GEL Laboratories LLC
a member of The GEL Group INC

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December 14, 2020

Mr. Scot Fitzgerald
CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington 99352

Re: CHPRC SAF W21-011
Work Order: 527604
SDG: GEL527604

Dear Mr. Fitzgerald:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on November 17, 2020. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4505.

Sincerely,

Clare Drennen for
Heather Shaffer
Project Manager

Purchase Order: 300071 + 7H
Chain of Custody: W21-011-176, W21-011-178, W21-011-179, W21-011-181, W21-011-182, W21-011-184, W21-011-191, W21-011-193, W21-011-214, W21-011-216, W21-011-305, W21-011-306, W21-011-307 and W21-011-310
Enclosures

Table of Contents

Case Narrative.....3

Chain of Custody and Supporting Documentation.....11

Data Review Qualifier Definitions.....27

Laboratory Certifications.....29

Volatile Analysis.....31

Case Narrative.....32

Sample Data Summary.....36

Quality Control Summary.....47

Semi-Volatile Analysis.....72

Case Narrative.....73

Sample Data Summary.....77

Quality Control Summary.....98

FID Alcohols Analysis.....126

Case Narrative.....127

Sample Data Summary.....130

Quality Control Summary.....136

Pesticide Analysis.....140

Case Narrative.....141

Sample Data Summary.....145

Quality Control Summary.....150

PCB Analysis.....159

Case Narrative.....160

Sample Data Summary.....163

Quality Control Summary.....168

Metals Analysis.....173

Case Narrative.....174

Sample Data Summary.....178

Quality Control Summary.....183

General Chem Analysis.....195

Case Narrative.....196

Sample Data Summary.....202

Quality Control Summary.....212

Case Narrative

General Narrative
for
CH2MHill Plateau Remediation Company (74393)
CHPRC SAF W21-011
SDG: GEL527604

December 14, 2020

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The sample(s) arrived at GEL Laboratories, LLC, Charleston, South Carolina on November 17, 2020, for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Items of Note All efforts were made by the lab to meet any short hold times. Samples that were analyzed outside of the initial hold time but still within 2X hold time will be noted in the lab case narrative.

Sample Identification
The laboratory received the following samples:

Laboratory Identification	Sample Description
527604001	B3XLY0
527604002	B3XLY8
527604003	B3XLY9
527604004	B3XMW5
527604005	B3XMW6
527604006	B3XMW4
527604007	B3XLX9
527604008	B3XLY6
527604009	B3XLY7
527604010	B3XM35
527604011	B3XM36
527604012	B3X4B0
527604013	B3X4B1
527604014	B3X4B2
527604015	B3X4C1

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, and data from the following fractions: Alcohols, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Metals.

We certify that this package is in compliance with the Analytical Laboratory Services for CH2M Hill Plateau Remediation Company Statement of Work, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this data package deliverable has been authorized by the Laboratory Analytical Manager (or designee) and the laboratory's client services representative as verified by their signatures on this report.

Clare Drennen for
Heather Shaffer
Project Manager

Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

GC/MS Volatile

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification Requirements
All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8260D for samples and the associated QC . However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8260D outlier acceptance criteria. The results are reported.

Technical Information

Sample Dilutions/Methanol Dilutions
Sample 527604015 (B3X4C1) in this SDG was analyzed at a dilution. There were positive results for target analytes within the middle to upper range of the calibration curve.

Analyte	527604
	015
Several	2.5X

GC/MS Semivolatile

Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CCV Requirements
All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 527604006 (B3XMW4), 527604011 (B3XM36), 527604012 (B3X4B0), 527604013 (B3X4B1) and 527604014 (B3X4B2) and the associated QC. However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8270D/E outlier acceptance criteria. If required, a CRDL was analyzed after the CCVs to demonstrate that there is adequate sensitivity to detect the failed compounds at the applicable lower quantitation limit. All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 527604006 (B3XMW4), 527604011 (B3XM36), 527604012 (B3X4B0), 527604013 (B3X4B1) and 527604014 (B3X4B2) and the associated QC for one or more target analytes. The samples were re-analyzed on an instrument that passed CCV

acceptance criteria. The re-analyses confirmed the absence of the target analytes in the sample. The data are therefore reported from the original analyses only for all target analytes.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS and/or LCSD (See Below) did not meet spike recovery acceptance criteria. Since the target analytes were not detected in the associated samples above the reporting limits, the positive bias had no adverse impact on the data.

Sample	Analyte	Value
1204699212 (LCS)	2, 3, 4, 6-Tetrachlorophenol	120* (53%-118%)

Spike Recovery Statement
The MS or MSD (See Below) recovered spiked analytes outside of the established acceptance limits. Because the recoveries were biased high and the target analytes were not detected in the associated samples above the reporting limit, the data were reported.

Sample	Analyte	Value
1204699215 (B3XM06MS)	2, 3, 4, 6-Tetrachlorophenol	121* (37%-118%)
	Benzo(ghi)perylene	121* (31%-118%)
	Dibenzo(a, h)anthracene	128* (33%-122%)
	Indeno(1, 2, 3-cd)pyrene	125* (34%-121%)

Alcohols

Analysis of Alcohol by Flame Ionization Detector

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

GC Semivolatile Pesticide

Organochlorine Pesticides and Chlorinated Hydrocarbons

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification (CCV) Requirements
Calibration verification standards (ICV or CCV) requirements have not been met for samples in this batch in this SDG. One or more target analytes failed acceptance criteria with a positive bias in the standards bracketing the

samples in this SDG. These target analytes were not detected above the PQL in the associated environmental samples; therefore, the non-compliance had no adverse effect on the data.

Technical Information

Florisil
Florisil clean-up was not performed on client and quality control samples in this batch.

Miscellaneous Information

Manual Integrations
Sample 1204698024 (Non SDG 527731003MSD) required manual integration to correctly position the baseline as set in the calibration standard injections.

GC Semivolatile PCB

Analysis of The Analysis of Polychlorinated Biphenyls by GC/ECD by ECD

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation/Analytical Method Verification
All samples and QC in this batch were cleaned using alumina in order to remove oil and other high molecular weight interferences.

Metals

Determination of Metals by ICP

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Method Blank (MB) Statement
The samples in this SDG contained analytes at concentrations more than ten times the amount present in the method blank, therefore the data was not adversely affected.

Sample	Analyte	Value
1204696920 (MB)	Potassium	See applicable report

The samples in this SDG contained potassium at concentrations more than ten times the amount present in the method blank, therefore the data was not adversely affected. 527604005 (B3XMW6) and 527604006 (B3XMW4).

Laboratory Control Sample Duplicate (LCSD)
An LCSD was used in place of matrix QC due to limited sample volume.

Determination of Metals by ICP-MS

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Cyanide, Total

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following sample 527604007 (B3XLX9) was diluted because target analyte concentrations exceeded the calibration range.

Analyte	527604 007
Cyanide, Total	10X

Cyanide, Free

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Laboratory Control Sample Duplicate (LCSD)
An LCSD was used in place of matrix QC due to limited sample volume. 527604007 (B3XLX9).

Miscellaneous Information

Additional Comments
Total CN levels above the MDL for Free CN were detected in sample 527604007 (B3XLX9). Free CN was performed per SOP (GL-GC-E-073).

Cyanide, Free

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Ion Chromatography

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1204696576 (Non SDG 527596003DUP), 1204696577 (Non SDG 527596003PS), 527604001 (B3XLY0), 527604002 (B3XLY8), 527604003 (B3XLY9) and 527604004 (B3XMW5) were diluted because target analyte concentrations exceeded the calibration range.

Analyte	527604			
	001	**002**	**003**	**004**
Chloride	50X	50X	50X	50X
Nitrate	50X	50X	50X	50X
Sulfate	50X	50X	50X	50X

Miscellaneous Information

Manual Integrations
Samples 527604001 (B3XLY0), 527604002 (B3XLY8), 527604003 (B3XLY9) and 527604004 (B3XMW5) were manually integrated to correctly position the baseline as set in the calibration standards.

Alkalinity

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Chain of Custody and Supporting Documentation

SDG: GEL527604

GEL527604

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 527604	C.O.C. # W21-011-178 Page 1 of 1

Collector:	Jim Lochridge	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W21-011	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, November 2020	**Logbook No.:**	HNF-N-506 -115/91	**Ice Chest No.:**	GLOS-641
Shipped To (Lab):	GEL Laboratories, LLC	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	7720 9697 5971
Protocol:	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XLY0	N	W	NOV 16 2020	1224	1x60-mL G/P	9056_ANIONS_IC: COMMON	48 Hours	Cool <=6C

Dec 15 2020

Relinquished By			Received By		
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*
Jim Lochridge		NOV 16 2020 1300	Lesly Wall /CHPRC		NOV 16 2020 1300
Lesly Wall /CHPRC		NOV 16 2020 1400	FEDEX		
		FED EX	Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020

FSR ID = FSR100303

A-6004-842 (REV 4)

Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

527604

C.O.C. # W21-011-181

Page 1 of 1

Collector: Jim Lochridge	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W21-011	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071 PO.11/16/
Project Title: RCRA, November 2020	**Logbook No.:** HNF-N-506 -115191	**Ice Chest No.:** GLS-BZ 641
Shipped To (Lab): GEL Laboratories, LLC	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 7720 9697 5979
Protocol: RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XLY8	N	W	NOV 16 2020	1032	1x60-mL G/P	9056_ANIONS_IC: COMMON	48 Hours	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1135	Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1135
Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
		FED EX	Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020

FSR ID = FSR100304

A-6004-842 (REV 4)

GEL527604

Dec 15 2020

Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

527604

C.O.C. # W21-011-184

Page 1 of 1

Collector:	Jim Lochridge	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W21-011	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071
Project Title:	RCRA, November 2020	Logbook No.:	HNF-N-506 - 115191	Ice Chest No.:	GLOS-182641
Shipped To (Lab):	GEL Laboratories, LLC	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.:	7720 9697 5973
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XLY9	N	W	NOV 16 2020	1032	1x60-mL G/P	9056_ANIONS_IC: COMMON	48 Hours	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1135	Troy Bacon /CHPRC		NOV 16 2020 1135
Troy Bacon /CHPRC		NOV 16 2020 1400	FEDEX		
		FED EX	Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020

FSR ID = FSR100304

A-6004-842 (REV 4)

GEL527604

Dec 15 2020

Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

527604

C.O.C. # W21-011-193

Collector:	Jim Lochridge	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W21-011	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071 RO.11/16/20
Project Title:	RCRA, November 2020	Logbook No.:	HNF-N-506-115191	Ice Chest No.:	GWS-182-641
Shipped To (Lab):	GEL Laboratories, LLC	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.:	7720 9697 5979
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XMW5	N	W	NOV 16 2020	0834	1x60-mL G/P	9056_ANIONS_IC: COMMON	48 Hours	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1020	Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1020
Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
FED EX			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/6/2020

FSR ID = FSR99623

A-6004-842 (REV 4)

GEL527604
SDG: GEL527604
Dec 15 2020
Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

527604

C.O.C. # W21-011-191

Page 1 of 1

Collector:	Jim Lochridge	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W21-011	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071
Project Title:	RCRA, November 2020	Logbook No.:	HNF-N-506 -115191	Ice Chest No.:	GWS-140
Shipped To (Lab):	GEL Laboratories, LLC	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.:	7720949643833
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XMW6	Y	W	NOV 16 2020	0834	1x125-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	28 Days	HNO3 to pH <2
B3XMW4	N	W			1x125-mL G/P	2320_ALKALINITY: COMMON	14 Days	Cool <=6C
B3XMW4	N	W			1x125-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	28 Days	HNO3 to pH <2
B3XMW4	N	W			1x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C
B3XMW4	N	W	NOV 16 2020	0834	1x500-mL aG	9014_CN (FREE): COMMON; 9012_CYANIDE (TOTAL): COMMON	14 Days	NaOH to pH >=12 / Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1020	Troy Bacon /CHPRC	Troy L Bacon	NOV 16 2020 1020
Troy Bacon /CHPRC	Troy L Bacon	NOV 16 2020 1400	FEDEX		
FED EX			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/6/2020 FSR ID = FSR99623 A-6004-842 (REV 4)

Page 17 of 217
SDG: GEL527604
GEL527604
Dec 15 2020
Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

527604

C.O.C. # W21-011-176

Page 1 of 1

Collector:	Jim Lochridge	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W21-011	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071
Project Title:	RCRA, November 2020	Logbook No.:	HNF-N-506-115191	Ice Chest No.:	OWS 150
Shipped To (Lab):	GEL Laboratories, LLC	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.:	7720967771 9
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XLX9	N	W	NOV 16 2020	1224	1x125-mL G/P	2320_ALKALINITY: COMMON	14 Days	Cool <=6C
B3XLX9	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: GW 08; 8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3XLX9	N	W	↓	↓	1x500-mL aG	9014_CN (FREE): COMMON; 9012_CYANIDE (TOTAL): COMMON	14 Days	NaOH to pH >=12 / Cool <=6C
B3XLX9	N	W	NOV 16 2020	1224	2x40-mL Gs*	8015_VOA_GCMS: Methanol	14/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1300	Tim Callaway /CHPRC		NOV 16 2020 1300
Tim Callaway /CHPRC		NOV 16 2020 1400	FEDEX		
		FED EX	Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020

FSR ID = FSR100303

A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

527604

C.O.C. # W21-011-179

Page 1 of 1

Collector:	Jim Lochridge	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W21-011	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071
Project Title:	RCRA, November 2020	Logbook No.:	HNF-N-506-115191	Ice Chest No.:	GWS-140
Shipped To (Lab):	GEL Laboratories, LLC	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.:	7720 9496 4383
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XLY6	N	W	NOV 16 2020	1032	4x40-mL aGs*	8260_VOA_GCMS: GW 08; 8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3XLY6	N	W	NOV 16 2020	1032	1x500-mL aG	9014_CN (FREE): COMMON; 9012_CYANIDE (TOTAL): COMMON	14 Days	NaOH to pH >=12 / Cool <=6C
B3XLY6	N	W	NOV 16 2020	1032	2x40-mL Gs*	8015_VOA_GCMS: Methanol	14/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1135	Troy Bacon ICHPRC	Troy L Bacon	NOV 16 2020 1135
Troy Bacon ICHPRC	Troy L Bacon	NOV 16 2020 1400 FED EX	FEDEX		
			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020

FSR ID = FSR100304

A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 88165 527604	C.O.C. # W21-011-182 Page 1 of 1

Collector: Jim Lochridge	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W21-011	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: RCRA, November 2020	**Logbook No.:** HNF-N-506-115191	**Ice Chest No.:** GWS-140
Shipped To (Lab): GEL Laboratories, LLC	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 7720 9496 4383
Protocol: RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XLY7	N	W	NOV 16 2020	1032	4x40-mL aGs*	8260_VOA_GCMS: GW 08; 8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3XLY7	N	W	NOV 16 2020	1032	1x500-mL aG	9014_CN (FREE): COMMON; 9012_CYANIDE (TOTAL): COMMON	14 Days	NaOH to pH >=12 / Cool <=6C
B3XLY7	N	W	NOV 16 2020	1032	2x40-mL Gs*	8015_VOA_GCMS: Methanol	14/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1135	Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1135
Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
FED EX			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquids
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020 FSR ID = FSR100304 A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

5276604

C.O.C. # W21-011-214

Page 1 of 1

Collector: Jim Lochridge	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: W21-011	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA, November 2020	Logbook No.: HNF-N-506 -115191	Ice Chest No.: GWS-140
Shipped To (Lab): GEL Laboratories, LLC	Method of Shipment Commercial Carrier	Bill of Lading/Air Bill No.: 7720949643 83
Protocol: RCRA	Priority: 30 Days	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XM35	N	W	NOV 16 2020	0936	1x125-mL G/P	2320_ALKALINITY: COMMON	14 Days	Cool <=6C
B3XM35	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS: GW 08; 8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3XM35	N	W	↓	↓	1x500-mL aG	9014_CN (FREE): COMMON; 9012_CYANIDE (TOTAL): COMMON	14 Days	NaOH to pH >=12 / Cool <=6C
B3XM35	N	W	NOV 16 2020	0936	2x40-mL Gs*	8015_VOA_GCMS: Methanol	14/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1020	Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1020
Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
FED EX			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/6/2020 FSR ID = FSR99630 A-6004-842 (REV 4)

GEL527604
GEL527604
Dec 15 2020
Rev 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 527604	C.O.C. # W21-011-216 Page 1 of 1

Collector: Jim Lochridge	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W21-011	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: RCRA, November 2020	**Logbook No.:** HNF-N-506 -115191	**Ice Chest No.:** GLOS-140
Shipped To (Lab): GEL Laboratories, LLC	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 7720949643 83
Protocol: RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3XM36	N	W	NOV 16 2020	0936	1x1-L aG	8081_PEST_GC: CH 01; 8081_PEST_GC: COMMON	7/40 Days	Cool <=6C
B3XM36	N	W	NOV 16 2020	0936	1x1-L aG	8082_PCB_GC: COMMON	None	Cool <=6C
B3XM36	N	W	NOV 16 2020	0936	1x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge	Jim Lochridge	NOV 16 2020 1020	Troy Bacon /CHPRC	Troy L. Bacon	NOV 16 2020 1020
Troy Bacon /CHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
FED EX			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/6/2020 FSR ID = FSR99630 A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 527604	C.O.C. # W21-011-305 Page 1 of 1

Collector: Jim Lochridge	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W21-011	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: RCRA, November 2020	**Logbook No.:** HNF-N-506-115191	**Ice Chest No.:** GWS-150
Shipped To (Lab): GEL Laboratories, LLC	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 7720967717119
Protocol: RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y4B0	N	W	NOV 16 2020	1224	1x1-L aG	8081_PEST_GC: CH 01; 8081_PEST_GC: COMMON	7/40 Days	Cool <=6C
B3Y4B0	N	W	NOV 16 2020	1224	1x1-L aG	8082_PCB_GC: COMMON	None	Cool <=6C
B3Y4B0	N	W	NOV 16 2020	1224	1x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1300	Tim Callaway /CHPRC		NOV 16 2020 1300
Tim Callaway /CHPRC		NOV 16 2020 1400	FEDEX Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020 FSR ID = FSR100303 A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 527604	C.O.C. # W21-011-306 Page 1 of 1

Collector:	Jim Lochridge	Contact/Requester:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W21-011	Sampling Origin:	Hanford Site	Purchase Order/Charge Code:	300071
Project Title:	RCRA, November 2020	Logbook No.:	HNF-N-506 -115191	Ice Chest No.:	GWS-150
Shipped To (Lab):	GEL Laboratories, LLC	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.:	7720 9606 77 7119
Protocol:	RCRA	Priority:	30 Days	Offsite Property No.:	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y4B1	N	W	NOV 16 2020	1032	1x1-L aG	8081_PEST_GC: CH 01; 8081_PEST_GC: COMMON	7/40 Days	Cool <=6C
B3Y4B1	N	W	NOV 16 2020	1032	1x1-L aG	8082_PCB_GC: COMMON	None	Cool <=6C
B3Y4B1	N	W	NOV 16 2020	1032	1x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1135	Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1135
Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX Stacy Boone GEL Laboratories		NOV 17 2020 0000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020 FSR ID = FSR100304 A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

SDG: GEL527604

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 527604	C.O.C. # W21-011-307 Page 1 of 1

Collector: Jim Lochridge	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W21-011	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: RCRA, November 2020	**Logbook No.:** HNF-N-506 -115191	**Ice Chest No.:** GWS-150
Shipped To (Lab): GEL Laboratories, LLC	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 7720961777119
Protocol: RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y4B2	N	W	NOV 16 2020	1032	1x1-L aG	8081_PEST_GC: CH 01; 8081_PEST_GC: COMMON	7/40 Days	Cool <=6C
B3Y4B2	N	W	NOV 16 2020	1032	1x1-L aG	8082_PCB_GC: COMMON	None	Cool <=6C
B3Y4B2	N	W	NOV 16 2020	1032	1x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1135	Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1135
Troy Bacon ICHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/26/2020 FSR ID = FSR100304 A-6004-842 (REV 4)

GEL527604 Dec 15 2020 Rev 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 527604	C.O.C. # W21-011-310 Page 1 of 1

Collector: Jim Lochridge	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W21-011	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: RCRA, November 2020	**Logbook No.:** HNF-N-506-115191	**Ice Chest No.:** GW5-140
Shipped To (Lab): GEL Laboratories, LLC	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 7720949964383
Protocol: RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3Y4C1	N	W	NOV 16 2020	0834	4x40-mL aGs*	8260_VOA_GCMS: GW 08; 8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3Y4C1	N	W	NOV 16 2020	0834	2x40-mL Gs*	8015_VOA_GCMS: Methanol	14/40 Days	Cool <=6C

Relinquished By			Received By		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Jim Lochridge		NOV 16 2020 1020	Troy Bacon /CHPRC	Troy L. Bacon	NOV 16 2020 1020
Troy Bacon /CHPRC	Troy L. Bacon	NOV 16 2020 1400	FEDEX		
			Stacy Boone GEL Laboratories		NOV 17 2020 1000

Matrix *

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 10/6/2020 FSR ID = FSR99623 A-6004-842 (REV 4)

GEL 527604
Dec 15 2020
Rev 0

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: CPRC	**SDG/AR/COC/Work Order:** 527604
Received By: Stacy L Bowns	**Date Received:** 17-Nov-20
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 7720 9697 5979 1c 7720 9677 7119 1c 7720 9496 4383 1c

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?	✓		COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	✓		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP:_____
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR1-20 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH? SB	X		✓	Sample ID's and Containers Affected: B3XPP4 If Preservation added, Lot#: 200916
7	Do any samples require Volatile Analysis?	✓			If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials CD Date 11/18/20 Page 1 of 1

GL-CHL-SR-001 Rev 7

Data Review Qualifier Definitions

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 (843) 556−8171

Report Date: 10−DEC−20

Project Specific Qualifier Definitions for GEL Client Code: CPRC

Qualifier	Qualifier Definition	Department	Fraction
U	Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.		
J	The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated	Organics	
P	Aroclor target analyte with greater than 25% difference between column analyses.	Organics	
C	Analyte has been confirmed by GC/MS analysis	Organics	Pesticide
B	The analyte was detected in both the associated QC blank and in the sample.	Organics	
E	Concentration exceeds the calibration range of the instrument	Organics	
A	The TIC is a suspected aldol−condensation product	Organics	Semi−Volatile
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier		
N	Spike Sample recovery is outside control limits.		
*	Duplicate analysis not within control limits	Inorganics	
>	Result greater than quantifiable range or greater than upper limit of the analysis range	General Chemistry	
Z	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier		
B	The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).	Inorganics	Metals
D	Results are reported from a diluted aliquot of sample.		
E	Reported value is estimated due to interferences. See comment in narrative.		
M	Duplicate precision not met.	Inorganics	Metals
o	Analyte failed to recover within LCS limits (0rganics only)	Organics	
S	Reported value determined by the Method of Standard Additions (MSA)	Inorganics	
T	Spike and/or spike duplicate sample recovery is outside control limits.	Organics	
W	Post−digestion spike recovery for GFAA out of control limit. Sample absorbency < 50% of spike absorbency.	Inorganics	
B	The analyte was detected in the associated method blank >/= MDC or >5% sample activity.	Radiological	
Y	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier		
+	Correlation coefficient for Method of Standard Additions (MSA) is < 0.995	Inorganics	
B	The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).	General Chemistry	
C	Target analyte was detected in the sample and the associated blank. The associated blank concentration is >= EQL or is > 5% of the measured concentration and/or decision level for associated samples.	Inorganics	Metals
C	Target analyte was detected in the sample and the associated blank. The associated blank concentration is >= EQL or is > 5% of the measured concentration and/or decision level for associated samples.	General Chemistry	
<	Sample is below the EPA guidance level for Reactive Releasable Cyanide and/or Reactive Releasable Sulfide	General Chemistry	
UX	Gamma Spectroscopy−−Uncertain identification	Radiological	
o	Analyte failed to recover within LCS limits	Radiological	Rad

Laboratory Certifications

List of current GEL Certifications as of 10 December 2020

State	Certification
Alabama	42200
Alaska	17−018
Alaska Drinking Water	SC00012
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M−SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122021−1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	2019−165
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−20−17
Utah NELAP	SC000122020−33
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Volatile Analysis

Case Narrative

GC/MS Volatile
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Preparation Method: SW846 8260D
Preparation Procedure: GL-OA-E-038 REV# 28
Preparation Batch: 2067535

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604007	B3XLX9
527604008	B3XLY6
527604009	B3XLY7
527604010	B3XM35
527604015	B3X4C1
1204704452	Method Blank (MB)
1204704453	Method Blank (MB)
1204704454	Laboratory Control Sample (LCS)
1204704455	Laboratory Control Sample (LCS)
1204704456	527604007(B3XLX9) Post Spike (PS)
1204704457	527604007(B3XLX9) Post Spike Duplicate (PSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification Requirements
All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8260D for samples and the associated QC . However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8260D outlier acceptance criteria. The results are reported.

Technical Information

Sample Dilutions/Methanol Dilutions
Sample 527604015 (B3X4C1) in this SDG was analyzed at a dilution. There were positive results for target analytes within the middle to upper range of the calibration curve.

Analyte	527604 015
Several	2.5X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

D Results are reported from a diluted aliquot of sample.
E Concentration exceeds the calibration range of the instrument
J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated
U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 10 DEC 2020 **Title: Data Validator**

Sample Data Summary

Volatile

Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604007**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLX9**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/27/2020 22:46**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/27/2020 22:46**				
Data File:	**112720V3\3X512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
75-71-8	Dichlorodifluoromethane	U	0.355	ug/L	0.355	1.00	10.0
74-87-3	Chloromethane	U	0.333	ug/L	0.333	1.00	10.0
75-01-4	Vinyl chloride	U	0.333	ug/L	0.333	1.00	10.0
74-83-9	Bromomethane	U	0.337	ug/L	0.337	1.00	10.0
75-00-3	Chloroethane	U	0.333	ug/L	0.333	1.00	10.0
75-69-4	Trichlorofluoromethane	U	0.333	ug/L	0.333	1.00	10.0
60-29-7	Ethyl ether	U	0.333	ug/L	0.333	1.00	
67-64-1	Acetone	U	1.74	ug/L	1.74	5.00	20.0
75-35-4	1,1-Dichloroethylene	U	0.333	ug/L	0.333	1.00	10.0
74-88-4	Iodomethane	U	1.67	ug/L	1.67	5.00	10.0
75-05-8	Acetonitrile	U	8.33	ug/L	8.33	25.0	100
75-15-0	Carbon disulfide	U	1.67	ug/L	1.67	5.00	5.00
75-09-2	Methylene chloride	U	1.67	ug/L	1.67	5.00	5.00
156-60-5	trans-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
108-05-4	Vinyl acetate	U	1.67	ug/L	1.67	5.00	50.0
75-34-3	1,1-Dichloroethane	U	0.333	ug/L	0.333	1.00	10.0
78-93-3	2-Butanone	U	1.67	ug/L	1.67	5.00	10.0
156-59-2	cis-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
67-66-3	Chloroform	J	1.50	ug/L	0.333	1.00	5.00
71-55-6	1,1,1-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
56-23-5	Carbon tetrachloride		90.9	ug/L	0.333	1.00	3.00
107-06-2	1,2-Dichloroethane	U	0.333	ug/L	0.333	1.00	5.00
71-43-2	Benzene	U	0.333	ug/L	0.333	1.00	5.00
71-36-3	n-Butyl alcohol	U	21.1	ug/L	21.1	50.0	
79-01-6	Trichloroethylene	J	0.560	ug/L	0.333	1.00	5.00
78-87-5	1,2-Dichloropropane	U	0.333	ug/L	0.333	1.00	5.00
74-95-3	Dibromomethane	U	0.333	ug/L	0.333	1.00	10.0
75-27-4	Bromodichloromethane	U	0.333	ug/L	0.333	1.00	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
108-10-1	4-Methyl-2-pentanone	U	1.67	ug/L	1.67	5.00	10.0
108-88-3	Toluene	U	0.333	ug/L	0.333	1.00	5.00
10061-02-6	trans-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
79-00-5	1,1,2-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
591-78-6	2-Hexanone	U	1.67	ug/L	1.67	5.00	20.0
127-18-4	Tetrachloroethylene	J	0.370	ug/L	0.333	1.00	5.00
124-48-1	Dibromochloromethane	U	0.333	ug/L	0.333	1.00	5.00
106-93-4	1,2-Dibromoethane	U	0.333	ug/L	0.333	1.00	5.00
108-90-7	Chlorobenzene	U	0.333	ug/L	0.333	1.00	5.00

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604007**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLX9**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/27/2020 22:46**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/27/2020 22:46**				
Data File:	**112720V3\3X512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
100-41-4	Ethylbenzene	U	0.333	ug/L	0.333	1.00	4.00
100-42-5	Styrene	U	0.333	ug/L	0.333	1.00	5.00
75-25-2	Bromoform	U	0.333	ug/L	0.333	1.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	5.00
96-18-4	1,2,3-Trichloropropane	U	0.333	ug/L	0.333	1.00	5.00
106-46-7	1,4-Dichlorobenzene	U	0.333	ug/L	0.333	1.00	4.00
96-12-8	1,2-Dibromo-3-chloropropane	U	0.333	ug/L	0.333	1.00	5.00
107-02-8	Acrolein	U	1.67	ug/L	1.67	5.00	100
76-13-1	Trichlorotrifluoroethane	U	2.98	ug/L	2.98	5.00	
107-05-1	Allyl chloride	U	1.67	ug/L	1.67	5.00	10.0
107-13-1	Acrylonitrile	U	1.67	ug/L	1.67	5.00	100
126-99-8	2-Chloro-1,3-butadiene	U	0.333	ug/L	0.333	1.00	10.0
141-78-6	Ethyl acetate	U	1.67	ug/L	1.67	5.00	
107-12-0	Propionitrile	U	1.67	ug/L	1.67	5.00	10.0
126-98-7	Methacrylonitrile	U	1.67	ug/L	1.67	5.00	10.0
109-99-9	Tetrahydrofuran	U	1.67	ug/L	1.67	5.00	
78-83-1	Isobutyl alcohol	U	16.7	ug/L	16.7	50.0	500
80-62-6	Methyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
97-63-2	Ethyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
110-57-6	trans-1,4-Dichloro-2-butene	U	1.67	ug/L	1.67	5.00	50.0
540-59-0	1,2-Dichloroethylene (total)	U	0.667	ug/L	0.667	2.00	
1330-20-7	Xylenes (total)	U	1.00	ug/L	1.00	3.00	10.0
630-20-6	1,1,1,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	1.7

