

MATRIXNEWORLD Southwest Groundwater

November 9, 2021

Community Working Group
c/o Godec, Randall & Associates, Inc.
3944 North 14th Street
Phoenix, Arizona 85014

**SUBJECT: 3rd QUARTER 2021 SAMPLING REPORT – COMMUNITY MONITORING PROGRAM FOR
THE RESOLUTION COPPER PROJECT**

Dear Community Working Group:

Matrix New World Engineering, Land Surveying and Landscape Architecture, PC (Matrix) has prepared the following report to document the results of the 3rd Quarter sampling event of 2021 for the Community Monitoring Program for the Resolution Copper Project – Sample Collection and Reporting as requested by the Superior Community Working Group (CWG). In addition to the scheduled quarterly sampling activities, biannual sampling was added at a former domestic well location in Skunk Creek, but not sampled during the 3rd Quarter activities.

SAMPLING ACTIVITIES

The 3rd Quarter sampling event, which was coordinated with CWG and representatives of Resolution Copper Company (RCC), was conducted on September 29, 2021. Samples were collected at the following locations:

- BTA-01 (“Gallery Well”) located in the Boyce Thompson Arboretum.
- Monitor Well 002-2, also known as the “Castleberry Well” located upgradient of the other sampled wells.
- Monitor Well DS17-17 (DS-Q), also known as the “Martin Well” located downgradient of the other sampled wells.

The locations were selected by representatives of RCC and CWG based on their potential to identify changes in water quality due to future mining activities proposed by RCC.

All of the sampling work was completed in accordance with the Scope of Services outlined in the CWG Request for Proposal. The approximate sampling locations are shown on Figure 1, included in Attachment I. A brief description of the sampling activities that were completed at each sample location is provided below.

BTA-01 – Gallery Well

The Gallery Well consists of a shallow, concrete block lined subsurface shaft situated within a single room “pump house” located on the north bank of Queen Creek. The total depth of the shaft is not known by Matrix. The pump house is located in the southeast portion of Boyce Thompson Arboretum (Figure 1).

The depth to water was measured at approximately 15 feet from the floor of the pump house when the samples were collected by RCC and Matrix. Samples of groundwater were collected at the Gallery Well by representatives of RCC using a weighted bucket deployed from a spool of rope. The sampling equipment was decontaminated prior to use. RCC completed their sampling process by pouring water directly from the bucket into laboratory supplied containers. Matrix used the same equipment and process to fill sample containers provided by Eurofins TestAmerica (formerly Xenco Laboratories).

In addition to the selected analyte list described below, an additional sample was collected at the BTA-01 well and analyzed for Per- and Polyfluoroalkyl Substances (PFAS) based on conversations between Matrix and CWG to determine if there were any effects of fire suppressants used on the fires in Superior in 2021 near the BTA-01 well. Matrix followed sampling guidance provided by the Interstate Technology and Regulatory Council (ITRC) and the Environmental Protection Agency (EPA) to ensure cross-contamination did not occur.

Monitor Well 002-2 – Castleberry Well

The Castleberry Well is a shallow monitoring well located east of Boyce Thompson Arboretum on the north side of Queen Creek, approximately 2 miles west/southwest of the Town of Superior (Figure 1). Reportedly, the well was installed to a depth of approximately 20 feet below land surface (ft bls).

At the time of sampling, RCC installed a temporary submersible pump in the Castleberry well and purged the well at a low flow rate of approximately 500 milliliters per minute (mL/min) to ensure that a representative sample would be collected. The discharged water was pumped directly into a bucket and was disposed away from the well location. Samples were collected directly from the discharge hose on the submersible pump. The depth to water in the Castleberry Well was measured at 4.99 ft bls.

Monitor Well DS17-17 (DS-Q) “Martin Well”

Monitor Well DS17-17 (DS-Q) was installed in early 2017 and is located north of Highway 60, approximately 3.25 miles northwest of Boyce Thompson Arboretum (Figure 1). Monitor Well DS17-17 is located reportedly near the area of a future mine tailings stockpile. Based on a diagram of well construction provided by RCC, the well was installed to a depth of approximately 30 ft bls and is perforated from 10 to 30 ft bls. The inside diameter of the PVC casing is 4 inches. Depth to water at DS17-17 was 25.67 ft bls. At the time of sampling, RCC installed a temporary submersible pump in the Martin well and purged the well at a low flow rate of approximately 500 mL/min to ensure that a representative sample would be collected. The discharged water was pumped directly into a bucket and was disposed away from the well location. Samples were collected directly from the discharge hose on the submersible pump.

ANALYTICAL RESULTS

The collected water samples were placed in laboratory supplied containers, sealed, labeled and stored in a cooler containing ice for preservation. The samples were submitted to Eurofins TestAmerica in Phoenix, Arizona and analyzed for inorganic parameters including Total Dissolved Solids (TDS), Nitrate as Nitrogen, Nitrite as Nitrogen, Nitrate-Nitrite as Nitrogen, Fluoride, Sulfate, Chloride, and Total Cyanide; Radionuclides including Gross Alpha and Radium 226+228; and the following metals: Antimony, Arsenic, Barium, Beryllium, Cadmium, Copper, Lead, Mercury, Nickel, Selenium, and Thallium.

The analyte list was selected by RCC and confirmed by CWG to provide a baseline evaluation of water quality at selected locations prior to the mining activities that are proposed by RCC. Once mining activities have started, future analyses of samples collected at those same locations can be used to identify trends or potential changes in water quality when compared to the baseline results.

The PFAS analyte list was selected to provide a general overview of 18 PFAS compounds that might be found in the fire retardant used nearby BTA-01, including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). PFOA and PFOS are listed in the EPAs Health Advisory Level not to exceed a combined total of 70 nanograms per liter (ng/L). Results of the PFAS sampling show PFOA and PFOS combined were 31 ng/L. Although the results are below EPAs Health Advisory Level, Matrix is unable to determine the source of the detections without conducting an additional investigation.

Analytical results for the 1st through 3rd Quarters of 2021; 2nd and 3rd Quarters of 2020; 1st through 4th Quarters of 2019; 1st through 4th Quarters of 2018; and 1st through 4th Quarters of 2017 for samples collected from the Gallery Well, Ayer Lake, Castleberry Well, DS17-17 are summarized in Tables 1-4, respectively, included in Attachment II. Table 6 shows the results of the 18 selected analytes for PFAS compounds including the PFOA and PFOS combined total in Attachment II. The complete analytical laboratory report for the 3rd Quarter 2021 samples is included in Attachment III.

Tables 1-4 list the U.S. EPA Maximum Contaminant Level (MCL) and Secondary MCL for drinking (potable) water. The pond and the wells sampled are not used as drinking water sources; the MCL and secondary MCL values are provided for reference only and give an assessment of the relative quality of the sampled water.

Overall, the quality of the water samples as evidenced by the analytical results were good. The results of the 3rd Quarter 2021 sampling event were consistent with the results from the previous sampling events for the Gallery

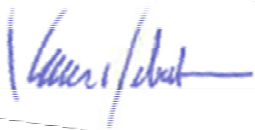
Well, Martin Well, and Castleberry Well. As was the case with the previous quarters, arsenic was the only constituent in the samples collected during the 3rd Quarter of 2021 sampling event that was detected at a concentration that exceeded its drinking water MCL.

The scope of Matrix's work is limited to oversight of sample collection, submission to an independent laboratory for analysis and reporting of the results; no opinion is rendered regarding whether or not the current results are representative of natural background conditions, seasonal fluctuations, or have been potentially impacted by historical activities conducted in the area.

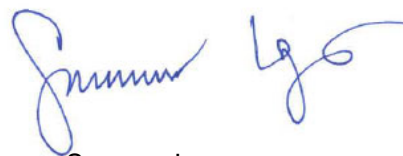
Please call if you have any questions or require additional information.

Sincerely,

Matrix New World Engineering



Kevin D. Hebert, R.G.
Senior Project Hydrogeologist

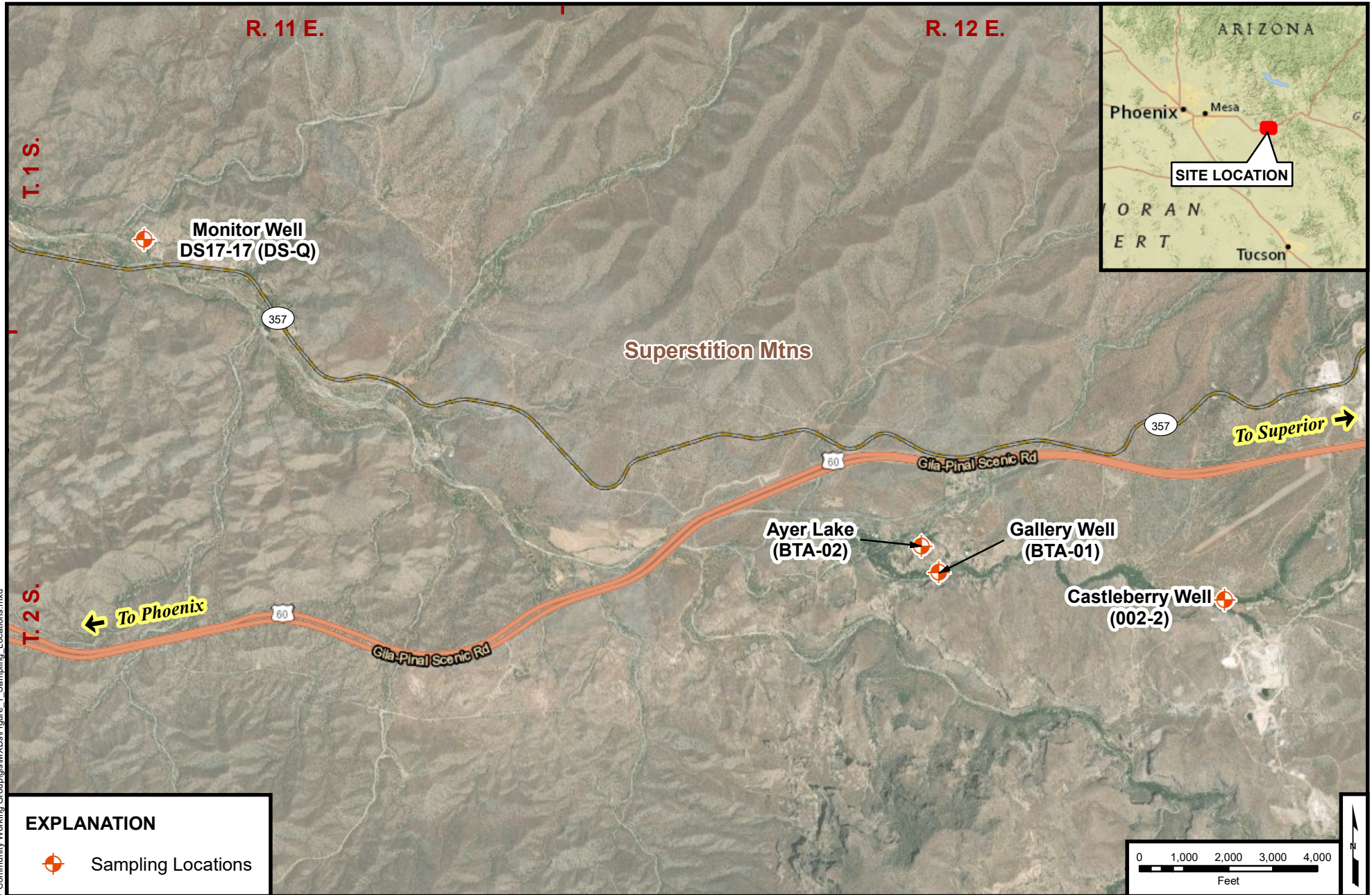


Summer Igo
Staff Scientist

Attachment I – Figure 1
Attachment II – Tables 1-4 & 6
Attachment III – Analytical Laboratory Report

