

Surface-Water Monitoring Form

Site/Facility ID: <u>R0-11-7</u>	Date: <u>6-27-13</u>	Observer: <u>Shelby</u>
Station ID: <u>R0-11-7 - yellow jacket spring</u>	Start Time: <u>1100</u>	Sampling
Location: _____	End Time: <u>1130</u>	Team: <u>NWS, SLA</u>
Site Description: <u>pipe discharging spring water slowly buried into hillside</u>	Instruments: <u>ysi</u>	Lead Signature: <u>[Signature]</u>
Project: <u>WPX BWQ</u>	Date: <u>7/31/13</u> <u>Sample Time 1100</u>	

Sampling Information	
Surface-water Type: stream / lake / pond / <u>spring</u> / seep / mine drainage / NPDES outfall / other: _____	
Sampling Location: bank / wading / boat / bridge / other: <u>pipe, end of</u>	
Sampling Site: pool / riffle / eddy / backwater / open / channel / braided / other: <u>↑</u>	
Stream/Channel/Pool Width: <u>—</u> ft/m Mean Depth: <u>—</u> ft/m	
Water Color: <u>clear</u> / brown / green / blue / grey / other: _____	
Weather: SKY- <u>clear</u> / scattered / broken / cloudy / overcast. PRECIP- <u>none</u> / light / mod. / heavy / snow / rain	
WIND- <u>calm</u> / breeze / gusty / moderate / strong / est. wind speed/direction: _____ / _____	
TEMP- cold / cool / mild / warm / <u>hot</u> / est. air temperature: _____	Comments: _____

Field Measurements					
Parameter	Units	Reading	Time	Instrument	Comments
Air Temp	°C	<u>80° F</u>	<u>1140</u>	<u>truck</u>	
Water Temp	°C	<u>16.4</u>	<u>1122</u>	<u>ysi</u>	<u>[scribble]</u>
pH	s.u.	<u>7.15</u>	<u>1122</u>	<u>ysi</u>	
Sp. Conductivity	<u>µS/cm; mS/cm</u>	<u>633</u>	<u>1122</u>	<u>ysi</u>	
Conductivity	<u>µS/cm; mS/cm</u>	<u>530</u>	<u>1122</u>	<u>ysi</u>	
DO	mg/L	<u>1.96</u>	<u>1122</u>	<u>ysi</u>	<u>586.0 mmHg</u>
DO %	%	<u>20.3</u>	<u>1122</u>	<u>ysi</u>	
ORP	RmV	<u>-25.3</u>	<u>1122</u>	<u>ysi</u>	
Turbidity	n.t.u.	<u>0.65</u>	<u>1121</u>	<u>turbidi-meter</u>	<u>0.78, 0.52</u>
Discharge	ft ³ /s, gpm, <u>L/s</u>	<u>0.0107</u>			measured/visual est.
Stage ht.	ft, m				
Sample Observations	Odor: <u>None</u> /Low/Mod/High Sediment: <u>None</u> /Low/Mod/High VOA Headspace: <u>None</u> /Low/Mod/High			Bubbles: <u>None</u> /Low/Mod/High Effervescence: <u>None</u> /Low/Mod/High Other: _____	
GPS Coordinates	<u>135 0258309, 4372042 ± 9 ft.</u>				<u>elev. 7540 ft</u>
Measurement: In situ or <u>container</u> .	<u>parameters in container, sampling in situ</u>				
Number and types of filters used:	_____				

WPX BWQ Surface Water Monitoring Field Form

Project Information			
Project:	WPX BWQ	Sample Purpose:	Base line
Site Name (Well Pad):	RU 11-7	Site API:	Q
Station Name:	RU11-7-YellowJacketSprg	Sample Date:	8-13-13
COGCC Facility ID:	752709	Start Time:	1323
Field Sample ID:	N/A	End Time:	1459
Landowner Name:	BLM	Sample Time:	N/A
Landowner Address:	Q	Sample Team:	NWS
Water Right/Well Owner:	BLM	Observer:	NWS
Water Right/Well Permit:	Yellow Jacket Spring	Lead Signature/Date:	8/14/13

Station Information			
Station Description:	2" Poly stubbed out of ground		
Approximate Distance to Well Pad:	4,190.40 feet		
Station Type:	Stream <input checked="" type="checkbox"/> Spring / Seep / Pond / Lake / NPDES Outfall / Other:		
Sampling Location:	Bank <input checked="" type="checkbox"/> Pipe / Wading / Boat / Bridge / Hose bib / Tank / Other:		
Sampling Location Description:	Pool / Riffle / Eddy / Backwater / Open / Channel / Braided / Other: Stock tank		
Sampling Location Width:	N/A	Sampling Location Depth:	N/A
GPS Location:	NM	Zone	_____ x _____ y _____ z _____

Weather Conditions			
Sky:	Clear <input checked="" type="checkbox"/> Scattered / Cloudy / Overcast	Estimated Air Temp (deg F):	NM
Precipitation:	None / <input checked="" type="checkbox"/> Light / Moderate / Heavy	Precip Type:	None / <input checked="" type="checkbox"/> Rain / Sleet / Hail / Snow
Wind:	<input checked="" type="checkbox"/> Calm / Light / Mod / Strong	Wind Speed/Direction:	NM

