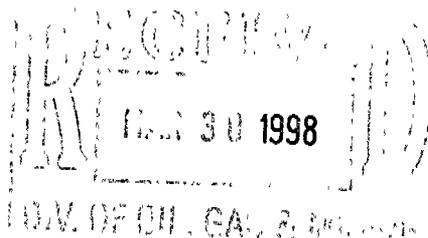


0029

**iml**  
Inter-Mountain  
Laboratories, Inc.



2506 West Main Street  
Farmington, New Mexico 87401  
Tel. (505) 326-4737

March 25, 1998

Utah Division of Oil, Gas, and Mining  
ATTN: Robert Davidson  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801

*Copy Bob (all)  
ACT/002/004 #2*

Dear Mr. Davidson

Enclosed are the results for the Castle Gate Mine QC Split. Our analysis confirms that there are interfering salts that effect the traditional relationship between EC and the sum of the cations. According to the US Salinity Lab when CaCl or MgSO<sub>4</sub> are present as the dominant salts, the relationship changes as much as twice the usual ratio. Therefore the sum of the cations can be as much as twenty times the EC value rather than the traditional 10 times.

Please call if you have any questions regarding the information presented in this report

Sincerely,

Robert A. Nelson  
Assistant Laboratory Manager / Soil Scientist  
IML Farmington

enclosure Analytical Report



Client Project ID: Castle Gate Mine

State of Utah DNR-DOGM

Salt Lake City, UT

IML Project #0398S00491

Date received: 02/11/98

Report Date: 03/25/98

Lab Id	Sample Id	Depths Inches	pH	EC	Ca	Mg	Na	SAR	Gypsum
			s.u.	mmhos/cm	meq/L	meq/L	meq/L		percent
0398S00491	Topdressing	N/A	7.2	3.74	28	30	3.9	1	13
0398S00492	South Channel	N/A	7.3	3.52	27	22	5.9	1	9.1
0398S00493	Upper Scale	N/A	7.4	2.28	11	7.8	5.5	2	0.90
0398S00494	Lower Scale	N/A	7.1	3.43	25	17	7.4	2	0.27



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

January 28, 1998

Mr. Robert Nelson  
Intermountain Laboratories  
2506 West Main Street  
Farmington, New Mexico 87401

Re: Analysis of Soil Samples from Castle Gate Mine (QC-Split)

Dear Mr. Nelson:

Enclosed are four soil samples from the Castle Gate Mine northwest of Helper, Utah. As I understand you discussed with Robert Davidson, these samples are quality control split samples and need to be tested for pH, electrical conductivity, and sodium adsorption ratio. The samples are labeled "Upper Scale," "Lower Scale," "Topdressing," and "South Channel."

Please call Mr. Davidson at 801-538-5264 or me at 801-538-5261 if you have any questions. Thank you very much for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "P. B. Baker".

Paul B. Baker

Senior Reclamation Biologist



# CHAIN OF CUSTODY RECORD

Client/Project Name <b>STATE OF UTAH DNR - DOGM</b>			Project Location <b>CASTLE GATE MINE</b>			ANALYSES / PARAMETERS					
Sampler: (Signature)			Chain of Custody Tape No. <i>not given</i>			No. of Containers	PH	EL	SAR	Remarks	
Sample No./ Identification	Date	Time	Lab Number	Matrix							
TOP DRESSING	<del>2/1/98</del>	<del>9:30A</del>		soil	1						
SOUTH CHANNEL	<del>X</del>	<del>X</del>		I	1						
UPPER SCALE	<del>X</del>	<del>X</del>			1						
LOWER SCALE	<del>X</del>	<del>X</del>			1						
<del>CR</del>										<i>Impact, UPS-ground</i>	
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time		
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time		
Relinquished by: (Signature)			Date	Time	Received by laboratory: (Signature)			Date	Time		

Inter-Mountain Laboratories, Inc.

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College Station, TX 77845  
Telephone (409) 776-8945

**01-50715**

2.1.98 9:30 AM