ATTACHMENT I

Figure 1



ATTACHMENT II

Tables 1-4 & 6

TABLE 1

Ambient Water Quality Data - BTA-01 (Gallery Well), Pinal County, Arizona

	Primary MCL	Secondary MCL	QTR 1 2/23/2017	QTR 2 5/25/2017	QTR 3 8/31/2017	QTR 4 11/30/2017	QTR 1 2/22/2018	QTR 2 5/24/2018	QTR 3 9/26/2018	QTR 4 12/11/2018	QTR 1 3/14/2019	QTR 2 6/4/2019	QTR 3 9/26/2019	QTR 4 12/10/2019	QTR 2 6/30/2020	QTR 3 9/30/2020	QTR 1 3/17/2021	QTR 2 6/23/2021	QTR 3 9/29/2021
NITROGEN:	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Nitrate-Nitrite as N	10	None	0.999	0.538	0.579	1.24	0.386	1.12	0.425	0.327	0.302	0.184	2.00	0.94	1.1	1.8	<0.050	0.064	2.3
Nitrate as N	10	None	0.999	0.538	0.579	1.24	0.386	1.12	0.425	0.327	0.302	0.184	NA [‡]	NA [‡]	1.1	2.0	<0.050	<0.050	2.3
Nitrite as N	1	None	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.050	<0.050	<0.050	0.064	<0.050
METALS (TOTAL):	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Antimony	0.006	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.0010	0.0013	<0.0010	0.0017
Arsenic	0.01	None	0.0192	0.0157	0.0175	0.0113	0.0209	0.0117	0.0160	0.0152	0.0198	0.0226	0.0129	0.0178	0.0123	0.015	0.019	0.012	0.028
Barium	2	None	0.0119	0.0197	0.0185	0.0106	0.0125	0.0148	0.0221	0.0110	0.0132	0.0241	0.0192	0.0157	0.0131	0.023	0.021	0.022	0.018
Beryllium	0.004	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00047	<0.00040	<0.00040	<0.00040
Cadmium	0.005	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00016	<0.00010	0.00025	0.00017
Copper	1.3*	1	0.0153	0.00594	0.0114	<0.00400	0.0116	0.00435	0.00641	0.00544	0.0099	0.00849	<0.0040	0.0142	0.00616	0.0050	0.0088	<0.00050	0.034
Cyanide (Total)	0.2	None	<0.00500	0.00599	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.050	<0.050	<0.050	<0.050
Lead	0.015*	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500	<0.00050	<0.00050	<0.00050
Mercury	0.002	None	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000357	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.00020	<0.00020	<0.00020	<0.00020
Nickel	0.1	None	<0.00200	<0.00200	0.00237	0.0035	0.00219	<0.00200	<0.00200	<0.00200	<0.00200	0.00388	<0.00200	<0.00200	<0.00200	0.00055	0.0018	0.0023	0.0010
Fluoride	4	2	<0.500	<0.500	<0.500	<0.500	0.549	0.638	0.955	0.397	<0.500	<0.500	<0.500	<0.500	<0.40	<0.050	<0.40	<0.40	<0.40
Selenium	0.05	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.0025	0.00052	<0.00050	0.0010
Thallium	0.002	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00010	0.00021	0.00017	<0.00010
Chloride	None	250	65.2	83.5	60.6	80.4	72.6	82.6	115	83.6	69.6	80.6	61.4	76.1	82	66	100	100	83
Sulfate	None	250	176	209	147	225	130	232	237	145	182	196	216	236	250	240	290	240	200
TDS	None	500	584	718	NA [‡]	816	584	720	920	673	660	708	830	722	758	760	790	780	570
RADIONUCLIDES:	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)
Gross Alpha	None	None	2.7 ± 1.1	2.5 ± 0.4	1.4 ± 0.3	3.2 ± 0.4	2.7 ± 0.6	3.7 ± 0.4	4.0 ± 0.8	2.6 ± 0.4	1.2 ± 0.3	1.6 ± 0.3	1.7 ± 0.7	1.2 ± 0.5	1.2 ± 0.3	2.0 ± 0.4	3.4 ± 0.4	<1.4	<2.6
Radium 226+228 (Dissolved)	5	None	<0.6	<0.6	<0.7	0.6 ± 0.2	<0.8	<0.7	<0.7	<0.6	<0.4	<0.7	<0.7	<0.7	1.2 ± 0.3	<0.8	<0.8	<0.5	<0.7

Notes: **Bold font** indicates measurments at or above Maximum Contaminant Level (MCL)

mg/L = Milligrams per liter

* = Action Level

NA = Not Analyzed

‡ = Laboratory inadvertently failed to analyze for the compound.

TDS = Total Dissolved Solids

TABLE 2

Ambient Water Quality Data - BTA-02 (Ayer Lake), Pinal County, Arizona

	Primary MCL	Secondary MCL	QTR 1 2/23/2017	QTR 2 5/25/2017	QTR 3 8/31/2017	QTR 4 11/30/2017	QTR 1 2/22/2018	QTR 2 5/24/2018	QTR 3 9/26/2018	QTR 4 12/11/2018	QTR 1 3/19/2019	QTR 2 6/4/2019	QTR 3 9/26/2019	QTR 4 12/10/2019	QTR 2 6/30/2020	QTR 3 9/30/2020	QTR 1 3/17/2021	QTR 2 6/23/2021	QTR 3 9/29/2021
NITROGEN:	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Nitrate-Nitrite as N	10	None	<0.100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as N	10	None	<0.100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrite as N	1	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
METALS (TOTAL):	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Antimony	0.006	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	0.01	None	0.00823	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	2	None	0.00783	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.004	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	0.005	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	1.3*	1	0.00549	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (Total)	0.2	None	<0.00500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	0.015*	None	<0.00200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.002	None	<0.000200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	0.1	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluoride	4	2	<0.500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	0.05	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	0.002	None	<0.0020	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloride	None	250	47.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sulfate	None	250	220	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TDS	None	500	560	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
RADIONUCLIDES:	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)
Gross Alpha	None	None	1.1 ± 0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Radium 226+228 (Dissolved)	5	None	<0.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes: **Bold font** indicates measurments at or above Maximum Contaminant Level (MCL)

mg/L = Milligrams per liter

* = Action Level

NS = Not Sampled

TDS = Total Dissolved Solids

TABLE 3

Ambient Water Quality Data - 002-2 (Castleberry Monitor Well), Pinal County, Arizona

	Primary MCL	Secondary MCL	QTR 1 2/23/2017	QTR 2 5/25/2017	QTR 3 8/31/2017	QTR 4 11/30/2017	QTR 1 2/22/2018	QTR 2 5/24/2018	QTR 3 9/26/2018	QTR 4 12/11/2018	QTR 1 3/14/2019	QTR 2 6/4/2019	QTR 3 9/26/2019	QTR 4 12/10/2019	QTR 2 6/30/2020	QTR 3 9/30/2020	QTR 1 3/17/2021	QTR 2 6/23/2021	QTR 3 9/29/2021
NITROGEN:	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Nitrate-Nitrite as N	10	None	1.54	0.660	0.426	0.791	1.12	0.373	0.355	0.192	0.341	0.110	0.234	0.234	0.25	<0.25	<0.050	0.2	0.078
Nitrate as N	10	None	1.54	0.660	0.426	0.791	1.12	0.373	0.355	0.192	0.341	0.110	NA [‡]	NA [‡]	0.25	0.25	<0.050	<0.050	0.078
Nitrite as N	1	None	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.50	<0.050	<0.050	0.2	<0.050
METALS (TOTAL):	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Antimony	0.006	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	0.01	None	0.0252	0.0303	0.0324	0.0302	0.0294	0.0358	0.0308	0.0304	0.0247	0.0263	0.0274	0.0259	0.0243	0.028	0.022	0.025	0.026
Barium	2	None	0.0189	0.0220	0.0228	0.0211	0.0168	0.0179	0.0290	0.0181	0.0156	0.0251	0.0232	0.0303	0.0229	0.024	0.022	0.024	0.030
Beryllium	0.004	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00040	<0.00040	<0.00040	<0.00040
Cadmium	0.005	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00010	<0.00010	<0.00010	<0.00010
Copper	1.3*	1	0.00931	0.00754	0.00960	0.00617	0.0112	0.00661	0.00774	0.00996	0.00852	0.00659	<0.00400	0.0101	0.0053	0.0036	0.0073	<0.00050	0.0080
Cyanide (Total)	0.2	None	<0.00500	0.00775	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.050	<0.050	<0.050	<0.050
Lead	0.015*	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00050	<0.00050	<0.00050	<0.00050
Mercury	0.002	None	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.00020	<0.00020	<0.00020	<0.00020
Nickel	0.1	None	<0.00200	0.00305	0.00395	0.00744	0.00304	0.00271	0.00245	0.00280	<0.00200	0.00462	<0.00200	0.00316	0.00212	0.00081	0.0033	0.0021	0.0025
Fluoride	4	2	<0.500	<0.500	<0.500	<0.500	0.476	0.446	1.050	0.373	<0.500	<0.500	<0.500	<0.500	<0.40	<0.40	<0.40	<0.40	<0.40
Selenium	0.05	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.0011	<0.00050	<0.00050	<0.00050
Thallium	0.002	None	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00010	<0.00010	<0.00010	<0.00010
Chloride	None	250	90	96.2	76.2	84.4	102	62	131	128	60.2	97.2	54.9	121	69	48	120	69	120
Sulfate	None	250	195	166	1150**	103	85.5	96.7	175	102	158	204	119	266	180	140	150	150	180
TDS	None	500	676	724	NA [‡]	618	572	546	832	643	616	776	668	884	617	610	660	500	720
RADIONUCLIDES:	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)
Gross Alpha	None	None	1.7 ± 0.6	1.4 ± 0.3	1.1 ± 0.3	1.1 ± 0.3	3.0 ± 0.6	1.2 ± 0.3	2.6 ± 0.7	1.8 ± 0.3	1.1 ± 0.3	1.8 ± 0.3	3.0 ± 0.7	2.5 ± 0.6	<1.1	1.2 ± 0.3	1.4 ± 0.3	1.9 ± 0.8	2.5 ± 0.6
Radium 226+228 (Dissolved)	5	None	<0.6	<0.6	<0.7	0.8 ± 0.3	<0.8	<0.7	<0.7	<0.6	<0.4	<0.6	<0.7	<0.7	<0.8	<0.8	<0.8	<0.8	<0.7

Notes: **Bold font** indicates measurements at or above Maximum Contaminant Level (MCL)

mg/L = Milligrams per liter

* = Action Level

** = Laboratory indicates value is incorrect due to laboratory error.

NA = Not Analyzed

‡ = Laboratory inadvertently failed to analyze for the compound.

