UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

Personal Matters / Ex. 6

Re: Well Sampling Results

5/1/2014

Ms. Personal Matters / Ex. 6

United States Environmental Protection Agency (EPA) sampled the well located at 1645 North Fork Road, Columbia Falls, MT on 4/9/2014. This sampling was performed as part of EPA's continued assessment of the Columbia Falls Aluminum Company property.

The samples were analyzed and the data was subjected to a rigorous quality assurance/quality control process. The analytical results of the groundwater sample collected from your property are included in the enclosed tables. Water from your well was tested for contaminants regulated under the National Primary Drinking Water Regulations. None of these contaminants were present in your well at or above the "Maximum Contaminant Level (MCL)," which is the maximum amount of a contaminant allowed to be present in a public drinking water system. The analytical results were also compared to other benchmarks, including State of Montana Numeric Water Quality Standards and EPA's Risk Based Screening levels.

Thank you for participating in this investigation. I truly invite you to call me at 303-312-6963 if you have any questions or you would like to discuss these results further.

Sincerely,

Martin McComb, On Scene Coordinator
Emergency Response Program
Environmental Protection Agency, Region 8

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Groundwater Analytical Data
Anaconda Aluminum

Analyte	CAS.NO	Units	MCL	MT Circ 7 HSL	Tapwater RSL	Station Year Month Sample ID	GW03 1404 AAGW03.040914
GCSEMI							
4,4'-DDD	72-54-8	ug/L		0.0031	0.027	--	0.02 U
4,4'-DDE	72-55-9	ug/L		0.0022	0.2	--	0.02 U
4,4'-DDT	50-29-3	ug/L		0.0022	0.2	--	0.02 U
Aldrin	309-00-2	ug/L		0.02	0.004	--	0.002 U
alpha-BHC	319-84-6	ug/L		0.026	0.0062	--	0.005 U
alpha-Chlordane	5103-71-9	ug/L		1		--	0.02 U
Aroclor 1016	12674-11-2	ug/L			0.96	--	0.25 U
Aroclor 1221	11104-28-2	ug/L			0.004	--	0.5 U
Aroclor 1232	11141-16-5	ug/L			0.004	--	0.5 U
Aroclor 1242	53469-21-9	ug/L			0.034	--	0.5 U
Aroclor 1248	12672-29-6	ug/L			0.034	--	0.5 U
Aroclor 1254	11097-69-1	ug/L			0.034	--	0.5 U
Aroclor 1260	11096-82-5	ug/L			0.034	--	0.25 U
Aroclor 1262	37324-23-5	ug/L				--	0.5 U
Aroclor 1268	11100-14-4	ug/L				--	0.5 U
beta-BHC	319-85-7	ug/L		0.091	0.022	--	0.02 U
Chlordane	12789-03-6	ug/L	2		0.19	--	0.5 U
delta-BHC	319-86-8	ug/L				--	0.02 U
Dieldrin	60-57-1	ug/L		0.02	0.0015	--	0.002 U
Endosulfan sulfate	1031-07-8	ug/L		62		--	0.02 U
Endosulfan-I	959-98-8	ug/L		62		--	0.02 U
Endosulfan-II	33213-65-9	ug/L		62		--	0.02 U
Endrin	72-20-8	ug/L	2	2	1.7	--	0.02 U
Endrin aldehyde	7421-93-4	ug/L		0.29		--	0.02 U
Endrin ketone	53494-70-5	ug/L				--	0.02 U
gamma-BHC (Lindane)	58-89-9	ug/L	0.2	0.2	0.036	--	0.02 U

