APPENDIX C

LABORATORY RESULTS FOR PFAS AND CR6

MEMORANDUM

TO: Project File

FROM: Crandon Connelly

DATE : May 5, 2021

SUBJECT: Cursory Data Quality Review

Kleinfelder has conducted a cursory review of one data package provided by Torrent Laboratory, Inc. of Milpitas, California for the analysis of 2 groundwater samples collected on April 16th of 2021. Table 1 below summarizes the sample delivery groups (SDGs), sample identifications (IDs), and analytical methods.

Table 1: Sample and Analysis Summary

SDG	Sample ID	Analytical Method
2104112	GW-1	USEPA 7199 for hexavalent chromium PFAS by DoD QSM 5.3
	GW-2	

Notes:
DoD QSM 5.3: United States Department of Defense Quality Systems Manual version 5.3
PFAS: perfluoroalkyl substances
USEPA: United States Environmental Protection Agency Method

Samples were collected by Kleinfelder and delivered directly to the laboratory under customary chain of custody (COC) protocols. The samples were collected using containers and procedures compliant with the analytical methods. Samples were received by the lab in condition and at a temperature below 6 ° Celsius.

All samples were analyzed within method specified holding times.

All lab quality control (QC) samples reported for PFAS by DoD QSM 5.3 were reported within DoD QSM 5.3 limits. It was noted that the quality control tables listed a default range of 70-130% for all laboratory control spike recoveries while the DoD QSM 5.3 Table C-44 lists specific limits for most analytes. The recoveries were checked against analytes listed in DoD QSM 5.3 Table C-44 and were within the range. There were additional analytes reported that are not included in DoD QSM 5.3 Table C-44. These analytes were reported within the lab specified limits with the following exception. The analyte GenX, which is a trade name for a technology used to make high performance fluoropolymers using the ammonium salt of hexafluoropropylene oxide dimer, recovered slightly low at 68.1% (limit is 70-130%).

Reported QC samples for USEPA 7199 were within range.

The minor lab quality control outlier noted above indicates that the detection limit for GenX may be considered an estimated value, slightly biased low. The quality of the data for GenX and all other analytical data reviewed indicate the date is usable for decision making, reporting, and project objectives.

KLEINFELDER 2882 Prospect Park Dr., Suite 200, Rancho Cordova, CA 95670 p | 916.366-1701 f | 916.366-7013

Kleinfelder (San Jose)
2011 N Capitol Ave
San Jose, California 95132
Tel: 4085867611
Fax: 4085867688

RE: Eliott Quarry

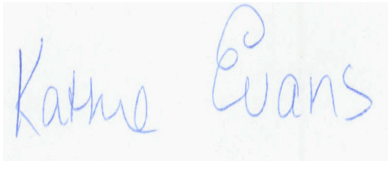
Work Order No.: 2104112

Dear Curtis Conti:

Torrent Laboratory, Inc. received 2 sample(s) on April 16, 2021 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

April 23, 2021
Date

Date: 4/23/2021

Client: Kleinfelder (San Jose)

Project: Eliott Quarry

Work Order: 2104112

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

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Analytical Comment for PFAs, Note:The % recovery for GEN-X in the LCS is outside of laboratory control limits. QSM 5.3 does not have control limits for GEN-X. The outlier will be considered in the next control chart update. No corrective action is required.

Sample Result Summary

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date Received: 04/16/21
Date Reported: 04/23/21

GW-1 2104112-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

GW-2 2104112-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date/Time Received: 04/16/21, 11:00 am
Date Reported: 04/23/21

Client Sample ID:	GW-1	**Lab Sample ID:**	2104112-001A
Project Name/Location:	Eliott Quarry	**Sample Matrix:**	Groundwater
Project Number:	20220173.001A		
Date/Time Sampled:	04/16/21 / 9:45		
SDG:			

Prep Method:	7199/218.6-WP	**Prep Batch Date/Time:**	4/16/21	6:13:00PM	
Prep Batch ID:	1130985	**Prep Analyst:**	BJAY		