TDS = Total Dissolved Solids

TABLE 4

Ambient Water Quality Data - DSQ-17, Pinal County, Arizona

	Primary MCL	Secondary MCL	QTR 1 2/23/2017	QTR 2 5/25/2017	QTR 3 8/31/2017	QTR 4 11/30/2017	QTR 1 2/22/2018	QTR 2 5/24/2018	QTR 3 9/26/2018	QTR 4 12/11/2018	QTR 1 3/14/2019	QTR 2 6/4/2019	QTR 3 9/26/2019	QTR 4 12/10/2019	QTR 2 6/30/2020	QTR 3 9/30/2020	QTR 1 3/17/2021	QTR 2 6/23/2021	QTR 3 9/29/2021
NITROGEN:	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Nitrate-Nitrite as N	10	None	NS	NS	NS	1.02	0.834	NS	NS	NS	NS	1.32	NS	0.532	0.71	<0.25	NS	NS	0.130
Nitrate as N	10	None	NS	NS	NS	1.02	0.834	NS	NS	NS	NS	1.32	NS	NA [‡]	0.71	0.12	NS	NS	0.130
Nitrite as N	1	None	NS	NS	NS	<0.0200	<0.0200	NS	NS	NS	NS	<0.0200	NS	<0.0200	<0.050	<0.050	NS	NS	<0.050
METALS (TOTAL):	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Antimony	0.006	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	<0.0010	NS	NS	<0.0010
Arsenic	0.01	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00400	NS	<0.00400	<0.00400	0.0013	NS	NS	0.002
Barium	2	None	NS	NS	NS	0.0225	0.0190	NS	NS	NS	NS	0.0297	NS	0.0171	0.0272	0.024	NS	NS	0.019
Beryllium	0.004	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	<0.00040	NS	NS	<0.00040
Cadmium	0.005	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	<0.00010	NS	NS	<0.00010
Copper	1.3*	1	NS	NS	NS	<0.00400	<0.00400	NS	NS	NS	NS	<0.00400	NS	<0.00400	<0.00400	0.0015	NS	NS	0.00056
Cyanide (Total)	0.2	None	NS	NS	NS	<0.00500	<0.00500	NS	NS	NS	NS	<0.00500	NS	<0.00500	<0.00500	<0.050	NS	NS	<0.050
Lead	0.015*	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	<0.00050	NS	NS	<0.00050
Mercury	0.002	None	NS	NS	NS	<0.000200	<0.000200	NS	NS	NS	NS	<0.000200	NS	<0.000200	<0.000200	<0.00020	NS	NS	<0.00020
Nickel	0.1	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	0.0006	NS	NS	<0.00050
Fluoride	4	2	NS	NS	NS	0.749	0.821	NS	NS	NS	NS	0.639	NS	0.703	0.57	0.68	NS	NS	0.53
Selenium	0.05	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	<0.00050	NS	NS	0.00056
Thallium	0.002	None	NS	NS	NS	<0.00200	<0.00200	NS	NS	NS	NS	<0.00200	NS	<0.00200	<0.00200	<0.0001	NS	NS	0.00010
Chloride	None	250	NS	NS	NS	24.8	24.0	NS	NS	NS	NS	31.9	NS	19.7	32	26	NS	NS	24
Sulfate	None	250	NS	NS	NS	114	118	NS	NS	NS	NS	174	NS	77.5	170	120	NS	NS	110
TDS	None	500	NS	NS	NS	490	596	NS	NS	NS	NS	594	NS	478	492	470	NS	NS	490
RADIONUCLIDES:	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)	(pCi/L)
Gross Alpha	None	None	NS	NS	NS	2.6 ± 0.3	4.9± 0.8	NS	NS	NS	NS	3.3 ± 0.4	NS	4.4 ± 0.7	2.7 ± 0.7	3.3 ± 0.4	NS	NS	5.5 ± 1.5
Radium 226+228 (Dissolved)	5	None	NS	NS	NS	1.2 ± 0.4	<0.8	NS	NS	NS	NS	<0.6	NS	<0.7	<0.8	<0.8	NS	NS	<0.7

Notes: **Bold font** indicates measurments at or above Maximum Contaminant Level (MCL)

mg/L = Milligrams per liter

* = Action Level

NS = Not Sampled

TDS = Total Dissolved Solids

‡ = Laboratory inadvertently failed to analyze for the compound.

Ambient PFAS Water Quality Data - BTA-01 (Gallery Well), Pinal County, Arizona

	EPA Health Advisory Level	QTR 3 9/29/2021
Fluorinated Alkyl Substances	(ng/L)	(ng/L)
Perfluorohexanoic acid (PFHxA)	NE	9.5
Perfluoroheptanoic acid (PFHpA)	NE	2.6
Perfluorooctanoic acid (PFOA)	NE	15
Perfluorononanoic acid (PFNA)	NE	1.8
Perfluorodecanoic acid (PFDA)	NE	<1.8
Perfluoroundecanoic acid (PFUnA)	NE	<1.8
Perfluorododecanoic acid (PFDoA)	NE	<1.8
Perfluorotridecanoic acid (PFTriA)	NE	<1.8
Perfluorotetradecanoic acid (PFTeA)	NE	<1.8
Perfluorobutanesulfonic acid (PFBS)	NE	170
Perfluorohexanesulfonic acid (PFHxS)	NE	14
Perfluorooctanesulfonic acid (PFOS)	NE	16
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NE	<4.5
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NE	<4.5
F-53B Major	NE	<1.8
HFPO-DA (GenX)	NE	<3.6
F-53B Minor	NE	<1.8
DONA	NE	<1.8
PFOA + PFOS total*	70	31

Notes:

ng/L = Nanograms per liter

NE = Not established

* EPA Health Advisory Level

PFOA + PFOS = 70 ng/L

ATTACHMENT III

Analytical Laboratory Report

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-171376-1

Client Project/Site: Community Working Group

For:

Matrix New World Engineering
3033 North 44th Street, Ste 270
Phoenix, Arizona 85018

Attn: Kevin Hebert



Authorized for release by:
10/12/2021 6:52:27 AM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Isotope Dilution Summary	12
QC Sample Results	13
QC Association Summary	24
Lab Chronicle	27
Certification Summary	29
Method Summary	30
Subcontract Data	31
Chain of Custody	41
Field Data Sheets	45
Receipt Checklists	48



Definitions/Glossary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

LCMS

Qualifier	Qualifier Description
T3	Method not promulgated either by EPA or ADHS.

Metals

Qualifier	Qualifier Description
H6	The filtration was not done within the required 15 minutes of sampling, the sample was filtered in the laboratory.

General Chemistry

Qualifier	Qualifier Description
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Job ID: 550-171376-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative 550-171376-1

Comments

No additional comments.

Receipt

The samples were received on 9/29/2021 1:46 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2° C and 2.4° C.

Receipt Exceptions

Unsure if all radiation methods need to be dissolved or if the 226/228 Radium are dissolved only?

Radiation methods will need to be added for samples #1 - #3.

Used 2 different projects to complete the login (General/NA Misc. and PFAS projects).

DS-Q-09292021 (550-171376-1), BTA-01-09292021 (550-171376-2), 002-2-09292021 (550-171376-3), BTA-01-PFAS-09292021 (550-171376-4) and Field Blank (550-171376-5)

HPLC/IC

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

Metals

Method Filtration: The following samples requested dissolved metals and were not filtered in the field: DS-Q-09292021 (550-171376-1), BTA-01-09292021 (550-171376-2) and 002-2-09292021 (550-171376-3). These samples were filtered and preserved upon receipt to the laboratory.

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

LCMS

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

General Chemistry

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

Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-531103.

Method: 3535_PFC-W

Matrix: Aqueous

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

Lab Admin

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

Sample Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-171376-1	DS-Q-09292021	Water	09/29/21 09:12	09/29/21 13:46
550-171376-2	BTA-01-09292021	Water	09/29/21 10:34	09/29/21 13:46
550-171376-3	002-2-09292021	Water	09/29/21 12:20	09/29/21 13:46
550-171376-4	BTA-01-PFAS-09292021	Water	09/29/21 10:34	09/29/21 13:46
550-171376-5	Field Blank	Water	09/29/21 00:00	09/29/21 13:46

Detection Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: DS-Q-09292021

Lab Sample ID: 550-171376-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.13		0.050	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.13		0.050	mg/L	1		300.0	Total/NA
Fluoride	0.53		0.40	mg/L	1		300.0	Total/NA
Chloride	24		2.0	mg/L	1		300.0	Total/NA
Sulfate	110		2.0	mg/L	1		300.0	Total/NA
Arsenic	0.0016	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Barium	0.019	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Copper	0.00056	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Selenium	0.00056	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Thallium	0.00010	H6	0.00010	mg/L	1		200.8 LL	Dissolved
Total Dissolved Solids	490		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: BTA-01-09292021

Lab Sample ID: 550-171376-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.3		0.050	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	2.3		0.050	mg/L	1		300.0	Total/NA
Chloride	83		2.0	mg/L	1		300.0	Total/NA
Sulfate	200	D2	100	mg/L	50		300.0	Total/NA
Antimony	0.0017	H6	0.0010	mg/L	1		200.8 LL	Dissolved
Arsenic	0.028	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Barium	0.018	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Cadmium	0.00017	H6	0.00010	mg/L	1		200.8 LL	Dissolved
Copper	0.034	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Nickel	0.0010	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Selenium	0.0010	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Total Dissolved Solids	570		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 002-2-09292021

Lab Sample ID: 550-171376-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.078		0.050	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.078		0.050	mg/L	1		300.0	Total/NA
Chloride	120		2.0	mg/L	1		300.0	Total/NA
Sulfate	180		2.0	mg/L	1		300.0	Total/NA
Arsenic	0.026	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Barium	0.030	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Copper	0.0080	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Nickel	0.0025	H6	0.00050	mg/L	1		200.8 LL	Dissolved
Total Dissolved Solids	720		20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: BTA-01-PFAS-09292021

