	X		
SVE-Soil-June9-Dup#1		0903		Solid	N		X	X		
Trip Blank		-	G	Solid	N		X			
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

590-17742 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements: TOC standard TAT

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Blake Une	06/10/22 08:56	HDR			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/10/22 8:56	Company EET SPO

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 4.9°C corr IR#06

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17742-1

Login Number: 17742
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	no trip blank present
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17777-1
Client Project/Site: Simplot Warden

For:
HDR Inc
1401 E. Trent Ave
Suite 101
Spokane, Washington 99202

Attn: Jered Newcomb

Authorized for release by:
6/16/2022 5:01:22 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@et.eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Job ID: 590-17777-1

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 6/15/2022 1:55 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 8.3º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: SVE-Soil-June15-3Pre1 (590-17777-1), SVE-Soil-June15-3Pre2 (590-17777-2), SVE-Soil-June15-3Pre3 (590-17777-3), SVE-Soil-June15-3Pre4 (590-17777-4), SVE-Soil-June15-3DUP (590-17777-5), SVE-Soil-June15-3ERB (590-17777-6), SVE-Soil-June15-3FB (590-17777-7) and Trip Blank (590-17777-8). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC Semi VOA
Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-36559 and analytical batch 590-36563 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17777-1	SVE-Soil-June15-3Pre1	Solid	06/15/22 07:46	06/15/22 13:55
590-17777-2	SVE-Soil-June15-3Pre2	Solid	06/15/22 07:51	06/15/22 13:55
590-17777-3	SVE-Soil-June15-3Pre3	Solid	06/15/22 07:55	06/15/22 13:55
590-17777-4	SVE-Soil-June15-3Pre4	Solid	06/15/22 08:00	06/15/22 13:55
590-17777-5	SVE-Soil-June15-3DUP	Solid	06/15/22 07:30	06/15/22 13:55
590-17777-6	SVE-Soil-June15-3ERB	Water	06/15/22 08:25	06/15/22 13:55
590-17777-7	SVE-Soil-June15-3FB	Water	06/15/22 08:30	06/15/22 13:55
590-17777-8	Trip Blank	Solid	06/15/22 00:00	06/15/22 13:55

Definitions/Glossary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: SVE-Soil-June15-3Pre1
Lab Sample ID: 590-17777-1
Date Collected: 06/15/22 07:46
Matrix: Solid
Date Received: 06/15/22 13:55

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.8		0.01	0.01	%			06/15/22 15:44	1
Percent Solids	89.2		0.01	0.01	%			06/15/22 15:44	1

Client Sample ID: SVE-Soil-June15-3Pre1
Lab Sample ID: 590-17777-1
Date Collected: 06/15/22 07:46
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.2

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND	F1 F2	0.054	0.038	ug/Kg	☼	06/16/22 09:33	06/16/22 11:30	1

Client Sample ID: SVE-Soil-June15-3Pre2
Lab Sample ID: 590-17777-2
Date Collected: 06/15/22 07:51
Matrix: Solid
Date Received: 06/15/22 13:55

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.9		0.01	0.01	%			06/15/22 15:44	1
Percent Solids	90.1		0.01	0.01	%			06/15/22 15:44	1

Client Sample ID: SVE-Soil-June15-3Pre2
Lab Sample ID: 590-17777-2
Date Collected: 06/15/22 07:51
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 90.1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/16/22 09:33	06/16/22 12:19	1

Client Sample ID: SVE-Soil-June15-3Pre3
Lab Sample ID: 590-17777-3
Date Collected: 06/15/22 07:55
Matrix: Solid
Date Received: 06/15/22 13:55

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.9		0.01	0.01	%			06/15/22 15:44	1
Percent Solids	89.1		0.01	0.01	%			06/15/22 15:44	1

Client Sample ID: SVE-Soil-June15-3Pre3
Lab Sample ID: 590-17777-3
Date Collected: 06/15/22 07:55
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.038	ug/Kg	☼	06/16/22 09:33	06/16/22 12:35	1

Client Sample ID: SVE-Soil-June15-3Pre4
Lab Sample ID: 590-17777-4
Date Collected: 06/15/22 08:00
Matrix: Solid
Date Received: 06/15/22 13:55

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.6		0.01	0.01	%			06/15/22 15:44	1

Client Sample ID: SVE-Soil-June15-3Pre4
Lab Sample ID: 590-17777-4
Date Collected: 06/15/22 08:00
Matrix: Solid
Date Received: 06/15/22 13:55

