

**Table 10
Evaluation of Eagle Rock
Groundwater Quality Ambient Network**

Network Name :	EAGLE ROCK				
Aquifer Numbers:	193 (Osoyoos West), 194 (Osoyoos east)				
Monitored Since:	July 13, 1987				
Footprint Area:	7.8 km ²				
Number of Obs wells:	6 wells at 6 sites				
Number wells in WRA:	117				
Aquifer Classification:	353 IA (rank 14)				
Parameters ≥ GCDWQ:	Iron, Manganese				
Contaminants of Concern:	NO ₃ , As				
Network Objective	Measurement Criteria	Current Status	Evidence of Change	Response Options	Comments
1 Spatial and Depth Coverage	a. background well(s)	- no background wells up-gradient to north or east	- more wells available to north	- no response/change	- there are no background wells
	b. coverage in areas of suspected impacts	- most wells concentrated in one area at south end of aquifer	- several wells at Tolko site - no known geothermal	- add wells to north - reduce redundancy in wells that are clustered in south (drop 2)	- the network coverage could be extended by using existing wells to the north and south
	c. coverage of all indicated spatial mode areas		- Larkin 4 (WTN 38270) appears impacted	- identified areas of concern	
	d. coverage of hydraulically isolated formations				
2 Suite of Chemistry Parameters and Lab Methods	a. indicator parameters capable of identifying existing/potential threats	- insufficient parameters to verify charge balance		- no response/change	
	b. ability for anion/cation balance	HCO ₃ not regularly included		- sample for complete suite at all wells annually	
	c. continuity of historical parameters	- background for some parameters is modal		- add to suite at WTN 38270	
	d. consistent suite of parameters				
	e. new parameters reflect emerging lab methods and recs. by Kohut (2009)				
	f. surrogate monitoring methods				
3 Sampling Frequency for Network + Wells of Importance	a. consistency in suite of parameters	- paramters not consistent	- sample frequency is not consistent	- no response/change	- sampling in a reduced number of wells but on a regular basis (annually)
	b. duration frequency for primary and secondary priority wells	- no seasonal sampling	- insufficient data for analysis of outliers and trends	- sample more consistently	
	c. sampling for seasonal variation				
4 Field Methods QA/QC Data Validation	a. field sampling + handling protocols	- some outliers identified,		- no response/change	
	b. QA/QC lab results	As variable likely result of sampling methods		- adherence to field protocols	
	c. cation/anion balance			- EMS results reviewed quickly so that sample re-testing still possible	
	d. QA/QC data entered in EMS				
	e. identify statistical outliers				
5 Spatial and Temporal Analysis and Reporting	a. visual outliers and spatial/temporal trends	- some upward trends exist	- upward trend in Cl, Fe, Ca, Mn, NO ₃ , in WTN 38270	- no response/change	- more attention paid to WTN 38270 and area to south where industrial activity exists
	b.			- regular analysis/vaildation to identify outliers/trends - communicate with planners - communicate with water users - communicate with planners	