



IMPROVE

Interagency Monitoring of Protected Visual Environments

2022 CALENDAR



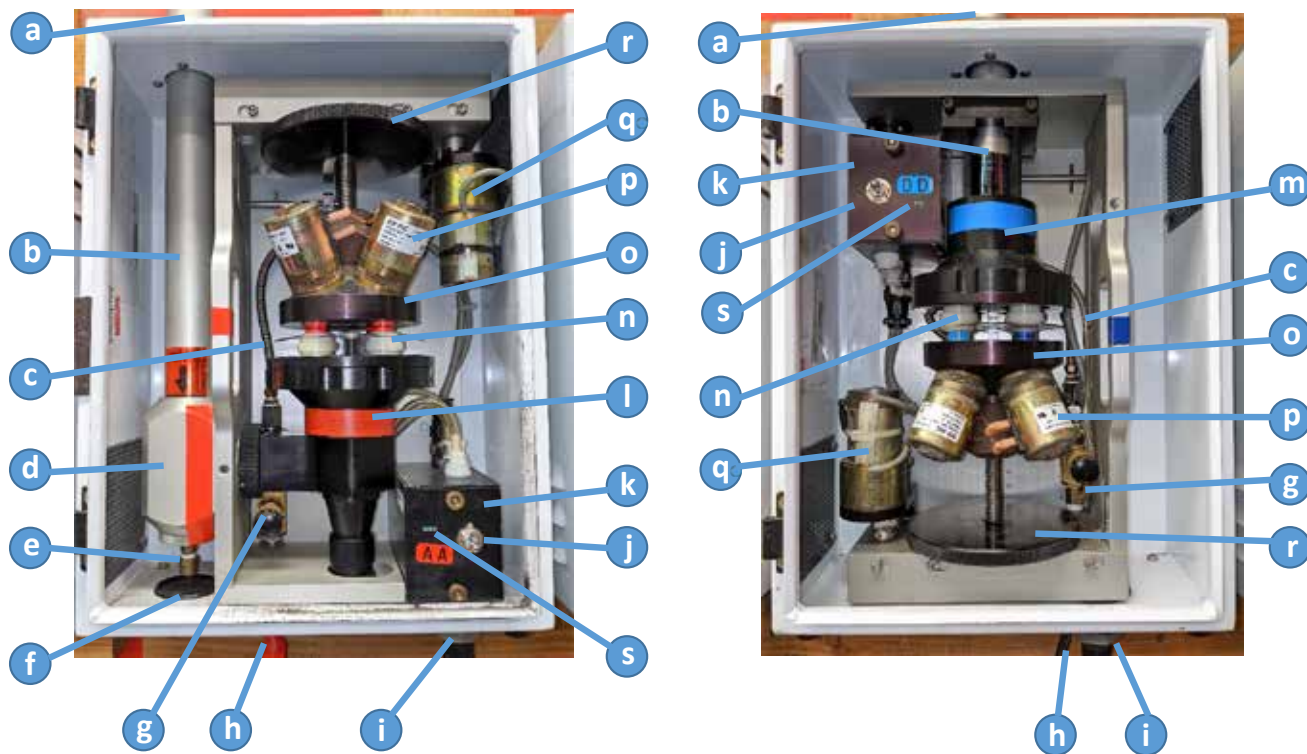


IMPROVE is a collaborative association of state, tribal, and federal agencies, and international partners. US Environmental Protection Agency is the primary funding source, with contracting and research support from the National Park Service. The Air Quality Research Center (AQRC) at the University of California, Davis provides field maintenance and operator support, sample handling, elemental analysis, and data processing; Research Triangle Institute (RTI) performs ions analysis; and Desert Research Institute (DRI) performs carbon analysis. IMPROVE data and

documentation are available from the website <http://vista.cira.colostate.edu/improve/> maintained by the Cooperative Institute for Research in the Atmosphere (CIRA).

For questions or problems with optical or scene monitoring equipment, contact Mark Tigges, Air Resource Specialists, Fort Collins, CO at 970-224-9300. For questions or problems with air sampler controllers, filters or flow checks, contact Air Quality Research Center, UC Davis at 530-752-1123, improvehelpdesk@ucdavis.edu, or visit <https://aqrc.ucdavis.edu/resources-for-operators>.





- | | | | |
|------------------------------------|---------------------------------------|---|---|
| a. stack compression sleeve | f. black cap | k. electronics box (ebox) | p. solenoid valve (4) |
| b. inlet stack | g. flow control valve | l. cyclone | q. motor assembly to raise solenoid manifold |
| c. braided hose | h. pump hose connector | m. funnel | r. handwheel (flywheel) to raise manifold |
| d. inlet tee | i. module cable connector | n. cartridge with 4 filter cassettes | s. Ebox status LED lights |
| e. tee plug | j. motor control toggle switch | o. solenoid manifold | |



Disengaging Manifold Motor to Manually Raise/Lower the Manifold



1 Locate the motor assembly in the module.



2 Separate the motor assembly from the coupling sliding the assembly down. Then pivot it towards to the hand wheel.



2.a A gentle wiggle may be required to slide the assembly up or down.



3 For the A, B, and C modules spin the hand wheel to the left to raise the manifold.



4 Spin the hand wheel to the right to lower the manifold.



4.a The spinning direction to raise and lower the manifold is opposite for the D module.



5 If the motor starts to work again it can be reengaged with the hand wheel. Pivot the motor assembly back to its original location.