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Hexavalent Chromium	SW7199	1	0.083	0.50	ND		ug/L	04/17/21	0:47	BJ	455870

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date/Time Received: 04/16/21, 11:00 am
Date Reported: 04/23/21

Client Sample ID:	GW-1	**Lab Sample ID:**	2104112-001B
Project Name/Location:	Eliott Quarry	**Sample Matrix:**	Groundwater
Project Number:	20220173.001A		
Date/Time Sampled:	04/16/21 / 9:45		
SDG:			

Prep Method:	PFAS-W-QSM 5.3	**Prep Batch Date/Time:**	4/21/21 6:30:00PM
Prep Batch ID:	1131007	**Prep Analyst:**	TOMA

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
4 2 FTS	QSM 5.3 Table B-15	1	3.56	9.91	ND		ng/L	04/22/21	8:39	TA	455895
6 2 FTS	QSM 5.3 Table B-15	1	3.77	9.91	ND		ng/L	04/22/21	8:39	TA	455895
8 2 FTS	QSM 5.3 Table B-15	1	6.01	9.91	ND		ng/L	04/22/21	8:39	TA	455895
10:2 Fluorotelomer sulfonic acid	QSM 5.3 Table B-15	1	1.36	4.96	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorobutanoic acid	QSM 5.3 Table B-15	1	3.17	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluoropentanoic acid	QSM 5.3 Table B-15	1	2.61	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorobutane sulfonic acid	QSM 5.3 Table B-15	1	4.07	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorohexanoic acid	QSM 5.3 Table B-15	1	2.88	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluoropentane sulfonoic acid	QSM 5.3 Table B-15	1	2.81	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluoroheptanoic acid	QSM 5.3 Table B-15	1	4.89	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorohexane sulfonic acid (PFHxS)	QSM 5.3 Table B-15	1	2.97	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorooctanoic acid	QSM 5.3 Table B-15	1	5.93	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorononanoic acid	QSM 5.3 Table B-15	1	5.59	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluoroheptane sulfonic acid (PFHpS)	QSM 5.3 Table B-15	1	4.62	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorooctane sulfonic acid	QSM 5.3 Table B-15	1	4.23	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorodecanoic acid	QSM 5.3 Table B-15	1	5.61	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorononane sulfonic acid (PFNS)	QSM 5.3 Table B-15	1	3.39	9.91	ND		ng/L	04/22/21	8:39	TA	455895
NMeFOSAA	QSM 5.3 Table B-15	1	4.20	9.91	ND		ng/L	04/22/21	8:39	TA	455895
NEtFOSAA	QSM 5.3 Table B-15	1	3.85	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluoroundecanoic acid	QSM 5.3 Table B-15	1	3.32	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorodecane sulfonic acid (PFDS)	QSM 5.3 Table B-15	1	2.95	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorododecanoic acid	QSM 5.3 Table B-15	1	2.49	4.96	ND		ng/L	04/22/21	8:39	TA	455895

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date/Time Received: 04/16/21, 11:00 am
Date Reported: 04/23/21

Client Sample ID:	GW-1	**Lab Sample ID:**	2104112-001B
Project Name/Location:	Eliott Quarry	**Sample Matrix:**	Groundwater
Project Number:	20220173.001A		
Date/Time Sampled:	04/16/21 / 9:45		
SDG:			

Prep Method:	PFAS-W-QSM 5.3	**Prep Batch Date/Time:**	4/21/21 6:30:00PM
Prep Batch ID:	1131007	**Prep Analyst:**	TOMA

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Perfluorotridecanoic acid	QSM 5.3 Table B-15	1	2.62	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorotetradecanoic acid	QSM 5.3 Table B-15	1	3.69	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorooctanesulfonamide	QSM 5.3 Table B-15	1	3.61	9.91	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorobutanesulfoamide	QSM 5.3 Table B-15	1	0.401	1.98	ND		ng/L	04/22/21	8:39	TA	455895
Gen-X	QSM 5.3 Table B-15	1	7.83	14.9	ND		ng/L	04/22/21	8:39	TA	455895
ADONA	QSM 5.3 Table B-15	1	0.395	1.98	ND		ng/L	04/22/21	8:39	TA	455895
Perfluorohexanesulfoamide	QSM 5.3 Table B-15	1	2.34	4.96	ND		ng/L	04/22/21	8:39	TA	455895
9-Cl-PF3ONS	QSM 5.3 Table B-15	1	1.01	1.98	ND		ng/L	04/22/21	8:39	TA	455895
11-Cl-PF3OUdS	QSM 5.3 Table B-15	1	0.780	1.98	ND		ng/L	04/22/21	8:39	TA	455895