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gamma-Chlordane	5103-74-2	ug/L				--	0.02 U
Heptachlor	76-44-8	ug/L	0.4	0.08	0.0018	--	0.02 U
Heptachlor epoxide	1024-57-3	ug/L	0.2	0.04	0.0033	--	0.02 U
Methoxychlor	72-43-5	ug/L	40	40	27	--	0.1 U
Total PCBs	1336-36-3	ug/L	0.5	0.5	0.17	--	0.5 U
Toxaphene	8001-35-2	ug/L	3	0.3	0.013	--	1.5 U
GENCHEM							
Cyanide (free)	57-12-5	ug/L	200	200	1.4	--	10 U
Cyanide, Total	57-12-5	ug/L	200	200	1.4	--	5 U
Fluoride	16984-48-8	ug/L		4000	620	--	200 U
Nitrogen, Nitrate	14797-55-8	ug/L	10000		25000	--	**240**
Nitrogen, Nitrate + Nitrite		ug/L				--	**240**
Nitrogen, Nitrite	14797-65-0	ug/L	1000		1600	--	8 U
METALS, Total							
Aluminum	7429-90-5	ug/L			16000	--	100 U
Antimony	7440-36-0	ug/L	6	6	6	--	30 U
Arsenic	7440-38-2	ug/L	10	10	0.045	--	25 U
Barium	7440-39-3	ug/L	2000	1000	2900	--	**499**
Beryllium	7440-41-7	ug/L	4	4	16	--	10 U
Cadmium	7440-43-9	ug/L	5	5	6.9	--	10 U
Calcium	7440-70-2	ug/L				--	**130000**
Chromium	7440-47-3	ug/L	100	100		--	10 U
Cobalt	7440-48-4	ug/L			4.7	--	5 U
Copper	7440-50-8	ug/L	1300	1300	620	--	**38.9**
Iron	7439-89-6	ug/L			11000	--	70 U
Lead	7439-92-1	ug/L	15	15		--	50 U
Magnesium	7439-95-4	ug/L				--	**28200**

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Analyte	CAS.NO	Units	MCL	MT Circ 7 HSL	Tapwater RSL	Station Year Month Sample ID	GW03 1404 AAGW03.040914
Manganese	7439-96-5	ug/L			320	--	5 U
Mercury	7439-97-6	ug/L	2	2	0.63	--	0.1 U
Nickel	7440-02-0	ug/L		100	300	--	30 U
Potassium	7440-09-7	ug/L				--	**3130**
Selenium	7782-49-2	ug/L	50	50	78	--	50 U
Silver	7440-22-4	ug/L		100	71	--	30 U
Sodium	7440-23-5	ug/L				--	**31600**
Thallium	7440-28-0	ug/L	2	2	0.16	--	10 U
Vanadium	7440-62-2	ug/L			63	--	10 U
Zinc	7440-66-6	ug/L		2000	4700	--	**61**
METALS, DISSOLVED							
Aluminum	7429-90-5	ug/L			16000	--	100 U
Antimony	7440-36-0	ug/L	6	6	6	--	30 U
Arsenic	7440-38-2	ug/L	10	10	0.045	--	25 U
Barium	7440-39-3	ug/L	2000	1000	2900	--	**499**
Beryllium	7440-41-7	ug/L	4	4	16	--	10 U
Cadmium	7440-43-9	ug/L	5	5	6.9	--	10 U
Calcium	7440-70-2	ug/L				--	**130000**
Chromium	7440-47-3	ug/L	100	100		--	10 U
Cobalt	7440-48-4	ug/L			4.7	--	5 U
Copper	7440-50-8	ug/L	1300	1300	620	--	**39**
Iron	7439-89-6	ug/L			11000	--	70 U
Lead	7439-92-1	ug/L	15	15		--	50 U
Magnesium	7439-95-4	ug/L				--	**28200**
Manganese	7439-96-5	ug/L			320	--	5 U
Mercury	7439-97-6	ug/L	2	2	0.63	--	0.1 U
Nickel	7440-02-0	ug/L		100	300	--	30 U