6 Rotate the hand wheel until the coupling snaps into alignment.

Electronics-Box Replacement

(For A,B, and C modules. For the D module skip steps 3 and 9)



1 Disconnect the Orifice (ORI) and Cyclone (CYC) hoses by depressing the metal clasp and pulling on the hose.



2 Disconnect the grey cable located on top of the box by turning the metal collar counter-clockwise.



3 Disconnect the grey module cable at the bottom of the module, by turning the connector body counter-clockwise.



4 Loosen the brass knobs located on the black electronics box.



5 Remove old electronics box and insert the new box.



6 Tighten the brass knobs.



7 Re-connect grey cable on the top of the box.



(line up the key and keyway when connecting the electronic connectors)



8 Re-connect the hoses to the electronics box.



9 Re-connect the bottom grey module cable.



Replacing Plastic Motor Coupler



1 Locate the motor assembly in the module



4 If the plastic motor coupler does not line up with the upper hub, use the hand wheel to put it into place



2 Separate the motor assembly from the coupling sliding the assembly down. Then pivot it towards the hand wheel.

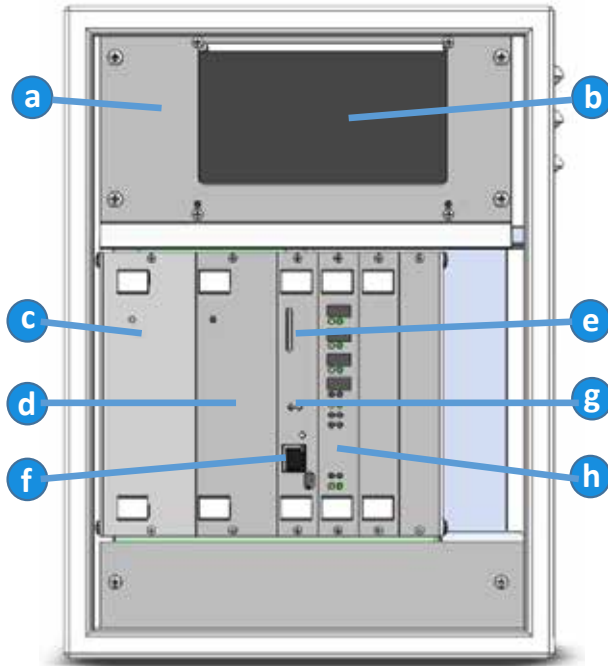


5 The motor should slide into place and the upper and lower hubs should fit securely into the plastic motor coupler



3 Remove the old plastic coupler and place the new one in. Make sure to center it on the metal hub.

Controller Information



- a. Display Faceplate
- b. LCD Touch Screen
- c. 5 V Power Supply Card
- d. 24 V Power Supply Card
- e. SD Card Slot
- f. Ethernet Port
- g. CPU Card
- h. Hub Card

Home Page Description

- 1 Today's date and time
- 2 Site name
- 3 How long the controller has been running
- 4 Temperature probe Readings
- 5 Current week's filters
- 6 Sampling status
- 7 Perform Filter Readings
- 8 Help Page
- 9 Controller and module information
- 10 Configuration menu for configuring controller and modules

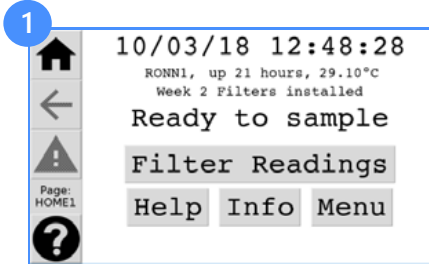
- ← Click here at anytime to go to the home page.
- ← Click here at anytime to go to the previous page.
- ← This indicates the controller's status. If it's red or yellow a problem has been detected. Press button to entre troubleshooting mode.
- Page: HELP1 ← The current page ID.
- ← While viewing most page, clicking this button will give you more information.



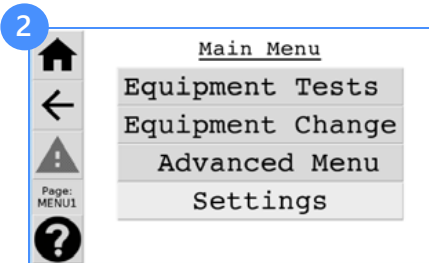


Change Date/Time on New Controller

(If the controller is connected to the internet please only edit the time zone)



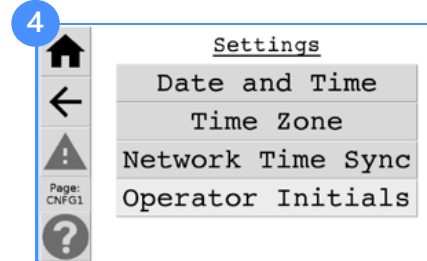
Press the 'Menu' on the home screen.



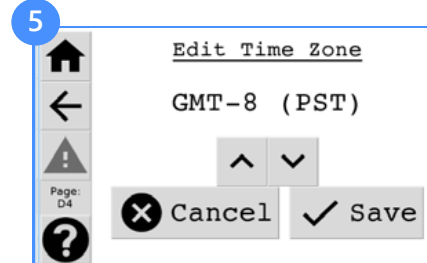
Press 'Settings'



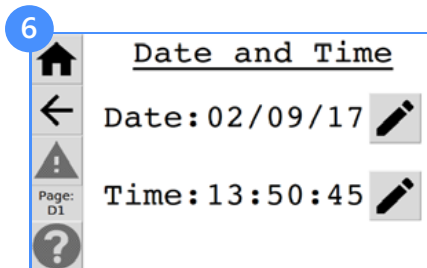
Look up your time zone on the reference map and note the corresponding GMT offset in **Bold**



Press 'Time Zone'



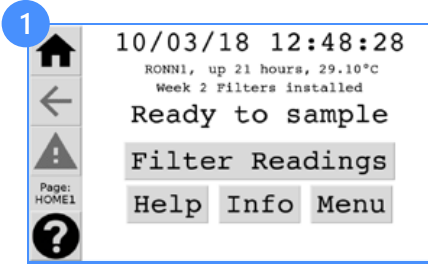
Use up/down arrows to select the time zone offset based on step 3



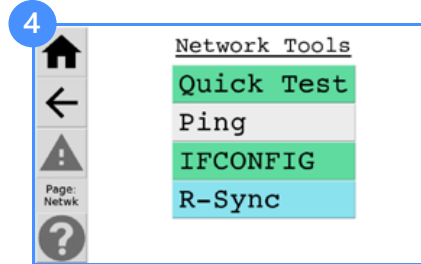
Only if your site is **not** connected to internet do you select the "Date and Time" option in step 4 to manually edit the time.

