



**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

March 31, 1998

Director  
Division of Water Quality  
Department of Environmental Quality  
288 North 1460 West  
P.O. Box 144870  
Salt Lake City, Utah 84114-4870

RE: February 1998 Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013

Dear Sir:

Please find enclosed the February 1998 Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. These reports are being submitted in accordance with the mine's UPDES permit.

Sincerely,

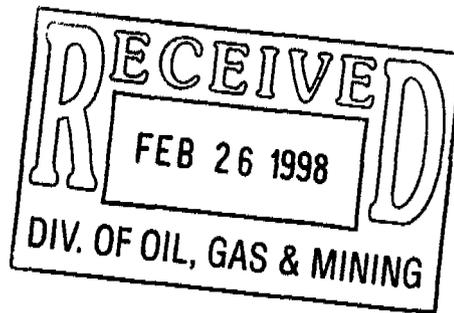
Thomas J. Suchoski

enclosures

cc: US EPA Region VIII  
Utah Division of Oil, Gas, and Mining  
Mr. Paul Clark

February 24, 1998

7013



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EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Director  
Division of Water Quality  
Department of Environmental Quality  
288 North 1460 West  
P.O. Box 144870  
Salt Lake City, Utah 84114-4870

RE: January 1998 Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013

Dear Sir:

Please find enclosed the January 1998 Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. These reports are being submitted in accordance with the mine's UPDES permit.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Suchoski".

Thomas J. Suchoski

enclosures

cc: US EPA Region VIII  
Utah Division of Oil, Gas, and Mining  
Mr. Paul Clark



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Engineering Inc.  
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7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

December 26, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

*ACT/003/013 #7*

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

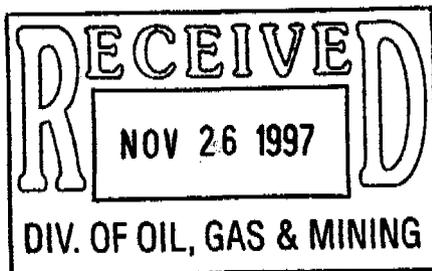
Dear Mr. Wyatt:

Please find enclosed the November 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

Chris D. Hansen

enclosures



November 25, 1997

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Mr. Ken Wyatt  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: 1997 Third Quarter Hydrologic Monitoring Report for IPA's Horse Canyon Mine,  
ACT 007/013

#7

Dear Mr. Wyatt:

Please find enclosed one copy of the 1997 Third Quarter Hydrologic Monitoring Report for IPA's Horse Canyon Mine. Included with this report are copies of the laboratory data sheets and spreadsheets listing the analytical results for each sampling site. Additionally, bar graphs comparing flow, conductivity, TDS, pH, total iron, and hardness for each sample site during the third quarter along with graphs comparing the results of the first, second, and third quarters have been provided.

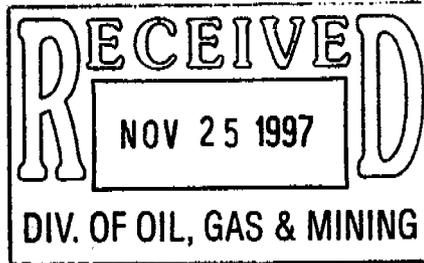
If you have any questions regarding this information, please call me at (801) 561-1555.

Sincerely,

Chris D. Hansen

cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

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EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

November 24, 1997

*ACT/007/023  
#2*

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the October 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen

enclosures

Department of Water and Power



the City of Los Angeles

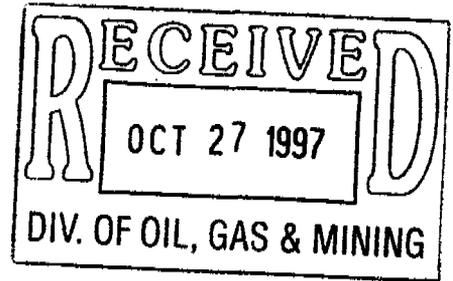
RICHARD J. RIORDAN  
Mayor

Commission  
RICK J. CARUSO, *President*  
MARCIA F. VOLPERT, *Vice President*  
JOSÉ DE JESÚS LEGASPI  
KENNETH T. LOMBARD  
JUDY M. MILLER  
IRENE N. KISHI, *Secretary*

S. DAVID FREEMAN, *General Manager*  
HARRY M. SIZEMORE, *Chief Operating Officer*  
ELDON A. COTTON, *Assistant General Manager - External Asset Management*  
JAMES F. WICKSER, *Assistant General Manager - Water Services*  
THOMAS M. McCLOSKEY, *Assistant General Manager - Marketing & Customer Service*  
M. FAYE WASHINGTON, *Assistant General Manager/Chief Administrative Officer*  
THOMAS C. HOKINSON, *Chief Assistant City Attorney for Water and Power*  
PHYLLIS E. CURRIE, *Chief Financial Officer*

ACT/007/013 #7 October 22, 1997

Ms. Pam Grubaugh-Littig  
Permit Supervisor  
Utah State Department of  
Natural Resources  
Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801



Dear Ms. Grubaugh-Littig:

Horse Canyon Mine  
ACT/007/013  
Quarterly Sediment Pond Inspection Reports

Enclosed are copies of the above reports for the fourth quarter of 1997 for the Intermountain Power Agency-owned Horse Canyon Mine.