Lab Sample ID: 550-171376-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	9.5	T3	1.8	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.6	T3	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	15	T3	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.8	T3	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	170	T3	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14	T3	1.8	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	16	T3	1.8	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Detection Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: Field Blank

Lab Sample ID: 550-171376-5

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: DS-Q-09292021

Lab Sample ID: 550-171376-1

Date Collected: 09/29/21 09:12

Matrix: Water

Date Received: 09/29/21 13:46

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.13		0.050	mg/L			09/29/21 21:27	1
Nitrite as N	ND		0.050	mg/L			09/29/21 21:27	1
Nitrate Nitrite as N	0.13		0.050	mg/L			09/29/21 21:27	1
Fluoride	0.53		0.40	mg/L			09/29/21 21:27	1
Chloride	24		2.0	mg/L			09/29/21 21:27	1
Sulfate	110		2.0	mg/L			09/29/21 21:27	1

Method: 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	H6	0.0010	mg/L		10/04/21 07:21	10/05/21 14:27	1
Arsenic	0.0016	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:27	1
Barium	0.019	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 17:19	1
Beryllium	ND	H6	0.00040	mg/L		10/04/21 07:21	10/05/21 14:27	1
Cadmium	ND	H6	0.00010	mg/L		10/04/21 07:21	10/05/21 14:27	1
Copper	0.00056	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:27	1
Lead	ND	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 17:19	1
Nickel	ND	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:27	1
Selenium	0.00056	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:27	1
Thallium	0.00010	H6	0.00010	mg/L		10/04/21 07:21	10/06/21 12:14	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		10/04/21 15:34	10/04/21 19:31	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	490		20	mg/L			10/01/21 07:00	1
Cyanide, Total	ND		0.050	mg/L		10/06/21 11:55	10/06/21 13:26	1

Client Sample ID: BTA-01-09292021

Lab Sample ID: 550-171376-2

Date Collected: 09/29/21 10:34

Matrix: Water

Date Received: 09/29/21 13:46

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3		0.050	mg/L			09/29/21 21:55	1
Nitrite as N	ND		0.050	mg/L			09/29/21 21:55	1
Nitrate Nitrite as N	2.3		0.050	mg/L			09/29/21 21:55	1
Fluoride	ND		0.40	mg/L			09/29/21 21:55	1
Chloride	83		2.0	mg/L			09/29/21 21:55	1
Sulfate	200	D2	100	mg/L			09/29/21 18:40	50

Method: 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0017	H6	0.0010	mg/L		10/04/21 07:21	10/05/21 14:29	1
Arsenic	0.028	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:29	1
Barium	0.018	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 17:21	1
Beryllium	ND	H6	0.00040	mg/L		10/04/21 07:21	10/05/21 14:29	1
Cadmium	0.00017	H6	0.00010	mg/L		10/04/21 07:21	10/05/21 14:29	1
Copper	0.034	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:29	1
Lead	ND	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 17:21	1

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: BTA-01-09292021

Lab Sample ID: 550-171376-2

Date Collected: 09/29/21 10:34

Matrix: Water

Date Received: 09/29/21 13:46

Method: 200.8 LL - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.0010	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:29	1
Selenium	0.0010	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:29	1
Thallium	ND	H6	0.00010	mg/L		10/04/21 07:21	10/06/21 12:16	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		10/04/21 15:34	10/04/21 19:35	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	570		20	mg/L			10/01/21 07:00	1
Cyanide, Total	ND		0.050	mg/L		10/06/21 11:55	10/06/21 13:26	1

Client Sample ID: 002-2-09292021

Lab Sample ID: 550-171376-3

Date Collected: 09/29/21 12:20

Matrix: Water

Date Received: 09/29/21 13:46

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.078		0.050	mg/L			09/29/21 22:23	1
Nitrite as N	ND		0.050	mg/L			09/29/21 22:23	1
Nitrate Nitrite as N	0.078		0.050	mg/L			09/29/21 22:23	1
Fluoride	ND		0.40	mg/L			09/29/21 22:23	1
Chloride	120		2.0	mg/L			09/29/21 22:23	1
Sulfate	180		2.0	mg/L			09/29/21 22:23	1

Method: 200.8 LL - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	H6	0.0010	mg/L		10/04/21 07:21	10/05/21 14:31	1
Arsenic	0.026	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:31	1
Barium	0.030	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 17:23	1
Beryllium	ND	H6	0.00040	mg/L		10/04/21 07:21	10/05/21 14:31	1
Cadmium	ND	H6	0.00010	mg/L		10/04/21 07:21	10/05/21 14:31	1
Copper	0.0080	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:31	1
Lead	ND	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 17:23	1
Nickel	0.0025	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:31	1
Selenium	ND	H6	0.00050	mg/L		10/04/21 07:21	10/05/21 14:31	1
Thallium	ND	H6	0.00010	mg/L		10/04/21 07:21	10/06/21 12:18	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		10/04/21 15:34	10/04/21 19:38	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	720		20	mg/L			10/01/21 07:00	1
Cyanide, Total	ND		0.050	mg/L		10/06/21 11:55	10/06/21 13:26	1

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: BTA-01-PFAS-09292021

Lab Sample ID: 550-171376-4

Date Collected: 09/29/21 10:34

Matrix: Water

Date Received: 09/29/21 13:46

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	9.5	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluoroheptanoic acid (PFHpA)	2.6	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorooctanoic acid (PFOA)	15	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorononanoic acid (PFNA)	1.8	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorodecanoic acid (PFDA)	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluoroundecanoic acid (PFUnA)	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorododecanoic acid (PFDoA)	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorotridecanoic acid (PFTriA)	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorotetradecanoic acid (PFTeA)	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorobutanesulfonic acid (PFBS)	170	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorohexanesulfonic acid (PFHxS)	14	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
Perfluorooctanesulfonic acid (PFOS)	16	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	T3	4.5	ng/L		10/05/21 04:25	10/07/21 02:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	T3	4.5	ng/L		10/05/21 04:25	10/07/21 02:38	1
F-53B Major	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
HFPO-DA (GenX)	ND	T3	3.6	ng/L		10/05/21 04:25	10/07/21 02:38	1
F-53B Minor	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1
DONA	ND	T3	1.8	ng/L		10/05/21 04:25	10/07/21 02:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	87		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C4 PFHpA	91		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C4 PFOA	98		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C5 PFNA	99		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C2 PFDA	99		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C2 PFUnA	93		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C2 PFDoA	87		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C2 PFTeDA	75		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C3 PFBS	90		25 - 150	10/05/21 04:25	10/07/21 02:38	1
18O2 PFHxS	91		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C4 PFOS	93		25 - 150	10/05/21 04:25	10/07/21 02:38	1
d3-NMeFOSAA	80		25 - 150	10/05/21 04:25	10/07/21 02:38	1
d5-NEtFOSAA	83		25 - 150	10/05/21 04:25	10/07/21 02:38	1
13C3 HFPO-DA	89		25 - 150	10/05/21 04:25	10/07/21 02:38	1

Client Sample ID: Field Blank

Lab Sample ID: 550-171376-5

Date Collected: 09/29/21 00:00

Matrix: Water

Date Received: 09/29/21 13:46

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluoroheptanoic acid (PFHpA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorooctanoic acid (PFOA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorononanoic acid (PFNA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorodecanoic acid (PFDA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluoroundecanoic acid (PFUnA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1

Eurofins TestAmerica, Phoenix

Client Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: Field Blank

Lab Sample ID: 550-171376-5

Date Collected: 09/29/21 00:00

Matrix: Water

Date Received: 09/29/21 13:46

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorotridecanoic acid (PFTrIA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorotetradecanoic acid (PFTeA)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorobutanesulfonic acid (PFBS)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Perfluorooctanesulfonic acid (PFOS)	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	T3	4.9	ng/L		10/05/21 04:25	10/07/21 02:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	T3	4.9	ng/L		10/05/21 04:25	10/07/21 02:47	1
F-53B Major	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
HFPO-DA (GenX)	ND	T3	3.9	ng/L		10/05/21 04:25	10/07/21 02:47	1
F-53B Minor	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
DONA	ND	T3	2.0	ng/L		10/05/21 04:25	10/07/21 02:47	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C2 PFHxA	100		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C4 PFHpA	94		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C4 PFOA	103		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C5 PFNA	105		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C2 PFDA	104		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C2 PFUnA	100		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C2 PFDoA	97		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C2 PFTeDA	87		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C3 PFBS	97		25 - 150			10/05/21 04:25	10/07/21 02:47	1
18O2 PFHxS	98		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C4 PFOS	98		25 - 150			10/05/21 04:25	10/07/21 02:47	1
d3-NMeFOSAA	100		25 - 150			10/05/21 04:25	10/07/21 02:47	1
d5-NEtFOSAA	98		25 - 150			10/05/21 04:25	10/07/21 02:47	1
13C3 HFPO-DA	99		25 - 150			10/05/21 04:25	10/07/21 02:47	1

Isotope Dilution Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)	PFDaA (25-150)	PFTDA (25-150)
550-171376-4	BTA-01-PFAS-09292021	87	91	98	99	99	93	87	75
550-171376-5	Field Blank	100	94	103	105	104	100	97	87
LCS 320-531103/2-A	Lab Control Sample	96	97	101	103	101	99	96	91
LCSD 320-531103/3-A	Lab Control Sample Dup	97	93	100	100	104	95	95	90
MB 320-531103/1-A	Method Blank	93	99	102	103	102	100	94	88

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	d3NMFOs (25-150)	d5NEFOs (25-150)	HFPODA (25-150)
550-171376-4	BTA-01-PFAS-09292021	90	91	93	80	83	89
550-171376-5	Field Blank	97	98	98	100	98	99
LCS 320-531103/2-A	Lab Control Sample	100	99	97	105	106	97
LCSD 320-531103/3-A	Lab Control Sample Dup	98	99	97	102	103	98
MB 320-531103/1-A	Method Blank	97	102	98	103	104	100

Surrogate Legend

PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
d3NMFOs = d3-NMeFOSAA
d5NEFOs = d5-NEtFOSAA
HFPODA = 13C3 HFPO-DA

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-254684/2

Matrix: Water

Analysis Batch: 254684

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	mg/L			09/29/21 11:36	1
Nitrite as N	ND		0.050	mg/L			09/29/21 11:36	1
Nitrate Nitrite as N	ND		0.050	mg/L			09/29/21 11:36	1
Fluoride	ND		0.40	mg/L			09/29/21 11:36	1
Chloride	ND		2.0	mg/L			09/29/21 11:36	1
Sulfate	ND		2.0	mg/L			09/29/21 11:36	1