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604008**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLY6**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/30/2020 22:48**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/30/2020 22:48**				
Data File:	**113020V3\3Y110.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
75-71-8	Dichlorodifluoromethane	U	0.355	ug/L	0.355	1.00	10.0
74-87-3	Chloromethane	U	0.333	ug/L	0.333	1.00	10.0
75-01-4	Vinyl chloride	U	0.333	ug/L	0.333	1.00	10.0
74-83-9	Bromomethane	U	0.337	ug/L	0.337	1.00	10.0
75-00-3	Chloroethane	U	0.333	ug/L	0.333	1.00	10.0
75-69-4	Trichlorofluoromethane	U	0.333	ug/L	0.333	1.00	10.0
60-29-7	Ethyl ether	U	0.333	ug/L	0.333	1.00	
67-64-1	Acetone	U	1.74	ug/L	1.74	5.00	20.0
75-35-4	1,1-Dichloroethylene	U	0.333	ug/L	0.333	1.00	10.0
74-88-4	Iodomethane	U	1.67	ug/L	1.67	5.00	10.0
75-05-8	Acetonitrile	U	8.33	ug/L	8.33	25.0	100
75-15-0	Carbon disulfide	U	1.67	ug/L	1.67	5.00	5.00
75-09-2	Methylene chloride	U	1.67	ug/L	1.67	5.00	5.00
156-60-5	trans-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
108-05-4	Vinyl acetate	U	1.67	ug/L	1.67	5.00	50.0
75-34-3	1,1-Dichloroethane	U	0.333	ug/L	0.333	1.00	10.0
78-93-3	2-Butanone	U	1.67	ug/L	1.67	5.00	10.0
156-59-2	cis-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
67-66-3	Chloroform	J	4.17	ug/L	0.333	1.00	5.00
71-55-6	1,1,1-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
56-23-5	Carbon tetrachloride		64.5	ug/L	0.333	1.00	3.00
107-06-2	1,2-Dichloroethane	U	0.333	ug/L	0.333	1.00	5.00
71-43-2	Benzene	U	0.333	ug/L	0.333	1.00	5.00
71-36-3	n-Butyl alcohol	U	21.1	ug/L	21.1	50.0	
79-01-6	Trichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
78-87-5	1,2-Dichloropropane	U	0.333	ug/L	0.333	1.00	5.00
74-95-3	Dibromomethane	U	0.333	ug/L	0.333	1.00	10.0
75-27-4	Bromodichloromethane	U	0.333	ug/L	0.333	1.00	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
108-10-1	4-Methyl-2-pentanone	U	1.67	ug/L	1.67	5.00	10.0
108-88-3	Toluene	U	0.333	ug/L	0.333	1.00	5.00
10061-02-6	trans-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
79-00-5	1,1,2-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
591-78-6	2-Hexanone	U	1.67	ug/L	1.67	5.00	20.0
127-18-4	Tetrachloroethylene	J	0.370	ug/L	0.333	1.00	5.00
124-48-1	Dibromochloromethane	U	0.333	ug/L	0.333	1.00	5.00
106-93-4	1,2-Dibromoethane	U	0.333	ug/L	0.333	1.00	5.00
108-90-7	Chlorobenzene	U	0.333	ug/L	0.333	1.00	5.00

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604008**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLY6**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/30/2020 22:48**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/30/2020 22:48**				
Data File:	**113020V3\3Y110.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
100-41-4	Ethylbenzene	U	0.333	ug/L	0.333	1.00	4.00
100-42-5	Styrene	U	0.333	ug/L	0.333	1.00	5.00
75-25-2	Bromoform	U	0.333	ug/L	0.333	1.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	5.00
96-18-4	1,2,3-Trichloropropane	U	0.333	ug/L	0.333	1.00	5.00
106-46-7	1,4-Dichlorobenzene	U	0.333	ug/L	0.333	1.00	4.00
96-12-8	1,2-Dibromo-3-chloropropane	U	0.333	ug/L	0.333	1.00	5.00
107-02-8	Acrolein	U	1.67	ug/L	1.67	5.00	100
76-13-1	Trichlorotrifluoroethane	U	2.98	ug/L	2.98	5.00	
107-05-1	Allyl chloride	U	1.67	ug/L	1.67	5.00	10.0
107-13-1	Acrylonitrile	U	1.67	ug/L	1.67	5.00	100
126-99-8	2-Chloro-1,3-butadiene	U	0.333	ug/L	0.333	1.00	10.0
141-78-6	Ethyl acetate	U	1.67	ug/L	1.67	5.00	
107-12-0	Propionitrile	U	1.67	ug/L	1.67	5.00	10.0
126-98-7	Methacrylonitrile	U	1.67	ug/L	1.67	5.00	10.0
109-99-9	Tetrahydrofuran	U	1.67	ug/L	1.67	5.00	
78-83-1	Isobutyl alcohol	U	16.7	ug/L	16.7	50.0	500
80-62-6	Methyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
97-63-2	Ethyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
110-57-6	trans-1,4-Dichloro-2-butene	U	1.67	ug/L	1.67	5.00	50.0
540-59-0	1,2-Dichloroethylene (total)	U	0.667	ug/L	0.667	2.00	
1330-20-7	Xylenes (total)	U	1.00	ug/L	1.00	3.00	10.0
630-20-6	1,1,1,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	1.7

Volatile

Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604009**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLY7**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/27/2020 23:40**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/27/2020 23:40**				
Data File:	**112720V3\3X514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
75-71-8	Dichlorodifluoromethane	U	0.355	ug/L	0.355	1.00	10.0
74-87-3	Chloromethane	U	0.333	ug/L	0.333	1.00	10.0
75-01-4	Vinyl chloride	U	0.333	ug/L	0.333	1.00	10.0
74-83-9	Bromomethane	U	0.337	ug/L	0.337	1.00	10.0
75-00-3	Chloroethane	U	0.333	ug/L	0.333	1.00	10.0
75-69-4	Trichlorofluoromethane	U	0.333	ug/L	0.333	1.00	10.0
60-29-7	Ethyl ether	U	0.333	ug/L	0.333	1.00	
67-64-1	Acetone	U	1.74	ug/L	1.74	5.00	20.0
75-35-4	1,1-Dichloroethylene	U	0.333	ug/L	0.333	1.00	10.0
74-88-4	Iodomethane	U	1.67	ug/L	1.67	5.00	10.0
75-05-8	Acetonitrile	U	8.33	ug/L	8.33	25.0	100
75-15-0	Carbon disulfide	U	1.67	ug/L	1.67	5.00	5.00
75-09-2	Methylene chloride	U	1.67	ug/L	1.67	5.00	5.00
156-60-5	trans-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
108-05-4	Vinyl acetate	U	1.67	ug/L	1.67	5.00	50.0
75-34-3	1,1-Dichloroethane	U	0.333	ug/L	0.333	1.00	10.0
78-93-3	2-Butanone	U	1.67	ug/L	1.67	5.00	10.0
156-59-2	cis-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
67-66-3	Chloroform	J	4.03	ug/L	0.333	1.00	5.00
71-55-6	1,1,1-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
56-23-5	Carbon tetrachloride		59.0	ug/L	0.333	1.00	3.00
107-06-2	1,2-Dichloroethane	U	0.333	ug/L	0.333	1.00	5.00
71-43-2	Benzene	U	0.333	ug/L	0.333	1.00	5.00
71-36-3	n-Butyl alcohol	U	21.1	ug/L	21.1	50.0	
79-01-6	Trichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
78-87-5	1,2-Dichloropropane	U	0.333	ug/L	0.333	1.00	5.00
74-95-3	Dibromomethane	U	0.333	ug/L	0.333	1.00	10.0
75-27-4	Bromodichloromethane	U	0.333	ug/L	0.333	1.00	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
108-10-1	4-Methyl-2-pentanone	U	1.67	ug/L	1.67	5.00	10.0
108-88-3	Toluene	U	0.333	ug/L	0.333	1.00	5.00
10061-02-6	trans-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
79-00-5	1,1,2-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
591-78-6	2-Hexanone	U	1.67	ug/L	1.67	5.00	20.0
127-18-4	Tetrachloroethylene	U	0.333	ug/L	0.333	1.00	5.00
124-48-1	Dibromochloromethane	U	0.333	ug/L	0.333	1.00	5.00
106-93-4	1,2-Dibromoethane	U	0.333	ug/L	0.333	1.00	5.00
108-90-7	Chlorobenzene	U	0.333	ug/L	0.333	1.00	5.00

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604009**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLY7**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/27/2020 23:40**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/27/2020 23:40**				
Data File:	**112720V3\3X514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
100-41-4	Ethylbenzene	U	0.333	ug/L	0.333	1.00	4.00
100-42-5	Styrene	U	0.333	ug/L	0.333	1.00	5.00
75-25-2	Bromoform	U	0.333	ug/L	0.333	1.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	5.00
96-18-4	1,2,3-Trichloropropane	U	0.333	ug/L	0.333	1.00	5.00
106-46-7	1,4-Dichlorobenzene	U	0.333	ug/L	0.333	1.00	4.00
96-12-8	1,2-Dibromo-3-chloropropane	U	0.333	ug/L	0.333	1.00	5.00
107-02-8	Acrolein	U	1.67	ug/L	1.67	5.00	100
76-13-1	Trichlorotrifluoroethane	U	2.98	ug/L	2.98	5.00	
107-05-1	Allyl chloride	U	1.67	ug/L	1.67	5.00	10.0
107-13-1	Acrylonitrile	U	1.67	ug/L	1.67	5.00	100
126-99-8	2-Chloro-1,3-butadiene	U	0.333	ug/L	0.333	1.00	10.0
141-78-6	Ethyl acetate	U	1.67	ug/L	1.67	5.00	
107-12-0	Propionitrile	U	1.67	ug/L	1.67	5.00	10.0
126-98-7	Methacrylonitrile	U	1.67	ug/L	1.67	5.00	10.0
109-99-9	Tetrahydrofuran	U	1.67	ug/L	1.67	5.00	
78-83-1	Isobutyl alcohol	U	16.7	ug/L	16.7	50.0	500
80-62-6	Methyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
97-63-2	Ethyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
110-57-6	trans-1,4-Dichloro-2-butene	U	1.67	ug/L	1.67	5.00	50.0
540-59-0	1,2-Dichloroethylene (total)	U	0.667	ug/L	0.667	2.00	
1330-20-7	Xylenes (total)	U	1.00	ug/L	1.00	3.00	10.0
630-20-6	1,1,1,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	1.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604010**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM35**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/28/2020 00:06**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/28/2020 00:06**				
Data File:	**112720V3\3X515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
75-71-8	Dichlorodifluoromethane	U	0.355	ug/L	0.355	1.00	10.0
74-87-3	Chloromethane	U	0.333	ug/L	0.333	1.00	10.0
75-01-4	Vinyl chloride	U	0.333	ug/L	0.333	1.00	10.0
74-83-9	Bromomethane	U	0.337	ug/L	0.337	1.00	10.0
75-00-3	Chloroethane	U	0.333	ug/L	0.333	1.00	10.0
75-69-4	Trichlorofluoromethane	U	0.333	ug/L	0.333	1.00	10.0
60-29-7	Ethyl ether	U	0.333	ug/L	0.333	1.00	
67-64-1	Acetone	U	1.74	ug/L	1.74	5.00	20.0
75-35-4	1,1-Dichloroethylene	U	0.333	ug/L	0.333	1.00	10.0
74-88-4	Iodomethane	U	1.67	ug/L	1.67	5.00	10.0
75-05-8	Acetonitrile	U	8.33	ug/L	8.33	25.0	100
75-15-0	Carbon disulfide	U	1.67	ug/L	1.67	5.00	5.00
75-09-2	Methylene chloride	U	1.67	ug/L	1.67	5.00	5.00
156-60-5	trans-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
108-05-4	Vinyl acetate	U	1.67	ug/L	1.67	5.00	50.0
75-34-3	1,1-Dichloroethane	U	0.333	ug/L	0.333	1.00	10.0
78-93-3	2-Butanone	U	1.67	ug/L	1.67	5.00	10.0
156-59-2	cis-1,2-Dichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
67-66-3	Chloroform	J	0.970	ug/L	0.333	1.00	5.00
71-55-6	1,1,1-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
56-23-5	Carbon tetrachloride		41.3	ug/L	0.333	1.00	3.00
107-06-2	1,2-Dichloroethane	U	0.333	ug/L	0.333	1.00	5.00
71-43-2	Benzene	U	0.333	ug/L	0.333	1.00	5.00
71-36-3	n-Butyl alcohol	U	21.1	ug/L	21.1	50.0	
79-01-6	Trichloroethylene	U	0.333	ug/L	0.333	1.00	5.00
78-87-5	1,2-Dichloropropane	U	0.333	ug/L	0.333	1.00	5.00
74-95-3	Dibromomethane	U	0.333	ug/L	0.333	1.00	10.0
75-27-4	Bromodichloromethane	U	0.333	ug/L	0.333	1.00	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
108-10-1	4-Methyl-2-pentanone	U	1.67	ug/L	1.67	5.00	10.0
108-88-3	Toluene	U	0.333	ug/L	0.333	1.00	5.00
10061-02-6	trans-1,3-Dichloropropylene	U	0.333	ug/L	0.333	1.00	5.00
79-00-5	1,1,2-Trichloroethane	U	0.333	ug/L	0.333	1.00	5.00
591-78-6	2-Hexanone	U	1.67	ug/L	1.67	5.00	20.0
127-18-4	Tetrachloroethylene	U	0.333	ug/L	0.333	1.00	5.00
124-48-1	Dibromochloromethane	U	0.333	ug/L	0.333	1.00	5.00
106-93-4	1,2-Dibromoethane	U	0.333	ug/L	0.333	1.00	5.00
108-90-7	Chlorobenzene	U	0.333	ug/L	0.333	1.00	5.00

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604010**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM35**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**11/28/2020 00:06**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/28/2020 00:06**				
Data File:	**112720V3\3X515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
100-41-4	Ethylbenzene	U	0.333	ug/L	0.333	1.00	4.00
100-42-5	Styrene	U	0.333	ug/L	0.333	1.00	5.00
75-25-2	Bromoform	U	0.333	ug/L	0.333	1.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	5.00
96-18-4	1,2,3-Trichloropropane	U	0.333	ug/L	0.333	1.00	5.00
106-46-7	1,4-Dichlorobenzene	U	0.333	ug/L	0.333	1.00	4.00
96-12-8	1,2-Dibromo-3-chloropropane	U	0.333	ug/L	0.333	1.00	5.00
107-02-8	Acrolein	U	1.67	ug/L	1.67	5.00	100
76-13-1	Trichlorotrifluoroethane	U	2.98	ug/L	2.98	5.00	
107-05-1	Allyl chloride	U	1.67	ug/L	1.67	5.00	10.0
107-13-1	Acrylonitrile	U	1.67	ug/L	1.67	5.00	100
126-99-8	2-Chloro-1,3-butadiene	U	0.333	ug/L	0.333	1.00	10.0
141-78-6	Ethyl acetate	U	1.67	ug/L	1.67	5.00	
107-12-0	Propionitrile	U	1.67	ug/L	1.67	5.00	10.0
126-98-7	Methacrylonitrile	U	1.67	ug/L	1.67	5.00	10.0
109-99-9	Tetrahydrofuran	U	1.67	ug/L	1.67	5.00	
78-83-1	Isobutyl alcohol	U	16.7	ug/L	16.7	50.0	500
80-62-6	Methyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
97-63-2	Ethyl methacrylate	U	1.67	ug/L	1.67	5.00	10.0
110-57-6	trans-1,4-Dichloro-2-butene	U	1.67	ug/L	1.67	5.00	50.0
540-59-0	1,2-Dichloroethylene (total)	U	0.667	ug/L	0.667	2.00	
1330-20-7	Xylenes (total)	U	1.00	ug/L	1.00	3.00	10.0
630-20-6	1,1,1,2-Tetrachloroethane	U	0.333	ug/L	0.333	1.00	1.7

Volatile

Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604015**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4C1**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**2.5**
Run Date:	**11/30/2020 23:15**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/30/2020 23:15**				
Data File:	**113020V3\3Y111.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
75-71-8	Dichlorodifluoromethane	DU	0.888	ug/L	0.888	2.50	10.0
74-87-3	Chloromethane	DU	0.833	ug/L	0.833	2.50	10.0
75-01-4	Vinyl chloride	DU	0.833	ug/L	0.833	2.50	10.0
74-83-9	Bromomethane	DU	0.843	ug/L	0.843	2.50	10.0
75-00-3	Chloroethane	DU	0.833	ug/L	0.833	2.50	10.0
75-69-4	Trichlorofluoromethane	DU	0.833	ug/L	0.833	2.50	10.0
60-29-7	Ethyl ether	DU	0.833	ug/L	0.833	2.50	
67-64-1	Acetone	DU	4.36	ug/L	4.36	12.5	20.0
75-35-4	1,1-Dichloroethylene	DU	0.833	ug/L	0.833	2.50	10.0
74-88-4	Iodomethane	DU	4.17	ug/L	4.17	12.5	10.0
75-05-8	Acetonitrile	DU	20.8	ug/L	20.8	62.5	100
75-15-0	Carbon disulfide	DU	4.17	ug/L	4.17	12.5	5.00
75-09-2	Methylene chloride	DU	4.17	ug/L	4.17	12.5	5.00
156-60-5	trans-1,2-Dichloroethylene	DU	0.833	ug/L	0.833	2.50	5.00
108-05-4	Vinyl acetate	DU	4.17	ug/L	4.17	12.5	50.0
75-34-3	1,1-Dichloroethane	DU	0.833	ug/L	0.833	2.50	10.0
78-93-3	2-Butanone	DU	4.17	ug/L	4.17	12.5	10.0
156-59-2	cis-1,2-Dichloroethylene	DU	0.833	ug/L	0.833	2.50	5.00
67-66-3	Chloroform	DJ	2.15	ug/L	0.833	2.50	5.00
71-55-6	1,1,1-Trichloroethane	DU	0.833	ug/L	0.833	2.50	5.00
56-23-5	Carbon tetrachloride	D	162	ug/L	0.833	2.50	3.00
107-06-2	1,2-Dichloroethane	DU	0.833	ug/L	0.833	2.50	5.00
71-43-2	Benzene	DU	0.833	ug/L	0.833	2.50	5.00
71-36-3	n-Butyl alcohol	DU	52.8	ug/L	52.8	125	
79-01-6	Trichloroethylene	DU	0.833	ug/L	0.833	2.50	5.00
78-87-5	1,2-Dichloropropane	DU	0.833	ug/L	0.833	2.50	5.00
74-95-3	Dibromomethane	DU	0.833	ug/L	0.833	2.50	10.0
75-27-4	Bromodichloromethane	DU	0.833	ug/L	0.833	2.50	5.00
10061-01-5	cis-1,3-Dichloropropylene	DU	0.833	ug/L	0.833	2.50	5.00
108-10-1	4-Methyl-2-pentanone	DU	4.17	ug/L	4.17	12.5	10.0
108-88-3	Toluene	DU	0.833	ug/L	0.833	2.50	5.00
10061-02-6	trans-1,3-Dichloropropylene	DU	0.833	ug/L	0.833	2.50	5.00
79-00-5	1,1,2-Trichloroethane	DU	0.833	ug/L	0.833	2.50	5.00
591-78-6	2-Hexanone	DU	4.17	ug/L	4.17	12.5	20.0
127-18-4	Tetrachloroethylene	DU	0.833	ug/L	0.833	2.50	5.00
124-48-1	Dibromochloromethane	DU	0.833	ug/L	0.833	2.50	5.00
106-93-4	1,2-Dibromoethane	DU	0.833	ug/L	0.833	2.50	5.00
108-90-7	Chlorobenzene	DU	0.833	ug/L	0.833	2.50	5.00

Volatile

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604015**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4C1**	**Method:**	**SW846 8260D**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**2067535**	**Inst:**	**VOA3.I**	**Dilution:**	**2.5**
Run Date:	**11/30/2020 23:15**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**11/30/2020 23:15**				
Data File:	**113020V3\3Y111.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
100-41-4	Ethylbenzene	DU	0.833	ug/L	0.833	2.50	4.00
100-42-5	Styrene	DU	0.833	ug/L	0.833	2.50	5.00
75-25-2	Bromoform	DU	0.833	ug/L	0.833	2.50	5.00
79-34-5	1,1,2,2-Tetrachloroethane	DU	0.833	ug/L	0.833	2.50	5.00
96-18-4	1,2,3-Trichloropropane	DU	0.833	ug/L	0.833	2.50	5.00
106-46-7	1,4-Dichlorobenzene	DU	0.833	ug/L	0.833	2.50	4.00
96-12-8	1,2-Dibromo-3-chloropropane	DU	0.833	ug/L	0.833	2.50	5.00
107-02-8	Acrolein	DU	4.17	ug/L	4.17	12.5	100
76-13-1	Trichlorotrifluoroethane	DU	7.45	ug/L	7.45	12.5	
107-05-1	Allyl chloride	DU	4.17	ug/L	4.17	12.5	10.0
107-13-1	Acrylonitrile	DU	4.17	ug/L	4.17	12.5	100
126-99-8	2-Chloro-1,3-butadiene	DU	0.833	ug/L	0.833	2.50	10.0
141-78-6	Ethyl acetate	DU	4.17	ug/L	4.17	12.5	
107-12-0	Propionitrile	DU	4.17	ug/L	4.17	12.5	10.0
126-98-7	Methacrylonitrile	DU	4.17	ug/L	4.17	12.5	10.0
109-99-9	Tetrahydrofuran	DU	4.17	ug/L	4.17	12.5	
78-83-1	Isobutyl alcohol	DU	41.7	ug/L	41.7	125	500
80-62-6	Methyl methacrylate	DU	4.17	ug/L	4.17	12.5	10.0
97-63-2	Ethyl methacrylate	DU	4.17	ug/L	4.17	12.5	10.0
110-57-6	trans-1,4-Dichloro-2-butene	DU	4.17	ug/L	4.17	12.5	50.0
540-59-0	1,2-Dichloroethylene (total)	DU	1.67	ug/L	1.67	5.00	
1330-20-7	Xylenes (total)	DU	2.50	ug/L	2.50	7.50	10.0
630-20-6	1,1,1,2-Tetrachloroethane	DU	0.833	ug/L	0.833	2.50	1.7

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 10, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: Mr. Scot Fitzgerald

Workorder: 527604

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
QC1204704454 LCS										
1,1,1,2-Tetrachloroethane	50.0			48.3	ug/L		97	(80%-129%)	JP1	11/27/20 18:45
1,1,1-Trichloroethane	50.0			56.1	ug/L		112	(72%-140%)		
1,1,2,2-Tetrachloroethane	50.0			46.1	ug/L		92	(69%-126%)		
1,1,2-Trichloroethane	50.0			46.8	ug/L		94	(74%-120%)		
1,1-Dichloroethane	50.0			52.2	ug/L		104	(76%-123%)		
1,1-Dichloroethylene	50.0			52.9	ug/L		106	(73%-131%)		
1,2,3-Trichloropropane	50.0			46.0	ug/L		92	(72%-126%)		
1,2-Dibromo-3-chloropropane	50.0			58.2	ug/L		116	(64%-135%)		
1,2-Dibromoethane	50.0			48.5	ug/L		97	(78%-125%)		
1,2-Dichloroethane	50.0			44.6	ug/L		89	(72%-127%)		
1,2-Dichloroethylene (total)	100			102	ug/L		102	(72%-129%)		
1,2-Dichloropropane	50.0			48.5	ug/L		97	(73%-122%)		
1,4-Dichlorobenzene	50.0			44.7	ug/L		89	(76%-120%)		

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
2-Butanone	250			251	ug/L		100	(55%-141%)	JP1	11/27/20	18:45
2-Hexanone	250			252	ug/L		101	(49%-158%)			
4-Methyl-2-pentanone	250			245	ug/L		98	(64%-128%)			
Acetone	250			246	ug/L		98	(43%-164%)			
Acetonitrile	1250			1160	ug/L		93	(55%-127%)			
Benzene	50.0			49.3	ug/L		99	(73%-120%)			
Bromodichloromethane	50.0			53.4	ug/L		107	(78%-135%)			
Bromoform	50.0			47.0	ug/L		94	(68%-131%)			
Bromomethane	50.0			45.2	ug/L		90	(67%-133%)			
Carbon disulfide	250			284	ug/L		114	(65%-132%)			
Carbon tetrachloride	50.0			56.9	ug/L		114	(74%-145%)			
Chlorobenzene	50.0			46.3	ug/L		93	(76%-120%)			
Chloroethane	50.0			44.1	ug/L		88	(74%-125%)			
Chloroform	50.0			50.3	ug/L		101	(76%-126%)			
Chloromethane	50.0			43.4	ug/L		87	(62%-131%)			

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
Dibromochloromethane	50.0			55.6	ug/L		111	(76%-132%)	JP1	11/27/20 18:45
Dibromomethane	50.0			47.5	ug/L		95	(75%-123%)		
Dichlorodifluoromethane	50.0			48.2	ug/L		96	(55%-151%)		
Ethyl ether	50.0			48.8	ug/L		98	(74%-123%)		
Ethylbenzene	50.0			47.5	ug/L		95	(76%-123%)		
Iodomethane	250			260	ug/L		104	(69%-127%)		
Methylene chloride	50.0			41.8	ug/L		84	(68%-123%)		
Styrene	50.0			49.6	ug/L		99	(72%-130%)		
Tetrachloroethylene	50.0			50.6	ug/L		101	(72%-124%)		
Toluene	50.0			47.4	ug/L		95	(74%-120%)		
Trichloroethylene	50.0			49.7	ug/L		99	(74%-125%)		
Trichlorofluoromethane	50.0			46.4	ug/L		93	(73%-136%)		
Vinyl acetate	250			265	ug/L		106	(62%-136%)		
Vinyl chloride	50.0			45.3	ug/L		91	(68%-135%)		
Xylenes (total)	150			144	ug/L		96	(66%-128%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
cis-1,2-Dichloroethylene	50.0			49.5	ug/L		99	(76%-123%)	JP1	11/27/20 18:45
cis-1,3-Dichloropropylene	50.0			53.5	ug/L		107	(78%-130%)		
n-Butyl alcohol	5000			5880	ug/L		118	(61%-140%)		
trans-1,2-Dichloroethylene	50.0			52.9	ug/L		106	(75%-127%)		
trans-1,3-Dichloropropylene	50.0			52.3	ug/L		105	(78%-131%)		
**1,2-Dichloroethane-d4	50.0			51.1	ug/L		102	(71%-134%)		
**Bromofluorobenzene	50.0			49.7	ug/L		99	(70%-131%)		
**Toluene-d8	50.0			50.3	ug/L		101	(74%-124%)		
QC1204704455 LCS										
1,1,1,2-Tetrachloroethane	50.0			50.5	ug/L		101	(80%-129%)		11/30/20 20:08
1,1,1-Trichloroethane	50.0			61.4	ug/L		123	(72%-140%)		
1,1,2,2-Tetrachloroethane	50.0			48.1	ug/L		96	(69%-126%)		
1,1,2-Trichloroethane	50.0			48.6	ug/L		97	(74%-120%)		
1,1-Dichloroethane	50.0			55.8	ug/L		112	(76%-123%)		
1,1-Dichloroethylene	50.0			56.1	ug/L		112	(73%-131%)		
1,2,3-Trichloropropane	50.0			48.2	ug/L		96	(72%-126%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
1,2-Dibromo-3-chloropropane	50.0			61.1	ug/L		122	(64%-135%)	JP1	11/30/20 20:08
1,2-Dibromoethane	50.0			50.4	ug/L		101	(78%-125%)		
1,2-Dichloroethane	50.0			46.7	ug/L		93	(72%-127%)		
1,2-Dichloroethylene (total)	100			109	ug/L		109	(72%-129%)		
1,2-Dichloropropane	50.0			52.9	ug/L		106	(73%-122%)		
1,4-Dichlorobenzene	50.0			47.2	ug/L		94	(76%-120%)		
2-Butanone	250			266	ug/L		107	(55%-141%)		
2-Hexanone	250			271	ug/L		108	(49%-158%)		
4-Methyl-2-pentanone	250			260	ug/L		104	(64%-128%)		
Acetone	250			268	ug/L		107	(43%-164%)		
Acetonitrile	1250			1260	ug/L		101	(55%-127%)		
Benzene	50.0			53.1	ug/L		106	(73%-120%)		
Bromodichloromethane	50.0			57.0	ug/L		114	(78%-135%)		
Bromoform	50.0			47.3	ug/L		95	(68%-131%)		
Bromomethane	50.0			53.8	ug/L		108	(67%-133%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
Carbon disulfide	250			256	ug/L		102	(65%-132%)	JP1	11/30/20 20:08
Carbon tetrachloride	50.0			62.9	ug/L		126	(74%-145%)		
Chlorobenzene	50.0			49.1	ug/L		98	(76%-120%)		
Chloroethane	50.0			52.4	ug/L		105	(74%-125%)		
Chloroform	50.0			53.6	ug/L		107	(76%-126%)		
Chloromethane	50.0			51.8	ug/L		104	(62%-131%)		
Dibromochloromethane	50.0			57.1	ug/L		114	(76%-132%)		
Dibromomethane	50.0			50.1	ug/L		100	(75%-123%)		
Dichlorodifluoromethane	50.0			58.4	ug/L		117	(55%-151%)		
Ethyl ether	50.0			53.4	ug/L		107	(74%-123%)		
Ethylbenzene	50.0			51.4	ug/L		103	(76%-123%)		
Iodomethane	250			254	ug/L		102	(69%-127%)		
Methylene chloride	50.0			42.3	ug/L		85	(68%-123%)		
Styrene	50.0			52.3	ug/L		105	(72%-130%)		
Tetrachloroethylene	50.0			55.5	ug/L		111	(72%-124%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
Toluene	50.0			50.9	ug/L		102	(74%-120%)	JP1	11/30/20 20:08
Trichloroethylene	50.0			55.7	ug/L		111	(74%-125%)		
Trichlorofluoromethane	50.0			56.9	ug/L		114	(73%-136%)		
Vinyl acetate	250			296	ug/L		119	(62%-136%)		
Vinyl chloride	50.0			54.7	ug/L		109	(68%-135%)		
Xylenes (total)	150			154	ug/L		103	(66%-128%)		
cis-1,2-Dichloroethylene	50.0			52.6	ug/L		105	(76%-123%)		
cis-1,3-Dichloropropylene	50.0			56.5	ug/L		113	(78%-130%)		
n-Butyl alcohol	5000			6390	ug/L		128	(61%-140%)		
trans-1,2-Dichloroethylene	50.0			56.1	ug/L		112	(75%-127%)		
trans-1,3-Dichloropropylene	50.0			53.6	ug/L		107	(78%-131%)		
**1,2-Dichloroethane-d4	50.0			50.9	ug/L		102	(71%-134%)		
**Bromofluorobenzene	50.0			49.1	ug/L		98	(70%-131%)		
**Toluene-d8	50.0			49.0	ug/L		98	(74%-124%)		
QC1204704452 MB										
1,1,1,2-Tetrachloroethane			U	0.333	ug/L					11/27/20 20:05