If you have any comments or questions, please call Mr. William W. Engels at (213) 367-0289.

Sincerely,

*Michael J. Nosanov*  
MICHAEL J. NOSANOV  
Coal Business Manager

Enclosures

c: w/Enclosures  
Mr. L. Paul Clark  
Earthfax Engineering, Inc.  
Mr. William W. Engels (2)

Water and Power Conservation... a way of life

111 North Hope Street, Los Angeles, California  Mailing address: Box 51111, Los Angeles 90051-0100  
Telephone: (213) 367-4211 Cable address: DEWAPOLA FAX: (213) 367-3287



RICHARD J. RIORDAN  
Mayor

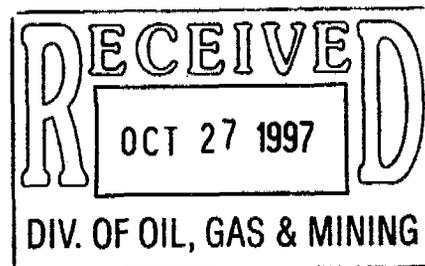
Commission  
RICK J. CARUSO, *President*  
MARCIA F. VOLPERT, *Vice President*  
JOSÉ DE JESÚS LEGASPI  
KENNETH T. LOMBARD  
JUDY M. MILLER  
IRENE N. KISHI, *Secretary*

S. DAVID FREEMAN, *General Manager*  
HARRY M. SIZEMORE, *Chief Operating Officer*  
ELDON A. COTTON, *Assistant General Manager - External Asset Management*  
JAMES F. WICKSER, *Assistant General Manager - Water Services*  
THOMAS M. McCLOSKEY, *Assistant General Manager - Marketing & Customer Service*  
M. FAYE WASHINGTON, *Assistant General Manager/Chief Administrative Officer*  
THOMAS C. HOKINSON, *Chief Assistant City Attorney for Water and Power*  
PHYLLIS E. CURRIE, *Chief Financial Officer*

October 22, 1997

ACT/007/013 #7

Ms. Pam Grubaugh-Littig  
Permit Supervisor  
Utah State Department of  
Natural Resources  
Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801



Dear Ms. Grubaugh-Littig:

Horse Canyon Mine  
ACT/007/013  
Quarterly Refuse Pile Inspection Report

Enclosed is a copy of the above report for the fourth quarter of 1997 for the Intermountain Power Agency-owned Horse Canyon Mine.

If you have any comments or questions, please call Mr. William W. Engels at (213) 367-0289.

Sincerely,

*Michael J. Nosanov*  
MICHAEL J. NOSANOV  
Coal Business Manager

Enclosure

c: w/Enclosure  
Mr. L. Paul Clark  
Earthfax Engineering, Inc.  
Mr. William W. Engels (2)

Water and Power Conservation... a way of life



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7324 So. Union Park Ave.  
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Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

October 13, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

ACT 100-01013 #7

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the September 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

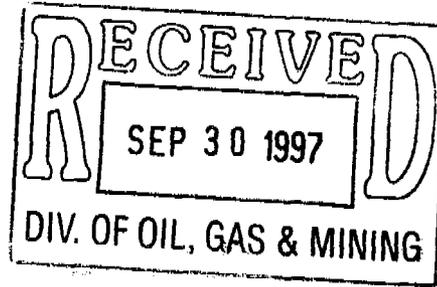
Chris D. Hansen

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**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861



September 29, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

ACT/007/013 #7

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the August 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

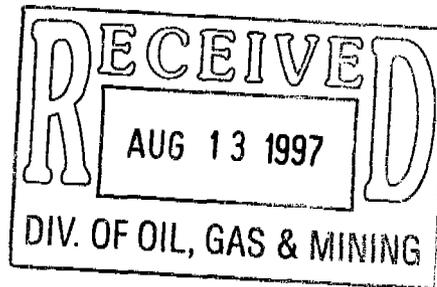
Chris D. Hansen

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7324 So. Union Park Ave.  
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Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861



August 12, 1997

Mr. Ken Wyatt  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: 1997 First Quarter Hydrologic Monitoring Report for IPA's Horse Canyon Mine,  
ACT 007/013 #7

Dear Mr. Wyatt:

Please find enclosed one copy of the 1997 Second Quarter Hydrologic Monitoring Report for IPA's Horse Canyon Mine. Included with this report are copies of the laboratory data sheets and spreadsheets listing the analytical results for each sampling site. Additionally, bar graphs comparing flow, conductivity, TDS, pH, total iron, and hardness for each sample site during the second quarter along with graphs comparing the results of the first and second quarters have been provided.

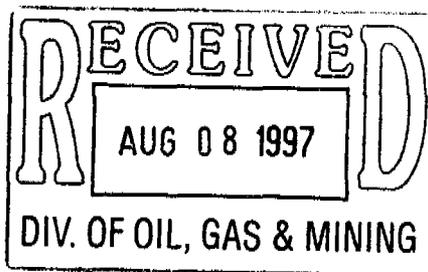
If you have any questions regarding this information, please call me at (801) 561-1555.

Sincerely,

Chris D. Hansen

cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

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Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
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Telephone 801-561-1555  
Fax 801-561-1861

August 5, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

*ACT/00/013 #7*

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

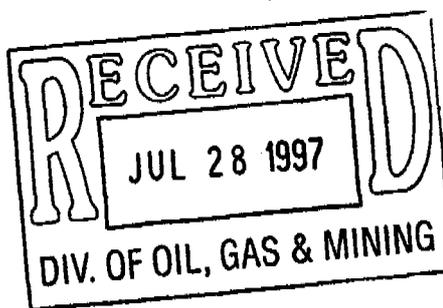
Please find enclosed the July 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chris".