Lab Sample ID: LCS 550-254684/5

Matrix: Water

Analysis Batch: 254684

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	4.00	4.09		mg/L		102	90 - 110
Nitrite as N	4.00	4.06		mg/L		101	90 - 110
Nitrate Nitrite as N	8.00	8.15		mg/L		102	90 - 110
Fluoride	4.00	4.08		mg/L		102	90 - 110
Chloride	20.0	20.2		mg/L		101	90 - 110
Sulfate	20.0	20.7		mg/L		103	90 - 110

Lab Sample ID: LCSD 550-254684/6

Matrix: Water

Analysis Batch: 254684

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	4.00	4.09		mg/L		102	90 - 110	0	20
Nitrite as N	4.00	4.06		mg/L		102	90 - 110	0	20
Nitrate Nitrite as N	8.00	8.15		mg/L		102	90 - 110	0	20
Fluoride	4.00	4.08		mg/L		102	90 - 110	0	20
Chloride	20.0	20.2		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.7		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-171336-A-3 MS ^2

Matrix: Water

Analysis Batch: 254684

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	D2	40.0	141	D2	mg/L		101	80 - 120
Sulfate	290	E2 M3 D2	40.0	316	D2 E2 M3	mg/L		72	80 - 120

Lab Sample ID: 550-171336-A-3 MSD ^2

Matrix: Water

Analysis Batch: 254684

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	D2	40.0	141	D2	mg/L		101	80 - 120	0	20
Sulfate	290	E2 M3 D2	40.0	316	D2 E2 M3	mg/L		72	80 - 120	0	20

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 550-254688/2

Matrix: Water

Analysis Batch: 254688

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	mg/L			09/29/21 11:41	1
Nitrite as N	ND		0.050	mg/L			09/29/21 11:41	1
Nitrate Nitrite as N	ND		0.050	mg/L			09/29/21 11:41	1
Fluoride	ND		0.40	mg/L			09/29/21 11:41	1
Chloride	ND		2.0	mg/L			09/29/21 11:41	1
Sulfate	ND		2.0	mg/L			09/29/21 11:41	1

Lab Sample ID: LCS 550-254688/5

Matrix: Water

Analysis Batch: 254688

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	4.00	4.05		mg/L		101	90 - 110
Nitrite as N	4.00	3.98		mg/L		100	90 - 110
Nitrate Nitrite as N	8.00	8.03		mg/L		100	90 - 110
Fluoride	4.00	4.00		mg/L		100	90 - 110
Chloride	20.0	20.6		mg/L		103	90 - 110
Sulfate	20.0	20.1		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-254688/6

Matrix: Water

Analysis Batch: 254688

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	4.00	4.05		mg/L		101	90 - 110	0	20
Nitrite as N	4.00	3.99		mg/L		100	90 - 110	0	20
Nitrate Nitrite as N	8.00	8.04		mg/L		101	90 - 110	0	20
Fluoride	4.00	4.01		mg/L		100	90 - 110	0	20
Chloride	20.0	20.6		mg/L		103	90 - 110	0	20
Sulfate	20.0	20.1		mg/L		100	90 - 110	0	20

Lab Sample ID: 550-171359-A-3 MS

Matrix: Water

Analysis Batch: 254688

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.51		4.00	4.73		mg/L		106	80 - 120
Nitrite as N	0.15		4.00	4.13		mg/L		99	80 - 120
Nitrate Nitrite as N	0.66		8.00	8.86		mg/L		103	80 - 120
Fluoride	1.7		4.00	5.93		mg/L		106	80 - 120
Chloride	110	M3	20.0	123	M3	mg/L		78	80 - 120
Sulfate	8.0	M2	20.0	10.7	M2	mg/L		14	80 - 120

Lab Sample ID: 550-171359-A-3 MSD

Matrix: Water

Analysis Batch: 254688

Client Sample ID: Matrix Spike Duplicate

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	0.51		4.00	4.68		mg/L		104	80 - 120	1	20

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-171359-A-3 MSD

Matrix: Water

Analysis Batch: 254688

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.15		4.00	4.16		mg/L		100	80 - 120	1	20
Nitrate Nitrite as N	0.66		8.00	8.84		mg/L		102	80 - 120	0	20
Fluoride	1.7		4.00	5.95		mg/L		107	80 - 120	0	20
Chloride	110	M3	20.0	123	M3	mg/L		78	80 - 120	0	20
Sulfate	8.0	M2	20.0	10.6	M2	mg/L		13	80 - 120	2	20

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-531103/1-A

Matrix: Water

Analysis Batch: 531671

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 531103

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorooctanoic acid (PFOA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorononanoic acid (PFNA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorodecanoic acid (PFDA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
F-53B Major	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
HFPO-DA (GenX)	ND		4.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
F-53B Minor	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1
DONA	ND		2.0	ng/L		10/05/21 04:25	10/07/21 00:31	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	93		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C4 PFHpA	99		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C4 PFOA	102		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C5 PFNA	103		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C2 PFDA	102		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C2 PFUnA	100		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C2 PFDoA	94		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C2 PFTeDA	88		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C3 PFBS	97		25 - 150	10/05/21 04:25	10/07/21 00:31	1
18O2 PFHxS	102		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C4 PFOS	98		25 - 150	10/05/21 04:25	10/07/21 00:31	1
d3-NMeFOSAA	103		25 - 150	10/05/21 04:25	10/07/21 00:31	1
d5-NEtFOSAA	104		25 - 150	10/05/21 04:25	10/07/21 00:31	1
13C3 HFPO-DA	100		25 - 150	10/05/21 04:25	10/07/21 00:31	1

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-531103/2-A

Matrix: Water

Analysis Batch: 531671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 531103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	40.0	40.7		ng/L		102	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	38.1		ng/L		95	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	42.2		ng/L		105	70 - 130
Perfluorononanoic acid (PFNA)	40.0	40.5		ng/L		101	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	39.7		ng/L		99	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	38.0		ng/L		95	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		101	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	39.5		ng/L		99	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	38.8		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.1		ng/L		97	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.8		ng/L		93	59 - 119
Perfluorooctanesulfonic acid (PFOS)	37.1	39.7		ng/L		107	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.6		ng/L		91	76 - 136
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.4		ng/L		99	76 - 136
F-53B Major	37.3	38.7		ng/L		104	75 - 135
HFPO-DA (GenX)	40.0	38.4		ng/L		96	51 - 173
F-53B Minor	37.7	35.8		ng/L		95	54 - 114
DONA	37.7	39.8		ng/L		106	79 - 139

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	96		25 - 150
13C4 PFHpA	97		25 - 150
13C4 PFOA	101		25 - 150
13C5 PFNA	103		25 - 150
13C2 PFDA	101		25 - 150
13C2 PFUnA	99		25 - 150
13C2 PFDoA	96		25 - 150
13C2 PFTeDA	91		25 - 150
13C3 PFBS	100		25 - 150
18O2 PFHxS	99		25 - 150
13C4 PFOS	97		25 - 150
d3-NMeFOSAA	105		25 - 150
d5-NEtFOSAA	106		25 - 150
13C3 HFPO-DA	97		25 - 150

Lab Sample ID: LCSD 320-531103/3-A

Matrix: Water

Analysis Batch: 531671

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 531103

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	40.0	40.2		ng/L		100	73 - 133	1	30
Perfluoroheptanoic acid (PFHpA)	40.0	39.0		ng/L		98	72 - 132	2	30

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-531103/3-A

Matrix: Water

Analysis Batch: 531671

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 531103

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	40.0	41.1		ng/L		103	70 - 130	2	30
Perfluorononanoic acid (PFNA)	40.0	42.4		ng/L		106	75 - 135	5	30
Perfluorodecanoic acid (PFDA)	40.0	38.1		ng/L		95	76 - 136	4	30
Perfluoroundecanoic acid (PFUnA)	40.0	38.0		ng/L		95	68 - 128	0	30
Perfluorododecanoic acid (PFDoA)	40.0	40.7		ng/L		102	71 - 131	0	30
Perfluorotridecanoic acid (PFTriA)	40.0	39.3		ng/L		98	71 - 131	0	30
Perfluorotetradecanoic acid (PFTeA)	40.0	38.3		ng/L		96	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	35.4	35.4		ng/L		100	67 - 127	4	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.7		ng/L		93	59 - 119	0	30
Perfluorooctanesulfonic acid (PFOS)	37.1	40.0		ng/L		108	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.1		ng/L		95	76 - 136	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.1		ng/L		100	76 - 136	2	30
F-53B Major	37.3	37.7		ng/L		101	75 - 135	2	30
HFPO-DA (GenX)	40.0	37.2		ng/L		93	51 - 173	3	30
F-53B Minor	37.7	35.6		ng/L		94	54 - 114	1	30
DONA	37.7	39.7		ng/L		105	79 - 139	0	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C2 PFHxA	97		25 - 150
13C4 PFHpA	93		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	104		25 - 150
13C2 PFUnA	95		25 - 150
13C2 PFDoA	95		25 - 150
13C2 PFTeDA	90		25 - 150
13C3 PFBS	98		25 - 150
18O2 PFHxS	99		25 - 150
13C4 PFOS	97		25 - 150
d3-NMeFOSAA	102		25 - 150
d5-NEtFOSAA	103		25 - 150
13C3 HFPO-DA	98		25 - 150

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-254942/1-A

Matrix: Water

Analysis Batch: 255107

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		10/04/21 07:21	10/05/21 14:14	1
Arsenic	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:14	1

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-254942/1-A
Matrix: Water
Analysis Batch: 255107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.00040	mg/L		10/04/21 07:21	10/05/21 14:14	1
Cadmium	ND		0.00010	mg/L		10/04/21 07:21	10/05/21 14:14	1
Copper	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:14	1
Nickel	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:14	1
Selenium	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:14	1

Lab Sample ID: MB 550-254942/1-A
Matrix: Water
Analysis Batch: 255150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 17:07	1
Lead	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 17:07	1

Lab Sample ID: MB 550-254942/1-A
Matrix: Water
Analysis Batch: 255202

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.00010	mg/L		10/04/21 07:21	10/06/21 12:02	1

Lab Sample ID: LCS 550-254942/2-A
Matrix: Water
Analysis Batch: 255107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 254942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0983		mg/L		98	85 - 115
Arsenic	0.100	0.0928		mg/L		93	85 - 115
Beryllium	0.100	0.100		mg/L		100	85 - 115
Cadmium	0.100	0.0967		mg/L		97	85 - 115
Copper	0.100	0.100		mg/L		100	85 - 115
Nickel	0.100	0.0981		mg/L		98	85 - 115
Selenium	0.100	0.100		mg/L		100	85 - 115

Lab Sample ID: LCS 550-254942/2-A
Matrix: Water
Analysis Batch: 255150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 254942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.109		mg/L		109	85 - 115
Lead	0.100	0.0966		mg/L		97	85 - 115

