ASSOCIATED STEEL LTD

7140 Highway 132, Sainte-Catherine, Quebec

EMISSION AND DISCHARGE FOLLOW-UP RECORDS

Groundwater

ANALYSIS PARAMETERS	Unit	Reported Detection Limit	Criteria[1]		Analysis Results								
			Drinking Purposes	Seepage into Surface Waters	2012	2013	2014	2015	2016	2017		2018	
					October	October	October	November	October	July	September	April	September
Monitoring Well F-1													
Petroleum Hydrocarbons C_{10}-C_{50}	µg/l	100	-	2 800	<	<	130	<	<	<	<	<	<
Metals & Metalloïds													
Cadmium	µg/l	0,5	5	1,1	<	<	<	<	0,6	<	<	<	<
Chromium (total)	µg/l	1	50	-	3	<	<	<	<	<	<	<	<
Chromium VI	µg/l	10	-	16	<	<	<	<	<	<	<	**< 20**	<
Copper	µg/l	1	1 000	7,3	1	<	<	2	3	<	<	1	2
Nickel	µg/l	1	70	260	9	4	6	5	6	14	11	10	10
Lead	µg/l	1	10	34	<	<	<	<	<	<	<	<	<
Zinc	µg/l	7	5 000	67	7	<	17	**122**	**131**	12	<	<	<
Monitoring Well F-2													
Petroleum Hydrocarbons C_{10}-C_{50}	µg/l	100	-	2 800	347	<	<	<	<	290	385	461	<
Metals & Metalloïds													
Cadmium	µg/l	0,5	5	1,1	<	<	<	<	<	<	<	<	<
Chromium (total)	µg/l	1	50	-	5	<	<	<	<	<	<	<	<
Chromium VI	µg/l	10	-	16	<	**< 20**	<	<	<	<	<	**< 20**	<
Copper	µg/l	1	1 000	7,3	1	1	1	1	3	6	<	5	<
Nickel	µg/l	1	70	260	28	6	11	2	2	3	2	5	2
Lead	µg/l	1	10	34	<	<	<	<	<	<	<	<	<
Zinc	µg/l	7	5 000	67	<	<	10	7	11	<	<	<	<
Monitoring Well F-3													
Petroleum Hydrocarbons C_{10}-C_{50}	µg/l	100	-	2 800	<	<	<	<	<	<	<	<	<
Metals & Metalloïds													
Cadmium	µg/l	0,5	5	1,1	<	<	<	<	<	<	<	<	<
Chromium (total)	µg/l	1	50	-	4	<	<	<	<	<	<	<	<
Chromium VI	µg/l	10	-	16	<	<	<	<	<	<	<	<	<
Copper	µg/l	1	1 000	7,3	<	<	<	<	<	<	<	<	<
Nickel	µg/l	1	70	260	10	10	11	7	41	7	8	7	5
Lead	µg/l	1	10	34	<	<	<	<	<	<	<	<	<
Zinc	µg/l	7	5 000	67	<	<	<	<	<	<	<	<	<
Monitoring Well F-4													
Petroleum Hydrocarbons C_{10}-C_{50}	µg/l	100	-	2 800	140	<	<	<	<	643	<	222	<
Metals & Metalloïds													
Cadmium	µg/l	0,5	5	1,1	<	<	<	<	<	<	<	<	<
Chromium (total)	µg/l	1	50	-	4	<	<	<	<	<	<	<	<
Chromium VI	µg/l	10	-	16	<	<	<	10	<	<	<	<	<
Copper	µg/l	1	1 000	7,3	1	<	<	<	5	<	<	<	<
Nickel	µg/l	1	70	260	5	5	2	2	3	3	2	3	6
Lead	µg/l	1	10	34	4	<	<	<	<	<	<	<	<
Zinc	µg/l	7	5 000	67	<	<	<	<	36	<	<	<	<

Notes:

[1] Appendix 7 of the *Guide d'intervention - Protection des sols et réhabilitation des terrains contaminés*

For some samples, the reported detection limit for chromium VI was increased due to matrix interferences.

Each sampling campaign performed by Hudon Desbiens St-Germain Environnement was documented in a follow-up report.

All samples were analyzed by a laboratory certified by the Centre d'expertise en ananlyse environnementale du Québec.

Quality controls are performed during each sampling campaign. Overall, all results confirm the reliability and reproducibility of performed analyse

Legend

5	: Value > "Drinking Purposes" Criterion
5	: Value > "Seepage Into Surface Waters" Criterion
-	: Not analyzed or no criterion for this parameter
<	: Value < reported detection limit