Chris D. Hansen

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EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

July 23, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

ACT/003/013 #7

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

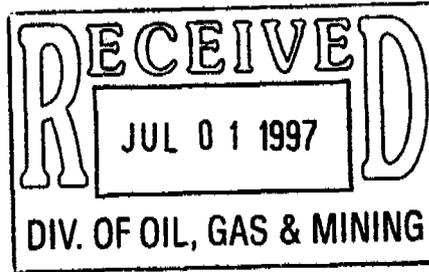
Dear Mr. Wyatt:

Please find enclosed the June 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

Chris D. Hansen

enclosures



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EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

June 30, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the May 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

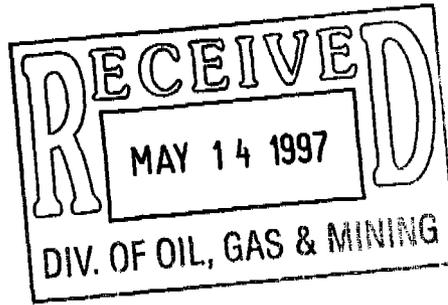
Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen

enclosures

May 12, 1997



EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Mr. Ken Wyatt  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: 1997 First Quarter Hydrologic Report for IPA's Horse Canyon Mine, ACT 007/013

Dear Mr. Braxton:

Please find enclosed one copy of the 1997 First Quarter Hydrologic Report for IPA's Horse Canyon Mine. Included with this report are copies of the laboratory data sheets and spreadsheets describing the analytical results for each sampling site. Additionally, bar graphs comparing flow, conductivity, TDS, pH, total iron, and hardness for each sample site have been provided.

If you have any questions regarding this information, please call me at (801) 561-1555.

Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen

cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

enclosures



**EarthFax**

**EarthFax  
Engineering Inc.**  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

May 13, 1997

United States Environmental Protection Agency Region VIII  
Attn: Water Management Division - Compliance Branch (8WM-C)  
Denver Place  
999 18th Street, Suite 500  
Denver, CO 80202-2466

RE: April 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, Discharge Numbers 001A and 002A.

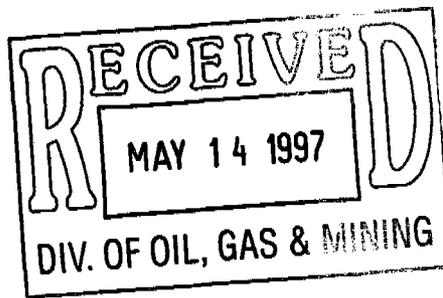
Dear Sirs:

Please find enclosed the April 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. The original reports have been submitted to the Utah Department of Environmental Quality - Division of Water Quality in accordance with the mine's UPDES permit. Please note that no discharge has occurred from either of these discharge points during the reporting period.

Sincerely,

Chris D. Hansen

enclosures



**EarthFax**

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Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

May 13, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

*ACT/007/013 #7*

Dear Mr. Wyatt:

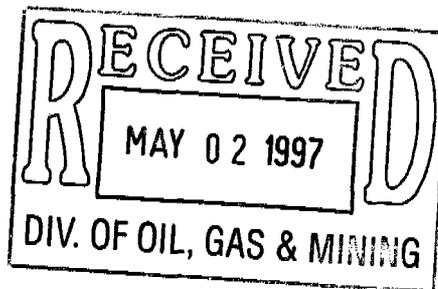
Please find enclosed the April 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

Chris D. Hansen

enclosures

April 30, 1997



EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

*ACT/007/013 #7*

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

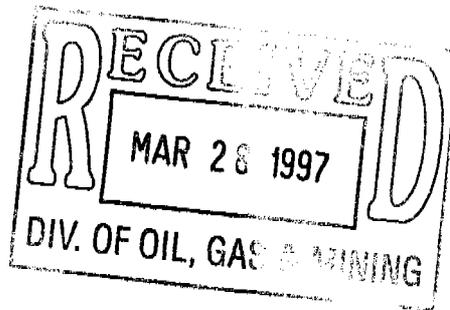
Dear Mr. Wyatt:

Please find enclosed the March 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen



EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

March 27, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

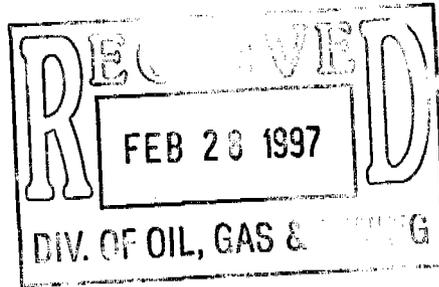
Dear Mr. Wyatt:

Please find enclosed the February 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen



**EarthFax**

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Engineering Inc.  
Engineers/Scientists  
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Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

February 27, 1997

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

*ACT/005/013 #7*

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the January 1997 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen

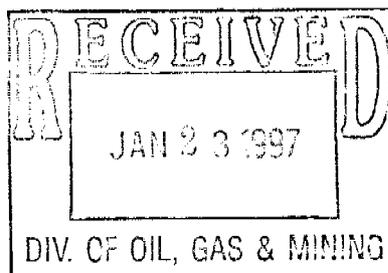


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Engineering Inc.  
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7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