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.4		0.01	0.01	%			06/15/22 15:44	1

Client Sample ID: SVE-Soil-June15-3Pre4
Lab Sample ID: 590-17777-4
Date Collected: 06/15/22 08:00
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.4

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.053	0.037	ug/Kg	☼	06/16/22 09:33	06/16/22 12:52	1

Client Sample ID: SVE-Soil-June15-3DUP
Lab Sample ID: 590-17777-5
Date Collected: 06/15/22 07:30
Matrix: Solid
Date Received: 06/15/22 13:55

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.9		0.01	0.01	%			06/15/22 15:44	1
Percent Solids	89.1		0.01	0.01	%			06/15/22 15:44	1

Client Sample ID: SVE-Soil-June15-3DUP
Lab Sample ID: 590-17777-5
Date Collected: 06/15/22 07:30
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.1

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.054	0.038	ug/Kg	☼	06/16/22 09:33	06/16/22 13:08	1

Client Sample ID: SVE-Soil-June15-3ERB
Lab Sample ID: 590-17777-6
Date Collected: 06/15/22 08:25
Matrix: Water
Date Received: 06/15/22 13:55

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		06/16/22 14:05	06/16/22 15:24	1

Client Sample ID: SVE-Soil-June15-3FB
Lab Sample ID: 590-17777-7
Date Collected: 06/15/22 08:30
Matrix: Water
Date Received: 06/15/22 13:55

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		06/16/22 14:05	06/16/22 15:41	1

Client Sample ID: Trip Blank
Lab Sample ID: 590-17777-8
Date Collected: 06/15/22 00:00
Matrix: Solid
Date Received: 06/15/22 13:55

Method: 8011 - EDB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.050	0.035	ug/Kg		06/16/22 09:33	06/16/22 13:24	1

Method: 8011 - EDB

Lab Sample ID: MB 590-36559/2-A
Matrix: Solid
Analysis Batch: 36563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36559

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.050	0.035	ug/Kg		06/16/22 09:33	06/16/22 10:57	1

Lab Sample ID: LCS 590-36559/3-A
Matrix: Solid
Analysis Batch: 36563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	1.00	1.08		ug/Kg		108	60 - 140

Lab Sample ID: 590-17777-1 MS
Matrix: Solid
Analysis Batch: 36563

Client Sample ID: SVE-Soil-June15-3Pre1
Prep Type: Total/NA
Prep Batch: 36559

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	ND	F1 F2	1.12	0.784		ug/Kg	☼	70	60 - 140

Lab Sample ID: 590-17777-1 MSD
Matrix: Solid
Analysis Batch: 36563

Client Sample ID: SVE-Soil-June15-3Pre1
Prep Type: Total/NA
Prep Batch: 36559

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	ND	F1 F2	1.11	0.621	F1 F2	ug/Kg	☼	56	60 - 140	23	20

Lab Sample ID: MB 590-36573/1-A
Matrix: Water
Analysis Batch: 36563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36573

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L		06/16/22 14:05	06/16/22 14:36	1

Lab Sample ID: LCS 590-36573/2-A
Matrix: Water
Analysis Batch: 36563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36573

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	0.125	0.124		ug/L		99	60 - 140

Lab Sample ID: LCSD 590-36573/3-A
Matrix: Water
Analysis Batch: 36563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36573

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane (EDB)	0.125	0.110		ug/L		88	60 - 140	12	20

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Method: Moisture - Percent Moisture

Lab Sample ID: 590-17777-1 DU
Matrix: Solid
Analysis Batch: 36551

Client Sample ID: SVE-Soil-June15-3Pre1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	10.8			10.4		%				4	20
Percent Solids	89.2			89.6		%				0.5	20

Lab Sample ID: 590-17777-2 DU
Matrix: Solid
Analysis Batch: 36551

Client Sample ID: SVE-Soil-June15-3Pre2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	9.9			9.7		%				2	20
Percent Solids	90.1			90.3		%				0.3	20