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
1,1,1-Trichloroethane			U	0.333	ug/L				JP1	11/27/20	20:05
1,1,2,2-Tetrachloroethane			U	0.333	ug/L						
1,1,2-Trichloroethane			U	0.333	ug/L						
1,1-Dichloroethane			U	0.333	ug/L						
1,1-Dichloroethylene			U	0.333	ug/L						
1,2,3-Trichloropropane			U	0.333	ug/L						
1,2-Dibromo-3-chloropropane			U	0.333	ug/L						
1,2-Dibromoethane			U	0.333	ug/L						
1,2-Dichloroethane			U	0.333	ug/L						
1,2-Dichloroethylene (total)			U	0.667	ug/L						
1,2-Dichloropropane			U	0.333	ug/L						
1,4-Dichlorobenzene			U	0.333	ug/L						
2-Butanone			U	1.67	ug/L						
2-Chloro-1,3-butadiene			U	0.333	ug/L						
2-Hexanone			U	1.67	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
4-Methyl-2-pentanone			U	1.67	ug/L				JP1	11/27/20	20:05
Acetone			U	1.74	ug/L						
Acetonitrile			U	8.33	ug/L						
Acrolein			U	1.67	ug/L						
Acrylonitrile			U	1.67	ug/L						
Allyl chloride			U	1.67	ug/L						
Benzene			U	0.333	ug/L						
Bromodichloromethane			U	0.333	ug/L						
Bromoform			U	0.333	ug/L						
Bromomethane			U	0.337	ug/L						
Carbon disulfide			U	1.67	ug/L						
Carbon tetrachloride			U	0.333	ug/L						
Chlorobenzene			U	0.333	ug/L						
Chloroethane			U	0.333	ug/L						
Chloroform			U	0.333	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
Chloromethane			U	0.333	ug/L				JP1	11/27/20	20:05
Dibromochloromethane			U	0.333	ug/L						
Dibromomethane			U	0.333	ug/L						
Dichlorodifluoromethane			U	0.355	ug/L						
Ethyl acetate			U	1.67	ug/L						
Ethyl ether			U	0.333	ug/L						
Ethyl methacrylate			U	1.67	ug/L						
Ethylbenzene			U	0.333	ug/L						
Iodomethane			U	1.67	ug/L						
Isobutyl alcohol			U	16.7	ug/L						
Methacrylonitrile			U	1.67	ug/L						
Methyl methacrylate			U	1.67	ug/L						
Methylene chloride			U	1.67	ug/L						
Propionitrile			U	1.67	ug/L						
Styrene			U	0.333	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
Tetrachloroethylene			U	0.333	ug/L				JP1	11/27/20	20:05
Tetrahydrofuran			U	1.67	ug/L						
Toluene			U	0.333	ug/L						
Trichloroethylene			U	0.333	ug/L						
Trichlorofluoromethane			U	0.333	ug/L						
Trichlorotrifluoroethane			U	2.98	ug/L						
Vinyl acetate			U	1.67	ug/L						
Vinyl chloride			U	0.333	ug/L						
Xylenes (total)			U	1.00	ug/L						
cis-1,2-Dichloroethylene			U	0.333	ug/L						
cis-1,3-Dichloropropylene			U	0.333	ug/L						
n-Butyl alcohol			U	21.1	ug/L						
trans-1,2-Dichloroethylene			U	0.333	ug/L						
trans-1,3-Dichloropropylene			U	0.333	ug/L						
trans-1,4-Dichloro-2-butene			U	1.67	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 2067535										
**1,2-Dichloroethane-d4	50.0			50.8	ug/L		102	(71%-134%)	JP1	11/27/20 20:05
**Bromofluorobenzene	50.0			49.3	ug/L		99	(70%-131%)		
**Toluene-d8	50.0			50.0	ug/L		100	(74%-124%)		
QC1204704453 MB										
1,1,1,2-Tetrachloroethane			U	0.333	ug/L					11/30/20 21:55
1,1,1-Trichloroethane			U	0.333	ug/L					
1,1,2,2-Tetrachloroethane			U	0.333	ug/L					
1,1,2-Trichloroethane			U	0.333	ug/L					
1,1-Dichloroethane			U	0.333	ug/L					
1,1-Dichloroethylene			U	0.333	ug/L					
1,2,3-Trichloropropane			U	0.333	ug/L					
1,2-Dibromo-3-chloropropane			U	0.333	ug/L					
1,2-Dibromoethane			U	0.333	ug/L					
1,2-Dichloroethane			U	0.333	ug/L					
1,2-Dichloroethylene (total)			U	0.667	ug/L					
1,2-Dichloropropane			U	0.333	ug/L					

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
1,4-Dichlorobenzene			U	0.333	ug/L				JP1	11/30/20	21:55
2-Butanone			U	1.67	ug/L						
2-Chloro-1,3-butadiene			U	0.333	ug/L						
2-Hexanone			U	1.67	ug/L						
4-Methyl-2-pentanone			U	1.67	ug/L						
Acetone			U	1.74	ug/L						
Acetonitrile			U	8.33	ug/L						
Acrolein			U	1.67	ug/L						
Acrylonitrile			U	1.67	ug/L						
Allyl chloride			U	1.67	ug/L						
Benzene			U	0.333	ug/L						
Bromodichloromethane			U	0.333	ug/L						
Bromoform			U	0.333	ug/L						
Bromomethane			U	0.337	ug/L						
Carbon disulfide			U	1.67	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
Carbon tetrachloride			U	0.333	ug/L				JP1	11/30/20	21:55
Chlorobenzene			U	0.333	ug/L						
Chloroethane			U	0.333	ug/L						
Chloroform			U	0.333	ug/L						
Chloromethane			U	0.333	ug/L						
Dibromochloromethane			U	0.333	ug/L						
Dibromomethane			U	0.333	ug/L						
Dichlorodifluoromethane			U	0.355	ug/L						
Ethyl acetate			U	1.67	ug/L						
Ethyl ether			U	0.333	ug/L						
Ethyl methacrylate			U	1.67	ug/L						
Ethylbenzene			U	0.333	ug/L						
Iodomethane			U	1.67	ug/L						
Isobutyl alcohol			U	16.7	ug/L						
Methacrylonitrile			U	1.67	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 2067535											
Methyl methacrylate			U	1.67	ug/L				JP1	11/30/20	21:55
Methylene chloride			U	1.67	ug/L						
Propionitrile			U	1.67	ug/L						
Styrene			U	0.333	ug/L						
Tetrachloroethylene			U	0.333	ug/L						
Tetrahydrofuran			U	1.67	ug/L						
Toluene			U	0.333	ug/L						
Trichloroethylene			U	0.333	ug/L						
Trichlorofluoromethane			U	0.333	ug/L						
Trichlorotrifluoroethane			U	2.98	ug/L						
Vinyl acetate			U	1.67	ug/L						
Vinyl chloride			U	0.333	ug/L						
Xylenes (total)			U	1.00	ug/L						
cis-1,2-Dichloroethylene			U	0.333	ug/L						
cis-1,3-Dichloropropylene			U	0.333	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
n-Butyl alcohol				U	21.1	ug/L				JP1	11/30/20 21:55
trans-1,2-Dichloroethylene				U	0.333	ug/L					
trans-1,3-Dichloropropylene				U	0.333	ug/L					
trans-1,4-Dichloro-2-butene				U	1.67	ug/L					
**1,2-Dichloroethane-d4	50.0				49.9	ug/L		100	(71%-134%)		
**Bromofluorobenzene	50.0				49.3	ug/L		99	(70%-131%)		
**Toluene-d8	50.0				50.1	ug/L		100	(74%-124%)		
QC1204704456 527604007 PS											
1,1,1,2-Tetrachloroethane	50.0	U	0.000		51.9	ug/L		104	(70%-133%)		11/28/20 04:59
1,1,1-Trichloroethane	50.0	U	0.000		51.4	ug/L		103	(66%-138%)		
1,1,2,2-Tetrachloroethane	50.0	U	0.000		50.6	ug/L		101	(52%-142%)		
1,1,2-Trichloroethane	50.0	U	0.000		52.3	ug/L		105	(68%-126%)		
1,1-Dichloroethane	50.0	U	0.000		54.0	ug/L		108	(67%-129%)		
1,1-Dichloroethylene	50.0	U	0.000		53.1	ug/L		106	(62%-134%)		
1,2,3-Trichloropropane	50.0	U	0.000		49.5	ug/L		99	(68%-132%)		
1,2-Dibromo-3-chloropropane	50.0	U	0.000		57.9	ug/L		116	(56%-134%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
1,2-Dibromoethane	50.0	U	0.000		53.0	ug/L		106	(72%-129%)	JP1	11/28/20 04:59
1,2-Dichloroethane	50.0	U	0.000		49.2	ug/L		98	(69%-132%)		
1,2-Dichloroethylene (total)	100	U	0.000		106	ug/L		106	(66%-128%)		
1,2-Dichloropropane	50.0	U	0.000		53.5	ug/L		107	(66%-129%)		
1,4-Dichlorobenzene	50.0	U	0.000		46.9	ug/L		94	(49%-125%)		
2-Butanone	250	U	0.000		262	ug/L		105	(25%-143%)		
2-Hexanone	250	U	0.000		266	ug/L		106	(46%-132%)		
4-Methyl-2-pentanone	250	U	0.000		261	ug/L		105	(58%-131%)		
Acetone	250	U	0.000		258	ug/L		103	(35%-148%)		
Acetonitrile	1250	U	0.000		1270	ug/L		101	(51%-136%)		
Benzene	50.0	U	0.000		51.8	ug/L		104	(63%-124%)		
Bromodichloromethane	50.0	U	0.000		57.7	ug/L		115	(72%-140%)		
Bromoform	50.0	U	0.000		48.3	ug/L		97	(61%-136%)		
Bromomethane	50.0	U	0.000		43.6	ug/L		87	(64%-137%)		
Carbon disulfide	250	U	0.000		277	ug/L		111	(54%-137%)		

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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
Carbon tetrachloride	50.0		90.9	E	137	ug/L		93	(63%-146%)	JP1	11/28/20 04:59
Chlorobenzene	50.0	U	0.000		49.5	ug/L		99	(60%-122%)		
Chloroethane	50.0	U	0.000		38.3	ug/L		77	(65%-127%)		
Chloroform	50.0	J	1.50		54.1	ug/L		105	(66%-133%)		
Chloromethane	50.0	U	0.000		39.4	ug/L		79	(50%-138%)		
Dibromochloromethane	50.0	U	0.000		59.2	ug/L		118	(69%-137%)		
Dibromomethane	50.0	U	0.000		52.1	ug/L		104	(70%-129%)		
Dichlorodifluoromethane	50.0	U	0.000		35.0	ug/L		70	(39%-149%)		
Ethyl ether	50.0	U	0.000		45.5	ug/L		91	(70%-126%)		
Ethylbenzene	50.0	U	0.000		48.4	ug/L		97	(57%-126%)		
Iodomethane	250	U	0.000		268	ug/L		107	(62%-131%)		
Methylene chloride	50.0	U	0.000		44.7	ug/L		89	(62%-129%)		
Styrene	50.0	U	0.000		53.4	ug/L		107	(56%-134%)		
Tetrachloroethylene	50.0	J	0.370		48.5	ug/L		96	(57%-132%)		
Toluene	50.0	U	0.000		49.3	ug/L		99	(60%-122%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
Trichloroethylene	50.0	J	0.560		50.3	ug/L		99	(66%-128%)	JP1	11/28/20 04:59
Trichlorofluoromethane	50.0	U	0.000		35.1	ug/L		70	(66%-135%)		
Vinyl acetate	250	U	0.000		249	ug/L		99	(51%-130%)		
Vinyl chloride	50.0	U	0.000		37.7	ug/L		75	(58%-134%)		
Xylenes (total)	150	U	0.000		147	ug/L		98	(48%-137%)		
cis-1,2-Dichloroethylene	50.0	U	0.000		52.6	ug/L		105	(60%-135%)		
cis-1,3-Dichloropropylene	50.0	U	0.000		55.9	ug/L		112	(67%-134%)		
n-Butyl alcohol	5000	U	0.000		6190	ug/L		124	(57%-147%)		
trans-1,2-Dichloroethylene	50.0	U	0.000		53.1	ug/L		106	(65%-130%)		
trans-1,3-Dichloropropylene	50.0	U	0.000		54.7	ug/L		109	(69%-135%)		
**1,2-Dichloroethane-d4	50.0		49.6		49.4	ug/L		99	(71%-134%)		
**Bromofluorobenzene	50.0		50.3		48.2	ug/L		96	(70%-131%)		
**Toluene-d8	50.0		49.6		49.4	ug/L		99	(74%-124%)		
QC1204704457 527604007 PSD											
1,1,1,2-Tetrachloroethane	50.0	U	0.000		50.7	ug/L	2	101	(0%-20%)		11/28/20 05:25
1,1,1-Trichloroethane	50.0	U	0.000		52.0	ug/L	1	104	(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
1,1,2,2-Tetrachloroethane	50.0	U	0.000		48.3	ug/L	5	97	(0%-20%)	JP1	11/28/20 05:25
1,1,2-Trichloroethane	50.0	U	0.000		50.5	ug/L	4	101	(0%-20%)		
1,1-Dichloroethane	50.0	U	0.000		53.9	ug/L	0	108	(0%-20%)		
1,1-Dichloroethylene	50.0	U	0.000		52.5	ug/L	1	105	(0%-20%)		
1,2,3-Trichloropropane	50.0	U	0.000		47.9	ug/L	3	96	(0%-20%)		
1,2-Dibromo-3-chloropropane	50.0	U	0.000		56.2	ug/L	3	112	(0%-20%)		
1,2-Dibromoethane	50.0	U	0.000		51.1	ug/L	4	102	(0%-20%)		
1,2-Dichloroethane	50.0	U	0.000		48.1	ug/L	2	96	(0%-20%)		
1,2-Dichloroethylene (total)	100	U	0.000		105	ug/L	1	105	(0%-20%)		
1,2-Dichloropropane	50.0	U	0.000		52.9	ug/L	1	106	(0%-20%)		
1,4-Dichlorobenzene	50.0	U	0.000		46.1	ug/L	2	92	(0%-20%)		
2-Butanone	250	U	0.000		249	ug/L	5	100	(0%-20%)		
2-Hexanone	250	U	0.000		249	ug/L	7	99	(0%-20%)		
4-Methyl-2-pentanone	250	U	0.000		246	ug/L	6	98	(0%-20%)		
Acetone	250	U	0.000		243	ug/L	6	97	(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
Acetonitrile	1250	U	0.000		1210	ug/L	5	96	(0%-20%)	JP1	11/28/20 05:25
Benzene	50.0	U	0.000		51.2	ug/L	1	102	(0%-20%)		
Bromodichloromethane	50.0	U	0.000		56.6	ug/L	2	113	(0%-20%)		
Bromoform	50.0	U	0.000		47.1	ug/L	2	94	(0%-20%)		
Bromomethane	50.0	U	0.000		45.8	ug/L	5	92	(0%-20%)		
Carbon disulfide	250	U	0.000		278	ug/L	0	111	(0%-20%)		
Carbon tetrachloride	50.0		90.9	E	140	ug/L	2	98	(0%-20%)		
Chlorobenzene	50.0	U	0.000		48.2	ug/L	3	96	(0%-20%)		
Chloroethane	50.0	U	0.000		40.8	ug/L	6	82	(0%-20%)		
Chloroform	50.0	J	1.50		54.1	ug/L	0	105	(0%-20%)		
Chloromethane	50.0	U	0.000		42.0	ug/L	6	84	(0%-20%)		
Dibromochloromethane	50.0	U	0.000		59.0	ug/L	0	118	(0%-20%)		
Dibromomethane	50.0	U	0.000		51.5	ug/L	1	103	(0%-20%)		
Dichlorodifluoromethane	50.0	U	0.000		38.4	ug/L	9	77	(0%-20%)		
Ethyl ether	50.0	U	0.000		48.0	ug/L	5	96	(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 2067535											
Ethylbenzene	50.0	U	0.000		47.1	ug/L	3	94	(0%-20%)	JP1	11/28/20 05:25
Iodomethane	250	U	0.000		268	ug/L	0	107	(0%-20%)		
Methylene chloride	50.0	U	0.000		45.1	ug/L	1	90	(0%-20%)		
Styrene	50.0	U	0.000		51.6	ug/L	3	103	(0%-20%)		
Tetrachloroethylene	50.0	J	0.370		47.7	ug/L	2	95	(0%-20%)		
Toluene	50.0	U	0.000		48.4	ug/L	2	97	(0%-20%)		
Trichloroethylene	50.0	J	0.560		50.1	ug/L	0	99	(0%-20%)		
Trichlorofluoromethane	50.0	U	0.000		38.1	ug/L	8	76	(0%-20%)		
Vinyl acetate	250	U	0.000		260	ug/L	4	104	(0%-20%)		
Vinyl chloride	50.0	U	0.000		41.1	ug/L	9	82	(0%-20%)		
Xylenes (total)	150	U	0.000		144	ug/L	2	96	(0%-20%)		
cis-1,2-Dichloroethylene	50.0	U	0.000		52.1	ug/L	1	104	(0%-20%)		
cis-1,3-Dichloropropylene	50.0	U	0.000		55.9	ug/L	0	112	(0%-20%)		
n-Butyl alcohol	5000	U	0.000		5750	ug/L	7	115	(0%-20%)		
trans-1,2-Dichloroethylene	50.0	U	0.000		52.5	ug/L	1	105	(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS												
Batch 2067535												
trans-1,3-Dichloropropylene	50.0	U	0.000		53.4	ug/L	2	107	(0%-20%)	JP1	11/28/20	05:25
**1,2-Dichloroethane-d4	50.0		49.6		50.1	ug/L		100	(71%-134%)			
**Bromofluorobenzene	50.0		50.3		49.1	ug/L		98	(70%-131%)			
**Toluene-d8	50.0		49.6		49.8	ug/L		100	(74%-124%)			

Notes:

The Qualifiers in this report are defined as follows:

- A The TIC is a suspected aldol-condensation product
- B The analyte was detected in both the associated QC blank and in the sample.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of sample.
- E Concentration exceeds the calibration range of the instrument
- E Reported value is estimated due to interferences. See comment in narrative.
- J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated
- N Spike Sample recovery is outside control limits.
- P Aroclor target analyte with greater than 25% difference between column analyses.
- T Spike and/or spike duplicate sample recovery is outside control limits.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- o Analyte failed to recover within LCS limits (0rganics only)

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Volatile

Surrogate Recovery Report

SDG Number: GEL527604

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1204704454	LCS for batch 2067535	102		101		99	
1204704452	MB for batch 2067535	102		100		99	
527604007	B3XLX9	99		99		101	
527604009	B3XLY7	100		99		98	
527604010	B3XM35	97		99		97	
1204704456	B3XLX9PS	99		99		96	
1204704457	B3XLX9PSD	100		100		98	
1204704455	LCS for batch 2067535	102		98		98	
1204704453	MB for batch 2067535	100		100		99	
527604008	B3XLY6	106		101		100	
527604015	B3X4C1	100	D	99	D	98	D

Surrogate		Parmname	Acceptance Limits
DCED4	=	1,2-Dichloroethane-d4	(71%-134%)
TOL	=	Toluene-d8	(74%-124%)
BFB	=	Bromofluorobenzene	(70%-131%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile Analysis

Case Narrative

GC/MS Semivolatile
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method: SW846 3510C/8270E
Analytical Procedure: GL-OA-E-009 REV# 45
Analytical Batch: 2064968

Preparation Method: SW846 3510C
Preparation Procedure: GL-OA-E-013 REV# 34
Preparation Batch: 2064966

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604006	B3XMW4
527604011	B3XM36
527604012	B3X4B0
527604013	B3X4B1
527604014	B3X4B2
1204699211	Method Blank (MB)
1204699212	Laboratory Control Sample (LCS)
1204699215	527526001(B3XM06) Matrix Spike (MS)
1204699216	527526001(B3XM06) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CCV Requirements
All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 527604006 (B3XMW4), 527604011 (B3XM36), 527604012 (B3X4B0), 527604013 (B3X4B1) and 527604014 (B3X4B2) and the associated QC. However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8270D/E outlier acceptance criteria. If required, a CRDL was analyzed after the CCVs to demonstrate that there is adequate sensitivity to detect the failed compounds at the applicable lower quantitation limit. All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8270D/E for samples 527604006 (B3XMW4), 527604011 (B3XM36), 527604012 (B3X4B0), 527604013 (B3X4B1) and 527604014 (B3X4B2) and the associated QC for one or more target analytes. The samples were re-analyzed on an instrument that passed CCV acceptance criteria. The re-analyses confirmed the absence of the target analytes in the sample. The data are therefore reported from the original analyses only for all target analytes.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS and/or LCSD (See Below) did not meet spike recovery acceptance criteria. Since the target analytes were not detected in the associated samples above the reporting limits, the positive bias had no adverse impact on the data.

Sample	Analyte	Value
1204699212 (LCS)	2, 3, 4, 6-Tetrachlorophenol	120* (53%-118%)

Spike Recovery Statement
The MS or MSD (See Below) recovered spiked analytes outside of the established acceptance limits. Because the recoveries were biased high and the target analytes were not detected in the associated samples above the reporting limit, the data were reported.

Sample	Analyte	Value
1204699215 (B3XM06MS)	2, 3, 4, 6-Tetrachlorophenol	121* (37%-118%)
	Benzo(ghi)perylene	121* (31%-118%)
	Dibenzo(a, h)anthracene	128* (33%-122%)
	Indeno(1, 2, 3-cd)pyrene	125* (34%-121%)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

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Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

T Spike and/or spike duplicate sample recovery is outside control limits.
U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Barbara Bailey **Name: Barbara Bailey**

Date: 11 DEC 2020 **Title: Data Validator**

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604006**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XMW4**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 21:44**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1027.53 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2023.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	2.92	ug/L	2.92	9.73
110-86-1	Pyridine	U	2.92	ug/L	2.92	9.73
62-53-3	Aniline	U	4.09	ug/L	4.09	9.73
108-95-2	Phenol	U	2.92	ug/L	2.92	9.73
111-44-4	bis(2-Chloroethyl) ether	U	2.92	ug/L	2.92	9.73
95-57-8	2-Chlorophenol	U	2.92	ug/L	2.92	9.73
541-73-1	1,3-Dichlorobenzene	U	2.92	ug/L	2.92	9.73
106-46-7	1,4-Dichlorobenzene	U	2.92	ug/L	2.92	9.73
95-50-1	1,2-Dichlorobenzene	U	2.92	ug/L	2.92	9.73
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	2.92	ug/L	2.92	9.73
100-51-6	Benzyl alcohol	U	2.92	ug/L	2.92	9.73
95-48-7	o-Cresol	U	2.92	ug/L	2.92	9.73
65794-96-9	m,p-Cresols	U	3.60	ug/L	3.60	9.73
621-64-7	N-Nitrosodipropylamine	U	2.92	ug/L	2.92	9.73
67-72-1	Hexachloroethane	U	2.92	ug/L	2.92	9.73
98-95-3	Nitrobenzene	U	2.92	ug/L	2.92	9.73
78-59-1	Isophorone	U	3.41	ug/L	3.41	9.73
88-75-5	2-Nitrophenol	U	2.92	ug/L	2.92	9.73
105-67-9	2,4-Dimethylphenol	U	2.92	ug/L	2.92	9.73
111-91-1	bis(2-Chloroethoxy)methane	U	2.92	ug/L	2.92	9.73
120-83-2	2,4-Dichlorophenol	U	2.92	ug/L	2.92	9.73
106-47-8	4-Chloroaniline	U	3.21	ug/L	3.21	9.73
87-68-3	Hexachlorobutadiene	U	2.92	ug/L	2.92	9.73
59-50-7	4-Chloro-3-methylphenol	U	2.92	ug/L	2.92	9.73
91-57-6	2-Methylnaphthalene	U	0.292	ug/L	0.292	0.973
91-20-3	Naphthalene	U	0.292	ug/L	0.292	0.973
77-47-4	Hexachlorocyclopentadiene	U	2.92	ug/L	2.92	9.73
88-06-2	2,4,6-Trichlorophenol	U	2.92	ug/L	2.92	9.73
95-95-4	2,4,5-Trichlorophenol	U	2.92	ug/L	2.92	9.73
91-58-7	2-Chloronaphthalene	U	0.399	ug/L	0.399	0.973
88-74-4	o-Nitroaniline	U	2.92	ug/L	2.92	9.73
99-09-2	m-Nitroaniline	U	2.92	ug/L	2.92	9.73
131-11-3	Dimethylphthalate	U	0.292	ug/L	0.292	9.73
99-65-0	m-Dinitrobenzene	U	2.92	ug/L	2.92	9.73
606-20-2	2,6-Dinitrotoluene	U	2.92	ug/L	2.92	9.73
121-14-2	2,4-Dinitrotoluene	U	2.92	ug/L	2.92	9.73
208-96-8	Acenaphthylene	U	0.292	ug/L	0.292	0.973
83-32-9	Acenaphthene	U	0.292	ug/L	0.292	0.973

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604006**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XMW4**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 21:44**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1027.53 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2023.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
51-28-5	2,4-Dinitrophenol	U	4.87	ug/L	4.87	19.5
132-64-9	Dibenzofuran	U	2.92	ug/L	2.92	9.73
58-90-2	2,3,4,6-Tetrachlorophenol	TU	2.92	ug/L	2.92	9.73
84-66-2	Diethylphthalate	U	0.292	ug/L	0.292	9.73
100-02-7	4-Nitrophenol	U	2.92	ug/L	2.92	9.73
86-73-7	Fluorene	U	0.292	ug/L	0.292	0.973
7005-72-3	4-Chlorophenylphenylether	U	2.92	ug/L	2.92	9.73
100-01-6	p-Nitroaniline	U	2.92	ug/L	2.92	9.73
534-52-1	2-Methyl-4,6-dinitrophenol	U	2.92	ug/L	2.92	9.73
DPA+NNDPA	diphenylamine+N-nitrosodiphenylamine	U	2.92	ug/L	2.92	9.73
122-39-4	*Diphenylamine*					
101-55-3	4-Bromophenylphenylether	U	2.92	ug/L	2.92	9.73
118-74-1	Hexachlorobenzene	U	2.92	ug/L	2.92	9.73
87-86-5	Pentachlorophenol	U	2.92	ug/L	2.92	9.73
88-85-7	Dinoseb	U	2.92	ug/L	2.92	9.73
85-01-8	Phenanthrene	U	0.292	ug/L	0.292	0.973
120-12-7	Anthracene	U	0.292	ug/L	0.292	0.973
86-74-8	Carbazole	U	0.292	ug/L	0.292	0.973
84-74-2	Di-n-butylphthalate	U	0.292	ug/L	0.292	9.73
206-44-0	Fluoranthene	U	0.292	ug/L	0.292	0.973
129-00-0	Pyrene	U	0.292	ug/L	0.292	0.973
85-68-7	Butylbenzylphthalate	U	0.292	ug/L	0.292	9.73
117-81-7	bis(2-Ethylhexyl)phthalate		6.27	ug/L	0.292	0.973
56-55-3	Benzo(a)anthracene	U	0.292	ug/L	0.292	0.973
218-01-9	Chrysene	U	0.292	ug/L	0.292	0.973
117-84-0	Di-n-octylphthalate	U	0.292	ug/L	0.292	9.73
205-99-2	Benzo(b)fluoranthene	U	0.292	ug/L	0.292	0.973
207-08-9	Benzo(k)fluoranthene	U	0.292	ug/L	0.292	0.973
50-32-8	Benzo(a)pyrene	U	0.292	ug/L	0.292	0.973
193-39-5	Indeno(1,2,3-cd)pyrene	TU	0.292	ug/L	0.292	0.973
53-70-3	Dibenzo(a,h)anthracene	TU	0.292	ug/L	0.292	0.973
191-24-2	Benzo(ghi)perylene	TU	0.292	ug/L	0.292	0.973
123-91-1	1,4-Dioxane	U	2.92	ug/L	2.92	9.73
109-06-8	2-Picoline	U	2.92	ug/L	2.92	9.73
10595-95-6	N-Nitrosomethylethylamine	U	2.92	ug/L	2.92	9.73
66-27-3	Methyl methanesulfonate	U	2.92	ug/L	2.92	9.73
55-18-5	N-Nitrosodiethylamine	U	2.92	ug/L	2.92	9.73
62-50-0	Ethyl Methanesulfonate	U	2.92	ug/L	2.92	9.73
76-01-7	Pentachloroethane	U	2.92	ug/L	2.92	9.73