January 21, 1997

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801



RE: 1996 Fourth Quarter Hydrologic Report for IPA's Horse Canyon Mine, ACT 007/013

Dear Mr. Braxton:

Please find enclosed one copy of the 1996 Fourth Quarter Hydrologic Report for IPA's Horse Canyon Mine. Included with this report are copies of the spreadsheets describing the analytical results for each sampling site, field data sheets, and laboratory data sheets. Additionally, bar graphs comparing flow, conductivity, TDS, pH, total iron, and hardness for each sample site have been provided. One set of graphs present 4th quarter results alone and a second set of graphs present 1st, 2nd, 3rd and 4th quarter results combined. Please note that after August 1996, surface and groundwater monitoring has been performed on a quarterly basis.

If you have any questions regarding this information, please call me at (801) 561-1555.

Sincerely,

Chris D. Hansen

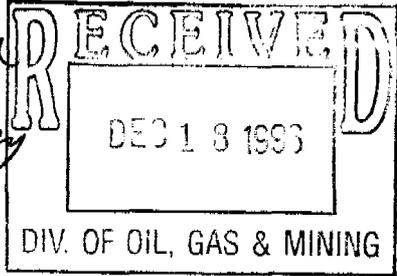
cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

enclosures

~~Handwritten scribble~~

007/013

Horse Cyn Mine  
F M power Agency



December 16, 1996



EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West north Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the October and November 1996 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

*Chris D. Hansen*

Chris D. Hansen

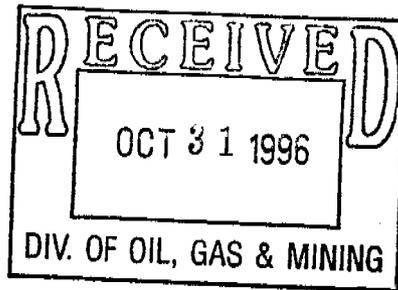
462



**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

October 30, 1996



Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

*Route to Ken,  
New file*

RE: 1996 Third Quarter Hydrologic Report for IPA's Horse Canyon Mine, ACT 007/013 # 7

Dear Mr. Braxton:

Please find enclosed one copy of the 1996 Third Quarter Hydrologic Report for IPA's Horse Canyon Mine. Included with this report are copies of the laboratory data sheets and spreadsheets describing the analytical results for each sampling site. Additionally, bar graphs comparing flow, conductivity, TDS, pH, total iron, and hardness for each sample site have been provided. One set of graphs present 3rd quarter results alone and a second set of graphs present 1st, 2nd, and 3rd quarter results combined. Please note that after August 1996, surface and groundwater monitoring has been and will continue to be performed on a quarterly basis until final reclamation bond release.

If you have any questions regarding this information, please call me at (801) 561-1555.

Sincerely,

Chris D. Hansen

cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

enclosures

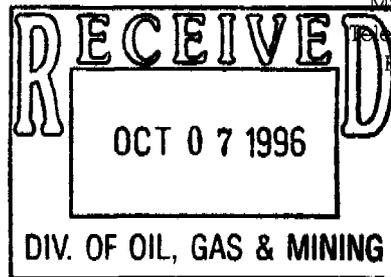


**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

October 3, 1996

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West north Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801



RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the September 1996 Discharge Monitoring Reports for the Horse Canyon  
Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A.

Sincerely,

Chris D. Hansen

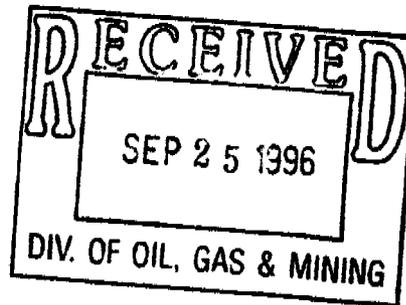
Act / 007 / 013



**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

September 23, 1996



Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West north Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

Dear Mr. Wyatt:

Please find enclosed the August 1996 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A.

Sincerely,

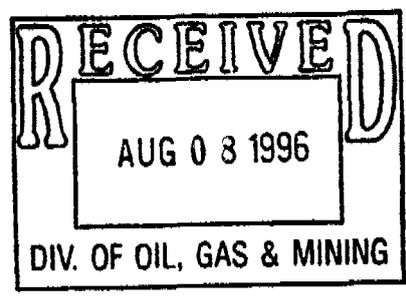
Chris D. Hansen



**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

August 6, 1996



Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

*Ken, New file ACT/007/013 #7*

RE: 1996 Second Quarter Hydrologic Report for IPA's Horse Canyon Mine, ACT 007/013 #7

Dear Mr. Braxton:

Please find enclosed one copy of the 1996 Second Quarter Hydrologic Report for IPA's Horse Canyon Mine. Included with this report are copies of the laboratory data sheets and spreadsheets describing the analytical results for each sampling site. Additionally, bar graphs comparing flow, conductivity, TDS, pH, total iron, and hardness for each sample site have been provided. One set of graphs present 1st quarter results alone and a second set of graphs present 1st and 2nd quarter results combined.

If you have any questions regarding this information, please call me at (801) 561-1555.