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date/Time Received: 04/16/21, 11:00 am
Date Reported: 04/23/21

Client Sample ID:	GW-2	**Lab Sample ID:**	2104112-002A
Project Name/Location:	Eliott Quarry	**Sample Matrix:**	Groundwater
Project Number:	20220173.001A		
Date/Time Sampled:	04/16/21 / 9:50		
SDG:			

Prep Method:	7199/218.6-WP	**Prep Batch Date/Time:**	4/16/21	6:13:00PM
Prep Batch ID:	1130985	**Prep Analyst:**	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Hexavalent Chromium	SW7199	1	0.083	0.50	ND		ug/L	04/17/21	1:50	BJ	455870

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date/Time Received: 04/16/21, 11:00 am
Date Reported: 04/23/21

Client Sample ID:	GW-2	**Lab Sample ID:**	2104112-002B
Project Name/Location:	Eliott Quarry	**Sample Matrix:**	Groundwater
Project Number:	20220173.001A		
Date/Time Sampled:	04/16/21 / 9:50		
SDG:			

Prep Method:	PFAS-W-QSM 5.3	**Prep Batch Date/Time:**	4/21/21 6:30:00PM
Prep Batch ID:	1131007	**Prep Analyst:**	TOMA

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
4 2 FTS	QSM 5.3 Table B-15	1	3.54	9.87	ND		ng/L	04/22/21	8:54	TA	455895
6 2 FTS	QSM 5.3 Table B-15	1	3.75	9.87	ND		ng/L	04/22/21	8:54	TA	455895
8 2 FTS	QSM 5.3 Table B-15	1	5.98	9.87	ND		ng/L	04/22/21	8:54	TA	455895
10:2 Fluorotelomer sulfonic acid	QSM 5.3 Table B-15	1	1.36	4.94	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorobutanoic acid	QSM 5.3 Table B-15	1	3.16	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluoropentanoic acid	QSM 5.3 Table B-15	1	2.60	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorobutane sulfonic acid	QSM 5.3 Table B-15	1	4.06	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorohexanoic acid	QSM 5.3 Table B-15	1	2.86	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluoropentane sulfonoic acid	QSM 5.3 Table B-15	1	2.79	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluoroheptanoic acid	QSM 5.3 Table B-15	1	4.87	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorohexane sulfonic acid (PFHxS)	QSM 5.3 Table B-15	1	2.96	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorooctanoic acid	QSM 5.3 Table B-15	1	5.91	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorononanoic acid	QSM 5.3 Table B-15	1	5.57	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluoroheptane sulfonic acid (PFHpS)	QSM 5.3 Table B-15	1	4.61	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorooctane sulfonic acid	QSM 5.3 Table B-15	1	4.21	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorodecanoic acid	QSM 5.3 Table B-15	1	5.59	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorononane sulfonic acid (PFNS)	QSM 5.3 Table B-15	1	3.38	9.87	ND		ng/L	04/22/21	8:54	TA	455895
NMeFOSAA	QSM 5.3 Table B-15	1	4.18	9.87	ND		ng/L	04/22/21	8:54	TA	455895
NEtFOSAA	QSM 5.3 Table B-15	1	3.84	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluoroundecanoic acid	QSM 5.3 Table B-15	1	3.31	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorodecane sulfonic acid (PFDS)	QSM 5.3 Table B-15	1	2.93	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorododecanoic acid	QSM 5.3 Table B-15	1	2.48	4.94	ND		ng/L	04/22/21	8:54	TA	455895

