

BILL RICHARDSON
GOVERNOR

**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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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Christy Morris
PO Box 3575
Milan, NM 87021

Subject: Analytical reports for water sample RW-19 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935), Milan, New Mexico.

Dear Ms. Morris:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical reports for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-19". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 standard (MCL) for total selenium, secondary Federal drinking water standards for total aluminum and iron, and State and secondary Federal drinking water

Ms. C. Morris

RE: Analytical reports for water sample RW-19 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

standards for sulfate and total dissolved solids (TDS).

SAMPLE	Sulfate (mg/L)	TDS (mg/L)	Total aluminum (mg/L)	Total iron (mg/L)	Total manganese (mg/L)	Total selenium (mg/L)
Sample RW-19	683	1370	1.34	1.79	1.37	0.062
EPA MCL	250 (a)	500 (a)	0.05 - 0.2 (a)	0.3 (a)	0.05 (a)	0.05
NMWQCC (b)	600	1000	None	None	None	None

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

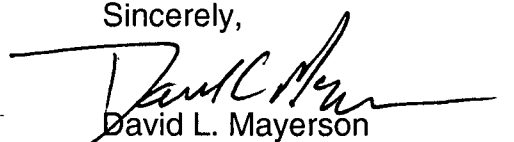
According to the Agency for Toxic Substances and Disease Registry (ATSDR), selenium in trace amounts is necessary for good health, but can be harmful in high concentrations. Based on the exceedance of the primary drinking water standard for selenium, NMED recommends that you do not drink or cook with your well water. You may choose to switch to bottled water or to install an appropriate water treatment system that removes selenium, such as reverse osmosis. Please review the enclosed fact sheets for additional information pertaining to the health effects of selenium.

The secondary drinking water standards for aluminum, iron, manganese, 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 ATSDR, exposure to high concentrations of aluminum and manganese may be harmful. 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 aluminum, iron, manganese, sulfate, and TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,


David L. Mayerson
Superfund Oversight Section

Ms. C. Morris

RE: Analytical reports for water sample RW-19 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Enclosures: Laboratory analytical report from Energy Laboratories (2 pages)

Fact Sheets:

ToxFAQs™ for aluminum (ATSDR)

ToxFAQs™ for manganese (ATSDR)

ToxFAQs™ for selenium (ATSDR)

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Sulfate in Drinking Water (EPA)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-002
Client Sample ID: RW-19

Report Date: 06/06/06
Collection Date: 05/02/06 14:50
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	1.34	mg/L		0.001		E200.8	05/04/06 17:12 / sml
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 17:12 / sml
124 Barium	0.043	mg/L		0.001		E200.8	05/04/06 17:12 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 17:12 / sml
101 Calcium	177	mg/L		0.5		E200.7	05/12/06 15:32 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 17:12 / sml
128 Cobalt	0.002	mg/L		0.001		E200.8	05/04/06 17:12 / sml
129 Copper	0.033	mg/L		0.001		E200.8	05/04/06 17:12 / sml
121 Iron	1.79	mg/L		0.01		E200.7	05/12/06 15:32 / ts
133 Lead	0.018	mg/L		0.001		E200.8	05/04/06 17:12 / sml
102 Magnesium	42.3	mg/L		0.5		E200.7	05/12/06 15:32 / ts
134 Manganese	1.37	mg/L		0.001		E200.8	05/04/06 17:12 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 17:12 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 17:12 / sml
137 Nickel	0.003	mg/L		0.001		E200.8	05/04/06 17:12 / sml
103 Potassium	4.2	mg/L		0.5		E200.7	05/12/06 15:32 / ts
140 Selenium	0.062	mg/L		0.001		E200.8	05/04/06 17:12 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 17:12 / sml
104 Sodium	216	mg/L		0.5		E200.7	05/12/06 15:32 / ts
115 Uranium	0.0228	mg/L		0.0003		E200.8	05/04/06 17:12 / sml
142 Vanadium	0.005	mg/L		0.001		E200.8	05/04/06 17:12 / sml
143 Zinc	0.433	mg/L		0.001		E200.8	05/04/06 17:12 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 11:52 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	2.07	%				Calculation	05/15/06 11:43 / cp
194 Anions	21.2	meq/L				Calculation	05/15/06 11:43 / cp
195 Cations	22.1	meq/L				Calculation	05/15/06 11:43 / cp
079 Solids, Total Dissolved Calculated	1360	mg/L				Calculation	05/15/06 11:43 / cp
200 TDS Balance (0.80 - 1.20)	1.01	dec. %				Calculation	05/15/06 11:43 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-002
Client Sample ID: RW-19

Report Date: 06/06/06
Collection Date: 05/02/06 14:50
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	265	mg/L		1		A2320 B	05/11/06 11:30 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 11:30 / th
005 Bicarbonate as HCO3	323	mg/L		1		A2320 B	05/11/06 11:30 / th
007 Chloride	76	mg/L		1		A4500-Cl B	05/04/06 15:20 / jl
139 Nitrogen, Nitrate as N	1.0	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	05/04/06 10:13 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:22 / jal
008 Sulfate	683	mg/L	D	30		A4500-SO4 E	05/09/06 16:27 / th
PHYSICAL PROPERTIES							
009 pH	7.97	s.u.		0.01		A4500-H B	05/04/06 13:53 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1370	mg/L		10		A2540 C	05/05/06 14:55 / jdh
METALS - DISSOLVED							
022 Aluminum	0.026	mg/L		0.001		E200.8	05/05/06 03:20 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
024 Barium	0.015	mg/L		0.001		E200.8	05/05/06 03:20 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
001 Calcium	170	mg/L		0.5		E200.7	05/10/06 16:37 / ts
027 Chromium	<0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
028 Cobalt	0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
029 Copper	0.002	mg/L		0.001		E200.8	05/05/06 03:20 / bws
032 Iron	0.04	mg/L		0.01		E200.7	05/10/06 16:37 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
002 Magnesium	43.3	mg/L		0.5		E200.7	05/10/06 16:37 / ts
034 Manganese	0.453	mg/L		0.001		E200.8	05/05/06 03:20 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 03:20 / bws
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/05/06 03:20 / bws
037 Nickel	0.002	mg/L		0.001		E200.8	05/05/06 03:20 / bws
003 Potassium	5.0	mg/L		0.5		E200.7	05/10/06 16:37 / ts
040 Selenium	0.063	mg/L		0.001		E200.8	05/05/06 03:20 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
004 Sodium	218	mg/L		0.5		E200.7	05/10/06 16:37 / ts
015 Uranium	0.0202	mg/L		0.0003		E200.8	05/05/06 03:20 / bws
042 Vanadium	0.001	mg/L		0.001		E200.8	05/05/06 03:20 / bws
043 Zinc	0.081	mg/L		0.001		E200.8	05/05/06 03:20 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Ms. Elizabeth Dobbs
4200 San Mateo Road
Grants, NM 87020

Subject: Analytical report for water sample RW-47 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Dobbs:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-47". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the secondary Federal drinking water standard for total dissolved solids (TDS).

Ms. E. Dobbs

RE: Analytical reports for water sample RW-47 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	TDS (mg/L)
Sample RW-47	658
EPA MCL	500 (a)
NMWQCC (b)	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

The secondary drinking water standard for TDS is not a health-based standard, and therefore the presence of this analyte only affects the aesthetic qualities of the water such as taste, color and odor. According to the Environmental Protection Agency (EPA), consumption of elevated levels of TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheet for additional information pertaining to the effects of TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

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

Ms. E. Dobbs

RE: Analytical reports for water sample RW-47 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-009
Client Sample ID: RW-47

Report Date: 06/06/06
Collection Date: 05/02/06 09:40
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.021	mg/L		0.001		E200.8	05/09/06 03:14 / bws
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 20:59 / sml
124 Barium	0.017	mg/L		0.001		E200.8	05/04/06 20:59 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 20:59 / sml
101 Calcium	7.4	mg/L		0.5		E200.7	05/12/06 16:12 / ts
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 20:59 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 20:59 / sml
129 Copper	0.002	mg/L		0.001		E200.8	05/04/06 20:59 / sml
121 Iron	0.01	mg/L		0.01		E200.7	05/12/06 16:12 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 20:59 / sml
102 Magnesium	2.2	mg/L		0.5		E200.7	05/12/06 16:12 / ts
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 20:59 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 20:59 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/04/06 20:59 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 20:59 / sml
103 Potassium	1.7	mg/L		0.5		E200.7	05/12/06 16:12 / ts
140 Selenium	0.012	mg/L		0.001		E200.8	05/04/06 20:59 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 20:59 / sml
104 Sodium	228	mg/L		0.5		E200.7	05/12/06 16:12 / ts
115 Uranium	0.0166	mg/L		0.0003		E200.8	05/04/06 20:59 / sml
142 Vanadium	0.013	mg/L		0.001		E200.8	05/04/06 20:59 / sml
143 Zinc	0.006	mg/L		0.001		E200.8	05/04/06 20:59 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 18:55 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 13:44 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.67	%				Calculation	05/15/06 11:45 / cp
194 Anions	10.9	meq/L				Calculation	05/15/06 11:45 / cp
195 Cations	10.5	meq/L				Calculation	05/15/06 11:45 / cp
079 Solids, Total Dissolved Calculated	670	mg/L				Calculation	05/15/06 11:45 / cp
200 TDS Balance (0.80 - 1.20)	0.980	dec. %				Calculation	05/15/06 11:45 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-009
Client Sample ID: RW-47

Report Date: 06/06/06
Collection Date: 05/02/06 09:40
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
075 Alkalinity, Total as CaCO3	255	mg/L		1		A2320 B	05/11/06 12:40 / th
006 Carbonate as CO3	6	mg/L		1		A2320 B	05/11/06 12:40 / th
005 Bicarbonate as HCO3	301	mg/L		1		A2320 B	05/11/06 12:40 / th
007 Chloride	48	mg/L		1		A4500-Cl B	05/04/06 15:36 / jl
139 Nitrogen, Nitrate as N	1.5	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.5	mg/L		0.1		E353.2	05/04/06 10:38 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:23 / jal
008 Sulfate	222	mg/L	D	6		A4500-SO4 E	05/09/06 16:57 / th
PHYSICAL PROPERTIES							
009 pH	8.56	s.u.		0.01		A4500-H B	05/04/06 14:11 / jdh
010 Solids, Total Dissolved TDS @ 180 C	658	mg/L		10		A2540 C	05/05/06 14:57 / jdh
METALS - DISSOLVED							
022 Aluminum	0.003	mg/L		0.001		E200.8	05/05/06 05:18 / bws
023 Arsenic	0.002	mg/L		0.001		E200.8	05/05/06 05:18 / bws
024 Barium	0.016	mg/L		0.001		E200.8	05/05/06 05:18 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
001 Calcium	7.6	mg/L		0.5		E200.7	05/12/06 15:06 / ts
027 Chromium	0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
029 Copper	0.002	mg/L		0.001		E200.8	05/05/06 05:18 / bws
032 Iron	<0.01	mg/L		0.01		E200.7	05/12/06 15:06 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
002 Magnesium	2.3	mg/L		0.5		E200.7	05/12/06 15:06 / ts
034 Manganese	<0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 05:18 / bws
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/05/06 05:18 / bws
037 Nickel	<0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
003 Potassium	1.9	mg/L		0.5		E200.7	05/12/06 15:06 / ts
040 Selenium	0.011	mg/L		0.001		E200.8	05/05/06 05:18 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 05:18 / bws
004 Sodium	236	mg/L		0.5		E200.7	05/12/06 15:06 / ts
015 Uranium	0.0155	mg/L		0.0003		E200.8	05/05/06 05:18 / bws
042 Vanadium	0.013	mg/L		0.001		E200.8	05/05/06 05:18 / bws
043 Zinc	0.003	mg/L		0.001		E200.8	05/05/06 05:18 / bws

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Fidel and Ms. Leticia Edwinas
1901 E. Santa Fe Avenue
Grants, NM 87020

Subject: Analytical reports for water samples RW-36A and RW-36B collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935), Milan, New Mexico.

Dear Mr. and Ms. Edwinas:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical reports for the water samples collected from your well on May 1, 2006. For tracking purposes, the samples from your well were designated as "RW-36A" and RW-36B. Sample RW-36A was collected very early in the sampling process, while sample RW-36B was collected after the water had run for several minutes. The samples were analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

Analytical results that do exceed applicable standards are summarized below. 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 these samples show that the late sample of water from your well exceeds the State and secondary Federal drinking water standards for sulfate and total dissolved

Mr. and Ms. Edwinas

RE: Analytical reports for water samples RW-36A and RW-36B collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

solids (TDS). Additionally, both samples indicate that your well water exceeds secondary Federal drinking water standards for aluminum, iron, and manganese.

SAMPLE	Sulfate (mg/L)	TDS (mg/L)	Total aluminum (mg/L)	Total iron (mg/L)	Total manganese (mg/L)
Sample RW-36A	149 (no exceedance)	380 (no exceedance)	2.96	15.0	0.096
Sample RW-36B	299	710	5.20	7.61	0.373
EPA MCL	250 (a)	500 (a)	0.05 – 0.2 (a)	0.3 (a)	0.05 (a)
NMWQCC (b)	600	1000	None	None	None

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

The secondary drinking water standards for sulfate, TDS, aluminum, iron, and manganese 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as orange staining. According to the Agency for Toxic Substances and Disease Registry (ATSDR), consumption of aluminum usually has no harmful effects, except in very high quantities. Consumption of manganese also usually has no harmful effects, except in very high quantities over a long period of time. Please review the enclosed fact sheets for additional information pertaining to the effects of sulfate, TDS, aluminum, iron, and manganese.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and Agency for Toxic Substances and Disease Registry (ATSDR) to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Mr. and Ms. Edwinas

RE: Analytical reports for water samples RW-36A and RW-36B collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Sincerely,



David L. Mayerson
Superfund Oversight Section

Enclosures: Laboratory analytical report from Energy Laboratories (4 pages)

Fact Sheets:

ToxFAQs™ for Aluminum (ATSDR)

ToxFAQs™ for Manganese (ATSDR)

Sulfate in Drinking Water (EPA)

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-012
Client Sample ID: RW-36A

Report Date: 06/06/06
Collection Date: 05/01/06 09:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	121	mg/L		1		A2320 B	05/08/06 10:50 / th
006 Carbonate as CO3	2	mg/L		1		A2320 B	05/08/06 10:50 / th
005 Bicarbonate as HCO3	144	mg/L		1		A2320 B	05/08/06 10:50 / th
007 Chloride	37	mg/L		1		A4500-Cl B	05/02/06 13:55 / jl
139 Nitrogen, Nitrate as N	0.7	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	0.7	mg/L		0.1		E353.2	05/02/06 15:30 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:20 / jal
008 Sulfate	149	mg/L	D	6		A4500-SO4 E	05/08/06 15:54 / th
PHYSICAL PROPERTIES							
009 pH	8.45	s.u.		0.01		A4500-H B	05/03/06 14:49 / jdh
010 Solids, Total Dissolved TDS @ 180 C	380	mg/L		10		A2540 C	05/03/06 16:55 / jdh
METALS - DISSOLVED							
022 Aluminum	0.006	mg/L		0.001		E200.8	05/03/06 17:59 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
024 Barium	0.017	mg/L		0.001		E200.8	05/03/06 17:59 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
001 Calcium	27.5	mg/L		0.5		E200.7	05/16/06 14:12 / cp
027 Chromium	0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
032 Iron	0.02	mg/L		0.01		E200.7	05/16/06 14:12 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
002 Magnesium	13.8	mg/L		0.5		E200.7	05/16/06 14:12 / cp
034 Manganese	0.018	mg/L		0.001		E200.8	05/03/06 17:59 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 17:59 / sml
036 Molybdenum	0.007	mg/L		0.001		E200.8	05/03/06 17:59 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
003 Potassium	3.4	mg/L		0.5		E200.7	05/16/06 14:12 / cp
040 Selenium	0.002	mg/L		0.001		E200.8	05/03/06 17:59 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 17:59 / sml
004 Sodium	85.1	mg/L		0.5		E200.7	05/16/06 14:12 / cp
015 Uranium	0.0014	mg/L		0.0003		E200.8	05/03/06 17:59 / sml
042 Vanadium	0.002	mg/L		0.001		E200.8	05/03/06 17:59 / sml
043 Zinc	0.005	mg/L		0.001		E200.8	05/03/06 17:59 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-012
Client Sample ID: RW-36A

Report Date: 06/06/06
Collection Date: 05/01/06 09:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	2.96	mg/L		0.001		E200.8	05/04/06 19:25 / sml
119 Arsenic	0.008	mg/L		0.001		E200.8	05/04/06 19:25 / sml
124 Barium	0.063	mg/L		0.001		E200.8	05/04/06 19:25 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 19:25 / sml
101 Calcium	25.1	mg/L		0.5		E200.7	05/16/06 15:44 / cp
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 19:25 / sml
128 Cobalt	0.001	mg/L		0.001		E200.8	05/04/06 19:25 / sml
129 Copper	0.007	mg/L		0.001		E200.8	05/04/06 19:25 / sml
121 Iron	15.0	mg/L		0.01		E200.7	05/16/06 15:44 / cp
133 Lead	0.020	mg/L		0.001		E200.8	05/04/06 19:25 / sml
102 Magnesium	7.4	mg/L		0.5		E200.7	05/16/06 15:44 / cp
134 Manganese	0.096	mg/L		0.001		E200.8	05/04/06 19:25 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 19:25 / sml
136 Molybdenum	0.013	mg/L		0.001		E200.8	05/04/06 19:25 / sml
137 Nickel	0.003	mg/L		0.001		E200.8	05/04/06 19:25 / sml
103 Potassium	4.8	mg/L		0.5		E200.7	05/16/06 15:44 / cp
140 Selenium	<0.001	mg/L		0.001		E200.8	05/04/06 19:25 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 19:25 / sml
104 Sodium	75.2	mg/L		0.5		E200.7	05/16/06 15:44 / cp
115 Uranium	0.0007	mg/L		0.0003		E200.8	05/04/06 19:25 / sml
142 Vanadium	0.007	mg/L		0.001		E200.8	05/04/06 19:25 / sml
143 Zinc	0.299	mg/L		0.001		E200.8	05/04/06 19:25 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
245 Radium 226 precision (±)	0.4	pCi/L				E903.0	05/22/06 16:16 / trs
057 Radium 228	1.9	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-4.33	%				Calculation	05/17/06 12:57 / cp
194 Anions	6.86	meq/L				Calculation	05/17/06 12:57 / cp
195 Cations	6.29	meq/L				Calculation	05/17/06 12:57 / cp
079 Solids, Total Dissolved Calculated	400	mg/L				Calculation	05/17/06 12:57 / cp
200 TDS Balance (0.80 - 1.20)	0.950	dec. %				Calculation	05/17/06 12:57 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050089-013

Client Sample ID: RW-36B

Report Date: 06/06/06

Collection Date: 05/01/06 09:50

Date Received: 05/02/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	220	mg/L		1		A2320 B	05/08/06 10:54 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:54 / th
005 Bicarbonate as HCO3	268	mg/L		1		A2320 B	05/08/06 10:54 / th
007 Chloride	47	mg/L		1		A4500-Cl B	05/02/06 13:55 / jl
139 Nitrogen, Nitrate as N	3.1	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	3.2	mg/L		0.1		E353.2	05/02/06 15:32 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:20 / jal
008 Sulfate	299	mg/L	D	6		A4500-SO4 E	05/08/06 15:55 / th
PHYSICAL PROPERTIES							
009 pH	7.74	s.u.		0.01		A4500-H B	05/03/06 14:51 / jdH
010 Solids, Total Dissolved TDS @ 180 C	710	mg/L		10		A2540 C	05/03/06 16:56 / jdH
METALS - DISSOLVED							
022 Aluminum	0.006	mg/L		0.001		E200.8	05/03/06 18:06 / sml
023 Arsenic	0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
024 Barium	0.089	mg/L		0.001		E200.8	05/03/06 18:06 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
001 Calcium	96.4	mg/L		0.5		E200.7	05/16/06 14:15 / cp
027 Chromium	0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
028 Cobalt	0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
032 Iron	0.01	mg/L		0.01		E200.7	05/16/06 14:15 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
002 Magnesium	32.6	mg/L		0.5		E200.7	05/16/06 14:15 / cp
034 Manganese	0.301	mg/L		0.001		E200.8	05/03/06 18:06 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 18:06 / sml
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/03/06 18:06 / sml
037 Nickel	0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
003 Potassium	4.0	mg/L		0.5		E200.7	05/16/06 14:15 / cp
040 Selenium	0.010	mg/L		0.001		E200.8	05/03/06 18:06 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 18:06 / sml
004 Sodium	86.0	mg/L		0.5		E200.7	05/16/06 14:15 / cp
015 Uranium	0.0081	mg/L		0.0003		E200.8	05/03/06 18:06 / sml
042 Vanadium	0.003	mg/L		0.001		E200.8	05/03/06 18:06 / sml
043 Zinc	0.003	mg/L		0.001		E200.8	05/03/06 18:06 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050089-013

Client Sample ID: RW-36B

Report Date: 06/06/06

Collection Date: 05/01/06 09:50

Date Received: 05/02/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	5.20	mg/L		0.001		E200.8	05/04/06 19:32 / sml
119 Arsenic	0.007	mg/L		0.001		E200.8	05/04/06 19:32 / sml
124 Barium	0.132	mg/L		0.001		E200.8	05/04/06 19:32 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 19:32 / sml
101 Calcium	98.2	mg/L		0.5		E200.7	05/16/06 16:07 / cp
120 Chromium	0.004	mg/L		0.001		E200.8	05/04/06 19:32 / sml
128 Cobalt	0.003	mg/L		0.001		E200.8	05/04/06 19:32 / sml
129 Copper	0.009	mg/L		0.001		E200.8	05/04/06 19:32 / sml
121 Iron	7.61	mg/L		0.01		E200.7	05/16/06 16:07 / cp
133 Lead	0.006	mg/L		0.001		E200.8	05/04/06 19:32 / sml
102 Magnesium	33.6	mg/L		0.5		E200.7	05/16/06 16:07 / cp
134 Manganese	0.373	mg/L		0.001		E200.8	05/04/06 19:32 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 19:32 / sml
136 Molybdenum	0.001	mg/L		0.001		E200.8	05/04/06 19:32 / sml
137 Nickel	0.006	mg/L		0.001		E200.8	05/04/06 19:32 / sml
103 Potassium	4.9	mg/L		0.5		E200.7	05/16/06 16:07 / cp
140 Selenium	0.009	mg/L		0.001		E200.8	05/04/06 19:32 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 19:32 / sml
104 Sodium	86.9	mg/L		0.5		E200.7	05/16/06 16:07 / cp
115 Uranium	0.0090	mg/L		0.0003		E200.8	05/04/06 19:32 / sml
142 Vanadium	0.011	mg/L		0.001		E200.8	05/04/06 19:32 / sml
143 Zinc	0.096	mg/L		0.001		E200.8	05/04/06 19:32 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	1.6	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
245 Radium 226 precision (±)	0.6	pCi/L				E903.0	05/22/06 16:16 / trs
057 Radium 228	1.6	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-2.20	%				Calculation	05/17/06 12:58 / cp
194 Anions	11.9	meq/L				Calculation	05/17/06 12:58 / cp
195 Cations	11.4	meq/L				Calculation	05/17/06 12:58 / cp
079 Solids, Total Dissolved Calculated	693	mg/L				Calculation	05/17/06 12:58 / cp
200 TDS Balance (0.80 - 1.20)	1.02	dec. %				Calculation	05/17/06 12:58 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Andy Hendrix
PO Box 31
Grants, NM 87020

Subject: Analytical reports for water sample RW-34 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935), Milan, New Mexico.

Dear Mr. Hendrix:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical reports for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-34". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

Analytical results that do exceed applicable standards are summarized below. 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 secondary Federal drinking water standards for sulfate and total dissolved solids (TDS).

Mr. A. Hendrix

RE: Analytical reports for water sample RW-34 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)
Sample RW-34	253	814
EPA MCL	250 (a)	500 (a)
NMWQCC (b)	600	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

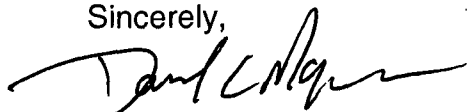
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

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.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and Agency for Toxic Substances and Disease Registry (ATSDR) to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Laboratories (2 pages)

Fact Sheets:

Sulfate in Drinking Water (EPA)

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Copies with enclosures:

Sai Appaji, Remedial Program Manager, EPA Region 6

Paul Michalak, Project Manager, U.S. Nuclear Regulatory Commission

Mr. A. Hendrix

RE: Analytical reports for water sample RW-34 collected by New Mexico Environment
Department (NMED) from private well near the Homestake Mining Company site (EPA
ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Len Flowers, Chief, NMDOH Environmental Health Epidemiology Bureau

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-013
Client Sample ID: RW-34

Report Date: 06/06/06
Collection Date: 05/02/06 10:20
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	279	mg/L		1		A2320 B	05/11/06 12:47 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 12:47 / th
005 Bicarbonate as HCO3	340	mg/L		1		A2320 B	05/11/06 12:47 / th
007 Chloride	34	mg/L		1		A4500-Cl B	05/04/06 15:43 / jl
139 Nitrogen, Nitrate as N	4.6	mg/L		0.1		E353.2	05/05/06 08:49 / sec
039 Nitrogen, Nitrate+Nitrite as N	4.6	mg/L	D	0.2		E353.2	05/04/06 10:53 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:24 / jal
008 Sulfate	253	mg/L	D	30		A4500-SO4 E	05/09/06 17:02 / th
PHYSICAL PROPERTIES							
009 pH	7.87	s.u.		0.01		A4500-H B	05/04/06 14:20 / jdh
010 Solids, Total Dissolved TDS @ 180 C	814	mg/L		10		A2540 C	05/05/06 15:01 / jdh
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
023 Arsenic	0.002	mg/L		0.001		E200.8	05/05/06 05:54 / bws
024 Barium	0.037	mg/L		0.001		E200.8	05/05/06 05:54 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
001 Calcium	154	mg/L		0.5		E200.7	05/12/06 15:19 / ts
027 Chromium	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
029 Copper	0.002	mg/L		0.001		E200.8	05/05/06 05:54 / bws
032 Iron	<0.01	mg/L		0.01		E200.7	05/12/06 15:19 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
002 Magnesium	42.6	mg/L		0.5		E200.7	05/12/06 15:19 / ts
034 Manganese	0.003	mg/L		0.001		E200.8	05/05/06 05:54 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 05:54 / bws
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
037 Nickel	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
003 Potassium	3.4	mg/L		0.5		E200.7	05/12/06 15:19 / ts
040 Selenium	0.013	mg/L		0.001		E200.8	05/05/06 05:54 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 05:54 / bws
004 Sodium	59.6	mg/L		0.5		E200.7	05/12/06 15:19 / ts
015 Uranium	0.0092	mg/L		0.0003		E200.8	05/05/06 05:54 / bws
042 Vanadium	0.003	mg/L		0.001		E200.8	05/05/06 05:54 / bws
043 Zinc	0.014	mg/L		0.001		E200.8	05/05/06 05:54 / bws

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
D - RL Increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

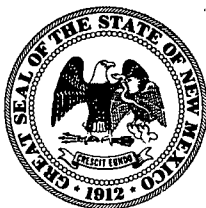
Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-013
Client Sample ID: RW-34

Report Date: 06/06/06
Collection Date: 05/02/06 10:20
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	<0.001	mg/L		0.001		E200.8	05/09/06 03:51 / bws
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 21:59 / sml
124 Barium	0.040	mg/L		0.001		E200.8	05/04/06 21:59 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
101 Calcium	151	mg/L		0.5		E200.7	05/12/06 16:34 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
129 Copper	0.002	mg/L		0.001		E200.8	05/04/06 21:59 / sml
121 Iron	0.06	mg/L		0.01		E200.7	05/12/06 16:34 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
102 Magnesium	41.6	mg/L		0.5		E200.7	05/12/06 16:34 / ts
134 Manganese	0.003	mg/L		0.001		E200.8	05/04/06 21:59 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 21:59 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
137 Nickel	0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
103 Potassium	3.3	mg/L		0.5		E200.7	05/12/06 16:34 / ts
140 Selenium	0.012	mg/L		0.001		E200.8	05/04/06 21:59 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 21:59 / sml
104 Sodium	58.9	mg/L		0.5		E200.7	05/12/06 16:34 / ts
115 Uranium	0.0100	mg/L		0.0003		E200.8	05/04/06 21:59 / sml
142 Vanadium	0.004	mg/L		0.001		E200.8	05/04/06 21:59 / sml
143 Zinc	0.010	mg/L		0.001		E200.8	05/04/06 21:59 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 22:56 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 13:44 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.760	%				Calculation	05/15/06 11:47 / cp
194 Anions	13.4	meq/L				Calculation	05/15/06 11:47 / cp
195 Cations	13.6	meq/L				Calculation	05/15/06 11:47 / cp
079 Solids, Total Dissolved Calculated	820	mg/L				Calculation	05/15/06 11:47 / cp
200 TDS Balance (0.80 - 1.20)	0.990	dec. %				Calculation	05/15/06 11:47 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Aaron Dean
P.O. Box 3001
Milan, NM 87021

Subject: Analytical report for water sample RW-9 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Dean:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 3, 2006. For tracking purposes, the sample from your well was designated as "RW-9". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the secondary Federal drinking water standards for sulfate and total dissolved solids (TDS).

