

TEP BWQ Groundwater Monitoring Field Form

Project Information			
Project:	PA 22-25 BWQ	Sample Purpose:	615 Rule 2nd Sub (Final)
Site Name (Pad/Facility):	PA 22-25	Site API or Facility ID:	335123
Station Name:	Nangle 202848	Sample Date:	4-2-2024
Sample Facility ID:	755923	Start Time:	1150
Field Sample ID:	Nangle 202848	End Time:	1245
Landowner Name:	Harry L Nangle	Sample Time:	1230
Landowner Address:	Po Box 829 Rifle CO	Sample Team:	TM AH
Water Right/Well Owner:	Harry L Nangle	Observer:	TM
Well Permit:	202848	Lead Signature:	TM
Receipt Number:	0417420A	Date:	4-2-2024

Station Information			
Station Description: Hydrant next to well in back yard of house			
Approximate Distance to Well Pad (from well location): 2663			
Station Type: Well / Spring / Seep / Other:		Water Use: Domestic / Monitoring / Other:	
Sampling Location: Kitchen Tap / Pipe / Well House / Hose bib / Hydrant / WWL Tubing / Bailer / Other:			
GPS Well Location: Zone	x	-107.94208	y 39.50037 z 5261
GPS Sampling Location: Zone	x		y z
Total Depth (ft):	185	Static Depth to Water (ft):	No access
Total Volume x 3 gal)	-	Total Volume Purged (gal)	66
		Well diameter (in): 6 3/8" 0-143' 4 1/2" 143-165'	

Weather Conditions	
Sky: Clear / Scattered / Cloudy / Overcast	Estimated Air Temp (deg F): 62
Precipitation: None / Light / Moderate / Heavy	Precip Type: None / Rain / Sleet / Hail / Snow
Wind: Calm / Light / Mod / Strong	Wind Speed/Direction: -

Field Measurements							
Parameter	Units	Reading	Time	Flag Code	Instrument	In-situ or Container	Comments
Water Temp	deg C	16.4	1240		YSI	CONT.	
pH	s.u.	7.05					
Sp. Conductivity	uS/cm	5756					
Conductivity	uS/cm	4823					
DO Saturation	%	15.0					
DO	mg/L	1.39					
Baro Press	mmHg	637.9					
ORP	RmV	237.0					
Turbidity	NTU	2.00		AV	MicroTIP		1.73, 2.54, 1.74
Discharge	Gpm/Cfs						
VOCs	ppm	NM		NM			
Color:	Clear / White / Yellow / Brown / Green / Blue / Other			Light / Med / Dark			
Odor:	None / Mild / Mod / Strong						
Effervescence:	None / Mild / Mod / Strong			Bubbles: None / Low / Mod / High			
Sediment:	None / Light / Mod / Heavy			VOA Headspace: None / ≤ Pea Size / ≥ Pea Size			
Lab Analysis:	Rule 615 / Rule 411 / Rule 907 / COA / Other						
Field Filtered:	Yes / No	Filter Size:		No. Filters used:			

Flag Codes: AV (averaged value), E (estimated), EC (exceeds calibration range), I (insufficient sample), N/A (not applicable), NM (not measured), NS (not stabilized), OT (other flag, see comment or notes), Q (uncertain value), Y (calculated value), VAR (variable)

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Station ID: _____ Date: 4-2-2024

Landowner Comments on water quality:

Additional information:

Water level not taken, could not get well cap off

Calibration Information			Date:			Location:		
Instrument	Parameter	Units	Time	Calibration Standard Value	Calibration Standard Temp (°C)	Instrument Reading of Standard	Adjusted Reading	Comments
	pH	s.u.						
	pH	s.u.						
	pH	s.u.						
	SpC	uS/cm						
	SpC	uS/cm						
	DO	%						
	DO	%						
	ORP	RmV						
	Turbidity	NTU						

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WELL PURGING INFORMATION											
Date: 4-2-2024			Well ID: Nangle 202848				Project: TEP BWQ				
Purge Method: 3 casings + stable parameters						Borehole/Casing Radius (r) (in)/(ft): 6 5/8"					
Total Depth, ft (D _t): 185			Static Depth to Water, ft (D _w): NM			Sample/Pump Depth (ft):					
Water column height, h (ft): D _t - D _w : No access						Total Volume x 3 (gal or ft ³):					
Total Volume (gal or ft ³): —						(1 ft ³ = 7.48 gal): —					
Borehole/Casing Volume = $\pi \cdot r^2 \cdot (D_t - D_w) =$ <u> </u> ft ³ Or Borehole/Casing Volume = $\pi \cdot r^2 \cdot (D_t - D_w) \cdot 7.48 =$ <u> </u> gal With r = in, h = ft: Calculation: $\pi \cdot r^2 \cdot (D_t - D_w) :: r^2 \cdot h \cdot 0.0218 =$ ft ³ Or $r^2 \cdot h \cdot 0.1632 =$ gallons											

Purge #	Time	Temp (°C) ±0.2°C ±3%	DO (%)	DO (mg/L) ±10%	SpC (uS/cm) ±3%	Cond (uS/cm m)	pH (s.u.) ±0.1 s.u.	ORP (RmV) ±10 RmV	Water Clarity (Poor/Mod/Good) or NTUs ±10% OR <5	Effervescence (None/Slight/Mod/Heavy)	Volume Purged (gal)	Cumulative Volume Purged (gal)
1	1151	15.5	29.1	2.75	5779	4733	7.11	220.9	3.38	N/A	5	5
2	1153	15.2	22.0	2.16	5810	4723	7.04	227.0	2.95	N/A	10	15
3	1155	15.4	21.3	1.89	5770	4715	7.00	229.5	2.27	N/A	10	25
4	1157	15.3	26.5	2.18	5734	4693	7.02	226.7	3.27	N/A	10	35
1159 - well went dry												
1207 - pump turned back on - flow rate = 1 gal/min												
1208	1205	17.9	62.1	5.65	5809	5031	7.24	220.8	2.28	N/A	1	36
6	1211	16.0	58.1	5.32	5814	4823	7.19	218.2	4.59	N/A	3	39
7	1214	19.2	61.3	5.49	5756	5123	7.09	221.0	3.28	N/A	3	42
8	1216	16.6	52.8	4.91	5757	4766	7.13	218.7	3.87	N/A	2	44
9	1217	16.0	44.5	4.23	5724	4738	7.02	222.4	4.00	N/A	1	45
10	1219	16.8	41.4	3.86	5777	4868	6.99	226.9	2.37	N/A	2	47
11	1221	19.4	57.9	5.21	5805	5179	6.90	234.1	1.74	N/A	2	49
12	1223	16.8	42.1	4.01	5795	4783	7.04	229.8	3.09	N/A	2	51
13	1226	16.1	46.3	4.24	5758	4799	6.92	233.1	3.21	N/A	3	54
14	1228	18.9	51.6	4.66	5723	5064	6.86	238.9	1.67	N/A	2	56
15	1230	16.7	47.4	3.98	5770	4883	6.95	238.0	2.92	N/A	2	58
16	1232	15.9	42.5	3.33	5759	4779	6.96	232.4	2.78	N/A	2	60
17	1234	17.1	31.3	2.87	5733	4880	6.93	237.1	2.62	N/A	2	62
18	1236	19.8	57.2	5.00	5719	5160	6.88	239.3	0.98	N/A	2	64
19	1238	16.5	44.5	4.01	5801	4874	6.89	242.4	3.15	N/A	2	66

purge rate = 5 gal/min