Press the icon to edit the time

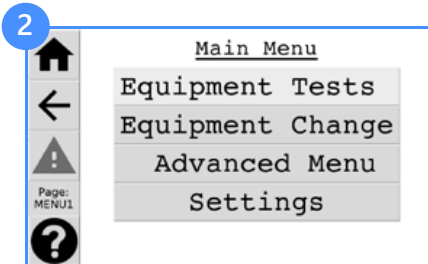
Test Network Connection and Send Data to Server



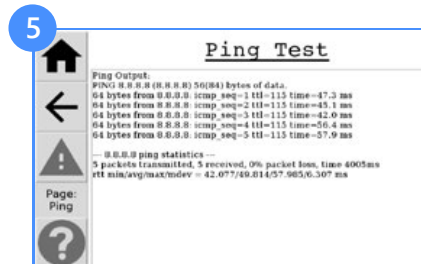
Press the 'Menu' on the home screen.



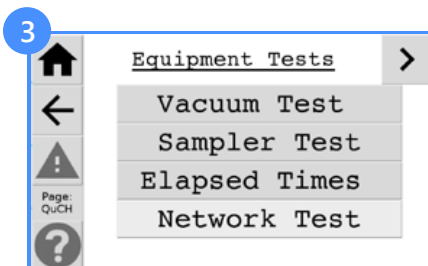
Press 'Ping'



Press 'Equipment Tests'




Read the output of the test. If the 2nd to last line reads '**5 packets transmitted, 5 received, 0% packet loss**' then the controller is successfully connected to the internet



Press 'Network Test'

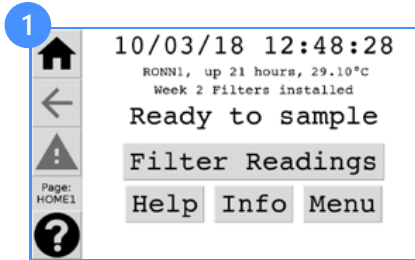


Press the  button to go back to 'Network Tools' then select the '**R-Sync**' option. This will send the controller data back to the server.

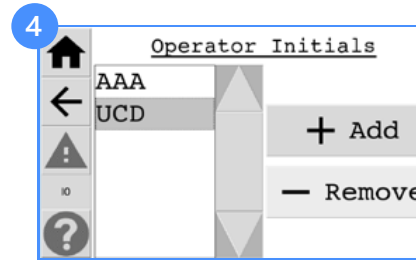




Manage Operator Initials on New Controller

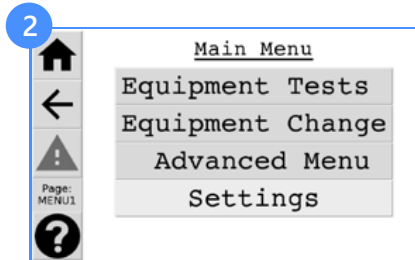


1 Press the 'Menu' on the home screen.

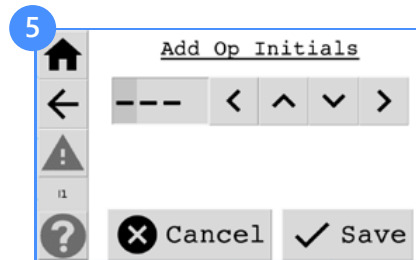


4 Select the initials you wish to remove, then press 'Remove'

If you wish to add initials press 'Add'

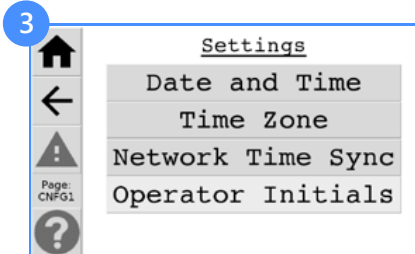


2 Press 'Settings'



5 When adding initials use the up/down arrows to edit a letter, and left/right arrows to move the cursor.

Please use 3 letter initials for clarity.

