



Water Quality Field Data Sheet

Sample Date

6/21/2021

Sampler(s)

JF

Operator	Occidental Petroleum Corporation (OXY)	O&G Well / Project Name	GWA - Badger 12N-3HZ		
Sample Reason	318A.f Subsequent				
Sample Name	Mueller 113278	Permit	113278	Receipt	9066262
Facility ID	752932				
QQ	SWNW	Sec	15	Twn	1N
Rng	68W		County	Weld	
State	CO		Use	Domestic, Stock	
DWR Permitted UTMS:	UTM E	500257	UTM N	4433608.3	Z13
Field Measured Elevation (ft)	5200				
Field Verified Location:	UTM E	500220	UTM N	4433541	Z13
Lat	40.05211		Long	-104.997421	
NAD 83					
Approximate Distance to the Oil & Gas well pad	0.35		O&G API Number	05-123-36450	

Owner Information

Landowner:	Mailing Address:	Physical Address:	Individuals Present During Sampling
Mueller, La Verne and Mary	3540 County Road 7	3540 County Road 7	Mr. and Mrs. Mueller
Phone: 303-828-3414	Erie, CO 80516-8613	Erie, CO 80516	
Cell: 303-217-0139	Alt Contact:		

Well Information

Well Depth (ft)	600	Water Level (ft)	340	Surface Casing Diameter (in)	5	Drop Pipe Diameter (in)	Unk	
Pump Type	Submersible	Pump Manufacturer	Unknown	HP	Unk	Phase	1	
Pump Intake (ft)	Unk							
Well House	No	Vault	No	Pitless	Yes	Surf. Discharge Pipe	No	
Confined Space	No		Access for WL	Yes				
Well Seal	Yes	Type/Manufacturer	Martinson			Vented	No	
Gas Flow from Vent	N/A							
Storage Tank	No	Storage Tank Volume (gal)	-		Pressure Tank	Yes	Pressure Tank Volume (gal)	20
Ground Slope Near Well?	No		Area Desc/Proximity	~15ft southeast of house				
Condition of well	Good							
Initial LEL%	0	x0.05= CH4	0	Post-Sample LEL%	0	x0.05= CH4	0	
Gas Reading Location	Spigot							
Water Use	Livestock		Treatment	Filter in home			Used for drinking?	No

Sample Information

Clock Time	Elapsed Time	Flow Rate (calc)	Flow (gal/sec)	Temp (°C)	pH	Sp. Con. (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity	Color	Odor	Sediment	Bubbles / Effervescence	LEL (%)	
Pre-Purge Reading															
9:10	0:00	4.00	1	15	17.7	7.74	4573	43.7	1.48	10.9	Dark grey	Strong Sulfur	Many Black Flakes	Bubbles / Effervescence	0
Post-Purge Readings															
10:05	0:55	0.30	1	200	19.12	7.98	4663.9	96.5	0.03	3.22	Light Grey	Sulfur	Few Black Flakes	Effervescence	0
10:08	0:58	0.30	1	200	19.14	7.99	4670.9	92.7	0.03	3.58	Light Grey	Sulfur	None	Effervescence	0
10:11	1:01	0.30	1	200	19.32	8.00	4674.3	88.2	0.03	3.48	Light Grey	Sulfur	None	Effervescence	0
10:14	1:04	0.30	1	200	18.92	8.01	4663.5	85.9	0.02	3.91	Light Grey	Sulfur	Few Black Flakes	Effervescence	0
10:17	1:07	0.30	1	200	18.95	8.04	4673.5	78.3	0.02	3.83	Light Grey	Sulfur	Few Black Flakes	Effervescence	0
10:20	1:10	0.30	1	200	18.99	8.05	4667.8	72.9	0.02	3.09	Light Grey	Sulfur	Few Black Flakes	Effervescence	0
Sample Location	Spigot by wellhead		Tanks Bypassed?	Yes		Flow Cell Used?	Yes		Avg Flow Cell Rate (gpm)	0.30					
Initial Purge Volume (g)	117		Purged with Flow Cell (g)	4		Total Volume Purged (g)	121		Sampling Flow Rate (gpm)	0.5					
Sample/Visit Time	10:20		Weather	66°F Sunny		Field Conditions	Dry								

Calibration Log

Multi-meter - Select Meter Used

X

In-Situ Smartroll

YSI Pro Plus

Time	Cal	Post	pH (std units)				SC (µmhos/cm2 @ 25°C)			D.O. 100%	Temp (°C)	ORP Cal Value	ORP reading mV	Comments
			4.00	7.00	9.00	10.00	447	1413	8974					
7:55	X		4.05	7.04	-	10.04	425.01	1413.1	8452.7	97.91	20.49	223	222.8	
10:50		X	3.99	7.00	-	10.00	506.66	1359.3	8428.1	100.6	24.07	-	217.6	

Turbidimeter - Geotech Portable Turbidity Meter

Time	Cal	Post	Turbidity (NTU)				Comments
			<1	20.0	100	800	
7:55	X		0.02	20.2	98.6	778	
13:55		X	0.02	18.4	96.3	766	