

 **ANALYTICAL REPORT****PREPARED FOR**

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JOB DESCRIPTION

Los Olivos

JOB NUMBER

570-173764-1

Eurofins Calscience

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Definitions/Glossary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: GSI Water Solutions, Inc
Project: Los Olivos

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Job Narrative 570-173764-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/23/2024 6:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

HPLC/IC

Method 300_ORGFM_28D: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 570-413596 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Chloride in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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

Metals

Method 200.7 - Total Recoverable: The method blank for preparation batch 570-415280 and analytical batch 570-415523 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 200.7 - Total Recoverable: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-415280 and analytical batch 570-415523 were outside control limits for Aluminum. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

General Chemistry

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

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Detection Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-1

Lab Sample ID: 570-173764-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.4		0.10	0.020	mg/L	1		300.0	Total/NA
Sulfate	39		1.0	0.18	mg/L	1		300.0	Total/NA
Chloride - DL	110		5.0	1.8	mg/L	5		300.0	Total/NA
Aluminum	0.249	J F1	0.500	0.0175	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0126	J	0.100	0.00965	mg/L	1		200.7 Rev 4.4	Total Recoverable
Boron	0.0832	J B	0.500	0.00348	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	0.405	J	0.500	0.0559	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0385	J	0.0500	0.00129	mg/L	1		200.7 Rev 4.4	Total Recoverable
Total Dissolved Solids	492		10.0	8.70	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 570-173764-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	210		10	3.6	mg/L	10		300.0	Total/NA
Nitrate as N - DL	11		1.0	0.20	mg/L	10		300.0	Total/NA
Sulfate - DL	95		10	1.8	mg/L	10		300.0	Total/NA
Aluminum	7.46		0.500	0.0175	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0133	J	0.100	0.00965	mg/L	1		200.7 Rev 4.4	Total Recoverable
Boron	0.176	J B	0.500	0.00348	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	12.1		0.500	0.0559	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.315		0.0500	0.00129	mg/L	1		200.7 Rev 4.4	Total Recoverable
Total Dissolved Solids	1120		10.0	8.70	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 570-173764-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	53		1.0	0.36	mg/L	1		300.0	Total/NA
Nitrate as N	6.3		0.10	0.020	mg/L	1		300.0	Total/NA
Sulfate - DL	190		10	1.8	mg/L	10		300.0	Total/NA
Aluminum	1.19		0.500	0.0175	mg/L	1		200.7 Rev 4.4	Total Recoverable
Boron	0.144	J B	0.500	0.00348	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	1.88		0.500	0.0559	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0951		0.0500	0.00129	mg/L	1		200.7 Rev 4.4	Total Recoverable
Total Dissolved Solids	846		10.0	8.70	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 570-173764-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	87		10	3.6	mg/L	10		300.0	Total/NA
Nitrate as N - DL	11		1.0	0.20	mg/L	10		300.0	Total/NA
Sulfate - DL	180		10	1.8	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-4 (Continued)

Lab Sample ID: 570-173764-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.366	J	0.500	0.0175	mg/L	1		200.7 Rev 4.4	Total Recoverable
Boron	0.211	J B	0.500	0.00348	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	0.388	J	0.500	0.0559	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0124	J	0.0500	0.00129	mg/L	1		200.7 Rev 4.4	Total Recoverable
Total Dissolved Solids	1090		10.0	8.70	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 570-173764-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	41		1.0	0.36	mg/L	1		300.0	Total/NA
Nitrate as N	4.5		0.10	0.020	mg/L	1		300.0	Total/NA
Sulfate - DL	190		10	1.8	mg/L	10		300.0	Total/NA
Aluminum	2.56		0.500	0.0175	mg/L	1		200.7 Rev 4.4	Total Recoverable
Boron	0.142	J B	0.500	0.00348	mg/L	1		200.7 Rev 4.4	Total Recoverable
Iron	3.60		0.500	0.0559	mg/L	1		200.7 Rev 4.4	Total Recoverable
Manganese	0.0569		0.0500	0.00129	mg/L	1		200.7 Rev 4.4	Total Recoverable
Total Dissolved Solids	791		10.0	8.70	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-1

