

Sampling from TEMPEST Aquifer Well at GCRew

Date: 09-04-2025

Analyte	Method	Filter?	Fixed?	Storage	Application
Suspended sediment / TSS	GFF Filter	NA	Filter carboy in lab	NA	Addresses whether system needs a particle filter
Conductivity	Conductivity meter	NA	NA	NA	Salinity
pH	Electrode	NA	NA	NA	Protons
SO4	Ion chromatography	0.45 um Whatman syringe filter	Fix with 5% ZnAc, 5mL sample, 500uL ZnAc, Eppendorf tube	Fridge	Key terminal electron acceptor
Fe, Mn, Ca	ICP	0.45 um Whatman syringe filter	Scintillation vial, prepped with TCM HCl (50%, 75uL)	Yes	Key terminal electron acceptor, Ca: indicator of salts
DOC	TOC analyzer	0.2 micron filter	Muffled 24mL amber vials, filter, fridge until run	Yes	Electron donor
NO3, NH4, PO4	SEAL	0.45 um Whatman syringe filter	Filter with 0.45 um and freeze in falcon tubes	Yes	Key terminal electron acceptor and nutrients
DOC	TOC analyzer	0.2 micron filter	EPA clean 40mL amber vials, filter, fridge until run	Yes	Electron donor

SAMPLED: 12:30, 13:00, 14:00 PM 09-04-25

~ THE 1300 MARK GOT SOME MORE BROWN WATER

TEMPEST – Aquifer Well Samples

Date: 09-04-25

Location: TEMPEST WU / TANKS

Team: AS + SW

Sample Info	Conductivity	Salinity (ppt)	pH	DO (mg/L)	temp	TDS	
A 12:25	274 $\mu S/cm$	0.0			21.4		probe
B 12:30	249	0.0			24.2		probe
C 12:33	257	0.0			24.6		probe
A 12:35	146.5 $\mu S/cm$	0.069	6.978	0.363			AQ600
12:51	181.0 $\mu S/cm$	0.091	7.237	1.502	16.90		AQ600
A 1300	236	0.0	—	—	25.6		Probe
B 1300	246	0.0	—	—	22.6		Probe
13:20	202.0 $\mu S/cm$	0.096	7.570	0.182 *	16.55	0.132 ^{ppt}	AQ600
13:30 13:55	189.3	0.090	7.652	0.074	16.92	0.122	AQ600
A 14:00	234	0.0			24.2		Probe
B 14:00	218	0.0			24.2		
C 14:00	224	0.0					

Notes:

✓ O₂ readings b/c removed to turn on Koll & O₂ rose when I did that

[Handwritten signature]

TEMPEST – Aquifer Well Discrete Samples

Location: TEMPEST FW well / GCKW

Date: 09-04-25

Team: AS + SW

Sample Info	SO4/H2S/Cl	DIC	DOC	FE	NUTR	Filtered	Raw	TSS	
A 12:25	✓	✓	✓	✓	✓	✓	✓	✓	
B 12:30	✓	✓	✓	✓	✓	✓	✓	—	say 12:25 label
C 12:30	✓	✓	✓	✓	✓	—	—	—	say 12:25 on label
A 13:00	✓	✓	✓	✓	✓	✓	✓	✓	
B 13:00	✓	✓	✓	✓	✓	—	—	—	
C 13:00	✓	✓	✓	✓	✓	—	—	—	
A 14:00	✓	✓	✓	✓	✓	✓	✓	✓	
B 14:00	✓	✓	✓	✓	✓	—	—	—	
C 14:00	✓	✓	✓	✓	✓	—	—	—	

Notes:

DATE:

ID	TIN ^g	PRE TIN + FILTER ^g	POST DRIED FILTER + TIN ^g	POST 2HR LATER DRIED FILTER + TIN	VOLUME FILTERED:
TEMP. WELL 12:30 #0086	1.81003 1.81022	1.99738	2.00113	2.00101 g	1000 ml 950 ml
TEMP WELL 13:00 #00887	1.79606 1.79589	1.98429	1.99866	1.99887 g	1105 ml
TEMP WELL 14:00 #0088	1.74809 1.74777 g	1.94640	1.95921	1.95923	1060 ml
EXTRA D1	1.81109 1.81108	2.00673 g	2.00571 g	2.00567 g	980 ml