Sincerely,

Chris D. Hansen

cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

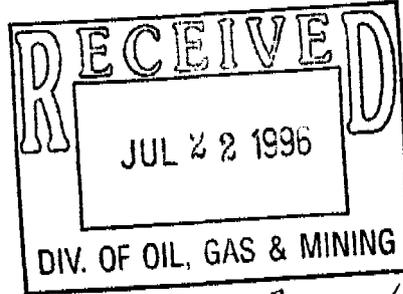
enclosures

*entered  
10-96  
MS*



July 11, 1996

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861



Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

*Route to Joe and Ken  
New file*

#7

RE: 1996 First Quarter Hydrologic Report for IPA's Horse Canyon Mine, ACT 007/013

Dear Mr. Braxton:

Recently, EarthFax Engineering, Inc. assumed responsibility for the monthly hydrologic monitoring and reporting for the Horse Canyon Mine. Unfortunately, we were not aware that the results of the monitoring of the surface and ground water at the mine were to be reported quarterly. However, Mr. Peter Hess of your Price office, explained to us that quarterly reports for this mine were indeed required. Therefore, at this time we are submitting, albeit tardy, the 1996 First Quarter Hydrologic Report for the Horse Canyon Mine. Please note that sites HC-1, RF-1, and RS-2 were inaccessible in January 1996 and sites RS-2 and HC-1 were inaccessible in February 1996.

We apologize for the lateness of this report and commit to having the reports in on time in the future.

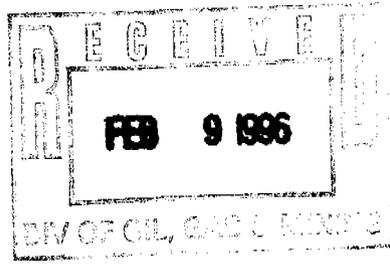
Sincerely,

Chris D. Hansen

cc: Mr. William E. Engels, IPA  
Mr. Paul Clark

enclosures

Pam



February 6, 1996

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

*Ken, Don  
file ACT/007/013  
# 7*

Dear Lowell:

Re: Fourth Quarter 1995 Hydrologic Report for Horse Canyon Mine Act 007/013.

Please find enclosed the Fourth Quarter 1995 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact me or Mr. Bill Engles in L.A. California.

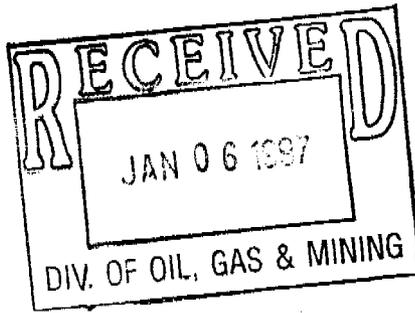
Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Bill Engles  
Paul Clark

Enclosure(s)



January 2, 1996



EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Mr. Ken Wyatt  
Utah Division of Oil, Gas, and Mining  
1594 West north Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

07/013

RE: Discharge Monitoring Report for the Horse Canyon Mine, UPDES Permit #UTG040013,  
Discharge Numbers 001A and 002A

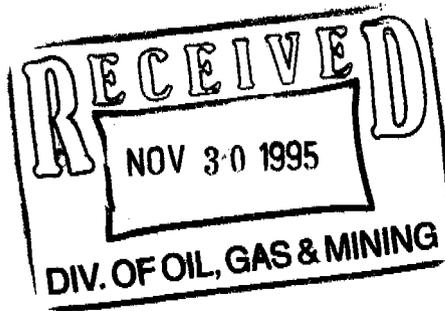
Dear Mr. Wyatt:

Please find enclosed the December 1996 Discharge Monitoring Reports for the Horse Canyon Mine, UPDES Permit #UTG040013, discharge numbers 001A and 002A. Please note that no discharge has occurred from the site discharge points.

Sincerely,

A handwritten signature in cursive script that reads "Chris D. Hansen".

Chris D. Hansen



November 27, 1995

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

*Ken, the file  
Ac 7007/013  
#7*

Re: Third Quarter 1995 Hydrologic Report for Horse Canyon Mine Act 007/013.

Please find enclosed the Third Quarter 1995 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr. Bill Engles in L.A. California.

Sincerely Yours,

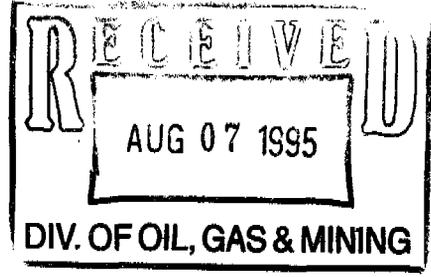
A handwritten signature in cursive script that reads "Karl R. Houskeeper".

Karl R. Houskeeper

cc: Bill Engles  
Denise Dragoo  
Paul Clark

Enclosure(s)

Pam



August 2, 1995

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

*Route to Kar,  
then file ACT/007/013  
# 7*

Dear Lowell:

Re: Second Quarter 1995 Hydrologic Report for Horse Canyon Mine Act 007/013.

Please find enclosed the Second Quarter 1995 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr. Bill Engles in L.A. California.