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604006**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XMW4**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 21:44**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1027.53 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2023.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	2.92	ug/L	2.92	9.73
98-86-2	Acetophenone	U	2.92	ug/L	2.92	9.73
59-89-2	N-Nitrosomorpholine	U	2.92	ug/L	2.92	9.73
95-53-4	o-Toluidine	U	2.92	ug/L	2.92	9.73
100-75-4	N-Nitrosopiperidine	U	2.92	ug/L	2.92	9.73
122-09-8	a,a-Dimethylphenethylamine	U	5.26	ug/L	5.26	9.73
87-65-0	2,6-Dichlorophenol	U	2.92	ug/L	2.92	9.73
1888-71-7	Hexachloropropene	U	2.92	ug/L	2.92	9.73
924-16-3	N-Nitrosodi-n-butylamine	U	2.92	ug/L	2.92	9.73
94-59-7	Safrole	U	2.92	ug/L	2.92	9.73
95-94-3	1,2,4,5-Tetrachlorobenzene	U	2.92	ug/L	2.92	9.73
120-58-1	Isosafrole	U	2.92	ug/L	2.92	9.73
130-15-4	1,4-Naphthoquinone	U	2.92	ug/L	2.92	9.73
608-93-5	Pentachlorobenzene	U	2.92	ug/L	2.92	9.73
134-32-7	1-Naphthylamine	U	2.92	ug/L	2.92	9.73
91-59-8	2-Naphthylamine	U	2.92	ug/L	2.92	9.73
99-55-8	5-Nitro-o-toluidine	U	2.92	ug/L	2.92	9.73
99-35-4	1,3,5-Trinitrobenzene	U	2.92	ug/L	2.92	9.73
62-44-2	Phenacetin	U	2.92	ug/L	2.92	9.73
2303-16-4	Diallate	U	2.92	ug/L	2.92	9.73
92-67-1	4-Aminobiphenyl	U	2.92	ug/L	2.92	9.73
82-68-8	Pentachloronitrobenzene	U	3.31	ug/L	3.31	9.73
23950-58-5	Pronamide	U	2.92	ug/L	2.92	9.73
56-57-5	4-Nitroquinoline-1-oxide	U	3.70	ug/L	3.70	9.73
91-80-5	Methapyrilene	U	2.92	ug/L	2.92	9.73
465-73-6	Isodrin	U	2.92	ug/L	2.92	9.73
140-57-8	Aramite	U	3.60	ug/L	3.60	9.73
143-50-0	Kepone	U	2.92	ug/L	2.92	9.73
60-11-7	p-(Dimethylamino)azobenzene	U	2.92	ug/L	2.92	9.73
510-15-6	Chlorobenzilate	U	2.92	ug/L	2.92	9.73
119-93-7	3,3'-Dimethylbenzidine	U	3.21	ug/L	3.21	9.73
53-96-3	2-Acetylaminofluorene	U	2.92	ug/L	2.92	9.73
91-94-1	3,3'-Dichlorobenzidine	U	2.92	ug/L	2.92	9.73
57-97-6	7,12-Dimethylbenz(a)anthracene	U	2.92	ug/L	2.92	9.73
56-49-5	3-Methylcholanthrene	U	2.92	ug/L	2.92	9.73
126-68-1	Triethylphosphorothioate	U	2.92	ug/L	2.92	9.73
297-97-2	Thionazin	U	2.92	ug/L	2.92	9.73
126-73-8	Tributylphosphate	U	2.92	ug/L	2.92	9.73

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604006**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XMW4**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 21:44**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1027.53 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2023.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
3689-24-5	Sulfotepp	U	2.92	ug/L	2.92	9.73
298-02-2	Phorate	U	2.92	ug/L	2.92	9.73
60-51-5	Dimethoate	U	2.92	ug/L	2.92	9.73
298-04-4	Disulfoton	U	2.92	ug/L	2.92	9.73
298-00-0	Methyl parathion	U	2.92	ug/L	2.92	9.73
56-38-2	Parathion	U	2.92	ug/L	2.92	9.73
52-85-7	Famphur	U	4.87	ug/L	4.87	9.73
106-50-3	p-Phenylenediamine	U	97.3	ug/L	97.3	487
70-30-4	Hexachlorophene	U	163	ug/L	163	487
120-82-1	1,2,4-Trichlorobenzene	U	2.92	ug/L	2.92	9.73

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604011**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM36**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:15**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.51 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2024.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	2.84	ug/L	2.84	9.47
110-86-1	Pyridine	U	2.84	ug/L	2.84	9.47
62-53-3	Aniline	U	3.98	ug/L	3.98	9.47
108-95-2	Phenol	U	2.84	ug/L	2.84	9.47
111-44-4	bis(2-Chloroethyl) ether	U	2.84	ug/L	2.84	9.47
95-57-8	2-Chlorophenol	U	2.84	ug/L	2.84	9.47
541-73-1	1,3-Dichlorobenzene	U	2.84	ug/L	2.84	9.47
106-46-7	1,4-Dichlorobenzene	U	2.84	ug/L	2.84	9.47
95-50-1	1,2-Dichlorobenzene	U	2.84	ug/L	2.84	9.47
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	2.84	ug/L	2.84	9.47
100-51-6	Benzyl alcohol	U	2.84	ug/L	2.84	9.47
95-48-7	o-Cresol	U	2.84	ug/L	2.84	9.47
65794-96-9	m,p-Cresols	U	3.51	ug/L	3.51	9.47
621-64-7	N-Nitrosodipropylamine	U	2.84	ug/L	2.84	9.47
67-72-1	Hexachloroethane	U	2.84	ug/L	2.84	9.47
98-95-3	Nitrobenzene	U	2.84	ug/L	2.84	9.47
78-59-1	Isophorone	U	3.32	ug/L	3.32	9.47
88-75-5	2-Nitrophenol	U	2.84	ug/L	2.84	9.47
105-67-9	2,4-Dimethylphenol	U	2.84	ug/L	2.84	9.47
111-91-1	bis(2-Chloroethoxy)methane	U	2.84	ug/L	2.84	9.47
120-83-2	2,4-Dichlorophenol	U	2.84	ug/L	2.84	9.47
106-47-8	4-Chloroaniline	U	3.13	ug/L	3.13	9.47
87-68-3	Hexachlorobutadiene	U	2.84	ug/L	2.84	9.47
59-50-7	4-Chloro-3-methylphenol	U	2.84	ug/L	2.84	9.47
91-57-6	2-Methylnaphthalene	U	0.284	ug/L	0.284	0.947
91-20-3	Naphthalene	U	0.284	ug/L	0.284	0.947
77-47-4	Hexachlorocyclopentadiene	U	2.84	ug/L	2.84	9.47
88-06-2	2,4,6-Trichlorophenol	U	2.84	ug/L	2.84	9.47
95-95-4	2,4,5-Trichlorophenol	U	2.84	ug/L	2.84	9.47
91-58-7	2-Chloronaphthalene	U	0.388	ug/L	0.388	0.947
88-74-4	o-Nitroaniline	U	2.84	ug/L	2.84	9.47
99-09-2	m-Nitroaniline	U	2.84	ug/L	2.84	9.47
131-11-3	Dimethylphthalate	U	0.284	ug/L	0.284	9.47
99-65-0	m-Dinitrobenzene	U	2.84	ug/L	2.84	9.47
606-20-2	2,6-Dinitrotoluene	U	2.84	ug/L	2.84	9.47
121-14-2	2,4-Dinitrotoluene	U	2.84	ug/L	2.84	9.47
208-96-8	Acenaphthylene	U	0.284	ug/L	0.284	0.947
83-32-9	Acenaphthene	U	0.284	ug/L	0.284	0.947

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604011**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM36**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:15**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.51 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2024.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
51-28-5	2,4-Dinitrophenol	U	4.74	ug/L	4.74	18.9
132-64-9	Dibenzofuran	U	2.84	ug/L	2.84	9.47
58-90-2	2,3,4,6-Tetrachlorophenol	TU	2.84	ug/L	2.84	9.47
84-66-2	Diethylphthalate	U	0.284	ug/L	0.284	9.47
100-02-7	4-Nitrophenol	U	2.84	ug/L	2.84	9.47
86-73-7	Fluorene	U	0.284	ug/L	0.284	0.947
7005-72-3	4-Chlorophenylphenylether	U	2.84	ug/L	2.84	9.47
100-01-6	p-Nitroaniline	U	2.84	ug/L	2.84	9.47
534-52-1	2-Methyl-4,6-dinitrophenol	U	2.84	ug/L	2.84	9.47
DPA+NNDPA	diphenylamine+N-nitrosodiphenylamine	U	2.84	ug/L	2.84	9.47
122-39-4	*Diphenylamine*					
101-55-3	4-Bromophenylphenylether	U	2.84	ug/L	2.84	9.47
118-74-1	Hexachlorobenzene	U	2.84	ug/L	2.84	9.47
87-86-5	Pentachlorophenol	U	2.84	ug/L	2.84	9.47
88-85-7	Dinoseb	U	2.84	ug/L	2.84	9.47
85-01-8	Phenanthrene	U	0.284	ug/L	0.284	0.947
120-12-7	Anthracene	U	0.284	ug/L	0.284	0.947
86-74-8	Carbazole	U	0.284	ug/L	0.284	0.947
84-74-2	Di-n-butylphthalate	U	0.284	ug/L	0.284	9.47
206-44-0	Fluoranthene	U	0.284	ug/L	0.284	0.947
129-00-0	Pyrene	U	0.284	ug/L	0.284	0.947
85-68-7	Butylbenzylphthalate	U	0.284	ug/L	0.284	9.47
117-81-7	bis(2-Ethylhexyl)phthalate		1.05	ug/L	0.284	0.947
56-55-3	Benzo(a)anthracene	U	0.284	ug/L	0.284	0.947
218-01-9	Chrysene	U	0.284	ug/L	0.284	0.947
117-84-0	Di-n-octylphthalate	U	0.284	ug/L	0.284	9.47
205-99-2	Benzo(b)fluoranthene	U	0.284	ug/L	0.284	0.947
207-08-9	Benzo(k)fluoranthene	U	0.284	ug/L	0.284	0.947
50-32-8	Benzo(a)pyrene	U	0.284	ug/L	0.284	0.947
193-39-5	Indeno(1,2,3-cd)pyrene	TU	0.284	ug/L	0.284	0.947
53-70-3	Dibenzo(a,h)anthracene	TU	0.284	ug/L	0.284	0.947
191-24-2	Benzo(ghi)perylene	TU	0.284	ug/L	0.284	0.947
123-91-1	1,4-Dioxane	U	2.84	ug/L	2.84	9.47
109-06-8	2-Picoline	U	2.84	ug/L	2.84	9.47
10595-95-6	N-Nitrosomethylethylamine	U	2.84	ug/L	2.84	9.47
66-27-3	Methyl methanesulfonate	U	2.84	ug/L	2.84	9.47
55-18-5	N-Nitrosodiethylamine	U	2.84	ug/L	2.84	9.47
62-50-0	Ethyl Methanesulfonate	U	2.84	ug/L	2.84	9.47
76-01-7	Pentachloroethane	U	2.84	ug/L	2.84	9.47

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604011**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM36**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:15**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.51 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2024.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	2.84	ug/L	2.84	9.47
98-86-2	Acetophenone	U	2.84	ug/L	2.84	9.47
59-89-2	N-Nitrosomorpholine	U	2.84	ug/L	2.84	9.47
95-53-4	o-Toluidine	U	2.84	ug/L	2.84	9.47
100-75-4	N-Nitrosopiperidine	U	2.84	ug/L	2.84	9.47
122-09-8	a,a-Dimethylphenethylamine	U	5.12	ug/L	5.12	9.47
87-65-0	2,6-Dichlorophenol	U	2.84	ug/L	2.84	9.47
1888-71-7	Hexachloropropene	U	2.84	ug/L	2.84	9.47
924-16-3	N-Nitrosodi-n-butylamine	U	2.84	ug/L	2.84	9.47
94-59-7	Safrole	U	2.84	ug/L	2.84	9.47
95-94-3	1,2,4,5-Tetrachlorobenzene	U	2.84	ug/L	2.84	9.47
120-58-1	Isosafrole	U	2.84	ug/L	2.84	9.47
130-15-4	1,4-Naphthoquinone	U	2.84	ug/L	2.84	9.47
608-93-5	Pentachlorobenzene	U	2.84	ug/L	2.84	9.47
134-32-7	1-Naphthylamine	U	2.84	ug/L	2.84	9.47
91-59-8	2-Naphthylamine	U	2.84	ug/L	2.84	9.47
99-55-8	5-Nitro-o-toluidine	U	2.84	ug/L	2.84	9.47
99-35-4	1,3,5-Trinitrobenzene	U	2.84	ug/L	2.84	9.47
62-44-2	Phenacetin	U	2.84	ug/L	2.84	9.47
2303-16-4	Diallate	U	2.84	ug/L	2.84	9.47
92-67-1	4-Aminobiphenyl	U	2.84	ug/L	2.84	9.47
82-68-8	Pentachloronitrobenzene	U	3.22	ug/L	3.22	9.47
23950-58-5	Pronamide	U	2.84	ug/L	2.84	9.47
56-57-5	4-Nitroquinoline-1-oxide	U	3.60	ug/L	3.60	9.47
91-80-5	Methapyrilene	U	2.84	ug/L	2.84	9.47
465-73-6	Isodrin	U	2.84	ug/L	2.84	9.47
140-57-8	Aramite	U	3.51	ug/L	3.51	9.47
143-50-0	Kepone	U	2.84	ug/L	2.84	9.47
60-11-7	p-(Dimethylamino)azobenzene	U	2.84	ug/L	2.84	9.47
510-15-6	Chlorobenzilate	U	2.84	ug/L	2.84	9.47
119-93-7	3,3'-Dimethylbenzidine	U	3.13	ug/L	3.13	9.47
53-96-3	2-Acetylaminofluorene	U	2.84	ug/L	2.84	9.47
91-94-1	3,3'-Dichlorobenzidine	U	2.84	ug/L	2.84	9.47
57-97-6	7,12-Dimethylbenz(a)anthracene	U	2.84	ug/L	2.84	9.47
56-49-5	3-Methylcholanthrene	U	2.84	ug/L	2.84	9.47
126-68-1	Triethylphosphorothioate	U	2.84	ug/L	2.84	9.47
297-97-2	Thionazin	U	2.84	ug/L	2.84	9.47
126-73-8	Tributylphosphate	U	2.84	ug/L	2.84	9.47

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604011**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM36**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:15**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.51 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2024.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
3689-24-5	Sulfotepp	U	2.84	ug/L	2.84	9.47
298-02-2	Phorate	U	2.84	ug/L	2.84	9.47
60-51-5	Dimethoate	U	2.84	ug/L	2.84	9.47
298-04-4	Disulfoton	U	2.84	ug/L	2.84	9.47
298-00-0	Methyl parathion	U	2.84	ug/L	2.84	9.47
56-38-2	Parathion	U	2.84	ug/L	2.84	9.47
52-85-7	Famphur	U	4.74	ug/L	4.74	9.47
106-50-3	p-Phenylenediamine	U	94.7	ug/L	94.7	474
70-30-4	Hexachlorophene	U	158	ug/L	158	474
120-82-1	1,2,4-Trichlorobenzene	U	2.84	ug/L	2.84	9.47

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604012**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B0**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:47**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.18 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2025.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	2.84	ug/L	2.84	9.48
110-86-1	Pyridine	U	2.84	ug/L	2.84	9.48
62-53-3	Aniline	U	3.98	ug/L	3.98	9.48
108-95-2	Phenol	U	2.84	ug/L	2.84	9.48
111-44-4	bis(2-Chloroethyl) ether	U	2.84	ug/L	2.84	9.48
95-57-8	2-Chlorophenol	U	2.84	ug/L	2.84	9.48
541-73-1	1,3-Dichlorobenzene	U	2.84	ug/L	2.84	9.48
106-46-7	1,4-Dichlorobenzene	U	2.84	ug/L	2.84	9.48
95-50-1	1,2-Dichlorobenzene	U	2.84	ug/L	2.84	9.48
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	2.84	ug/L	2.84	9.48
100-51-6	Benzyl alcohol	U	2.84	ug/L	2.84	9.48
95-48-7	o-Cresol	U	2.84	ug/L	2.84	9.48
65794-96-9	m,p-Cresols	U	3.51	ug/L	3.51	9.48
621-64-7	N-Nitrosodipropylamine	U	2.84	ug/L	2.84	9.48
67-72-1	Hexachloroethane	U	2.84	ug/L	2.84	9.48
98-95-3	Nitrobenzene	U	2.84	ug/L	2.84	9.48
78-59-1	Isophorone	U	3.32	ug/L	3.32	9.48
88-75-5	2-Nitrophenol	U	2.84	ug/L	2.84	9.48
105-67-9	2,4-Dimethylphenol	U	2.84	ug/L	2.84	9.48
111-91-1	bis(2-Chloroethoxy)methane	U	2.84	ug/L	2.84	9.48
120-83-2	2,4-Dichlorophenol	U	2.84	ug/L	2.84	9.48
106-47-8	4-Chloroaniline	U	3.13	ug/L	3.13	9.48
87-68-3	Hexachlorobutadiene	U	2.84	ug/L	2.84	9.48
59-50-7	4-Chloro-3-methylphenol	U	2.84	ug/L	2.84	9.48
91-57-6	2-Methylnaphthalene	U	0.284	ug/L	0.284	0.948
91-20-3	Naphthalene	U	0.284	ug/L	0.284	0.948
77-47-4	Hexachlorocyclopentadiene	U	2.84	ug/L	2.84	9.48
88-06-2	2,4,6-Trichlorophenol	U	2.84	ug/L	2.84	9.48
95-95-4	2,4,5-Trichlorophenol	U	2.84	ug/L	2.84	9.48
91-58-7	2-Chloronaphthalene	U	0.389	ug/L	0.389	0.948
88-74-4	o-Nitroaniline	U	2.84	ug/L	2.84	9.48
99-09-2	m-Nitroaniline	U	2.84	ug/L	2.84	9.48
131-11-3	Dimethylphthalate	U	0.284	ug/L	0.284	9.48
99-65-0	m-Dinitrobenzene	U	2.84	ug/L	2.84	9.48
606-20-2	2,6-Dinitrotoluene	U	2.84	ug/L	2.84	9.48
121-14-2	2,4-Dinitrotoluene	U	2.84	ug/L	2.84	9.48
208-96-8	Acenaphthylene	U	0.284	ug/L	0.284	0.948
83-32-9	Acenaphthene	U	0.284	ug/L	0.284	0.948

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604012**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B0**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:47**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.18 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2025.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
51-28-5	2,4-Dinitrophenol	U	4.74	ug/L	4.74	19.0
132-64-9	Dibenzofuran	U	2.84	ug/L	2.84	9.48
58-90-2	2,3,4,6-Tetrachlorophenol	TU	2.84	ug/L	2.84	9.48
84-66-2	Diethylphthalate	U	0.284	ug/L	0.284	9.48
100-02-7	4-Nitrophenol	U	2.84	ug/L	2.84	9.48
86-73-7	Fluorene	U	0.284	ug/L	0.284	0.948
7005-72-3	4-Chlorophenylphenylether	U	2.84	ug/L	2.84	9.48
100-01-6	p-Nitroaniline	U	2.84	ug/L	2.84	9.48
534-52-1	2-Methyl-4,6-dinitrophenol	U	2.84	ug/L	2.84	9.48
DPA+NNDPA	diphenylamine+N-nitrosodiphenylamine	U	2.84	ug/L	2.84	9.48
122-39-4	*Diphenylamine*					
101-55-3	4-Bromophenylphenylether	U	2.84	ug/L	2.84	9.48
118-74-1	Hexachlorobenzene	U	2.84	ug/L	2.84	9.48
87-86-5	Pentachlorophenol	U	2.84	ug/L	2.84	9.48
88-85-7	Dinoseb	U	2.84	ug/L	2.84	9.48
85-01-8	Phenanthrene	U	0.284	ug/L	0.284	0.948
120-12-7	Anthracene	U	0.284	ug/L	0.284	0.948
86-74-8	Carbazole	U	0.284	ug/L	0.284	0.948
84-74-2	Di-n-butylphthalate	U	0.284	ug/L	0.284	9.48
206-44-0	Fluoranthene	U	0.284	ug/L	0.284	0.948
129-00-0	Pyrene	U	0.284	ug/L	0.284	0.948
85-68-7	Butylbenzylphthalate	U	0.284	ug/L	0.284	9.48
117-81-7	bis(2-Ethylhexyl)phthalate		2.38	ug/L	0.284	0.948
56-55-3	Benzo(a)anthracene	U	0.284	ug/L	0.284	0.948
218-01-9	Chrysene	U	0.284	ug/L	0.284	0.948
117-84-0	Di-n-octylphthalate	U	0.284	ug/L	0.284	9.48
205-99-2	Benzo(b)fluoranthene	U	0.284	ug/L	0.284	0.948
207-08-9	Benzo(k)fluoranthene	U	0.284	ug/L	0.284	0.948
50-32-8	Benzo(a)pyrene	U	0.284	ug/L	0.284	0.948
193-39-5	Indeno(1,2,3-cd)pyrene	TU	0.284	ug/L	0.284	0.948
53-70-3	Dibenzo(a,h)anthracene	TU	0.284	ug/L	0.284	0.948
191-24-2	Benzo(ghi)perylene	TU	0.284	ug/L	0.284	0.948
123-91-1	1,4-Dioxane	U	2.84	ug/L	2.84	9.48
109-06-8	2-Picoline	U	2.84	ug/L	2.84	9.48
10595-95-6	N-Nitrosomethylethylamine	U	2.84	ug/L	2.84	9.48
66-27-3	Methyl methanesulfonate	U	2.84	ug/L	2.84	9.48
55-18-5	N-Nitrosodiethylamine	U	2.84	ug/L	2.84	9.48
62-50-0	Ethyl Methanesulfonate	U	2.84	ug/L	2.84	9.48
76-01-7	Pentachloroethane	U	2.84	ug/L	2.84	9.48

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604012**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B0**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:47**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.18 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2025.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	2.84	ug/L	2.84	9.48
98-86-2	Acetophenone	U	2.84	ug/L	2.84	9.48
59-89-2	N-Nitrosomorpholine	U	2.84	ug/L	2.84	9.48
95-53-4	o-Toluidine	U	2.84	ug/L	2.84	9.48
100-75-4	N-Nitrosopiperidine	U	2.84	ug/L	2.84	9.48
122-09-8	a,a-Dimethylphenethylamine	U	5.12	ug/L	5.12	9.48
87-65-0	2,6-Dichlorophenol	U	2.84	ug/L	2.84	9.48
1888-71-7	Hexachloropropene	U	2.84	ug/L	2.84	9.48
924-16-3	N-Nitrosodi-n-butylamine	U	2.84	ug/L	2.84	9.48
94-59-7	Safrole	U	2.84	ug/L	2.84	9.48
95-94-3	1,2,4,5-Tetrachlorobenzene	U	2.84	ug/L	2.84	9.48
120-58-1	Isosafrole	U	2.84	ug/L	2.84	9.48
130-15-4	1,4-Naphthoquinone	U	2.84	ug/L	2.84	9.48
608-93-5	Pentachlorobenzene	U	2.84	ug/L	2.84	9.48
134-32-7	1-Naphthylamine	U	2.84	ug/L	2.84	9.48
91-59-8	2-Naphthylamine	U	2.84	ug/L	2.84	9.48
99-55-8	5-Nitro-o-toluidine	U	2.84	ug/L	2.84	9.48
99-35-4	1,3,5-Trinitrobenzene	U	2.84	ug/L	2.84	9.48
62-44-2	Phenacetin	U	2.84	ug/L	2.84	9.48
2303-16-4	Diallate	U	2.84	ug/L	2.84	9.48
92-67-1	4-Aminobiphenyl	U	2.84	ug/L	2.84	9.48
82-68-8	Pentachloronitrobenzene	U	3.22	ug/L	3.22	9.48
23950-58-5	Pronamide	U	2.84	ug/L	2.84	9.48
56-57-5	4-Nitroquinoline-1-oxide	U	3.60	ug/L	3.60	9.48
91-80-5	Methapyrilene	U	2.84	ug/L	2.84	9.48
465-73-6	Isodrin	U	2.84	ug/L	2.84	9.48
140-57-8	Aramite	U	3.51	ug/L	3.51	9.48
143-50-0	Kepone	U	2.84	ug/L	2.84	9.48
60-11-7	p-(Dimethylamino)azobenzene	U	2.84	ug/L	2.84	9.48
510-15-6	Chlorobenzilate	U	2.84	ug/L	2.84	9.48
119-93-7	3,3'-Dimethylbenzidine	U	3.13	ug/L	3.13	9.48
53-96-3	2-Acetylaminofluorene	U	2.84	ug/L	2.84	9.48
91-94-1	3,3'-Dichlorobenzidine	U	2.84	ug/L	2.84	9.48
57-97-6	7,12-Dimethylbenz(a)anthracene	U	2.84	ug/L	2.84	9.48
56-49-5	3-Methylcholanthrene	U	2.84	ug/L	2.84	9.48
126-68-1	Triethylphosphorothioate	U	2.84	ug/L	2.84	9.48
297-97-2	Thionazin	U	2.84	ug/L	2.84	9.48
126-73-8	Tributylphosphate	U	2.84	ug/L	2.84	9.48

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604012**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B0**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 22:47**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.18 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2025.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
3689-24-5	Sulfotepp	U	2.84	ug/L	2.84	9.48
298-02-2	Phorate	U	2.84	ug/L	2.84	9.48
60-51-5	Dimethoate	U	2.84	ug/L	2.84	9.48
298-04-4	Disulfoton	U	2.84	ug/L	2.84	9.48
298-00-0	Methyl parathion	U	2.84	ug/L	2.84	9.48
56-38-2	Parathion	U	2.84	ug/L	2.84	9.48
52-85-7	Famphur	U	4.74	ug/L	4.74	9.48
106-50-3	p-Phenylenediamine	U	94.8	ug/L	94.8	474
70-30-4	Hexachlorophene	U	158	ug/L	158	474
120-82-1	1,2,4-Trichlorobenzene	U	2.84	ug/L	2.84	9.48

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604013**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B1**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 23:53**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.63 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2027.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	2.84	ug/L	2.84	9.47
110-86-1	Pyridine	U	2.84	ug/L	2.84	9.47
62-53-3	Aniline	U	3.98	ug/L	3.98	9.47
108-95-2	Phenol	U	2.84	ug/L	2.84	9.47
111-44-4	bis(2-Chloroethyl) ether	U	2.84	ug/L	2.84	9.47
95-57-8	2-Chlorophenol	U	2.84	ug/L	2.84	9.47
541-73-1	1,3-Dichlorobenzene	U	2.84	ug/L	2.84	9.47
106-46-7	1,4-Dichlorobenzene	U	2.84	ug/L	2.84	9.47
95-50-1	1,2-Dichlorobenzene	U	2.84	ug/L	2.84	9.47
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	2.84	ug/L	2.84	9.47
100-51-6	Benzyl alcohol	U	2.84	ug/L	2.84	9.47
95-48-7	o-Cresol	U	2.84	ug/L	2.84	9.47
65794-96-9	m,p-Cresols	U	3.51	ug/L	3.51	9.47
621-64-7	N-Nitrosodipropylamine	U	2.84	ug/L	2.84	9.47
67-72-1	Hexachloroethane	U	2.84	ug/L	2.84	9.47
98-95-3	Nitrobenzene	U	2.84	ug/L	2.84	9.47
78-59-1	Isophorone	U	3.32	ug/L	3.32	9.47
88-75-5	2-Nitrophenol	U	2.84	ug/L	2.84	9.47
105-67-9	2,4-Dimethylphenol	U	2.84	ug/L	2.84	9.47
111-91-1	bis(2-Chloroethoxy)methane	U	2.84	ug/L	2.84	9.47
120-83-2	2,4-Dichlorophenol	U	2.84	ug/L	2.84	9.47
106-47-8	4-Chloroaniline	U	3.13	ug/L	3.13	9.47
87-68-3	Hexachlorobutadiene	U	2.84	ug/L	2.84	9.47
59-50-7	4-Chloro-3-methylphenol	U	2.84	ug/L	2.84	9.47
91-57-6	2-Methylnaphthalene	U	0.284	ug/L	0.284	0.947
91-20-3	Naphthalene	U	0.284	ug/L	0.284	0.947
77-47-4	Hexachlorocyclopentadiene	U	2.84	ug/L	2.84	9.47
88-06-2	2,4,6-Trichlorophenol	U	2.84	ug/L	2.84	9.47
95-95-4	2,4,5-Trichlorophenol	U	2.84	ug/L	2.84	9.47
91-58-7	2-Chloronaphthalene	U	0.388	ug/L	0.388	0.947
88-74-4	o-Nitroaniline	U	2.84	ug/L	2.84	9.47
99-09-2	m-Nitroaniline	U	2.84	ug/L	2.84	9.47
131-11-3	Dimethylphthalate	U	0.284	ug/L	0.284	9.47
99-65-0	m-Dinitrobenzene	U	2.84	ug/L	2.84	9.47
606-20-2	2,6-Dinitrotoluene	U	2.84	ug/L	2.84	9.47
121-14-2	2,4-Dinitrotoluene	U	2.84	ug/L	2.84	9.47
208-96-8	Acenaphthylene	U	0.284	ug/L	0.284	0.947
83-32-9	Acenaphthene	U	0.284	ug/L	0.284	0.947

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604013**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B1**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 23:53**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.63 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2027.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
51-28-5	2,4-Dinitrophenol	U	4.74	ug/L	4.74	18.9
132-64-9	Dibenzofuran	U	2.84	ug/L	2.84	9.47
58-90-2	2,3,4,6-Tetrachlorophenol	TU	2.84	ug/L	2.84	9.47
84-66-2	Diethylphthalate	U	0.284	ug/L	0.284	9.47
100-02-7	4-Nitrophenol	U	2.84	ug/L	2.84	9.47
86-73-7	Fluorene	U	0.284	ug/L	0.284	0.947
7005-72-3	4-Chlorophenylphenylether	U	2.84	ug/L	2.84	9.47
100-01-6	p-Nitroaniline	U	2.84	ug/L	2.84	9.47
534-52-1	2-Methyl-4,6-dinitrophenol	U	2.84	ug/L	2.84	9.47
DPA+NNDPA	diphenylamine+N-nitrosodiphenylamine	U	2.84	ug/L	2.84	9.47
122-39-4	*Diphenylamine*					
101-55-3	4-Bromophenylphenylether	U	2.84	ug/L	2.84	9.47
118-74-1	Hexachlorobenzene	U	2.84	ug/L	2.84	9.47
87-86-5	Pentachlorophenol	U	2.84	ug/L	2.84	9.47
88-85-7	Dinoseb	U	2.84	ug/L	2.84	9.47
85-01-8	Phenanthrene	U	0.284	ug/L	0.284	0.947
120-12-7	Anthracene	U	0.284	ug/L	0.284	0.947
86-74-8	Carbazole	U	0.284	ug/L	0.284	0.947
84-74-2	Di-n-butylphthalate	U	0.284	ug/L	0.284	9.47
206-44-0	Fluoranthene	U	0.284	ug/L	0.284	0.947
129-00-0	Pyrene	U	0.284	ug/L	0.284	0.947
85-68-7	Butylbenzylphthalate	U	0.284	ug/L	0.284	9.47
117-81-7	bis(2-Ethylhexyl)phthalate		8.42	ug/L	0.284	0.947
56-55-3	Benzo(a)anthracene	U	0.284	ug/L	0.284	0.947
218-01-9	Chrysene	U	0.284	ug/L	0.284	0.947
117-84-0	Di-n-octylphthalate	U	0.284	ug/L	0.284	9.47
205-99-2	Benzo(b)fluoranthene	U	0.284	ug/L	0.284	0.947
207-08-9	Benzo(k)fluoranthene	U	0.284	ug/L	0.284	0.947
50-32-8	Benzo(a)pyrene	U	0.284	ug/L	0.284	0.947
193-39-5	Indeno(1,2,3-cd)pyrene	TU	0.284	ug/L	0.284	0.947
53-70-3	Dibenzo(a,h)anthracene	TU	0.284	ug/L	0.284	0.947
191-24-2	Benzo(ghi)perylene	TU	0.284	ug/L	0.284	0.947
123-91-1	1,4-Dioxane	U	2.84	ug/L	2.84	9.47
109-06-8	2-Picoline	U	2.84	ug/L	2.84	9.47
10595-95-6	N-Nitrosomethylethylamine	U	2.84	ug/L	2.84	9.47
66-27-3	Methyl methanesulfonate	U	2.84	ug/L	2.84	9.47
55-18-5	N-Nitrosodiethylamine	U	2.84	ug/L	2.84	9.47
62-50-0	Ethyl Methanesulfonate	U	2.84	ug/L	2.84	9.47
76-01-7	Pentachloroethane	U	2.84	ug/L	2.84	9.47