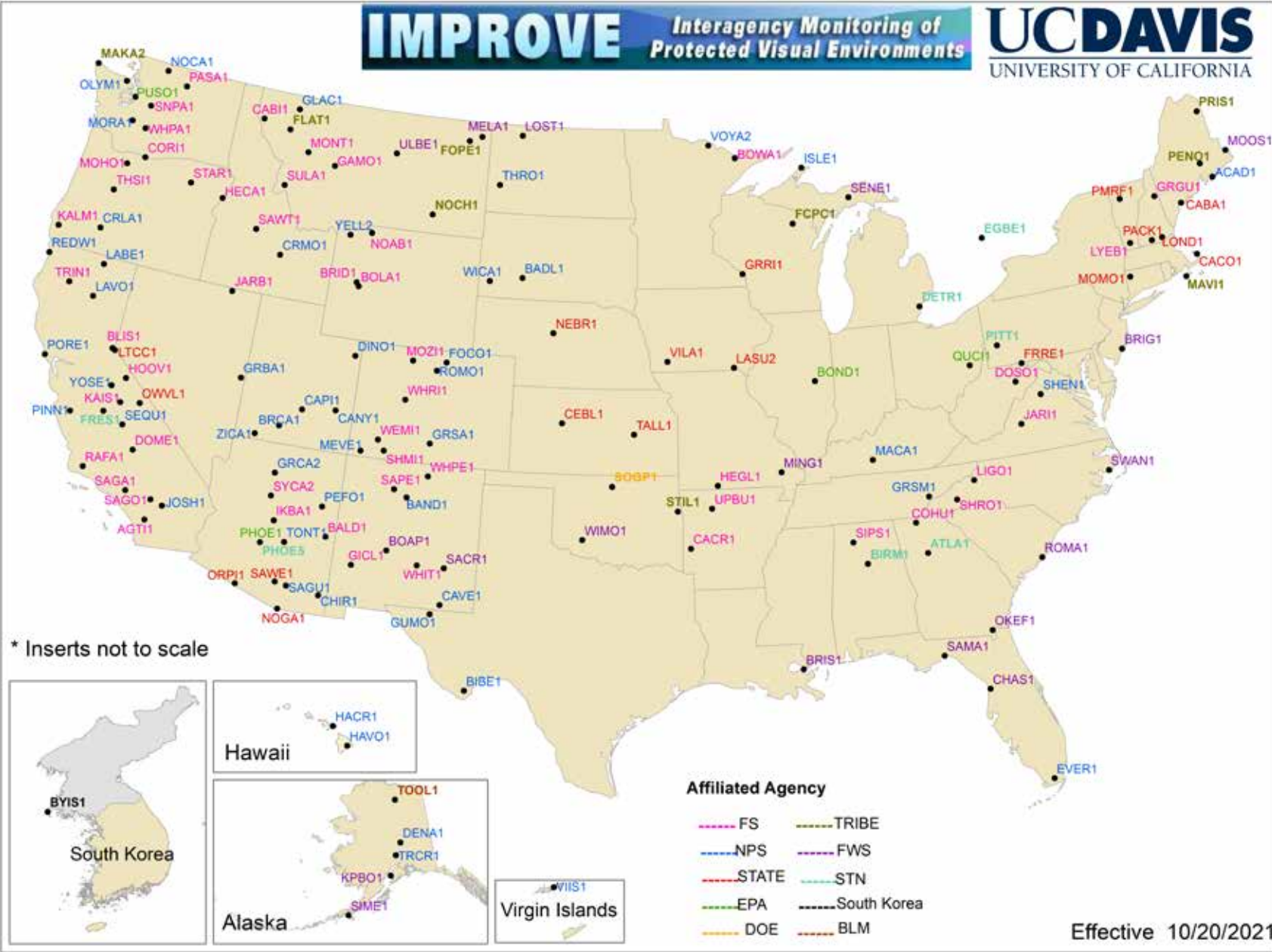


3 Press 'Operator Initials'

IMPROVE

Interagency Monitoring of Protected Visual Environments

UC DAVIS
UNIVERSITY OF CALIFORNIA





JANUARY 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
<p>DECEMBER 2021</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td></tr> </table>	S	M	T	W	T	F	S				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		<p>FEBRUARY 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28										<p>New Year's Day 1</p>
S	M	T	W	T	F	S																																																																																				
			1	2	3	4																																																																																				
5	6	7	8	9	10	11																																																																																				
12	13	14	15	16	17	18																																																																																				
19	20	21	22	23	24	25																																																																																				
26	27	28	29	30	31																																																																																					
S	M	T	W	T	F	S																																																																																				
		1	2	3	4	5																																																																																				
6	7	8	9	10	11	12																																																																																				
13	14	15	16	17	18	19																																																																																				
20	21	22	23	24	25	26																																																																																				
27	28																																																																																									
2 IMPROVE Particle Sampling Day	3 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 4 Change IMPROVE Particle cartridges	5 IMPROVE Particle Sampling Day	6	7	8 IMPROVE Particle Sampling Day																																																																																				
9 <i>Alternate Sample Change Day</i>	10 <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3 11 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	12 <i>Alternate Sample Change Day</i>	13 <i>Alternate Sample Change Day</i>	14 IMPROVE Particle Sampling Day	15																																																																																				
16	17 Martin Luther King, Jr. Day IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 18 Change IMPROVE particle cartridges	19 <i>Alternate Sample Change Day</i>	20 IMPROVE Particle Sampling Day	21	22																																																																																				
23 IMPROVE Particle Sampling Day	24 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 25 Change IMPROVE Particle cartridges	26 IMPROVE Particle Sampling Day	27	28	29 IMPROVE Particle Sampling Day																																																																																				
30 <i>Alternate Sample Change Day</i>	31 <i>Alternate Sample Change Day</i>																																																																																									