Date Collected: 02/22/24 13:55

Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4		0.10	0.020	mg/L			02/24/24 02:35	1
Sulfate	39		1.0	0.18	mg/L			02/24/24 02:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.0	1.8	mg/L			02/26/24 19:10	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.249	J F1	0.500	0.0175	mg/L		02/29/24 08:27	02/29/24 14:36	1
Arsenic	0.0126	J	0.100	0.00965	mg/L		02/29/24 08:27	02/29/24 14:36	1
Boron	0.0832	J B	0.500	0.00348	mg/L		02/29/24 08:27	02/29/24 14:36	1
Iron	0.405	J	0.500	0.0559	mg/L		02/29/24 08:27	02/29/24 14:36	1
Manganese	0.0385	J	0.0500	0.00129	mg/L		02/29/24 08:27	02/29/24 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	492		10.0	8.70	mg/L			02/29/24 13:53	1

Client Sample ID: MW-2

Date Collected: 02/22/24 12:35

Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-2

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		10	3.6	mg/L			02/24/24 07:07	10
Nitrate as N	11		1.0	0.20	mg/L			02/24/24 07:07	10
Sulfate	95		10	1.8	mg/L			02/24/24 07:07	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7.46		0.500	0.0175	mg/L		02/29/24 08:27	02/29/24 14:43	1
Arsenic	0.0133	J	0.100	0.00965	mg/L		02/29/24 08:27	02/29/24 14:43	1
Boron	0.176	J B	0.500	0.00348	mg/L		02/29/24 08:27	02/29/24 14:43	1
Iron	12.1		0.500	0.0559	mg/L		02/29/24 08:27	02/29/24 14:43	1
Manganese	0.315		0.0500	0.00129	mg/L		02/29/24 08:27	02/29/24 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1120		10.0	8.70	mg/L			02/29/24 13:53	1

Client Sample ID: MW-3

Date Collected: 02/22/24 11:30

Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-3

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53		1.0	0.36	mg/L			02/24/24 04:41	1
Nitrate as N	6.3		0.10	0.020	mg/L			02/24/24 04:41	1

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Client Sample Results

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-3
Date Collected: 02/22/24 11:30
Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-3
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	190		10	1.8	mg/L			02/24/24 07:28	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.19		0.500	0.0175	mg/L		02/29/24 08:27	02/29/24 15:02	1
Arsenic	ND		0.100	0.00965	mg/L		02/29/24 08:27	02/29/24 15:02	1
Boron	0.144	J B	0.500	0.00348	mg/L		02/29/24 08:27	02/29/24 15:02	1
Iron	1.88		0.500	0.0559	mg/L		02/29/24 08:27	02/29/24 15:02	1
Manganese	0.0951		0.0500	0.00129	mg/L		02/29/24 08:27	02/29/24 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	846		10.0	8.70	mg/L			02/29/24 13:53	1

Client Sample ID: MW-4
Date Collected: 02/22/24 11:05
Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-4
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87		10	3.6	mg/L			02/24/24 07:49	10
Nitrate as N	11		1.0	0.20	mg/L			02/24/24 07:49	10
Sulfate	180		10	1.8	mg/L			02/24/24 07:49	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.366	J	0.500	0.0175	mg/L		02/29/24 08:27	02/29/24 15:04	1
Arsenic	ND		0.100	0.00965	mg/L		02/29/24 08:27	02/29/24 15:04	1
Boron	0.211	J B	0.500	0.00348	mg/L		02/29/24 08:27	02/29/24 15:04	1
Iron	0.388	J	0.500	0.0559	mg/L		02/29/24 08:27	02/29/24 15:04	1
Manganese	0.0124	J	0.0500	0.00129	mg/L		02/29/24 08:27	02/29/24 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1090		10.0	8.70	mg/L			02/29/24 13:53	1

Client Sample ID: MW-5
Date Collected: 02/22/24 10:35
Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-5
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41		1.0	0.36	mg/L			02/24/24 05:22	1
Nitrate as N	4.5		0.10	0.020	mg/L			02/24/24 05:22	1

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	190		10	1.8	mg/L			02/24/24 08:51	10

