State of New Mexico
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2918
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BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 7, 2006

Ms. Candace Williams
2042 Zuni Canyon Road
Grants, NM 87020

Subject: Analytical reports for water samples CW-20 and CW-209 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935), Milan, New Mexico.

Dear Ms. Williams:

Ground water samples were collected from your well by NMED personnel on August 1, 2006. The samples were designated "CW-20" and "CW-209," and were sent to Pinnacle Laboratory for general water chemistry analysis. Enclosed for your records are copies of the analytical reports from these analyses.

Analytical results that exceed applicable standards are summarized below. Note that the concentrations of nitrate as nitrogen that are reported in the table below are determined by subtracting the laboratory-reported nitrite concentrations from the laboratory-reported total concentrations of nitrates plus nitrites; the latter are designated as "Nitrogen, Nitrate/Nitrite" on the enclosed laboratory reports, which I have annotated for your convenience. Relevant standards are included below for comparison. Federal drinking water standards (i.e., Maximum Concentration Limits [MCLs]) are based on total analyte concentrations, whereas New Mexico Water Quality Control Commission (NMWQCC) ground water quality standards are based on dissolved concentrations.

The results for this sample show that your water from your well exceeds the Federal drinking water (MCL) and State standards for nitrate as nitrogen, and State and secondary Federal drinking water standards for sulfate and total dissolved solids (TDS).

Ms. C. Williams
RE: Analytical reports for water sample CW-20 and CW-209 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico
November 7, 2006

SAMPLE	Nitrate as nitrogen (mg/L)	Sulfate (mg/L)	TDS (mg/L)
Sample CW-20	27.056	686	1890
Sample CW-209	27.257	714	1870
EPA MCL	10.0	250 (a)	500 (a)
NMWQCC (b)	10.0	600	1000

MCL=Maximum Contaminant Limit (primary standard)
a. EPA Secondary Maximum Contaminant Level (MCL)
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

According to the Environmental Protection Agency (EPA), excessive levels of nitrate in drinking water have caused serious illness and sometimes death, and can be especially harmful to infants. Based on the exceedance of the primary drinking water standard for nitrates, NMED recommends that you do not drink or cook with your well water. You may choose to switch to bottled water or to install an appropriate water treatment system that removes nitrates, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of nitrates.

The secondary drinking water standards for sulfate and TDS are not health-based standards, and therefore the presence of these analytes only affects the aesthetic qualities of the water such as taste, color and odor. However, according to the Environmental Protection Agency (EPA), consumption of elevated levels of sulfate in drinking water may cause gastrointestinal problems such as diarrhea in susceptible populations such as infants and elderly. Consumption of elevated levels of TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheets for additional information pertaining to the effects of sulfate and TDS.

Please contact me at (505) 476-3777 if you have any questions or require additional information.

Sincerely,

David L. Mayerson
Superfund Oversight Section

Enclosures: Laboratory analytical report from Pinnacle Laboratory (2 pages)
Fact Sheets:
- Consumer Factsheet on nitrates/nitrites (EPA)
- Sulfate in Drinking Water (EPA)
- Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Ms. C. Williams
RE: Analytical reports for water sample CW-20 and CW-209 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico
November 7, 2006

Copies with enclosures:

Sai Appaji, Remedial Program Manager, EPA Region 6
Paul Michalak, Project Manager, U.S. Nuclear Regulatory Commission
Len Flowers, Chief, NMDOH Environmental Health Epidemiology Bureau

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling
HMC 2006 correspondence

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE
Albuquerque, New Mexico 87107

Report Date: August 15, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Client Sample ID: CW-20
Sample ID: 168350003
Matrix: Water
Collect Date: 01-AUG-06 10:55
Receive Date: 02-AUG-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis Federal											
EPA 150.1 pH Federal											
pH at Temp 16.4C	H	7.54	0.010	0.100	SU	1	LXW1	08/07/06	2349	556041	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO2,NO3,SO4,Cl											
Nitrite-N		0.244	0.033	0.100	mg/L	1	VH1	08/02/06	1746	554320	2
Chloride		102	0.660	2.00	mg/L	10	VH1	08/03/06	1901	554320	3
Sulfate		686	10.0	40.0	mg/L	100	VH1	08/03/06	2037	554320	4
Nutrient Analysis Federal											
Nitrogen, (NO3/NO2)											
Nitrogen, Nitrate/Nitrite		27.3	0.140	0.500	mg/L	10	KLP1	08/15/06	1245	556434	5
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		1890	2.38	10.0	mg/L		GXA2	08/04/06	1339	554951	6
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO3		247	0.725	1.00	mg/L		RG2	08/11/06	1508	557464	7
Bicarbonate alkalinity (CaCO3)		247	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO3)	J	0.785	0.725	1.00	mg/L						

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 150.1	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 353.1	
6	EPA 160.1	
7	SM 2320B	

27.3 Total nitrate + nitrite
− 0.244 nitrite
27.056 mg/L nitrate

11/07/2006

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Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE
Albuquerque, New Mexico 87107

Report Date: August 15, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Client Sample ID: CW-209
Sample ID: 168350004
Matrix: Water
Collect Date: 01-AUG-06 10:56
Receive Date: 02-AUG-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis Federal											
EPA 150.1 pH Federal											
pH at Temp 17.3C	H	7.56	0.010	0.100	SU	1	LXW1	08/07/06	2351	556041	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO2,NO3,SO4,Cl											
Nitrite-N		0.243	0.033	0.100	mg/L	1	VH1	08/02/06	1806	554320	2
Chloride		99.2	0.660	2.00	mg/L	10	VH1	08/03/06	1920	554320	3
Sulfate		714	10.0	40.0	mg/L	100	VH1	08/03/06	2056	554320	4
Nutrient Analysis Federal											
Nitrogen, (NO3/NO2)											
Nitrogen, Nitrate/Nitrite		27.5	0.140	0.500	mg/L	10	KLP1	08/15/06	1245	556434	5
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		1870	2.38	10.0	mg/L		GXA2	08/04/06	1339	554951	6
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO3		248	0.725	1.00	mg/L		RG2	08/11/06	1512	557464	7
Bicarbonate alkalinity (CaCO3)		248	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO3)	J	0.845	0.725	1.00	mg/L						

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 150.1	
2	EPA 300.0	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 353.1	
6	EPA 160.1	
7	SM 2320B	

27.5 Total nitrate + nitrite
− 0.243 Nitrite
27.257 mg/L nitrate

11/07/2006