Mr. A. Dean

RE: Analytical reports for water sample RW-9 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

November 1, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)
Sample RW-9	323	852
EPA MCL	250 (a)	500 (a)
NMWQCC (b)	600	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

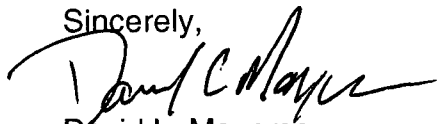
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Sulfate in Drinking Water (EPA)

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

Mr. A. Dean

RE: Analytical reports for water sample RW-9 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-002
Client Sample ID: RW-9

Report Date: 06/06/06
Collection Date: 05/03/06 08:25
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	215	mg/L		1		A2320 B	05/11/06 13:27 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 13:27 / th
005 Bicarbonate as HCO3	262	mg/L		1		A2320 B	05/11/06 13:27 / th
007 Chloride	91	mg/L		1		A4500-Cl B	05/08/06 13:01 / jl
139 Nitrogen, Nitrate as N	7.5	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	7.5	mg/L	D	0.2		E353.2	05/05/06 10:12 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:57 / jal
008 Sulfate	323	mg/L	D	6		A4500-SO4 E	05/10/06 10:28 / th
PHYSICAL PROPERTIES							
009 pH	7.93	s.u.		0.01		A4500-H B	05/05/06 12:09 / jdh
010 Solids, Total Dissolved TDS @ 180 C	852	mg/L		10		A2540 C	05/05/06 15:08 / jdh
METALS - DISSOLVED							
022 Aluminum	0.002	mg/L		0.001		E200.8	05/08/06 17:12 / sml
023 Arsenic	0.002	mg/L		0.001		E200.8	05/08/06 17:12 / sml
024 Barium	0.040	mg/L		0.001		E200.8	05/08/06 17:12 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
001 Calcium	129	mg/L		0.5		E200.7	05/17/06 15:07 / cp
027 Chromium	<0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
029 Copper	0.002	mg/L		0.001		E200.8	05/08/06 17:12 / sml
032 Iron	0.08	mg/L		0.01		E200.7	05/17/06 15:07 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
002 Magnesium	34.0	mg/L		0.5		E200.7	05/17/06 15:07 / cp
034 Manganese	0.004	mg/L		0.001		E200.8	05/08/06 17:12 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 17:12 / sml
036 Molybdenum	0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
003 Potassium	3.0	mg/L		0.5		E200.7	05/17/06 15:07 / cp
040 Selenium	0.026	mg/L		0.001		E200.8	05/08/06 17:12 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 17:12 / sml
004 Sodium	104	mg/L		0.5		E200.7	05/17/06 15:07 / cp
015 Uranium	0.0111	mg/L		0.0003		E200.8	05/08/06 17:12 / sml
042 Vanadium	0.005	mg/L		0.001		E200.8	05/08/06 17:12 / sml
043 Zinc	0.040	mg/L		0.001		E200.8	05/08/06 17:12 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-002
Client Sample ID: RW-9

Report Date: 06/06/06
Collection Date: 05/03/06 08:25
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.004	mg/L		0.001		E200.8	05/08/06 17:18 / sml
119 Arsenic	0.002	mg/L		0.001		E200.8	05/08/06 17:18 / sml
124 Barium	0.040	mg/L		0.001		E200.8	05/08/06 17:18 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 17:18 / sml
101 Calcium	123	mg/L		0.5		E200.7	05/17/06 16:10 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/08/06 17:18 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 17:18 / sml
129 Copper	0.002	mg/L		0.001		E200.8	05/08/06 17:18 / sml
121 Iron	0.19	mg/L		0.01		E200.7	05/17/06 16:10 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 17:18 / sml
102 Magnesium	32.5	mg/L		0.5		E200.7	05/17/06 16:10 / cp
134 Manganese	0.006	mg/L		0.001		E200.8	05/08/06 17:18 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 17:18 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/08/06 17:18 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 17:18 / sml
103 Potassium	3.0	mg/L		0.5		E200.7	05/17/06 16:10 / cp
140 Selenium	0.025	mg/L		0.001		E200.8	05/08/06 17:18 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 17:18 / sml
104 Sodium	103	mg/L		0.5		E200.7	05/17/06 16:10 / cp
115 Uranium	0.0109	mg/L		0.0003		E200.8	05/08/06 17:18 / sml
142 Vanadium	0.005	mg/L		0.001		E200.8	05/08/06 17:18 / sml
143 Zinc	0.050	mg/L		0.001		E200.8	05/08/06 17:18 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 12:11 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.83	%				Calculation	05/18/06 15:48 / cp
194 Anions	14.3	meq/L				Calculation	05/18/06 15:48 / cp
195 Cations	13.8	meq/L				Calculation	05/18/06 15:48 / cp
079 Solids, Total Dissolved Calculated	853	mg/L				Calculation	05/18/06 15:48 / cp
200 TDS Balance (0.80 - 1.20)	1.00	dec. %				Calculation	05/18/06 15:48 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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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Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Lewis and Bonnie Bennet
4293 San Mateo Rd.
Grants, NM 87020

Subject: Analytical report for water sample RW-11 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. and Ms. Bennet:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-11". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal drinking water standards for sulfate, total aluminum, and total iron, and both the secondary Federal and State drinking water standards for total dissolved solids (TDS).

Mr. and Ms. Bennet

RE: Analytical reports for water sample RW-11 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)	Total aluminum (mg/L)	Total iron (mg/L)
Sample RW-11	297	1010	0.157	1.02
EPA MCL	250 (a)	500 (a)	0.05 – 0.2 (a)	0.3 (a)
NMWQCC (b)	600	1000	None	None

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

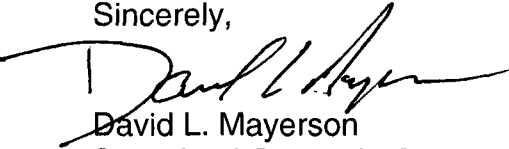
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

The secondary drinking water standards for sulfate, TDS, iron, and aluminum 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as orange staining. According to the Agency for Toxic Substances and Disease Registry (ATSDR), consumption of aluminum usually has no harmful effects, except in very high quantities. Please review the enclosed fact sheets for additional information pertaining to the effects of sulfate, TDS, aluminum, and iron.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)
Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

ToxFAQs™ for Aluminum (ATSDR)

Sulfate in Drinking Water (EPA)

Mr. and Ms. Bennet

RE: Analytical reports for water sample RW-11 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-006
Client Sample ID: RW-11

Report Date: 06/06/06
Collection Date: 05/02/06 09:20
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	379	mg/L		1		A2320 B	05/11/06 11:42 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 11:42 / th
005 Bicarbonate as HCO3	462	mg/L		1		A2320 B	05/11/06 11:42 / th
007 Chloride	83	mg/L		1		A4500-Cl B	05/04/06 15:24 / jl
139 Nitrogen, Nitrate as N	1.3	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.3	mg/L		0.1		E353.2	05/04/06 10:30 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:23 / jal
008 Sulfate	297	mg/L	D	30		A4500-SO4 E	05/09/06 16:38 / th
PHYSICAL PROPERTIES							
009 pH	7.77	s.u.		0.01		A4500-H B	05/04/06 14:06 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1010	mg/L		10		A2540 C	05/05/06 14:56 / jdh
METALS - DISSOLVED							
022 Aluminum	0.004	mg/L		0.001		E200.8	05/05/06 04:12 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
024 Barium	0.015	mg/L		0.001		E200.8	05/05/06 04:12 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
001 Calcium	113	mg/L		0.5		E200.7	05/12/06 13:52 / ts
027 Chromium	<0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
029 Copper	0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
032 Iron	0.44	mg/L		0.01		E200.7	05/12/06 13:52 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
002 Magnesium	34.4	mg/L		0.5		E200.7	05/12/06 13:52 / ts
034 Manganese	0.004	mg/L		0.001		E200.8	05/05/06 04:12 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 04:12 / bws
036 Molybdenum	0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
037 Nickel	0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
003 Potassium	3.7	mg/L		0.5		E200.7	05/12/06 13:52 / ts
040 Selenium	0.018	mg/L		0.001		E200.8	05/05/06 04:12 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 04:12 / bws
004 Sodium	198	mg/L		0.5		E200.7	05/12/06 13:52 / ts
015 Uranium	0.0151	mg/L		0.0003		E200.8	05/05/06 04:12 / bws
042 Vanadium	0.005	mg/L		0.001		E200.8	05/05/06 04:12 / bws
043 Zinc	0.013	mg/L		0.001		E200.8	05/05/06 04:12 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-006
Client Sample ID: RW-11

Report Date: 06/06/06
Collection Date: 05/02/06 09:20
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.157	mg/L		0.001		E200.8	05/04/06 17:25 / sml
119 Arsenic	0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
124 Barium	0.018	mg/L		0.001		E200.8	05/04/06 17:25 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
101 Calcium	114	mg/L		0.5		E200.7	05/12/06 15:55 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
129 Copper	0.002	mg/L		0.001		E200.8	05/04/06 17:25 / sml
121 Iron	1.02	mg/L		0.01		E200.7	05/12/06 15:55 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
102 Magnesium	34.3	mg/L		0.5		E200.7	05/12/06 15:55 / ts
134 Manganese	0.010	mg/L		0.001		E200.8	05/04/06 17:25 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 17:25 / sml
136 Molybdenum	0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 17:25 / sml
103 Potassium	3.2	mg/L		0.5		E200.7	05/12/06 15:55 / ts
140 Selenium	0.017	mg/L		0.001		E200.8	05/04/06 17:25 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 17:25 / sml
104 Sodium	193	mg/L		0.5		E200.7	05/12/06 15:55 / ts
115 Uranium	0.0155	mg/L		0.0003		E200.8	05/04/06 17:25 / sml
142 Vanadium	0.005	mg/L		0.001		E200.8	05/04/06 17:25 / sml
143 Zinc	0.015	mg/L		0.001		E200.8	05/04/06 17:25 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 15:53 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	2.59	%				Calculation	05/15/06 11:44 / cp
194 Anions	16.2	meq/L				Calculation	05/15/06 11:44 / cp
195 Cations	17.1	meq/L				Calculation	05/15/06 11:44 / cp
079 Solids, Total Dissolved Calculated	993	mg/L				Calculation	05/15/06 11:44 / cp
200 TDS Balance (0.80 - 1.20)	1.02	dec. %				Calculation	05/15/06 11:44 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Kathy and Mr. Chuck Lange
P. O. Box 2863
Milan, NM 87021

Subject: Analytical reports for water samples RW-49 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. and Ms. Lange:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-49". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the Federal primary drinking water standard for total selenium (EPA MCL), the State standard for dissolved selenium, and secondary Federal drinking water and State standards for sulfate and total dissolved solids (TDS).

Mr. and Ms. Lange

RE: Analytical reports for water samples RW-49 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Selenium		Sulfate (mg/L)	TDS (mg/L)
	Total	Dissolved		
Sample RW-49	0.105	0.101	408	1120
EPA MCL	0.05	None	250 (a)	500 (a)
NMWQCC (b)	None	0.05	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 Agency for Toxic Substances and Disease Registry (ATSDR), selenium in trace amounts is necessary for good health, but can be harmful in high concentrations. Based on the exceedance of the primary drinking water standard for selenium, 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 selenium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of selenium.

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals

Mr. and Ms. Lange

RE: Analytical reports for water samples RW-49 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

(EPA)
Sulfate in Drinking Water (EPA)
ToxFAQs™ for selenium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050172-012

Client Sample ID: RW-49

Report Date: 06/06/06

Collection Date: 05/02/06 16:40

Date Received: 05/03/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	245	mg/L		1		A2320 B	05/11/06 12:45 / th
006 Carbonate as CO3	4	mg/L		1		A2320 B	05/11/06 12:45 / th
005 Bicarbonate as HCO3	292	mg/L		1		A2320 B	05/11/06 12:45 / th
007 Chloride	101	mg/L		1		A4500-Cl B	05/04/06 15:41 / jl
139 Nitrogen, Nitrate as N	1.7	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.8	mg/L		0.1		E353.2	05/04/06 10:50 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:24 / jal
008 Sulfate	408	mg/L	D	30		A4500-SO4 E	05/09/06 17:01 / th
PHYSICAL PROPERTIES							
009 pH	8.43	s.u.		0.01		A4500-H B	05/04/06 14:18 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1120	mg/L		10		A2540 C	05/05/06 15:01 / jdh
METALS - DISSOLVED							
022 Aluminum	0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
024 Barium	0.011	mg/L		0.001		E200.8	05/05/06 05:47 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
001 Calcium	19.8	mg/L		0.5		E200.7	05/12/06 15:16 / ts
027 Chromium	0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
029 Copper	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
032 Iron	0.05	mg/L		0.01		E200.7	05/12/06 15:16 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
002 Magnesium	5.2	mg/L		0.5		E200.7	05/12/06 15:16 / ts
034 Manganese	0.004	mg/L		0.001		E200.8	05/05/06 05:47 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 05:47 / bws
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/05/06 05:47 / bws
037 Nickel	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
003 Potassium	2.5	mg/L		0.5		E200.7	05/12/06 15:16 / ts
040 Selenium	0.101	mg/L		0.001		E200.8	05/05/06 05:47 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 05:47 / bws
004 Sodium	361	mg/L		0.5		E200.7	05/12/06 15:16 / ts
015 Uranium	0.0252	mg/L		0.0003		E200.8	05/05/06 05:47 / bws
042 Vanadium	0.012	mg/L		0.001		E200.8	05/05/06 05:47 / bws
043 Zinc	0.006	mg/L		0.001		E200.8	05/05/06 05:47 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

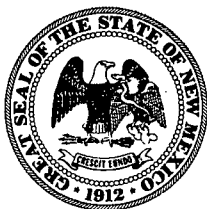
Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-012
Client Sample ID: RW-49

Report Date: 06/06/06
Collection Date: 05/02/06 16:40
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.028	mg/L		0.001		E200.8	05/09/06 03:43 / bws
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 21:25 / sml
124 Barium	0.012	mg/L		0.001		E200.8	05/04/06 21:25 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 21:25 / sml
101 Calcium	19.3	mg/L		0.5		E200.7	05/12/06 16:31 / ts
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 21:25 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 21:25 / sml
129 Copper	0.010	mg/L		0.001		E200.8	05/04/06 21:25 / sml
121 Iron	0.19	mg/L		0.01		E200.7	05/12/06 16:31 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 21:25 / sml
102 Magnesium	5.1	mg/L		0.5		E200.7	05/12/06 16:31 / ts
134 Manganese	0.004	mg/L		0.001		E200.8	05/04/06 21:25 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 21:25 / sml
136 Molybdenum	0.004	mg/L		0.001		E200.8	05/04/06 21:25 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 21:25 / sml
103 Potassium	2.3	mg/L		0.5		E200.7	05/12/06 16:31 / ts
140 Selenium	0.105	mg/L		0.001		E200.8	05/04/06 21:25 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 21:25 / sml
104 Sodium	356	mg/L		0.5		E200.7	05/12/06 16:31 / ts
115 Uranium	0.0267	mg/L		0.0003		E200.8	05/04/06 21:25 / sml
142 Vanadium	0.013	mg/L		0.001		E200.8	05/04/06 21:25 / sml
143 Zinc	0.012	mg/L		0.001		E200.8	05/04/06 21:25 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 21:56 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 13:44 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
363 Thorium 230 precision (±)	0.3	pCi/L				E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.86	%				Calculation	05/15/06 11:46 / cp
194 Anions	17.6	meq/L				Calculation	05/15/06 11:46 / cp
195 Cations	16.9	meq/L				Calculation	05/15/06 11:46 / cp
079 Solids, Total Dissolved Calculated	1120	mg/L				Calculation	05/15/06 11:46 / cp
200 TDS Balance (0.80 - 1.20)	1.00	dec. %				Calculation	05/15/06 11:46 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
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Fax (505) 827-2965
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Mr. Wesley Marquez
P. O. Box 2417
Milan, NM 87021

Subject: Analytical reports for water samples RW-42 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Marquez:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-42". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the secondary Federal drinking water standards for sulfate and total dissolved solids (TDS).

Mr. W. Marquez

RE: Analytical reports for water samples RW-42 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)
Sample RW-42	439	934
EPA MCL	250 (a)	500 (a)
NMWQCC (b)	600	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

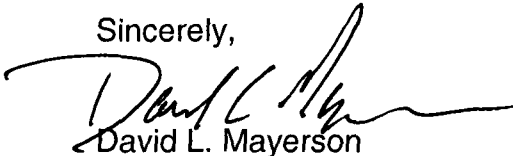
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

Sulfate in Drinking Water (EPA)

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

Mr. W. Marquez

RE: Analytical reports for water samples RW-42 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-006
Client Sample ID: RW-42

Report Date: 06/06/06
Collection Date: 05/01/06 13:52
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.001	mg/L		0.001		E200.8	05/08/06 15:30 / bws
119 Arsenic	0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
124 Barium	0.015	mg/L		0.001		E200.8	05/04/06 14:59 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
101 Calcium	146	mg/L		0.5		E200.7	05/16/06 15:24 / cp
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
129 Copper	0.004	mg/L		0.001		E200.8	05/04/06 14:59 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 15:24 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
102 Magnesium	42.8	mg/L		0.5		E200.7	05/16/06 15:24 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 14:59 / sml
136 Molybdenum	0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 14:59 / sml
103 Potassium	5.1	mg/L		0.5		E200.7	05/16/06 15:24 / cp
140 Selenium	0.020	mg/L		0.001		E200.8	05/04/06 14:59 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 14:59 / sml
104 Sodium	97.5	mg/L		0.5		E200.7	05/16/06 15:24 / cp
115 Uranium	0.0066	mg/L		0.0003		E200.8	05/04/06 14:59 / sml
142 Vanadium	0.003	mg/L		0.001		E200.8	05/04/06 14:59 / sml
143 Zinc	0.013	mg/L		0.001		E200.8	05/04/06 14:59 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 15:09 / trs
057 Radium 228	1.6	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.90	%				Calculation	05/17/06 12:55 / cp
194 Anions	16.2	meq/L				Calculation	05/17/06 12:55 / cp
195 Cations	15.6	meq/L				Calculation	05/17/06 12:55 / cp
079 Solids, Total Dissolved Calculated	967	mg/L				Calculation	05/17/06 12:55 / cp
200 TDS Balance (0.80 - 1.20)	0.970	dec. %				Calculation	05/17/06 12:55 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-006
Client Sample ID: RW-42

Report Date: 06/06/06
Collection Date: 05/01/06 13:52
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	265	mg/L		1		A2320 B	05/08/06 10:20 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:20 / th
005 Bicarbonate as HCO3	323	mg/L		1		A2320 B	05/08/06 10:20 / th
007 Chloride	48	mg/L		1		A4500-Cl B	05/02/06 13:35 / jl
139 Nitrogen, Nitrate as N	3.8	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	3.8	mg/L		0.1		E353.2	05/02/06 15:07 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:17 / jal
008 Sulfate	439	mg/L	D	10		A4500-SO4 E	05/08/06 15:47 / th
PHYSICAL PROPERTIES							
009 pH	7.83	s.u.		0.01		A4500-H B	05/03/06 12:18 / jdh
010 Solids, Total Dissolved TDS @ 180 C	934	mg/L		10		A2540 C	05/03/06 16:52 / jdh
METALS - DISSOLVED							
022 Aluminum	0.004	mg/L		0.001		E200.8	05/03/06 16:26 / sml
023 Arsenic	0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
024 Barium	0.015	mg/L		0.001		E200.8	05/03/06 16:26 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
001 Calcium	152	mg/L		0.5		E200.7	05/16/06 13:33 / cp
027 Chromium	<0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
029 Copper	0.003	mg/L		0.001		E200.8	05/03/06 16:26 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 13:33 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
002 Magnesium	44.4	mg/L		0.5		E200.7	05/16/06 13:33 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:26 / sml
036 Molybdenum	0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
037 Nickel	0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
003 Potassium	5.1	mg/L		0.5		E200.7	05/16/06 13:33 / cp
040 Selenium	0.018	mg/L		0.001		E200.8	05/03/06 16:26 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:26 / sml
004 Sodium	97.3	mg/L		0.5		E200.7	05/16/06 13:33 / cp
015 Uranium	0.0059	mg/L		0.0003		E200.8	05/03/06 16:26 / sml
042 Vanadium	0.003	mg/L		0.001		E200.8	05/03/06 16:26 / sml
043 Zinc	0.012	mg/L		0.001		E200.8	05/03/06 16:26 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Ruby Marquez
P. O. Box 2392
Milan, NM 87021

Subject: Analytical reports for water samples RW-44 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Marquez:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-44". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample.

The sample taken from your well was split into two parts (called "RW-44A" and "RW-44B"), and both parts were sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event. This was done to compare the results between the two analyses, and is a common procedure for quality assurance in sampling.

The analytical results that exceed applicable standards are summarized below. 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.

Ms. R. Marquez

RE: Analytical reports for water samples RW-44 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

The results for this sample show that water from your well exceeds the secondary Federal drinking water standards for total dissolved solids (TDS).

SAMPLE	TDS (mg/L)
Sample RW-44A	606
Sample RW-44B	608
EPA MCL	500 (a)
NMWQCC (b)	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

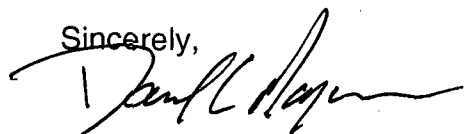
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

The secondary drinking water standard for TDS is not a health-based standard, and therefore the presence of this analyte 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 TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheet for additional information pertaining to the effects of TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (4 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

Copies with enclosures:

Sai Appaji, Remedial Program Manager, EPA Region 6

Paul Michalak, Project Manager, U.S. Nuclear Regulatory Commission

Ms. R. Marquez

RE: Analytical reports for water samples RW-44 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Len Flowers, Chief, NMDOH Environmental Health Epidemiology Bureau

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-001
Client Sample ID: RW-44B

Report Date: 06/06/06
Collection Date: 05/01/06 14:42
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	275	mg/L		1		A2320 B	05/08/06 10:04 / th
006 Carbonate as CO3	5	mg/L		1		A2320 B	05/08/06 10:04 / th
005 Bicarbonate as HCO3	327	mg/L		1		A2320 B	05/08/06 10:04 / th
007 Chloride	45	mg/L		1		A4500-Cl B	05/02/06 13:26 / jl
139 Nitrogen, Nitrate as N	1.4	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.4	mg/L		0.1		E353.2	05/02/06 14:49 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:16 / jal
008 Sulfate	179	mg/L	D	6		A4500-SO4 E	05/08/06 14:21 / th
PHYSICAL PROPERTIES							
009 pH	8.42	s.u.		0.01		A4500-H B	05/03/06 12:07 / jdh
010 Solids, Total Dissolved TDS @ 180 C	608	mg/L		10		A2540 C	05/03/06 16:51 / jdh
METALS - DISSOLVED							
022 Aluminum	0.014	mg/L		0.001		E200.8	05/03/06 15:26 / sml
023 Arsenic	0.002	mg/L		0.001		E200.8	05/03/06 15:26 / sml
024 Barium	0.022	mg/L		0.001		E200.8	05/03/06 15:26 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
001 Calcium	7.0	mg/L		0.5		E200.7	05/16/06 18:13 / cp
027 Chromium	0.004	mg/L		0.001		E200.8	05/03/06 15:26 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
029 Copper	0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 18:13 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
002 Magnesium	1.8	mg/L		0.5		E200.7	05/16/06 18:13 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 15:26 / sml
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/03/06 15:26 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
003 Potassium	2.4	mg/L		0.5		E200.7	05/16/06 18:13 / cp
040 Selenium	0.009	mg/L		0.001		E200.8	05/03/06 15:26 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 15:26 / sml
004 Sodium	221	mg/L		0.5		E200.7	05/16/06 18:13 / cp
015 Uranium	0.0170	mg/L		0.0003		E200.8	05/03/06 15:26 / sml
042 Vanadium	0.013	mg/L		0.001		E200.8	05/03/06 15:26 / sml
043 Zinc	0.016	mg/L		0.001		E200.8	05/03/06 15:26 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-001
Client Sample ID: RW-44B

Report Date: 06/06/06
Collection Date: 05/01/06 14:42
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.005	mg/L		0.001		E200.8	05/08/06 13:38 / bws
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 13:26 / sml
124 Barium	0.023	mg/L		0.001		E200.8	05/04/06 13:26 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 13:26 / sml
101 Calcium	6.8	mg/L		0.5		E200.7	05/16/06 14:55 / cp
120 Chromium	0.003	mg/L		0.001		E200.8	05/04/06 13:26 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 13:26 / sml
129 Copper	0.001	mg/L		0.001		E200.8	05/04/06 13:26 / sml
121 Iron	0.01	mg/L		0.01		E200.7	05/16/06 14:55 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 13:26 / sml
102 Magnesium	1.8	mg/L		0.5		E200.7	05/16/06 14:55 / cp
134 Manganese	0.002	mg/L		0.001		E200.8	05/04/06 13:26 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 13:26 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 13:26 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 13:26 / sml
103 Potassium	2.5	mg/L		0.5		E200.7	05/16/06 14:55 / cp
140 Selenium	0.009	mg/L		0.001		E200.8	05/04/06 13:26 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 13:26 / sml
104 Sodium	223	mg/L		0.5		E200.7	05/16/06 14:55 / cp
115 Uranium	0.0181	mg/L		0.0003		E200.8	05/04/06 13:26 / sml
142 Vanadium	0.014	mg/L		0.001		E200.8	05/04/06 13:26 / sml
143 Zinc	0.020	mg/L		0.001		E200.8	05/04/06 13:26 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 15:09 / trs
057 Radium 228	1.9	pCi/L		1.0		RA-05	05/17/06 10:30 / pj
257 Radium 228 precision (±)	0.8	pCi/L				RA-05	05/17/06 10:30 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.472	%				Calculation	05/17/06 12:53 / cp
194 Anions	10.1	meq/L				Calculation	05/17/06 12:53 / cp
195 Cations	10.2	meq/L				Calculation	05/17/06 12:53 / cp
079 Solids, Total Dissolved Calculated	606	mg/L				Calculation	05/17/06 12:53 / cp
200 TDS Balance (0.80 - 1.20)	1.00	dec. %				Calculation	05/17/06 12:53 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-008
Client Sample ID: RW-44A

Report Date: 06/06/06
Collection Date: 05/01/06 14:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	275	mg/L		1		A2320 B	05/08/06 10:24 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:24 / th
005 Bicarbonate as HCO3	336	mg/L		1		A2320 B	05/08/06 10:24 / th
007 Chloride	45	mg/L		1		A4500-Cl B	05/02/06 13:50 / jl
139 Nitrogen, Nitrate as N	1.5	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.5	mg/L		0.1		E353.2	05/02/06 15:12 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:17 / jal
008 Sulfate	179	mg/L	D	6		A4500-SO4 E	05/08/06 15:50 / th
PHYSICAL PROPERTIES							
009 pH	7.88	s.u.		0.01		A4500-H B	05/03/06 12:21 / jdh
010 Solids, Total Dissolved TDS @ 180 C	606	mg/L		10		A2540 C	05/03/06 16:53 / jdh
METALS - DISSOLVED							
022 Aluminum	0.003	mg/L		0.001		E200.8	05/03/06 16:46 / smi
023 Arsenic	0.002	mg/L		0.001		E200.8	05/03/06 16:46 / smi
024 Barium	0.022	mg/L		0.001		E200.8	05/03/06 16:46 / smi
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:46 / smi
001 Calcium	6.6	mg/L		0.5		E200.7	05/16/06 13:39 / cp
027 Chromium	0.004	mg/L		0.001		E200.8	05/03/06 16:46 / smi
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:46 / smi
029 Copper	0.001	mg/L		0.001		E200.8	05/03/06 16:46 / smi
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 13:39 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:46 / smi
002 Magnesium	1.8	mg/L		0.5		E200.7	05/16/06 13:39 / cp
034 Manganese	0.002	mg/L		0.001		E200.8	05/03/06 16:46 / smi
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:46 / smi
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/03/06 16:46 / smi
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 16:46 / smi
003 Potassium	2.5	mg/L		0.5		E200.7	05/16/06 13:39 / cp
040 Selenium	0.009	mg/L		0.001		E200.8	05/03/06 16:46 / smi
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:46 / smi
004 Sodium	220	mg/L		0.5		E200.7	05/16/06 13:39 / cp
015 Uranium	0.0166	mg/L		0.0003		E200.8	05/03/06 16:46 / smi
042 Vanadium	0.013	mg/L		0.001		E200.8	05/03/06 16:46 / smi
043 Zinc	0.013	mg/L		0.001		E200.8	05/03/06 16:46 / smi

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-008
Client Sample ID: RW-44A

Report Date: 06/06/06
Collection Date: 05/01/06 14:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.009	mg/L		0.001		E200.8	05/08/06 15:45 / bws
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 22:25 / sml
124 Barium	0.022	mg/L		0.001		E200.8	05/04/06 22:25 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 22:25 / sml
101 Calcium	6.6	mg/L		0.5		E200.7	05/16/06 15:31 / cp
120 Chromium	0.003	mg/L		0.001		E200.8	05/04/06 22:25 / sml
128 Cobalt	0.001	mg/L		0.001		E200.8	05/04/06 22:25 / sml
129 Copper	0.001	mg/L		0.001		E200.8	05/04/06 22:25 / sml
121 Iron	0.06	mg/L		0.01		E200.7	05/16/06 15:31 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 22:25 / sml
102 Magnesium	1.7	mg/L		0.5		E200.7	05/16/06 15:31 / cp
134 Manganese	0.002	mg/L		0.001		E200.8	05/04/06 22:25 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 22:25 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 22:25 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 22:25 / sml
103 Potassium	2.5	mg/L		0.5		E200.7	05/16/06 15:31 / cp
140 Selenium	0.009	mg/L		0.001		E200.8	05/04/06 22:25 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 22:25 / sml
104 Sodium	224	mg/L		0.5		E200.7	05/16/06 15:31 / cp
115 Uranium	0.0176	mg/L		0.0003		E200.8	05/04/06 22:25 / sml
142 Vanadium	0.012	mg/L		0.001		E200.8	05/04/06 22:25 / sml
143 Zinc	0.013	mg/L		0.001		E200.8	05/04/06 22:25 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
057 Radium 228	3.2	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.65	%				Calculation	05/17/06 12:56 / cp
194 Anions	10.5	meq/L				Calculation	05/17/06 12:56 / cp
195 Cations	10.1	meq/L				Calculation	05/17/06 12:56 / cp
079 Solids, Total Dissolved Calculated	619	mg/L				Calculation	05/17/06 12:56 / cp
200 TDS Balance (0.80 - 1.20)	0.980	dec. %				Calculation	05/17/06 12:56 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Dick and Rhonda Elkins
P. O. Box 1203
Grants, NM 87020

RE: Analytical reports for water sample RW-17 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. and Ms. Elkins:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 2, 2006. For tracking purposes, the samples from your well were designated as "RW-17". The sample taken from your well was split into two parts, with one sample sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event, and the second sample sent to Pinnacle Laboratory (listed as General Engineering on the laboratory report; note that Pinnacle Laboratory's reporting units are $\mu\text{g/L}$, whereas we report in units of mg/L below). This was done to compare the results between the two laboratories, and is a common procedure for quality assurance in sampling. The latter sample is designated "RW-17 duplicate" in the table following. The samples were analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample.