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2.56		0.500	0.0175	mg/L		02/29/24 08:27	02/29/24 15:07	1

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Client Sample Results

Client: GSI Water Solutions, Inc
 Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-5

Lab Sample ID: 570-173764-5

Date Collected: 02/22/24 10:35

Matrix: Water

Date Received: 02/23/24 18:20

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.100	0.00965	mg/L		02/29/24 08:27	02/29/24 15:07	1
Boron	0.142	J B	0.500	0.00348	mg/L		02/29/24 08:27	02/29/24 15:07	1
Iron	3.60		0.500	0.0559	mg/L		02/29/24 08:27	02/29/24 15:07	1
Manganese	0.0569		0.0500	0.00129	mg/L		02/29/24 08:27	02/29/24 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	791		10.0	8.70	mg/L			02/29/24 13:53	1



QC Sample Results

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-413595/5
Matrix: Water
Analysis Batch: 413595

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10	0.020	mg/L			02/23/24 13:47	1

Lab Sample ID: LCS 570-413595/6
Matrix: Water
Analysis Batch: 413595

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	5.00	5.009		mg/L		100	90 - 110

Lab Sample ID: LCSD 570-413595/7
Matrix: Water
Analysis Batch: 413595

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	5.00	5.003		mg/L		100	90 - 110	0	15

Lab Sample ID: 570-173764-1 MS
Matrix: Water
Analysis Batch: 413595

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.4		5.00	7.606		mg/L		104	80 - 120

Lab Sample ID: 570-173764-1 MSD
Matrix: Water
Analysis Batch: 413595

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	2.4		5.00	7.699		mg/L		106	80 - 120	1	20

Lab Sample ID: MB 570-413596/5
Matrix: Water
Analysis Batch: 413596

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.36	mg/L			02/23/24 13:47	1
Sulfate	ND		1.0	0.18	mg/L			02/23/24 13:47	1

Lab Sample ID: LCS 570-413596/6
Matrix: Water
Analysis Batch: 413596

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.71		mg/L		101	90 - 110
Sulfate	50.0	49.75		mg/L		99	90 - 110

QC Sample Results

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 570-413596/7
Matrix: Water
Analysis Batch: 413596

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50.0	50.54		mg/L		101	90 - 110	0	15
Sulfate	50.0	49.72		mg/L		99	90 - 110	0	15

Lab Sample ID: 570-173764-1 MS
Matrix: Water
Analysis Batch: 413596

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	130	E	50.0	189.8	E	mg/L		113	80 - 120
Sulfate	39		50.0	94.96		mg/L		111	80 - 120

Lab Sample ID: 570-173764-1 MSD
Matrix: Water
Analysis Batch: 413596

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	130	E	50.0	190.8	E	mg/L		115	80 - 120	1	20
Sulfate	39		50.0	96.17		mg/L		113	80 - 120	1	20

Lab Sample ID: MB 570-414198/5
Matrix: Water
Analysis Batch: 414198

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.36	mg/L			02/26/24 16:20	1

Lab Sample ID: LCS 570-414198/6
Matrix: Water
Analysis Batch: 414198

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.63		mg/L		101	90 - 110

Lab Sample ID: LCSD 570-414198/7
Matrix: Water
Analysis Batch: 414198

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50.0	50.50		mg/L		101	90 - 110	0	15

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 570-173764-1 MS
Matrix: Water
Analysis Batch: 414198

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride - DL	110		50.0	162.3		mg/L		101	80 - 120

QC Sample Results

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Lab Sample ID: 570-173764-1 MSD
Matrix: Water
Analysis Batch: 414198

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride - DL	110		50.0	163.2		mg/L		102	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 570-415280/1-A
Matrix: Water
Analysis Batch: 415523

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 415280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.500	0.0175	mg/L		02/29/24 08:27	02/29/24 14:21	1
Arsenic	ND		0.100	0.00965	mg/L		02/29/24 08:27	02/29/24 14:21	1
Boron	0.04800	J	0.500	0.00348	mg/L		02/29/24 08:27	02/29/24 14:21	1
Iron	ND		0.500	0.0559	mg/L		02/29/24 08:27	02/29/24 14:21	1
Manganese	ND		0.0500	0.00129	mg/L		02/29/24 08:27	02/29/24 14:21	1