Sincerely Yours

*Karl R. Houskeeper*

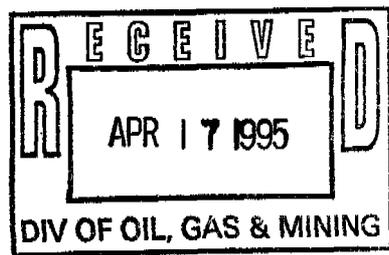
Karl R. Houskeeper

cc: Bill Engles  
Denise Dragoo  
Paul Clark

Enclosure(s)

Pam

April 12, 1995



Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

*Route to Ken, then  
file ACT/007/013 #7*

Dear Lowell:

Re: First Quarter 1995 Hydrologic Report for Horse Canyon Mine Act 007/013.

Please find enclosed the First Quarter 1995 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr. Bill Engles in L.A. California.

Sincerely Yours

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Bill Engles  
Denise Dragoo  
*Paul Clark*

Enclosure(s)

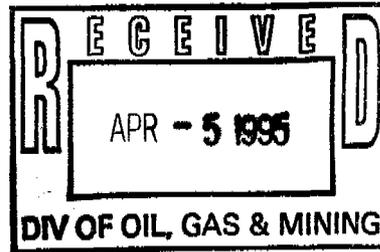
April 5, 1995



**EarthFax**

EarthFax  
Engineering Inc.  
Engineers/Scientists  
7324 So. Union Park Ave.  
Suite 100  
Midvale, Utah 84047  
Telephone 801-561-1555  
Fax 801-561-1861

Ms. Pamela Grubaugh-Littig  
Permit Coordinator  
Division of Oil, Gas, and Mining  
Department of Natural Resources  
State of Utah  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203



*(First putting cover letter in file)*

RE: 1994 Erosion Monitoring Report for the IPA Horse Canyon Mine

*Refer to Hansen, Joe 13  
then file ACT/007/012 #7*

Dear Ms. Grubaugh-Littig:

Please find enclosed with this letter the erosion monitoring data collected during 1994 at the IPA Horse Canyon Mine. The data include copies of Mr. Paul P. Clark's field notes and photographs of selected sites. This year-end erosion monitoring report is to be included with the Horse Canyon Annual Report, Category A - Summarized Water Monitoring Data. The 14 sites that were monitored in 1994 are the same sites monitored and described in the 1993 Erosion Monitoring Report. No additional monitoring locations were added to the program in 1994.

Significant erosion was not observed at monitoring locations 1 through 4 and 7 through 13. The slide area south of the existing buildings and below Ditch 21 has been monitored throughout the year and no additional movement of material has been observed.

Runoff from a September 3, 1994 storm event caused a breach in the walls of Ditch 3 which resulted in rock and soil being deposited in the area of monitoring location 5. This same storm event resulted in the deepening of a rill at monitoring location 6. Both areas were repaired by Mr. Clark on or before September 13, 1994 and reseeded before October 22, 1994. Photographs of these two locations illustrating the condition of the areas prior to repair have been included with this report.

If you have any questions regarding this submittal, please call Mr. William W. Engels at (213) 367-0289 or me at (801) 561-1555.

Sincerely,

Chris D. Hansen  
Project Manager

enclosures

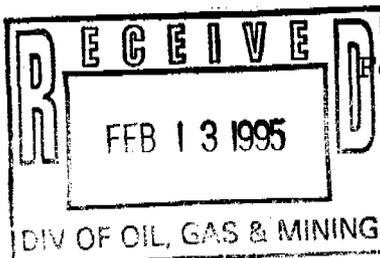
c: William W. Engels, IPA

Department of Water and Power  the City of Los Angeles

RICHARD J. RIORDAN  
Mayor

Commission  
DENNIS A. TITO, *President*  
CONSTANCE L. RICE, *Vice President*  
JOSÉ DE JESÚS LEGASPI  
JUDY M. MILLER  
MARCIA F. VOLPERT  
JUDITH K. KASNER, *Secretary*

WILLIAM R. McCARLEY, *General Manager*  
KENNETH S. MIYOSHI, *Assistant General Manager and Chief Engineer*  
ELDON A. COTTON, *Assistant General Manager—Power*  
JAMES F. WICKSER, *Assistant General Manager—Water*  
PHYLLIS E. CURRIE, *Chief Financial Officer*



February 9, 1995

Ms. Pam Grubaugh-Littig  
Permit Supervisor  
Utah State Department of  
Natural Resources  
Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Ms. Grubaugh-Littig:

*Copy Pete Hess*

Horse Canyon Mine #7  
ACT/007/013  
Quarterly Sediment Pond Inspection Report

Enclosed are copies of the above report for the first quarter of 1995 for the Intermountain Power Agency-owned Horse Canyon Mine.

If you have any comments or questions, please call Mr. William W. Engels at (213) 367-0289.

Sincerely,



MICHAEL J. NOSANOV  
Coal Supply Manager

Enclosures

c: Mr. William W. Engels (3)

**Water and Power Conservation... a way of life**

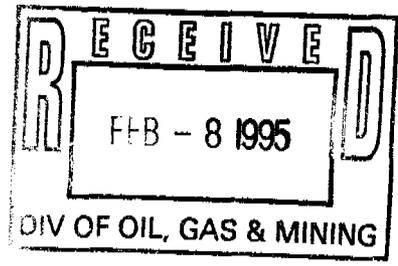
111 North Hope Street, Los Angeles, California  Mailing address: Box 111, Los Angeles 90051-0100  
Telephone: (213) 367-4211 Cable address: DEWAPOLA FAX: (213) 367-3287