The analytical results that exceed applicable standards are summarized below. Relevant standards are included below for comparison. Federal drinking water standards (i.e., Maximum Concentration Limits [MCLs]) are based on total analyte

Mr. and Ms. Elkins

RE: Analytical reports for water samples RW-17 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

concentrations, whereas New Mexico Water Quality Control Commission (NMWQCC) ground water quality standards are based on dissolved concentrations.

The results for these samples show that your well exceeds the Federal primary drinking water standard for total uranium (EPA MCL), the State standards (NMWQCC) for dissolved uranium and dissolved iron, the secondary Federal drinking water standards for total iron and manganese, and both State and secondary Federal drinking water standards for sulfate and total dissolved solids (TDS).

SAMPLE	Uranium (mg/L)		Sulfate (mg/L)	TDS (mg/L)	Iron (mg/L)		Total manganese (mg/L)
	Total	Dissolved			Total	Dissolved	
Sample RW-17	0.0818	0.0706	1300	2520	6.33	0.92 (no exceedance)	0.061
Sample RW-17 duplicate	0.0669 (c)	0.062254 (d)	1190	2550	11.4	1.58	0.1
EPA MCL	0.03	None	250 (a)	500 (a)	0.3 (a)	None	0.05 (a)
NMWQCC (b)	None	0.03	600	1000	None	1.0	None

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

c. Includes U₂₃₄, which comprises only 0.0058% of total uranium

d. Reported concentration excludes U₂₃₄

According to the Agency for Toxic Substances and Disease Registry (ATSDR), consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. Based on the exceedance of the primary drinking water standard for uranium, 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 uranium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

The secondary drinking water standards for sulfate, TDS, iron, and manganese are not health-based standards, and therefore the presence of these analytes affects only 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as orange staining. According to ATSDR, consumption of manganese usually has no harmful effects, except in very high quantities over a long period of time. Please review the enclosed fact sheets for additional information pertaining to the effects of sulfate, TDS, iron, and manganese.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of

Mr. and Ms. Elkins

RE: Analytical reports for water samples RW-17 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory analytical report from Energy Laboratories (2 pages)

Laboratory analytical report from Pinnacle Labs (7 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

Sulfate in Drinking Water (EPA)

ToxFAQs™ for uranium (ATSDR)

ToxFAQs™ for manganese (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-007
Client Sample ID: RW-17

Report Date: 06/06/06
Collection Date: 05/02/06 08:50
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	311	mg/L		1		A2320 B	05/11/06 12:37 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 12:37 / th
005 Bicarbonate as HCO3	380	mg/L		1		A2320 B	05/11/06 12:37 / th
007 Chloride	215	mg/L		1		A4500-Cl B	05/04/06 15:28 / jl
139 Nitrogen, Nitrate as N	4.3	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	4.3	mg/L		0.1		E353.2	05/04/06 10:33 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:23 / jal
008 Sulfate	1300	mg/L	D	60		A4500-SO4 E	05/09/06 16:39 / th
PHYSICAL PROPERTIES							
009 pH	7.63	s.u.		0.01		A4500-H B	05/04/06 14:08 / jdh
010 Solids, Total Dissolved TDS @ 180 C	2520	mg/L		10		A2540 C	05/05/06 14:56 / jdh
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
024 Barium	0.010	mg/L		0.001		E200.8	05/05/06 04:19 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
001 Calcium	229	mg/L		0.5		E200.7	05/12/06 14:59 / ts
027 Chromium	0.002	mg/L		0.001		E200.8	05/05/06 04:19 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
029 Copper	0.007	mg/L		0.001		E200.8	05/05/06 04:19 / bws
032 Iron	0.92	mg/L		0.01		E200.7	05/12/06 14:59 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
002 Magnesium	63.0	mg/L		0.5		E200.7	05/12/06 14:59 / ts
034 Manganese	0.099	mg/L		0.001		E200.8	05/05/06 04:19 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 04:19 / bws
036 Molybdenum	0.004	mg/L		0.001		E200.8	05/05/06 04:19 / bws
037 Nickel	0.003	mg/L		0.001		E200.8	05/05/06 04:19 / bws
003 Potassium	4.7	mg/L		0.5		E200.7	05/12/06 14:59 / ts
040 Selenium	0.033	mg/L		0.001		E200.8	05/05/06 04:19 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
004 Sodium	470	mg/L		0.5		E200.7	05/12/06 14:59 / ts
015 Uranium	0.0706	mg/L		0.0003		E200.8	05/05/06 04:19 / bws
042 Vanadium	<0.001	mg/L		0.001		E200.8	05/05/06 04:19 / bws
043 Zinc	0.384	mg/L		0.001		E200.8	05/05/06 04:19 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-007
Client Sample ID: RW-17

Report Date: 06/06/06
Collection Date: 05/02/06 08:50
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.076	mg/L		0.001		E200.8	05/04/06 17:32 / sml
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 17:32 / sml
124 Barium	0.011	mg/L		0.001		E200.8	05/04/06 17:32 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 17:32 / sml
101 Calcium	263	mg/L		0.5		E200.7	05/12/06 16:05 / ts
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 17:32 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 17:32 / sml
129 Copper	0.048	mg/L		0.001		E200.8	05/04/06 17:32 / sml
121 Iron	6.33	mg/L		0.01		E200.7	05/12/06 16:05 / ts
133 Lead	0.003	mg/L		0.001		E200.8	05/04/06 17:32 / sml
102 Magnesium	66.7	mg/L		0.5		E200.7	05/12/06 16:05 / ts
134 Manganese	0.061	mg/L		0.001		E200.8	05/04/06 17:32 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 17:32 / sml
136 Molybdenum	0.004	mg/L		0.001		E200.8	05/04/06 17:32 / sml
137 Nickel	0.004	mg/L		0.001		E200.8	05/04/06 17:32 / sml
103 Potassium	4.3	mg/L		0.5		E200.7	05/12/06 16:05 / ts
140 Selenium	0.040	mg/L		0.001		E200.8	05/04/06 17:32 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 17:32 / sml
104 Sodium	453	mg/L		0.5		E200.7	05/12/06 16:05 / ts
115 Uranium	0.0818	mg/L		0.0003		E200.8	05/04/06 17:32 / sml
142 Vanadium	0.003	mg/L		0.001		E200.8	05/04/06 17:32 / sml
143 Zinc	0.483	mg/L		0.001		E200.8	05/04/06 17:32 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 16:54 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-0.063	%				Calculation	05/15/06 11:45 / cp
194 Anions	38.7	meq/L				Calculation	05/15/06 11:45 / cp
195 Cations	38.7	meq/L				Calculation	05/15/06 11:45 / cp
079 Solids, Total Dissolved Calculated	2480	mg/L				Calculation	05/15/06 11:45 / cp
200 TDS Balance (0.80 - 1.20)	1.02	dec. %				Calculation	05/15/06 11:45 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 558-8171 - www.gel.com

Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 1 of 2

Client Sample ID: RW-17
Sample ID: 162062006
Matrix: Water
Collect Date: 02-MAY-06 08:50
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	U	1.41	1.50	5.00	ug/L	1	PRB	05/16/06	1732	527176	1
Iron		1580	10.0	25.0	ug/L	1					
Manganese		128	1.00	5.00	ug/L	1					
Molybdenum		5.55	0.100	0.500	ug/L	1					
Selenium		24.1	2.50	5.00	ug/L	1					
Vanadium	J	2.15	2.00	10.0	ug/L	1					
<i>SW846_6020 Isotopic Uranium</i>											
Uranium-235		0.454	0.010	0.070	ug/L	1	PRB	05/12/06	1839	527178	2
Uranium-238		61.8	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

dissolved

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: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID:	RW-17	Project:	PINL00405								
Sample ID:	162062006	Client ID:	PINL001								
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristan M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gei.com

Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Page 1 of 2

Project: NMED

Client Sample ID: 605009 RW-17
Sample ID: 162062001
Matrix: Water
Collect Date: 02-MAY-06 08:50
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

TOTAL

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	J	3.45	1.50	5.00	ug/L	1	PRB	05/16/06	1705	527176	1
Iron		11400	10.0	25.0	ug/L	1					
Manganese		100	1.00	5.00	ug/L	1					
Molybdenum		3.18	0.100	0.500	ug/L	1					
Potassium		4440	80.0	300	ug/L	1					
Selenium		34.7	2.50	5.00	ug/L	1					
Vanadium	J	6.34	2.00	10.0	ug/L	1					
Calcium		260000	2000	10000	ug/L	100	PRB	05/16/06	1622	527176	2
Magnesium		60900	500	1500	ug/L	100					
Sodium		506000	8000	25000	ug/L	100	PRB	05/17/06	1033	527176	3
<i>SW846_6020 Isotopic Uranium</i>											
Uranium		66.9	0.250	1.00	ug/L	5	PRB	05/15/06	1051	527178	4
Uranium-235		0.480	0.050	0.350	ug/L	5					
Uranium-238		66.5	0.250	1.00	ug/L	5					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	EPA 200.8	
3	EPA 200.8	
4	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.

total

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 558-8171 - www.gel.com

Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID: 605009 RW-17		Project: PINL00405	
Sample ID: 162062001		Client ID: PINL001	
Parameter	Qualifier	Result	DL RL Units DF AnalystDate Time Batch Method

- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 558-8171 - www.gel.com

Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Client Sample ID: 605009 RW-17
Sample ID: 162062001
Matrix: Water
Collect Date: 02-MAY-06 08:50
Receive Date: 03-MAY-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 12.5C	H	7.47	0.010	0.100	SU	1	SXS2	05/10/06	2224	526994	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO2,SO4,Cl											
Nitrate-N		4.01	0.033	0.100	mg/L	1	RXM1	05/04/06	0423	526700	2
Nitrite-N	U	0.00	0.033	0.100	mg/L	1					
Chloride		184	3.30	10.0	mg/L	50	MAR1	05/04/06	1826	526700	3
Sulfate		1190	5.00	20.0	mg/L	50					
Nutrient Analysis Federal											
Nitrogen, (NO3/NO2)											
Nitrogen, Nitrate/Nitrite		3.84	0.140	0.500	mg/L	10	KLP1	05/08/06	1314	527551	4
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		2550	2.38	10.0	mg/L		GXA2	05/03/06	0854	526858	5
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO3		296	0.725	1.00	mg/L		RG2	05/15/06	1549	528783	6
Bicarbonate alkalinity (CaCO3)		295	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO3)	J	0.983	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 353.1	
5	EPA 160.1	
6	SM 2320B	

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
Contact: Mr. Mitch Rubenstein
Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-17
Sample ID: 162062006
Matrix: Water
Collect Date: 02-MAY-06
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Th, Liquid</i>													
Thorium-228	U	0.0796	+/-0.143	0.671	+/-0.143	1.00	pCi/L	DDR1	05/12/06	0810	528280	1	
Thorium-230	U	0.0122	+/-0.0365	0.247	+/-0.0365	1.00	pCi/L						
Thorium-232	U	-0.0356	+/-0.0206	0.330	+/-0.021	1.00	pCi/L						
Rad Gas Flow Proportional Counting													
<i>GFPC, Ra228, Liquid</i>													
Radium-228	U	1.52	+/-0.555	2.14	+/-0.556	3.00	pCi/L	KSD1	05/16/06	1257	529101	2	
Rad Radium-226													
<i>Lucas Cell, Ra226, liquid</i>													
Radium-226		0.525	+/-0.139	0.315	+/-0.139	1.00	pCi/L	SG	05/15/06	1015	527246	3	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Th-01-RC Modified
2	EPA 904.0 Modified
3	EPA 903.1 Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	62	(15%-125%)
Carrier/Tracer Recovery	GFPC, Ra228, Liquid	63	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.

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
Contact: Mr. Mitch Rubenstein
Project: NMED

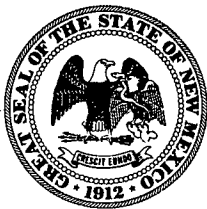
Report Date: May 17, 2006

Client Sample ID: RW-17
Sample ID: 162062006

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
-----------	-----------	--------	-------------	----	-----	----	-------	----	---------	------	------	-------	-----

H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier—please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Ms. Virginia Chaffin
P. O. Box 2420
Milan, NM 87021

Subject: Analytical report for water sample RW-51 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Chaffin:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 3, 2006. For tracking purposes, the sample from your well was designated as "RW-51". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal and State drinking water standards for chloride, sulfate and total dissolved solids (TDS).

Ms. V. Chaffin

RE: Analytical report for water sample RW-51 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)
Sample RW-51	625	660	2250
EPA MCL	250 (a)	250 (a)	500 (a)
NMWQCC (b)	250	600	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

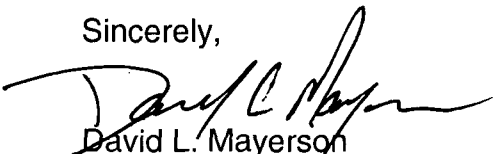
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

The secondary drinking water standards for chloride, 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.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

Sulfate in Drinking Water (EPA)

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

Ms. V. Chaffin

RE: Analytical report for water sample RW-51 collected by New Mexico Environment
Department (NMED) from private well near the Homestake Mining Company site (EPA
ID#: NMD007860935) Milan, New Mexico

November 2, 2006

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-006
Client Sample ID: RW-51

Report Date: 06/06/06
Collection Date: 05/03/06 09:30
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.006	mg/L		0.001		E200.8	05/08/06 19:39 / sml
119 Arsenic	0.001	mg/L		0.001		E200.8	05/08/06 19:39 / sml
124 Barium	0.011	mg/L		0.001		E200.8	05/08/06 19:39 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:39 / sml
101 Calcium	14.7	mg/L		0.5		E200.7	05/17/06 16:34 / cp
120 Chromium	0.002	mg/L		0.001		E200.8	05/08/06 19:39 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:39 / sml
129 Copper	0.003	mg/L		0.001		E200.8	05/08/06 19:39 / sml
121 Iron	0.06	mg/L		0.01		E200.7	05/17/06 16:34 / cp
133 Lead	0.001	mg/L		0.001		E200.8	05/08/06 19:39 / sml
102 Magnesium	1.6	mg/L		0.5		E200.7	05/17/06 16:34 / cp
134 Manganese	0.020	mg/L		0.001		E200.8	05/08/06 19:39 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:39 / sml
136 Molybdenum	0.037	mg/L		0.001		E200.8	05/08/06 19:39 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 19:39 / sml
103 Potassium	1.9	mg/L		0.5		E200.7	05/17/06 16:34 / cp
140 Selenium	0.002	mg/L		0.001		E200.8	05/08/06 19:39 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:39 / sml
104 Sodium	818	mg/L	D	0.8		E200.7	05/22/06 13:41 / cp
115 Uranium	0.0245	mg/L		0.0003		E200.8	05/08/06 19:39 / sml
142 Vanadium	0.007	mg/L		0.001		E200.8	05/08/06 19:39 / sml
143 Zinc	0.107	mg/L		0.001		E200.8	05/08/06 19:39 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 12:11 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-4.61	%				Calculation	05/19/06 14:11 / cp
194 Anions	37.5	meq/L				Calculation	05/19/06 14:11 / cp
195 Cations	34.2	meq/L				Calculation	05/19/06 14:11 / cp
079 Solids, Total Dissolved Calculated	2240	mg/L				Calculation	05/19/06 14:11 / cp
200 TDS Balance (0.80 - 1.20)	1.00	dec. %				Calculation	05/19/06 14:11 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-006
Client Sample ID: RW-51

Report Date: 06/06/06
Collection Date: 05/03/06 09:30
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	305	mg/L		1		A2320 B	05/11/06 13:34 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 13:34 / th
005 Bicarbonate as HCO3	372	mg/L		1		A2320 B	05/11/06 13:34 / th
007 Chloride	625	mg/L		1		A4500-Cl B	05/08/06 13:11 / jl
139 Nitrogen, Nitrate as N	0.4	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	0.4	mg/L		0.1		E353.2	05/05/06 10:27 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:58 / jal
008 Sulfate	660	mg/L	D	30		A4500-SO4 E	05/10/06 10:33 / th
PHYSICAL PROPERTIES							
009 pH	7.98	s.u.		0.01		A4500-H B	05/05/06 12:16 / jd
010 Solids, Total Dissolved TDS @ 180 C	2250	mg/L		10		A2540 C	05/05/06 15:10 / jd
METALS - DISSOLVED							
022 Aluminum	0.003	mg/L		0.001		E200.8	05/08/06 19:32 / sml
023 Arsenic	0.001	mg/L		0.001		E200.8	05/08/06 19:32 / sml
024 Barium	0.011	mg/L		0.001		E200.8	05/08/06 19:32 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:32 / sml
001 Calcium	15.5	mg/L		0.5		E200.7	05/17/06 15:27 / cp
027 Chromium	0.002	mg/L		0.001		E200.8	05/08/06 19:32 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:32 / sml
029 Copper	0.003	mg/L		0.001		E200.8	05/08/06 19:32 / sml
032 Iron	0.02	mg/L		0.01		E200.7	05/17/06 15:27 / cp
033 Lead	0.001	mg/L		0.001		E200.8	05/08/06 19:32 / sml
002 Magnesium	1.7	mg/L		0.5		E200.7	05/17/06 15:27 / cp
034 Manganese	0.021	mg/L		0.001		E200.8	05/08/06 19:32 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:32 / sml
036 Molybdenum	0.036	mg/L		0.001		E200.8	05/08/06 19:32 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 19:32 / sml
003 Potassium	1.9	mg/L		0.5		E200.7	05/17/06 15:27 / cp
040 Selenium	0.002	mg/L		0.001		E200.8	05/08/06 19:32 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:32 / sml
004 Sodium	764	mg/L	D	3		E200.7	05/18/06 14:47 / cp
015 Uranium	0.0247	mg/L		0.0003		E200.8	05/08/06 19:32 / sml
042 Vanadium	0.007	mg/L		0.001		E200.8	05/08/06 19:32 / sml
043 Zinc	0.098	mg/L		0.001		E200.8	05/08/06 19:32 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Virginia Chaffin
P. O. Box 2420
Milan, NM 87021

Subject: Analytical report for water sample RW-53 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Chaffin:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 3, 2006. For tracking purposes, the sample from your well was designated as "RW-53". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal drinking water standards for sulfate, total dissolved solids (TDS), and total iron.

Ms. V. Chaffin

RE: Analytical report for water sample RW-53 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)	Total iron (mg/L)
Sample RW-53	304	966	0.47
EPA MCL	250 (a)	500 (a)	0.3 (a)
NMWQCC (b)	600	1000	none

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

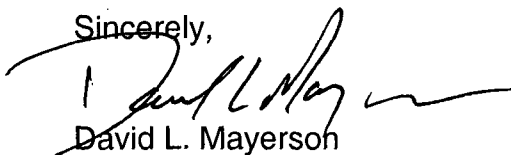
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

The secondary drinking water standards for sulfate, TDS, and iron 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as orange staining. Please review the enclosed fact sheet for additional information pertaining to the effects of sulfate, TDS, and iron.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (4 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

Sulfate in Drinking Water (EPA)

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

Ms. V. Chaffin

RE: Analytical report for water sample RW-53 collected by New Mexico Environment
Department (NMED) from private well near the Homestake Mining Company site (EPA
ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-007
Client Sample ID: RW-53

Report Date: 06/06/06
Collection Date: 05/03/06 09:55
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	300	mg/L		1		A2320 B	05/11/06 13:36 / th
006 Carbonate as CO3	18	mg/L		1		A2320 B	05/11/06 13:36 / th
005 Bicarbonate as HCO3	335	mg/L		1		A2320 B	05/11/06 13:36 / th
007 Chloride	139	mg/L		1		A4500-Cl B	05/08/06 13:12 / jl
139 Nitrogen, Nitrate as N	<0.1	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	<0.1	mg/L		0.1		E353.2	05/05/06 10:29 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:58 / jal
008 Sulfate	304	mg/L	D	10		A4500-SO4 E	05/10/06 10:34 / th
PHYSICAL PROPERTIES							
009 pH	8.99	s.u.		0.01		A4500-H B	05/05/06 12:17 / jd
010 Solids, Total Dissolved TDS @ 180 C	966	mg/L		10		A2540 C	05/05/06 15:10 / jd
METALS - DISSOLVED							
022 Aluminum	0.003	mg/L		0.001		E200.8	05/08/06 19:45 / sml
023 Arsenic	0.005	mg/L		0.001		E200.8	05/08/06 19:45 / sml
024 Barium	0.015	mg/L		0.001		E200.8	05/08/06 19:45 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
001 Calcium	3.2	mg/L		0.5		E200.7	05/17/06 15:30 / cp
027 Chromium	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
032 Iron	0.11	mg/L		0.01		E200.7	05/17/06 15:30 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
002 Magnesium	<0.5	mg/L		0.5		E200.7	05/17/06 15:30 / cp
034 Manganese	0.011	mg/L		0.001		E200.8	05/08/06 19:45 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:45 / sml
036 Molybdenum	0.013	mg/L		0.001		E200.8	05/08/06 19:45 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
003 Potassium	1.0	mg/L		0.5		E200.7	05/17/06 15:30 / cp
040 Selenium	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:45 / sml
004 Sodium	358	mg/L		0.5		E200.7	05/17/06 15:30 / cp
015 Uranium	0.0114	mg/L		0.0003		E200.8	05/08/06 19:45 / sml
042 Vanadium	0.010	mg/L		0.001		E200.8	05/08/06 19:45 / sml
043 Zinc	0.036	mg/L		0.001		E200.8	05/08/06 19:45 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-007
Client Sample ID: RW-53

Report Date: 06/06/06
Collection Date: 05/03/06 09:55
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.004	mg/L		0.001		E200.8	05/08/06 19:52 / sml
119 Arsenic	0.005	mg/L		0.001		E200.8	05/08/06 19:52 / sml
124 Barium	0.015	mg/L		0.001		E200.8	05/08/06 19:52 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
101 Calcium	3.3	mg/L		0.5		E200.7	05/17/06 16:50 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
121 Iron	0.47	mg/L		0.01		E200.7	05/17/06 16:50 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
102 Magnesium	<0.5	mg/L		0.5		E200.7	05/17/06 16:50 / cp
134 Manganese	0.013	mg/L		0.001		E200.8	05/08/06 19:52 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:52 / sml
136 Molybdenum	0.013	mg/L		0.001		E200.8	05/08/06 19:52 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
103 Potassium	1.0	mg/L		0.5		E200.7	05/17/06 16:50 / cp
140 Selenium	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:52 / sml
104 Sodium	384	mg/L		0.5		E200.7	05/17/06 16:50 / cp
115 Uranium	0.0117	mg/L		0.0003		E200.8	05/08/06 19:52 / sml
142 Vanadium	0.011	mg/L		0.001		E200.8	05/08/06 19:52 / sml
143 Zinc	0.024	mg/L		0.001		E200.8	05/08/06 19:52 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 13:26 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-0.853	%				Calculation	05/18/06 15:50 / cp
194 Anions	16.1	meq/L				Calculation	05/18/06 15:50 / cp
195 Cations	15.8	meq/L				Calculation	05/18/06 15:50 / cp
079 Solids, Total Dissolved Calculated	977	mg/L				Calculation	05/18/06 15:50 / cp
200 TDS Balance (0.80 - 1.20)	0.990	dec. %				Calculation	05/18/06 15:50 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Dwayne Wilson
P. O. Box 2613
Milan, NM 87021

Subject: Analytical report for water sample RW-37 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Wilson:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-37". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample taken from your well was split into two parts (called "RW-37A" and "RW-37B"), and both parts were sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event. This was done to compare the results between the two analyses, and is a common procedure for quality assurance in sampling.

The analytical results that exceed applicable standards are summarized below. 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 secondary

Mr. D. Wilson

RE: Analytical reports for water sample RW-37 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Federal drinking water standard for total dissolved solids (TDS).