Lab Sample ID: LCS 570-415280/2-A
Matrix: Water
Analysis Batch: 415523

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 415280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.500	0.5094		mg/L		102	85 - 115
Arsenic	0.500	0.5041		mg/L		101	85 - 115
Boron	0.500	0.5334		mg/L		107	85 - 115
Iron	0.500	0.4914	J	mg/L		98	85 - 115
Manganese	0.500	0.5422		mg/L		108	85 - 115

Lab Sample ID: LCSD 570-415280/3-A
Matrix: Water
Analysis Batch: 415523

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 415280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.500	0.4972	J	mg/L		99	85 - 115	2	20
Arsenic	0.500	0.5082		mg/L		102	85 - 115	1	20
Boron	0.500	0.5273		mg/L		105	85 - 115	1	20
Iron	0.500	0.4948	J	mg/L		99	85 - 115	1	20
Manganese	0.500	0.5233		mg/L		105	85 - 115	4	20

Lab Sample ID: 570-173764-1 MS
Matrix: Water
Analysis Batch: 415523

Client Sample ID: MW-1
Prep Type: Total Recoverable
Prep Batch: 415280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.249	J F1	0.500	0.9033	F1	mg/L		131	80 - 120
Arsenic	0.0126	J	0.500	0.5312		mg/L		104	80 - 120
Boron	0.0832	J B	0.500	0.6240		mg/L		108	80 - 120
Iron	0.405	J	0.500	0.9345		mg/L		106	80 - 120
Manganese	0.0385	J	0.500	0.5629		mg/L		105	80 - 120

QC Sample Results

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 570-173764-1 MSD
Matrix: Water
Analysis Batch: 415523

Client Sample ID: MW-1
Prep Type: Total Recoverable
Prep Batch: 415280

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Aluminum	0.249	J F1	0.500	0.8768	F1	mg/L		126	80 - 120	3	20
Arsenic	0.0126	J	0.500	0.5253		mg/L		103	80 - 120	1	20
Boron	0.0832	J B	0.500	0.6078		mg/L		105	80 - 120	3	20
Iron	0.405	J	0.500	0.8972		mg/L		98	80 - 120	4	20
Manganese	0.0385	J	0.500	0.5493		mg/L		102	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-415477/1
Matrix: Water
Analysis Batch: 415477

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10.0	8.70	mg/L			02/29/24 13:53	1

Lab Sample ID: LCS 570-415477/2
Matrix: Water
Analysis Batch: 415477

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
							Added
Total Dissolved Solids	1000	1022		mg/L		102	84 - 108

Lab Sample ID: LCSD 570-415477/3
Matrix: Water
Analysis Batch: 415477

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
							Added		
Total Dissolved Solids	1000	1004		mg/L		100	84 - 108	2	10

QC Association Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

HPLC/IC

Analysis Batch: 413595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-173764-1	MW-1	Total/NA	Water	300.0	
570-173764-2 - DL	MW-2	Total/NA	Water	300.0	
570-173764-3	MW-3	Total/NA	Water	300.0	
570-173764-4 - DL	MW-4	Total/NA	Water	300.0	
570-173764-5	MW-5	Total/NA	Water	300.0	
MB 570-413595/5	Method Blank	Total/NA	Water	300.0	
LCS 570-413595/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-413595/7	Lab Control Sample Dup	Total/NA	Water	300.0	
570-173764-1 MS	MW-1	Total/NA	Water	300.0	
570-173764-1 MSD	MW-1	Total/NA	Water	300.0	

Analysis Batch: 413596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-173764-1	MW-1	Total/NA	Water	300.0	
570-173764-2 - DL	MW-2	Total/NA	Water	300.0	
570-173764-3	MW-3	Total/NA	Water	300.0	
570-173764-3 - DL	MW-3	Total/NA	Water	300.0	
570-173764-4 - DL	MW-4	Total/NA	Water	300.0	
570-173764-5	MW-5	Total/NA	Water	300.0	
570-173764-5 - DL	MW-5	Total/NA	Water	300.0	
MB 570-413596/5	Method Blank	Total/NA	Water	300.0	
LCS 570-413596/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-413596/7	Lab Control Sample Dup	Total/NA	Water	300.0	
570-173764-1 MS	MW-1	Total/NA	Water	300.0	
570-173764-1 MSD	MW-1	Total/NA	Water	300.0	