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Curtis Conti
Kleinfelder (San Jose)

Date/Time Received: 04/16/21, 11:00 am
Date Reported: 04/23/21

Client Sample ID:	GW-2	**Lab Sample ID:**	2104112-002B
Project Name/Location:	Eliott Quarry	**Sample Matrix:**	Groundwater
Project Number:	20220173.001A		
Date/Time Sampled:	04/16/21 / 9:50		
SDG:			

Prep Method:	PFAS-W-QSM 5.3	**Prep Batch Date/Time:**	4/21/21 6:30:00PM
Prep Batch ID:	1131007	**Prep Analyst:**	TOMA

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Perfluorotridecanoic acid	QSM 5.3 Table B-15	1	2.61	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorotetradecanoic acid	QSM 5.3 Table B-15	1	3.67	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorooctanesulfonamide	QSM 5.3 Table B-15	1	3.60	9.87	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorobutanesulfoamide	QSM 5.3 Table B-15	1	0.400	1.97	ND		ng/L	04/22/21	8:54	TA	455895
Gen-X	QSM 5.3 Table B-15	1	7.80	14.8	ND		ng/L	04/22/21	8:54	TA	455895
ADONA	QSM 5.3 Table B-15	1	0.394	1.97	ND		ng/L	04/22/21	8:54	TA	455895
Perfluorohexanesulfoamide	QSM 5.3 Table B-15	1	2.33	4.94	ND		ng/L	04/22/21	8:54	TA	455895
9-Cl-PF3ONS	QSM 5.3 Table B-15	1	1.00	1.97	ND		ng/L	04/22/21	8:54	TA	455895
11-Cl-PF3OUdS	QSM 5.3 Table B-15	1	0.777	1.97	ND		ng/L	04/22/21	8:54	TA	455895

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	2104112	**Prep Method:**	7199/218.6-WP	**Prep Date:**	04/16/21	**Prep Batch:**	1130985
Matrix:	Water	**Analytical Method:**	SW7199	**Analyzed Date:**	4/16/2021	**Analytical Batch:**	455870
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Hexavalent Chromium	0.083	0.50	0.098	

Work Order:	2104112	**Prep Method:**	PFAS-W-QSM 5.3	**Prep Date:**	04/21/21	**Prep Batch:**	1131007
Matrix:	Water	**Analytical Method:**	QSM 5.3 Table B-15	**Analyzed Date:**	4/22/2021	**Analytical Batch:**	455895
Units:	ng/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
4 2 FTS	3.6	10.0	ND	
6 2 FTS	3.8	10.0	ND	
8 2 FTS	6.1	10.0	ND	
10:2 Fluorotelomer sulfonic acid	1.4	5.00	ND	
Perfluorobutanoic acid	3.2	10.0	ND	
Perfluoropentanoic acid	2.6	10.0	ND	
Perfluorobutane sulfonic acid	4.1	10.0	ND	
Perfluorohexanoic acid	2.9	10.0	ND	
Perfluoropentane sulfonoic acid	2.8	10.0	ND	
Perfluoroheptanoic acid	4.9	10.0	ND	
Perfluorohexane sulfonic acid (PFHxS)	3.0	10.0	ND	
Perfluorooctanoic acid	6.0	10.0	ND	
Perfluorononanoic acid	5.6	10.0	ND	
Perfluoroheptane sulfonic acid (PFHpS)	4.7	10.0	ND	
Perfluorooctane sulfonic acid	4.3	10.0	ND	
Perfluorodecanoic acid	5.7	10.0	ND	
Perfluorononane sulfonic acid (PFNS)	3.4	10.0	ND	
NMeFOSAA	4.2	10.0	ND	
NEtFOSAA	3.9	10.0	ND	
Perfluoroundecanoic acid	3.4	10.0	ND	
Perfluorodecane sulfonic acid (PFDS)	3.0	10.0	ND	
Perfluorododecanoic acid	2.5	5.00	ND	
Perfluorotridecanoic acid	2.6	10.0	ND	
Perfluorotetradecanoic acid	3.7	10.0	ND	
Perfluorooctanesulfonamide	3.6	10.0	ND	
Perfluorobutanesulfoamide	0.41	2.00	ND	
Gen-X	7.9	15.0	ND	
ADONA	0.40	2.00	ND	
Perfluorohexanesulfoamide	2.4	5.00	ND	
9-Cl-PF3ONS	1.0	2.00	ND	
11-Cl-PF3OUdS	0.79	2.00	ND	

Torrent LABORATORY, INC.