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Potassium	7440-09-7	ug/L				--	**3110**
Selenium	7782-49-2	ug/L	50	50	78	--	50 U
Silver	7440-22-4	ug/L		100	71	--	30 U
Sodium	7440-23-5	ug/L				--	**31600**
Thallium	7440-28-0	ug/L	2	2	0.16	--	10 U
Vanadium	7440-62-2	ug/L			63	--	10 U
Zinc	7440-66-6	ug/L		2000	4700	--	**60**
MSSEMI							
1,2,4-Trichlorobenzene	120-82-1	ug/L	70	70	0.99	--	5 U
1,2-Dichlorobenzene	95-50-1	ug/L	600	600	280	--	2 U
1,2-Diphenylhydrazine	122-66-7	ug/L			0.067	--	5 U
1,3-Dichlorobenzene	541-73-1	ug/L		600		--	2 U
1,4-Dichlorobenzene	106-46-7	ug/L	75	75	0.42	--	2 U
1-Methylnaphthalene	90-12-0	ug/L			0.97	--	5 U
2,4,5-Trichlorophenol	95-95-4	ug/L		1800	890	--	5 U
2,4,6-Trichlorophenol	88-06-2	ug/L		30	3.5	--	5 U
2,4-Dichlorophenol	120-83-2	ug/L		77	35	--	5 U
2,4-Dimethylphenol	105-67-9	ug/L		380	270	--	5 U
2,4-Dinitrophenol	51-28-5	ug/L		69	30	--	5 U
2,4-Dinitrotoluene	121-14-2	ug/L		1.1	0.2	--	5 U
2,6-Dinitrotoluene	606-20-2	ug/L		0.5	0.042	--	5 U
2-Chloronaphthalene	91-58-7	ug/L			550	--	5 U
2-Chlorophenol	95-57-8	ug/L			71	--	5 U
2-Methylnaphthalene	91-57-6	ug/L			27	--	0.19 U
2-Methylphenol	95-48-7	ug/L			720	--	5 U
2-Nitroaniline	88-74-4	ug/L			150	--	5 U
2-Nitrophenol	88-75-5	ug/L				--	5 U

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3,3'-Dichlorobenzidine	91-94-1	ug/L		0.21	0.11	--	5 U
3-Nitroaniline	99-09-2	ug/L				--	5 U
4,6-Dinitro-o-cresol	534-52-1	ug/L		13	1.2	--	5 U
4-Bromophenyl phenyl ether	101-55-3	ug/L				--	5 U
4-Chloro-3-methyl phenol	59-50-7	ug/L		3000	1100	--	5 U
4-Chloroaniline	106-47-8	ug/L			0.32	--	5 U
4-Chlorophenyl phenyl ether	7005-72-3	ug/L				--	5 U
4-Methylphenol	106-44-5	ug/L			1400	--	5 U
4-Nitroaniline	100-01-6	ug/L			3.3	--	5 U
4-Nitrophenol	100-02-7	ug/L		60		--	5 U
Acenaphthene	83-32-9	ug/L		670	400	--	0.19 U
Acenaphthylene	208-96-8	ug/L				--	5 U
Aniline	62-53-3	ug/L			12	--	5 U
Anthracene	120-12-7	ug/L		2100	1300	--	5 U
Benzidine	92-87-5	ug/L			0.000092	--	10 U
Benzo(a)anthracene	56-55-3	ug/L		0.5	0.029	--	0.096 U
Benzo(a)pyrene	50-32-8	ug/L	0.2	0.05	0.0029	--	5 U
Benzo(b)fluoranthene	205-99-2	ug/L		0.05	0.029	--	0.096 U
Benzo(g,h,i)perylene	191-24-2	ug/L				--	5 U
Benzo(k)fluoranthene	207-08-9	ug/L		5	0.29	--	0.096 U
Benzoic Acid	65-85-0	ug/L			58000	--	10 U
Benzyl Alcohol	100-51-6	ug/L			1500	--	5 U
bis(2-Chloroethoxy)methane	111-91-1	ug/L			46	--	5 U
bis(2-Chloroethyl)ether	111-44-4	ug/L		0.3	0.012	--	5 U
bis(2-Chloroisopropyl)ether	108-60-1	ug/L			0.31	--	5 U
bis(2-Ethylhexyl)phthalate	117-81-7	ug/L	6		4.8	--	5 U
Butyl benzyl phthalate	85-68-7	ug/L		1500	14	--	5 U