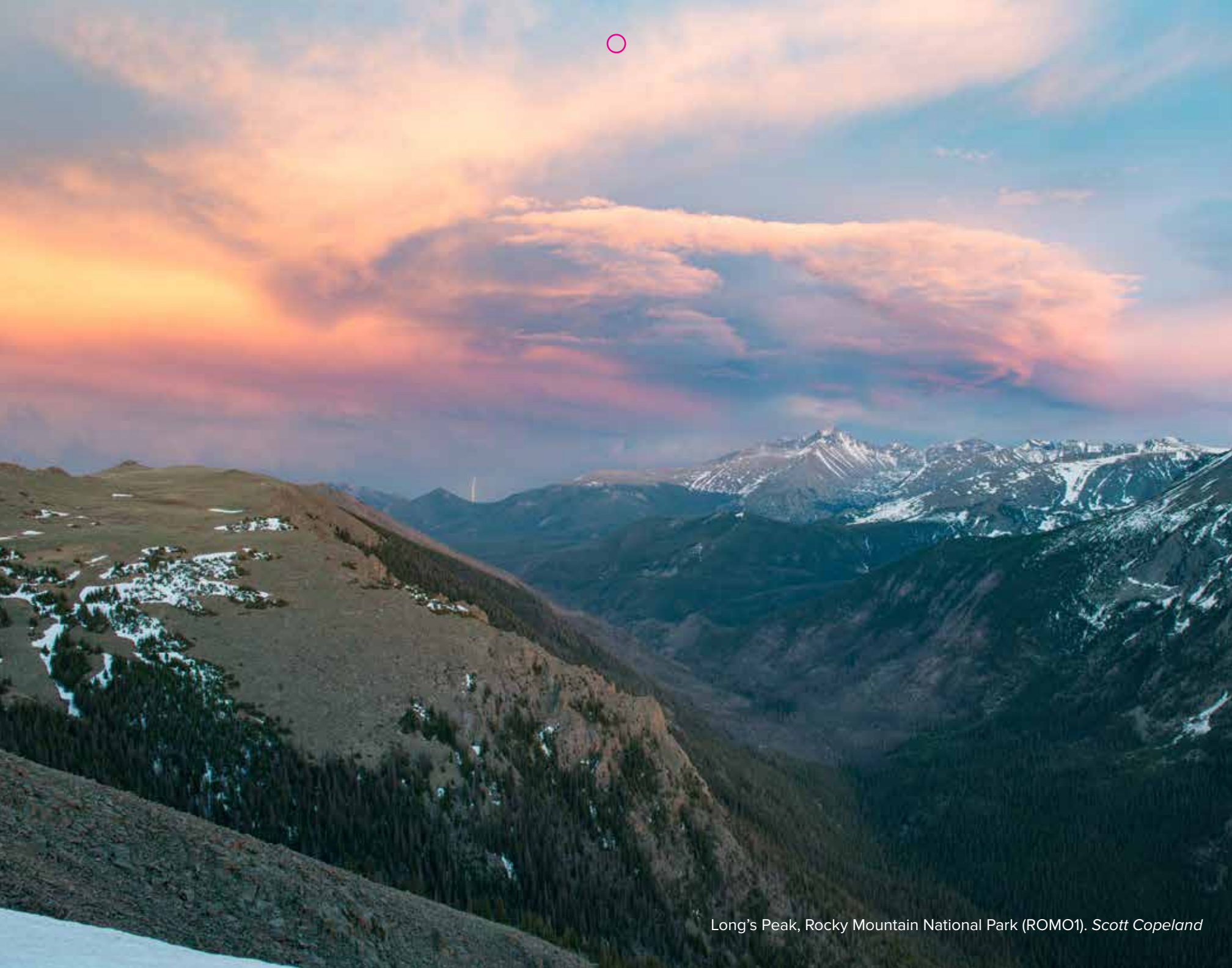


Bighorn Sheep, Upper North Fork of Shoshone River. Scott Copeland

FEBRUARY 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																													
<p>JANUARY 2022</p> <p>S M T W T F S</p> <table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table>							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						<p>MARCH 2022</p> <p>S M T W T F S</p> <table border="1"> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </table>			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			<p>3-2-2 Week 2 2-3-2 Week 3</p> <p>1</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p>2</p> <p>Alternate Sample Change Day</p>	<p>3</p> <p>Alternate Sample Change Day</p>	<p>4</p> <p>IMPROVE Particle Sampling Day</p>	<p>5</p>
						1																																																																													
2	3	4	5	6	7	8																																																																													
9	10	11	12	13	14	15																																																																													
16	17	18	19	20	21	22																																																																													
23	24	25	26	27	28	29																																																																													
30	31																																																																																		
		1	2	3	4	5																																																																													
6	7	8	9	10	11	12																																																																													
13	14	15	16	17	18	19																																																																													
20	21	22	23	24	25	26																																																																													
27	28	29	30	31																																																																															
<p>6</p>	<p>7</p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 2-3-2 Week 1</p> <p>8</p> <p>Change IMPROVE particle cartridges</p>	<p>9</p> <p>Alternate Sample Change Day</p>	<p>10</p> <p>IMPROVE Particle Sampling Day</p>	<p>11</p>	<p>12</p>																																																																													
<p>13</p> <p>IMPROVE Particle Sampling Day</p>	<p>14</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 2-3-2 Week 2</p> <p>15</p> <p>Change IMPROVE Particle cartridges</p>	<p>16</p> <p>IMPROVE Particle Sampling Day</p>	<p>17</p>	<p>18</p>	<p>19</p> <p>IMPROVE Particle Sampling Day</p>																																																																													
<p>20</p> <p>Alternate Sample Change Day</p>	<p>Presidents' Day</p> <p>21</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 2-3-2 Week 3</p> <p>22</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p>23</p> <p>Alternate Sample Change Day</p>	<p>24</p> <p>Alternate Sample Change Day</p>	<p>25</p> <p>IMPROVE Particle Sampling Day</p>	<p>26</p>																																																																													
<p>27</p>	<p>28</p> <p>IMPROVE Particle Sampling Day</p>																																																																																		