MB Summary Report

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2104112	**Prep Method:**	7199/218.6-WP	**Prep Date:**	04/16/21	**Prep Batch:**	1130985
Matrix:	Water	**Analytical Method:**	SW7199	**Analyzed Date:**	4/17/2021	**Analytical Batch:**	455870
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Hexavalent Chromium	0.083	0.50	0.098	10	99.8	98.9	0.906	90 - 110	20	

Work Order:	2104112	**Prep Method:**	PFAS-W-QSM 5.3	**Prep Date:**	04/21/21	**Prep Batch:**	1131007
Matrix:	Water	**Analytical Method:**	QSM 5.3 Table B-15	**Analyzed Date:**	4/22/2021	**Analytical Batch:**	455895
Units:	ng/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
4 2 FTS	3.59	10.0	ND	30	92.3	86.2	6.72	70 - 130	30	
6 2 FTS	3.80	10.0	ND	30	90.8	99.9	9.79	70 - 130	30	
8 2 FTS	6.06	10.0	ND	30	102	101	0.985	70 - 130	30	
10:2 Fluorotelomer sulfonic ac	1.37	5.00	ND	30	117	107	8.62	70 - 130	30	
Perfluorobutanoic acid	3.20	10.0	ND	30	93.1	93.8	0.714	70 - 130	30	
Perfluoropentanoic acid	2.63	10.0	ND	30	92.9	93.2	0.358	70 - 130	30	
Perfluorobutane sulfonic acid	4.11	10.0	ND	30	83.3	84.2	1.19	70 - 130	30	
Perfluorohexanoic acid	2.90	10.0	ND	30	98.9	98.3	0.676	70 - 130	30	
Perfluoropentane sulfonoic aci	2.83	10.0	ND	30	88.6	88.4	0.377	70 - 130	30	
Perfluoroheptanoic acid	4.93	10.0	ND	30	91.6	90.5	1.47	70 - 130	30	
Perfluorohexane sulfonic acid	3.00	10.0	ND	30	90.0	89.2	0.743	70 - 130	30	
Perfluorooctanoic acid	5.98	10.0	ND	30	90.4	94.4	4.33	70 - 130	30	
Perfluorononanoic acid	5.65	10.0	ND	30	95.8	94.4	1.40	70 - 130	30	
Perfluoroheptane sulfonic acid	4.67	10.0	ND	30	90.9	91.3	0.366	70 - 130	30	
Perfluorooctane sulfonic acid	4.27	10.0	ND	30	91.3	90.1	1.47	70 - 130	30	
Perfluorodecanoic acid	5.66	10.0	ND	30	97.1	94.4	2.79	70 - 130	30	
Perfluorononane sulfonic acid	3.42	10.0	ND	30	99.7	90.0	10.2	70 - 130	30	
NMeFOSAA	4.24	10.0	ND	30	92.2	83.4	10.2	70 - 130	30	
NEtFOSAA	3.89	10.0	ND	30	87.8	87.7	0.380	70 - 130	30	
Perfluoroundecanoic acid	3.35	10.0	ND	30	92.0	92.7	0.722	70 - 130	30	
Perfluorodecane sulfonic acid	2.97	10.0	ND	30	89.7	88.1	1.88	70 - 130	30	
Perfluorododecanoic acid	2.51	5.00	ND	30	99.0	100	1.01	70 - 130	30	
Perfluorotridecanoic acid	2.65	10.0	ND	30	90.4	89.0	1.49	70 - 130	30	
Perfluorotetradecanoic acid	3.72	10.0	ND	30	88.4	89.8	1.87	70 - 130	30	
Perfluorooctanesulfonamide	3.65	10.0	ND	30	94.4	98.6	4.49	70 - 130	30	
Perfluorobutanesulfoamide	0.405	2.00	ND	30	93.2	96.4	3.52	70 - 130	30	
Gen-X	7.90	15.0	ND	30	68.1	83.0	19.9	70 - 130	30	S
ADONA	0.399	2.00	ND	30	86.7	91.1	4.88	70 - 130	30	
Perfluorohexanesulfoamide	2.37	5.00	ND	30	98.0	100	2.02	70 - 130	30	
9-Cl-PF3ONS	1.02	2.00	ND	30	87.8	88.1	0.000	70 - 130	30	
11-Cl-PF3OUdS	0.787	2.00	ND	30	90.2	92.3	2.19	70 - 130	30	