SAMPLE	TDS (mg/L)
Sample RW-37A	698
Sample RW-37B	700
EPA MCL	500 (a)
NMWQCC (b)	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

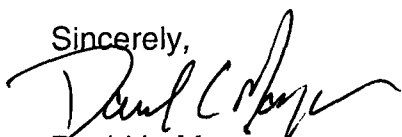
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

The secondary drinking water standard for TDS is not a health-based standard, and therefore the presence of this analyte 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 TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheet for additional information pertaining to the effects of TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (4 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

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

Mr. D. Wilson

RE: Analytical reports for water sample RW-37 collected by New Mexico Environment
Department (NMED) from private well near the Homestake Mining Company site (EPA
ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Copies without enclosures:

Patrick Young, ATSDR Regional Representative

Files:

HMC 2006 sampling

HMC 2006 correspondence

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-010
Client Sample ID: RW-37B

Report Date: 06/06/06
Collection Date: 05/01/06 10:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	264	mg/L		1		A2320 B	05/08/06 10:39 / th
006 Carbonate as CO3	8	mg/L		1		A2320 B	05/08/06 10:39 / th
005 Bicarbonate as HCO3	308	mg/L		1		A2320 B	05/08/06 10:39 / th
007 Chloride	50	mg/L		1		A4500-Cl B	05/02/06 13:52 / jl
139 Nitrogen, Nitrate as N	2.0	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.0	mg/L		0.1		E353.2	05/02/06 15:25 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:19 / jal
008 Sulfate	245	mg/L	D	6		A4500-SO4 E	05/08/06 15:52 / th
PHYSICAL PROPERTIES							
009 pH	8.68	s.u.		0.01		A4500-H B	05/03/06 12:24 / jdh
010 Solids, Total Dissolved TDS @ 180 C	700	mg/L		10		A2540 C	05/03/06 16:55 / jdh
METALS - DISSOLVED							
022 Aluminum	0.002	mg/L		0.001		E200.8	05/03/06 16:59 / sml
023 Arsenic	0.003	mg/L		0.001		E200.8	05/03/06 16:59 / sml
024 Barium	0.020	mg/L		0.001		E200.8	05/03/06 16:59 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
001 Calcium	7.5	mg/L		0.5		E200.7	05/16/06 13:59 / cp
027 Chromium	0.002	mg/L		0.001		E200.8	05/03/06 16:59 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 13:59 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
002 Magnesium	1.4	mg/L		0.5		E200.7	05/16/06 13:59 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:59 / sml
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/03/06 16:59 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
003 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 13:59 / cp
040 Selenium	0.013	mg/L		0.001		E200.8	05/03/06 16:59 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
004 Sodium	257	mg/L		0.5		E200.7	05/16/06 13:59 / cp
015 Uranium	0.0158	mg/L		0.0003		E200.8	05/03/06 16:59 / sml
042 Vanadium	0.017	mg/L		0.001		E200.8	05/03/06 16:59 / sml
043 Zinc	0.023	mg/L		0.001		E200.8	05/03/06 16:59 / sml

Report Definitions:
 RL - Analyte reporting limit.
 QCL - Quality control limit.
 D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-010
Client Sample ID: RW-37B

Report Date: 06/06/06
Collection Date: 05/01/06 10:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.002	mg/L		0.001		E200.8	05/08/06 15:59 / bws
119 Arsenic	0.003	mg/L		0.001		E200.8	05/04/06 22:39 / sml
124 Barium	0.020	mg/L		0.001		E200.8	05/04/06 22:39 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
101 Calcium	6.9	mg/L		0.5		E200.7	05/16/06 15:37 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 15:37 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
102 Magnesium	1.3	mg/L		0.5		E200.7	05/16/06 15:37 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 22:39 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 22:39 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
103 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 15:37 / cp
140 Selenium	0.012	mg/L		0.001		E200.8	05/04/06 22:39 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
104 Sodium	261	mg/L		0.5		E200.7	05/16/06 15:37 / cp
115 Uranium	0.0169	mg/L		0.0003		E200.8	05/04/06 22:39 / sml
142 Vanadium	0.016	mg/L		0.001		E200.8	05/04/06 22:39 / sml
143 Zinc	0.024	mg/L		0.001		E200.8	05/04/06 22:39 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
057 Radium 228	6.4	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	1.0	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.39	%				Calculation	05/17/06 12:57 / cp
194 Anions	12.1	meq/L				Calculation	05/17/06 12:57 / cp
195 Cations	11.7	meq/L				Calculation	05/17/06 12:57 / cp
079 Solids, Total Dissolved Calculated	734	mg/L				Calculation	05/17/06 12:57 / cp
200 TDS Balance (0.80 - 1.20)	0.950	dec. %				Calculation	05/17/06 12:57 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-011
Client Sample ID: RW-37A

Report Date: 06/06/06
Collection Date: 05/01/06 10:35
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	271	mg/L		1		A2320 B	05/08/06 10:46 / th
006 Carbonate as CO3	6	mg/L		1		A2320 B	05/08/06 10:46 / th
005 Bicarbonate as HCO3	321	mg/L		1		A2320 B	05/08/06 10:46 / th
007 Chloride	50	mg/L		1		A4500-Cl B	05/02/06 13:54 / jl
139 Nitrogen, Nitrate as N	2.0	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.0	mg/L		0.1		E353.2	05/02/06 15:27 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:20 / jal
008 Sulfate	245	mg/L	D	6		A4500-SO4 E	05/08/06 15:53 / th
PHYSICAL PROPERTIES							
009 pH	8.50	s.u.		0.01		A4500-H B	05/03/06 14:47 / jdh
010 Solids, Total Dissolved TDS @ 180 C	698	mg/L		10		A2540 C	05/03/06 16:55 / jdh
METALS - DISSOLVED							
022 Aluminum	0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
023 Arsenic	0.003	mg/L		0.001		E200.8	05/03/06 17:52 / sml
024 Barium	0.019	mg/L		0.001		E200.8	05/03/06 17:52 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
001 Calcium	5.9	mg/L		0.5		E200.7	05/16/06 14:02 / cp
027 Chromium	0.002	mg/L		0.001		E200.8	05/03/06 17:52 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 14:02 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
002 Magnesium	1.1	mg/L		0.5		E200.7	05/16/06 14:02 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 17:52 / sml
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/03/06 17:52 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
003 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 14:02 / cp
040 Selenium	0.012	mg/L		0.001		E200.8	05/03/06 17:52 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
004 Sodium	250	mg/L		0.5		E200.7	05/16/06 14:02 / cp
015 Uranium	0.0161	mg/L		0.0003		E200.8	05/03/06 17:52 / sml
042 Vanadium	0.017	mg/L		0.001		E200.8	05/03/06 17:52 / sml
043 Zinc	0.017	mg/L		0.001		E200.8	05/03/06 17:52 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

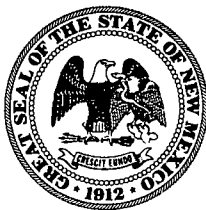
Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-011
Client Sample ID: RW-37A

Report Date: 06/06/06
Collection Date: 05/01/06 10:35
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.003	mg/L		0.001		E200.8	05/08/06 16:07 / bws
119 Arsenic	0.003	mg/L		0.001		E200.8	05/04/06 22:45 / sml
124 Barium	0.019	mg/L		0.001		E200.8	05/04/06 22:45 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
101 Calcium	6.9	mg/L		0.5		E200.7	05/16/06 15:41 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 15:41 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
102 Magnesium	1.4	mg/L		0.5		E200.7	05/16/06 15:41 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 22:45 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 22:45 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
103 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 15:41 / cp
140 Selenium	0.011	mg/L		0.001		E200.8	05/04/06 22:45 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
104 Sodium	249	mg/L		0.5		E200.7	05/16/06 15:41 / cp
115 Uranium	0.0170	mg/L		0.0003		E200.8	05/04/06 22:45 / sml
142 Vanadium	0.016	mg/L		0.001		E200.8	05/04/06 22:45 / sml
143 Zinc	0.017	mg/L		0.001		E200.8	05/04/06 22:45 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
245 Radium 226 precision (±)	0.6	pCi/L				E903.0	05/22/06 16:16 / trs
057 Radium 228	3.4	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-2.59	%				Calculation	05/17/06 12:57 / cp
194 Anions	11.9	meq/L				Calculation	05/17/06 12:57 / cp
195 Cations	11.3	meq/L				Calculation	05/17/06 12:57 / cp
079 Solids, Total Dissolved Calculated	716	mg/L				Calculation	05/17/06 12:57 / cp
200 TDS Balance (0.80 - 1.20)	0.970	dec. %				Calculation	05/17/06 12:57 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Pat Pladgett
P. O. Box 1744
Grants, NM 87020

Subject: Analytical report for water sample RW-38 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Wilson:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-38". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal drinking water standard for total dissolved solids (TDS).

Mr. P. Pladgett

RE: Analytical reports for water sample RW-38 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	TDS (mg/L)
Sample RW-38	598
EPA MCL	500 (a)
NMWQCC (b)	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

The secondary drinking water standard for TDS is not a health-based standard, and therefore the presence of this analyte only affects the aesthetic qualities of the water such as taste, color and odor. Consumption of elevated levels of TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheet for additional information pertaining to the effects of TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

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

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-004
Client Sample ID: RW-38

Report Date: 06/06/06
Collection Date: 05/01/06 11:50
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	290	mg/L		1		A2320 B	05/08/06 10:11 / th
006 Carbonate as CO3	10	mg/L		1		A2320 B	05/08/06 10:11 / th
005 Bicarbonate as HCO3	337	mg/L		1		A2320 B	05/08/06 10:11 / th
007 Chloride	41	mg/L		1		A4500-Cl B	05/02/06 13:31 / jl
139 Nitrogen, Nitrate as N	1.0	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	05/02/06 15:02 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:17 / jal
008 Sulfate	167	mg/L	D	6		A4500-SO4 E	05/08/06 15:45 / th
PHYSICAL PROPERTIES							
009 pH	8.73	s.u.		0.01		A4500-H B	05/03/06 12:13 / jdh
010 Solids, Total Dissolved TDS @ 180 C	598	mg/L		10		A2540 C	05/03/06 16:52 / jdh
METALS - DISSOLVED							
022 Aluminum	0.003	mg/L		0.001		E200.8	05/03/06 16:12 / sml
023 Arsenic	0.004	mg/L		0.001		E200.8	05/03/06 16:12 / sml
024 Barium	0.026	mg/L		0.001		E200.8	05/03/06 16:12 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
001 Calcium	3.3	mg/L		0.5		E200.7	05/16/06 13:26 / cp
027 Chromium	0.003	mg/L		0.001		E200.8	05/03/06 16:12 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
029 Copper	0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 13:26 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
002 Magnesium	0.6	mg/L		0.5		E200.7	05/16/06 13:26 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:12 / sml
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/03/06 16:12 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
003 Potassium	1.9	mg/L		0.5		E200.7	05/16/06 13:26 / cp
040 Selenium	0.008	mg/L		0.001		E200.8	05/03/06 16:12 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:12 / sml
004 Sodium	221	mg/L		0.5		E200.7	05/16/06 13:26 / cp
015 Uranium	0.0178	mg/L		0.0003		E200.8	05/03/06 16:12 / sml
042 Vanadium	0.026	mg/L		0.001		E200.8	05/03/06 16:12 / sml
043 Zinc	0.003	mg/L		0.001		E200.8	05/03/06 16:12 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050089-004

Client Sample ID: RW-38

Report Date: 06/06/06

Collection Date: 05/01/06 11:50

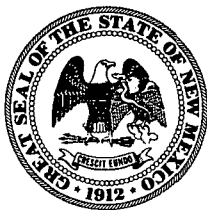
Date Received: 05/02/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.003	mg/L		0.001		E200.8	05/08/06 14:46 / bws
119 Arsenic	0.004	mg/L		0.001		E200.8	05/04/06 14:45 / sml
124 Barium	0.026	mg/L		0.001		E200.8	05/04/06 14:45 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
101 Calcium	3.2	mg/L		0.5		E200.7	05/16/06 15:04 / cp
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 14:45 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
129 Copper	0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 15:04 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
102 Magnesium	0.6	mg/L		0.5		E200.7	05/16/06 15:04 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 14:45 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 14:45 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
103 Potassium	1.9	mg/L		0.5		E200.7	05/16/06 15:04 / cp
140 Selenium	0.009	mg/L		0.001		E200.8	05/04/06 14:45 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 14:45 / sml
104 Sodium	228	mg/L		0.5		E200.7	05/16/06 15:04 / cp
115 Uranium	0.0195	mg/L		0.0003		E200.8	05/04/06 14:45 / sml
142 Vanadium	0.026	mg/L		0.001		E200.8	05/04/06 14:45 / sml
143 Zinc	0.003	mg/L		0.001		E200.8	05/04/06 14:45 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 15:09 / trs
057 Radium 228	1.3	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-2.68	%				Calculation	05/17/06 12:55 / cp
194 Anions	10.4	meq/L				Calculation	05/17/06 12:55 / cp
195 Cations	9.86	meq/L				Calculation	05/17/06 12:55 / cp
079 Solids, Total Dissolved Calculated	606	mg/L				Calculation	05/17/06 12:55 / cp
200 TDS Balance (0.80 - 1.20)	0.990	dec. %				Calculation	05/17/06 12:55 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Robert and Ms. Marti Smith
P. O. Box 2393
Milan, NM 87021

Subject: Analytical report for water sample RW-39 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. and Ms. Smith:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-39". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal drinking water standard for sulfate, and the State and secondary Federal drinking water standards for total dissolved solids (TDS).

Mr. and Ms. Smith

RE: Analytical reports for water sample RW-39 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)
Sample RW-39	390	1010
EPA MCL	250 (a)	500 (a)
NMWQCC (b)	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

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.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)
Sulfate in Drinking Water (EPA)

Mr. and Ms. Smith

RE: Analytical reports for water sample RW-39 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-007
Client Sample ID: RW-39

Report Date: 06/06/06
Collection Date: 05/01/06 10:33
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	<0.001	mg/L		0.001		E200.8	05/08/06 15:37 / bws
119 Arsenic	0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
124 Barium	0.033	mg/L		0.001		E200.8	05/04/06 15:05 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
101 Calcium	227	mg/L		0.5		E200.7	05/16/06 15:27 / cp
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 15:05 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
129 Copper	0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
121 Iron	0.03	mg/L		0.01		E200.7	05/16/06 15:27 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
102 Magnesium	46.7	mg/L		0.5		E200.7	05/16/06 15:27 / cp
134 Manganese	0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 15:05 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
137 Nickel	0.006	mg/L		0.001		E200.8	05/04/06 15:05 / sml
103 Potassium	2.2	mg/L		0.5		E200.7	05/16/06 15:27 / cp
140 Selenium	0.006	mg/L		0.001		E200.8	05/04/06 15:05 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 15:05 / sml
104 Sodium	40.3	mg/L		0.5		E200.7	05/16/06 15:27 / cp
115 Uranium	0.0080	mg/L		0.0003		E200.8	05/04/06 15:05 / sml
142 Vanadium	0.007	mg/L		0.001		E200.8	05/04/06 15:05 / sml
143 Zinc	0.030	mg/L		0.001		E200.8	05/04/06 15:05 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	1.1	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
245 Radium 226 precision (±)	0.6	pCi/L				E903.0	05/22/06 16:16 / trs
057 Radium 228	2.2	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.800	%				Calculation	05/17/06 12:56 / cp
194 Anions	18.2	meq/L				Calculation	05/17/06 12:56 / cp
195 Cations	18.5	meq/L				Calculation	05/17/06 12:56 / cp
079 Solids, Total Dissolved Calculated	1050	mg/L				Calculation	05/17/06 12:56 / cp
200 TDS Balance (0.80 - 1.20)	0.960	dec. %				Calculation	05/17/06 12:56 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-007
Client Sample ID: RW-39

Report Date: 06/06/06
Collection Date: 05/01/06 10:33
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	435	mg/L		1		A2320 B	05/08/06 10:22 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:22 / th
005 Bicarbonate as HCO3	531	mg/L		1		A2320 B	05/08/06 10:22 / th
007 Chloride	35	mg/L		1		A4500-Cl B	05/02/06 13:36 / jl
139 Nitrogen, Nitrate as N	2.8	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.8	mg/L		0.1		E353.2	05/02/06 15:10 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:17 / jal
008 Sulfate	390	mg/L	D	6		A4500-SO4 E	05/08/06 15:48 / th
PHYSICAL PROPERTIES							
009 pH	7.79	s.u.		0.01		A4500-H B	05/03/06 12:20 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1010	mg/L		10		A2540 C	05/03/06 16:53 / jdh
METALS - DISSOLVED							
022 Aluminum	0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
024 Barium	0.033	mg/L		0.001		E200.8	05/03/06 16:39 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
001 Calcium	248	mg/L		0.5		E200.7	05/16/06 13:36 / cp
027 Chromium	0.003	mg/L		0.001		E200.8	05/03/06 16:39 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
029 Copper	0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 13:36 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
002 Magnesium	52.1	mg/L		0.5		E200.7	05/16/06 13:36 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:39 / sml
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
003 Potassium	2.2	mg/L		0.5		E200.7	05/16/06 13:36 / cp
040 Selenium	0.006	mg/L		0.001		E200.8	05/03/06 16:39 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:39 / sml
004 Sodium	40.6	mg/L		0.5		E200.7	05/16/06 13:36 / cp
015 Uranium	0.0073	mg/L		0.0003		E200.8	05/03/06 16:39 / sml
042 Vanadium	0.008	mg/L		0.001		E200.8	05/03/06 16:39 / sml
043 Zinc	0.029	mg/L		0.001		E200.8	05/03/06 16:39 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. James Driscoll
P. O. Box 3205
Milan, NM 87021

Subject: Analytical reports for water samples RW-40 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Driscoll:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-40". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the Federal primary drinking water standard for total uranium (EPA MCL), the State standard for dissolved uranium (NMWQCC), and secondary Federal drinking water and State standards for sulfate and total dissolved solids (TDS).

Mr. J. Driscoll

RE: Analytical reports for water samples RW-40 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Uranium (mg/L)		Sulfate (mg/L)	TDS (mg/L)
	Total	Dissolved		
Sample RW-40	0.0390	0.0366	753	1500
EPA MCL	0.03	None	250 (a)	500 (a)
NMWQCC (b)	None	0.03	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

Consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. Based on the exceedance of the primary drinking water standard for uranium, 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 uranium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

Mr. J. Driscoll

RE: Analytical reports for water samples RW-40 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Sulfate in Drinking Water (EPA)
ToxFAQs™ for uranium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050089-009

Client Sample ID: RW-40

Report Date: 06/06/06

Collection Date: 05/01/06 11:27

Date Received: 05/02/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	316	mg/L		1		A2320 B	05/08/06 10:26 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:26 / th
005 Bicarbonate as HCO3	386	mg/L		1		A2320 B	05/08/06 10:26 / th
007 Chloride	77	mg/L		1		A4500-Cl B	05/02/06 13:51 / jl
139 Nitrogen, Nitrate as N	3.7	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	3.7	mg/L		0.1		E353.2	05/02/06 15:22 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:19 / jal
008 Sulfate	753	mg/L	D	30		A4500-SO4 E	05/08/06 15:51 / th
PHYSICAL PROPERTIES							
009 pH	8.02	s.u.		0.01		A4500-H B	05/03/06 12:23 / jdH
010 Solids, Total Dissolved TDS @ 180 C	1500	mg/L		10		A2540 C	05/03/06 16:53 / jdH
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
024 Barium	0.016	mg/L		0.001		E200.8	05/03/06 16:52 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
001 Calcium	163	mg/L		0.5		E200.7	05/16/06 17:53 / cp
027 Chromium	0.002	mg/L		0.001		E200.8	05/03/06 16:52 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
029 Copper	0.005	mg/L		0.001		E200.8	05/03/06 16:52 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 17:53 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
002 Magnesium	43.8	mg/L		0.5		E200.7	05/16/06 17:53 / cp
034 Manganese	0.002	mg/L		0.001		E200.8	05/03/06 16:52 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:52 / sml
036 Molybdenum	0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
037 Nickel	0.002	mg/L		0.001		E200.8	05/03/06 16:52 / sml
003 Potassium	4.1	mg/L		0.5		E200.7	05/16/06 17:53 / cp
040 Selenium	0.024	mg/L		0.001		E200.8	05/03/06 16:52 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:52 / sml
004 Sodium	266	mg/L		0.5		E200.7	05/16/06 17:53 / cp
015 Uranium	0.0366	mg/L		0.0003		E200.8	05/03/06 16:52 / sml
042 Vanadium	0.003	mg/L		0.001		E200.8	05/03/06 16:52 / sml
043 Zinc	0.012	mg/L		0.001		E200.8	05/03/06 16:52 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-009
Client Sample ID: RW-40

Report Date: 06/06/06
Collection Date: 05/01/06 11:27
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.002	mg/L		0.001		E200.8	05/08/06 15:52 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 22:32 / sml
124 Barium	0.017	mg/L		0.001		E200.8	05/04/06 22:32 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 22:32 / sml
101 Calcium	155	mg/L		0.5		E200.7	05/16/06 17:56 / cp
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 22:32 / sml
128 Cobalt	0.001	mg/L		0.001		E200.8	05/04/06 22:32 / sml
129 Copper	0.005	mg/L		0.001		E200.8	05/04/06 22:32 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 17:56 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 22:32 / sml
102 Magnesium	41.4	mg/L		0.5		E200.7	05/16/06 17:56 / cp
134 Manganese	0.002	mg/L		0.001		E200.8	05/04/06 22:32 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 22:32 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/04/06 22:32 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 22:32 / sml
103 Potassium	4.2	mg/L		0.5		E200.7	05/16/06 17:56 / cp
140 Selenium	0.022	mg/L		0.001		E200.8	05/04/06 22:32 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 22:32 / sml
104 Sodium	272	mg/L		0.5		E200.7	05/16/06 17:56 / cp
115 Uranium	0.0390	mg/L		0.0003		E200.8	05/04/06 22:32 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 22:32 / sml
143 Zinc	0.012	mg/L		0.001		E200.8	05/04/06 22:32 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
057 Radium 228	2.2	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.62	%				Calculation	05/17/06 12:57 / cp
194 Anions	24.2	meq/L				Calculation	05/17/06 12:57 / cp
195 Cations	23.4	meq/L				Calculation	05/17/06 12:57 / cp
079 Solids, Total Dissolved Calculated	1490	mg/L				Calculation	05/17/06 12:57 / cp
200 TDS Balance (0.80 - 1.20)	1.01	dec. %				Calculation	05/17/06 12:57 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Kathy Leclair
P. O. Box 3851
Milan, NM 87021

Subject: Analytical reports for water samples RW-41 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Leclair:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-41". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the Federal primary drinking water standard for total selenium (EPA), the State standard for dissolved selenium, and secondary Federal drinking water and State standards for sulfate and total dissolved solids (TDS).

Ms. K. Leclair

RE: Analytical reports for water samples RW-41 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Selenium		Sulfate (mg/L)	TDS (mg/L)
	Total	Dissolved		
Sample RW-41	0.079	0.076	1210	2370
EPA MCL	0.05	None	250 (a)	500 (a)
NMWQCC (b)	None	0.05	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 Agency for Toxic Substances and Disease Registry (ATSDR), selenium in trace amounts is necessary for good health, but can be harmful in high concentrations. Based on the exceedance of the primary drinking water standard for selenium, 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 selenium, such as reverse osmosis. Please review the enclosed fact sheets for additional information pertaining to the health effects of selenium.

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Ms. K. Leclair

RE: Analytical reports for water samples RW-41 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Sulfate in Drinking Water (EPA)

ToxFAQs™ for selenium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-003
Client Sample ID: RW-41

Report Date: 06/06/06
Collection Date: 05/01/06 13:55
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.008	mg/L		0.001		E200.8	05/08/06 14:39 / bws
119 Arsenic	0.002	mg/L		0.001		E200.8	05/04/06 13:39 / sml
124 Barium	0.012	mg/L		0.001		E200.8	05/04/06 13:39 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 13:39 / sml
101 Calcium	213	mg/L		0.5		E200.7	05/16/06 17:43 / cp
120 Chromium	0.003	mg/L		0.001		E200.8	05/04/06 13:39 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 13:39 / sml
129 Copper	0.002	mg/L		0.001		E200.8	05/04/06 13:39 / sml
121 Iron	0.01	mg/L		0.01		E200.7	05/16/06 17:43 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 13:39 / sml
102 Magnesium	56.9	mg/L		0.5		E200.7	05/16/06 17:43 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 13:39 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 13:39 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/04/06 13:39 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 13:39 / sml
103 Potassium	7.2	mg/L		0.5		E200.7	05/16/06 17:43 / cp
140 Selenium	0.079	mg/L		0.001		E200.8	05/04/06 13:39 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 13:39 / sml
104 Sodium	432	mg/L	D	3		E200.7	05/16/06 15:01 / cp
115 Uranium	0.287	mg/L		0.0003		E200.8	05/04/06 13:39 / sml
142 Vanadium	0.007	mg/L		0.001		E200.8	05/04/06 13:39 / sml
143 Zinc	0.009	mg/L		0.001		E200.8	05/04/06 13:39 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 15:09 / trs
057 Radium 228	2.1	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-2.78	%				Calculation	05/17/06 12:54 / cp
194 Anions	37.2	meq/L				Calculation	05/17/06 12:54 / cp
195 Cations	35.2	meq/L				Calculation	05/17/06 12:54 / cp
079 Solids, Total Dissolved Calculated	2290	mg/L				Calculation	05/17/06 12:54 / cp
200 TDS Balance (0.80 - 1.20)	1.03	dec. %				Calculation	05/17/06 12:54 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-003
Client Sample ID: RW-41

Report Date: 06/06/06
Collection Date: 05/01/06 13:55
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	429	mg/L		1		A2320 B	05/08/06 10:09 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:09 / th
005 Bicarbonate as HCO3	523	mg/L		1		A2320 B	05/08/06 10:09 / th
007 Chloride	200	mg/L		1		A4500-Cl B	05/02/06 13:29 / jl
139 Nitrogen, Nitrate as N	6.2	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	6.2	mg/L	D	0.2		E353.2	05/02/06 14:55 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:16 / jal
008 Sulfate	1210	mg/L	D	30		A4500-SO4 E	05/08/06 15:44 / th
PHYSICAL PROPERTIES							
009 pH	7.60	s.u.		0.01		A4500-H B	05/03/06 12:11 / jdh
010 Solids, Total Dissolved TDS @ 180 C	2370	mg/L		10		A2540 C	05/03/06 16:51 / jdh
METALS - DISSOLVED							
022 Aluminum	0.002	mg/L		0.001		E200.8	05/03/06 15:39 / sml
023 Arsenic	0.002	mg/L		0.001		E200.8	05/03/06 15:39 / sml
024 Barium	0.012	mg/L		0.001		E200.8	05/03/06 15:39 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 15:39 / sml
001 Calcium	224	mg/L		0.5		E200.7	05/16/06 17:40 / cp
027 Chromium	0.004	mg/L		0.001		E200.8	05/03/06 15:39 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 15:39 / sml
029 Copper	0.002	mg/L		0.001		E200.8	05/03/06 15:39 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 17:40 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 15:39 / sml
002 Magnesium	59.1	mg/L		0.5		E200.7	05/16/06 17:40 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 15:39 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 15:39 / sml
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/03/06 15:39 / sml
037 Nickel	0.002	mg/L		0.001		E200.8	05/03/06 15:39 / sml
003 Potassium	7.2	mg/L		0.5		E200.7	05/16/06 17:40 / cp
040 Selenium	0.076	mg/L		0.001		E200.8	05/03/06 15:39 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 15:39 / sml
004 Sodium	436	mg/L	D	3		E200.7	05/16/06 13:23 / cp
015 Uranium	0.265	mg/L		0.0003		E200.8	05/03/06 15:39 / sml
042 Vanadium	0.006	mg/L		0.001		E200.8	05/03/06 15:39 / sml
043 Zinc	0.009	mg/L		0.001		E200.8	05/03/06 15:39 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Adolpho Blea
P. O. Box 3750
Milan, NM 87021

Subject: Analytical reports for water samples RW-45 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Blea:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-45". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 water from your well exceeds the Federal primary drinking water standards (EPA MCL) for total uranium and selenium, the State standards (NMWQCC) for dissolved uranium and selenium, and secondary Federal drinking water and State standards for sulfate and total dissolved solids (TDS).

Mr. A. Blea

RE: Analytical reports for water samples RW-45 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Uranium (mg/L)		Sulfate (mg/L)	TDS (mg/L)	Selenium (mg/L)	
	Total	Dissolved			Total	Dissolved
Sample RW-45	0.0497	0.0462	1210	2290	.056	0.054
EPA MCL	0.03	None	250 (a)	500 (a)	0.05	None
NMWQCC (b)	None	0.03	600	1000	None	0.05

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 Agency for Toxic Substances and Disease Registry (ATSDR), consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity; selenium in trace amounts is necessary for good health, but can be harmful in high concentrations. Based on the exceedance of the primary drinking water standards for uranium and selenium, 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 uranium and selenium, such as reverse osmosis. Please review the enclosed fact sheets for additional information pertaining to the health effects of uranium and selenium.