Long's Peak, Rocky Mountain National Park (ROMO1). *Scott Copeland*

MARCH 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																						
<p>FEBRUARY 2022</p> <p>S M T W T F S</p> <table border="1"> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td></td><td></td><td></td><td></td><td></td></tr> </table>			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28						<p>APRIL 2022</p> <p>S M T W T F S</p> <table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> </table>						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	<p>3-2-2 Week 3 1</p> <p>2-3-2 Week 1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>
		1	2	3	4	5																																																																						
6	7	8	9	10	11	12																																																																						
13	14	15	16	17	18	19																																																																						
20	21	22	23	24	25	26																																																																						
27	28																																																																											
					1	2																																																																						
3	4	5	6	7	8	9																																																																						
10	11	12	13	14	15	16																																																																						
17	18	19	20	21	22	23																																																																						
24	25	26	27	28	29	30																																																																						
<p>6</p> <p>IMPROVE Particle Sampling Day</p>	<p>7</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 8</p> <p>2-3-2 Week 2</p> <p>Change IMPROVE Particle cartridges</p>	<p>9</p> <p>Alternate Sample Change Day</p>	<p>10</p> <p>IMPROVE Particle Sampling Day</p>	<p>11</p>	<p>12</p> <p>IMPROVE Particle Sampling Day</p>																																																																						
<p>13</p> <p>Alternate Sample Change Day</p>	<p>14</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 15</p> <p>2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p>16</p> <p>Alternate Sample Change Day</p>	<p>17</p> <p>Alternate Sample Change Day</p>	<p>18</p> <p>IMPROVE Particle Sampling Day</p>	<p>19</p>																																																																						
<p>20</p>	<p>21</p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 22</p> <p>2-3-2 Week 1</p> <p>Change IMPROVE Particle cartridges</p>	<p>23</p> <p>Alternate Sample Change Day</p>	<p>24</p> <p>IMPROVE Particle Sampling Day</p>	<p>25</p>	<p>26</p>																																																																						
<p>27</p> <p>IMPROVE Particle Sampling Day</p>	<p>28</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 29</p> <p>2-3-2 Week 2</p> <p>Change IMPROVE Particle cartridges</p>	<p>30</p> <p>IMPROVE Particle Sampling Day</p>	<p>31</p> <p>César Chávez Day</p>																																																																								





Horseshoe Bend, Colorado River. *Josh Grant*

APRIL 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
<p>MARCH 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			<p>MAY 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								1	2
S	M	T	W	T	F	S																																																																																				
		1	2	3	4	5																																																																																				
6	7	8	9	10	11	12																																																																																				
13	14	15	16	17	18	19																																																																																				
20	21	22	23	24	25	26																																																																																				
27	28	29	30	31																																																																																						
S	M	T	W	T	F	S																																																																																				
1	2	3	4	5	6	7																																																																																				
8	9	10	11	12	13	14																																																																																				
15	16	17	18	19	20	21																																																																																				
22	23	24	25	26	27	28																																																																																				
29	30	31																																																																																								
3 <i>Alternate Sample Change Day</i>	4 <i>Alternate Sample Change Day</i>	5 3-2-2 Week 2 2-3-2 Week 3 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	6 <i>Alternate Sample Change Day</i>	7 <i>Alternate Sample Change Day</i>	8 IMPROVE Particle Sampling Day	9 IMPROVE Particle Sampling Day																																																																																				
10	11 IMPROVE Particle Sampling Day	12 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE particle cartridges	13 <i>Alternate Sample Change Day</i>	14 IMPROVE Particle Sampling Day	15	16																																																																																				
17 IMPROVE Particle Sampling Day	18 <i>Alternate Sample Change Day</i>	19 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	20 IMPROVE Particle Sampling Day	21	22	23 IMPROVE Particle Sampling Day																																																																																				
24 <i>Alternate Sample Change Day</i>	25 <i>Alternate Sample Change Day</i>	26 3-2-2 Week 2 2-3-2 Week 3 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	27 <i>Alternate Sample Change Day</i>	28 <i>Alternate Sample Change Day</i>	29 IMPROVE Particle Sampling Day	30																																																																																				





Winter Creek, Yellowstone National
Park (YELL2). *Scott Copeland*

MAY 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
1	2 IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 3 Change IMPROVE Particle cartridges	4 <i>Alternate Sample Change Day</i>	5 IMPROVE Particle Sampling Day	6	7																																																																																				
8 IMPROVE Particle Sampling Day	9 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 10 Change IMPROVE Particle cartridges	11 IMPROVE Particle Sampling Day	12	13	14 IMPROVE Particle Sampling Day																																																																																				
15 <i>Alternate Sample Change Day</i>	16 <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3 17 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	18 <i>Alternate Sample Change Day</i>	19 <i>Alternate Sample Change Day</i>	20 IMPROVE Particle Sampling Day	21																																																																																				
22	23 IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 24 Change IMPROVE particle cartridges	25 <i>Alternate Sample Change Day</i>	26 IMPROVE Particle Sampling Day	27	28																																																																																				
29 IMPROVE Particle Sampling Day	Memorial Day 30 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 31 Change IMPROVE particle cartridges			<p>APRIL 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1 2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> </table>	S	M	T	W	T	F	S							1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	<p>JUNE 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1 2 3 4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S							1 2 3 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
S	M	T	W	T	F	S																																																																																				
						1 2																																																																																				
3	4	5	6	7	8	9																																																																																				
10	11	12	13	14	15	16																																																																																				
17	18	19	20	21	22	23																																																																																				
24	25	26	27	28	29	30																																																																																				
S	M	T	W	T	F	S																																																																																				
						1 2 3 4																																																																																				
5	6	7	8	9	10	11																																																																																				
12	13	14	15	16	17	18																																																																																				
19	20	21	22	23	24	25																																																																																				
26	27	28	29	30																																																																																						