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2104112	**Prep Method:**	7199/218.6-WP	**Prep Date:**	04/16/21	**Prep Batch:**	1130985
Matrix:	**Water**	**Analytical Method:**	SW7199	**Analyzed Date:**	17-Apr-2021	**Analytical Batch:**	455870
Spiked Sample:	2104112-001A						
Units:	ug/L						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Hexavalent Chromium	0.083	0.50	ND	10	97.9	97.5	0.995	85 - 115	20	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Kleinfelder (San Jose)

Project Name: Eliott Quarry

Work Order No.: 2104112

Date and Time Received: 4/16/2021 11:00:00AM

Received By: Lorna Imbat

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	4.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/a

pH Adjusted by: n/a

Comments:

Login Summary Report

Client ID:	TL5134	Kleinfelder (San Jose)	**QC Level:**	II
Project Name:	Eliott Quarry		**TAT Requested:**	5+ day:5
Project # :	20220173.001A		**Date Received:**	4/16/2021
Report Due Date:	4/23/2021		**Time Received:**	11:00 am

Comments:

Work Order # : ***2104112***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
2104112-001A	GW-1	04/16/21 9:45	Water	05/31/21			Cr6_W_7199 EDD	
2104112-001B	GW-1	04/16/21 9:45	Water	05/31/21			PFAS_W_31	
2104112-002A	GW-2	04/16/21 9:50	Water	05/31/21			Cr6_W_7199	
2104112-002B	GW-2	04/16/21 9:50	Water	05/31/21			PFAS_W_31	

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
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Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 2104112

Company Name: KLEINFELDER ☐ Env. ☐ Special			Project #: 20220173.001A PO #:
Address: 380 N. 1ST STREET			Project Name: ELIOTT QUARRY
City: SAN JOSE	State: CA	Zip Code: 95112	Comments: EQUIS EDD REQUESTED
Telephone: JHELGE@KLEINFELDER.COM	Cell: 510-303-9700		SAMPLER: CURTIS CONTI Quote #: 00001956
REPORT TO:	BILL TO:		EMAIL: CCONTI@KLEINFELDER.COM

TURNAROUND TIME:
☐ 10 Work Days ☐ 4 Work Days ☐ 1 Work Day
☐ 7 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day
☒ 5 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours

SAMPLE TYPE:
☐ Storm Water ☐ Air
☐ Waste Water ☐ Wipe
☒ Ground Water ☐ Other
☐ Soil ☐ Product / Bulk

REPORT FORMAT:
☐ Level II - Std.
☐ Excel - EDD
☐ EDF ☒ Std.-EDD
☐ QC Level III
☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	PFAS QSM 5.3	HEXAVALENT CHROMIUM	REMARKS
-001A	1B	GW-1	9:45 4/16	GW	2	POLY	X	X	
-002A/B		GW-2	9:50 4/16	GW	2	POLY	X	X	

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		CURTIS CONTI	4/16/21	11:00		L. D. Imbao	4-16-21	11:00
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☒ Yes ☐ NO Method of Shipment D/D Sample seals intact? ☐ Yes ☐ NO ☐ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: _____ Date: _____ Labeled By: _____ Date: _____ Temp 4.1 °C #2 Page 1 of 1 Rev. 4