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604013**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B1**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 23:53**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.63 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2027.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	2.84	ug/L	2.84	9.47
98-86-2	Acetophenone	U	2.84	ug/L	2.84	9.47
59-89-2	N-Nitrosomorpholine	U	2.84	ug/L	2.84	9.47
95-53-4	o-Toluidine	U	2.84	ug/L	2.84	9.47
100-75-4	N-Nitrosopiperidine	U	2.84	ug/L	2.84	9.47
122-09-8	a,a-Dimethylphenethylamine	U	5.12	ug/L	5.12	9.47
87-65-0	2,6-Dichlorophenol	U	2.84	ug/L	2.84	9.47
1888-71-7	Hexachloropropene	U	2.84	ug/L	2.84	9.47
924-16-3	N-Nitrosodi-n-butylamine	U	2.84	ug/L	2.84	9.47
94-59-7	Safrole	U	2.84	ug/L	2.84	9.47
95-94-3	1,2,4,5-Tetrachlorobenzene	U	2.84	ug/L	2.84	9.47
120-58-1	Isosafrole	U	2.84	ug/L	2.84	9.47
130-15-4	1,4-Naphthoquinone	U	2.84	ug/L	2.84	9.47
608-93-5	Pentachlorobenzene	U	2.84	ug/L	2.84	9.47
134-32-7	1-Naphthylamine	U	2.84	ug/L	2.84	9.47
91-59-8	2-Naphthylamine	U	2.84	ug/L	2.84	9.47
99-55-8	5-Nitro-o-toluidine	U	2.84	ug/L	2.84	9.47
99-35-4	1,3,5-Trinitrobenzene	U	2.84	ug/L	2.84	9.47
62-44-2	Phenacetin	U	2.84	ug/L	2.84	9.47
2303-16-4	Diallate	U	2.84	ug/L	2.84	9.47
92-67-1	4-Aminobiphenyl	U	2.84	ug/L	2.84	9.47
82-68-8	Pentachloronitrobenzene	U	3.22	ug/L	3.22	9.47
23950-58-5	Pronamide	U	2.84	ug/L	2.84	9.47
56-57-5	4-Nitroquinoline-1-oxide	U	3.60	ug/L	3.60	9.47
91-80-5	Methapyrilene	U	2.84	ug/L	2.84	9.47
465-73-6	Isodrin	U	2.84	ug/L	2.84	9.47
140-57-8	Aramite	U	3.51	ug/L	3.51	9.47
143-50-0	Kepone	U	2.84	ug/L	2.84	9.47
60-11-7	p-(Dimethylamino)azobenzene	U	2.84	ug/L	2.84	9.47
510-15-6	Chlorobenzilate	U	2.84	ug/L	2.84	9.47
119-93-7	3,3'-Dimethylbenzidine	U	3.13	ug/L	3.13	9.47
53-96-3	2-Acetylaminofluorene	U	2.84	ug/L	2.84	9.47
91-94-1	3,3'-Dichlorobenzidine	U	2.84	ug/L	2.84	9.47
57-97-6	7,12-Dimethylbenz(a)anthracene	U	2.84	ug/L	2.84	9.47
56-49-5	3-Methylcholanthrene	U	2.84	ug/L	2.84	9.47
126-68-1	Triethylphosphorothioate	U	2.84	ug/L	2.84	9.47
297-97-2	Thionazin	U	2.84	ug/L	2.84	9.47
126-73-8	Tributylphosphate	U	2.84	ug/L	2.84	9.47

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604013**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B1**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/20/2020 23:53**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1055.63 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2027.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
3689-24-5	Sulfotepp	U	2.84	ug/L	2.84	9.47
298-02-2	Phorate	U	2.84	ug/L	2.84	9.47
60-51-5	Dimethoate	U	2.84	ug/L	2.84	9.47
298-04-4	Disulfoton	U	2.84	ug/L	2.84	9.47
298-00-0	Methyl parathion	U	2.84	ug/L	2.84	9.47
56-38-2	Parathion	U	2.84	ug/L	2.84	9.47
52-85-7	Famphur	U	4.74	ug/L	4.74	9.47
106-50-3	p-Phenylenediamine	U	94.7	ug/L	94.7	474
70-30-4	Hexachlorophene	U	158	ug/L	158	474
120-82-1	1,2,4-Trichlorobenzene	U	2.84	ug/L	2.84	9.47

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604014**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B2**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/21/2020 00:25**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1043.45 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2028.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	2.88	ug/L	2.88	9.58
110-86-1	Pyridine	U	2.88	ug/L	2.88	9.58
62-53-3	Aniline	U	4.03	ug/L	4.03	9.58
108-95-2	Phenol	U	2.88	ug/L	2.88	9.58
111-44-4	bis(2-Chloroethyl) ether	U	2.88	ug/L	2.88	9.58
95-57-8	2-Chlorophenol	U	2.88	ug/L	2.88	9.58
541-73-1	1,3-Dichlorobenzene	U	2.88	ug/L	2.88	9.58
106-46-7	1,4-Dichlorobenzene	U	2.88	ug/L	2.88	9.58
95-50-1	1,2-Dichlorobenzene	U	2.88	ug/L	2.88	9.58
108-60-1	bis(2-Chloro-1-methylethyl)ether	U	2.88	ug/L	2.88	9.58
100-51-6	Benzyl alcohol	U	2.88	ug/L	2.88	9.58
95-48-7	o-Cresol	U	2.88	ug/L	2.88	9.58
65794-96-9	m,p-Cresols	U	3.55	ug/L	3.55	9.58
621-64-7	N-Nitrosodipropylamine	U	2.88	ug/L	2.88	9.58
67-72-1	Hexachloroethane	U	2.88	ug/L	2.88	9.58
98-95-3	Nitrobenzene	U	2.88	ug/L	2.88	9.58
78-59-1	Isophorone	U	3.35	ug/L	3.35	9.58
88-75-5	2-Nitrophenol	U	2.88	ug/L	2.88	9.58
105-67-9	2,4-Dimethylphenol	U	2.88	ug/L	2.88	9.58
111-91-1	bis(2-Chloroethoxy)methane	U	2.88	ug/L	2.88	9.58
120-83-2	2,4-Dichlorophenol	U	2.88	ug/L	2.88	9.58
106-47-8	4-Chloroaniline	U	3.16	ug/L	3.16	9.58
87-68-3	Hexachlorobutadiene	U	2.88	ug/L	2.88	9.58
59-50-7	4-Chloro-3-methylphenol	U	2.88	ug/L	2.88	9.58
91-57-6	2-Methylnaphthalene	U	0.288	ug/L	0.288	0.958
91-20-3	Naphthalene	U	0.288	ug/L	0.288	0.958
77-47-4	Hexachlorocyclopentadiene	U	2.88	ug/L	2.88	9.58
88-06-2	2,4,6-Trichlorophenol	U	2.88	ug/L	2.88	9.58
95-95-4	2,4,5-Trichlorophenol	U	2.88	ug/L	2.88	9.58
91-58-7	2-Chloronaphthalene	U	0.393	ug/L	0.393	0.958
88-74-4	o-Nitroaniline	U	2.88	ug/L	2.88	9.58
99-09-2	m-Nitroaniline	U	2.88	ug/L	2.88	9.58
131-11-3	Dimethylphthalate	U	0.288	ug/L	0.288	9.58
99-65-0	m-Dinitrobenzene	U	2.88	ug/L	2.88	9.58
606-20-2	2,6-Dinitrotoluene	U	2.88	ug/L	2.88	9.58
121-14-2	2,4-Dinitrotoluene	U	2.88	ug/L	2.88	9.58
208-96-8	Acenaphthylene	U	0.288	ug/L	0.288	0.958
83-32-9	Acenaphthene	U	0.288	ug/L	0.288	0.958

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604014**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B2**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/21/2020 00:25**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1043.45 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2028.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
51-28-5	2,4-Dinitrophenol	U	4.79	ug/L	4.79	19.2
132-64-9	Dibenzofuran	U	2.88	ug/L	2.88	9.58
58-90-2	2,3,4,6-Tetrachlorophenol	TU	2.88	ug/L	2.88	9.58
84-66-2	Diethylphthalate	U	0.288	ug/L	0.288	9.58
100-02-7	4-Nitrophenol	U	2.88	ug/L	2.88	9.58
86-73-7	Fluorene	U	0.288	ug/L	0.288	0.958
7005-72-3	4-Chlorophenylphenylether	U	2.88	ug/L	2.88	9.58
100-01-6	p-Nitroaniline	U	2.88	ug/L	2.88	9.58
534-52-1	2-Methyl-4,6-dinitrophenol	U	2.88	ug/L	2.88	9.58
DPA+NNDPA	diphenylamine+N-nitrosodiphenylamine	U	2.88	ug/L	2.88	9.58
122-39-4	*Diphenylamine*					
101-55-3	4-Bromophenylphenylether	U	2.88	ug/L	2.88	9.58
118-74-1	Hexachlorobenzene	U	2.88	ug/L	2.88	9.58
87-86-5	Pentachlorophenol	U	2.88	ug/L	2.88	9.58
88-85-7	Dinoseb	U	2.88	ug/L	2.88	9.58
85-01-8	Phenanthrene	U	0.288	ug/L	0.288	0.958
120-12-7	Anthracene	U	0.288	ug/L	0.288	0.958
86-74-8	Carbazole	U	0.288	ug/L	0.288	0.958
84-74-2	Di-n-butylphthalate	U	0.288	ug/L	0.288	9.58
206-44-0	Fluoranthene	U	0.288	ug/L	0.288	0.958
129-00-0	Pyrene	U	0.288	ug/L	0.288	0.958
85-68-7	Butylbenzylphthalate	U	0.288	ug/L	0.288	9.58
117-81-7	bis(2-Ethylhexyl)phthalate		13.6	ug/L	0.288	0.958
56-55-3	Benzo(a)anthracene	U	0.288	ug/L	0.288	0.958
218-01-9	Chrysene	U	0.288	ug/L	0.288	0.958
117-84-0	Di-n-octylphthalate	U	0.288	ug/L	0.288	9.58
205-99-2	Benzo(b)fluoranthene	U	0.288	ug/L	0.288	0.958
207-08-9	Benzo(k)fluoranthene	U	0.288	ug/L	0.288	0.958
50-32-8	Benzo(a)pyrene	U	0.288	ug/L	0.288	0.958
193-39-5	Indeno(1,2,3-cd)pyrene	TU	0.288	ug/L	0.288	0.958
53-70-3	Dibenzo(a,h)anthracene	TU	0.288	ug/L	0.288	0.958
191-24-2	Benzo(ghi)perylene	TU	0.288	ug/L	0.288	0.958
123-91-1	1,4-Dioxane	U	2.88	ug/L	2.88	9.58
109-06-8	2-Picoline	U	2.88	ug/L	2.88	9.58
10595-95-6	N-Nitrosomethylethylamine	U	2.88	ug/L	2.88	9.58
66-27-3	Methyl methanesulfonate	U	2.88	ug/L	2.88	9.58
55-18-5	N-Nitrosodiethylamine	U	2.88	ug/L	2.88	9.58
62-50-0	Ethyl Methanesulfonate	U	2.88	ug/L	2.88	9.58
76-01-7	Pentachloroethane	U	2.88	ug/L	2.88	9.58

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604014**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B2**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/21/2020 00:25**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1043.45 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2028.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	2.88	ug/L	2.88	9.58
98-86-2	Acetophenone	U	2.88	ug/L	2.88	9.58
59-89-2	N-Nitrosomorpholine	U	2.88	ug/L	2.88	9.58
95-53-4	o-Toluidine	U	2.88	ug/L	2.88	9.58
100-75-4	N-Nitrosopiperidine	U	2.88	ug/L	2.88	9.58
122-09-8	a,a-Dimethylphenethylamine	U	5.18	ug/L	5.18	9.58
87-65-0	2,6-Dichlorophenol	U	2.88	ug/L	2.88	9.58
1888-71-7	Hexachloropropene	U	2.88	ug/L	2.88	9.58
924-16-3	N-Nitrosodi-n-butylamine	U	2.88	ug/L	2.88	9.58
94-59-7	Safrole	U	2.88	ug/L	2.88	9.58
95-94-3	1,2,4,5-Tetrachlorobenzene	U	2.88	ug/L	2.88	9.58
120-58-1	Isosafrole	U	2.88	ug/L	2.88	9.58
130-15-4	1,4-Naphthoquinone	U	2.88	ug/L	2.88	9.58
608-93-5	Pentachlorobenzene	U	2.88	ug/L	2.88	9.58
134-32-7	1-Naphthylamine	U	2.88	ug/L	2.88	9.58
91-59-8	2-Naphthylamine	U	2.88	ug/L	2.88	9.58
99-55-8	5-Nitro-o-toluidine	U	2.88	ug/L	2.88	9.58
99-35-4	1,3,5-Trinitrobenzene	U	2.88	ug/L	2.88	9.58
62-44-2	Phenacetin	U	2.88	ug/L	2.88	9.58
2303-16-4	Diallate	U	2.88	ug/L	2.88	9.58
92-67-1	4-Aminobiphenyl	U	2.88	ug/L	2.88	9.58
82-68-8	Pentachloronitrobenzene	U	3.26	ug/L	3.26	9.58
23950-58-5	Pronamide	U	2.88	ug/L	2.88	9.58
56-57-5	4-Nitroquinoline-1-oxide	U	3.64	ug/L	3.64	9.58
91-80-5	Methapyrilene	U	2.88	ug/L	2.88	9.58
465-73-6	Isodrin	U	2.88	ug/L	2.88	9.58
140-57-8	Aramite	U	3.55	ug/L	3.55	9.58
143-50-0	Kepone	U	2.88	ug/L	2.88	9.58
60-11-7	p-(Dimethylamino)azobenzene	U	2.88	ug/L	2.88	9.58
510-15-6	Chlorobenzilate	U	2.88	ug/L	2.88	9.58
119-93-7	3,3'-Dimethylbenzidine	U	3.16	ug/L	3.16	9.58
53-96-3	2-Acetylaminofluorene	U	2.88	ug/L	2.88	9.58
91-94-1	3,3'-Dichlorobenzidine	U	2.88	ug/L	2.88	9.58
57-97-6	7,12-Dimethylbenz(a)anthracene	U	2.88	ug/L	2.88	9.58
56-49-5	3-Methylcholanthrene	U	2.88	ug/L	2.88	9.58
126-68-1	Triethylphosphorothioate	U	2.88	ug/L	2.88	9.58
297-97-2	Thionazin	U	2.88	ug/L	2.88	9.58
126-73-8	Tributylphosphate	U	2.88	ug/L	2.88	9.58

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604014**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B2**	**Method:**	**SW846 3510C/8270E**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**2064968**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**11/21/2020 00:25**	**Analyst:**	**LXA1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2020 10:36**	**Aliquot:**	**1043.45 mL**	**Final Volume:**	**1 mL**
Data File:	**s112020.s\s8k2028.D**	**Column:**	**Serial Number: AB001**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
3689-24-5	Sulfotepp	U	2.88	ug/L	2.88	9.58
298-02-2	Phorate	U	2.88	ug/L	2.88	9.58
60-51-5	Dimethoate	U	2.88	ug/L	2.88	9.58
298-04-4	Disulfoton	U	2.88	ug/L	2.88	9.58
298-00-0	Methyl parathion	U	2.88	ug/L	2.88	9.58
56-38-2	Parathion	U	2.88	ug/L	2.88	9.58
52-85-7	Famphur	U	4.79	ug/L	4.79	9.58
106-50-3	p-Phenylenediamine	U	95.8	ug/L	95.8	479
70-30-4	Hexachlorophene	U	160	ug/L	160	479
120-82-1	1,2,4-Trichlorobenzene	U	2.88	ug/L	2.88	9.58

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 10, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: Mr. Scot Fitzgerald

Workorder: 527604

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
QC1204699212 LCS											
1,2,4,5-Tetrachlorobenzene	50.0			42.0	ug/L		84	(44%-101%)	LXA1	11/20/20	20:09
1,2,4-Trichlorobenzene	50.0			39.1	ug/L		78	(39%-94%)			
1,2-Dichlorobenzene	50.0			36.3	ug/L		73	(37%-94%)			
1,3-Dichlorobenzene	50.0			35.1	ug/L		70	(35%-90%)			
1,4-Dichlorobenzene	50.0			34.9	ug/L		70	(35%-91%)			
1,4-Dioxane	50.0			27.6	ug/L		55	(32%-76%)			
2,3,4,6-Tetrachlorophenol	50.0			59.9	ug/L		120*	(53%-118%)			
2,4,5-Trichlorophenol	50.0			51.2	ug/L		102	(58%-115%)			
2,4,6-Trichlorophenol	50.0			51.4	ug/L		103	(53%-111%)			
2,4-Dichlorophenol	50.0			45.7	ug/L		91	(56%-112%)			
2,4-Dimethylphenol	50.0			38.1	ug/L		76	(44%-99%)			
2,4-Dinitrophenol	50.0			54.2	ug/L		108	(30%-126%)			
2,4-Dinitrotoluene	50.0			50.5	ug/L		101	(54%-119%)			

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
2,6-Dichlorophenol	20.0			19.2	ug/L		96	(62%-123%)	LXA1	11/20/20	20:09
2,6-Dinitrotoluene	50.0			50.9	ug/L		102	(55%-118%)			
2-Chloronaphthalene	50.0			37.7	ug/L		75	(43%-103%)			
2-Chlorophenol	50.0			37.7	ug/L		75	(51%-101%)			
2-Methyl-4,6-dinitrophenol	50.0			51.7	ug/L		103	(43%-127%)			
2-Methylnaphthalene	50.0			40.2	ug/L		80	(43%-97%)			
2-Nitrophenol	50.0			43.0	ug/L		86	(54%-105%)			
3,3'-Dichlorobenzidine	50.0			55.4	ug/L		111	(45%-125%)			
4-Bromophenylphenylether	50.0			43.4	ug/L		87	(52%-106%)			
4-Chloro-3-methylphenol	50.0			44.1	ug/L		88	(55%-107%)			
4-Chloroaniline	50.0			45.5	ug/L		91	(58%-131%)			
4-Chlorophenylphenylether	50.0			49.6	ug/L		99	(56%-115%)			
4-Nitrophenol	50.0			16.2	ug/L		32	(21%-110%)			
Acenaphthene	50.0			44.3	ug/L		89	(52%-103%)			
Acenaphthylene	50.0			43.6	ug/L		87	(51%-101%)			

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
Acetophenone	50.0			37.5	ug/L		75	(55%-113%)	LXA1	11/20/20	20:09
Aniline	50.0			37.5	ug/L		75	(45%-108%)			
Anthracene	50.0			40.0	ug/L		80	(54%-107%)			
Benzo(a)anthracene	50.0			47.2	ug/L		94	(56%-107%)			
Benzo(a)pyrene	50.0			43.0	ug/L		86	(47%-110%)			
Benzo(b)fluoranthene	50.0			44.2	ug/L		88	(52%-106%)			
Benzo(ghi)perylene	50.0			52.5	ug/L		105	(38%-126%)			
Benzo(k)fluoranthene	50.0			45.8	ug/L		92	(48%-115%)			
Benzyl alcohol	50.0			36.9	ug/L		74	(43%-97%)			
Butylbenzylphthalate	50.0			48.3	ug/L		97	(50%-118%)			
Carbazole	50.0			40.3	ug/L		81	(53%-113%)			
Chrysene	50.0			48.0	ug/L		96	(57%-112%)			
Di-n-butylphthalate	50.0			44.1	ug/L		88	(56%-120%)			
Di-n-octylphthalate	50.0			48.2	ug/L		96	(44%-124%)			
Dibenzo(a,h)anthracene	50.0			56.8	ug/L		114	(47%-119%)			

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
Dibenzofuran	50.0			46.0	ug/L		92	(55%-112%)	LXA1	11/20/20	20:09
Diethylphthalate	50.0			50.5	ug/L		101	(59%-113%)			
Dimethylphthalate	50.0			51.8	ug/L		104	(61%-118%)			
Fluoranthene	50.0			42.4	ug/L		85	(52%-112%)			
Fluorene	50.0			46.2	ug/L		92	(54%-101%)			
Hexachlorobenzene	50.0			44.1	ug/L		88	(52%-108%)			
Hexachlorobutadiene	50.0			37.4	ug/L		75	(33%-91%)			
Hexachlorocyclopentadiene	50.0			24.3	ug/L		49	(22%-85%)			
Hexachloroethane	50.0			32.4	ug/L		65	(33%-91%)			
Indeno(1,2,3-cd)pyrene	50.0			55.1	ug/L		110	(40%-117%)			
Isophorone	50.0			41.4	ug/L		83	(50%-110%)			
N-Methyl-N-nitrosomethylamine	50.0			28.9	ug/L		58	(28%-78%)			
N-Nitrosodipropylamine	50.0			36.2	ug/L		72	(54%-110%)			
N-Nitrosopyrrolidine	50.0			45.5	ug/L		91	(55%-113%)			
Naphthalene	50.0			39.5	ug/L		79	(44%-98%)			

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
Nitrobenzene	50.0			38.7	ug/L		77	(51%-110%)	LXA1	11/20/20	20:09
Pentachlorophenol	50.0			48.9	ug/L		98	(48%-121%)			
Phenanthrene	50.0			42.9	ug/L		86	(55%-102%)			
Phenol	50.0			17.1	ug/L		34	(12%-90%)			
Pyrene	50.0			44.0	ug/L		88	(45%-126%)			
Pyridine	50.0			27.4	ug/L		55	(25%-81%)			
Tributylphosphate	50.0			56.0	ug/L		112	(56%-129%)			
bis(2-Chloro-1-methylethyl)ether	50.0			34.4	ug/L		69	(45%-113%)			
bis(2-Chloroethoxy)methane	50.0			42.3	ug/L		85	(50%-110%)			
bis(2-Chloroethyl) ether	50.0			37.3	ug/L		75	(52%-109%)			
bis(2-Ethylhexyl)phthalate	50.0			46.3	ug/L		93	(46%-121%)			
diphenylamine+N-nitrosodiphenylamine	50.0			37.7	ug/L		75	(51%-107%)			
m,p-Cresols	50.0			29.7	ug/L		59	(42%-96%)			
m-Nitroaniline	50.0			48.5	ug/L		97	(57%-131%)			
o-Cresol	50.0			35.1	ug/L		70	(44%-97%)			

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
o-Nitroaniline	50.0			44.7	ug/L		89	(55%-117%)	LXA1	11/20/20	20:09
p-Nitroaniline	50.0			49.9	ug/L		100	(45%-133%)			
**2,4,6-Tribromophenol	100			107	ug/L		107	(32%-122%)			
**2-Fluorobiphenyl	50.0			44.2	ug/L		88	(31%-107%)			
**2-Fluorophenol	100			46.5	ug/L		47	(15%-88%)			
**Nitrobenzene-d5	50.0			38.4	ug/L		77	(35%-113%)			
**Phenol-d5	100			30.8	ug/L		31	(15%-91%)			
**p-Terphenyl-d14	50.0			42.7	ug/L		85	(35%-134%)			
QC1204699211 MB											
1,2,4,5-Tetrachlorobenzene			U	3.00	ug/L					11/20/20	19:37
1,2,4-Trichlorobenzene			U	3.00	ug/L						
1,2-Dichlorobenzene			U	3.00	ug/L						
1,3,5-Trinitrobenzene			U	3.00	ug/L						
1,3-Dichlorobenzene			U	3.00	ug/L						
1,4-Dichlorobenzene			U	3.00	ug/L						
1,4-Dioxane			U	3.00	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
1,4-Naphthoquinone			U	3.00	ug/L				LXA1	11/20/20	19:37
1-Naphthylamine			U	3.00	ug/L						
2,3,4,6-Tetrachlorophenol			U	3.00	ug/L						
2,4,5-Trichlorophenol			U	3.00	ug/L						
2,4,6-Trichlorophenol			U	3.00	ug/L						
2,4-Dichlorophenol			U	3.00	ug/L						
2,4-Dimethylphenol			U	3.00	ug/L						
2,4-Dinitrophenol			U	5.00	ug/L						
2,4-Dinitrotoluene			U	3.00	ug/L						
2,6-Dichlorophenol			U	3.00	ug/L						
2,6-Dinitrotoluene			U	3.00	ug/L						
2-Acetylaminofluorene			U	3.00	ug/L						
2-Chloronaphthalene			U	0.410	ug/L						
2-Chlorophenol			U	3.00	ug/L						
2-Methyl-4,6-dinitrophenol			U	3.00	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
2-Methylnaphthalene			U	0.300	ug/L				LXA1	11/20/20	19:37
2-Naphthylamine			U	3.00	ug/L						
2-Nitrophenol			U	3.00	ug/L						
2-Picoline			U	3.00	ug/L						
3,3'-Dichlorobenzidine			U	3.00	ug/L						
3,3'-Dimethylbenzidine			U	3.30	ug/L						
3-Methylcholanthrene			U	3.00	ug/L						
4-Aminobiphenyl			U	3.00	ug/L						
4-Bromophenylphenylether			U	3.00	ug/L						
4-Chloro-3-methylphenol			U	3.00	ug/L						
4-Chloroaniline			U	3.30	ug/L						
4-Chlorophenylphenylether			U	3.00	ug/L						
4-Nitrophenol			U	3.00	ug/L						
4-Nitroquinoline-1-oxide			U	3.80	ug/L						
5-Nitro-o-toluidine			U	3.00	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
7,12-Dimethylbenz(a)anthracene			U	3.00	ug/L				LXA1	11/20/20	19:37
Acenaphthene			U	0.300	ug/L						
Acenaphthylene			U	0.300	ug/L						
Acetophenone			U	3.00	ug/L						
Aniline			U	4.20	ug/L						
Anthracene			U	0.300	ug/L						
Aramite			U	3.70	ug/L						
Benzo(a)anthracene			U	0.300	ug/L						
Benzo(a)pyrene			U	0.300	ug/L						
Benzo(b)fluoranthene			U	0.300	ug/L						
Benzo(ghi)perylene			U	0.300	ug/L						
Benzo(k)fluoranthene			U	0.300	ug/L						
Benzyl alcohol			U	3.00	ug/L						
Butylbenzylphthalate			U	0.300	ug/L						
Carbazole			U	0.300	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
Chlorobenzilate			U	3.00	ug/L				LXA1	11/20/20	19:37
Chrysene			U	0.300	ug/L						
Di-n-butylphthalate			U	0.300	ug/L						
Di-n-octylphthalate			U	0.300	ug/L						
Diallate			U	3.00	ug/L						
Dibenzo(a,h)anthracene			U	0.300	ug/L						
Dibenzofuran			U	3.00	ug/L						
Diethylphthalate			U	0.300	ug/L						
Dimethoate			U	3.00	ug/L						
Dimethylphthalate			U	0.300	ug/L						
Dinoseb			U	3.00	ug/L						
Disulfoton			U	3.00	ug/L						
Ethyl Methanesulfonate			U	3.00	ug/L						
Famphur			U	5.00	ug/L						
Fluoranthene			U	0.300	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
Fluorene			U	0.300	ug/L				LXA1	11/20/20	19:37
Hexachlorobenzene			U	3.00	ug/L						
Hexachlorobutadiene			U	3.00	ug/L						
Hexachlorocyclopentadiene			U	3.00	ug/L						
Hexachloroethane			U	3.00	ug/L						
Hexachlorophene			U	167	ug/L						
Hexachloropropene			U	3.00	ug/L						
Indeno(1,2,3-cd)pyrene			U	0.300	ug/L						
Isodrin			U	3.00	ug/L						
Isophorone			U	3.50	ug/L						
Isosafrole			U	3.00	ug/L						
Kepone			U	3.00	ug/L						
Methapyrilene			U	3.00	ug/L						
Methyl methanesulfonate			U	3.00	ug/L						
Methyl parathion			U	3.00	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS										
Batch 2064968										
N-Methyl-N-nitrosomethylamine			U	3.00	ug/L				LXA1	11/20/20 19:37
N-Nitrosodi-n-butylamine			U	3.00	ug/L					
N-Nitrosodiethylamine			U	3.00	ug/L					
N-Nitrosodipropylamine			U	3.00	ug/L					
N-Nitrosomethylethylamine			U	3.00	ug/L					
N-Nitrosomorpholine			U	3.00	ug/L					
N-Nitrosopiperidine			U	3.00	ug/L					
N-Nitrosopyrrolidine			U	3.00	ug/L					
Naphthalene			U	0.300	ug/L					
Nitrobenzene			U	3.00	ug/L					
Parathion			U	3.00	ug/L					
Pentachlorobenzene			U	3.00	ug/L					
Pentachloroethane			U	3.00	ug/L					
Pentachloronitrobenzene			U	3.40	ug/L					
Pentachlorophenol			U	3.00	ug/L					