Lab Sample ID: LCS 550-254942/2-A
Matrix: Water
Analysis Batch: 255202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 254942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.100	0.0957		mg/L		96	85 - 115

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-254942/3-A
Matrix: Water
Analysis Batch: 255107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 254942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0996		mg/L		100	85 - 115	1	20
Arsenic	0.100	0.0931		mg/L		93	85 - 115	0	20
Beryllium	0.100	0.102		mg/L		102	85 - 115	2	20
Cadmium	0.100	0.0974		mg/L		97	85 - 115	1	20
Copper	0.100	0.101		mg/L		101	85 - 115	0	20
Nickel	0.100	0.0971		mg/L		97	85 - 115	1	20
Selenium	0.100	0.100		mg/L		100	85 - 115	0	20

Lab Sample ID: LCSD 550-254942/3-A
Matrix: Water
Analysis Batch: 255150

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 254942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.100	0.111		mg/L		111	85 - 115	2	20
Lead	0.100	0.0997		mg/L		100	85 - 115	3	20

Lab Sample ID: LCSD 550-254942/3-A
Matrix: Water
Analysis Batch: 255202

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 254942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	0.100	0.100		mg/L		100	85 - 115	5	20

Lab Sample ID: MB 550-254852/1-B
Matrix: Water
Analysis Batch: 255107

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		10/04/21 07:21	10/05/21 14:20	1
Arsenic	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:20	1
Beryllium	ND		0.00040	mg/L		10/04/21 07:21	10/05/21 14:20	1
Cadmium	ND		0.00010	mg/L		10/04/21 07:21	10/05/21 14:20	1
Copper	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:20	1
Nickel	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:20	1
Selenium	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 14:20	1

Lab Sample ID: MB 550-254852/1-B
Matrix: Water
Analysis Batch: 255150

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 17:13	1
Lead	ND		0.00050	mg/L		10/04/21 07:21	10/05/21 17:13	1

Lab Sample ID: MB 550-254852/1-B
Matrix: Water
Analysis Batch: 255202

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 254942

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.00010	mg/L		10/04/21 07:21	10/06/21 12:21	1

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: 550-171376-1 MS

Matrix: Water

Analysis Batch: 255107

Client Sample ID: DS-Q-09292021

Prep Type: Dissolved

Prep Batch: 254942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	H6	0.100	0.0986		mg/L		98	70 - 130
Arsenic	0.0016	H6	0.100	0.104		mg/L		102	70 - 130
Beryllium	ND	H6	0.100	0.107		mg/L		107	70 - 130
Cadmium	ND	H6	0.100	0.0954		mg/L		95	70 - 130
Copper	0.00056	H6	0.100	0.103		mg/L		103	70 - 130
Nickel	ND	H6	0.100	0.103		mg/L		102	70 - 130
Selenium	0.00056	H6	0.100	0.104		mg/L		103	70 - 130

Lab Sample ID: 550-171376-1 MS

Matrix: Water

Analysis Batch: 255150

Client Sample ID: DS-Q-09292021

Prep Type: Dissolved

Prep Batch: 254942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.019	H6	0.100	0.119		mg/L		100	70 - 130
Lead	ND	H6	0.100	0.0869		mg/L		87	70 - 130

Lab Sample ID: 550-171376-1 MS

Matrix: Water

Analysis Batch: 255202

Client Sample ID: DS-Q-09292021

Prep Type: Dissolved

Prep Batch: 254942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.00010	H6	0.100	0.0964		mg/L		96	70 - 130

Lab Sample ID: 550-171376-1 MSD

Matrix: Water

Analysis Batch: 255107

Client Sample ID: DS-Q-09292021

Prep Type: Dissolved

Prep Batch: 254942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	ND	H6	0.100	0.0974		mg/L		97	70 - 130	1	20
Arsenic	0.0016	H6	0.100	0.107		mg/L		105	70 - 130	3	20
Beryllium	ND	H6	0.100	0.106		mg/L		106	70 - 130	1	20
Cadmium	ND	H6	0.100	0.0963		mg/L		96	70 - 130	1	20
Copper	0.00056	H6	0.100	0.106		mg/L		106	70 - 130	3	20
Nickel	ND	H6	0.100	0.104		mg/L		103	70 - 130	1	20
Selenium	0.00056	H6	0.100	0.106		mg/L		105	70 - 130	2	20

Lab Sample ID: 550-171376-1 MSD

Matrix: Water

Analysis Batch: 255150

Client Sample ID: DS-Q-09292021

Prep Type: Dissolved

Prep Batch: 254942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Barium	0.019	H6	0.100	0.134		mg/L		115	70 - 130	12	20
Lead	ND	H6	0.100	0.0928		mg/L		93	70 - 130	7	20

Lab Sample ID: 550-171376-1 MSD

Matrix: Water

Analysis Batch: 255202

Client Sample ID: DS-Q-09292021

Prep Type: Dissolved

Prep Batch: 254942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Thallium	0.00010	H6	0.100	0.0917		mg/L		92	70 - 130	5	20

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-254986/1-A

Matrix: Water

Analysis Batch: 255012

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 254986

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		10/04/21 15:34	10/04/21 19:15	1

Lab Sample ID: LCS 550-254986/2-A

Matrix: Water

Analysis Batch: 255012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00478		mg/L		96	85 - 115

Lab Sample ID: LCSD 550-254986/3-A

Matrix: Water

Analysis Batch: 255012

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 254986

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00500	0.00475		mg/L		95	85 - 115	1	20

Lab Sample ID: 550-171531-R-1-A MS

Matrix: Water

Analysis Batch: 255012

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 254986

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00500	0.00463		mg/L		93	70 - 130

Lab Sample ID: 550-171531-R-1-B MSD

Matrix: Water

Analysis Batch: 255012

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 254986

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	ND		0.00500	0.00474		mg/L		95	70 - 130	2	20

Lab Sample ID: MB 550-254852/1-D

Matrix: Water

Analysis Batch: 255012

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 254986

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		10/04/21 15:34	10/04/21 19:28	1

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

Lab Sample ID: MB 550-254820/1

Matrix: Water

Analysis Batch: 254820

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20	mg/L			10/01/21 07:00	1

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

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

Lab Sample ID: LCS 550-254820/2

Matrix: Water

Analysis Batch: 254820

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	984		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-254820/3

Matrix: Water

Analysis Batch: 254820

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
Total Dissolved Solids	1000	934		mg/L		93	90 - 110	5	10

Lab Sample ID: 550-171348-A-1 DU

Matrix: Water

Analysis Batch: 254820

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	560		532		mg/L		5	10

Method: SM 4500 CN E - Cyanide, Total

Lab Sample ID: MB 550-255191/1-A

Matrix: Water

Analysis Batch: 255247

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 255191

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.050	mg/L		10/06/21 11:55	10/06/21 13:26	1

Lab Sample ID: LCS 550-255191/2-A

Matrix: Water

Analysis Batch: 255247

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 255191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.104		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-255191/3-A

Matrix: Water

Analysis Batch: 255247

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 255191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.100	0.106		mg/L		106	90 - 110	2	20

Lab Sample ID: 550-171589-F-1-B MS

Matrix: Water

Analysis Batch: 255247

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 255191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND	M2	0.100	0.0597	M2	mg/L		60	80 - 120

Eurofins TestAmerica, Phoenix

QC Sample Results

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method: SM 4500 CN E - Cyanide, Total (Continued)

Lab Sample ID: 550-171589-F-1-C MSD

Matrix: Water

Analysis Batch: 255247

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 255191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND	M2	0.100	0.0623	M2	mg/L		62	80 - 120	4	20

QC Association Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

HPLC/IC

Analysis Batch: 254684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-2	BTA-01-09292021	Total/NA	Water	300.0	
MB 550-254684/2	Method Blank	Total/NA	Water	300.0	
LCS 550-254684/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-254684/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-171336-A-3 MS ^2	Matrix Spike	Total/NA	Water	300.0	
550-171336-A-3 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 254688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Total/NA	Water	300.0	
550-171376-2	BTA-01-09292021	Total/NA	Water	300.0	
550-171376-3	002-2-09292021	Total/NA	Water	300.0	
MB 550-254688/2	Method Blank	Total/NA	Water	300.0	
LCS 550-254688/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-254688/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-171359-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
550-171359-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

LCMS

Prep Batch: 531103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-4	BTA-01-PFAS-09292021	Total/NA	Water	3535	
550-171376-5	Field Blank	Total/NA	Water	3535	
MB 320-531103/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-531103/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-531103/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 531671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-4	BTA-01-PFAS-09292021	Total/NA	Water	537 (modified)	531103
550-171376-5	Field Blank	Total/NA	Water	537 (modified)	531103
MB 320-531103/1-A	Method Blank	Total/NA	Water	537 (modified)	531103
LCS 320-531103/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	531103
LCSD 320-531103/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	531103

Metals

Filtration Batch: 254852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	Filtration	
550-171376-2	BTA-01-09292021	Dissolved	Water	Filtration	
550-171376-3	002-2-09292021	Dissolved	Water	Filtration	
MB 550-254852/1-B	Method Blank	Dissolved	Water	Filtration	
MB 550-254852/1-D	Method Blank	Dissolved	Water	Filtration	
550-171376-1 MS	DS-Q-09292021	Dissolved	Water	Filtration	
550-171376-1 MSD	DS-Q-09292021	Dissolved	Water	Filtration	

Prep Batch: 254942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	200.8	254852
550-171376-2	BTA-01-09292021	Dissolved	Water	200.8	254852

Eurofins TestAmerica, Phoenix

QC Association Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Metals (Continued)

Prep Batch: 254942 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-3	002-2-09292021	Dissolved	Water	200.8	254852
MB 550-254852/1-B	Method Blank	Dissolved	Water	200.8	254852
MB 550-254942/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-254942/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-254942/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-171376-1 MS	DS-Q-09292021	Dissolved	Water	200.8	254852
550-171376-1 MSD	DS-Q-09292021	Dissolved	Water	200.8	254852

Prep Batch: 254986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	245.1	254852
550-171376-2	BTA-01-09292021	Dissolved	Water	245.1	254852
550-171376-3	002-2-09292021	Dissolved	Water	245.1	254852
MB 550-254852/1-D	Method Blank	Dissolved	Water	245.1	254852
MB 550-254986/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-254986/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-254986/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-171531-R-1-A MS	Matrix Spike	Total/NA	Water	245.1	
550-171531-R-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 255012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	245.1	254986
550-171376-2	BTA-01-09292021	Dissolved	Water	245.1	254986
550-171376-3	002-2-09292021	Dissolved	Water	245.1	254986
MB 550-254852/1-D	Method Blank	Dissolved	Water	245.1	254986
MB 550-254986/1-A	Method Blank	Total/NA	Water	245.1	254986
LCS 550-254986/2-A	Lab Control Sample	Total/NA	Water	245.1	254986
LCSD 550-254986/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	254986
550-171531-R-1-A MS	Matrix Spike	Total/NA	Water	245.1	254986
550-171531-R-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	254986