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Client Sample ID: SVE-Soil-June15-3Pre1
Lab Sample ID: 590-17777-1
Date Collected: 06/15/22 07:46
Matrix: Solid
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36551	06/15/22 15:44	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3Pre1
Lab Sample ID: 590-17777-1
Date Collected: 06/15/22 07:46
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.44 g	2 mL	36559	06/16/22 09:33	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 11:30	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3Pre2
Lab Sample ID: 590-17777-2
Date Collected: 06/15/22 07:51
Matrix: Solid
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36551	06/15/22 15:44	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3Pre2
Lab Sample ID: 590-17777-2
Date Collected: 06/15/22 07:51
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.22 g	2 mL	36559	06/16/22 09:33	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 12:19	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3Pre3
Lab Sample ID: 590-17777-3
Date Collected: 06/15/22 07:55
Matrix: Solid
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36551	06/15/22 15:44	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3Pre3
Lab Sample ID: 590-17777-3
Date Collected: 06/15/22 07:55
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.24 g	2 mL	36559	06/16/22 09:33	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 12:35	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3Pre4
Lab Sample ID: 590-17777-4
Date Collected: 06/15/22 08:00
Matrix: Solid
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36551	06/15/22 15:44	NMI	TAL SPK

Lab Chronicle

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Client Sample ID: SVE-Soil-June15-3Pre4

Lab Sample ID: 590-17777-4
Date Collected: 06/15/22 08:00
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.47 g	2 mL	36559	06/16/22 09:33	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 12:52	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3DUP

Lab Sample ID: 590-17777-5
Date Collected: 06/15/22 07:30
Matrix: Solid
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			36551	06/15/22 15:44	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3DUP

Lab Sample ID: 590-17777-5
Date Collected: 06/15/22 07:30
Matrix: Solid
Date Received: 06/15/22 13:55
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.46 g	2 mL	36559	06/16/22 09:33	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 13:08	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3ERB

Lab Sample ID: 590-17777-6
Date Collected: 06/15/22 08:25
Matrix: Water
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			80 mL	2 mL	36573	06/16/22 14:05	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 15:24	NMI	TAL SPK

Client Sample ID: SVE-Soil-June15-3FB

Lab Sample ID: 590-17777-7
Date Collected: 06/15/22 08:30
Matrix: Water
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			80 mL	2 mL	36573	06/16/22 14:05	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 15:41	NMI	TAL SPK

Client Sample ID: Trip Blank

Lab Sample ID: 590-17777-8
Date Collected: 06/15/22 00:00
Matrix: Solid
Date Received: 06/15/22 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.01 g	2 mL	36559	06/16/22 09:33	NMI	TAL SPK
Total/NA	Analysis	8011		1			36563	06/16/22 13:24	NMI	TAL SPK

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: HDR Inc
Project/Site: Simplot Warden

Job ID: 590-17777-1

Method	Method Description	Protocol	Laboratory
8011	EDB	EPA	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
8011	Microextraction	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Phone (509) 924-9290

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Jered Newcomb, JAN	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-7430-2162.1
Client Contact: Jered Newcomb	Phone: 509-899-4371	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: WA	Page: Page 1 of 1
Company: HDR Inc	PWSID:			Job #:
Address: 835 N Post St. Ste 101	Due Date Requested:			
City: Spokane	TAT Requested (days): 24 hour			
State, Zip: WA, 99202	Compliance Project: Δ Yes Δ No			
Phone: 509-899-4371	PO #: Purchase Order Requested			
Email: jered.newcomb@hdrinc.com	WO #:			
Project Name: Simplot Warden	Project #: 59002373			
Site: Warden WA	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8011 EDB	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SVE-Soil-June15-3Pre1	6/15/2022	746	G	S	N	N	X		
SVE-Soil-June15-3Pre2	6/15/2022	751	G	S	N	N	X		
SVE-Soil-June15-3Pre3	6/15/2022	755	G	S	N	N	X		
SVE-Soil-June15-3Pre4	6/15/2022	800	G	S	N	N	X		
SVE-Soil-June15-3DUP	6/15/2022	730	G	S	N	N	X		
SVE-Soil-June15-3ERB	6/15/2022	825	G	W	N	N	X		ERB Equipment Rinsate Blank
SVE-Soil-June15-3FB	6/15/2022	830	G	W	N	N	X		FB Field Blank
Trip Blank				S	N	N	X		

590-17777 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by: Jered Newcomb	Date/Time: 6/15/22 @ 1355	Company	Received by:	Date/Time: 6/15/22 1355	Company ET SPO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 8.3°C CorrR006