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Analyte	CAS.NO	Units	MCL	MT Circ 7 HSL	Tapwater RSL	Station Year Month Sample ID	GW03 1404 AAGW03.040914
Carbazole	86-74-8	ug/L				--	5 U
Chrysene	218-01-9	ug/L		50	2.9	--	5 U
Dibenzo(a,h)anthracene	53-70-3	ug/L			0.0029	--	0.096 U
Dibenzofuran	132-64-9	ug/L			5.8	--	5 U
Diethyl phthalate	84-66-2	ug/L		17000	11000	--	5 U
Dimethyl phthalate	131-11-3	ug/L		270000		--	5 U
Di-n-butyl phthalate	84-74-2	ug/L		2000	670	--	5 U
Di-n-octyl phthalate	117-84-0	ug/L			160	--	5 U
Fluoranthene	206-44-0	ug/L		130	630	--	0.19 U
Fluorene	86-73-7	ug/L		1100	220	--	0.19 U
Hexachlorobenzene	118-74-1	ug/L	1	0.2	0.042	--	5 U
Hexachlorobutadiene	87-68-3	ug/L		5	0.26	--	5 U
Hexachlorocyclopentadiene	77-47-4	ug/L	50	50	22	--	5 U
Hexachloroethane	67-72-1	ug/L		30	0.79	--	5 U
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L		0.5	0.029	--	5 U
Isophorone	78-59-1	ug/L		400	67	--	5 U
Naphthalene	91-20-3	ug/L		100	0.14	--	5 U
Nitrobenzene	98-95-3	ug/L		17	0.12	--	5 U
N-Nitrosodimethylamine	62-75-9	ug/L			0.00042	--	5 U
N-Nitroso-di-n-propylamine	621-64-7	ug/L		0.05	0.0093	--	5 U
N-Nitrosodiphenylamine	86-30-6	ug/L		33	10	--	5 U
Pentachlorophenol	87-86-5	ug/L	1	1	0.035	--	5 U
Phenanthrene	85-01-8	ug/L				--	5 U
Phenol	108-95-2	ug/L		300	4500	--	5 U
Pyrene	129-00-0	ug/L		830	87	--	5 U
Pyridine	110-86-1	ug/L			15	--	5 U
MSVOA							

Groundwater Analytical Data
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Analyte	CAS.NO	Units	MCL	MT Circ 7 HSL	Tapwater RSL	Station Year Month Sample ID	GW03 1404 AAGW03.040914
1,1,1,2-Tetrachloroethane	630-20-6	ug/L			0.5	--	2 U
1,1,1-Trichloroethane	71-55-6	ug/L	200	200	7500	--	2 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/L			0.066	--	2 U
1,1,2-Trichloroethane	79-00-5	ug/L	5	3	0.24	--	2 U
1,1-Dichloroethane	75-34-3	ug/L			2.4	--	2 U
1,1-Dichloroethylene	75-35-4	ug/L	7	7	260	--	2 U
1,1-Dichloropropene	563-58-6	ug/L				--	1 U
1,2,3-Trichlorobenzene	87-61-6	ug/L			5.2	--	2 U
1,2,3-Trichloropropane	96-18-4	ug/L			0.00065	--	2 U
1,2,4-Trichlorobenzene	120-82-1	ug/L	70	70	0.99	--	2 U
1,2,4-Trimethylbenzene	95-63-6	ug/L			15	--	2 U
1,2-Dibromo-3-chloropropane	96-12-8	ug/L	0.2	0.2	0.00032	--	5 U
1,2-Dibromoethane	106-93-4	ug/L	0.05	0.004	0.0065	--	2 U
1,2-Dichloroethane	107-06-2	ug/L	5	4	0.15	--	2 U
1,2-Dichloropropane	78-87-5	ug/L	5	5	0.38	--	2 U
1,3,5-Trimethylbenzene	108-67-8	ug/L			87	--	2 U
1,3-Dichloropropane	142-28-9	ug/L			290	--	2 U
2,2-Dichloropropane	594-20-7	ug/L				--	1 U
2-Chloroethyl vinyl ether	110-75-8	ug/L				--	2 U
2-Hexanone	591-78-6	ug/L			34	--	2 U
4-Methyl-2-pentanone	108-10-1	ug/L			1000	--	10 U
Acetone	67-64-1	ug/L			12000	--	20 U
Acrolein	107-02-8	ug/L			0.041	--	10 U
Acrylonitrile	107-13-1	ug/L			0.045	--	2 U
Benzene	71-43-2	ug/L	5	5	0.39	--	1 U
Bromobenzene	108-86-1	ug/L			54	--	1 U
Bromochloromethane	74-97-5	ug/L			83	--	2 U