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Mr. A. Blea

RE: Analytical reports for water samples RW-45 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

Sulfate in Drinking Water (EPA)

ToxFAQsTM for selenium (ATSDR)

ToxFAQsTM for uranium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-005
Client Sample ID: RW-45

Report Date: 06/06/06
Collection Date: 05/01/06 11:59
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	345	mg/L		1		A2320 B	05/08/06 10:18 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:18 / th
005 Bicarbonate as HCO3	421	mg/L		1		A2320 B	05/08/06 10:18 / th
007 Chloride	205	mg/L		1		A4500-Cl B	05/02/06 13:33 / jl
139 Nitrogen, Nitrate as N	4.2	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	4.2	mg/L		0.1		E353.2	05/02/06 15:05 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:17 / jal
008 Sulfate	1210	mg/L	D	30		A4500-SO4 E	05/08/06 15:47 / th
PHYSICAL PROPERTIES							
009 pH	7.78	s.u.		0.01		A4500-H B	05/03/06 12:15 / jdH
010 Solids, Total Dissolved TDS @ 180 C	2290	mg/L		10		A2540 C	05/03/06 16:52 / jdH
METALS - DISSOLVED							
022 Aluminum	0.002	mg/L		0.001		E200.8	05/03/06 16:19 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
024 Barium	0.016	mg/L		0.001		E200.8	05/03/06 16:19 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
001 Calcium	285	mg/L		0.5		E200.7	05/16/06 17:46 / cp
027 Chromium	0.003	mg/L		0.001		E200.8	05/03/06 16:19 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
029 Copper	0.002	mg/L		0.001		E200.8	05/03/06 16:19 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 17:46 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
002 Magnesium	62.1	mg/L		0.5		E200.7	05/16/06 17:46 / cp
034 Manganese	0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:19 / sml
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
037 Nickel	0.002	mg/L		0.001		E200.8	05/03/06 16:19 / sml
003 Potassium	6.1	mg/L		0.5		E200.7	05/16/06 17:46 / cp
040 Selenium	0.054	mg/L		0.001		E200.8	05/03/06 16:19 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:19 / sml
004 Sodium	349	mg/L	D	3		E200.7	05/16/06 13:29 / cp
015 Uranium	0.0462	mg/L		0.0003		E200.8	05/03/06 16:19 / sml
042 Vanadium	0.002	mg/L		0.001		E200.8	05/03/06 16:19 / sml
043 Zinc	0.016	mg/L		0.001		E200.8	05/03/06 16:19 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

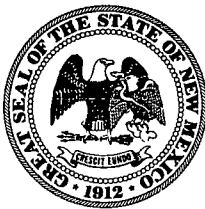
Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-005
Client Sample ID: RW-45

Report Date: 06/06/06
Collection Date: 05/01/06 11:59
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.001	mg/L		0.001		E200.8	05/08/06 15:23 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
124 Barium	0.016	mg/L		0.001		E200.8	05/04/06 14:52 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
101 Calcium	270	mg/L		0.5		E200.7	05/16/06 17:50 / cp
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 14:52 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
129 Copper	0.003	mg/L		0.001		E200.8	05/04/06 14:52 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 17:50 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
102 Magnesium	59.2	mg/L		0.5		E200.7	05/16/06 17:50 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 14:52 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
137 Nickel	0.003	mg/L		0.001		E200.8	05/04/06 14:52 / sml
103 Potassium	6.0	mg/L		0.5		E200.7	05/16/06 17:50 / cp
140 Selenium	0.056	mg/L		0.001		E200.8	05/04/06 14:52 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 14:52 / sml
104 Sodium	346	mg/L	D	3		E200.7	05/16/06 15:21 / cp
115 Uranium	0.0497	mg/L		0.0003		E200.8	05/04/06 14:52 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 14:52 / sml
143 Zinc	0.017	mg/L		0.001		E200.8	05/04/06 14:52 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 15:09 / trs
057 Radium 228	2.4	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-0.995	%				Calculation	05/17/06 12:55 / cp
194 Anions	35.3	meq/L				Calculation	05/17/06 12:55 / cp
195 Cations	34.7	meq/L				Calculation	05/17/06 12:55 / cp
079 Solids, Total Dissolved Calculated	2200	mg/L				Calculation	05/17/06 12:55 / cp
200 TDS Balance (0.80 - 1.20)	1.04	dec. %				Calculation	05/17/06 12:55 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Mr. Leon Bachman
P. O. Box 3343
Milan, NM 87021

Subject: Analytical reports for water samples RW-46 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Bachman:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 2, 2006. For tracking purposes, the samples from your well were designated as "RW-46". The samples were analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. Both samples were sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 these samples show that water from your well exceeds the Federal primary drinking water standard for total uranium (EPA MCL), the State standard for dissolved uranium (NMWQCC), and secondary Federal drinking water and State standards for sulfate and total dissolved solids (TDS).

Mr. L. Bachman

RE: Analytical reports for water samples RW-46 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

SAMPLE	Uranium (mg/L)		Sulfate (mg/L)	TDS (mg/L)
	Total	Dissolved		
Sample RW-46	0.0487	0.0458	606	1330
EPA MCL	0.03	None	250 (a)	500 (a)
NMWQCC (b)	None	0.03	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

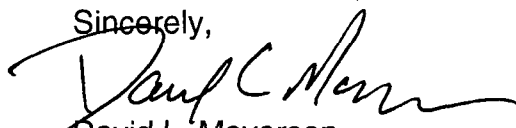
Consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. Based on the exceedance of the primary drinking water standard for uranium, NMED recommends that you do not drink or cook with your well water. You may choose to switch to bottled water or to install an appropriate water treatment system that removes uranium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (2 pages)

Mr. L. Bachman

RE: Analytical reports for water samples RW-46 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Sulfate in Drinking Water (EPA)

ToxFAQs™ for uranium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-010
Client Sample ID: RW-46

Report Date: 06/06/06
Collection Date: 05/02/06 06:46
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/ RL QCL	Method	Analysis Date / By
MAJOR IONS						
075 Alkalinity, Total as CaCO3	336	mg/L		1	A2320 B	05/11/06 12:42 / th
006 Carbonate as CO3	<1	mg/L		1	A2320 B	05/11/06 12:42 / th
005 Bicarbonate as HCO3	410	mg/L		1	A2320 B	05/11/06 12:42 / th
007 Chloride	48	mg/L		1	A4500-Cl B	05/04/06 15:38 / jl
139 Nitrogen, Nitrate as N	2.9	mg/L		0.1	E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.9	mg/L		0.1	E353.2	05/04/06 10:40 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1	A4500-NO2 B	05/03/06 14:23 / jal
008 Sulfate	606	mg/L	D	30	A4500-SO4 E	05/09/06 16:58 / th
PHYSICAL PROPERTIES						
009 pH	7.92	s.u.		0.01	A4500-H B	05/04/06 14:13 / jdjh
010 Solids, Total Dissolved TDS @ 180 C	1330	mg/L		10	A2540 C	05/05/06 14:57 / jdjh
METALS - DISSOLVED						
022 Aluminum	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
023 Arsenic	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
024 Barium	0.017	mg/L		0.001	E200.8	05/05/06 05:25 / bws
026 Cadmium	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
001 Calcium	139	mg/L		0.5	E200.7	05/12/06 15:09 / ts
027 Chromium	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
028 Cobalt	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
029 Copper	0.007	mg/L		0.001	E200.8	05/05/06 05:25 / bws
032 Iron	<0.01	mg/L		0.01	E200.7	05/12/06 15:09 / ts
033 Lead	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
002 Magnesium	39.5	mg/L		0.5	E200.7	05/12/06 15:09 / ts
034 Manganese	0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
035 Mercury	<0.0002	mg/L		0.0002	E200.8	05/05/06 05:25 / bws
036 Molybdenum	0.002	mg/L		0.001	E200.8	05/05/06 05:25 / bws
037 Nickel	0.002	mg/L		0.001	E200.8	05/05/06 05:25 / bws
003 Potassium	3.1	mg/L		0.5	E200.7	05/12/06 15:09 / ts
040 Selenium	0.018	mg/L		0.001	E200.8	05/05/06 05:25 / bws
041 Silver	<0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
004 Sodium	268	mg/L		0.5	E200.7	05/12/06 15:09 / ts
015 Uranium	0.0458	mg/L		0.0003	E200.8	05/05/06 05:25 / bws
042 Vanadium	0.001	mg/L		0.001	E200.8	05/05/06 05:25 / bws
043 Zinc	0.019	mg/L		0.001	E200.8	05/05/06 05:25 / bws

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

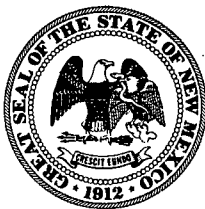
Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-010
Client Sample ID: RW-46

Report Date: 06/06/06
Collection Date: 05/02/06 06:46
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.001	mg/L		0.001		E200.8	05/09/06 03:29 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
124 Barium	0.017	mg/L		0.001		E200.8	05/04/06 21:05 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
101 Calcium	133	mg/L		0.5		E200.7	05/12/06 16:15 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
129 Copper	0.012	mg/L		0.001		E200.8	05/04/06 21:05 / sml
121 Iron	0.12	mg/L		0.01		E200.7	05/12/06 16:15 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
102 Magnesium	37.6	mg/L		0.5		E200.7	05/12/06 16:15 / ts
134 Manganese	0.003	mg/L		0.001		E200.8	05/04/06 21:05 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 21:05 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/04/06 21:05 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 21:05 / sml
103 Potassium	2.8	mg/L		0.5		E200.7	05/12/06 16:15 / ts
140 Selenium	0.018	mg/L		0.001		E200.8	05/04/06 21:05 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
104 Sodium	255	mg/L		0.5		E200.7	05/12/06 16:15 / ts
115 Uranium	0.0487	mg/L		0.0003		E200.8	05/04/06 21:05 / sml
142 Vanadium	0.001	mg/L		0.001		E200.8	05/04/06 21:05 / sml
143 Zinc	0.014	mg/L		0.001		E200.8	05/04/06 21:05 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 19:55 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 13:44 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-0.029	%				Calculation	05/15/06 11:46 / cp
194 Anions	20.9	meq/L				Calculation	05/15/06 11:46 / cp
195 Cations	20.9	meq/L				Calculation	05/15/06 11:46 / cp
079 Solids, Total Dissolved Calculated	1320	mg/L				Calculation	05/15/06 11:46 / cp
200 TDS Balance (0.80 - 1.20)	1.01	dec. %				Calculation	05/15/06 11:46 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau
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Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2918
Fax (505) 827-2965
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Mr. Rudy and Ms. Rhilla Vasquez
P. O. Box 2324
Milan, NM 87021

Subject: Analytical reports for water samples RW-37 and RW-43 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. and Ms. Vasquez:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 1, 2006. For tracking purposes, the sample from your well was designated as "RW-43". During our conversation on 11/01/2006, you expressed your belief that your sample number was RW-37. However, since our conversation I have checked several sources of field documentation made at the time that the sampling was conducted, and the sample number designation of RW-43 for your well does appear to be correct. Nevertheless, I am including the results from well RW-37 for your information. Sample RW-37 was split into two parts (called "RW-37A" and "RW-37B"); all samples were sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event. This was done to compare the results between the two analyses, and is a common procedure for quality assurance in sampling.

I would like to clarify a statement that I made during our conversation: Energy Laboratories is an independent laboratory that has been approved by both the EPA and NMED to perform these sample analyses; by prior arrangement, the cost for these analyses is being paid by Homestake.

The samples were analyzed for metals (dissolved and total), major ions, radionuclides

Mr. and Ms. Vasquez

RE: Analytical reports for water samples RW-37 and RW-43 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample.

The analytical results that exceed applicable standards are summarized below. 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 water from RW-37 exceeds the secondary Federal drinking water standards for sulfate; water from RW-43 exceeds both State and secondary Federal drinking water standards for sulfate. Additionally, water from both wells exceed the secondary Federal and State drinking water standards for total dissolved solids (TDS).

SAMPLE	Sulfate (mg/L)	TDS (mg/L)
Sample RW-43	461	1030
Sample RW-37A	245	698
Sample RW-37B	245	700
EPA MCL	250 (a)	500 (a)
NMWQCC (b)	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

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

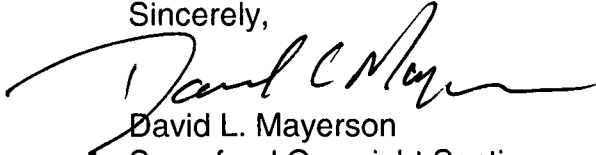
Mr. and Ms. Vasquez

RE: Analytical reports for water samples RW-37 and RW-43 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

information.

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (6 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals
(EPA)

Sulfate in Drinking Water (EPA)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050089-002

Client Sample ID: RW-43

Report Date: 06/06/06

Collection Date: 05/01/06 14:55

Date Received: 05/02/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	275	mg/L		1		A2320 B	05/08/06 10:06 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/08/06 10:06 / th
005 Bicarbonate as HCO3	336	mg/L		1		A2320 B	05/08/06 10:06 / th
007 Chloride	68	mg/L		1		A4500-Cl B	05/02/06 13:27 / jl
139 Nitrogen, Nitrate as N	3.6	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	3.6	mg/L		0.1		E353.2	05/02/06 14:52 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:16 / jal
008 Sulfate	461	mg/L	D	10		A4500-SO4 E	05/08/06 14:26 / th
PHYSICAL PROPERTIES							
009 pH	7.84	s.u.		0.01		A4500-H B	05/03/06 12:10 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1030	mg/L		10		A2540 C	05/03/06 16:51 / jdh
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
024 Barium	0.012	mg/L		0.001		E200.8	05/03/06 15:32 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
001 Calcium	164	mg/L		0.5		E200.7	05/16/06 13:19 / cp
027 Chromium	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
032 Iron	0.03	mg/L		0.01		E200.7	05/16/06 13:19 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
002 Magnesium	51.8	mg/L		0.5		E200.7	05/16/06 13:19 / cp
034 Manganese	0.002	mg/L		0.001		E200.8	05/03/06 15:32 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 15:32 / sml
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
037 Nickel	0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
003 Potassium	6.6	mg/L		0.5		E200.7	05/16/06 13:19 / cp
040 Selenium	0.011	mg/L		0.001		E200.8	05/03/06 15:32 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 15:32 / sml
004 Sodium	107	mg/L		0.5		E200.7	05/16/06 13:19 / cp
015 Uranium	0.0054	mg/L		0.0003		E200.8	05/03/06 15:32 / sml
042 Vanadium	0.002	mg/L		0.001		E200.8	05/03/06 15:32 / sml
043 Zinc	0.012	mg/L		0.001		E200.8	05/03/06 15:32 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-002
Client Sample ID: RW-43

Report Date: 06/06/06
Collection Date: 05/01/06 14:55
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.001	mg/L		0.001		E200.8	05/08/06 14:31 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
124 Barium	0.012	mg/L		0.001		E200.8	05/04/06 13:32 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
101 Calcium	155	mg/L		0.5		E200.7	05/16/06 14:58 / cp
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
121 Iron	0.04	mg/L		0.01		E200.7	05/16/06 14:58 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
102 Magnesium	48.1	mg/L		0.5		E200.7	05/16/06 14:58 / cp
134 Manganese	0.002	mg/L		0.001		E200.8	05/04/06 13:32 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 13:32 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
103 Potassium	6.6	mg/L		0.5		E200.7	05/16/06 14:58 / cp
140 Selenium	0.012	mg/L		0.001		E200.8	05/04/06 13:32 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 13:32 / sml
104 Sodium	110	mg/L		0.5		E200.7	05/16/06 14:58 / cp
115 Uranium	0.0058	mg/L		0.0003		E200.8	05/04/06 13:32 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 13:32 / sml
143 Zinc	0.013	mg/L		0.001		E200.8	05/04/06 13:32 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	1.0	pCi/L		1.0		E903.0	05/22/06 15:09 / trs
245 Radium 226 precision (±)	0.6	pCi/L				E903.0	05/22/06 15:09 / trs
057 Radium 228	1.3	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.79	%				Calculation	05/17/06 12:54 / cp
194 Anions	17.9	meq/L				Calculation	05/17/06 12:54 / cp
195 Cations	17.3	meq/L				Calculation	05/17/06 12:54 / cp
079 Solids, Total Dissolved Calculated	1070	mg/L				Calculation	05/17/06 12:54 / cp
200 TDS Balance (0.80 - 1.20)	0.960	dec. %				Calculation	05/17/06 12:54 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-010
Client Sample ID: RW-37B

Report Date: 06/06/06
Collection Date: 05/01/06 10:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	264	mg/L		1		A2320 B	05/08/06 10:39 / th
006 Carbonate as CO3	8	mg/L		1		A2320 B	05/08/06 10:39 / th
005 Bicarbonate as HCO3	308	mg/L		1		A2320 B	05/08/06 10:39 / th
007 Chloride	50	mg/L		1		A4500-Cl B	05/02/06 13:52 / jl
139 Nitrogen, Nitrate as N	2.0	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.0	mg/L		0.1		E353.2	05/02/06 15:25 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:19 / jal
008 Sulfate	245	mg/L	D	6		A4500-SO4 E	05/08/06 15:52 / th
PHYSICAL PROPERTIES							
009 pH	8.68	s.u.		0.01		A4500-H B	05/03/06 12:24 / jdth
010 Solids, Total Dissolved TDS @ 180 C	700	mg/L		10		A2540 C	05/03/06 16:55 / jdth
METALS - DISSOLVED							
022 Aluminum	0.002	mg/L		0.001		E200.8	05/03/06 16:59 / sml
023 Arsenic	0.003	mg/L		0.001		E200.8	05/03/06 16:59 / sml
024 Barium	0.020	mg/L		0.001		E200.8	05/03/06 16:59 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
001 Calcium	7.5	mg/L		0.5		E200.7	05/16/06 13:59 / cp
027 Chromium	0.002	mg/L		0.001		E200.8	05/03/06 16:59 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 13:59 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
002 Magnesium	1.4	mg/L		0.5		E200.7	05/16/06 13:59 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 16:59 / sml
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/03/06 16:59 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
003 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 13:59 / cp
040 Selenium	0.013	mg/L		0.001		E200.8	05/03/06 16:59 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 16:59 / sml
004 Sodium	257	mg/L		0.5		E200.7	05/16/06 13:59 / cp
015 Uranium	0.0158	mg/L		0.0003		E200.8	05/03/06 16:59 / sml
042 Vanadium	0.017	mg/L		0.001		E200.8	05/03/06 16:59 / sml
043 Zinc	0.023	mg/L		0.001		E200.8	05/03/06 16:59 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-010
Client Sample ID: RW-37B

Report Date: 06/06/06
Collection Date: 05/01/06 10:40
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.002	mg/L		0.001		E200.8	05/08/06 15:59 / bws
119 Arsenic	0.003	mg/L		0.001		E200.8	05/04/06 22:39 / sml
124 Barium	0.020	mg/L		0.001		E200.8	05/04/06 22:39 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
101 Calcium	6.9	mg/L		0.5		E200.7	05/16/06 15:37 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 15:37 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
102 Magnesium	1.3	mg/L		0.5		E200.7	05/16/06 15:37 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 22:39 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 22:39 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
103 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 15:37 / cp
140 Selenium	0.012	mg/L		0.001		E200.8	05/04/06 22:39 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 22:39 / sml
104 Sodium	261	mg/L		0.5		E200.7	05/16/06 15:37 / cp
115 Uranium	0.0169	mg/L		0.0003		E200.8	05/04/06 22:39 / sml
142 Vanadium	0.016	mg/L		0.001		E200.8	05/04/06 22:39 / sml
143 Zinc	0.024	mg/L		0.001		E200.8	05/04/06 22:39 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
057 Radium 228	6.4	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	1.0	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.39	%				Calculation	05/17/06 12:57 / cp
194 Anions	12.1	meq/L				Calculation	05/17/06 12:57 / cp
195 Cations	11.7	meq/L				Calculation	05/17/06 12:57 / cp
079 Solids, Total Dissolved Calculated	734	mg/L				Calculation	05/17/06 12:57 / cp
200 TDS Balance (0.80 - 1.20)	0.950	dec. %				Calculation	05/17/06 12:57 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050089-011

Client Sample ID: RW-37A

Report Date: 06/06/06

Collection Date: 05/01/06 10:35

Date Received: 05/02/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	271	mg/L		1		A2320 B	05/08/06 10:46 / th
006 Carbonate as CO3	6	mg/L		1		A2320 B	05/08/06 10:46 / th
005 Bicarbonate as HCO3	321	mg/L		1		A2320 B	05/08/06 10:46 / th
007 Chloride	50	mg/L		1		A4500-Cl B	05/02/06 13:54 / jl
139 Nitrogen, Nitrate as N	2.0	mg/L		0.1		E353.2	05/04/06 10:03 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.0	mg/L		0.1		E353.2	05/02/06 15:27 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/02/06 13:20 / jal
008 Sulfate	245	mg/L	D	6		A4500-SO4 E	05/08/06 15:53 / th
PHYSICAL PROPERTIES							
009 pH	8.50	s.u.		0.01		A4500-H B	05/03/06 14:47 / jd
010 Solids, Total Dissolved TDS @ 180 C	698	mg/L		10		A2540 C	05/03/06 16:55 / jd
METALS - DISSOLVED							
022 Aluminum	0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
023 Arsenic	0.003	mg/L		0.001		E200.8	05/03/06 17:52 / sml
024 Barium	0.019	mg/L		0.001		E200.8	05/03/06 17:52 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
001 Calcium	5.9	mg/L		0.5		E200.7	05/16/06 14:02 / cp
027 Chromium	0.002	mg/L		0.001		E200.8	05/03/06 17:52 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
032 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 14:02 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
002 Magnesium	1.1	mg/L		0.5		E200.7	05/16/06 14:02 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/03/06 17:52 / sml
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/03/06 17:52 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
003 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 14:02 / cp
040 Selenium	0.012	mg/L		0.001		E200.8	05/03/06 17:52 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/03/06 17:52 / sml
004 Sodium	250	mg/L		0.5		E200.7	05/16/06 14:02 / cp
015 Uranium	0.0161	mg/L		0.0003		E200.8	05/03/06 17:52 / sml
042 Vanadium	0.017	mg/L		0.001		E200.8	05/03/06 17:52 / sml
043 Zinc	0.017	mg/L		0.001		E200.8	05/03/06 17:52 / sml

Report Definitions: RL - Analyte reporting limit.

QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050089-011
Client Sample ID: RW-37A

Report Date: 06/06/06
Collection Date: 05/01/06 10:35
Date Received: 05/02/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.003	mg/L		0.001		E200.8	05/08/06 16:07 / bws
119 Arsenic	0.003	mg/L		0.001		E200.8	05/04/06 22:45 / sml
124 Barium	0.019	mg/L		0.001		E200.8	05/04/06 22:45 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
101 Calcium	6.9	mg/L		0.5		E200.7	05/16/06 15:41 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/16/06 15:41 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
102 Magnesium	1.4	mg/L		0.5		E200.7	05/16/06 15:41 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 22:45 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 22:45 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
103 Potassium	2.3	mg/L		0.5		E200.7	05/16/06 15:41 / cp
140 Selenium	0.011	mg/L		0.001		E200.8	05/04/06 22:45 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 22:45 / sml
104 Sodium	249	mg/L		0.5		E200.7	05/16/06 15:41 / cp
115 Uranium	0.0170	mg/L		0.0003		E200.8	05/04/06 22:45 / sml
142 Vanadium	0.016	mg/L		0.001		E200.8	05/04/06 22:45 / sml
143 Zinc	0.017	mg/L		0.001		E200.8	05/04/06 22:45 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/22/06 16:16 / trs
245 Radium 226 precision (±)	0.6	pCi/L				E903.0	05/22/06 16:16 / trs
057 Radium 228	3.4	pCi/L		1.0		RA-05	05/17/06 12:05 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/17/06 12:05 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/16/06 09:30 / df
DATA QUALITY							
192 A/C Balance (± 5)	-2.59	%				Calculation	05/17/06 12:57 / cp
194 Anions	11.9	meq/L				Calculation	05/17/06 12:57 / cp
195 Cations	11.3	meq/L				Calculation	05/17/06 12:57 / cp
079 Solids, Total Dissolved Calculated	716	mg/L				Calculation	05/17/06 12:57 / cp
200 TDS Balance (0.80 - 1.20)	0.970	dec. %				Calculation	05/17/06 12:57 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Winnie Mae Wilcox
P. O. Box 2711
Milan, NM 87021

Subject: Analytical report for water sample RW-48 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Wilcox:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-48". The sample taken from your well was split into two parts, with one sample sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event, and the second sample sent to Pinnacle Laboratory (listed as General Engineering on the laboratory report; note that Pinnacle Laboratory's reporting units are $\mu\text{g/L}$, whereas we report in units of mg/L below). This was done to compare the results between the two laboratories, and is a common procedure for quality assurance in sampling. The latter sample is designated "RW-48 duplicate" in the table following.

The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample.

The analytical results that exceed applicable standards are summarized below. Relevant standards are included below for comparison. Federal drinking water standards (i.e., Maximum Concentration Limits [MCLs]) are based on total analyte

Ms. W. Wilcox

RE: Analytical reports for water sample RW-48 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

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 primary drinking water standard for total uranium (EPA MCL), the State standard (NMWQCC) for dissolved uranium, the secondary Federal drinking water standard for iron, and both the State and secondary Federal drinking water standards for total iron, sulfate, and total dissolved solids (TDS).