6/16/2022

Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 590-17777-1

Login Number: 17777
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

D

SVE System Parameters Logs

Table 1 - Soil Vapor Extraction Pilot Test Field Data Collection Example

Date: 6/1/2022		**Personnel:** Jared Newcomb / GrayMar / Blake Urie				**Ambient Temperature:** 65-70 °F			
Treatment Start Time: 815		**Weather:** Sunny ~65°F				**Barometric Pressure:** 30.13 inHg			
		Treatment Pile #	**Extraction System**					**Soil Vapor (PID**	
Test Designation	**Date/Time**	**Visual Observations**	**Blower Inlet Vacuum**	**Dilution Air Flowrate**	**Blower Outlet Flow Rate**	**Blower Outlet Temperature**		**Influent (Prior to GAC)**	**Effluent (After GAC)**
		Indicating Negative Pressure is Present	**(in H_2O) (1)**	**(cfm)**	**(cfm)**	**(°F)**		**(ppm)**	**(ppm)**
~~Pre-Startup~~ Initial	6/1/22; 838	Yes	-- 7.0	--0	-?	--125		3.1	0.4
Step 1	853	Yes	7.0	0	?	128		2.4	0.3
Step 1	908	Yes	7.0	0		129		2.4	0.3
Step 1	923	Yes	7.0	0		130		2.1	0.4
Step 2	945	Yes	6.0	~25%		134		1.8	0.3
Step 2	1000	Yes	6.0	~25%		134		1.9	0.1
Step 2	1015	Yes	6.0	~25%		135		1.9	0.2
Step 3	1036	Yes	5.5	~50%		136		1.4	0.2
Step 3	1045	Yes	5.5	~50%		138		1.4	0.2
Step 3	1105	Yes	5.5	~50%		140		1.3	0.3
Constant Rate Test	1325	Yes	7.5	0		144		1.0	0.3
Constant Rate Test	1330	Yes	7.6	0		144		1.5	0.4
Constant Rate Test	1425	Yes	7.0	0		146		1.1	0.6
Constant Rate Test	1527	Yes	7.0	0		144		0.0	0.0
Constant Rate Test	1631	Yes	7.0	0		140		0.0	0.0
Constant Rate Test	1520	Yes	7.0	0		143		0.0	0.0
Constant Rate Test	6/2/22; 847	Yes	7.0	0		132		0.0	0.0
Constant Rate Test	1534	Yes	7.0	0		156		0.0	0.0
Constant Rate Test	6/3/22; 807	Yes	5.0	0		148		0.0	0.0
Constant Rate Test	06/03/22 1515	Yes	7.0	0		153		0.0	1.0
Constant Rate Test	06/04/22 0855	Yes	7.0	0		135		0.0	0.0
Constant Rate Test	06/04/22 1240	Yes	7.0	0		145		0.0	0.1
Constant Rate Test	06/04/22 1550	Yes	6.0	0		165		0.0	1.7
Constant Rate Test	06/05/22 0947	Yes	6.0	0		158		0.0	0.7
Constant Rate Test	06/05/22 1210	Yes	6.0	0		165		0.0	2.2

(1) - Vacuum measured with a Magnehelic gauge.

in H_2O	inches of water column
cfm	cubic feet per minute
--	Not monitored

Dilution Valve Test 06/05/22

50%; 37 in H_2O

25%; 19 in H_2O

06/04/22 - Rain, windy, overcast in morning, sunny in afternoon

06/05/22 - Cloudy, breezy in morning

Table 2 - Soil Vapor Extraction Field Data Collection Example

Date: 06/09/22	**Personnel:** ~~Jeff Greenwalt~~ Blake Urie	**Ambient Temperature:** ~ 60s F
Treatment Start Time:	**Weather:** Overcast, breezy	**Barometric Pressure:** 29.90 inHg

			Treatment Pile # #2	**Extraction System Operation Parameters**				**Soil Vapor (PID Readings)**	
Data Designation	**Date/Time**	**Visual Observations Indicating Negative Pressure is Present**	**Blower Inlet Vacuum**	**Dilution Air Flowrate**	**Blower Outlet Flow Rate**	**Blower Outlet Temperature**	**Influent (Prior to GAC)**	**Effluent (After GAC)**	
		(Yes / No)	**(in H_2O) (1)**	**(cfm)**	**(cfm)**	**(°F)**	**(ppm)**	**(ppm)**	
Initial	06/08/22-2100	Yes	6.0	--	--	164	1.0	2.2	
~~Day 1~~	06/09/22-0900	Yes	7.0			170	0.0	3.4	-Startup
Day 1	06/09/22-1420	Yes	6.0			165	0.9	3.6	
Day 2									
Day 3									
Day 4									
Day 5									
Day 6									
Day 7									

(1) - Vacuum measured with a Magnehelic gauge.

in inches of water column
cf cubic feet per minute
-- Not monitored