Analysis Batch: 414198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-173764-1 - DL	MW-1	Total/NA	Water	300.0	
MB 570-414198/5	Method Blank	Total/NA	Water	300.0	
LCS 570-414198/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-414198/7	Lab Control Sample Dup	Total/NA	Water	300.0	
570-173764-1 MS - DL	MW-1	Total/NA	Water	300.0	
570-173764-1 MSD - DL	MW-1	Total/NA	Water	300.0	

Metals

Prep Batch: 415280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-173764-1	MW-1	Total Recoverable	Water	200.7	
570-173764-2	MW-2	Total Recoverable	Water	200.7	
570-173764-3	MW-3	Total Recoverable	Water	200.7	
570-173764-4	MW-4	Total Recoverable	Water	200.7	
570-173764-5	MW-5	Total Recoverable	Water	200.7	
MB 570-415280/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 570-415280/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 570-415280/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
570-173764-1 MS	MW-1	Total Recoverable	Water	200.7	
570-173764-1 MSD	MW-1	Total Recoverable	Water	200.7	

QC Association Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Metals

Analysis Batch: 415523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-173764-1	MW-1	Total Recoverable	Water	200.7 Rev 4.4	415280
570-173764-2	MW-2	Total Recoverable	Water	200.7 Rev 4.4	415280
570-173764-3	MW-3	Total Recoverable	Water	200.7 Rev 4.4	415280
570-173764-4	MW-4	Total Recoverable	Water	200.7 Rev 4.4	415280
570-173764-5	MW-5	Total Recoverable	Water	200.7 Rev 4.4	415280
MB 570-415280/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	415280
LCS 570-415280/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	415280
LCSD 570-415280/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	415280
570-173764-1 MS	MW-1	Total Recoverable	Water	200.7 Rev 4.4	415280
570-173764-1 MSD	MW-1	Total Recoverable	Water	200.7 Rev 4.4	415280

General Chemistry

Analysis Batch: 415477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-173764-1	MW-1	Total/NA	Water	SM 2540C	
570-173764-2	MW-2	Total/NA	Water	SM 2540C	
570-173764-3	MW-3	Total/NA	Water	SM 2540C	
570-173764-4	MW-4	Total/NA	Water	SM 2540C	
570-173764-5	MW-5	Total/NA	Water	SM 2540C	
MB 570-415477/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-415477/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-415477/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-1

Lab Sample ID: 570-173764-1

Date Collected: 02/22/24 13:55

Matrix: Water

Date Received: 02/23/24 18:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	4 mL	4 mL	413595	02/24/24 02:35	JAR8	EET CAL 4
	Instrument ID: IC10									
Total/NA	Analysis	300.0		1	4 mL	4 mL	413596	02/24/24 02:35	JAR8	EET CAL 4
	Instrument ID: IC10									
Total/NA	Analysis	300.0	DL	5	4 mL	4 mL	414198	02/26/24 19:10	JAR8	EET CAL 4
	Instrument ID: IC9									
Total Recoverable	Prep	200.7			50 mL	50 mL	415280	02/29/24 08:27	JP8N	EET CAL 4
Total Recoverable	Analysis	200.7 Rev 4.4		1			415523	02/29/24 14:36	P1R	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	415477	02/29/24 13:53	ZL7L	EET CAL 4
	Instrument ID: BAL100									

Client Sample ID: MW-2

Lab Sample ID: 570-173764-2

Date Collected: 02/22/24 12:35

Matrix: Water

Date Received: 02/23/24 18:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	10	4 mL	4 mL	413595	02/24/24 07:07	JAR8	EET CAL 4
	Instrument ID: IC10									
Total/NA	Analysis	300.0	DL	10	4 mL	4 mL	413596	02/24/24 07:07	JAR8	EET CAL 4
	Instrument ID: IC10									
Total Recoverable	Prep	200.7			50 mL	50 mL	415280	02/29/24 08:27	JP8N	EET CAL 4
Total Recoverable	Analysis	200.7 Rev 4.4		1			415523	02/29/24 14:43	P1R	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	415477	02/29/24 13:53	ZL7L	EET CAL 4
	Instrument ID: BAL100									