Recyclable and made from recycled waste



Pam

February 6, 1995



Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

*Route to Ken, then  
file*

Re: Fourth Quarter 1994 Hydrologic Report for Horse Canyon Mine Act 007/013. #7

Please find enclosed the Fourth Quarter 1994 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

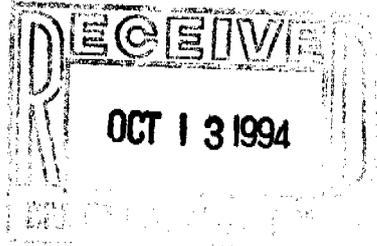
Karl R. Houskeeper

cc: Dave Anderson  
Denise Drago

Enclosure(s)

Pam

October 10, 1994



Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

*Route to Ken,  
Inen file  
ACT/007/013 #7*

Dear Lowell:

Re: Third Quarter 1994 Hydrologic Report for Horse Canyon Mine Act 007/013.

Please find enclosed the Third Quarter 1994 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr. Dave Anderson in L.A. California.

Sincerely Yours,

Karl R. Houskeeper

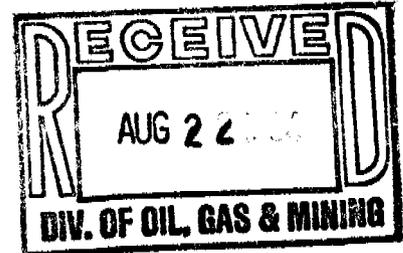
cc: Dave Anderson  
Denise Drago

Enclosure(s)

*Pam*

August 18, 1994

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203



Dear Lowell:

Re: Second Quarter 1994 Hydrologic Report for  
Horse Canyon Mine Act 007/013. #7

Please find enclosed the Second Quarter 1994 Hydrologic Report for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr. Dave Anderson in L.A. California.

Sincerely Yours,

A handwritten signature in cursive script that reads "Karl R. Houskeeper".

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Pan

March 2, 1994

RECEIVED

MAY 5 1994  
DIVISION OF  
OIL GAS & MINING

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

*Route to Henry / Ken, then  
file RET/007/013 #7*

Dear Lowell:

Re: First Quarter 1994 Hydrologic Report for  
Horse Canyon Mine Act 007/013.

Please find enclosed the First Quarter 1994 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr.  
Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*  
Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Pam wants to file

JAN 24 1994

DIVISION OF  
OIL, GAS & MINING

January 25, 1994

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Route to <sup>TM</sup> Jim/~~HR~~,  
Then file  
ACT/007/013 # 7

Dear Lowell:

Re: Fourth Quarter 1993 Hydrologic Report for  
Horse Canyon Mine Act 007/013.

Please find enclosed the Fourth Quarter 1993 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr.  
Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Department of Water and Power



the City of Los Angeles

RICHARD J. RIORDAN  
Mayor

Commission  
DENNIS A. TITO, *President*  
CONSTANCE L. RICE, *Vice President*  
JOSÉ DE JESÚS LEGASPI  
JUDY M. MILLER  
MARCIA F. VOLPERT  
JUDITH K. KASNER, *Secretary*

DANIEL W. WATERS, *General Manager and Chief Engineer*  
ELDON A. COTTON, *Assistant General Manager—Power*  
JAMES F. WICKSER, *Assistant General Manager—Water*  
PHYLLIS E. CURRIE, *Chief Financial Officer*

November 19, 1993

Ms. Pam Grubaugh-Littig  
Permit Supervisor  
Utah State Department of  
Natural Resources  
Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203



NOV 21 1993

DIVISION OF  
OIL, GAS & MINING

Dear Ms. Grubaugh-Littig:

Horse Canyon Mine  
ACT/007/013  
Quarterly Sediment Pond Inspection Report

Enclosed are copies of the above report for the fourth quarter of 1993 for the Intermountain Power Agency-owned Horse Canyon Mine.

If you have any comments or questions, please call Mr. William W. Engels at (213) 367-0289.

Sincerely,

MICHAEL J. NOSANOV  
Coal Supply Manager

Enclosures

c: Mr. William W. Engels (3)

Water and Power Conservation... a way of life

RECEIVED

OCT 27 1993

DIVISION OF  
OIL, GAS & MINING

October 24, 1993

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Third Quarter 1993 Hydrologic Report for  
Horse Canyon Mine Act 007/013.

Please find enclosed the Third Quarter 1993 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or Mr.  
Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Pam  
~~RECEIVED~~  
*Miss Stumpf*

~~SEP 27 1993~~

~~DIVISION OF  
OIL, GAS & MINING~~

*Route to Tomffer  
Then file*

*ACT/007/013*

*#7*

*fan → mine lib*

**RECEIVED**

JUL 26 1993

DIVISION OF  
OIL, GAS & MINING

July 20, 1993

*Route to Tom, then  
file ACT/007/013 # 7*

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Second Quarter 1993 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Second Quarter 1993 Hydrologic Report  
for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

*Route to Tom, then  
file ACT/007/013 #7*

**RECEIVED**

APR 26 1993

DIVISION OF  
OIL GAS & MINING

April 24, 1993

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: **First Quarter 1993 Hydrologic Report for  
Horse Canyon Mine Act 007/013.**

Please find enclosed the First Quarter 1993 Hydrologic Report for the Horse Canyon Mine.

The graphs have been omitted since no flow occurred or access was not permitted due to weather during the First Quarter of 1993.