SAMPLE	Sulfate (mg/L)	TDS (mg/L)	Total iron (mg/L)	Uranium (mg/L)	
				Total	Dissolved
Sample RW-48	1660	3030	3.01	0.0857	0.0811
Sample RW-48 duplicate	1450	3060	1.510	0.0736 (c)	0.072933 (d)
EPA MCL	250 (a)	500 (a)	0.3 (a)	0.03	None
NMWQCC (b)	600	1000	None	None	0.03

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

c. Includes U₂₃₄, which comprises only 0.0058% of total uranium

d. Reported concentration excludes U₂₃₄

According to the Agency for Toxic Substances and Disease Registry (ASTDR), consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. Based on the exceedance of the primary drinking water standard for uranium, 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 uranium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

The secondary drinking water standards for sulfate, TDS, and iron 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as orange staining. Please review the enclosed fact sheets for additional information pertaining to the effects of sulfate, TDS, and iron.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide

Ms. W. Wilcox

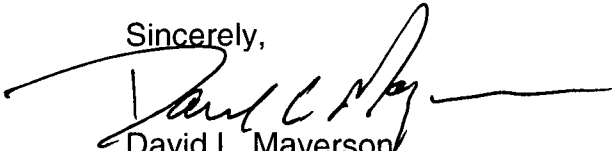
RE: Analytical reports for water sample RW-48 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)
Laboratory analytical report from Pinnacle Labs (6 pages)
Fact Sheets:
Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)
Sulfate in Drinking Water (EPA)
ToxFAQs™ for uranium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050172-005

Client Sample ID: RW-48

Report Date: 06/06/06

Collection Date: 05/02/06 14:40

Date Received: 05/03/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	311	mg/L		1		A2320 B	05/11/06 11:36 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 11:36 / th
005 Bicarbonate as HCO3	380	mg/L		1		A2320 B	05/11/06 11:36 / th
007 Chloride	264	mg/L		1		A4500-Cl B	05/04/06 15:24 / jl
139 Nitrogen, Nitrate as N	5.2	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	5.2	mg/L	D	0.2		E353.2	05/04/06 10:20 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:22 / jal
008 Sulfate	1660	mg/L	D	60		A4500-SO4 E	05/09/06 16:37 / th
PHYSICAL PROPERTIES							
009 pH	7.65	s.u.		0.01		A4500-H B	05/04/06 13:58 / jdh
010 Solids, Total Dissolved TDS @ 180 C	3030	mg/L		10		A2540 C	05/05/06 14:56 / jdh
METALS - DISSOLVED							
022 Aluminum	0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
024 Barium	0.006	mg/L		0.001		E200.8	05/05/06 03:42 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
001 Calcium	308	mg/L	D	0.6		E200.7	05/10/06 17:23 / ts
027 Chromium	0.002	mg/L		0.001		E200.8	05/05/06 03:42 / bws
028 Cobalt	0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
029 Copper	0.003	mg/L		0.001		E200.8	05/05/06 03:42 / bws
032 Iron	0.03	mg/L		0.01		E200.7	05/10/06 17:19 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
002 Magnesium	77.7	mg/L		0.5		E200.7	05/10/06 17:19 / ts
034 Manganese	0.009	mg/L		0.001		E200.8	05/05/06 03:42 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 03:42 / bws
036 Molybdenum	0.003	mg/L		0.001		E200.8	05/05/06 03:42 / bws
037 Nickel	0.003	mg/L		0.001		E200.8	05/05/06 03:42 / bws
003 Potassium	5.6	mg/L		0.5		E200.7	05/10/06 17:19 / ts
040 Selenium	0.046	mg/L		0.001		E200.8	05/05/06 03:42 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
004 Sodium	548	mg/L	D	0.6		E200.7	05/10/06 17:23 / ts
015 Uranium	0.0811	mg/L		0.0003		E200.8	05/05/06 03:42 / bws
042 Vanadium	0.001	mg/L		0.001		E200.8	05/05/06 03:42 / bws
043 Zinc	0.349	mg/L		0.001		E200.8	05/05/06 03:42 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-005
Client Sample ID: RW-48

Report Date: 06/06/06
Collection Date: 05/02/06 14:40
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.107	mg/L		0.001		E200.8	05/04/06 17:18 / sml
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 17:18 / sml
124 Barium	0.008	mg/L		0.001		E200.8	05/04/06 17:18 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 17:18 / sml
101 Calcium	286	mg/L		0.5		E200.7	05/12/06 15:52 / ts
120 Chromium	0.002	mg/L		0.001		E200.8	05/04/06 17:18 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 17:18 / sml
129 Copper	0.005	mg/L		0.001		E200.8	05/04/06 17:18 / sml
121 Iron	3.01	mg/L		0.01		E200.7	05/12/06 15:52 / ts
133 Lead	0.002	mg/L		0.001		E200.8	05/04/06 17:18 / sml
102 Magnesium	74.0	mg/L		0.5		E200.7	05/12/06 15:52 / ts
134 Manganese	0.042	mg/L		0.001		E200.8	05/04/06 17:18 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 17:18 / sml
136 Molybdenum	0.003	mg/L		0.001		E200.8	05/04/06 17:18 / sml
137 Nickel	0.004	mg/L		0.001		E200.8	05/04/06 17:18 / sml
103 Potassium	4.6	mg/L		0.5		E200.7	05/12/06 15:52 / ts
140 Selenium	0.045	mg/L		0.001		E200.8	05/04/06 17:18 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 17:18 / sml
104 Sodium	569	mg/L		0.5		E200.7	05/12/06 15:52 / ts
115 Uranium	0.0857	mg/L		0.0003		E200.8	05/04/06 17:18 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 17:18 / sml
143 Zinc	0.369	mg/L		0.001		E200.8	05/04/06 17:18 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 14:53 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-0.132	%				Calculation	05/15/06 11:44 / cp
194 Anions	45.5	meq/L				Calculation	05/15/06 11:44 / cp
195 Cations	45.3	meq/L				Calculation	05/15/06 11:44 / cp
079 Solids, Total Dissolved Calculated	2940	mg/L				Calculation	05/15/06 11:44 / cp
200 TDS Balance (0.80 - 1.20)	1.03	dec. %				Calculation	05/15/06 11:44 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

TOTAL

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 1 of 2

Client Sample ID: RW-48
Sample ID: 162062005
Matrix: Water
Collect Date: 02-MAY-06 14:40
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	J	2.32	1.50	5.00	ug/L	1	PRB	05/16/06	1729	527176	1
Iron		1510	10.0	25.0	ug/L	1					
Manganese		19.0	1.00	5.00	ug/L	1					
Molybdenum		2.85	0.100	0.500	ug/L	1					
Potassium		4670	80.0	300	ug/L	1					
Selenium		45.4	2.50	5.00	ug/L	1					
Sodium		6550	80.0	250	ug/L	1					
Vanadium	J	3.25	2.00	10.0	ug/L	1					
Calcium		315000	2000	10000	ug/L	100	PRB	05/16/06	1645	527176	2
Magnesium		72800	500	1500	ug/L	100					
<i>SW846_6020 Isotopic Uranium</i>											
Uranium		73.6	0.050	0.200	ug/L	1	PRB	05/12/06	1836	527178	3
Uranium-235		0.534	0.010	0.070	ug/L	1					
Uranium-238		73.1	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	EPA 200.8	
3	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis**DISSOLVED**

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 1 of 2

Client Sample ID: RW-48
 Sample ID: 162062010
 Matrix: Water
 Collect Date: 02-MAY-06 14:40
 Receive Date: 03-MAY-06
 Collector: Client

Project: PINL00405
 Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	J	2.35	1.50	5.00	ug/L	1	PRB	05/16/06	1742	527176	1
Iron		1000	10.0	25.0	ug/L	1					
Manganese		9.45	1.00	5.00	ug/L	1					
Molybdenum		2.98	0.100	0.500	ug/L	1					
Selenium		47.0	2.50	5.00	ug/L	1					
Vanadium	J	2.81	2.00	10.0	ug/L	1					
<i>SW846_6020 Isotopic Uranium</i>											
Uranium-235		0.533	0.010	0.070	ug/L	1	PRB	05/12/06	1849	527178	2
Uranium-238		72.4	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID: RW-48		Project: PINL00405	
Sample ID: 162062010		Client ID: PINL001	
Parameter	Qualifier	Result	DL RL Units DF AnalystDate Time Batch Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by

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: May 17, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Client Sample ID: RW-48
Sample ID: 162062005
Matrix: Water
Collect Date: 02-MAY-06 14:40
Receive Date: 03-MAY-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 14.1C	H	7.50	0.010	0.100	SU	1	SXS2	05/10/06	2236	526994	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO ₂ ,SO ₄ ,Cl											
Nitrate-N		5.51	0.033	0.100	mg/L	1	RXM1	05/04/06	0626	526700	2
Nitrite-N	U	0.00	0.033	0.100	mg/L	1					
Chloride		234	6.60	20.0	mg/L	100	MAR1	05/04/06	2029	526700	3
Sulfate		1450	10.0	40.0	mg/L	100					
Nutrient Analysis Federal											
Nitrogen, (NO ₃ /NO ₂)											
Nitrogen, Nitrate/Nitrite		4.91	0.140	0.500	mg/L	10	KLP1	05/08/06	1324	527551	4
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		3060	2.38	10.0	mg/L		GXA2	05/05/06	0854	526858	5
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO ₃		295	0.725	1.00	mg/L		RG2	05/15/06	1641	528783	6
Bicarbonate alkalinity (CaCO ₃)		294	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO ₃)		1.15	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 353.1	
5	EPA 160.1	
6	SM 2320B	

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE

Albuquerque, New Mexico 87107
Contact: Mr. Mitch Rubenstein
Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-48
Sample ID: 162062010
Matrix: Water
Collect Date: 02-MAY-06
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RI	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Th, Liquid</i>													
Thorium-228	U	-0.167	+/-0.119	0.857	+/-0.121	1.00	pCi/L	DDR1	05/12/06	0810	528280	1	
Thorium-230	U	-0.0912	+/-0.076	0.498	+/-0.076	1.00	pCi/L						
Thorium-232	U	-0.0164	+/-0.0164	0.342	+/-0.0166	1.00	pCi/L						
Rad Gas Flow Proportional Counting													
<i>GFPC, Ra228, Liquid</i>													
Radium-228	U	0.920	+/-0.421	1.68	+/-0.421	3.00	pCi/L	KSD1	05/16/06	1258	529101	2	
Rad Radium-226													
<i>Lucas Cell, Ra226, liquid</i>													
Radium-226	U	0.247	+/-0.0987	0.266	+/-0.0987	1.00	pCi/L	SG	05/15/06	1045	527246	3	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Th-01-RC Modified
2	EPA 904.0 Modified
3	EPA 903.1 Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	52	(15%-125%)
Carrier/Tracer Recovery	GFPC, Ra228, Liquid	74	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.

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Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE

Albuquerque, New Mexico 87107
Contact: Mr. Mitch Rubenstein
Project: NMED

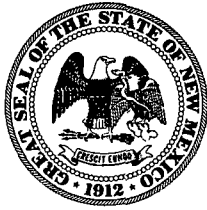
Report Date: May 17, 2006

Client Sample ID: RW-48
Sample ID: 162062010

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
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- J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier—please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Mr. Charles Harding
P. O. Box 204
Grants, NM 87020

Subject: Analytical report for water sample RW-50 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Harding:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-50". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal and State drinking water standards for sulfate and total dissolved solids (TDS).

Mr. C. Harding

RE: Analytical report for water sample RW-50 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	Sulfate (mg/L)	TDS (mg/L)
Sample RW-50	1010	1950
EPA MCL	250 (a)	500 (a)
NMWQCC (b)	600	1000

MCL=Maximum Contaminant Limit (primary standard)

a. EPA Secondary Maximum Contaminant Level (MCL)

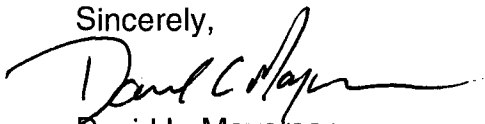
b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

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.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

Sulfate in Drinking Water (EPA)

Mr. C. Harding

RE: Analytical report for water sample RW-50 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-004
Client Sample ID: RW-50

Report Date: 06/06/06
Collection Date: 05/02/06 15:20
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.002	mg/L		0.001		E200.8	05/09/06 02:59 / bws
119 Arsenic	0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
124 Barium	0.007	mg/L		0.001		E200.8	05/04/06 20:45 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
101 Calcium	15.7	mg/L		0.5		E200.7	05/12/06 15:48 / ts
120 Chromium	0.006	mg/L		0.001		E200.8	05/04/06 20:45 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
129 Copper	0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
121 Iron	0.13	mg/L		0.01		E200.7	05/12/06 15:48 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
102 Magnesium	4.8	mg/L		0.5		E200.7	05/12/06 15:48 / ts
134 Manganese	0.027	mg/L		0.001		E200.8	05/04/06 20:45 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 20:45 / sml
136 Molybdenum	0.027	mg/L		0.001		E200.8	05/04/06 20:45 / sml
137 Nickel	0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
103 Potassium	2.4	mg/L		0.5		E200.7	05/12/06 15:48 / ts
140 Selenium	0.005	mg/L		0.001		E200.8	05/04/06 20:45 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
104 Sodium	645	mg/L		0.5		E200.7	05/12/06 15:48 / ts
115 Uranium	0.0103	mg/L		0.0003		E200.8	05/04/06 20:45 / sml
142 Vanadium	<0.001	mg/L		0.001		E200.8	05/04/06 20:45 / sml
143 Zinc	0.003	mg/L		0.001		E200.8	05/04/06 20:45 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 13:53 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.76	%				Calculation	05/15/06 11:44 / cp
194 Anions	30.4	meq/L				Calculation	05/15/06 11:44 / cp
195 Cations	29.3	meq/L				Calculation	05/15/06 11:44 / cp
079 Solids, Total Dissolved Calculated	1940	mg/L				Calculation	05/15/06 11:44 / cp
200 TDS Balance (0.80 - 1.20)	1.01	dec. %				Calculation	05/15/06 11:44 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

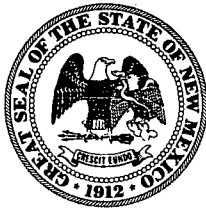
Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-004
Client Sample ID: RW-50

Report Date: 06/06/06
Collection Date: 05/02/06 15:20
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	360	mg/L		1		A2320 B	05/11/06 11:34 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 11:34 / th
005 Bicarbonate as HCO3	439	mg/L		1		A2320 B	05/11/06 11:34 / th
007 Chloride	174	mg/L		1		A4500-Cl B	05/04/06 15:22 / jl
139 Nitrogen, Nitrate as N	<0.1	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	<0.1	mg/L		0.1		E353.2	05/04/06 10:17 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:22 / jal
008 Sulfate	1010	mg/L	D	30		A4500-SO4 E	05/09/06 16:36 / th
PHYSICAL PROPERTIES							
009 pH	7.86	s.u.		0.01		A4500-H B	05/04/06 13:56 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1950	mg/L		10		A2540 C	05/05/06 14:55 / jdh
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
023 Arsenic	0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
024 Barium	0.006	mg/L		0.001		E200.8	05/05/06 03:35 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
001 Calcium	16.3	mg/L		0.5		E200.7	05/10/06 16:50 / ts
027 Chromium	0.002	mg/L		0.001		E200.8	05/05/06 03:35 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
029 Copper	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
032 Iron	0.02	mg/L		0.01		E200.7	05/10/06 16:50 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
002 Magnesium	5.0	mg/L		0.5		E200.7	05/10/06 16:50 / ts
034 Manganese	0.025	mg/L		0.001		E200.8	05/05/06 03:35 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 03:35 / bws
036 Molybdenum	0.027	mg/L		0.001		E200.8	05/05/06 03:35 / bws
037 Nickel	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
003 Potassium	3.4	mg/L		0.5		E200.7	05/10/06 16:50 / ts
040 Selenium	0.003	mg/L		0.001		E200.8	05/05/06 03:35 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
004 Sodium	635	mg/L		0.5		E200.7	05/10/06 16:50 / ts
015 Uranium	0.0094	mg/L		0.0003		E200.8	05/05/06 03:35 / bws
042 Vanadium	<0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws
043 Zinc	0.001	mg/L		0.001		E200.8	05/05/06 03:35 / bws

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

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

Subject: Analytical reports for water sample RW-20 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 sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical reports for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-20". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. Additionally the samples designated as RW-20A and RW-20B (see below for further explanation) were analyzed for the presence of volatile organic compounds (VOCs).

The sample taken from your well was split into two parts. One sample (designated RW-20 in the table below) was sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event. The second sample was sent to Pinnacle Laboratory (listed as General Engineering on the laboratory report; note that Pinnacle Laboratory's reporting units are $\mu\text{g/L}$, whereas we report in units of mg/L below). Additionally, the sample that was sent to Pinnacle Laboratory was again split into two parts, designated RW-20A and RW-20B, with the same analytical procedures performed on both of these samples. This was done to compare the results between the two

Ms. C. Williams

RE: Analytical reports for water sample RW-20 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

laboratories, as well as within Pinnacle Laboratory itself, and is a common procedure for quality assurance in sampling.

There were no detections of VOCs that were reported from sample RW-20 (i.e., RW-20A and RW-20B analyses from Pinnacle Laboratory). Analytical results that do exceed applicable standards are summarized below. 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, total dissolved solids (TDS), and total iron.

SAMPLE	Nitrate as nitrogen (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Total iron (mg/L)
Sample RW-20	24.6	842	1740	0.04 (no exceedance)
Sample RW-20A (split)	25.3	766	1740	0.755
Sample RW-20B (split/duplicate)	24.7	754	1750	0.709
EPA MCL	10.0	250 (a)	500 (a)	0.3 (a)
NMWQCC (b)	10.0	600	1000	None

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, TDS, and iron 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as

Ms. C. Williams

RE: Analytical reports for water sample RW-20 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

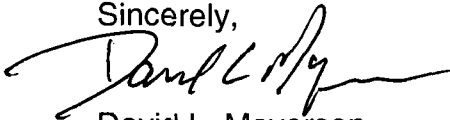
November 1, 2006

orange staining. Please review the enclosed fact sheets for additional information pertaining to the effects of iron, sulfate, and TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and Agency for Toxic Substances and Disease Registry (ATSDR) to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Laboratories (2 pages)
Laboratory analytical report from Pinnacle Laboratory (18 pages)
Fact Sheets:
Consumer Factsheet on nitrates/nitrites (EPA)
Sulfate in Drinking Water (EPA)
Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-011
Client Sample ID: RW-20

Report Date: 06/06/06
Collection Date: 05/02/06 11:42
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	252	mg/L		1		A2320 B	05/11/06 12:44 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 12:44 / th
005 Bicarbonate as HCO3	308	mg/L		1		A2320 B	05/11/06 12:44 / th
007 Chloride	111	mg/L		1		A4500-Cl B	05/04/06 15:40 / jl
139 Nitrogen, Nitrate as N	24.6	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	24.6	mg/L	D	0.3		E353.2	05/04/06 10:48 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:24 / jal
008 Sulfate	842	mg/L	D	30		A4500-SO4 E	05/09/06 16:59 / th
PHYSICAL PROPERTIES							
009 pH	7.90	s.u.		0.01		A4500-H B	05/04/06 14:17 / jd
010 Solids, Total Dissolved TDS @ 180 C	1740	mg/L		10		A2540 C	05/05/06 15:00 / jd
METALS - DISSOLVED							
022 Aluminum	0.006	mg/L		0.001		E200.8	05/05/06 05:32 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 05:32 / bws
024 Barium	0.026	mg/L		0.001		E200.8	05/05/06 05:32 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 05:32 / bws
001 Calcium	201	mg/L		0.5		E200.7	05/12/06 15:13 / ts
027 Chromium	0.001	mg/L		0.001		E200.8	05/05/06 05:32 / bws
028 Cobalt	0.002	mg/L		0.001		E200.8	05/05/06 05:32 / bws
029 Copper	0.002	mg/L		0.001		E200.8	05/05/06 05:32 / bws
032 Iron	<0.01	mg/L		0.01		E200.7	05/12/06 15:13 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 05:32 / bws
002 Magnesium	73.9	mg/L		0.5		E200.7	05/12/06 15:13 / ts
034 Manganese	<0.001	mg/L		0.001		E200.8	05/05/06 05:32 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 05:32 / bws
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/05/06 05:32 / bws
037 Nickel	0.003	mg/L		0.001		E200.8	05/05/06 05:32 / bws
003 Potassium	7.6	mg/L		0.5		E200.7	05/12/06 15:13 / ts
040 Selenium	0.026	mg/L		0.001		E200.8	05/05/06 05:32 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 05:32 / bws
004 Sodium	248	mg/L		0.5		E200.7	05/12/06 15:13 / ts
015 Uranium	0.0230	mg/L		0.0003		E200.8	05/05/06 05:32 / bws
042 Vanadium	0.004	mg/L		0.001		E200.8	05/05/06 05:32 / bws
043 Zinc	0.003	mg/L		0.001		E200.8	05/05/06 05:32 / bws

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-011
Client Sample ID: RW-20

Report Date: 06/06/06
Collection Date: 05/02/06 11:42
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
122 Aluminum	0.008	mg/L		0.001		E200.8	05/09/06 03:36 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 21:19 / smf
124 Barium	0.037	mg/L		0.001		E200.8	05/04/06 21:19 / smf
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 21:19 / smf
101 Calcium	197	mg/L		0.5		E200.7	05/12/06 16:18 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 21:19 / smf
128 Cobalt	0.002	mg/L		0.001		E200.8	05/04/06 21:19 / smf
129 Copper	0.002	mg/L		0.001		E200.8	05/04/06 21:19 / smf
121 Iron	0.04	mg/L		0.01		E200.7	05/12/06 16:18 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 21:19 / smf
102 Magnesium	71.8	mg/L		0.5		E200.7	05/12/06 16:18 / ts
134 Manganese	0.004	mg/L		0.001		E200.8	05/04/06 21:19 / smf
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 21:19 / smf
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/04/06 21:19 / smf
137 Nickel	0.004	mg/L		0.001		E200.8	05/04/06 21:19 / smf
103 Potassium	7.4	mg/L		0.5		E200.7	05/12/06 16:18 / ts
140 Selenium	0.023	mg/L		0.001		E200.8	05/04/06 21:19 / smf
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 21:19 / smf
104 Sodium	243	mg/L		0.5		E200.7	05/12/06 16:18 / ts
115 Uranium	0.0240	mg/L		0.0003		E200.8	05/04/06 21:19 / smf
142 Vanadium	0.001	mg/L		0.001		E200.8	05/04/06 21:19 / smf
143 Zinc	0.003	mg/L		0.001		E200.8	05/04/06 21:19 / smf
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 20:55 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 13:44 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.549	%				Calculation	05/15/06 11:46 / cp
194 Anions	26.2	meq/L				Calculation	05/15/06 11:46 / cp
195 Cations	26.5	meq/L				Calculation	05/15/06 11:46 / cp
079 Solids, Total Dissolved Calculated	1690	mg/L				Calculation	05/15/06 11:46 / cp
200 TDS Balance (0.80 - 1.20)	1.03	dec. %				Calculation	05/15/06 11:46 / cp

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 558-8171 - www.gel.com

Certificate of Analysis

TOTAL

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 1 of 2

Client Sample ID: RW-20A
Sample ID: 162062002
Matrix: Water
Collect Date: 02-MAY-06 09:44
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenum Federal</i>											
Arsenic	U	0.698	1.50	5.00	ug/L	1	PRB	05/16/06	1717	527176	1
Iron		755	10.0	25.0	ug/L	1					
Manganese	J	3.95	1.00	5.00	ug/L	1					
Molybdenum		2.42	0.100	0.500	ug/L	1					
Potassium		7590	80.0	300	ug/L	1					
Selenium		21.2	2.50	5.00	ug/L	1					
Vanadium	U	1.41	2.00	10.0	ug/L	1					
Calcium		208000	2000	10000	ug/L	100	PRB	05/16/06	1637	527176	2
Magnesium		76700	500	1500	ug/L	100					
Sodium		282000	8000	25000	ug/L	100	PRB	05/17/06	1041	527176	3
<i>SW846_6020 Isotopic Uranium</i>											
Uranium		21.9	0.050	0.200	ug/L	1	PRB	05/12/06	1828	527178	4
Uranium-235		0.156	0.010	0.070	ug/L	1					
Uranium-238		21.8	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	EPA 200.8	
3	EPA 200.8	
4	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.

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Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID:	RW-20A	Project:	PINL00405								
Sample ID:	162062002	Client ID:	PINL001								
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method

- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Page 2 of 2

Client Sample ID:	RW-20A	Project:	PINL00405								
Sample ID:	162062007	Client ID:	PINL001								
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 558-8171 - www.gel.com

Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Client Sample ID: RW-20A
Sample ID: 162062002
Matrix: Water
Collect Date: 02-MAY-06 09:44
Receive Date: 03-MAY-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 12.6C	H	7.65	0.010	0.100	SU	1	SXS2	05/10/06	2228	526994	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO ₂ ,SO ₄ ,Cl											
Nitrite-N	U	0.00	0.033	0.100	mg/L	1	RXM1	05/04/06	0524	526700	2
Chloride		98.2	3.30	10.0	mg/L	50	MAR1	05/04/06	1927	526700	3
Nitrate-N	H	25.3	1.65	5.00	mg/L	50					
Sulfate		766	5.00	20.0	mg/L	50					
Nutrient Analysis Federal											
Nitrogen, (NO ₃ /NO ₂)											
Nitrogen, Nitrate/Nitrite		24.3	1.40	5.00	mg/L	100	KLP1	05/08/06	1314	527551	4
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		1740	2.38	10.0	mg/L		GXA2	05/05/06	0854	526858	5
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO ₃		246	0.725	1.00	mg/L		RG2	05/15/06	1555	528783	6
Bicarbonate alkalinity (CaCO ₃)		245	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO ₃)		1.05	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 353.1	
5	EPA 160.1	
6	SM 2320B	

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Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE

Albuquerque, New Mexico 87107
Contact: Mr. Mitch Rubenstein
Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-20A
Sample ID: 162062007
Matrix: Water
Collect Date: 02-MAY-06
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RI	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Th, Liquid</i>													
Thorium-228	U	-0.0701	+/-0.040	0.303	+/-0.0401	1.00	pCi/L		DDR1	05/12/06	0810	528280	1
Thorium-230	U	-0.0242	+/-0.022	0.238	+/-0.0222	1.00	pCi/L						
Thorium-232	U	-0.0236	+/-0.0136	0.218	+/-0.0138	1.00	pCi/L						
Rad Gas Flow Proportional Counting													
<i>GFPC, Ra228, Liquid</i>													
Radium-228	U	1.34	+/-0.468	1.74	+/-0.469	3.00	pCi/L		KSD1	05/16/06	1257	529101	2
Rad Radium-226													
<i>Lucas Cell, Ra226, liquid</i>													
Radium-226		0.387	+/-0.123	0.317	+/-0.124	1.00	pCi/L		SG	05/15/06	1015	527246	3
Solid Preparation													
<i>Filtration</i>													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160	EPA 160 Laboratory Filtration (Metals Only)	LXE1	05/10/06	1130	527148
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
GL-RAD-A-026	Laboratory sample composite				527377
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Th-01-RC Modified
2	EPA 904.0 Modified
3	EPA 903.1 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	85	(15%-125%)
Carrier/Tracer Recovery	GFPC, Ra228, Liquid	67	(15%-125%)

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Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE

Albuquerque, New Mexico 87107
Contact: Mr. Mitch Rubenstein
Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-20A
Sample ID: 162062007

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
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Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
 - BD Results below the MDC or low tracer recovery.
 - E Concentration of the target analyte exceeds the instrument calibration range.
 - H Analytical holding time exceeded.
 - J Indicates an estimated value.
 - U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
 - UI Uncertain identification for gamma spectroscopy.
 - X Lab-specific qualifier--please see case narrative, data summary package or contact your project manager for details.
 - d The 2:1 depletion requirement was not met for this sample
 - h Sample preparation or preservation holding time exceeded.
- The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

TOTAL

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 1 of 2

Client Sample ID: RW-20B
Sample ID: 162062004
Matrix: Water
Collect Date: 02-MAY-06 09:46
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	U	0.976	1.50	5.00	ug/L	1	PRB	05/16/06	1727	527176	1
Iron		709	10.0	25.0	ug/L	1					
Manganese	J	1.48	1.00	5.00	ug/L	1					
Molybdenum		2.48	0.100	0.500	ug/L	1					
Potassium		8030	80.0	300	ug/L	1					
Selenium		23.1	2.50	5.00	ug/L	1					
Vanadium	U	0.590	2.00	10.0	ug/L	1					
Calcium		209000	2000	10000	ug/L	100	PRB	05/16/06	1642	527176	2
Magnesium		72800	500	1500	ug/L	100					
Sodium		288000	8000	25000	ug/L	100	PRB	05/17/06	1044	527176	3
<i>SW846_6020 Isotopic Uranium</i>											
Uranium		21.6	0.050	0.200	ug/L	1	PRB	05/12/06	1833	527178	4
Uranium-235		0.153	0.010	0.070	ug/L	1					
Uranium-238		21.5	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	EPA 200.8	
3	EPA 200.8	
4	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.

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: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID: RW-20B		Project: PINL00405	
Sample ID: 162062004		Client ID: PINL001	
Parameter	Qualifier	Result	DL RL Units DF AnalystDate Time Batch Method

- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

DISSOLVED

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Page 1 of 2

Client Sample ID: RW-20B
Sample ID: 162062009
Matrix: Water
Collect Date: 02-MAY-06 09:46
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	U	1.17	1.50	5.00	ug/L	1	PRB	05/16/06	1739	527176	1
Iron		649	10.0	25.0	ug/L	1					
Manganese	U	0.581	1.00	5.00	ug/L	1					
Molybdenum		2.39	0.100	0.500	ug/L	1					
Selenium		22.3	2.50	5.00	ug/L	1					
Vanadium	J	2.82	2.00	10.0	ug/L	1					
<i>SW846_6020 Isotopic Uranium</i>											
Uranium-235		0.150	0.010	0.070	ug/L	1	PRB	05/12/06	1847	527178	2
Uranium-238		21.0	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Page 2 of 2

Client Sample ID: RW-20B		Project: PINL00405									
Sample ID: 162062009		Client ID: PINL001									
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : Pinnacle Labs, Inc
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Albuquerque, New Mexico 87107

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Client Sample ID: RW-20B
Sample ID: 162062004
Matrix: Water
Collect Date: 02-MAY-06 09:46
Receive Date: 03-MAY-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 13.6C	H	7.70	0.010	0.100	SU	1	SXS2	05/10/06	2233	526994	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO2,SO4,Cl											
Nitrite-N	U	0.00	0.033	0.100	mg/L	1	RXM1	05/04/06	0605	526700	2
Chloride		98.8	3.30	10.0	mg/L	50	MAR1	05/04/06	2008	526700	3
Nitrate-N	H	24.7	1.65	5.00	mg/L	50					
Sulfate		754	5.00	20.0	mg/L	50					
Nutrient Analysis Federal											
Nitrogen, (NO3/NO2)											
Nitrogen, Nitrate/Nitrite		21.6	1.40	5.00	mg/L	100	KLP1	05/08/06	1314	527551	4
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		1750	2.38	10.0	mg/L		GXA2	05/05/06	0854	526858	5
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO3		253	0.725	1.00	mg/L		RG2	05/15/06	1640	528783	6
Bicarbonate alkalinity (CaCO3)		251	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO3)		1.53	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 353.1	
5	EPA 160.1	
6	SM 2320B	

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Contact: Mr. Mitch Rubenstein

Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-20B
Sample ID: 162062009
Matrix: Water
Collect Date: 02-MAY-06
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Th, Liquid</i>													
Thorium-228	U	-0.0299	+/-0.0378	0.300	+/-0.0379	1.00	pCi/L		DDR1	05/12/06	0810	528280	1
Thorium-230	U	-0.0323	+/-0.0249	0.265	+/-0.0251	1.00	pCi/L						
Thorium-232	U	0.0258	+/-0.0349	0.169	+/-0.035	1.00	pCi/L						
Rad Gas Flow Proportional Counting													
<i>GFPC, Ra228, Liquid</i>													
Radium-228	U	-0.456	+/-0.470	2.51	+/-0.470	3.00	pCi/L		KSD1	05/16/06	1258	529101	2
Rad Radium-226													
<i>Lucas Cell, Ra226, liquid</i>													
Radium-226		0.833	+/-0.149	0.186	+/-0.151	1.00	pCi/L		SG	05/15/06	1045	527246	3
Solid Preparation													
<i>Filtration</i>													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 160	EPA 160 Laboratory Filtration (Metals Only)	LXE1	05/10/06	1130	527148
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
GL-RAD-A-026	Laboratory sample composite				527377
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Th-01-RC Modified
2	EPA 904.0 Modified
3	EPA 903.1 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	108	(15%-125%)
Carrier/Tracer Recovery	GFPC, Ra228, Liquid	53	(15%-125%)

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Client Sample ID: RW-20B
Sample ID: 162062009

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
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Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
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 - U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
 - UI Uncertain identification for gamma spectroscopy.
 - X Lab-specific qualifier—please see case narrative, data summary package or contact your project manager for details.
 - d The 2:1 depletion requirement was not met for this sample
 - h Sample preparation or preservation holding time exceeded.
- The above sample is reported on an "as received" basis.