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Bromodichloromethane	75-27-4	ug/L	80	10	0.12	--	2 U
Bromoform	75-25-2	ug/L	80	80	7.9	--	2 U
Carbon disulfide	75-15-0	ug/L			720	--	2 U
Carbon tetrachloride	56-23-5	ug/L	5	3	0.39	--	2 U
Chlorobenzene	108-90-7	ug/L	100	100	72	--	2 U
Chloroethane	75-00-3	ug/L			21000	--	2 U
Chloroform	67-66-3	ug/L	80	70	0.19	--	2 U
cis-1,2-Dichloroethylene	156-59-2	ug/L	70	70	28	--	1 U
cis-1,3-Dichloropropene	10061-01-5	ug/L		4		--	2 U
Dibromochloromethane	124-48-1	ug/L	80	4	0.15	--	2 U
Dichlorodifluoromethane	75-71-8	ug/L		1000	190	--	5 U
Ethylbenzene	100-41-4	ug/L	700	700	1.3	--	2 U
Hexachlorobutadiene	87-68-3	ug/L		5	0.26	--	5 U
Isopropylbenzene	98-82-8	ug/L			390	--	1 U
m-Dichlorobenzene	541-73-1	ug/L		600		--	2 U
Methyl bromide	74-83-9	ug/L		10	7	--	4 U
Methyl chloride	74-87-3	ug/L		30	190	--	2 U
Methyl ethyl ketone	78-93-3	ug/L			4900	--	10 U
Methyl Tert Butyl Ether	1634-04-4	ug/L		30	12	--	2 U
Methylene bromide	74-95-3	ug/L			7.9	--	2 U
Methylene chloride	75-09-2	ug/L	5	5	9.9	--	4 U
Naphthalene	91-20-3	ug/L		100	0.14	--	5 U
n-Butylbenzene	104-51-8	ug/L			780	--	1 U
n-Propylbenzene	103-65-1	ug/L			530	--	1 U
o-Chlorotoluene	95-49-8	ug/L			180	--	1 U
o-Dichlorobenzene	95-50-1	ug/L	600	600	280	--	2 U
p-Chlorotoluene	106-43-4	ug/L			190	--	1 U

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p-Dichlorobenzene	106-46-7	ug/L	75	75	0.42	--	2 U
p-Isopropyltoluene	99-87-6	ug/L				--	1 U
sec-Butylbenzene	135-98-8	ug/L			1600	--	1 U
Styrene	100-42-5	ug/L	100	100	1100	--	2 U
tert-Butylbenzene	98-06-6	ug/L			510	--	1 U
Tetrachloroethylene	127-18-4	ug/L	5	5	9.7	--	2 U
Toluene	108-88-3	ug/L	1000	1000	860	--	2 U
trans-1,2-Dichloroethylene	156-60-5	ug/L	100	100	86	--	2 U
trans-1,3-Dichloropropene	10061-02-6	ug/L		2		--	2 U
Trichloroethylene	79-01-6	ug/L	5	5	0.44	--	2 U
Trichlorofluoromethane	75-69-4	ug/L		10000	1100	--	2 U
Vinyl Acetate	108-05-4	ug/L			410	--	10 U
Vinyl chloride	75-01-4	ug/L	2	0.2	0.015	--	2 U
Xylene (total)	1330-20-7	ug/L	10000		190	--	3 U

Maximum Contaminant Level (MCL): highest level of a contaminant allowed in drinking water

Tapwater Regional Screening Level (RSL): the level of contaminant at which a person can be exposed daily via ingestion, inhalation, and absorption throughout their lifetime without an appreciable risk of damaging effects

MT Circular 7 Health Screening Level (HSL): level of contaminant at which a 154 pound person can ingest 2-liters of water a day for 70 years without an appreciable risk of damaging effects

U: contaminant not detected at or above the laboratory reporting limit

Bold: contaminant detected at or above the laboratory reporting limit