Fitzpatrick Wilderness, Wind River Mountains. *Scott Copeland*

JUNE 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																											
<p>MAY 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					<p>JULY 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> <tr><td>31</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								1 IMPROVE Particle Sampling Day	2	3	4 IMPROVE Particle Sampling Day
S	M	T	W	T	F	S																																																																																											
1	2	3	4	5	6	7																																																																																											
8	9	10	11	12	13	14																																																																																											
15	16	17	18	19	20	21																																																																																											
22	23	24	25	26	27	28																																																																																											
29	30	31																																																																																															
S	M	T	W	T	F	S																																																																																											
					1	2																																																																																											
3	4	5	6	7	8	9																																																																																											
10	11	12	13	14	15	16																																																																																											
17	18	19	20	21	22	23																																																																																											
24	25	26	27	28	29	30																																																																																											
31																																																																																																	
5 Alternate Sample Change Day	6 Alternate Sample Change Day	7 3-2-2 Week 2 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	8 Alternate Sample Change Day	9 Alternate Sample Change Day	10 IMPROVE Particle Sampling Day	11																																																																																											
12	13 IMPROVE Particle Sampling Day	14 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	15 Alternate Sample Change Day	16 IMPROVE Particle Sampling Day	17	18																																																																																											
19 IMPROVE Particle Sampling Day	20 Alternate Sample Change Day	21 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	22 IMPROVE Particle Sampling Day	23	24	25 IMPROVE Particle Sampling Day																																																																																											
26 Alternate Sample Change Day	27 Alternate Sample Change Day	28 3-2-2 Week 2 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	29 Alternate Sample Change Day	30 Alternate Sample Change Day																																																																																													





Monument Valley. Josh Grant

JULY 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
<p>JUNE 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			<p>AUGUST 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							1	2
S	M	T	W	T	F	S																																																																																				
			1	2	3	4																																																																																				
5	6	7	8	9	10	11																																																																																				
12	13	14	15	16	17	18																																																																																				
19	20	21	22	23	24	25																																																																																				
26	27	28	29	30																																																																																						
S	M	T	W	T	F	S																																																																																				
	1	2	3	4	5	6																																																																																				
7	8	9	10	11	12	13																																																																																				
14	15	16	17	18	19	20																																																																																				
21	22	23	24	25	26	27																																																																																				
28	29	30	31																																																																																							
3	Independence Day 4 IMPROVE Particle Sampling Day	3-2-2 Week 3 5 2-3-2 Week 1 Change IMPROVE Particle cartridges	6	Alternate Sample Change Day	IMPROVE Particle Sampling Day 7	8	9																																																																																			
10	11	3-2-2 Week 1 12 2-3-2 Week 2 Change IMPROVE Particle cartridges	13	IMPROVE Particle Sampling Day	14	15	16																																																																																			
IMPROVE Particle Sampling Day	Alternate Sample Change Day	3-2-2 Week 2 19 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	20	Alternate Sample Change Day	Alternate Sample Change Day 21	22	23																																																																																			
17	18	3-2-2 Week 2 19 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	20	Alternate Sample Change Day	Alternate Sample Change Day 21	22	23																																																																																			
Alternate Sample Change Day	Alternate Sample Change Day	3-2-2 Week 2 19 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	20	Alternate Sample Change Day	Alternate Sample Change Day 21	22	23																																																																																			
24	25	3-2-2 Week 3 26 2-3-2 Week 1 Change IMPROVE Particle cartridges	27	Alternate Sample Change Day	IMPROVE Particle Sampling Day 28	29	30																																																																																			
IMPROVE Particle Sampling Day	IMPROVE Particle Sampling Day	Change IMPROVE Particle cartridges	Alternate Sample Change Day	IMPROVE Particle Sampling Day	IMPROVE Particle Sampling Day	IMPROVE Particle Sampling Day	IMPROVE Particle Sampling Day																																																																																			
31																																																																																										
IMPROVE Particle Sampling Day																																																																																										





Mist Trail, Vernal Falls, Yosemite National Park (YOSE1). *Scott Copeland*

AUGUST 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																											
	1 <i>Alternate Sample Change Day</i>	2 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	3 IMPROVE Particle Sampling Day	4	5	6 IMPROVE Particle Sampling Day																																																																																											
7 <i>Alternate Sample Change Day</i>	8 <i>Alternate Sample Change Day</i>	9 3-2-2 Week 2 2-3-2 Week 3 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	10 <i>Alternate Sample Change Day</i>	11 <i>Alternate Sample Change Day</i>	12 IMPROVE Particle Sampling Day	13																																																																																											
14	15 IMPROVE Particle Sampling Day	16 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	17 <i>Alternate Sample Change Day</i>	18 IMPROVE Particle Sampling Day	19	20																																																																																											
21 IMPROVE Particle Sampling Day	22 <i>Alternate Sample Change Day</i>	23 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	24 IMPROVE Particle Sampling Day	25	26	27 IMPROVE Particle Sampling Day																																																																																											
28 <i>Alternate Sample Change Day</i>	29 <i>Alternate Sample Change Day</i>	30 3-2-2 Week 2 2-3-2 Week 3 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	31 <i>Alternate Sample Change Day</i>	<p>JULY 2022</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td></td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> <tr> <td>31</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		S	M	T	W	T	F	S					1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							<p>SEPTEMBER 2022</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> </tr> <tr> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> </tr> <tr> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> </tr> <tr> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td></td> </tr> </tbody> </table>	S	M	T	W	T	F	S					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
S	M	T	W	T	F	S																																																																																											
				1	2																																																																																												
3	4	5	6	7	8	9																																																																																											
10	11	12	13	14	15	16																																																																																											
17	18	19	20	21	22	23																																																																																											
24	25	26	27	28	29	30																																																																																											
31																																																																																																	
S	M	T	W	T	F	S																																																																																											
				1	2	3																																																																																											
4	5	6	7	8	9	10																																																																																											
11	12	13	14	15	16	17																																																																																											
18	19	20	21	22	23	24																																																																																											
25	26	27	28	29	30																																																																																												