Field Measurements							
Parameter	Units	Reading	Time	Flag Code	Instrument	In-situ or Container	Comments
Water Temp	deg C	18.8	1455		YSI Pro	C	
pH	s.u.	7.73	1455		YSI	C	
Sp. Conductivity	uS/cm	666	1455		YSI	C	
Conductivity	uS/cm	588	1455		YSI	C	
DO Saturation	%	58.0	1455		YSI	C	
DO	mg/L	5.34	1455		YSI	C	
Baro Press	mmHg	583.8	1455		YSI	C	
ORP	RmV	-87.4	1455		YSI	C	
Turbidity	NTU	4.16	1455	AV	MicroTpi	C	3.77 / 4.54
Discharge		NM		NM		C	
H2S	mg/L	0.1	1440		Colorimeter	C	
Color:	<input checked="" type="checkbox"/> Clear / White / Yellow / Brown / Green / Blue / Other			<input checked="" type="checkbox"/> Light / Med / Dark			
Odor:	<input checked="" type="checkbox"/> None / Mild / Mod / Strong						
Effervescence:	<input checked="" type="checkbox"/> None / Mild / Mod / Strong			Bubbles: <input checked="" type="checkbox"/> None / Low / Mod / High			
Sediment:	<input checked="" type="checkbox"/> None / Light / Mod / Heavy			VOA Headspace: None / ≤ Pea Size / ≥ Pea Size			
Lab Analysis:	Rule 609 <input checked="" type="checkbox"/> COA 9 / COA 22 / Other						
Field Filtered:	Yes <input checked="" type="checkbox"/> No		Filter Size:	N/A		No. Filters used:	

Flag Codes: NM (not measured), J (estimated), N/A (not applicable), I (insufficient sample), Q (uncertain value), Y (calculated value), AV (averaged value), EC (exceeds calibration range), OT (other flag to be defined later), NS (not stabilized)

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Landowner Comments on water quality:

N/A

Additional information:

Could not collect water directly from pipe due to very large swarm of wasps on and around pipe. Made a dipper with a long stick to collect water.

R

Run 1: Colorimeter: 0.09 mg/L
Run 2: 0.10 mg/L

Test Kit: 0.1 mg/L
: 0.1 mg/L

Calibration Information			Date:			Location:			
Instrument	Parameter	Units	Time	Calibration Standard Value	Calibration Standard Temp (°C)	Instrument Reading of Standard	Adjusted Reading	Comments	
YSI Pro	pH	s.u.	1337	7.00	24.7	7.11			
	pH	s.u.	1341	4.01	24.7	4.02			
	pH	s.u.	1343	10.01	25.4	10.01	9.99		
	1334	SpC	1334	8974	24.6	8790	8974		
		SpC	uS/cm						
		DO	%	1349		25.5	71.8	76.7	583 583.5 minity
		DO	%						
	ORP	RmV							
Micro Tpi	Turbidity	NTU	1128	N/A	N/A	N/A	N/A	ProCal Kit	

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Calibration info on RU 11-7- Beaver Creek

Calibration Information

Parameter	Date: <u>6-27</u>	Temperature Calibration Standard	Calibration Standard Value	Instrument Reading of Standard	Adjusted Reading	Other Information
	Time					
pH (s. u.)						
pH (s. u.)						
pH (s. u.)						
Sp Cond. (µmhos/cm; mS/cm)						(@ 25 °C) =
Conductivity (µmhos/cm; mS/cm)						(@ 25 °C) =
ORP (rmmV)						
ORP (rmmV)						
DO (mg/L, %)						
DO (mg/l, %)						
Turbidity (n.t.u)						

Laboratory Information

Samples collected for laboratory analysis: yes / no Time Collected: _____

Ship Date/Time: _____ Receiving Laboratory: _____

Comments: _____

Constituents to be Analyzed (√)

Inorganics	Inorganics	Organics	Organics	Other
Common ions <input type="checkbox"/>		TPH <input type="checkbox"/>	VOCs <input type="checkbox"/>	TDS <input type="checkbox"/>
Alkalinity <input type="checkbox"/>		BTEX <input type="checkbox"/>	SVOCs <input type="checkbox"/>	TSS <input type="checkbox"/>
Hardness <input type="checkbox"/>		Oil & Grease <input type="checkbox"/>		T. Coli. Bact. <input type="checkbox"/>
Chloride <input type="checkbox"/>		TOC <input type="checkbox"/>		Fecal Coli. Bact. <input type="checkbox"/>
Fluoride <input type="checkbox"/>		DOC <input type="checkbox"/>		Phos/Ni Pest. <input type="checkbox"/>
Phosphorus <input type="checkbox"/>		TIC <input type="checkbox"/>		
Sulfate <input type="checkbox"/>		DRO <input type="checkbox"/>		
Nitrate (as N) <input type="checkbox"/>		GRO <input type="checkbox"/>		
Nitrite (as N) <input type="checkbox"/>		Methane <input type="checkbox"/>		DW <input type="checkbox"/>
Nitrogen (total) <input type="checkbox"/>				NPDES <input type="checkbox"/>

Metals (total/dissolved): Sb, Al, As, Ba, Be, B, Cd, Ca, Cr, Cu, Fe, Pb, Li, Mg, Mn, Hg, Mo, Ni, K, Se, Si, Sr, Ag, Na, Tl, U, Va, Zn.

Field Notes:

Discharge ¹	825 mL - $\frac{1L}{1000 mL}$	= $\frac{0.825 L}{1} = 0.0107$
825 mL / 77.5	77.5	L/S
1:16.5		