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
Phenacetin			U	3.00	ug/L				LXA1	11/20/20	19:37
Phenanthrene			U	0.300	ug/L						
Phenol			U	3.00	ug/L						
Phorate			U	3.00	ug/L						
Pronamide			U	3.00	ug/L						
Pyrene			U	0.300	ug/L						
Pyridine			U	3.00	ug/L						
Safrole			U	3.00	ug/L						
Sulfotepp			U	3.00	ug/L						
Thionazin			U	3.00	ug/L						
Tributylphosphate			U	3.00	ug/L						
Triethylphosphorothioate			U	3.00	ug/L						
a,a-Dimethylphenethylamine			U	5.40	ug/L						
bis(2-Chloro-1-methylethyl)ether			U	3.00	ug/L						
bis(2-Chloroethoxy)methane			U	3.00	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch 2064968											
bis(2-Chloroethyl) ether			U	3.00	ug/L				LXA1	11/20/20	19:37
bis(2-Ethylhexyl)phthalate			U	0.300	ug/L						
diphenylamine+N-nitrosodiphenylamine			U	3.00	ug/L						
m,p-Cresols			U	3.70	ug/L						
m-Dinitrobenzene			U	3.00	ug/L						
m-Nitroaniline			U	3.00	ug/L						
o-Cresol			U	3.00	ug/L						
o-Nitroaniline			U	3.00	ug/L						
o-Toluidine			U	3.00	ug/L						
p-(Dimethylamino)azobenzene			U	3.00	ug/L						
p-Nitroaniline			U	3.00	ug/L						
p-Phenylenediamine			U	100	ug/L						
**2,4,6-Tribromophenol	100			94.4	ug/L		94	(32%-122%)			
**2-Fluorobiphenyl	50.0			46.0	ug/L		92	(31%-107%)			
**2-Fluorophenol	100			40.1	ug/L		40	(15%-88%)			

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
**Nitrobenzene-d5	50.0				40.0	ug/L		80	(35%-113%)	LXA1	11/20/20 19:37
**Phenol-d5	100				29.5	ug/L		29	(15%-91%)		
**p-Terphenyl-d14	50.0				33.4	ug/L		67	(35%-134%)		
QC1204699215 527526001 MS											
1,2,4,5-Tetrachlorobenzene	100	U	3.00		84.5	ug/L		85	(35%-100%)		11/20/20 20:41
1,2,4-Trichlorobenzene	100	U	3.00		79.3	ug/L		79	(32%-87%)		
1,2-Dichlorobenzene	100	U	3.00		73.7	ug/L		74	(29%-90%)		
1,3-Dichlorobenzene	100	U	3.00		71.5	ug/L		72	(31%-82%)		
1,4-Dichlorobenzene	100	U	3.00		70.9	ug/L		71	(31%-84%)		
1,4-Dioxane	100	U	3.00		67.9	ug/L		68	(32%-92%)		
2,3,4,6-Tetrachlorophenol	100	TU	3.00	T	121	ug/L		121*	(37%-118%)		
2,4,5-Trichlorophenol	100	U	3.00		103	ug/L		103	(37%-114%)		
2,4,6-Trichlorophenol	100	U	3.00		104	ug/L		104	(38%-113%)		
2,4-Dichlorophenol	100	U	3.00		93.1	ug/L		93	(40%-109%)		
2,4-Dimethylphenol	100	U	3.00		80.8	ug/L		81	(35%-100%)		
2,4-Dinitrophenol	100	U	5.00		110	ug/L		110	(20%-131%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
2,4-Dinitrotoluene	100	U	3.00		101	ug/L		101	(43%-116%)	LXA1	11/20/20 20:41
2,6-Dichlorophenol	40.0	U	3.00		39.3	ug/L		98	(39%-133%)		
2,6-Dinitrotoluene	100	U	3.00		104	ug/L		104	(43%-112%)		
2-Chloronaphthalene	100	U	0.410		77.4	ug/L		77	(34%-105%)		
2-Chlorophenol	100	U	3.00		82.0	ug/L		82	(37%-104%)		
2-Methyl-4,6-dinitrophenol	100	U	3.00		104	ug/L		104	(30%-128%)		
2-Methylnaphthalene	100	U	0.300		81.7	ug/L		82	(30%-101%)		
2-Nitrophenol	100	U	3.00		90.6	ug/L		91	(38%-113%)		
3,3'-Dichlorobenzidine	100	U	3.00		106	ug/L		106	(31%-122%)		
4-Bromophenylphenylether	100	U	3.00		87.4	ug/L		87	(39%-116%)		
4-Chloro-3-methylphenol	100	U	3.00		92.6	ug/L		93	(38%-115%)		
4-Chloroaniline	100	U	3.30		90.3	ug/L		90	(38%-133%)		
4-Chlorophenylphenylether	100	U	3.00		100	ug/L		100	(41%-116%)		
4-Nitrophenol	100	U	3.00		53.3	ug/L		53	(16%-83%)		
Acenaphthene	100	U	0.300		90.7	ug/L		91	(39%-112%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
Acenaphthylene	100	U	0.300		87.9	ug/L		88	(37%-111%)	LXA1	11/20/20 20:41
Acetophenone	100	U	3.00		77.7	ug/L		78	(45%-113%)		
Aniline	100	U	4.20		78.9	ug/L		79	(33%-107%)		
Anthracene	100	U	0.300		79.3	ug/L		79	(39%-112%)		
Benzo(a)anthracene	100	U	0.300		96.1	ug/L		96	(42%-114%)		
Benzo(a)pyrene	100	U	0.300		87.5	ug/L		87	(41%-109%)		
Benzo(b)fluoranthene	100	U	0.300		87.2	ug/L		87	(41%-109%)		
Benzo(ghi)perylene	100	TU	0.300	T	121	ug/L		121*	(31%-118%)		
Benzo(k)fluoranthene	100	U	0.300		91.5	ug/L		91	(41%-113%)		
Benzyl alcohol	100	U	3.00		82.5	ug/L		83	(33%-111%)		
Butylbenzylphthalate	100	U	0.300		98.2	ug/L		98	(40%-121%)		
Carbazole	100	U	0.300		79.5	ug/L		80	(42%-120%)		
Chrysene	100	U	0.300		95.9	ug/L		96	(42%-118%)		
Di-n-butylphthalate	100	U	0.300		89.0	ug/L		89	(44%-119%)		
Di-n-octylphthalate	100	U	0.300		94.3	ug/L		94	(31%-129%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
Dibenzo(a,h)anthracene	100	TU	0.300	T	128	ug/L		128*	(33%-122%)	LXA1	11/20/20 20:41
Dibenzofuran	100	U	3.00		92.2	ug/L		92	(41%-107%)		
Diethylphthalate	100	U	0.300		102	ug/L		102	(46%-117%)		
Dimethylphthalate	100	U	0.300		104	ug/L		104	(45%-123%)		
Fluoranthene	100	U	0.300		81.7	ug/L		82	(42%-113%)		
Fluorene	100	U	0.300		93.5	ug/L		94	(39%-108%)		
Hexachlorobenzene	100	U	3.00		89.4	ug/L		89	(40%-111%)		
Hexachlorobutadiene	100	U	3.00		73.6	ug/L		74	(24%-92%)		
Hexachlorocyclopentadiene	100	U	3.00		54.3	ug/L		54	(19%-77%)		
Hexachloroethane	100	U	3.00		65.7	ug/L		66	(29%-88%)		
Indeno(1,2,3-cd)pyrene	100	TU	0.300	T	125	ug/L		125*	(34%-121%)		
Isophorone	100	U	3.50		85.3	ug/L		85	(38%-110%)		
N-Methyl-N-nitrosomethylamine	100	U	3.00		72.3	ug/L		72	(24%-96%)		
N-Nitrosodipropylamine	100	U	3.00		76.0	ug/L		76	(38%-119%)		
N-Nitrosopyrrolidine	100	U	3.00		97.3	ug/L		97	(48%-118%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
Naphthalene	100	U	0.300		82.3	ug/L		82	(32%-98%)	LXA1	11/20/20 20:41
Nitrobenzene	100	U	3.00		80.9	ug/L		81	(37%-115%)		
Pentachlorophenol	100	U	3.00		98.8	ug/L		99	(33%-130%)		
Phenanthrene	100	U	0.300		85.6	ug/L		86	(41%-108%)		
Phenol	100	U	3.00		48.7	ug/L		49	(19%-78%)		
Pyrene	100	U	0.300		94.1	ug/L		94	(33%-121%)		
Pyridine	100	U	3.00		67.1	ug/L		67	(22%-88%)		
Tributylphosphate	100	U	3.00		113	ug/L		113	(51%-133%)		
bis(2-Chloro-1-methylethyl)ether	100	U	3.00		71.3	ug/L		71	(35%-121%)		
bis(2-Chloroethoxy)methane	100	U	3.00		87.0	ug/L		87	(41%-110%)		
bis(2-Chloroethyl) ether	100	U	3.00		76.3	ug/L		76	(41%-112%)		
bis(2-Ethylhexyl)phthalate	100	U	0.300		93.4	ug/L		93	(33%-126%)		
diphenylamine+N-nitrosodiphenylamine	100	U	3.00		66.2	ug/L		66	(37%-109%)		
m,p-Cresols	100	U	3.70		72.5	ug/L		73	(30%-113%)		
m-Nitroaniline	100	U	3.00		97.6	ug/L		98	(38%-144%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
o-Cresol	100	U	3.00		81.7	ug/L		82	(32%-102%)	LXA1	11/20/20 20:41
o-Nitroaniline	100	U	3.00		89.4	ug/L		89	(36%-124%)		
p-Nitroaniline	100	U	3.00		97.7	ug/L		98	(32%-134%)		
**2,4,6-Tribromophenol	200		68.3		215	ug/L		108	(32%-122%)		
**2-Fluorobiphenyl	100		40.4		88.5	ug/L		89	(31%-107%)		
**2-Fluorophenol	200		26.6		119	ug/L		59	(15%-88%)		
**Nitrobenzene-d5	100		37.5		79.6	ug/L		80	(35%-113%)		
**Phenol-d5	200		18.3		89.5	ug/L		45	(15%-91%)		
**p-Terphenyl-d14	100		16.0		88.2	ug/L		88	(35%-134%)		
QC1204699216 527526001 MSD											
1,2,4,5-Tetrachlorobenzene	100	U	3.00		80.6	ug/L	5	81	(0%-30%)		11/20/20 21:12
1,2,4-Trichlorobenzene	100	U	3.00		73.0	ug/L	8	73	(0%-30%)		
1,2-Dichlorobenzene	100	U	3.00		67.1	ug/L	9	67	(0%-30%)		
1,3-Dichlorobenzene	100	U	3.00		65.0	ug/L	10	65	(0%-30%)		
1,4-Dichlorobenzene	100	U	3.00		64.9	ug/L	9	65	(0%-30%)		
1,4-Dioxane	100	U	3.00		62.7	ug/L	8	63	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
2,3,4,6-Tetrachlorophenol	100	TU	3.00		116	ug/L	4	116	(0%-30%)	LXA1	11/20/20 21:12
2,4,5-Trichlorophenol	100	U	3.00		100	ug/L	3	100	(0%-30%)		
2,4,6-Trichlorophenol	100	U	3.00		101	ug/L	4	101	(0%-30%)		
2,4-Dichlorophenol	100	U	3.00		84.3	ug/L	10	84	(0%-30%)		
2,4-Dimethylphenol	100	U	3.00		75.6	ug/L	7	76	(0%-30%)		
2,4-Dinitrophenol	100	U	5.00		113	ug/L	2	113	(0%-30%)		
2,4-Dinitrotoluene	100	U	3.00		97.8	ug/L	4	98	(0%-30%)		
2,6-Dichlorophenol	40.0	U	3.00		36.5	ug/L	7	91	(0%-30%)		
2,6-Dinitrotoluene	100	U	3.00		99.5	ug/L	4	99	(0%-30%)		
2-Chloronaphthalene	100	U	0.410		72.3	ug/L	7	72	(0%-30%)		
2-Chlorophenol	100	U	3.00		73.8	ug/L	10	74	(0%-30%)		
2-Methyl-4,6-dinitrophenol	100	U	3.00		103	ug/L	1	103	(0%-30%)		
2-Methylnaphthalene	100	U	0.300		75.5	ug/L	8	76	(0%-30%)		
2-Nitrophenol	100	U	3.00		83.0	ug/L	9	83	(0%-30%)		
3,3'-Dichlorobenzidine	100	U	3.00		99.0	ug/L	7	99	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
4-Bromophenylphenylether	100	U	3.00		83.1	ug/L	5	83	(0%-30%)	LXA1	11/20/20 21:12
4-Chloro-3-methylphenol	100	U	3.00		88.2	ug/L	5	88	(0%-30%)		
4-Chloroaniline	100	U	3.30		85.9	ug/L	5	86	(0%-30%)		
4-Chlorophenylphenylether	100	U	3.00		95.0	ug/L	5	95	(0%-30%)		
4-Nitrophenol	100	U	3.00		56.3	ug/L	5	56	(0%-30%)		
Acenaphthene	100	U	0.300		84.9	ug/L	7	85	(0%-30%)		
Acenaphthylene	100	U	0.300		83.6	ug/L	5	84	(0%-30%)		
Acetophenone	100	U	3.00		70.2	ug/L	10	70	(0%-30%)		
Aniline	100	U	4.20		74.0	ug/L	6	74	(0%-30%)		
Anthracene	100	U	0.300		75.9	ug/L	4	76	(0%-30%)		
Benzo(a)anthracene	100	U	0.300		90.7	ug/L	6	91	(0%-30%)		
Benzo(a)pyrene	100	U	0.300		78.1	ug/L	11	78	(0%-30%)		
Benzo(b)fluoranthene	100	U	0.300		76.6	ug/L	13	77	(0%-30%)		
Benzo(ghi)perylene	100	TU	0.300		110	ug/L	10	110	(0%-30%)		
Benzo(k)fluoranthene	100	U	0.300		84.6	ug/L	8	85	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
Benzyl alcohol	100	U	3.00		76.9	ug/L	7	77	(0%-30%)	LXA1	11/20/20 21:12
Butylbenzylphthalate	100	U	0.300		87.8	ug/L	11	88	(0%-30%)		
Carbazole	100	U	0.300		79.6	ug/L	0	80	(0%-30%)		
Chrysene	100	U	0.300		91.7	ug/L	5	92	(0%-30%)		
Di-n-butylphthalate	100	U	0.300		85.4	ug/L	4	85	(0%-30%)		
Di-n-octylphthalate	100	U	0.300		78.6	ug/L	18	79	(0%-30%)		
Dibenzo(a,h)anthracene	100	TU	0.300		120	ug/L	6	120	(0%-30%)		
Dibenzofuran	100	U	3.00		87.6	ug/L	5	88	(0%-30%)		
Diethylphthalate	100	U	0.300		97.6	ug/L	4	98	(0%-30%)		
Dimethylphthalate	100	U	0.300		100	ug/L	3	100	(0%-30%)		
Fluoranthene	100	U	0.300		84.3	ug/L	3	84	(0%-30%)		
Fluorene	100	U	0.300		88.9	ug/L	5	89	(0%-30%)		
Hexachlorobenzene	100	U	3.00		84.1	ug/L	6	84	(0%-30%)		
Hexachlorobutadiene	100	U	3.00		70.0	ug/L	5	70	(0%-30%)		
Hexachlorocyclopentadiene	100	U	3.00		41.5	ug/L	27	41	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
Hexachloroethane	100	U	3.00		61.6	ug/L	6	62	(0%-30%)	LXA1	11/20/20 21:12
Indeno(1,2,3-cd)pyrene	100	TU	0.300		114	ug/L	9	114	(0%-30%)		
Isophorone	100	U	3.50		78.9	ug/L	8	79	(0%-30%)		
N-Methyl-N-nitrosomethylamine	100	U	3.00		67.7	ug/L	7	68	(0%-30%)		
N-Nitrosodipropylamine	100	U	3.00		68.8	ug/L	10	69	(0%-30%)		
N-Nitrosopyrrolidine	100	U	3.00		92.1	ug/L	5	92	(0%-30%)		
Naphthalene	100	U	0.300		74.3	ug/L	10	74	(0%-30%)		
Nitrobenzene	100	U	3.00		73.4	ug/L	10	73	(0%-30%)		
Pentachlorophenol	100	U	3.00		98.0	ug/L	1	98	(0%-30%)		
Phenanthrene	100	U	0.300		82.3	ug/L	4	82	(0%-30%)		
Phenol	100	U	3.00		46.9	ug/L	4	47	(0%-30%)		
Pyrene	100	U	0.300		81.5	ug/L	14	82	(0%-30%)		
Pyridine	100	U	3.00		64.5	ug/L	4	64	(0%-30%)		
Tributylphosphate	100	U	3.00		108	ug/L	5	108	(0%-30%)		
bis(2-Chloro-1-methylethyl)ether	100	U	3.00		64.4	ug/L	10	64	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatile-GC/MS											
Batch 2064968											
bis(2-Chloroethoxy)methane	100	U	3.00		79.0	ug/L	10	79	(0%-30%)	LXA1	11/20/20 21:12
bis(2-Chloroethyl) ether	100	U	3.00		69.3	ug/L	10	69	(0%-30%)		
bis(2-Ethylhexyl)phthalate	100	U	0.300		84.0	ug/L	11	84	(0%-30%)		
diphenylamine+N-nitrosodiphenylamine	100	U	3.00		62.0	ug/L	7	62	(0%-30%)		
m,p-Cresols	100	U	3.70		67.1	ug/L	8	67	(0%-30%)		
m-Nitroaniline	100	U	3.00		97.3	ug/L	0	97	(0%-30%)		
o-Cresol	100	U	3.00		74.1	ug/L	10	74	(0%-30%)		
o-Nitroaniline	100	U	3.00		87.1	ug/L	3	87	(0%-30%)		
p-Nitroaniline	100	U	3.00		101	ug/L	3	101	(0%-30%)		
**2,4,6-Tribromophenol	200		68.3		205	ug/L		102	(32%-122%)		
**2-Fluorobiphenyl	100		40.4		82.0	ug/L		82	(31%-107%)		
**2-Fluorophenol	200		26.6		110	ug/L		55	(15%-88%)		
**Nitrobenzene-d5	100		37.5		71.1	ug/L		71	(35%-113%)		
**Phenol-d5	200		18.3		84.7	ug/L		42	(15%-91%)		
**p-Terphenyl-d14	100		16.0		75.3	ug/L		75	(35%-134%)		

Notes:

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

The Qualifiers in this report are defined as follows:

- A The TIC is a suspected aldol-condensation product
- B The analyte was detected in both the associated QC blank and in the sample.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of sample.
- E Concentration exceeds the calibration range of the instrument
- E Reported value is estimated due to interferences. See comment in narrative.
- J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated
- N Spike Sample recovery is outside control limits.
- P Aroclor target analyte with greater than 25% difference between column analyses.
- T Spike and/or spike duplicate sample recovery is outside control limits.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- o Analyte failed to recover within LCS limits (0rganics only)

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Semi-Volatile

Surrogate Recovery Report

SDG Number: GEL527604

Matrix Type: LIQUID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1204699211	MB for batch 2064968	40	29	80	92	94	67
1204699212	LCS for batch 2064968	47	31	77	88	107	85
1204699215	B3XM06MS	59	45	80	89	108	88
1204699216	B3XM06MSD	55	42	71	82	102	75
527604006	B3XMW4	37	27	79	88	87	40
527604011	B3XM36	34	26	73	84	87	41
527604012	B3X4B0	37	26	82	92	92	40
527604013	B3X4B1	33	24	70	80	76	36
527604014	B3X4B2	37	26	77	86	87	42

Surrogate		Parmname	Acceptance Limits
2FP	=	2-Fluorophenol	(15%-88%)
PHL	=	Phenol-d5	(15%-91%)
NBZ	=	Nitrobenzene-d5	(35%-113%)
FBP	=	2-Fluorobiphenyl	(31%-107%)
TBP	=	2,4,6-Tribromophenol	(32%-122%)
TPH	=	p-Terphenyl-d14	(35%-134%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

FID Alcohols Analysis

Case Narrative

Alcohols
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Analysis of Alcohol by Flame Ionization Detector**
Analytical Method: SW846 8015C
Analytical Procedure: GL-OA-E-046 REV# 11
Analytical Batch: 2063748

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604007	B3XLX9
527604008	B3XLY6
527604009	B3XLY7
527604010	B3XM35
527604015	B3X4C1
1204696592	Method Blank (MB)
1204696593	Laboratory Control Sample (LCS)
1204696594	527526001(B3XM06) Matrix Spike (MS)
1204696595	527526001(B3XM06) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated

U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

DL Indicates that sample is diluted.

RA Indicates that sample is re-analyzed without re-extraction.

RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Jimi Cao **Name: Jimin Cao**

Date: 09 DEC 2020 **Title: Data Validator**

Sample Data Summary

FED Alcohols

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604007**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLX9**	**Method:**	**SW846 8015C**	**SOP Ref:**	**GL-OA-E-046**
Batch ID:	**2063748**	**Inst:**	**FID6.I**	**Dilution:**	**1**
Run Date:	**11/19/2020 11:52**	**Analyst:**	**RXC1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/19/2020 11:52**				
Data File:	**111920_AL\F6K1913.D**	**Column:**	**DB-WAX**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
67-56-1	Methanol		540	ug/L	200	500

FID Alcohols

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604008**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLY6**	**Method:**	**SW846 8015C**	**SOP Ref:**	**GL-OA-E-046**
Batch ID:	**2063748**	**Inst:**	**FID6.I**	**Dilution:**	**1**
Run Date:	**11/19/2020 12:32**	**Analyst:**	**RXC1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/19/2020 12:32**				
Data File:	**111920_AL\F6K1916.D**	**Column:**	**DB-WAX**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
67-56-1	Methanol	J	410	ug/L	200	500

FID Alcohols

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604009**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XLY7**	**Method:**	**SW846 8015C**	**SOP Ref:**	**GL-OA-E-046**
Batch ID:	**2063748**	**Inst:**	**FID6.I**	**Dilution:**	**1**
Run Date:	**11/19/2020 12:45**	**Analyst:**	**RXC1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/19/2020 12:45**				
Data File:	**111920_AL\F6K1917.D**	**Column:**	**DB-WAX**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
67-56-1	Methanol	J	340	ug/L	200	500

FED Alcohols

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604010**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM35**	**Method:**	**SW846 8015C**	**SOP Ref:**	**GL-OA-E-046**
Batch ID:	**2063748**	**Inst:**	**FID6.I**	**Dilution:**	**1**
Run Date:	**11/19/2020 12:58**	**Analyst:**	**RXC1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/19/2020 12:58**				
Data File:	**111920_AL\F6K1918.D**	**Column:**	**DB-WAX**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
67-56-1	Methanol	U	200	ug/L	200	500

FED Alcohols

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 08:34**	**Matrix:**	**WATER**
Lab Sample ID:	**527604015**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4C1**	**Method:**	**SW846 8015C**	**SOP Ref:**	**GL-OA-E-046**
Batch ID:	**2063748**	**Inst:**	**FID6.I**	**Dilution:**	**1**
Run Date:	**11/19/2020 13:12**	**Analyst:**	**RXC1**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/19/2020 13:12**				
Data File:	**111920_AL\F6K1919.D**	**Column:**	**DB-WAX**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
67-56-1	Methanol	U	200	ug/L	200	500

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: November 24, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: **Mr. Scot Fitzgerald**

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Alcohols										
Batch 2063748										
QC1204696593 LCS										
Methanol	50000			46800	ug/L		94	(74%-120%)	RXC1	11/19/20 10:04
**1,4-Dioxane-d8	50000			51100	ug/L		102	(69%-117%)		
QC1204696592 MB										
Methanol			U	200	ug/L					11/19/20 09:51
**1,4-Dioxane-d8	50000			51700	ug/L		103	(69%-117%)		
QC1204696594 527526001 MS										
Methanol	50000	550		43100	ug/L		85	(67%-117%)		11/19/20 10:58
**1,4-Dioxane-d8	50000	45200		45500	ug/L		91	(69%-117%)		
QC1204696595 527526001 MSD										
Methanol	50000	550		46100	ug/L	7	91	(0%-30%)		11/19/20 11:11
**1,4-Dioxane-d8	50000	45200		45200	ug/L		90	(69%-117%)		

Notes:

The Qualifiers in this report are defined as follows:

- A The TIC is a suspected aldol-condensation product
- B The analyte was detected in both the associated QC blank and in the sample.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of sample.
- E Concentration exceeds the calibration range of the instrument
- E Reported value is estimated due to interferences. See comment in narrative.
- J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated
- N Spike Sample recovery is outside control limits.

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

P	Aroclor target analyte with greater than 25% difference between column analyses.
T	Spike and/or spike duplicate sample recovery is outside control limits.
U	Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Z	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
o	Analyte failed to recover within LCS limits (0rganics only)

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

EPA 1,4-Dioxane

Surrogate Recovery Report

SDG Number: GEL527604

Matrix Type: LIQUID

Sample ID	Client ID	1,4-Dio %REC
1204696592	MB for batch 2063748	103
1204696593	LCS for batch 2063748	102
1204696594	B3XM06MS	91
1204696595	B3XM06MSD	90
527604007	B3XLX9	94
527604008	B3XLY6	94
527604009	B3XLY7	96
527604010	B3XM35	95
527604015	B3X4C1	89

Surrogate		Parmname	Acceptance Limits
1,4-Dioxane-d8	=	1,4-Dioxane-d8	(69%-117%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide Analysis

Case Narrative

GC Semivolatile Pesticide
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Organochlorine Pesticides and Chlorinated Hydrocarbons**
Analytical Method: SW846 3535A/8081B
Analytical Procedure: GL-OA-E-041 REV# 20
Analytical Batch: 2065094

Preparation Method: SW846 3535A
Preparation Procedure: GL-OA-E-070 REV# 11
Preparation Batch: 2064402

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604011	B3XM36
527604012	B3X4B0
527604013	B3X4B1
527604014	B3X4B2
1204698021	Method Blank (MB)
1204698022	Laboratory Control Sample (LCS)
1204698023	527731003(NonSDG) Matrix Spike (MS)
1204698024	527731003(NonSDG) Matrix Spike Duplicate (MSD)
1204699411	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Verification (CCV) Requirements
Calibration verification standards (ICV or CCV) requirements have not been met for samples in this batch in this SDG. One or more target analytes failed acceptance criteria with a positive bias in the standards bracketing the samples in this SDG. These target analytes were not detected above the PQL in the associated environmental samples; therefore, the non-compliance had no adverse effect on the data.

Technical Information

Florisil
Florisil clean-up was not performed on client and quality control samples in this batch.

Miscellaneous Information

Manual Integrations

Sample 1204698024 (Non SDG 527731003MSD) required manual integration to correctly position the baseline as set in the calibration standard injections.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

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Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated

U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

DL Indicates that sample is diluted.

RA Indicates that sample is re-analyzed without re-extraction.

RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Jimi Cao **Name: Jimin Cao**

Date: 14 DEC 2020 **Title: Data Validator**

Sample Data Summary

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604011**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM36**	**Method:**	**SW846 3535A/8081B**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**2065094**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**11/23/2020 18:08**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/23/2020 05:26**	**Aliquot:**	**1052.69 mL**	**Final Volume:**	**5 mL**
Data File:	**112320\E6K2323.D**	**Column:**	**1 Description: RTX-CLP**		
	112320\E6K2323.D		**2 P2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL	Column
319-84-6	alpha-BHC	U	0.00632	ug/L	0.00632	0.0190	0.050	1
58-89-9	gamma-BHC (Lindane)	U	0.00632	ug/L	0.00632	0.0190	0.050	1
76-44-8	Heptachlor	U	0.00632	ug/L	0.00632	0.0190	0.050	1
309-00-2	Aldrin	U	0.00632	ug/L	0.00632	0.0190	0.050	1
319-85-7	beta-BHC	U	0.00632	ug/L	0.00632	0.0190	0.050	1
319-86-8	delta-BHC	U	0.00632	ug/L	0.00632	0.0190	0.050	1
1024-57-3	Heptachlor epoxide	U	0.00632	ug/L	0.00632	0.0190	0.050	1
5103-74-2	trans-Chlordane	U	0.00632	ug/L	0.00632	0.0190	0.500	1
5103-71-9	cis-Chlordane	U	0.00632	ug/L	0.00632	0.0190	0.050	1
72-55-9	4,4'-DDE	U	0.00950	ug/L	0.00950	0.0380	0.100	1
959-98-8	Endosulfan I	U	0.00632	ug/L	0.00632	0.0190	0.050	1
60-57-1	Dieldrin	U	0.00950	ug/L	0.00950	0.0380	0.050	1
72-20-8	Endrin	U	0.00950	ug/L	0.00950	0.0380	0.100	1
33213-65-9	Endosulfan II	U	0.00950	ug/L	0.00950	0.0380	0.100	1
72-54-8	4,4'-DDD	U	0.00950	ug/L	0.00950	0.0380	0.100	1
50-29-3	4,4'-DDT	U	0.00950	ug/L	0.00950	0.0380	0.100	1
7421-93-4	Endrin aldehyde	U	0.00632	ug/L	0.00632	0.0380	0.100	1
1031-07-8	Endosulfan sulfate	U	0.00950	ug/L	0.00950	0.0380	0.100	1
53494-70-5	Endrin ketone	U	0.00950	ug/L	0.00950	0.0380	0.100	1
72-43-5	Methoxychlor	U	0.0475	ug/L	0.0475	0.190	0.500	1
8001-35-2	Toxaphene	U	0.142	ug/L	0.142	0.475	2.00	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604012**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B0**	**Method:**	**SW846 3535A/8081B**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**2065094**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**11/23/2020 18:23**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/23/2020 05:26**	**Aliquot:**	**1049.48 mL**	**Final Volume:**	**5 mL**
Data File:	**112320\E6K2324.D**	**Column:**	**1 Description: RTX-CLP**		
	112320\E6K2324.D		**2 P2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL	Column
319-84-6	alpha-BHC	U	0.00634	ug/L	0.00634	0.0191	0.050	1
58-89-9	gamma-BHC (Lindane)	U	0.00634	ug/L	0.00634	0.0191	0.050	1
76-44-8	Heptachlor	U	0.00634	ug/L	0.00634	0.0191	0.050	1
309-00-2	Aldrin	U	0.00634	ug/L	0.00634	0.0191	0.050	1
319-85-7	beta-BHC	U	0.00634	ug/L	0.00634	0.0191	0.050	1
319-86-8	delta-BHC	U	0.00634	ug/L	0.00634	0.0191	0.050	1
1024-57-3	Heptachlor epoxide	U	0.00634	ug/L	0.00634	0.0191	0.050	1
5103-74-2	trans-Chlordane	U	0.00634	ug/L	0.00634	0.0191	0.500	1
5103-71-9	cis-Chlordane	U	0.00634	ug/L	0.00634	0.0191	0.050	1
72-55-9	4,4'-DDE	U	0.00953	ug/L	0.00953	0.0381	0.100	1
959-98-8	Endosulfan I	U	0.00634	ug/L	0.00634	0.0191	0.050	1
60-57-1	Dieldrin	U	0.00953	ug/L	0.00953	0.0381	0.050	1
72-20-8	Endrin	U	0.00953	ug/L	0.00953	0.0381	0.100	1
33213-65-9	Endosulfan II	U	0.00953	ug/L	0.00953	0.0381	0.100	1
72-54-8	4,4'-DDD	U	0.00953	ug/L	0.00953	0.0381	0.100	1
50-29-3	4,4'-DDT	U	0.00953	ug/L	0.00953	0.0381	0.100	1
7421-93-4	Endrin aldehyde	U	0.00634	ug/L	0.00634	0.0381	0.100	1
1031-07-8	Endosulfan sulfate	U	0.00953	ug/L	0.00953	0.0381	0.100	1
53494-70-5	Endrin ketone	U	0.00953	ug/L	0.00953	0.0381	0.100	1
72-43-5	Methoxychlor	U	0.0476	ug/L	0.0476	0.191	0.500	1
8001-35-2	Toxaphene	U	0.143	ug/L	0.143	0.476	2.00	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604013**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B1**	**Method:**	**SW846 3535A/8081B**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**2065094**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**11/23/2020 18:38**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/23/2020 05:26**	**Aliquot:**	**1057.06 mL**	**Final Volume:**	**5 mL**
Data File:	**112320\E6K2325.D**	**Column:**	**1 Description: RTX-CLP**		
	112320\E6K2325.D		**2 P2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL	Column
319-84-6	alpha-BHC	U	0.00629	ug/L	0.00629	0.0189	0.050	1
58-89-9	gamma-BHC (Lindane)	U	0.00629	ug/L	0.00629	0.0189	0.050	1
76-44-8	Heptachlor	U	0.00629	ug/L	0.00629	0.0189	0.050	1
309-00-2	Aldrin	U	0.00629	ug/L	0.00629	0.0189	0.050	1
319-85-7	beta-BHC	U	0.00629	ug/L	0.00629	0.0189	0.050	1
319-86-8	delta-BHC	U	0.00629	ug/L	0.00629	0.0189	0.050	1
1024-57-3	Heptachlor epoxide	U	0.00629	ug/L	0.00629	0.0189	0.050	1
5103-74-2	trans-Chlordane	U	0.00629	ug/L	0.00629	0.0189	0.500	1
5103-71-9	cis-Chlordane	U	0.00629	ug/L	0.00629	0.0189	0.050	1
72-55-9	4,4'-DDE	U	0.00946	ug/L	0.00946	0.0378	0.100	1
959-98-8	Endosulfan I	U	0.00629	ug/L	0.00629	0.0189	0.050	1
60-57-1	Dieldrin	U	0.00946	ug/L	0.00946	0.0378	0.050	1
72-20-8	Endrin	U	0.00946	ug/L	0.00946	0.0378	0.100	1
33213-65-9	Endosulfan II	U	0.00946	ug/L	0.00946	0.0378	0.100	1
72-54-8	4,4'-DDD	U	0.00946	ug/L	0.00946	0.0378	0.100	1
50-29-3	4,4'-DDT	U	0.00946	ug/L	0.00946	0.0378	0.100	1
7421-93-4	Endrin aldehyde	U	0.00629	ug/L	0.00629	0.0378	0.100	1
1031-07-8	Endosulfan sulfate	U	0.00946	ug/L	0.00946	0.0378	0.100	1
53494-70-5	Endrin ketone	U	0.00946	ug/L	0.00946	0.0378	0.100	1
72-43-5	Methoxychlor	U	0.0473	ug/L	0.0473	0.189	0.500	1
8001-35-2	Toxaphene	U	0.142	ug/L	0.142	0.473	2.00	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604014**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B2**	**Method:**	**SW846 3535A/8081B**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**2065094**	**Inst:**	**ECD6A.I**	**Dilution:**	**1**
Run Date:	**11/23/2020 18:53**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/23/2020 05:26**	**Aliquot:**	**1052.64 mL**	**Final Volume:**	**5 mL**
Data File:	**112320\E6K2326.D**	**Column:**	**1 Description: RTX-CLP**		
	112320\E6K2326.D		**2 P2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL	Column
319-84-6	alpha-BHC	U	0.00632	ug/L	0.00632	0.0190	0.050	1
58-89-9	gamma-BHC (Lindane)	U	0.00632	ug/L	0.00632	0.0190	0.050	1
76-44-8	Heptachlor	U	0.00632	ug/L	0.00632	0.0190	0.050	1
309-00-2	Aldrin	U	0.00632	ug/L	0.00632	0.0190	0.050	1
319-85-7	beta-BHC	U	0.00632	ug/L	0.00632	0.0190	0.050	1
319-86-8	delta-BHC	U	0.00632	ug/L	0.00632	0.0190	0.050	1
1024-57-3	Heptachlor epoxide	U	0.00632	ug/L	0.00632	0.0190	0.050	1
5103-74-2	trans-Chlordane	U	0.00632	ug/L	0.00632	0.0190	0.500	1
5103-71-9	cis-Chlordane	U	0.00632	ug/L	0.00632	0.0190	0.050	1
72-55-9	4,4'-DDE	U	0.00950	ug/L	0.00950	0.0380	0.100	1
959-98-8	Endosulfan I	U	0.00632	ug/L	0.00632	0.0190	0.050	1
60-57-1	Dieldrin	U	0.00950	ug/L	0.00950	0.0380	0.050	1
72-20-8	Endrin	U	0.00950	ug/L	0.00950	0.0380	0.100	1
33213-65-9	Endosulfan II	U	0.00950	ug/L	0.00950	0.0380	0.100	1
72-54-8	4,4'-DDD	U	0.00950	ug/L	0.00950	0.0380	0.100	1
50-29-3	4,4'-DDT	U	0.00950	ug/L	0.00950	0.0380	0.100	1
7421-93-4	Endrin aldehyde	U	0.00632	ug/L	0.00632	0.0380	0.100	1
1031-07-8	Endosulfan sulfate	U	0.00950	ug/L	0.00950	0.0380	0.100	1
53494-70-5	Endrin ketone	U	0.00950	ug/L	0.00950	0.0380	0.100	1
72-43-5	Methoxychlor	U	0.0475	ug/L	0.0475	0.190	0.500	1
8001-35-2	Toxaphene	U	0.142	ug/L	0.142	0.475	2.00	1

Quality Control Summary

Pesticide

Surrogate Recovery Report

SDG Number: GEL527604

Matrix Type: LIQUID

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1204698021	MB for batch 2063801	72	78	103	99
1204698022	LCS for batch 2063801	73	80	102	98
1204699411	LCS for batch 2064402	70	76	98	100
1204698023	CAMO-21-210473MS	68	90	104	97
1204698024	CAMO-21-210473MSD	64	90	104	101
527604011	B3XM36	74	81	110	100
527604012	B3X4B0	70	76	107	100
527604013	B3X4B1	70	75	104	94
527604014	B3X4B2	66	71	95	88

Surrogate	Parmname	Acceptance Limits
4CMX	= 4cmx	(28%-114%)
DCB	= Decachlorobiphenyl	(27%-124%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

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QC Summary

Report Date: November 24, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: **Mr. Scot Fitzgerald**

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-Pesticide										
Batch 2065094										
QC1204698022 LCS										
4,4'-DDD	1.25			1.17	ug/L		94	(42%-125%)	JXM	11/23/20 14:38
4,4'-DDE	1.25			1.08	ug/L		87	(42%-116%)		
4,4'-DDT	1.25			1.14	ug/L		91	(42%-131%)		
Aldrin	0.500			0.373	ug/L		75	(21%-116%)		
Dieldrin	1.25			1.17	ug/L		93	(48%-126%)		
Endosulfan I	0.500			0.445	ug/L		89	(45%-125%)		
Endosulfan II	1.25			1.16	ug/L		93	(42%-126%)		
Endosulfan sulfate	1.25			0.995	ug/L		80	(49%-133%)		
Endrin	1.25			1.27	ug/L		102	(39%-138%)		
Endrin aldehyde	1.25			1.05	ug/L		84	(31%-126%)		
Endrin ketone	1.25			1.17	ug/L		93	(54%-131%)		
Heptachlor	0.500			0.413	ug/L		83	(43%-123%)		
Heptachlor epoxide	0.500			0.452	ug/L		90	(47%-128%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-Pesticide										
Batch 2065094										
Methoxychlor	5.00			4.07	ug/L		81	(51%-135%)	JXM	11/23/20 14:38
alpha-BHC	0.500			0.432	ug/L		86	(47%-130%)		
beta-BHC	0.500			0.470	ug/L		94	(43%-120%)		
cis-Chlordane	0.500			0.485	ug/L		97	(48%-132%)		
delta-BHC	0.500			0.471	ug/L		94	(48%-135%)		
gamma-BHC (Lindane)	0.500			0.447	ug/L		89	(46%-130%)		
trans-Chlordane	0.500		J	0.412	ug/L		82	(42%-121%)		
**4cmx	1.00			0.725	ug/L		73	(28%-114%)		
**Decachlorobiphenyl	1.00			0.978	ug/L		98	(27%-124%)		
QC1204699411 LCS										
Toxaphene	4.00			3.97	ug/L		99	(52%-105%)		11/23/20 14:53
**4cmx	1.00			0.698	ug/L		70	(28%-114%)		
**Decachlorobiphenyl	1.00			0.976	ug/L		98	(27%-124%)		
QC1204698021 MB										
4,4'-DDD			U	0.0100	ug/L					11/23/20 14:23
4,4'-DDE			U	0.0100	ug/L					
4,4'-DDT			U	0.0100	ug/L					

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-Pesticide											
Batch 2065094											
Aldrin			U	0.00665	ug/L				JXM	11/23/20	14:23
Dieldrin			U	0.0100	ug/L						
Endosulfan I			U	0.00665	ug/L						
Endosulfan II			U	0.0100	ug/L						
Endosulfan sulfate			U	0.0100	ug/L						
Endrin			U	0.0100	ug/L						
Endrin aldehyde			U	0.00665	ug/L						
Endrin ketone			U	0.0100	ug/L						
Heptachlor			U	0.00665	ug/L						
Heptachlor epoxide			U	0.00665	ug/L						
Methoxychlor			U	0.0500	ug/L						
Toxaphene			U	0.150	ug/L						
alpha-BHC			U	0.00665	ug/L						
beta-BHC			U	0.00665	ug/L						
cis-Chlordane			U	0.00665	ug/L						

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-Pesticide											
Batch 2065094											
delta-BHC				U	0.00665	ug/L				JXM	11/23/20 14:23
gamma-BHC (Lindane)				U	0.00665	ug/L					
trans-Chlordane				U	0.00665	ug/L					
**4cmx	1.00				0.722	ug/L		72	(28%-114%)		
**Decachlorobiphenyl	1.00				0.993	ug/L		99	(27%-124%)		
QC1204698023 527731003 MS											
4,4'-DDD	1.25	U	0.0100		1.25	ug/L		100	(30%-130%)		11/23/20 16:38
4,4'-DDE	1.25	U	0.0100		1.12	ug/L		89	(28%-122%)		
4,4'-DDT	1.25	U	0.0100		1.25	ug/L		100	(30%-135%)		
Aldrin	0.500	U	0.00665		0.422	ug/L		84	(15%-120%)		
Dieldrin	1.25	U	0.0100		1.17	ug/L		94	(32%-132%)		
Endosulfan I	0.500	U	0.00665		0.390	ug/L		78	(30%-131%)		
Endosulfan II	1.25	U	0.0100		1.18	ug/L		95	(31%-129%)		
Endosulfan sulfate	1.25	U	0.0100		1.03	ug/L		83	(35%-141%)		
Endrin	1.25	U	0.0100		1.34	ug/L		107	(35%-144%)		
Endrin aldehyde	1.25	U	0.00665		0.916	ug/L		73	(20%-128%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-Pesticide											
Batch 2065094											
Endrin ketone	1.25	U	0.0100		1.22	ug/L		97	(37%-135%)	JXM	11/23/20 16:38
Heptachlor	0.500	U	0.00665		0.422	ug/L		84	(33%-130%)		
Heptachlor epoxide	0.500	U	0.00665		0.454	ug/L		91	(36%-133%)		
Methoxychlor	5.00	U	0.0500		4.70	ug/L		94	(40%-143%)		
alpha-BHC	0.500	U	0.00665		0.429	ug/L		86	(33%-130%)		
beta-BHC	0.500	U	0.00665		0.457	ug/L		91	(30%-128%)		
cis-Chlordane	0.500	U	0.00665		0.496	ug/L		99	(31%-138%)		
delta-BHC	0.500	U	0.00665		0.473	ug/L		95	(35%-136%)		
gamma-BHC (Lindane)	0.500	U	0.00665		0.437	ug/L		87	(37%-132%)		
trans-Chlordane	0.500	U	0.00665		0.418	ug/L		84	(29%-132%)		
**4cmx	1.00		0.764		0.684	ug/L		68	(28%-114%)		
**Decachlorobiphenyl	1.00		1.06		0.974	ug/L		97	(27%-124%)		
QC1204698024 527731003 MSD											
4,4'-DDD	1.25	U	0.0100		1.23	ug/L	2	98	(0%-30%)		11/23/20 16:53
4,4'-DDE	1.25	U	0.0100		1.11	ug/L	1	89	(0%-30%)		
4,4'-DDT	1.25	U	0.0100		1.21	ug/L	3	97	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-Pesticide											
Batch 2065094											
Aldrin	0.500	U	0.00665		0.389	ug/L	8	78	(0%-30%)	JXM	11/23/20 16:53
Dieldrin	1.25	U	0.0100		1.15	ug/L	2	92	(0%-30%)		
Endosulfan I	0.500	U	0.00665		0.413	ug/L	6	83	(0%-30%)		
Endosulfan II	1.25	U	0.0100		1.18	ug/L	1	94	(0%-30%)		
Endosulfan sulfate	1.25	U	0.0100		1.05	ug/L	1	84	(0%-30%)		
Endrin	1.25	U	0.0100		1.34	ug/L	0	107	(0%-30%)		
Endrin aldehyde	1.25	U	0.00665		0.893	ug/L	2	71	(0%-30%)		
Endrin ketone	1.25	U	0.0100		1.19	ug/L	2	95	(0%-30%)		
Heptachlor	0.500	U	0.00665		0.394	ug/L	7	79	(0%-30%)		
Heptachlor epoxide	0.500	U	0.00665		0.431	ug/L	5	86	(0%-30%)		
Methoxychlor	5.00	U	0.0500		4.87	ug/L	3	97	(0%-30%)		
alpha-BHC	0.500	U	0.00665		0.397	ug/L	8	79	(0%-30%)		
beta-BHC	0.500	U	0.00665		0.426	ug/L	7	85	(0%-30%)		
cis-Chlordane	0.500	U	0.00665		0.470	ug/L	5	94	(0%-30%)		
delta-BHC	0.500	U	0.00665		0.426	ug/L	10	85	(0%-30%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-Pesticide												
Batch 2065094												
gamma-BHC (Lindane)	0.500	U	0.00665		0.402	ug/L	8	80	(0%-30%)	JXM	11/23/20	16:53
trans-Chlordane	0.500	U	0.00665		0.413	ug/L	1	83	(0%-30%)			
**4cmx	1.00		0.764		0.644	ug/L		64	(28%-114%)			
**Decachlorobiphenyl	1.00		1.06		1.01	ug/L		101	(27%-124%)			

Notes:

The Qualifiers in this report are defined as follows:

- A The TIC is a suspected aldol-condensation product
- B The analyte was detected in both the associated QC blank and in the sample.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of sample.
- E Concentration exceeds the calibration range of the instrument
- E Reported value is estimated due to interferences. See comment in narrative.
- J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated
- N Spike Sample recovery is outside control limits.
- P Aroclor target analyte with greater than 25% difference between column analyses.
- T Spike and/or spike duplicate sample recovery is outside control limits.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- o Analyte failed to recover within LCS limits (0rganics only)

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

PCB Analysis

Case Narrative

GC Semivolatile PCB
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Analysis of The Analysis of Polychlorinated Biphenyls by GC/ECD by ECD**
Analytical Method: 8082_PCB_GC
Analytical Procedure: GL-OA-E-040 REV# 25
Analytical Batch: 2069551

Preparation Method: SW846 3535A
Preparation Procedure: GL-OA-E-070 REV# 11
Preparation Batch: 2069548

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604011	B3XM36
527604012	B3X4B0
527604013	B3X4B1
527604014	B3X4B2
1204708706	Method Blank (MB)
1204708707	Laboratory Control Sample (LCS)
1204708708	527501005(NonSDG) Matrix Spike (MS)
1204708709	527501005(NonSDG) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation/Analytical Method Verification
All samples and QC in this batch were cleaned using alumina in order to remove oil and other high molecular weight interferences. All reported analyte detections in client and quality control samples were within the established retention time windows. Reported analyte concentrations were confirmed on dissimilar columns.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

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Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Jimin Cao **Name: Jimin Cao**

Date: 10 DEC 2020 **Title: Data Validator**

Sample Data Summary

PCB

Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 09:36**	**Matrix:**	**WATER**
Lab Sample ID:	**527604011**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3XM36**	**Method:**	**8082_PCB_GC**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**2069551**	**Inst:**	**ECD9A.I**	**Dilution:**	**1**
Run Date:	**12/08/2020 08:27**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/07/2020 09:30**	**Aliquot:**	**1003.57 mL**	**Final Volume:**	**1 mL**
Data File:	**120820.S\E9l0818.D**	**Column:**	**1 RTX-CLPEST 1**		
	120820.S\E9l0818.D		**2 RTX-CLPEST 2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.0332	ug/L	0.0332	0.0996	1
11104-28-2	Aroclor-1221	U	0.0332	ug/L	0.0332	0.0996	1
11141-16-5	Aroclor-1232	U	0.0332	ug/L	0.0332	0.0996	1
53469-21-9	Aroclor-1242	U	0.0332	ug/L	0.0332	0.0996	1
12672-29-6	Aroclor-1248	U	0.0332	ug/L	0.0332	0.0996	1
11097-69-1	Aroclor-1254	U	0.0332	ug/L	0.0332	0.0996	1
11096-82-5	Aroclor-1260	U	0.0332	ug/L	0.0332	0.0996	1

PCB

Certificate of Analysis
Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 12:24**	**Matrix:**	**WATER**
Lab Sample ID:	**527604012**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B0**	**Method:**	**8082_PCB_GC**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**2069551**	**Inst:**	**ECD9A.I**	**Dilution:**	**1**
Run Date:	**12/08/2020 08:41**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/07/2020 09:30**	**Aliquot:**	**1055.85 mL**	**Final Volume:**	**1 mL**
Data File:	**120820.S\E9l0819.D**	**Column:**	**1 RTX-CLPEST 1**		
	120820.S\E9l0819.D		**2 RTX-CLPEST 2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.0315	ug/L	0.0315	0.0947	1
11104-28-2	Aroclor-1221	U	0.0315	ug/L	0.0315	0.0947	1
11141-16-5	Aroclor-1232	U	0.0315	ug/L	0.0315	0.0947	1
53469-21-9	Aroclor-1242	U	0.0315	ug/L	0.0315	0.0947	1
12672-29-6	Aroclor-1248	U	0.0315	ug/L	0.0315	0.0947	1
11097-69-1	Aroclor-1254	U	0.0315	ug/L	0.0315	0.0947	1
11096-82-5	Aroclor-1260	U	0.0315	ug/L	0.0315	0.0947	1

PCB

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604013**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B1**	**Method:**	**8082_PCB_GC**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**2069551**	**Inst:**	**ECD9A.I**	**Dilution:**	**1**
Run Date:	**12/08/2020 08:54**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/07/2020 09:30**	**Aliquot:**	**1049.38 mL**	**Final Volume:**	**1 mL**
Data File:	**120820.S\E9l0820.D**	**Column:**	**1 RTX-CLPEST 1**		
	120820.S\E9l0820.D		**2 RTX-CLPEST 2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.0317	ug/L	0.0317	0.0953	1
11104-28-2	Aroclor-1221	U	0.0317	ug/L	0.0317	0.0953	1
11141-16-5	Aroclor-1232	U	0.0317	ug/L	0.0317	0.0953	1
53469-21-9	Aroclor-1242	U	0.0317	ug/L	0.0317	0.0953	1
12672-29-6	Aroclor-1248	U	0.0317	ug/L	0.0317	0.0953	1
11097-69-1	Aroclor-1254	U	0.0317	ug/L	0.0317	0.0953	1
11096-82-5	Aroclor-1260	U	0.0317	ug/L	0.0317	0.0953	1

PCB

Certificate of Analysis

Sample Summary

SDG Number:	**GEL527604**	**Date Collected:**	**11/16/2020 10:32**	**Matrix:**	**WATER**
Lab Sample ID:	**527604014**	**Date Received:**	**11/17/2020 10:00**		
		Client:	**CPRC002**	**Project:**	**CPRC0W21011**
Client ID:	**B3X4B2**	**Method:**	**8082_PCB_GC**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**2069551**	**Inst:**	**ECD9A.I**	**Dilution:**	**1**
Run Date:	**12/08/2020 09:08**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/07/2020 09:30**	**Aliquot:**	**1056.3 mL**	**Final Volume:**	**1 mL**
Data File:	**120820.S\E9l0821.D**	**Column:**	**1 RTX-CLPEST 1**		
	120820.S\E9l0821.D		**2 RTX-CLPEST 2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.0315	ug/L	0.0315	0.0947	1
11104-28-2	Aroclor-1221	U	0.0315	ug/L	0.0315	0.0947	1
11141-16-5	Aroclor-1232	U	0.0315	ug/L	0.0315	0.0947	1
53469-21-9	Aroclor-1242	U	0.0315	ug/L	0.0315	0.0947	1
12672-29-6	Aroclor-1248	U	0.0315	ug/L	0.0315	0.0947	1
11097-69-1	Aroclor-1254	U	0.0315	ug/L	0.0315	0.0947	1
11096-82-5	Aroclor-1260	U	0.0315	ug/L	0.0315	0.0947	1

Quality Control Summary

PCB

Surrogate Recovery Report

SDG Number: GEL527604

Matrix Type: LIQUID

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1204708706	MB for batch 2069548	55	56	76	88
1204708707	LCS for batch 2069548	62	61	74	95
1204708708	CAMO-21-210602MS	61	62	81	90
1204708709	CAMO-21-210602MSD	54	56	77	82
527604011	B3XM36	61	66	78	85
527604012	B3X4B0	59	64	74	81
527604013	B3X4B1	61	65	74	85
527604014	B3X4B2	63	68	78	86

Surrogate		Parmname	Acceptance Limits
4CMX	=	4cmx	(30%-113%)
DCB	=	Decachlorobiphenyl	(34%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

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QC Summary

Report Date: December 9, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: **Mr. Scot Fitzgerald**

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-PCB										
Batch 2069551										
QC1204708707 LCS										
Aroclor-1016	1.00			0.715	ug/L		71	(38%-100%)	YS1	12/08/20 07:21
Aroclor-1260	1.00			0.769	ug/L		77	(46%-110%)		
**4cmx	0.200			0.122	ug/L		61	(30%-113%)		
**Decachlorobiphenyl	0.200			0.148	ug/L		74	(34%-130%)		
QC1204708706 MB										
Aroclor-1016			U	0.0333	ug/L					12/08/20 07:09
Aroclor-1221			U	0.0333	ug/L					
Aroclor-1232			U	0.0333	ug/L					
Aroclor-1242			U	0.0333	ug/L					
Aroclor-1248			U	0.0333	ug/L					
Aroclor-1254			U	0.0333	ug/L					
Aroclor-1260			U	0.0333	ug/L					
**4cmx	0.200			0.110	ug/L		55	(30%-113%)		
**Decachlorobiphenyl	0.200			0.153	ug/L		76	(34%-130%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Semi-Volatiles-PCB											
Batch 2069551											
QC1204708708 527501005 MS											
Aroclor-1016	1.00	U	0.0333		0.720	ug/L		72	(28%-107%)	YS1	12/08/20 07:47
Aroclor-1260	1.00	U	0.0333		0.763	ug/L		76	(32%-122%)		
**4cmx	0.200		0.125		0.121	ug/L		61	(30%-113%)		
**Decachlorobiphenyl	0.200		0.151		0.161	ug/L		81	(34%-130%)		
QC1204708709 527501005 MSD											
Aroclor-1016	1.00	U	0.0333		0.674	ug/L	7	67	(0%-27%)		12/08/20 08:00
Aroclor-1260	1.00	U	0.0333		0.708	ug/L	8	71	(0%-29%)		
**4cmx	0.200		0.125		0.109	ug/L		54	(30%-113%)		
**Decachlorobiphenyl	0.200		0.151		0.154	ug/L		77	(34%-130%)		

Notes:

The Qualifiers in this report are defined as follows:

- A The TIC is a suspected aldol-condensation product
- B The analyte was detected in both the associated QC blank and in the sample.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of sample.
- E Concentration exceeds the calibration range of the instrument
- E Reported value is estimated due to interferences. See comment in narrative.
- J The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).Value is estimated
- N Spike Sample recovery is outside control limits.
- P Aroclor target analyte with greater than 25% difference between column analyses.
- T Spike and/or spike duplicate sample recovery is outside control limits.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

o Analyte failed to recover within LCS limits (0rganics only)

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 2063921

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3005A/6020B
Analytical Procedure: GL-MA-E-014 REV# 34
Analytical Batch: 2063952

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: 7470_HG_CVAA
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 2070914

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batches: 2063920 and 2063951

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 2070910

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604005	B3XMW6
527604006	B3XMW4
1204696920	Method Blank (MB)**ICP**
1204696921	Laboratory Control Sample (LCS)
1204696922	Laboratory Control Sample Duplicate (LCSD)
1204705938	527604005(B3XMW6L) Serial Dilution (SD)
1204696982	Method Blank (MB)**ICP-MS**
1204696983	Laboratory Control Sample (LCS)
1204696986	527592006(NonSDGL) Serial Dilution (SD)
1204696984	527592006(NonSDGS) Matrix Spike (MS)
1204696985	527592006(NonSDGSD) Matrix Spike Duplicate (MSD)
1204711574	Method Blank (MB)**CVAA**
1204711575	Laboratory Control Sample (LCS)
1204711578	527653001(NonSDGL) Serial Dilution (SD)
1204711576	527653001(NonSDGD) Sample Duplicate (DUP)
1204711577	527653001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Method Blank (MB) Statement
The samples in this SDG contained analytes at concentrations more than ten times the amount present in the method blank, therefore the data was not adversely affected.

Sample	Analyte	Value
1204696920 (MB)	Potassium	See applicable report

The samples in this SDG contained potassium at concentrations more than ten times the amount present in the method blank, therefore the data was not adversely affected. 527604005 (B3XMW6) and 527604006 (B3XMW4)-ICP.

Laboratory Control Sample Duplicate (LCSD)
An LCSD was used in place of matrix QC due to limited sample volume. ICP.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

* Duplicate analysis not within control limits

B The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).

C Target analyte was detected in the sample and the associated blank. The associated blank concentration is >= EQL or is > 5% of the measured concentration and/or decision level for associated samples.

D Results are reported from a diluted aliquot of sample.

N Spike Sample recovery is outside control limits.