Great Fountain Geyser, Yellowstone National Park (YELL2). *Scott Copeland*

SEPTEMBER 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																											
<p>AUGUST 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				<p>OCTOBER 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								1	2	3
S	M	T	W	T	F	S																																																																																											
	1	2	3	4	5	6																																																																																											
7	8	9	10	11	12	13																																																																																											
14	15	16	17	18	19	20																																																																																											
21	22	23	24	25	26	27																																																																																											
28	29	30	31																																																																																														
S	M	T	W	T	F	S																																																																																											
						1																																																																																											
2	3	4	5	6	7	8																																																																																											
9	10	11	12	13	14	15																																																																																											
16	17	18	19	20	21	22																																																																																											
23	24	25	26	27	28	29																																																																																											
30	31																																																																																																
4	Labor Day IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	Alternate Sample Change Day	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																												
11	Alternate Sample Change Day	3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	IMPROVE Particle Sampling Day			IMPROVE Particle Sampling Day																																																																																											
18	Alternate Sample Change Day	3-2-2 Week 2 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	Alternate Sample Change Day	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																												
25	IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																													





Mount Hooker, Popo Agie Wilderness. *Scott Copeland*

OCTOBER 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SEPTEMBER 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	NOVEMBER 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30					1
2 IMPROVE Particle Sampling Day	3 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 4 Change IMPROVE Particle cartridges	5 IMPROVE Particle Sampling Day	6	7	8 IMPROVE Particle Sampling Day
9 <i>Alternate Sample Change Day</i>	10 <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3 11 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	12 <i>Alternate Sample Change Day</i>	13 <i>Alternate Sample Change Day</i>	14 IMPROVE Particle Sampling Day	15
16	17 IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 18 Change IMPROVE Particle cartridges	19 <i>Alternate Sample Change Day</i>	20 IMPROVE Particle Sampling Day	21	22
23 IMPROVE Particle Sampling Day	24 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 25 Change IMPROVE Particle cartridges	26 IMPROVE Particle Sampling Day	27	28	29 IMPROVE Particle Sampling Day
30 <i>Alternate Sample Change Day</i>	31 <i>Alternate Sample Change Day</i>					





Mather Point, Grand Canyon National Park (GRCA2). *Scott Copeland*

NOVEMBER 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																													
<p>OCTOBER 2022</p> <p>S M T W T F S</p> <table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table>							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						<p>DECEMBER 2022</p> <p>S M T W T F S</p> <table border="1"> <tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr> </table>					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	<p>3-2-2 Week 2 2-3-2 Week 3</p> <p>1</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p>2</p> <p>Alternate Sample Change Day</p>	<p>3</p> <p>Alternate Sample Change Day</p>	<p>4</p> <p>IMPROVE Particle Sampling Day</p>	<p>5</p>
						1																																																																													
2	3	4	5	6	7	8																																																																													
9	10	11	12	13	14	15																																																																													
16	17	18	19	20	21	22																																																																													
23	24	25	26	27	28	29																																																																													
30	31																																																																																		
				1	2	3																																																																													
4	5	6	7	8	9	10																																																																													
11	12	13	14	15	16	17																																																																													
18	19	20	21	22	23	24																																																																													
25	26	27	28	29	30	31																																																																													
<p>6</p>	<p>7</p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 2-3-2 Week 1</p> <p>8</p> <p>Change IMPROVE Particle cartridges</p>	<p>9</p> <p>Alternate Sample Change Day</p>	<p>10</p> <p>IMPROVE Particle Sampling Day</p>	<p>11</p>	<p>12</p>																																																																													
<p>13</p> <p>IMPROVE Particle Sampling Day</p>	<p>14</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 2-3-2 Week 2</p> <p>15</p> <p>Change IMPROVE Particle cartridges</p>	<p>16</p> <p>IMPROVE Particle Sampling Day</p>	<p>17</p>	<p>18</p>	<p>19</p> <p>IMPROVE Particle Sampling Day</p>																																																																													
<p>20</p> <p>Alternate Sample Change Day</p>	<p>21</p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 2-3-2 Week 3</p> <p>22</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p>23</p> <p>Alternate Sample Change Day</p>	<p>Thanksgiving</p> <p>24</p> <p>Alternate Sample Change Day</p>	<p>25</p> <p>IMPROVE Particle Sampling Day</p>	<p>26</p>																																																																													
<p>27</p>	<p>28</p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 2-3-2 Week 1</p> <p>29</p> <p>Change IMPROVE Particle cartridges</p>	<p>30</p> <p>Alternate Sample Change Day</p>																																																																																





Lamar Valley Agate Pack Wolves, Yellowstone National Park (YELL2). *Scott Copeland*

DECEMBER 2022

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
NOVEMBER 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	JANUARY 2023 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31			1	2	3
4 IMPROVE Particle Sampling Day	5 <i>Alternate Sample Change Day</i>	6 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	7 IMPROVE Particle Sampling Day	8 IMPROVE Particle Sampling Day	9	10 IMPROVE Particle Sampling Day
11 <i>Alternate Sample Change Day</i>	12 <i>Alternate Sample Change Day</i>	13 3-2-2 Week 2 2-3-2 Week 3 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	14 <i>Alternate Sample Change Day</i>	15 <i>Alternate Sample Change Day</i>	16 IMPROVE Particle Sampling Day	17
18	19 IMPROVE Particle Sampling Day	20 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	21 <i>Alternate Sample Change Day</i>	22 IMPROVE Particle Sampling Day	23	24
25 IMPROVE Particle Sampling Day	26 Winter Holiday <i>Alternate Sample Change Day</i>	27 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	28 IMPROVE Particle Sampling Day	29	30	31 Winter Holiday IMPROVE Particle Sampling Day





Photographs taken by *Patrick Myers, Scott Copeland, and Josh Grant.*
Cover Photo: Wildflowers, Great Sand Dunes National Park (GRSA). *Patrick Myers*

IMPROVE

Interagency Monitoring of Protected Visual Environments

