



January 10, 2015

Ms. Tina LePage  
Manager, Remedial Projects Unit  
Arizona Department of Environmental Quality  
1110 West Washington Street  
Phoenix, AZ 85007

Re: December 2014 Monthly Progress Report – RID Wellhead Treatment Systems  
West Van Buren Area WQARF Site

Dear Ms. LePage:

On behalf of the Roosevelt Irrigation District (RID), this December 2014 Monthly Progress Report for the wellhead treatment systems at supply wells RID-89, RID-92, RID-95 and RID-114 is provided for your review. This Monthly Progress Report is consistent with Section 6.2 of the *Operation & Maintenance Plan, RID Wellhead Treatment Systems, Revision 4* dated October 20, 2014 (O&M Plan).

This Monthly Progress Report includes:

- Narrative summary of operational status.
- Operational data including: hours/percentage of operating time during the reporting period, volume of groundwater treated, approximate mass of target contaminants of concern (COCs) removed, and cumulative mass of target COCs removed since system start-up (**Table 1**).

Please contact me by phone at 602-430-2785 or by email at [andrew.machugh@syn-env.com](mailto:andrew.machugh@syn-env.com), should you have any questions or comments regarding this report.

Best Regards,  
Synergy Environmental, LLC

Andrew MacHugh, PE



cc: Donovan Neese, Roosevelt Irrigation District  
David Kimball, Gallagher & Kennedy



**Summary of Operational Status**

As described in the *May 2014 Monthly Progress Report*, the RID Wellhead Treatment Systems (WTSs) were placed in temporary bypass on May 30<sup>th</sup> to conduct critical maintenance work needed at all 4 WTSs (on all 9 skids) to replace corroded piping (GAC removal lines) that is presently covered under warranty, and to enable ADEQ and the public to review the existing O&M Plan (Revision 3) prior to placing the systems back in service for the remainder of the pumping season. GAC removal lines were replaced on 10 of 18 vessels during carbon change-out activities occurring from June through October 2014. The remaining GAC removal lines will be replaced when carbon change-out activities are needed on the eight (8) remaining vessels.

RID submitted responses to comments from ADEQ and stakeholders (as requested by ADEQ) and the revised O&M Plan (Revision 4) to ADEQ on October 20<sup>th</sup>, 2014, and received additional comments from ADEQ on December 15<sup>th</sup>, 2014. As requested, RID will prepare responses to ADEQ additional comments by January 14<sup>th</sup>, 2015. Once the revised O&M Plan is formally approved by ADEQ, the WTSs will be placed back into service to ensure maximum protection of public health, welfare and the environment. As required by ADEQ (to be consistent with historical pumping patterns), RID is not expected to operate these wells again until March 2015.

Operational data and estimated mass of target COCs removed since start-up of each WTS are summarized in **Table 1**. Since wells RID-92, RID-95 and RID-114 did not operate during the reporting period (due to lower customer demand), and well RID-89 was only in bypass mode when operational, treated water quality samples could not be collected to demonstrate the effectiveness of each WTS.

Well ID	December 2014 OPERATIONS		
	Duration Hours	Flow GPM	Acre-feet
RID-89*	41	3,288	24.67
RID-92	0	0	0
RID-95	0	0	0
RID-114	0	0	0

Notes:

gpm = gallons per minute (average)

\* = well operated in bypass mode only



Attachments:

- 1) Table 1. RID Wellhead Treatment Systems Metrics

**TABLE 1. RID WELLHEAD TREATMENT SYSTEMS METRICS**  
West Van Buren Area WQARF Site

Reporting Period: **December 2014**

WELLHEAD TREATMENT SYSTEMS DATA			
<b>RID-89</b>	Volume of GW Treated, This Period:	<u>0</u> acre-feet	Estimated Mass of Target COCs Removed, This Period: <u>0</u> pounds
	Volume of GW Treated, Since Start-up <sup>1</sup> :	<u>4,072</u> acre-feet	Mass of Target COCs Removed, Since Start-up: <u>432</u> pounds
	Operational Hours:	<u>0</u> <b>0%</b>	
<b>RID-92</b>	Volume of GW Treated, This Period:	<u>0</u> acre-feet	Estimated Mass of Target COCs Removed, This Period: <u>0</u> pounds
	Volume of GW Treated, Since Start-up <sup>2</sup> :	<u>1,645</u> acre-feet	Mass of Target COCs Removed, Since Start-up: <u>386</u> pounds
	Operational Hours:	<u>0</u> <b>0%</b>	
<b>RID-95</b>	Volume of GW Treated, This Period:	<u>0</u> acre-feet	Estimated Mass of Target COCs Removed, This Period: <u>0</u> pounds
	Volume of GW Treated, Since Start-up <sup>3</sup> :	<u>2,994</u> acre-feet	Mass of Target COCs Removed, Since Start-up: <u>496</u> pounds
	Operational Hours:	<u>0</u> <b>0%</b>	
<b>RID-114</b>	Volume of GW Treated, This Period:	<u>0</u> acre-feet	Estimated Mass of Target COCs Removed, This Period: <u>0</u> pounds
	Volume of GW Treated, Since Start-up <sup>4</sup> :	<u>3,668</u> acre-feet	Mass of Target COCs Removed, Since Start-up: <u>437</u> pounds
	Operational Hours:	<u>0</u> <b>0%</b>	
<b>TOTALS</b> (all sites):	Volume of GW Treated, This Period:	<u>0</u> acre-feet	Estimated Mass of Target COCs Removed, This Period: <u>0</u> pounds
	Volume of GW Treated, This Period:	<u>0</u> million gallons	Mass of Target COCs Removed, Since Start-up: <u>1,751</u> pounds
	Volume of GW Treated, Since Start-Up:	<u>12,378</u> acre-feet	
	Volume of GW Treated, Since Start-Up:	<u>4.0</u> billion gallons	

Explanation: <sup>1</sup> May 24, 2012 start-up date.

<sup>2</sup> May 23, 2012 start-up date.

<sup>3</sup> February 6, 2012 start-up date.

<sup>4</sup> May 22, 2012 start-up date.