Client Sample ID: MW-3

Lab Sample ID: 570-173764-3

Date Collected: 02/22/24 11:30

Matrix: Water

Date Received: 02/23/24 18:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	4 mL	4 mL	413595	02/24/24 04:41	JAR8	EET CAL 4
	Instrument ID: IC10									
Total/NA	Analysis	300.0		1	4 mL	4 mL	413596	02/24/24 04:41	JAR8	EET CAL 4
	Instrument ID: IC10									
Total/NA	Analysis	300.0	DL	10	4 mL	4 mL	413596	02/24/24 07:28	JAR8	EET CAL 4
	Instrument ID: IC10									
Total Recoverable	Prep	200.7			50 mL	50 mL	415280	02/29/24 08:27	JP8N	EET CAL 4
Total Recoverable	Analysis	200.7 Rev 4.4		1			415523	02/29/24 15:02	P1R	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	415477	02/29/24 13:53	ZL7L	EET CAL 4
	Instrument ID: BAL100									

Lab Chronicle

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Client Sample ID: MW-4
Date Collected: 02/22/24 11:05
Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	10	4 mL	4 mL	413595	02/24/24 07:49	JAR8	EET CAL 4
Instrument ID: IC10										
Total/NA	Analysis	300.0	DL	10	4 mL	4 mL	413596	02/24/24 07:49	JAR8	EET CAL 4
Instrument ID: IC10										
Total Recoverable	Prep	200.7			50 mL	50 mL	415280	02/29/24 08:27	JP8N	EET CAL 4
Total Recoverable	Analysis	200.7 Rev 4.4		1			415523	02/29/24 15:04	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	415477	02/29/24 13:53	ZL7L	EET CAL 4
Instrument ID: BAL100										

Client Sample ID: MW-5
Date Collected: 02/22/24 10:35
Date Received: 02/23/24 18:20

Lab Sample ID: 570-173764-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	4 mL	4 mL	413595	02/24/24 05:22	JAR8	EET CAL 4
Instrument ID: IC10										
Total/NA	Analysis	300.0		1	4 mL	4 mL	413596	02/24/24 05:22	JAR8	EET CAL 4
Instrument ID: IC10										
Total/NA	Analysis	300.0	DL	10	4 mL	4 mL	413596	02/24/24 08:51	JAR8	EET CAL 4
Instrument ID: IC10										
Total Recoverable	Prep	200.7			50 mL	50 mL	415280	02/29/24 08:27	JP8N	EET CAL 4
Total Recoverable	Analysis	200.7 Rev 4.4		1			415523	02/29/24 15:07	P1R	EET CAL 4
Instrument ID: ICP11										
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	415477	02/29/24 13:53	ZL7L	EET CAL 4
Instrument ID: BAL100										

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-24
Oregon	NELAP	4175	02-03-25

- 1
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Method Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET CAL 4
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAL 4
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAL 4
200.7	Preparation, Total Recoverable Metals	EPA	EET CAL 4

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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Sample Summary

Client: GSI Water Solutions, Inc
Project/Site: Los Olivos

Job ID: 570-173764-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-173764-1	MW-1	Water	02/22/24 13:55	02/23/24 18:20
570-173764-2	MW-2	Water	02/22/24 12:35	02/23/24 18:20
570-173764-3	MW-3	Water	02/22/24 11:30	02/23/24 18:20
570-173764-4	MW-4	Water	02/22/24 11:05	02/23/24 18:20
570-173764-5	MW-5	Water	02/22/24 10:35	02/23/24 18:20

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Login Sample Receipt Checklist

Client: GSI Water Solutions, Inc

Job Number: 570-173764-1

Login Number: 173764

List Number: 1

Creator: Patel, Jayesh

List Source: Eurofins Calscience

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