Analysis Batch: 255107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	200.8 LL	254942
550-171376-2	BTA-01-09292021	Dissolved	Water	200.8 LL	254942
550-171376-3	002-2-09292021	Dissolved	Water	200.8 LL	254942
MB 550-254852/1-B	Method Blank	Dissolved	Water	200.8 LL	254942
MB 550-254942/1-A	Method Blank	Total/NA	Water	200.8 LL	254942
LCS 550-254942/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	254942
LCSD 550-254942/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	254942
550-171376-1 MS	DS-Q-09292021	Dissolved	Water	200.8 LL	254942
550-171376-1 MSD	DS-Q-09292021	Dissolved	Water	200.8 LL	254942

Analysis Batch: 255150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	200.8 LL	254942
550-171376-2	BTA-01-09292021	Dissolved	Water	200.8 LL	254942
550-171376-3	002-2-09292021	Dissolved	Water	200.8 LL	254942
MB 550-254852/1-B	Method Blank	Dissolved	Water	200.8 LL	254942
MB 550-254942/1-A	Method Blank	Total/NA	Water	200.8 LL	254942

Eurofins TestAmerica, Phoenix

QC Association Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Metals (Continued)

Analysis Batch: 255150 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-254942/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	254942
LCSD 550-254942/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	254942
550-171376-1 MS	DS-Q-09292021	Dissolved	Water	200.8 LL	254942
550-171376-1 MSD	DS-Q-09292021	Dissolved	Water	200.8 LL	254942

Analysis Batch: 255202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Dissolved	Water	200.8 LL	254942
550-171376-2	BTA-01-09292021	Dissolved	Water	200.8 LL	254942
550-171376-3	002-2-09292021	Dissolved	Water	200.8 LL	254942
MB 550-254852/1-B	Method Blank	Dissolved	Water	200.8 LL	254942
MB 550-254942/1-A	Method Blank	Total/NA	Water	200.8 LL	254942
LCS 550-254942/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	254942
LCSD 550-254942/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	254942
550-171376-1 MS	DS-Q-09292021	Dissolved	Water	200.8 LL	254942
550-171376-1 MSD	DS-Q-09292021	Dissolved	Water	200.8 LL	254942

General Chemistry

Analysis Batch: 254820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Total/NA	Water	SM 2540C	
550-171376-2	BTA-01-09292021	Total/NA	Water	SM 2540C	
550-171376-3	002-2-09292021	Total/NA	Water	SM 2540C	
MB 550-254820/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-254820/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-254820/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-171348-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Prep Batch: 255191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Total/NA	Water	SM 4500 CN C	
550-171376-2	BTA-01-09292021	Total/NA	Water	SM 4500 CN C	
550-171376-3	002-2-09292021	Total/NA	Water	SM 4500 CN C	
MB 550-255191/1-A	Method Blank	Total/NA	Water	SM 4500 CN C	
LCS 550-255191/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN C	
LCSD 550-255191/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 CN C	
550-171589-F-1-B MS	Matrix Spike	Total/NA	Water	SM 4500 CN C	
550-171589-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN C	

Analysis Batch: 255247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-171376-1	DS-Q-09292021	Total/NA	Water	SM 4500 CN E	255191
550-171376-2	BTA-01-09292021	Total/NA	Water	SM 4500 CN E	255191
550-171376-3	002-2-09292021	Total/NA	Water	SM 4500 CN E	255191
MB 550-255191/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	255191
LCS 550-255191/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	255191
LCSD 550-255191/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 CN E	255191
550-171589-F-1-B MS	Matrix Spike	Total/NA	Water	SM 4500 CN E	255191
550-171589-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN E	255191

Eurofins TestAmerica, Phoenix

Lab Chronicle

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: DS-Q-09292021

Lab Sample ID: 550-171376-1

Date Collected: 09/29/21 09:12

Matrix: Water

Date Received: 09/29/21 13:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	254688	09/29/21 21:27	JNW	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255107	10/05/21 14:27	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255150	10/05/21 17:19	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255202	10/06/21 12:14	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	245.1			254986	10/04/21 15:34	SRR	TAL PHX
Dissolved	Analysis	245.1		1	255012	10/04/21 19:31	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	254820		YET	TAL PHX
					(Start)	10/01/21 07:00		
					(End)	10/04/21 08:20		
Total/NA	Prep	SM 4500 CN C			255191	10/06/21 11:55	SRG	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	255247	10/06/21 13:26	SRG	TAL PHX

Client Sample ID: BTA-01-09292021

Lab Sample ID: 550-171376-2

Date Collected: 09/29/21 10:34

Matrix: Water

Date Received: 09/29/21 13:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50	254684	09/29/21 18:40	JNW	TAL PHX
Total/NA	Analysis	300.0		1	254688	09/29/21 21:55	JNW	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255107	10/05/21 14:29	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255150	10/05/21 17:21	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255202	10/06/21 12:16	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	245.1			254986	10/04/21 15:34	SRR	TAL PHX
Dissolved	Analysis	245.1		1	255012	10/04/21 19:35	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	254820		YET	TAL PHX
					(Start)	10/01/21 07:00		
					(End)	10/04/21 08:20		
Total/NA	Prep	SM 4500 CN C			255191	10/06/21 11:55	SRG	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	255247	10/06/21 13:26	SRG	TAL PHX

Lab Chronicle

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Client Sample ID: 002-2-09292021

Lab Sample ID: 550-171376-3

Date Collected: 09/29/21 12:20

Matrix: Water

Date Received: 09/29/21 13:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	254688	09/29/21 22:23	JNW	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255107	10/05/21 14:31	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255150	10/05/21 17:23	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	200.8			254942	10/04/21 07:21	SGO	TAL PHX
Dissolved	Analysis	200.8 LL		1	255202	10/06/21 12:18	ARE	TAL PHX
Dissolved	Filtration	Filtration			254852	10/01/21 09:35	SGO	TAL PHX
Dissolved	Prep	245.1			254986	10/04/21 15:34	SRR	TAL PHX
Dissolved	Analysis	245.1		1	255012	10/04/21 19:38	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	254820		YET	TAL PHX
					(Start)	10/01/21 07:00		
					(End)	10/04/21 08:20		
Total/NA	Prep	SM 4500 CN C			255191	10/06/21 11:55	SRG	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	255247	10/06/21 13:26	SRG	TAL PHX

Client Sample ID: BTA-01-PFAS-09292021

Lab Sample ID: 550-171376-4

Date Collected: 09/29/21 10:34

Matrix: Water

Date Received: 09/29/21 13:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			531103	10/05/21 04:25	EFG	TAL SAC
Total/NA	Analysis	537 (modified)		1	531671	10/07/21 02:38	MYV	TAL SAC

Client Sample ID: Field Blank

Lab Sample ID: 550-171376-5

Date Collected: 09/29/21 00:00

Matrix: Water

Date Received: 09/29/21 13:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			531103	10/05/21 04:25	EFG	TAL SAC
Total/NA	Analysis	537 (modified)		1	531671	10/07/21 02:47	MYV	TAL SAC

Laboratory References:

Radiation = Radiation Safety, 3245 North Washington Street, Chandler, AZ 85225

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Eurofins TestAmerica, Phoenix

Accreditation/Certification Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Laboratory: Eurofins TestAmerica, Phoenix

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-22
Arkansas DEQ	State	88-0691	06-17-21 *
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21 *
Florida	NELAP	E87570	06-30-22
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-22
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA00044	08-31-22
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-22
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	05-31-22
US Fish & Wildlife	US Federal Programs	58448	07-31-22
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-22
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins TestAmerica, Phoenix

Method Summary

Client: Matrix New World Engineering
Project/Site: Community Working Group

Job ID: 550-171376-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 CN E	Cyanide, Total	SM	TAL PHX
900	Gross Alpha	RAD EPA	Radiation
EPA	RAD-226-228 combined	TAL-RCH	Radiation
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
Filtration	Sample Filtration	None	TAL PHX
SM 4500 CN C	Cyanide, Distillation	SM	TAL PHX

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RAD EPA = EPA Radioanalytical Methodology

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

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

TAL-RCH = TestAmerica Laboratories, Richland, Facility Standard Operating Procedure.

Laboratory References:

Radiation = Radiation Safety, 3245 North Washington Street, Chandler, AZ 85225

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

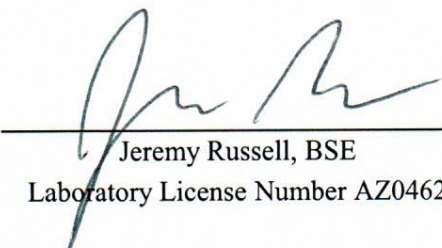
Radiochemical Activity in Water (pCi/L)

TestAmerica
4625 E. Cotton Center Blvd., Suite #189
Phoenix, AZ 85040

Sampling Date: September 29, 2021
Sample Received: September 30, 2021
Analysis Completed: October 11, 2021

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
550-171376-1	5.5 ± 1.5	< 0.5	< 0.7	< 0.7

Date of Analysis	10/4/2021	10/1/2021	10/1/2021	10/1/2021
------------------	-----------	-----------	-----------	-----------



Jeremy Russell, BSE
Laboratory License Number AZ0462

10/11/2021
Date

Arizona Department Of Environmental Quality
Drinking Water Source Approval Form
Samples To Be Taken At Source Only

AZ04-
System ID #

System Name

September 29, 2021
Sample Date

9:12 (24 Hr Clock)

ADEQ Project Number

55-
Well ID Number

New System: YES ☐ NO ☐

New Source: YES ☒ NO ☐

Reactivated
Source YES ☐ NO ☐

Surface Water Intake ID Number

Owner/Contact Person Name

Owner/Contact Person Phone Number

Sample Type
☐ Compliance Monitoring

Sample Collection Point/II
☐ Point of Entry#

This form is to be filled out completely, and all pages are to be submitted together. If more than one laboratory participated in the analyses, please attach a copy of the original laboratory report, signed by the performing laboratory, to the back of this form.

All Results Shall Be Reported In Milligrams Per Liter (mg/L) Unless Otherwise Specified.