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B	PINNACLE I.D.	: 605009
CLIENT	: NMED-SWQB	DATE RECEIVED	: 05/03/06
PROJECT #	: WELL SAMPLING	INSTRUMENT ID	: GCMS2
PROJECT NAME	: HOMESTEAK RESIDENTIAL	ANALYST	: DSR

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
605009-02	RW-20B	AQUEOUS	05/02/06	N/A	05/04/06	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS			
Dichlorodifluoromethane (75-71-8)	5.0	< 5.0	ug/L			
Chloromethane (74-87-3)	5.0	< 5.0	ug/L			
Vinyl Chloride (75-01-4)	5.0	< 5.0	ug/L			
Bromomethane (74-83-9)	5.0	< 5.0	ug/L			
Chloroethane (75-00-3)	5.0	< 5.0	ug/L			
Trichlorofluoromethane (75-69-4)	5.0	< 5.0	ug/L			
Acetone (67-64-1)	10	< 10	ug/L			
Acrolein (107-02-8)	10	< 10	ug/L			
1,1-Dichloroethene (75-35-4)	1.0	< 1.0	ug/L			
Iodomethane (74-88-4)	5.0	< 5.0	ug/L			
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L			
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L			
cis-1,2-Dichloroethene (156-59-2)	1.0	< 1.0	ug/L			
Methyl-t-butyl Ether (1634-04-4)	1.0	< 1.0	ug/L			
1,1,2-Trichlorotrifluoroethane (76-13-1)	5.0	< 5.0	ug/L			
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L			
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L			
2-Butanone (78-93-3)	10	< 10	ug/L			
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L			
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L			
Chloroform (67-66-3)	1.0	< 1.0	ug/L			
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L			
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L			
Vinyl Acetate (108-05-4)	5.0	< 5.0	ug/L			
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L			
1,1-Dichloropropene (563-68-6)	1.0	< 1.0	ug/L			
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L			
Benzene (71-43-2)	1.0	< 1.0	ug/L			
1,2-Dichloropropane (78-87-5)	1.0	< 1.0	ug/L			
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L			
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L			
2-Chloroethyl Vinyl Ether (110-75-8)	10	< 10	ug/L			
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L			
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L			
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L			
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L			
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L			
Toluene (108-88-3)	1.0	< 1.0	ug/L			
1,2-Dibromoethane (106-93-4)	1.0	< 1.0	ug/L			
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L			
2-Hexanone (591-78-6)	10	< 10	ug/L			
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L			
Tetrachloroethene (127-18-4)	1.0	< 1.0	ug/L			
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L			

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B	PINNACLE I.D.	: 605009
CLIENT	: NMED-SWQB	DATE RECEIVED	: 05/03/06
PROJECT #	: WELL SAMPLING	INSTRUMENT ID	: GCMS2
PROJECT NAME	: HOMESTEAK RESIDENTIAL	ANALYST	: DSR

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
605009-02	RW-20B	AQUEOUS	05/02/06	N/A	05/04/06	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS			
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L			
1,1,1,2-Tetrachloroethane (630-20-8)	1.0	< 1.0	ug/L			
m&p Xylenes (108-38-3, 106-42-3)	2.0	< 2.0	ug/L			
o-Xylene (95-47-6)	1.0	< 1.0	ug/L			
Styrene (100-42-5)	1.0	< 1.0	ug/L			
Bromoform (75-25-2)	1.0	< 1.0	ug/L			
1,1,2,2-Tetrachloroethane (79-34-5)	2.0	< 2.0	ug/L			
1,2,3-Trichloropropane (96-18-4)	2.0	< 2.0	ug/L			
Isopropyl Benzene (98-82-8)	1.0	< 1.0	ug/L			
Bromobenzene (108-86-1)	1.0	< 1.0	ug/L			
trans-1,4-Dichloro-2-Butene (110-57-6)	2.0	< 2.0	ug/L			
n-Propylbenzene (103-65-1)	1.0	< 1.0	ug/L			
2-Chlorotoluene (95-49-8)	1.0	< 1.0	ug/L			
4-Chlorotoluene (106-43-4)	1.0	< 1.0	ug/L			
1,3,5-Trimethylbenzene (108-67-8)	1.0	< 1.0	ug/L			
tert-Butylbenzene (98-06-6)	1.0	< 1.0	ug/L			
1,2,4-Trimethylbenzene (95-83-6)	1.0	< 1.0	ug/L			
sec-Butylbenzene (135-98-8)	1.0	< 1.0	ug/L			
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L			
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L			
p-Isopropyltoluene (99-87-6)	1.0	< 1.0	ug/L			
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L			
n-Butylbenzene (104-51-8)	1.0	< 1.0	ug/L			
1,2-Dibromo-3-chloropropane (96-12-8)	5.0	< 5.0	ug/L			
1,2,4-Trichlorobenzene (120-82-1)	2.0	< 2.0	ug/L			
Naphthalene (91-20-3)	3.0	< 3.0	ug/L			
Hexachlorobutadiene (87-68-3)	2.0	< 2.0	ug/L			
1,2,3-Trichlorobenzene (87-61-6)	2.0	< 2.0	ug/L			
2-Methyl Naphthalene (91-57-6)	5.0	< 5.0	ug/L			
1-Methyl Naphthalene (90-12-0)	5.0	< 5.0	ug/L			

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	101 (76 - 114)
Toluene-d8	99 (88 - 110)
Bromofluorobenzene	99 (86 - 115)

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B	PINNACLE I.D.	: 605009
CLIENT	: NMED-SWQB	DATE RECEIVED	: 05/03/06
PROJECT #	: WELL SAMPLING	INSTRUMENT ID	: GCMS2
PROJECT NAME	: HOMESTEAK RESIDENTIAL	ANALYST	: DSR

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
605009-01	RW-20A	AQUEOUS	05/02/06	N/A	05/04/06	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS			
Dichlorodifluoromethane (75-71-8)	5.0	< 5.0	ug/L			
Chloromethane (74-87-3)	5.0	< 5.0	ug/L			
Vinyl Chloride (75-01-4)	5.0	< 5.0	ug/L			
Bromomethane (74-83-9)	5.0	< 5.0	ug/L			
Chloroethane (75-00-3)	5.0	< 5.0	ug/L			
Trichlorofluoromethane (75-69-4)	5.0	< 5.0	ug/L			
Acetone (67-64-1)	10	< 10	ug/L			
Acrolein (107-02-8)	10	< 10	ug/L			
1,1-Dichloroethene (75-35-4)	1.0	< 1.0	ug/L			
Iodomethane (74-88-4)	5.0	< 5.0	ug/L			
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L			
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L			
cis-1,2-Dichloroethene (156-59-2)	1.0	< 1.0	ug/L			
Methyl-t-butyl Ether (1634-04-4)	1.0	< 1.0	ug/L			
1,1,2-Trichlorotrifluoroethane (76-13-1)	5.0	< 5.0	ug/L			
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L			
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L			
2-Butanone (78-93-3)	10	< 10	ug/L			
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L			
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L			
Chloroform (67-66-3)	1.0	< 1.0	ug/L			
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L			
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L			
Vinyl Acetate (108-05-4)	5.0	< 5.0	ug/L			
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L			
1,1-Dichloropropene (583-58-6)	1.0	< 1.0	ug/L			
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L			
Benzene (71-43-2)	1.0	< 1.0	ug/L			
1,2-Dichloropropane (78-87-5)	1.0	< 1.0	ug/L			
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L			
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L			
2-Chloroethyl Vinyl Ether (110-75-8)	10	< 10	ug/L			
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L			
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L			
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L			
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L			
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L			
Toluene (108-88-3)	1.0	< 1.0	ug/L			
1,2-Dibromoethane (106-93-4)	1.0	< 1.0	ug/L			
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L			
2-Hexanone (591-78-6)	10	< 10	ug/L			
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L			
Tetrachloroethene (127-18-4)	1.0	< 1.0	ug/L			
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L			

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B	PINNACLE I.D.	: 605009
CLIENT	: NMED-SWQB	DATE RECEIVED	: 05/03/06
PROJECT #	: WELL SAMPLING	INSTRUMENT ID	: GCMS2
PROJECT NAME	: HOMESTEAK RESIDENTIAL	ANALYST	: DSR

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
605009-01	RW-20A	AQUEOUS	05/02/06	N/A	05/04/06	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS			
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L			
1,1,1,2-Tetrachloroethane (630-20-6)	1.0	< 1.0	ug/L			
m&p Xylenes (108-38-3, 106-42-3)	2.0	< 2.0	ug/L			
o-Xylene (95-47-8)	1.0	< 1.0	ug/L			
Styrene (100-42-5)	1.0	< 1.0	ug/L			
Bromoform (75-25-2)	1.0	< 1.0	ug/L			
1,1,2,2-Tetrachloroethane (79-34-5)	2.0	< 2.0	ug/L			
1,2,3-Trichloropropane (96-18-4)	2.0	< 2.0	ug/L			
Isopropyl Benzene (98-82-8)	1.0	< 1.0	ug/L			
Bromobenzene (108-86-1)	1.0	< 1.0	ug/L			
trans-1,4-Dichloro-2-Butene (110-57-8)	2.0	< 2.0	ug/L			
n-Propylbenzene (103-65-1)	1.0	< 1.0	ug/L			
2-Chlorotoluene (95-49-8)	1.0	< 1.0	ug/L			
4-Chlorotoluene (106-43-4)	1.0	< 1.0	ug/L			
1,3,5-Trimethylbenzene (108-67-8)	1.0	< 1.0	ug/L			
tert-Butylbenzene (98-06-8)	1.0	< 1.0	ug/L			
1,2,4-Trimethylbenzene (95-63-6)	1.0	< 1.0	ug/L			
sec-Butylbenzene (135-98-8)	1.0	< 1.0	ug/L			
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L			
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L			
p-Isopropyltoluene (99-87-8)	1.0	< 1.0	ug/L			
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L			
n-Butylbenzene (104-51-8)	1.0	< 1.0	ug/L			
1,2-Dibromo-3-chloropropane (96-12-8)	5.0	< 5.0	ug/L			
1,2,4-Trichlorobenzene (120-82-1)	2.0	< 2.0	ug/L			
Naphthalene (91-20-3)	3.0	< 3.0	ug/L			
Hexachlorobutadiene (87-68-3)	2.0	< 2.0	ug/L			
1,2,3-Trichlorobenzene (87-61-6)	2.0	< 2.0	ug/L			
2-Methyl Naphthalene (91-57-6)	5.0	< 5.0	ug/L			
1-Methyl Naphthalene (90-12-0)	5.0	< 5.0	ug/L			

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	99
	(76 - 114)
Toluene-d8	99
	(88 - 110)
Bromofluorobenzene	98
	(86 - 115)



BILL RICHARDSON
GOVERNOR

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
Fax (505) 827-2965
Fed Ex (87505)



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Mr. Milton Head
P.O. Box 2038
Milan, NM 87021

Subject: Analytical reports for water sample RW-15 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Head:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical reports for the water sample collected from your well on May 2, 2006. For tracking purposes, the sample from your well was designated as "RW-15". The sample taken from your well was split into two parts, with one sample sent to Energy Laboratories, the primary laboratory used for analytical services during this sampling event, and the second sample sent to Pinnacle Laboratory (listed as General Engineering on the laboratory report; note that Pinnacle Laboratory's reporting units are $\mu\text{g/L}$, whereas we report in units of mg/L below). This was done to compare the results between the two laboratories, and is a common procedure for quality assurance in sampling. The latter sample is designated "RW-15 duplicate" in the table following.

The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample.

The analytical results that exceed applicable standards are summarized below. Relevant standards are included below for comparison. Federal drinking water

Mr. M. Head

RE: Analytical reports for water sample RW-15 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

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 primary drinking water standard for total uranium (EPA MCL), the State standard (NMWQCC) for dissolved uranium, and both the State and secondary Federal drinking water standards for sulfate and total dissolved solids (TDS). Additionally, the analysis from Energy Laboratories indicates that your water exceeds the secondary Federal drinking water standard for total iron; however analysis of the same sample by Pinnacle Laboratories does not confirm this exceedance.

SAMPLE	Sulfate (mg/L)	TDS (mg/L)	Total iron (mg/L)	Uranium (mg/L)	
				Total	Dissolved
Sample RW-15	857	1970	0.908	0.0686	0.0657
Sample RW-15 duplicate	755	2040	0.02 (no exceedance)	0.0611 (c)	0.059537 (d)
EPA MCL	250 (a)	500 (a)	0.3 (a)	0.03	None
NMWQCC (b)	600	1000	None	None	0.03

MCL=Maximum Contaminant Limit (i.e., primary standard)

a. EPA Secondary Maximum Contaminant Level (i.e., secondary MCL)

b. New Mexico Water Quality Control Commission numerical standards for groundwater quality from 20.6.2.3103 NMAC

c. Includes U₂₃₄, which comprises only 0.0058% of total uranium

d. Reported concentration excludes U₂₃₄

According the Agency for Toxic Substances and Disease Registry (ASTDR), consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. Based on the exceedance of the primary drinking water standard for uranium, 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 uranium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

The secondary drinking water standards for sulfate, TDS, and total iron 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. Consumption of elevated levels of iron results in aesthetic issues such as rusty colored water with sediment and metallic taste as well as orange staining. Please review the enclosed fact sheets for additional information pertaining to the effects of sulfate, TDS, and iron.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has

Mr. M. Head

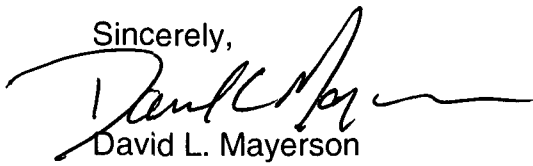
RE: Analytical reports for water sample RW-15 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

asked the New Mexico Department of Health and the ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Laboratories (2 page)
Laboratory analytical report from Pinnacle Laboratories (7 pages)
Fact Sheets:
Secondary Drinking Water Regulations: Guidance for Nuisance
Chemicals (EPA)
ToxFAQs™ for uranium (ATSDR)
Sulfate in Drinking Water (EPA)

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



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050172-003

Client Sample ID: RW-15

Report Date: 06/06/06

Collection Date: 05/02/06 11:17

Date Received: 05/03/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	423	mg/L		1		A2320 B	05/11/06 11:33 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 11:33 / th
005 Bicarbonate as HCO3	515	mg/L		1		A2320 B	05/11/06 11:33 / th
007 Chloride	215	mg/L		1		A4500-Cl B	05/04/06 15:21 / jl
139 Nitrogen, Nitrate as N	2.9	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	2.9	mg/L		0.1		E353.2	05/04/06 10:15 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:22 / jal
008 Sulfate	857	mg/L	D	30		A4500-SO4 E	05/09/06 16:28 / th
PHYSICAL PROPERTIES							
009 pH	7.65	s.u.		0.01		A4500-H B	05/04/06 13:55 / jd
010 Solids, Total Dissolved TDS @ 180 C	1970	mg/L		10		A2540 C	05/05/06 14:55 / jd
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
024 Barium	0.011	mg/L		0.001		E200.8	05/05/06 03:28 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
001 Calcium	259	mg/L	D	0.6		E200.7	05/10/06 16:47 / ts
027 Chromium	0.002	mg/L		0.001		E200.8	05/05/06 03:28 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
029 Copper	0.002	mg/L		0.001		E200.8	05/05/06 03:28 / bws
032 Iron	<0.01	mg/L		0.01		E200.7	05/10/06 16:44 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
002 Magnesium	68.3	mg/L		0.5		E200.7	05/10/06 16:44 / ts
034 Manganese	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 03:28 / bws
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
037 Nickel	0.003	mg/L		0.001		E200.8	05/05/06 03:28 / bws
003 Potassium	4.4	mg/L		0.5		E200.7	05/10/06 16:44 / ts
040 Selenium	0.030	mg/L		0.001		E200.8	05/05/06 03:28 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 03:28 / bws
004 Sodium	293	mg/L		0.5		E200.7	05/10/06 16:44 / ts
015 Uranium	0.0657	mg/L		0.0003		E200.8	05/05/06 03:28 / bws
042 Vanadium	0.002	mg/L		0.001		E200.8	05/05/06 03:28 / bws
043 Zinc	0.055	mg/L		0.001		E200.8	05/05/06 03:28 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-003
Client Sample ID: RW-15

Report Date: 06/06/06
Collection Date: 05/02/06 11:17
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.006	mg/L		0.001		E200.8	05/09/06 02:52 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
124 Barium	0.012	mg/L		0.001		E200.8	05/04/06 20:39 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
101 Calcium	254	mg/L		0.5		E200.7	05/12/06 15:36 / ts
120 Chromium	0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
129 Copper	0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
121 Iron	0.02	mg/L		0.01		E200.7	05/12/06 15:36 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
102 Magnesium	65.0	mg/L		0.5		E200.7	05/12/06 15:36 / ts
134 Manganese	0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 20:39 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
137 Nickel	0.004	mg/L		0.001		E200.8	05/04/06 20:39 / sml
103 Potassium	3.4	mg/L		0.5		E200.7	05/12/06 15:36 / ts
140 Selenium	0.030	mg/L		0.001		E200.8	05/04/06 20:39 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 20:39 / sml
104 Sodium	296	mg/L		0.5		E200.7	05/12/06 15:36 / ts
115 Uranium	0.0686	mg/L		0.0003		E200.8	05/04/06 20:39 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 20:39 / sml
143 Zinc	0.057	mg/L		0.001		E200.8	05/04/06 20:39 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 12:52 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-0.563	%				Calculation	05/15/06 11:43 / cp
194 Anions	31.3	meq/L				Calculation	05/15/06 11:43 / cp
195 Cations	31.0	meq/L				Calculation	05/15/06 11:43 / cp
079 Solids, Total Dissolved Calculated	1930	mg/L				Calculation	05/15/06 11:43 / cp
200 TDS Balance (0.80 - 1.20)	1.02	dec. %				Calculation	05/15/06 11:43 / cp

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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
Contact: Mr. Mitch Rubenstein
Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-15
Sample ID: 162062008
Matrix: Water
Collect Date: 02-MAY-06
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Th, Liquid</i>													
Thorium-228	U	-0.012	+/-0.0518	0.324	+/-0.0518	1.00	pCi/L	DDR1	05/12/06	0810	528280	1	
Thorium-230	U	0.0417	+/-0.0374	0.091	+/-0.0377	1.00	pCi/L						
Thorium-232	U	0.00	+/-0.0336	0.091	+/-0.0336	1.00	pCi/L						
Rad Gas Flow Proportional Counting													
<i>GFPC, Ra228, Liquid</i>													
Radium-228	U	0.955	+/-0.477	1.94	+/-0.478	3.00	pCi/L	KSD1	05/16/06	1258	529101	2	
Rad Radium-226													
<i>Lucas Cell, Ra226, liquid</i>													
Radium-226		0.547	+/-0.137	0.321	+/-0.137	1.00	pCi/L	SG	05/15/06	1015	527246	3	
Solid Preparation													
<i>Filtration</i>													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
GL-RAD-A-026	Laboratory sample composite				528055
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Th-01-RC Modified
2	EPA 904.0 Modified
3	EPA 903.1 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	97	(15%-125%)
Carrier/Tracer Recovery	GFPC, Ra228, Liquid	64	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

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
Contact: Mr. Mitch Rubenstein
Project: NMED

Report Date: May 17, 2006

Client Sample ID: RW-15
Sample ID: 162062008

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time Batch	Mtd
-----------	-----------	--------	-------------	----	-----	----	-------	----	---------	------	------------	-----

- B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier—please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Client Sample ID: RW-15
 Sample ID: 162062003
 Matrix: Water
 Collect Date: 02-MAY-06 11:42
 Receive Date: 03-MAY-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 15.2C	H	7.60	0.010	0.100	SU	1	SXS2	05/10/06	2231	526994	1
Ion Chromatography Federal											
EPA 300.0 Anions-NO ₂ ,SO ₄ ,Cl											
Nitrate-N		2.84	0.033	0.100	mg/L	1	RXM1	05/04/06	0545	526700	2
Nitrite-N	U	0.00	0.033	0.100	mg/L	1					
Chloride		192	3.30	10.0	mg/L	50	MAR1	05/04/06	1948	526700	3
Sulfate		755	5.00	20.0	mg/L	50					
Nutrient Analysis Federal											
Nitrogen, (NO ₃ /NO ₂)											
Nitrogen, Nitrate/Nitrite		2.91	0.140	0.500	mg/L	10	KLP1	05/08/06	1314	527551	4
Solids Analysis Federal											
EPA 160.1 Solids, Dissolved-F											
Total Dissolved Solids		2040	2.38	10.0	mg/L		GXA2	05/05/06	0854	526858	5
Titration Analysis Federal											
SM 2320B Total Alkalinity Federal											
Alkalinity, Total as CaCO ₃		413	0.725	1.00	mg/L		RG2	05/15/06	1639	528783	6
Bicarbonate alkalinity (CaCO ₃)		411	0.725	1.00	mg/L						
Carbonate alkalinity (CaCO ₃)		2.03	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 353.1	
5	EPA 160.1	
6	SM 2320B	

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Dissolved

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

Contact: Mr. Mitch Rubenstein

Project: NMED

Report Date: May 17, 2006

Page 1 of 2

Client Sample ID: RW-15
Sample ID: 162062008
Matrix: Water
Collect Date: 02-MAY-06 11:42
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	J	1.62	1.50	5.00	ug/L	1	PRB	05/16/06	1737	527176	1
Iron		912	10.0	25.0	ug/L	1					
Manganese	J	1.23	1.00	5.00	ug/L	1					
Molybdenum		0.594	0.100	0.500	ug/L	1					
Selenium		27.5	2.50	5.00	ug/L	1					
Vanadium	J	3.37	2.00	10.0	ug/L	1					
<i>SW846_6020 Isotopic Uranium</i>											
Uranium-235		0.437	0.010	0.070	ug/L	1	PRB	05/12/06	1844	527178	2
Uranium-238		59.1	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID: RW-15		Project: PINL00405	
Sample ID: 162062008		Client ID: PINL001	
Parameter	Qualifier	Result	DL RL Units DF AnalystDate Time Batch Method

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Houston M. Murray
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

TOTAL

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

Report Date: May 17, 2006

Contact: Mr. Mitch Rubenstein
Project: NMED

Page 1 of 2

Client Sample ID: RW-15
Sample ID: 162062003
Matrix: Water
Collect Date: 02-MAY-06 11:42
Receive Date: 03-MAY-06
Collector: Client

Project: PINL00405
Client ID: PINL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>200.2/200.8 Selenium Federal</i>											
Arsenic	J	1.94	1.50	5.00	ug/L	1	PRB	05/16/06	1719	527176	1
Iron		908	10.0	25.0	ug/L	1					
Manganese	U	0.984	1.00	5.00	ug/L	1					
Molybdenum		0.610	0.100	0.500	ug/L	1					
Potassium		3790	80.0	300	ug/L	1					
Selenium		29.0	2.50	5.00	ug/L	1					
Vanadium	J	3.02	2.00	10.0	ug/L	1					
Calcium		268000	2000	10000	ug/L	100	PRB	05/16/06	1640	527176	2
Magnesium		66000	500	1500	ug/L	100					
Sodium		332000	8000	25000	ug/L	100	PRB	05/17/06	1042	527176	3
<i>SW846_6020 Isotopic Uranium</i>											
Uranium		61.1	0.050	0.200	ug/L	1	PRB	05/12/06	1830	527178	4
Uranium-235		0.440	0.010	0.070	ug/L	1					
Uranium-238		60.6	0.050	0.200	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 200.2	ICP-MS 200.2 PREP	CQH1	05/11/06	1924	527175
SW846 3005A	ICP-MS 3005 PREP	CQH1	05/11/06	1927	527177

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 200.8	
2	EPA 200.8	
3	EPA 200.8	
4	SW846 3005/6020	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.

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: May 17, 2006

Contact: Mr. Mitch Rubenstein

Project: NMED

Page 2 of 2

Client Sample ID: RW-15		Project: PINL00405	
Sample ID: 162062003		Client ID: PINL001	
Parameter	Qualifier	Result	DL RL Units DF AnalystDate Time Batch Method

- U Target analyte was analyzed for but not detected above the MDL, MDA, or LOD.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Kristen M. Murray
Reviewed by



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Ms. Shirley Freas
P. O. Box 2760
Milan, NM 87021

Subject: Analytical report for water sample RW-54 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Freas:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 3, 2006. For tracking purposes, the sample from your well was designated as "RW-54". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal drinking water standard for total dissolved solids (TDS).

Ms. S. Freas

RE: Analytical report for water sample RW-54 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	TDS (mg/L)
Sample RW-54	572
EPA MCL	500 (a)
NMWQCC (b)	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

The secondary drinking water standard for TDS is 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 TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheet for additional information pertaining to the effects of TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050216-003

Client Sample ID: RW-50 *54*

Report Date: 06/06/06

Collection Date: 05/03/06 16:40

Date Received: 05/04/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
124 Barium	0.027	mg/L		0.001		E200.8	05/08/06 17:32 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
101 Calcium	86.1	mg/L		0.5		E200.7	05/17/06 16:17 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
129 Copper	0.006	mg/L		0.001		E200.8	05/08/06 17:32 / sml
121 Iron	0.21	mg/L		0.01		E200.7	05/17/06 16:17 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
102 Magnesium	37.9	mg/L		0.5		E200.7	05/17/06 16:17 / cp
134 Manganese	0.007	mg/L		0.001		E200.8	05/08/06 17:32 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 17:32 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/08/06 17:32 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
103 Potassium	2.3	mg/L		0.5		E200.7	05/17/06 16:17 / cp
140 Selenium	0.004	mg/L		0.001		E200.8	05/08/06 17:32 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 17:32 / sml
104 Sodium	43.6	mg/L		0.5		E200.7	05/17/06 16:17 / cp
115 Uranium	0.0044	mg/L		0.0003		E200.8	05/08/06 17:32 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/08/06 17:32 / sml
143 Zinc	0.031	mg/L		0.001		E200.8	05/08/06 17:32 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 12:11 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-1.52	%				Calculation	05/18/06 15:49 / cp
194 Anions	9.95	meq/L				Calculation	05/18/06 15:49 / cp
195 Cations	9.66	meq/L				Calculation	05/18/06 15:49 / cp
079 Solids, Total Dissolved Calculated	563	mg/L				Calculation	05/18/06 15:49 / cp
200 TDS Balance (0.80 - 1.20)	1.02	dec. %				Calculation	05/18/06 15:49 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050216-003

Client Sample ID: RW-50

Report Date: 06/06/06

Collection Date: 05/03/06 16:40

Date Received: 05/04/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	228	mg/L		1		A2320 B	05/11/06 13:29 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 13:29 / th
005 Bicarbonate as HCO3	278	mg/L		1		A2320 B	05/11/06 13:29 / th
007 Chloride	31	mg/L		1		A4500-Cl B	05/08/06 13:03 / jl
139 Nitrogen, Nitrate as N	5.6	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	5.6	mg/L	D	0.2		E353.2	05/05/06 10:14 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:57 / jal
008 Sulfate	25	mg/L	D	6		A4500-SO4 E	05/10/06 10:29 / th
PHYSICAL PROPERTIES							
009 pH	7.95	s.u.		0.01		A4500-H B	05/05/06 12:11 / jdh
010 Solids, Total Dissolved TDS @ 180 C	572	mg/L		10		A2540 C	05/05/06 15:08 / jdh
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
024 Barium	0.027	mg/L		0.001		E200.8	05/08/06 17:25 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
001 Calcium	87.5	mg/L		0.5		E200.7	05/17/06 15:10 / cp
027 Chromium	0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
029 Copper	0.005	mg/L		0.001		E200.8	05/08/06 17:25 / sml
032 Iron	0.03	mg/L		0.01		E200.7	05/17/06 15:10 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
002 Magnesium	39.0	mg/L		0.5		E200.7	05/17/06 15:10 / cp
034 Manganese	0.003	mg/L		0.001		E200.8	05/08/06 17:25 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 17:25 / sml
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/08/06 17:25 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
003 Potassium	2.5	mg/L		0.5		E200.7	05/17/06 15:10 / cp
040 Selenium	0.005	mg/L		0.001		E200.8	05/08/06 17:25 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 17:25 / sml
004 Sodium	46.3	mg/L		0.5		E200.7	05/17/06 15:10 / cp
015 Uranium	0.0044	mg/L		0.0003		E200.8	05/08/06 17:25 / sml
042 Vanadium	0.002	mg/L		0.001		E200.8	05/08/06 17:25 / sml
043 Zinc	0.024	mg/L		0.001		E200.8	05/08/06 17:25 / sml

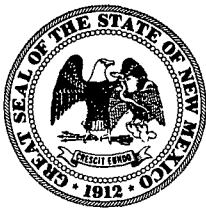
Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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
Fax (505) 827-2965
Fed Ex (87505)**



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Ms. Shirley Freas
P. O. Box 2760
Milan, NM 87021

Subject: Analytical report for water sample RW-52 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Freas:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records is a copy of the analytical report for the water sample collected from your well on May 3, 2006. For tracking purposes, the sample from your well was designated as "RW-52". The sample was analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. The sample was sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 secondary Federal drinking water standard for total dissolved solids (TDS).