U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: **Name: Edmund Frampton**

Date: 10 DEC 2020 **Title: Team Leader**

Sample Data Summary

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: GEL527604 **CONTRACT:** CPRC0W21011 **METHOD TYPE:** SW846

SAMPLE ID: 527604005 **BASIS:** As Received **DATE COLLECTED** 16−NOV−20

CLIENT ID: B3XMW6 **LEVEL:** Low **DATE RECEIVED** 17−NOV−20

MATRIX: WATER **%SOLIDS:** 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429−90−5	Aluminum	19.3	ug/L	U	19.3	50.0	50.0	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−36−0	Antimony	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−38−2	Arsenic	3.35	ug/L	B	2.00	5.00	5.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−39−3	Barium	55.4	ug/L		0.670	4.00	4.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−41−7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−42−8	Boron	15.0	ug/L	U	15.0	50.0	50.0	1	P	HSC	12/01/20 15:30	120120−1	2063921
7440−43−9	Cadmium	0.300	ug/L	U	0.300	1.00	1.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−70−2	Calcium	42800	ug/L		50.0	200	200	1	P	HSC	12/01/20 15:30	120120−1	2063921
7440−47−3	Chromium	82.9	ug/L		3.00	10.0	10.0	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−48−4	Cobalt	0.300	ug/L	U	0.300	1.00	1.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−50−8	Copper	0.300	ug/L	U	0.300	2.00	2.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7439−89−6	Iron	30.0	ug/L	U	30.0	100	100	1	P	HSC	12/01/20 15:30	120120−1	2063921
7439−92−1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7439−95−4	Magnesium	14300	ug/L		110	300	300	1	P	HSC	12/01/20 15:30	120120−1	2063921
7439−96−5	Manganese	1.00	ug/L	U	1.00	5.00	5.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7439−97−6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	MTM1	12/10/20 06:45	121020W1−3	2070914
7439−98−7	Molybdenum	3.34	ug/L		0.200	1.00	1.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−02−0	Nickel	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−09−7	Potassium	4960	ug/L		50.0	150	150	1	P	HSC	12/01/20 15:30	120120−1	2063921
7782−49−2	Selenium	4.03	ug/L	B	2.00	5.00	5.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−22−4	Silver	0.300	ug/L	U	0.300	1.00	1.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−23−5	Sodium	168000	ug/L		100	300	300	1	P	HSC	12/01/20 15:30	120120−1	2063921
7440−24−6	Strontium	192	ug/L		2.00	10.0	10.0	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−28−0	Thallium	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−29−1	Thorium	0.700	ug/L	U	0.700	2.00	2.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−31−5	Tin	1.00	ug/L	U	1.00	5.00	5.00	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−61−1	Uranium	1.43	ug/L		0.0670	0.200	0.200	1	MS	PRB	12/01/20 22:55	201201−2	2063952
7440−62−2	Vanadium	35.3	ug/L		1.00	5.00	5.00	1	P	HSC	12/01/20 15:30	120120−1	2063921
7440−66−6	Zinc	3.30	ug/L	U	3.30	20.0	20.0	1	MS	PRB	12/01/20 22:55	201201−2	2063952

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2063921	2063920	SW846 3005A	50	mL	50	mL	11/25/20	HH1
2063952	2063951	SW846 3005A	50	mL	50	mL	11/25/20	HH1

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

2070914	2070910	SW846 7470A Prep	20	mL	20	mL	12/09/20	AXS5

***Analytical Methods:**

P	**SW846 3005A/6010D**
MS	**SW846 3005A/6020B**
AV	**SW846 7470A**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: GEL527604 **CONTRACT:** CPRC0W21011 **METHOD TYPE:** SW846

SAMPLE ID: 527604006 **BASIS:** As Received **DATE COLLECTED** 16−NOV−20

CLIENT ID: B3XMW4 **LEVEL:** Low **DATE RECEIVED** 17−NOV−20

MATRIX: WATER **%SOLIDS:** 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429−90−5	Aluminum	117	ug/L		19.3	50.0	50.0	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−36−0	Antimony	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−38−2	Arsenic	3.36	ug/L	B	2.00	5.00	5.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−39−3	Barium	55.8	ug/L		0.670	4.00	4.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−41−7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−42−8	Boron	15.0	ug/L	U	15.0	50.0	50.0	1	P	HSC	12/01/20 15:38	120120−1	2063921
7440−43−9	Cadmium	0.300	ug/L	U	0.300	1.00	1.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−70−2	Calcium	43000	ug/L		50.0	200	200	1	P	HSC	12/01/20 15:38	120120−1	2063921
7440−47−3	Chromium	83.2	ug/L		3.00	10.0	10.0	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−48−4	Cobalt	0.300	ug/L	U	0.300	1.00	1.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−50−8	Copper	0.429	ug/L	B	0.300	2.00	2.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7439−89−6	Iron	353	ug/L		30.0	100	100	1	P	HSC	12/01/20 15:38	120120−1	2063921
7439−92−1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7439−95−4	Magnesium	14200	ug/L		110	300	300	1	P	HSC	12/01/20 15:38	120120−1	2063921
7439−96−5	Manganese	6.08	ug/L		1.00	5.00	5.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7439−97−6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	MTM1	12/10/20 06:47	121020W1−3	2070914
7439−98−7	Molybdenum	3.37	ug/L		0.200	1.00	1.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−02−0	Nickel	1.56	ug/L	B	0.600	2.00	2.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−09−7	Potassium	5090	ug/L		50.0	150	150	1	P	HSC	12/01/20 15:38	120120−1	2063921
7782−49−2	Selenium	3.68	ug/L	B	2.00	5.00	5.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−22−4	Silver	0.300	ug/L	U	0.300	1.00	1.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−23−5	Sodium	166000	ug/L		100	300	300	1	P	HSC	12/01/20 15:38	120120−1	2063921
7440−24−6	Strontium	187	ug/L		2.00	10.0	10.0	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−28−0	Thallium	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−29−1	Thorium	0.700	ug/L	U	0.700	2.00	2.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−31−5	Tin	1.00	ug/L	U	1.00	5.00	5.00	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−61−1	Uranium	1.41	ug/L		0.0670	0.200	0.200	1	MS	PRB	12/01/20 22:59	201201−2	2063952
7440−62−2	Vanadium	35.5	ug/L		1.00	5.00	5.00	1	P	HSC	12/01/20 15:38	120120−1	2063921
7440−66−6	Zinc	3.49	ug/L	B	3.30	20.0	20.0	1	MS	PRB	12/01/20 22:59	201201−2	2063952

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2063921	2063920	SW846 3005A	50	mL	50	mL	11/25/20	HH1
2063952	2063951	SW846 3005A	50	mL	50	mL	11/25/20	HH1

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

2070914	2070910	SW846 7470A Prep	20	mL	20	mL	12/09/20	AXS5

***Analytical Methods:**

P	**SW846 3005A/6010D**
MS	**SW846 3005A/6020B**
AV	**SW846 7470A**

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 10, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: Mr. Scot Fitzgerald

Workorder: 527604

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2063952										
QC1204696983 LCS										
Aluminum	2000			1930	ug/L		96.6	(80%-120%)	PRB	12/01/20 22:16
Antimony	50.0			46.0	ug/L		92	(80%-120%)		
Arsenic	50.0			45.2	ug/L		90.4	(80%-120%)		
Barium	50.0			47.0	ug/L		94.1	(80%-120%)		
Beryllium	50.0			55.7	ug/L		111	(80%-120%)		
Cadmium	50.0			48.1	ug/L		96.2	(80%-120%)		
Chromium	50.0			46.8	ug/L		93.5	(80%-120%)		
Cobalt	50.0			45.7	ug/L		91.5	(80%-120%)		
Copper	50.0			45.6	ug/L		91.2	(80%-120%)		
Lead	50.0			47.9	ug/L		95.9	(80%-120%)		
Manganese	50.0			45.7	ug/L		91.5	(80%-120%)		
Molybdenum	50.0			48.7	ug/L		97.4	(80%-120%)		
Nickel	50.0			46.7	ug/L		93.3	(80%-120%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2063952										
Selenium	50.0			47.8	ug/L		95.6	(80%-120%)	PRB	12/01/20 22:16
Silver	50.0			49.6	ug/L		99.1	(80%-120%)		
Strontium	50.0			49.6	ug/L		99.2	(80%-120%)		
Thallium	50.0			47.0	ug/L		94	(80%-120%)		
Thorium	50.0			45.2	ug/L		90.3	(80%-120%)		
Tin	50.0			47.3	ug/L		94.6	(80%-120%)		
Uranium	50.0			45.5	ug/L		91.1	(80%-120%)		
Zinc	50.0			48.2	ug/L		96.5	(80%-120%)		
QC1204696982 MB										
Aluminum			U	19.3	ug/L					12/01/20 22:12
Antimony			U	1.00	ug/L					
Arsenic			U	2.00	ug/L					
Barium			U	0.670	ug/L					
Beryllium			U	0.200	ug/L					
Cadmium			U	0.300	ug/L					
Chromium			U	3.00	ug/L					

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2063952										
Cobalt			U	0.300	ug/L				PRB	12/01/20 22:12
Copper			U	0.300	ug/L					
Lead			U	0.500	ug/L					
Manganese			U	1.00	ug/L					
Molybdenum			U	0.200	ug/L					
Nickel			U	0.600	ug/L					
Selenium			U	2.00	ug/L					
Silver			U	0.300	ug/L					
Strontium			U	2.00	ug/L					
Thallium			U	0.600	ug/L					
Thorium			U	0.700	ug/L					
Tin			U	1.00	ug/L					
Uranium			U	0.0670	ug/L					
Zinc			U	3.30	ug/L					
QC1204696984 527592006 MS										
Aluminum	2000 U	19.3		1980	ug/L		98.6	(75%-125%)		12/01/20 22:27

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2063952											
Antimony	50.0	U	1.00		50.0	ug/L		99.7	(75%-125%)	PRB	12/01/20 22:27
Arsenic	50.0	U	2.00		49.3	ug/L		94.6	(75%-125%)		
Barium	50.0		53.1		98.1	ug/L		89.9	(75%-125%)		
Beryllium	50.0	U	0.200		55.4	ug/L		111	(75%-125%)		
Cadmium	50.0	U	0.300		49.8	ug/L		99.6	(75%-125%)		
Chromium	50.0		11.6		59.1	ug/L		95	(75%-125%)		
Cobalt	50.0	U	0.300		45.8	ug/L		91.4	(75%-125%)		
Copper	50.0	B	0.612		45.2	ug/L		89.1	(75%-125%)		
Lead	50.0	U	0.500		49.0	ug/L		98	(75%-125%)		
Manganese	50.0	U	1.00		46.5	ug/L		92.3	(75%-125%)		
Molybdenum	50.0	B	0.450		50.9	ug/L		101	(75%-125%)		
Nickel	50.0	B	0.848		46.5	ug/L		91.3	(75%-125%)		
Selenium	50.0	U	2.00		49.9	ug/L		97.3	(75%-125%)		
Silver	50.0	U	0.300		48.7	ug/L		97.3	(75%-125%)		
Strontium	50.0		306		350	ug/L		N/A	(75%-125%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2063952											
Thallium	50.0	U	0.600		46.8	ug/L		93.6	(75%-125%)	PRB	12/01/20 22:27
Thorium	50.0	U	0.700		47.3	ug/L		94.3	(75%-125%)		
Tin	50.0	U	1.00		50.9	ug/L		101	(75%-125%)		
Uranium	50.0		0.917		48.0	ug/L		94.2	(75%-125%)		
Zinc	50.0	B	3.40		50.1	ug/L		93.4	(75%-125%)		
QC1204696985 527592006 MSD											
Aluminum	2000	U	19.3		2010	ug/L	1.6	100	(0%-20%)		12/01/20 22:30
Antimony	50.0	U	1.00		49.7	ug/L	0.558	99.1	(0%-20%)		
Arsenic	50.0	U	2.00		49.1	ug/L	0.374	94.2	(0%-20%)		
Barium	50.0		53.1		98.9	ug/L	0.787	91.5	(0%-20%)		
Beryllium	50.0	U	0.200		58.0	ug/L	4.58	116	(0%-20%)		
Cadmium	50.0	U	0.300		49.5	ug/L	0.653	98.9	(0%-20%)		
Chromium	50.0		11.6		59.5	ug/L	0.738	95.9	(0%-20%)		
Cobalt	50.0	U	0.300		46.4	ug/L	1.33	92.7	(0%-20%)		
Copper	50.0	B	0.612		44.7	ug/L	1.06	88.2	(0%-20%)		
Lead	50.0	U	0.500		48.1	ug/L	1.84	96.2	(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2063952											
Manganese	50.0	U	1.00		47.0	ug/L	1.01	93.2	(0%-20%)	PRB	12/01/20 22:30
Molybdenum	50.0	B	0.450		53.3	ug/L	4.66	106	(0%-20%)		
Nickel	50.0	B	0.848		47.2	ug/L	1.53	92.7	(0%-20%)		
Selenium	50.0	U	2.00		50.1	ug/L	0.538	97.8	(0%-20%)		
Silver	50.0	U	0.300		49.1	ug/L	0.797	98.1	(0%-20%)		
Strontium	50.0		306		357	ug/L	2.01	N/A	(0%-20%)		
Thallium	50.0	U	0.600		46.9	ug/L	0.239	93.9	(0%-20%)		
Thorium	50.0	U	0.700		46.8	ug/L	1.16	93.2	(0%-20%)		
Tin	50.0	U	1.00		51.3	ug/L	0.857	102	(0%-20%)		
Uranium	50.0		0.917		47.1	ug/L	1.79	92.5	(0%-20%)		
Zinc	50.0	B	3.40		49.4	ug/L	1.47	92	(0%-20%)		
QC1204696986 527592006 SDILT											
Aluminum		U	5.89	DU	96.5	ug/L	N/A		(0%-20%)		12/01/20 22:37
Antimony		U	0.137	DU	5.00	ug/L	N/A		(0%-20%)		
Arsenic		U	1.98	DU	10.0	ug/L	N/A		(0%-20%)		
Barium			53.1	D	9.92	ug/L	6.63		(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2063952										
Beryllium	U	-0.00500	DU	1.00	ug/L	N/A		(0%-20%)	PRB	12/01/20 22:37
Cadmium	U	0.00600	DU	1.50	ug/L	N/A		(0%-20%)		
Chromium		11.6	DU	15.0	ug/L	N/A		(0%-20%)		
Cobalt	U	0.0560	DU	1.50	ug/L	N/A		(0%-20%)		
Copper	B	0.612	DU	1.50	ug/L	N/A		(0%-20%)		
Lead	U	-0.0700	DU	2.50	ug/L	N/A		(0%-20%)		
Manganese	U	0.407	DU	5.00	ug/L	N/A		(0%-20%)		
Molybdenum	B	0.450	DU	1.00	ug/L	N/A		(0%-20%)		
Nickel	B	0.848	DU	3.00	ug/L	N/A		(0%-20%)		
Selenium	U	1.22	DU	10.0	ug/L	N/A		(0%-20%)		
Silver	U	0.0860	DU	1.50	ug/L	N/A		(0%-20%)		
Strontium		306	D	57.7	ug/L	5.75		(0%-20%)		
Thallium	U	0.00300	DU	3.00	ug/L	N/A		(0%-20%)		
Thorium	U	0.182	DU	3.50	ug/L	N/A		(0%-20%)		
Tin	U	0.397	DU	5.00	ug/L	N/A		(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2063952										
Uranium		0.917	BD	0.191	ug/L	4.14		(0%-20%)	PRB	12/01/20 22:37
Zinc	B	3.40	DU	16.5	ug/L	N/A		(0%-20%)		
Metals Analysis-ICP										
Batch 2063921										
QC1204696921 LCS										
Boron	500			516	ug/L		103	(80%-120%)	HSC	12/01/20 15:24
Calcium	5000			5110	ug/L		102	(80%-120%)		
Iron	5000			5060	ug/L		101	(80%-120%)		
Magnesium	5000			5130	ug/L		103	(80%-120%)		
Potassium	5000			4820	ug/L		96.3	(80%-120%)		
Sodium	5000			4800	ug/L		96.1	(80%-120%)		
Vanadium	500			500	ug/L		100	(80%-120%)		
QC1204696922 LCSD										
Boron	500			504	ug/L	2.36	101	(0%-20%)		12/01/20 15:27
Calcium	5000			5030	ug/L	1.53	101	(0%-20%)		
Iron	5000			4970	ug/L	1.67	99.5	(0%-20%)		
Magnesium	5000			5010	ug/L	2.26	100	(0%-20%)		
Potassium	5000			4740	ug/L	1.49	94.9	(0%-20%)		

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 2063921											
Sodium	5000			4780	ug/L	0.522	95.6	(0%-20%)	HSC	12/01/20	15:27
Vanadium	500			492	ug/L	1.6	98.4	(0%-20%)			
QC1204696920 MB											
Boron			U	15.0	ug/L					12/01/20	15:21
Calcium			U	50.0	ug/L						
Iron			U	30.0	ug/L						
Magnesium			U	110	ug/L						
Potassium				85.4	ug/L						
Sodium			U	100	ug/L						
Vanadium			U	1.00	ug/L						
QC1204705938 527604005 SDILT											
Boron	U	14.2	DU	75.0	ug/L	N/A		(0%-20%)		12/01/20	15:34
Calcium		42800	D	8210	ug/L	4.02		(0%-20%)			
Iron	U	6.09	DU	150	ug/L	N/A		(0%-20%)			
Magnesium		14300	D	2780	ug/L	2.5		(0%-20%)			
Potassium	C	4960	D	1000	ug/L	.873		(0%-20%)			
Sodium		168000	D	32600	ug/L	2.77		(0%-20%)			

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 2063921											
Vanadium			35.3	D	7.06	ug/L	.0213		(0%-20%)	HSC	12/01/20 15:34
Metals Analysis-Mercury											
Batch 2070914											
QC1204711576 527653001 DUP											
Mercury		U	0.0670	U	0.0670	ug/L	N/A			MTM1	12/10/20 06:51
QC1204711575 LCS											
Mercury	2.00				2.12	ug/L		106	(80%-120%)		12/10/20 06:37
QC1204711574 MB											
Mercury				U	0.0670	ug/L					12/10/20 06:35
QC1204711577 527653001 MS											
Mercury	2.00	U	0.0670		1.99	ug/L		99.3	(75%-125%)		12/10/20 06:52
QC1204711578 527653001 SDILT											
Mercury		U	-0.0150	DU	0.335	ug/L	N/A		(0%-10%)		12/10/20 06:54

Notes:

The Qualifiers in this report are defined as follows:

- * Duplicate analysis not within control limits
- + Correlation coefficient for Method of Standard Additions (MSA) is < 0.995
- B The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).
- C Target analyte was detected in the sample and the associated blank. The associated blank concentration is >= EQL or is > 5% of the measured concentration and/or decision level for associated samples.
- D Results are reported from a diluted aliquot of sample.
- E Reported value is estimated due to interferences. See comment in narrative.
- M Duplicate precision not met.
- N Spike Sample recovery is outside control limits.
- S Reported value determined by the Method of Standard Additions (MSA)
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- W Post-digestion spike recovery for GFAA out of control limit. Sample absorbency < 50% of spike absorbency.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time

Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

General Chem Analysis

Case Narrative

General Chemistry
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL527604
Work Order #: 527604

Product: **Cyanide, Free**
Analytical Method: 9014_CYANIDE
Analytical Procedure: GL-GC-E-073 REV# 10
Analytical Batch: 2063751

Product: **Cyanide, Free**
Analytical Method: 9014_CYANIDE
Analytical Procedure: GL-GC-E-073 REV# 9
Analytical Batch: 2064049

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604006	B3XMW4
527604007	B3XLX9
527604008	B3XLY6
527604009	B3XLY7
527604010	B3XM35
1204696596	Method Blank (MB)
1204696597	Laboratory Control Sample (LCS)
1204696598	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Laboratory Control Sample Duplicate (LCSD)
An LCSD was used in place of matrix QC due to limited sample volume. 527604007 (B3XLX9).

Miscellaneous Information

Additional Comments
Total CN levels above the MDL for Free CN were detected in sample 527604007 (B3XLX9). Free CN was performed per SOP (GL-GC-E-073).

Product: **Cyanide, Total**
Analytical Method: 9012_CYANIDE
Analytical Procedure: GL-GC-E-095 REV# 22
Analytical Batch: 2063750

Preparation Method: 9012_CYANIDE
Preparation Procedure: GL-GC-E-067 REV# 23
Preparation Batch: 2063749

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604006	B3XMW4
527604007	B3XLX9
527604008	B3XLY6
527604009	B3XLY7
527604010	B3XM35
1204696587	Method Blank (MB)
1204696588	Laboratory Control Sample (LCS)
1204696589	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following sample 527604007 (B3XLX9) was diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	527604 007
Cyanide, Total	10X

Product: **Ion Chromatography**
Analytical Method: 9056_ANIONS_IC
Analytical Procedure: GL-GC-E-086 REV# 28
Analytical Batch: 2063743

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604001	B3XLY0
527604002	B3XLY8
527604003	B3XLY9
527604004	B3XMW5
1204696574	Method Blank (MB)
1204696575	Laboratory Control Sample (LCS)
1204696576	527596003(NonSDG) Sample Duplicate (DUP)
1204696577	527596003(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
The following samples 1204696576 (Non SDG 527596003DUP), 1204696577 (Non SDG 527596003PS), 527604001 (B3XLY0), 527604002 (B3XLY8), 527604003 (B3XLY9) and 527604004 (B3XMW5) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	527604			
	001	002	003	004
Chloride	50X	50X	50X	50X
Nitrate	50X	50X	50X	50X
Sulfate	50X	50X	50X	50X

Miscellaneous Information

Manual Integrations
Samples 527604001 (B3XLY0), 527604002 (B3XLY8), 527604003 (B3XLY9) and 527604004 (B3XMW5) were manually integrated to correctly position the baseline as set in the calibration standards.

Product: **Alkalinity**
Analytical Method: 2320_ALKALINITY
Analytical Procedure: GL-GC-E-033 REV# 13
Analytical Batch: 2064990

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
527604006	B3XMW4
527604007	B3XLX9
527604010	B3XM35
1204699240	Laboratory Control Sample (LCS)
1204699241	527523002(NonSDG) Sample Duplicate (DUP)
1204699242	527523003(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

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Qualifier Definition Report
for

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL527604 GEL Work Order: 527604

The Qualifiers in this report are defined as follows:

B The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).
D Results are reported from a diluted aliquot of sample.
U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: **Name: Aubrey Kingsbury**

Date: 08 DEC 2020 **Title: Data Validator**

Sample Data Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XLY0	Project:	CPRC0W21011
Sample ID:	527604001	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 12:24		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
9056_ANIONS_IC: COMMON "As Received"												
Fluoride		633	33.0	500	ug/L		1	LXA2	11/17/20	1334	2063743	1
Nitrite-N	U	33.0	33.0	100	ug/L		1					
Chloride	D	35700	3350	10000	ug/L		50	LXA2	11/17/20	2235	2063743	2
Nitrate-N	D	68500	1650	5000	ug/L		50					
Sulfate	D	52600	6650	20000	ug/L		50					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9056_ANIONS_IC	
2	9056_ANIONS_IC	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XLY8	Project:	CPRC0W21011
Sample ID:	527604002	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 10:32		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
9056_ANIONS_IC: COMMON "As Received"												
Fluoride		613	33.0	500	ug/L		1	LXA2	11/17/20	1401	2063743	1
Nitrite-N	U	33.0	33.0	100	ug/L		1					
Chloride	D	34600	3350	10000	ug/L		50	LXA2	11/17/20	2302	2063743	2
Nitrate-N	D	42100	1650	5000	ug/L		50					
Sulfate	D	56400	6650	20000	ug/L		50					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9056_ANIONS_IC	
2	9056_ANIONS_IC	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XLY9	Project:	CPRC0W21011
Sample ID:	527604003	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 10:32		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
9056_ANIONS_IC: COMMON "As Received"												
Fluoride		582	33.0	500	ug/L		1	LXA2	11/17/20	1428	2063743	1
Nitrite-N	U	33.0	33.0	100	ug/L		1					
Chloride	D	34800	3350	10000	ug/L		50	LXA2	11/17/20	2329	2063743	2
Nitrate-N	D	40000	1650	5000	ug/L		50					
Sulfate	D	56700	6650	20000	ug/L		50					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9056_ANIONS_IC	
2	9056_ANIONS_IC	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XMW5	Project:	CPRC0W21011
Sample ID:	527604004	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 08:34		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
9056_ANIONS_IC: COMMON "As Received"												
Fluoride		1180	33.0	500	ug/L		1	LXA2	11/17/20	1455	2063743	1
Nitrite-N	U	33.0	33.0	100	ug/L		1					
Chloride	D	30000	3350	10000	ug/L		50	LXA2	11/17/20	2356	2063743	2
Nitrate-N	D	83800	1650	5000	ug/L		50					
Sulfate	D	50400	6650	20000	ug/L		50					

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9056_ANIONS_IC	
2	9056_ANIONS_IC	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XMW4	Project:	CPRC0W21011
Sample ID:	527604006	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 08:34		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis												
9012_CYANIDE (TOTAL): COMMON "As Received"												
Cyanide, Total	U	1.67	1.67	5.00	ug/L	1.00	1	AXH3	11/18/20	0649	2063750	1
9014_CN (FREE): COMMON "As Received"												
Free Cyanide	U	1.00	1.00	2.00	ug/L		1	AXH3	11/18/20	0700	2064049	2
Titration and Ion Analysis												
2320_ALKALINITY: COMMON (Alkalinity only) "As Received"												
Alkalinity, Total as CaCO3		125000	1450	4000	ug/L			RXB5	11/27/20	1459	2064990	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
9012_CYANIDE	SW846 9010C Prep	AXH3	11/18/20	0630	2063749

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9012_CYANIDE	
2	9014_CYANIDE	
3	2320_ALKALINITY	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XLX9	Project:	CPRC0W21011
Sample ID:	527604007	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 12:24		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis												
9012_CYANIDE (TOTAL): COMMON "As Received"												
Cyanide, Total	D	1020	16.7	50.0	ug/L	1.00	10	AXH3	11/18/20	0709	2063750	1
9014_CN (FREE): COMMON "As Received"												
Free Cyanide		13.5	1.00	2.00	ug/L		1	AXH3	11/19/20	1003	2063751	2
Titration and Ion Analysis												
2320_ALKALINITY: COMMON (Alkalinity only) "As Received"												
Alkalinity, Total as CaCO3		117000	1450	4000	ug/L			RXB5	11/27/20	1501	2064990	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
9012_CYANIDE	SW846 9010C Prep	AXH3	11/18/20	0630	2063749

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9012_CYANIDE	
2	9014_CYANIDE	
3	2320_ALKALINITY	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XLY6	Project:	CPRC0W21011
Sample ID:	527604008	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 10:32		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis												
9012_CYANIDE (TOTAL): COMMON "As Received"												
Cyanide, Total	U	1.67	1.67	5.00	ug/L	1.00	1	AXH3	11/18/20	0655	2063750	1
9014_CN (FREE): COMMON "As Received"												
Free Cyanide	U	1.00	1.00	2.00	ug/L		1	AXH3	11/18/20	0700	2064049	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
9012_CYANIDE	SW846 9010C Prep	AXH3	11/18/20	0630	2063749

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9012_CYANIDE	
2	9014_CYANIDE	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XLY7	Project:	CPRC0W21011
Sample ID:	527604009	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 10:32		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis												
9012_CYANIDE (TOTAL): COMMON "As Received"												
Cyanide, Total	U	1.67	1.67	5.00	ug/L	1.00	1	AXH3	11/18/20	0656	2063750	1
9014_CN (FREE): COMMON "As Received"												
Free Cyanide	U	1.00	1.00	2.00	ug/L		1	AXH3	11/18/20	0700	2064049	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
9012_CYANIDE	SW846 9010C Prep	AXH3	11/18/20	0630	2063749

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9012_CYANIDE	
2	9014_CYANIDE	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: December 8, 2020

Company :	CH2MHill Plateau Remediation Company
Address :	MSIN R3-50 CHPRC PO Box 1600 Richland, Washington 99352
Contact:	Mr. Scot Fitzgerald
Project:	CHPRC SAF W21-011

Client Sample ID:	B3XM35	Project:	CPRC0W21011
Sample ID:	527604010	Client ID:	CPRC002
Matrix:	WATER		
Collect Date:	16-NOV-20 09:36		
Receive Date:	17-NOV-20		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis												
9012_CYANIDE (TOTAL): COMMON "As Received"												
Cyanide, Total	U	1.67	1.67	5.00	ug/L	1.00	1	AXH3	11/18/20	0656	2063750	1
9014_CN (FREE): COMMON "As Received"												
Free Cyanide	U	1.00	1.00	2.00	ug/L		1	AXH3	11/18/20	0700	2064049	2
Titration and Ion Analysis												
2320_ALKALINITY: COMMON (Alkalinity only) "As Received"												
Alkalinity, Total as CaCO3		109000	1450	4000	ug/L			RXB5	11/27/20	1502	2064990	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
9012_CYANIDE	SW846 9010C Prep	AXH3	11/18/20	0630	2063749

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	9012_CYANIDE	
2	9014_CYANIDE	
3	2320_ALKALINITY	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 8, 2020

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: **Mr. Scot Fitzgerald**

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 2063750										
QC1204696588 LCS										
Cyanide, Total	50.0			48.4	ug/L		96.8	(80%-120%)	AXH3	11/18/20 06:43
QC1204696589 LCSD										
Cyanide, Total	50.0			49.0	ug/L	1.23	98	(0%-20%)		11/18/20 06:44
QC1204696587 MB										
Cyanide, Total			U	1.67	ug/L					11/18/20 06:42
Batch 2063751										
QC1204696597 LCS										
Free Cyanide	25.0			24.9	ug/L		99.8	(80%-120%)	AXH3	11/19/20 10:03
QC1204696598 LCSD										
Free Cyanide	25.0			24.7	ug/L	1.03	98.7	(0%-20%)		11/19/20 10:03
QC1204696596 MB										
Free Cyanide			U	1.00	ug/L					11/19/20 10:03
Ion Chromatography										
Batch 2063743										
QC1204696576 527596003 DUP										
Chloride	D	15700	D	15900	ug/L	0.797		(0%-20%)	LXA2	11/17/20 21:14
Fluoride	B	157	B	156	ug/L	0.575 ^		(+/-500)		11/17/20 18:59
Nitrate-N	D	5820	D	5250	ug/L	10.3		(0%-20%)		11/17/20 21:14
Nitrite-N	U	33.0	U	33.0	ug/L	N/A				11/17/20 18:59

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 2063743											
Sulfate	D		102000	D	102000	ug/L	0.139		(0%-20%)	LXA2	11/17/20 21:14
QC1204696575 LCS											
Chloride	5000				4710	ug/L		94.2	(80%-120%)		11/17/20 18:32
Fluoride	2500				2420	ug/L		96.8	(80%-120%)		
Nitrate-N	2500				2430	ug/L		97	(80%-120%)		
Nitrite-N	2500				2410	ug/L		96.6	(80%-120%)		
Sulfate	10000				9820	ug/L		98.2	(80%-120%)		
QC1204696574 MB											
Chloride				U	67.0	ug/L					11/17/20 18:05
Fluoride				U	33.0	ug/L					
Nitrate-N				U	33.0	ug/L					
Nitrite-N				U	33.0	ug/L					
Sulfate				U	133	ug/L					
QC1204696577 527596003 PS											
Chloride	5.00	D	0.787	D	5.36	mg/L		91.4	(75%-125%)		11/17/20 21:41
Fluoride	2.50	B	0.157		2.60	mg/L		97.9	(75%-125%)		11/17/20 19:26
Nitrate-N	2.50	D	0.291	D	2.62	mg/L		93.2	(75%-125%)		11/17/20 21:41

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QC Summary

Workorder: **527604**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 2063743											
Nitrite-N	2.50	U	0.000		2.48	mg/L		99.1	(75%-125%)	LXA2	11/17/20 19:26
Sulfate	10.0	D	5.10	D	14.9	mg/L		98.4	(75%-125%)		11/17/20 21:41
Titration and Ion Analysis											
Batch 2064990											
QC1204699241 527523002 DUP											
Alkalinity, Total as CaCO3			148000		145000	ug/L	1.63		(0%-20%)	RXB5	11/27/20 14:47
QC1204699242 527523003 DUP											
Alkalinity, Total as CaCO3			148000		150000	ug/L	1.2		(0%-20%)		11/27/20 14:51
QC1204699240 LCS											
Alkalinity, Total as CaCO3	100000				108000	ug/L		108	(80%-120%)		11/27/20 14:44

Notes:

The Qualifiers in this report are defined as follows:

- < Sample is below the EPA guidance level for Reactive Releasable Cyanide and/or Reactive Releasable Sulfide
- > Result greater than quantifiable range or greater than upper limit of the analysis range
- B The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).
- C Target analyte was detected in the sample and the associated blank. The associated blank concentration is >= EQL or is > 5% of the measured concentration and/or decision level for associated samples.
- D Results are reported from a diluted aliquot of sample.
- E Reported value is estimated due to interferences. See comment in narrative.
- N Spike Sample recovery is outside control limits.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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QC Summary

Workorder: **527604**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.