Please Mail This Completed Form To:

**Arizona Department Of Environmental Quality
Technical Review Unit
Drinking Water Section (5415b-2)
1110 W Washington St,
Phoenix, AZ 85007**

Radiochemical Analysis

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		3 pCi/l	Gross Alpha	4002	10/4/2021	5.5 ± 1.5		
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006				
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/l	Combined Radium	4010	10/1/2021	< 0.7		
GammaRay HPGE		1 pCi/l	Radium 226	4020	10/1/2021	< 0.5		
GammaRay HPGE		1 pCi/l	Radium 228	4030	10/1/2021	< 0.7		
*	4 mrem	4 pCi/l	Gross Beta	4100				
*	20,000 pCi/l	1,000 pCi/l	Tritium	4102				
*		10 pCi/l	Strontium-89	4172				
*	8 pCi/l	2 pCi/l	Strontium-90	4174				
*		1 pCi/l	Iodine-131	4264				
*		10 pCi/l	Cesium-134	4270				

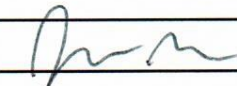
* Do not analyze for this contaminant unless notified by ADEQ

Laboratory Information

Speciman Number: RSE67364

Lab ID Number: AZ0462 Name: Radiation Safety Engineering, Inc.

Comments 550-171376-1

Authorized Signature: 

Date Public Water System Notified: _____



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

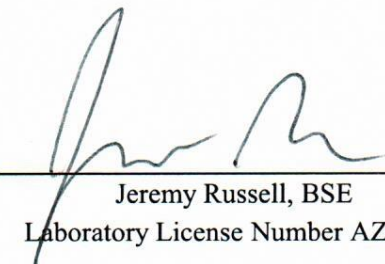
Radiochemical Activity in Water (pCi/L)

TestAmerica
4625 E. Cotton Center Blvd., Suite #189
Phoenix, AZ 85040

Sampling Date: September 29, 2021
Sample Received: September 30, 2021
Analysis Completed: October 11, 2021

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
550-171376-2	< 2.6	< 0.4	< 0.7	< 0.7

Date of Analysis	10/4/2021	10/1/2021	10/1/2021	10/1/2021
------------------	-----------	-----------	-----------	-----------



Jeremy Russell, BSE
Laboratory License Number AZ0462
10/11/2021
Date

Arizona Department Of Environmental Quality
Drinking Water Source Approval Form
Samples To Be Taken At Source Only

AZ04-
System ID #

System Name

September 29, 2021
Sample Date

10:34 (24 Hr Clock)

ADEQ Project Number

55-
Well ID Number

New System: YES ☐ NO ☐

New Source: YES ☒ NO ☐

Reactivated Source YES ☐ NO ☐

Surface Water Intake ID Number

Owner/Contact Person Name

Owner/Contact Person Phone Number

Sample Type
☐ Compliance Monitoring

Sample Collection Point/II
☐ Point of Entry#

This form is to be filled out completely, and all pages are to be submitted together. If more than one laboratory participated in the analyses, please attach a copy of the original laboratory report, signed by the performing laboratory, to the back of this form.

All Results Shall Be Reported In Milligrams Per Liter (mg/L) Unless Otherwise Specified.

Please Mail This Completed Form To:

Arizona Department Of Environmental Quality
Technical Review Unit
Drinking Water Section (5415b-2)
1110 W Washington St,
Phoenix, AZ 85007

Radiochemical Analysis

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		3 pCi/l	Gross Alpha	4002	10/4/2021	< 2.6		
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006				
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/l	Combined Radium	4010	10/1/2021	< 0.7		
GammaRay HPGE		1 pCi/l	Radium 226	4020	10/1/2021	< 0.4		
GammaRay HPGE		1 pCi/l	Radium 228	4030	10/1/2021	< 0.7		
*	4 mrem	4 pCi/l	Gross Beta	4100				
*	20,000 pCi/l	1,000 pCi/l	Tritium	4102				
*		10 pCi/l	Strontium-89	4172				
*	8 pCi/l	2 pCi/l	Strontium-90	4174				
*		1 pCi/l	Iodine-131	4264				
*		10 pCi/l	Cesium-134	4270				

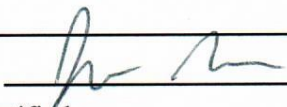
* Do not analyze for this contaminant unless notified by ADEQ

Laboratory Information

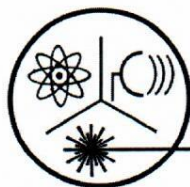
Speciman Number: RSE67365

Lab ID Number: AZ0462 Name: Radiation Safety Engineering, Inc.

Comments 550-171376-2

Authorized Signature: 

Date Public Water System Notified:



Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

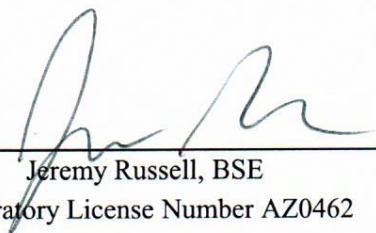
Radiochemical Activity in Water (pCi/L)

TestAmerica
4625 E. Cotton Center Blvd., Suite #189
Phoenix, AZ 85040

Sampling Date: September 29, 2021
Sample Received: September 30, 2021
Analysis Completed: October 11, 2021

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
550-171376-3	2.5 ± 0.6	< 0.5	< 0.7	< 0.7

Date of Analysis	10/6/2021	10/1/2021	10/1/2021	10/1/2021
------------------	-----------	-----------	-----------	-----------



Jeremy Russell, BSE
Laboratory License Number AZ0462

10/11/2021
Date

Arizona Department Of Environmental Quality
Drinking Water Source Approval Form
Samples To Be Taken At Source Only

AZ04-
System ID #

System Name

September 29, 2021
Sample Date

12:20 (24 Hr Clock)

ADEQ Project Number

55-
Well ID Number

New System: YES ☐ NO ☐

New Source: YES ☒ NO ☐

Reactivated Source YES ☐ NO ☐

Surface Water Intake ID Number

Owner/Contact Person Name

Owner/Contact Person Phone Number

Sample Type
☐ Compliance Monitoring

Sample Collection Point/IL
☐ Point of Entry#

This form is to be filled out completely, and all pages are to be submitted together. If more than one laboratory participated in the analyses, please attach a copy of the original laboratory report, signed by the performing laboratory, to the back of this form.

All Results Shall Be Reported In Milligrams Per Liter (mg/L) Unless Otherwise Specified.

Please Mail This Completed Form To:

Arizona Department Of Environmental Quality
Technical Review Unit
Drinking Water Section (5415b-2)
1110 W Washington St,
Phoenix, AZ 85007

Radiochemical Analysis

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		3 pCi/l	Gross Alpha	4002	10/6/2021	2.5 ± 0.6		
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006				
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/l	Combined Radium	4010	10/1/2021	< 0.7		
GammaRay HPGE		1 pCi/l	Radium 226	4020	10/1/2021	< 0.5		
GammaRay HPGE		1 pCi/l	Radium 228	4030	10/1/2021	< 0.7		
*	4 mrem	4 pCi/l	Gross Beta	4100				
*	20,000 pCi/l	1,000 pCi/l	Tritium	4102				
*		10 pCi/l	Strontium-89	4172				
*	8 pCi/l	2 pCi/l	Strontium-90	4174				
*		1 pCi/l	Iodine-131	4264				
*		10 pCi/l	Cesium-134	4270				

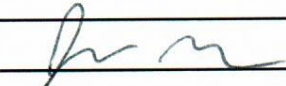
* Do not analyze for this contaminant unless notified by ADEQ

Laboratory Information

Speciman Number: RSE67366

Lab ID Number: AZ0462 Name: Radiation Safety Engineering, Inc.

Comments 550-171376-3

Authorized Signature: 

Date Public Water System Notified: _____

Chain of Custody Record

[illegible]



550-171376 Field Sheet

Tracking #: 1835 2443 2051

SO PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other

Job: _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-05 Corr. Factor: (+/-) NA °C

Ice ☒ Wet ☒ Gel ☐ Other ☐

Cooler Custody Seal: 1754441

Cooler ID: _____

Temp Observed: 0.5 °C Corrected: 0.5 °C
From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials: DL Date: 10/01/21

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: AS Date: 10/1/08

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace?	☐	☐	☒
(Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: DX Date: 10/1/08



Environment Testing
TestAmerica

Sacramento Sample Receiving Notes



550-171376 Field Sheet

Tracking #: 1835 2443 2051

SO (PO) / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Job: _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-05 Corr. Factor: (+/-) NA °C

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: 1754441

Cooler ID: _____

Temp Observed: 0.5 °C Corrected: 0.5 °C

From: Temp Blank ☒ Sample ☐

Opening/Processing The Shipment

	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials: DL Date: 10/01/21

Unpacking/Labeling The Samples

	Yes	No	NA
CoC is complete w/o discrepancies?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☐	☒
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace?	☐	☐	☒
(Methods 314, 331, 6850)			
Multiphasic samples are not present?	☒	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: B Date: 10/1/21

Notes: _____

Trizma Lot #(s): _____

Login Completion

	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
NCM Filed?	☐	☐	☒
Log Release checked in TALS?	☒	☐	☐

Initials: B Date: 10/1/21

WR3014

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US

SHIP DATE: 30SEP21
ACTWGT: 62.35 LB
CAD: 0875926/CAFE3506

BILL SENDER

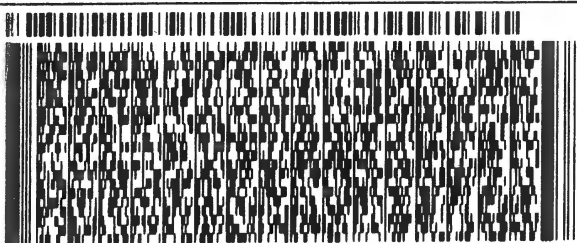
**TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
880 RIVERSIDE PARKWAY**

WEST SACRAMENTO CA 95605

(916) 373-5600
PO: YES

REF: 8550-69185

DEPT: SAMPLE RECEIVING



FedEx
Express



SIGNATURE

DATE _____

Custody Seal

2 of 2

MPS#
0263

MPS# 1835 2443 2051
0263

Mstr# 1835 2443 2040

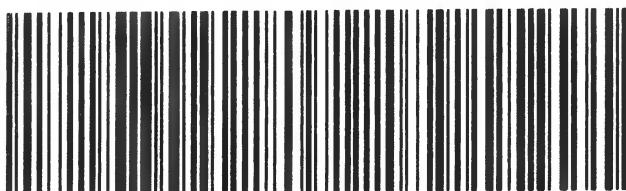
0201

FRI - 01 OCT 10:30
PRIORITY OVERNIGHT

WD BLUA

95605

CA-US SMF



Part #: 359469-454 P172 EXP 07/22 00

**Environment Testing
TestAmerica**



1754441

Login Sample Receipt Checklist

Client: Matrix New World Engineering

Job Number: 550-171376-1

Login Number: 171376

List Source: Eurofins TestAmerica, Phoenix

List Number: 1

Creator: Gravlin, Andrea

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Matrix New World Engineering

Job Number: 550-171376-1

Login Number: 171376

List Number: 2

Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento

List Creation: 10/01/21 03:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1754441
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	