Ms. S. Freas

RE: Analytical report for water sample RW-52 collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

SAMPLE	TDS (mg/L)
Sample RW-52	542
EPA MCL	500 (a)
NMWQCC (b)	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

The secondary drinking water standard for TDS is 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 TDS may result in salty, bitter or metallic taste. Please review the enclosed fact sheet for additional information pertaining to the effects of TDS.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and ATSDR to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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 Energy Labs (2 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-001
Client Sample ID: RW-52

Report Date: 06/06/06
Collection Date: 05/03/06 16:55
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	224	mg/L		1		A2320 B	05/11/06 13:26 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 13:26 / th
005 Bicarbonate as HCO3	273	mg/L		1		A2320 B	05/11/06 13:26 / th
007 Chloride	4	mg/L		1		A4500-Cl B	05/08/06 12:59 / jl
139 Nitrogen, Nitrate as N	4.8	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	4.8	mg/L	D	0.2		E353.2	05/05/06 10:09 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:57 / jal
008 Sulfate	185	mg/L	D	6		A4500-SO4 E	05/10/06 10:27 / th
PHYSICAL PROPERTIES							
009 pH	7.75	s.u.		0.01		A4500-H B	05/05/06 12:07 / jdH
010 Solids, Total Dissolved TDS @ 180 C	542	mg/L		10		A2540 C	05/05/06 15:07 / jdH
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
024 Barium	0.026	mg/L		0.001		E200.8	05/08/06 15:52 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
001 Calcium	93.7	mg/L		0.5		E200.7	05/17/06 15:04 / cp
027 Chromium	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
029 Copper	0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
032 Iron	0.04	mg/L		0.01		E200.7	05/17/06 15:04 / cp
033 Lead	0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
002 Magnesium	41.2	mg/L		0.5		E200.7	05/17/06 15:04 / cp
034 Manganese	0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 15:52 / sml
036 Molybdenum	0.002	mg/L		0.001		E200.8	05/08/06 15:52 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
003 Potassium	2.2	mg/L		0.5		E200.7	05/17/06 15:04 / cp
040 Selenium	0.004	mg/L		0.001		E200.8	05/08/06 15:52 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 15:52 / sml
004 Sodium	36.2	mg/L		0.5		E200.7	05/17/06 15:04 / cp
015 Uranium	0.0042	mg/L		0.0003		E200.8	05/08/06 15:52 / sml
042 Vanadium	0.003	mg/L		0.001		E200.8	05/08/06 15:52 / sml
043 Zinc	0.184	mg/L		0.001		E200.8	05/08/06 15:52 / sml

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-001
Client Sample ID: RW-52

Report Date: 06/06/06
Collection Date: 05/03/06 16:55
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.002	mg/L		0.001		E200.8	05/08/06 16:18 / sml
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 16:18 / sml
124 Barium	0.026	mg/L		0.001		E200.8	05/08/06 16:18 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 16:18 / sml
101 Calcium	85.5	mg/L		0.5		E200.7	05/17/06 16:06 / cp
120 Chromium	<0.001	mg/L		0.001		E200.8	05/08/06 16:18 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 16:18 / sml
129 Copper	0.004	mg/L		0.001		E200.8	05/08/06 16:18 / sml
121 Iron	0.17	mg/L		0.01		E200.7	05/17/06 16:06 / cp
133 Lead	0.002	mg/L		0.001		E200.8	05/08/06 16:18 / sml
102 Magnesium	38.6	mg/L		0.5		E200.7	05/17/06 16:06 / cp
134 Manganese	0.002	mg/L		0.001		E200.8	05/08/06 16:18 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 16:18 / sml
136 Molybdenum	0.002	mg/L		0.001		E200.8	05/08/06 16:18 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 16:18 / sml
103 Potassium	2.4	mg/L		0.5		E200.7	05/17/06 16:06 / cp
140 Selenium	0.004	mg/L		0.001		E200.8	05/08/06 16:18 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 16:18 / sml
104 Sodium	34.8	mg/L		0.5		E200.7	05/17/06 16:06 / cp
115 Uranium	0.0042	mg/L		0.0003		E200.8	05/08/06 16:18 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/08/06 16:18 / sml
143 Zinc	0.211	mg/L		0.001		E200.8	05/08/06 16:18 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 12:11 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.784	%				Calculation	05/18/06 15:48 / cp
194 Anions	9.55	meq/L				Calculation	05/18/06 15:48 / cp
195 Cations	9.70	meq/L				Calculation	05/18/06 15:48 / cp
079 Solids, Total Dissolved Calculated	550	mg/L				Calculation	05/18/06 15:48 / cp
200 TDS Balance (0.80 - 1.20)	0.990	dec. %				Calculation	05/18/06 15:48 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**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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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 1, 2006

Ms. Ann Mathis
P.O. Box 7067
Grants, NM 87020

Subject: Analytical reports for water samples RW-6A and RW-6B collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Ms. Mathis:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 2, 2006. For tracking purposes, the samples from your well were designated as "RW-6A" and "RW-6B". Sample RW-6A was collected before your in-line filtration system, whereas sample RW-6B was collected after the water had passed through the filtration system. The samples were analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. Both samples were sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 these samples show that water from your well exceeds the Federal primary drinking water standard for total uranium (EPA) and the State standard for

Ms. Ann Mathis

RE: Analytical reports for water samples RW-6A and RW-6B collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

dissolved uranium (NMWQCC), and secondary Federal drinking water standards for sulfate and total dissolved solids (TDS).

SAMPLE	Uranium (mg/L)		Sulfate (mg/L)	TDS (mg/L)
	Total	Dissolved		
Sample RW-6A	0.0334	0.0312	697	1400
Sample RW-6B	0.034	0.0317	794	1400
EPA MCL	0.03	None	250 (a)	500 (a)
NMWQCC (b)	None	0.03	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

Consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. Based on the exceedance of the primary drinking water standard for uranium, 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 uranium, such as reverse osmosis. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson
Superfund Oversight Section

Encl.: Laboratory Analytical Report from Energy Labs (4 pages)

Ms. Ann Mathis

RE: Analytical reports for water samples RW-6A and RW-6B collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 1, 2006

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Sulfate in Drinking Water (EPA)

ToxFAQsTM for uranium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-008
Client Sample ID: RW-6A

Report Date: 06/06/06
Collection Date: 05/02/06 13:55
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	276	mg/L		1		A2320 B	05/11/06 12:38 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 12:38 / th
005 Bicarbonate as HCO3	337	mg/L		1		A2320 B	05/11/06 12:38 / th
007 Chloride	97	mg/L		1		A4500-Cl B	05/04/06 15:29 / jl
139 Nitrogen, Nitrate as N	3.7	mg/L		0.1		E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	3.7	mg/L		0.1		E353.2	05/04/06 10:35 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/03/06 14:23 / jal
008 Sulfate	697	mg/L	D	30		A4500-SO4 E	05/09/06 16:40 / th
PHYSICAL PROPERTIES							
009 pH	7.90	s.u.		0.01		A4500-H B	05/04/06 14:10 / jdh
010 Solids, Total Dissolved TDS @ 180 C	1400	mg/L		10		A2540 C	05/05/06 14:57 / jdh
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
024 Barium	0.013	mg/L		0.001		E200.8	05/05/06 04:56 / bws
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
001 Calcium	179	mg/L		0.5		E200.7	05/12/06 15:03 / ts
027 Chromium	0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
029 Copper	0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
032 Iron	0.02	mg/L		0.01		E200.7	05/12/06 15:03 / ts
033 Lead	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
002 Magnesium	45.3	mg/L		0.5		E200.7	05/12/06 15:03 / ts
034 Manganese	0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/05/06 04:56 / bws
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
037 Nickel	0.002	mg/L		0.001		E200.8	05/05/06 04:56 / bws
003 Potassium	3.7	mg/L		0.5		E200.7	05/12/06 15:03 / ts
040 Selenium	0.025	mg/L		0.001		E200.8	05/05/06 04:56 / bws
041 Silver	<0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
004 Sodium	223	mg/L		0.5		E200.7	05/12/06 15:03 / ts
015 Uranium	0.0312	mg/L		0.0003		E200.8	05/05/06 04:56 / bws
042 Vanadium	0.001	mg/L		0.001		E200.8	05/05/06 04:56 / bws
043 Zinc	0.018	mg/L		0.001		E200.8	05/05/06 04:56 / bws

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-008
Client Sample ID: RW-6A

Report Date: 06/06/06
Collection Date: 05/02/06 13:55
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.005	mg/L		0.001		E200.8	05/09/06 03:07 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
124 Barium	0.014	mg/L		0.001		E200.8	05/04/06 20:52 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
101 Calcium	176	mg/L		0.5		E200.7	05/12/06 16:08 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
129 Copper	0.003	mg/L		0.001		E200.8	05/04/06 20:52 / sml
121 Iron	0.02	mg/L		0.01		E200.7	05/12/06 16:08 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
102 Magnesium	44.2	mg/L		0.5		E200.7	05/12/06 16:08 / ts
134 Manganese	0.002	mg/L		0.001		E200.8	05/04/06 20:52 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 20:52 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 20:52 / sml
103 Potassium	3.5	mg/L		0.5		E200.7	05/12/06 16:08 / ts
140 Selenium	0.026	mg/L		0.001		E200.8	05/04/06 20:52 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 20:52 / sml
104 Sodium	217	mg/L		0.5		E200.7	05/12/06 16:08 / ts
115 Uranium	0.0334	mg/L		0.0003		E200.8	05/04/06 20:52 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 20:52 / sml
143 Zinc	0.017	mg/L		0.001		E200.8	05/04/06 20:52 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 17:54 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 13:44 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.557	%				Calculation	05/15/06 11:45 / cp
194 Anions	21.7	meq/L				Calculation	05/15/06 11:45 / cp
195 Cations	22.0	meq/L				Calculation	05/15/06 11:45 / cp
079 Solids, Total Dissolved Calculated	1380	mg/L				Calculation	05/15/06 11:45 / cp
200 TDS Balance (0.80 - 1.20)	1.01	dec. %				Calculation	05/15/06 11:45 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-001
Client Sample ID: RW-6B

Report Date: 06/06/06
Collection Date: 05/02/06 14:05
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/ RL QCL	Method	Analysis Date / By
MAJOR IONS						
075 Alkalinity, Total as CaCO3	286	mg/L		1	A2320 B	05/11/06 11:25 / th
006 Carbonate as CO3	<1	mg/L		1	A2320 B	05/11/06 11:25 / th
005 Bicarbonate as HCO3	349	mg/L		1	A2320 B	05/11/06 11:25 / th
007 Chloride	92	mg/L		1	A4500-Cl B	05/04/06 15:19 / jl
139 Nitrogen, Nitrate as N	3.6	mg/L		0.1	E353.2	05/05/06 08:47 / sec
039 Nitrogen, Nitrate+Nitrite as N	3.6	mg/L		0.1	E353.2	05/04/06 10:10 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1	A4500-NO2 B	05/03/06 14:21 / jal
008 Sulfate	794	mg/L	D	30	A4500-SO4 E	05/09/06 16:26 / th
PHYSICAL PROPERTIES						
009 pH	7.80	s.u.		0.01	A4500-H B	05/04/06 13:51 / jd
010 Solids, Total Dissolved TDS @ 180 C	1400	mg/L		10	A2540 C	05/05/06 14:54 / jd
METALS - DISSOLVED						
022 Aluminum	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
023 Arsenic	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
024 Barium	0.014	mg/L		0.001	E200.8	05/05/06 01:08 / bws
026 Cadmium	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
001 Calcium	173	mg/L		0.5	E200.7	05/10/06 16:01 / ts
027 Chromium	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
028 Cobalt	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
029 Copper	0.009	mg/L		0.001	E200.8	05/05/06 01:08 / bws
032 Iron	<0.01	mg/L		0.01	E200.7	05/10/06 16:01 / ts
033 Lead	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
002 Magnesium	44.8	mg/L		0.5	E200.7	05/10/06 16:01 / ts
034 Manganese	0.002	mg/L		0.001	E200.8	05/05/06 01:08 / bws
035 Mercury	<0.0002	mg/L		0.0002	E200.8	05/05/06 01:08 / bws
036 Molybdenum	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
037 Nickel	0.002	mg/L		0.001	E200.8	05/05/06 01:08 / bws
003 Potassium	4.2	mg/L		0.5	E200.7	05/10/06 16:01 / ts
040 Selenium	0.027	mg/L		0.001	E200.8	05/05/06 01:08 / bws
041 Silver	<0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
004 Sodium	216	mg/L		0.5	E200.7	05/10/06 16:01 / ts
015 Uranium	0.0317	mg/L		0.0003	E200.8	05/05/06 01:08 / bws
042 Vanadium	0.001	mg/L		0.001	E200.8	05/05/06 01:08 / bws
043 Zinc	0.022	mg/L		0.001	E200.8	05/05/06 01:08 / bws

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050172-001
Client Sample ID: RW-6B

Report Date: 06/06/06
Collection Date: 05/02/06 14:05
Date Received: 05/03/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.014	mg/L		0.001		E200.8	05/09/06 02:15 / bws
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
124 Barium	0.014	mg/L		0.001		E200.8	05/04/06 20:32 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
101 Calcium	173	mg/L		0.5		E200.7	05/12/06 15:29 / ts
120 Chromium	<0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
129 Copper	0.007	mg/L		0.001		E200.8	05/04/06 20:32 / sml
121 Iron	<0.01	mg/L		0.01		E200.7	05/12/06 15:29 / ts
133 Lead	<0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
102 Magnesium	43.6	mg/L		0.5		E200.7	05/12/06 15:29 / ts
134 Manganese	0.002	mg/L		0.001		E200.8	05/04/06 20:32 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/04/06 20:32 / sml
136 Molybdenum	0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
137 Nickel	0.002	mg/L		0.001		E200.8	05/04/06 20:32 / sml
103 Potassium	3.4	mg/L		0.5		E200.7	05/12/06 15:29 / ts
140 Selenium	0.027	mg/L		0.001		E200.8	05/04/06 20:32 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/04/06 20:32 / sml
104 Sodium	219	mg/L		0.5		E200.7	05/12/06 15:29 / ts
115 Uranium	0.0340	mg/L		0.0003		E200.8	05/04/06 20:32 / sml
142 Vanadium	0.002	mg/L		0.001		E200.8	05/04/06 20:32 / sml
143 Zinc	0.019	mg/L		0.001		E200.8	05/04/06 20:32 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/27/06 10:51 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/22/06 11:21 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/18/06 10:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.121	%				Calculation	05/15/06 11:43 / cp
194 Anions	21.8	meq/L				Calculation	05/15/06 11:43 / cp
195 Cations	21.8	meq/L				Calculation	05/15/06 11:43 / cp
079 Solids, Total Dissolved Calculated	1380	mg/L				Calculation	05/15/06 11:43 / cp
200 TDS Balance (0.80 - 1.20)	1.01	dec. %				Calculation	05/15/06 11:43 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



BILL RICHARDSON
GOVERNOR

**State of New Mexico
ENVIRONMENT DEPARTMENT**

**Ground Water Quality Bureau
Harold Runnels Building
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

November 2, 2006

Mr. W.B. Willoughby
P.O. Box 1450
Grants, NM 87020

RE: Analytical reports for water samples RW-7 and RW-7A collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico.

Dear Mr. Willoughby:

Ground water sampling was conducted in the communities near the Homestake Uranium Mill Superfund Site, near Milan, New Mexico in May 2006. The sampling is part of ongoing efforts to monitor potential effects from tailings piles on ground water quality in the area around the site and to ensure that the current remediation efforts being used at the Homestake Superfund Site are protective of human health and the environment. In addition, the sampling data are being used to add to the understanding of the site, which will help improve remediation efforts as well as site management.

Enclosed for your records are copies of the analytical report for the water samples collected from your well on May 3, 2006. For tracking purposes, the samples from your well were designated as "RW-7" and "RW-7A". Sample RW-7 was collected before your in-line filtration system, whereas sample RW-7A was collected after the water had passed through the filtration system. The samples were analyzed for metals (dissolved and total), major ions, radionuclides and general water chemistry. Samples designated "dissolved" are filtered and thus do not contain particulate metal, whereas samples designated "total" are not filtered and thus measure the total concentration of the analyte in the sample. Both samples were sent to Energy Labs, the primary laboratory used for analytical services during this sampling event.

The analytical results that exceed applicable standards are summarized below. 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 these samples show that your well exceeds the Federal primary drinking water standard for total uranium (EPA) and the State standard for dissolved uranium

Mr. W.B. Willoughby

RE: Analytical reports for water samples RW-7 and RW-7A collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

(NMWQCC), and secondary Federal drinking water standards for sulfate, and total dissolved solids (TDS). Based upon the sample results for RW-7A, your current filtration system appears reduce these contaminants to concentrations that are below applicable standards.

SAMPLE	Uranium (mg/L)		Sulfate (mg/L)	TDS (mg/L)
	Total	Dissolved		
Sample RW-7	0.0540	0.0540	2340	2390
Sample RW-7A (no exceedances)	<0.003	<0.003	38	334
EPA MCL	0.03	None	250 (a)	500 (a)
NMWQCC (b)	None	0.03	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

Consumption of elevated levels of uranium has been associated with increased risk of cancer and kidney toxicity. As stated above, your current filtration appears to reduce this contaminant to concentrations below the applicable standards. Please review the enclosed fact sheet for additional information pertaining to the health effects of uranium.

The secondary drinking water standards for sulfate and TDS are not health-based standards, and therefore the presence of these analytes only affect the aesthetic qualities of the water such as taste, color and odor. However, 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 TDS and sulfate.

Thank you for your participation in the residential well survey. NMED is continuing to review and evaluate the effectiveness of the remediation system and the extent of ground water contamination related to the Homestake Mining Company site. NMED has asked the New Mexico Department of Health and the Agency of Toxic Substances and Disease Registry to review the data and provide well owners with additional information or recommendations as appropriate. NMED may contact well owners for permission to conduct follow-up or confirmatory well sampling.

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

Sincerely,



David L. Mayerson

Superfund Oversight Section

Mr. W.B. Willoughby

RE: Analytical reports for water samples RW-7 and RW-7A collected by New Mexico Environment Department (NMED) from private well near the Homestake Mining Company site (EPA ID#: NMD007860935) Milan, New Mexico

November 2, 2006

Encl.: Laboratory Analytical Report from Energy Labs (4 pages)

Fact Sheets:

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals (EPA)

Sulfate in Drinking Water (EPA)

ToxFAQs™ for uranium (ATSDR)

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



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-004
Client Sample ID: RW-7A

Report Date: 06/06/06
Collection Date: 05/03/06 10:32
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	134	mg/L		1		A2320 B	05/11/06 13:31 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 13:31 / th
005 Bicarbonate as HCO3	163	mg/L		1		A2320 B	05/11/06 13:31 / th
007 Chloride	67	mg/L		1		A4500-Cl B	05/08/06 13:04 / jl
139 Nitrogen, Nitrate as N	5.0	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	5.0	mg/L	D	0.2		E353.2	05/05/06 10:17 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:57 / jal
008 Sulfate	38	mg/L		1		A4500-SO4 E	05/10/06 10:30 / th
PHYSICAL PROPERTIES							
009 pH	7.53	s.u.		0.01		A4500-H B	05/05/06 12:13 / jdh
010 Solids, Total Dissolved TDS @ 180 C	334	mg/L		10		A2540 C	05/05/06 15:08 / jdh
METALS - DISSOLVED							
022 Aluminum	0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
024 Barium	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
001 Calcium	<0.5	mg/L		0.5		E200.7	05/17/06 15:13 / cp
027 Chromium	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
028 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
029 Copper	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
032 Iron	0.01	mg/L		0.01		E200.7	05/18/06 15:00 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
002 Magnesium	<0.5	mg/L		0.5		E200.7	05/17/06 15:13 / cp
034 Manganese	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:05 / sml
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
037 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
003 Potassium	<0.5	mg/L		0.5		E200.7	05/17/06 15:13 / cp
040 Selenium	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
004 Sodium	74.4	mg/L		0.5		E200.7	05/17/06 15:13 / cp
015 Uranium	<0.0003	mg/L		0.0003		E200.8	05/08/06 19:05 / sml
042 Vanadium	<0.001	mg/L		0.001		E200.8	05/08/06 19:05 / sml
043 Zinc	0.002	mg/L		0.001		E200.8	05/08/06 19:05 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050216-004

Client Sample ID: RW-7A

Report Date: 06/06/06

Collection Date: 05/03/06 10:32

Date Received: 05/04/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
124 Barium	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
101 Calcium	<0.5	mg/L		0.5		E200.7	05/17/06 16:21 / cp
120 Chromium	0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
129 Copper	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
121 Iron	0.02	mg/L		0.01		E200.7	05/17/06 16:21 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
102 Magnesium	<0.5	mg/L		0.5		E200.7	05/17/06 16:21 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:12 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
137 Nickel	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
103 Potassium	0.6	mg/L		0.5		E200.7	05/17/06 16:21 / cp
140 Selenium	0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
104 Sodium	135	mg/L		0.5		E200.7	05/17/06 16:21 / cp
115 Uranium	<0.0003	mg/L		0.0003		E200.8	05/08/06 19:12 / sml
142 Vanadium	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
143 Zinc	<0.001	mg/L		0.001		E200.8	05/08/06 19:12 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 12:11 / trs
057 Radium 228	1.7	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
257 Radium 228 precision (±)	0.9	pCi/L				RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	-2.99	%				Calculation	05/23/06 12:19 / cp
194 Anions	6.26	meq/L				Calculation	05/23/06 12:19 / cp
195 Cations	5.90	meq/L				Calculation	05/23/06 12:19 / cp
079 Solids, Total Dissolved Calculated.	363	mg/L				Calculation	05/23/06 12:19 / cp
200 TDS Balance (0.80 - 1.20)	0.920	dec. %				Calculation	05/23/06 12:19 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co

Project: Grants NM

Lab ID: C06050216-005

Client Sample ID: RW-7

Report Date: 06/06/06

Collection Date: 05/03/06 10:39

Date Received: 05/04/06

Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
MAJOR IONS							
075 Alkalinity, Total as CaCO3	344	mg/L		1		A2320 B	05/11/06 13:32 / th
006 Carbonate as CO3	<1	mg/L		1		A2320 B	05/11/06 13:32 / th
005 Bicarbonate as HCO3	419	mg/L		1		A2320 B	05/11/06 13:32 / th
007 Chloride	236	mg/L		1		A4500-Cl B	05/08/06 13:10 / jl
139 Nitrogen, Nitrate as N	4.0	mg/L		0.1		E353.2	05/08/06 10:42 / sec
039 Nitrogen, Nitrate+Nitrite as N	4.0	mg/L	D	0.2		E353.2	05/05/06 10:19 / jal
050 Nitrogen, Nitrite as N	<0.1	mg/L		0.1		A4500-NO2 B	05/04/06 11:57 / jal
008 Sulfate	2340	mg/L	D	30		A4500-SO4 E	05/10/06 10:31 / th
PHYSICAL PROPERTIES							
009 pH	7.80	s.u.		0.01		A4500-H B	05/05/06 12:15 / jdH
010 Solids, Total Dissolved TDS @ 180 C	2390	mg/L		10		A2540 C	05/05/06 15:09 / jdH
METALS - DISSOLVED							
022 Aluminum	<0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
023 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
024 Barium	0.017	mg/L		0.001		E200.8	05/08/06 19:19 / sml
026 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
001 Calcium	304	mg/L		0.5		E200.7	05/17/06 15:33 / cp
027 Chromium	0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
028 Cobalt	0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
029 Copper	0.006	mg/L		0.001		E200.8	05/08/06 19:19 / sml
032 Iron	0.02	mg/L		0.01		E200.7	05/17/06 15:33 / cp
033 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
002 Magnesium	67.8	mg/L		0.5		E200.7	05/17/06 15:33 / cp
034 Manganese	0.002	mg/L		0.001		E200.8	05/08/06 19:19 / sml
035 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:19 / sml
036 Molybdenum	<0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
037 Nickel	0.003	mg/L		0.001		E200.8	05/08/06 19:19 / sml
003 Potassium	6.3	mg/L		0.5		E200.7	05/17/06 15:33 / cp
040 Selenium	0.038	mg/L		0.001		E200.8	05/08/06 19:19 / sml
041 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:19 / sml
004 Sodium	403	mg/L		0.5		E200.7	05/17/06 15:33 / cp
015 Uranium	0.0540	mg/L		0.0003		E200.8	05/08/06 19:19 / sml
042 Vanadium	0.002	mg/L		0.001		E200.8	05/08/06 19:19 / sml
043 Zinc	0.059	mg/L		0.001		E200.8	05/08/06 19:19 / sml

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Homestake Mining Co
Project: Grants NM
Lab ID: C06050216-005
Client Sample ID: RW-7

Report Date: 06/06/06
Collection Date: 05/03/06 10:39
Date Received: 05/04/06
Matrix: Aqueous

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
METALS - TOTAL							
122 Aluminum	0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
119 Arsenic	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
124 Barium	0.017	mg/L		0.001		E200.8	05/08/06 19:25 / sml
126 Cadmium	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
101 Calcium	289	mg/L		0.5		E200.7	05/17/06 16:53 / cp
120 Chromium	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
128 Cobalt	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
129 Copper	0.008	mg/L		0.001		E200.8	05/08/06 19:25 / sml
121 Iron	0.03	mg/L		0.01		E200.7	05/17/06 16:53 / cp
133 Lead	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
102 Magnesium	66.2	mg/L		0.5		E200.7	05/17/06 16:53 / cp
134 Manganese	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
135 Mercury	<0.0002	mg/L		0.0002		E200.8	05/08/06 19:25 / sml
136 Molybdenum	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
137 Nickel	0.003	mg/L		0.001		E200.8	05/08/06 19:25 / sml
103 Potassium	6.4	mg/L		0.5		E200.7	05/17/06 16:53 / cp
140 Selenium	0.037	mg/L		0.001		E200.8	05/08/06 19:25 / sml
141 Silver	<0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
104 Sodium	401	mg/L		0.5		E200.7	05/17/06 16:53 / cp
115 Uranium	0.0540	mg/L		0.0003		E200.8	05/08/06 19:25 / sml
142 Vanadium	0.001	mg/L		0.001		E200.8	05/08/06 19:25 / sml
143 Zinc	0.090	mg/L		0.001		E200.8	05/08/06 19:25 / sml
RADIONUCLIDES - DISSOLVED							
045 Radium 226	<1.0	pCi/L		1.0		E903.0	05/24/06 12:11 / trs
057 Radium 228	<1.0	pCi/L		1.0		RA-05	05/19/06 13:09 / pj
048 Thorium 230	<1.0	pCi/L		1.0		E907.0	05/22/06 11:00 / df
DATA QUALITY							
192 A/C Balance (± 5)	0.917	%				Calculation	05/18/06 15:49 / cp
194 Anions	37.8	meq/L				Calculation	05/18/06 15:49 / cp
195 Cations	38.5	meq/L				Calculation	05/18/06 15:49 / cp
079 Solids, Total Dissolved Calculated	2390	mg/L				Calculation	05/18/06 15:49 / cp
200 TDS Balance (0.80 - 1.20)	1.00	dec. %				Calculation	05/18/06 15:49 / cp

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.