If you have any questions please feel free to contact myself or Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

*Pam needs to file*  
*Routed to Tompkins*  
*file*  
**RECEIVED**  
ACT/007/013 #7 JAN 13 1993  
DIVISION OF  
OIL, GAS & MINING

December 29, 1992

Mr. Mike Herkimer  
Department of Health  
Division of Water Pollution Control  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Dear Mike:

Re: November 1992 NPDES Reports for Horse  
Canyon Mine Permit # UTG040013.

Please find enclosed the November 1992 NPDES Reports for the  
Horse Canyon Mine.

Please note that Discharge Point 002 exceeded the Total Suspended  
Solids Thirty Day (30) average and the Total Iron Daily max  
limits, when the pond was decanted to allow it to receive  
addition storm flow.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,  
*Karl R. Houskeeper*  
Karl R. Houskeeper

cc: Dave Anderson  
DOGM ✓  
EPA Region VIII

Enclosure(s)

FILE ACT 007/013  
# 7

RECEIVED

OCT 14 1992

DIVISION OF  
OIL GAS & MINING

October 12, 1992

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Third Quarter 1992 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Third Quarter 1992 Hydrologic Report for  
the Horse Canyon Mine. Please note that both sediment ponds were  
decanted in July 1992.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

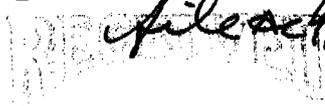


Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

*Pam route to file*  
*Route to Henry then*  
*file as 11007/013*



SEP 08 1992

#7

DIVISION OF  
WATER POLLUTION CONTROL

August 28, 1992

Mr. Mike Herkimer  
Department of Health  
Division of Water Pollution Control  
P.O. Box 16690  
Salt Lake City, Utah 84116-0690

Dear Mike:

Re: July 1992 UPDES Reports for Horse  
Canyon Mine Permit # UT6040013.

Please find enclosed the July 1992 NPDES Reports for the Horse Canyon Mine.

Please note that Discharge Point 002 exceeded the Total Suspended Solids and Total Iron limits, when the pond was decanted to allow it to receive addition storm flow.

If you have any questions please feel free to contact myself or Mr. Dave Anderson in L.A. California.

Sincerely Yours,

Karl R. Houskeeper

cc: Dave Anderson  
DOGM  
EPa Region VIII

Enclosure(s)

*Pam - needs to file*  
*Routed to Henry then file*  
*ACT/007/013 #7*

**RECEIVED**

**JUL 15 1992**

**DIVISION OF  
OIL GAS & MINING**

July 11, 1992

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Second Quarter 1992 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Second Quarter 1992 Hydrologic Report  
for the Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,



Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Route to Henry Temp  
Then file ACT/007/013 #7

RECEIVED

APR 03 1992

DIVISION OF  
OIL GAS & MINING

April 1, 1992

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: First Quarter 1992 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the First Quarter 1992 Hydrologic Report for  
the Horse Canyon Mine.

The graphs have been omitted since no flow occurred or access was  
not permitted due to weather during the First Quarter of 1992.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Pam - route to file  
Route to Henry then  
file ACT/007/013 #7

January 16, 1992

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

RECEIVED

JAN 21 1992

DIVISION OF  
OIL GAS & MINING

Dear Lowell:

Re: Fourth Quarter 1991 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Fourth Quarter 1991 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Route  
Copy to Tom, then full  
Pan notes to bib  
ACT/007/013 #7

RECEIVED

JAN 13 1993

DIVISION OF  
OIL GAS & MINING

January 10, 1992

Mr. Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Fourth Quarter 1992 (1992 Annual) Hydrologic  
Report for Horse Canyon Mine Act 007/013.

Please find enclosed the Fourth Quarter 1992 (1992 Annual)  
Hydrologic Report for the Horse Canyon Mine. Please note that  
both sediment ponds were decanted in July and November 1992.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,



Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

*Par - sent to file*  
*Route to Henry then ACT/007/013*  
*#7*

# Sunnyside Coal Company

Operations • Highway 123 • P.O. Box 99 • Sunnyside, Utah 84539

December 12, 1991

**RECEIVED**

DEC 16 1991

DIVISION OF  
OIL GAS & MINING

Mr. Mike Herkimer  
Utah Department of Health  
Bureau of Water Pollution Control  
P. O. Box 16690  
Salt Lake City, UT 84116-0690

Dear Mike:

Re: Discharge Monitoring Reports (DMR'S) for November, 1991

Please find enclosed the Discharge Monitoring Reports for November 1991.

If you have any questions, please feel free to contact me.

Sincerely,

*Karl R. Houskeeper*

Karl R. Houskeeper  
Environmental Coordinator

KRH:th

Enclosures

cc: ~~EPA~~, Region VIII  
DOGM, Lowell Braxton  
Joe Fielder  
Gary Gray

**Corporate Offices**  
The Registry  
1113 Spruce Street  
Boulder, CO 80302  
303-938-1506  
FAX: 303-938-5050

**Sales Office**  
1350 17th Street  
Suite 350  
Denver, CO 80202  
303-534-3348  
FAX: 303-825-8626

**West Coast Division**  
1345 Astoria Drive  
Fairfield, CA 94533  
707-425-4506

**Operations**  
Highway 123  
P.O. Box 99  
Sunnyside, UT 84539  
801-888-4421  
FAX: 801-888-2581

Pam G.L.  
route to file

Henry -  
Then route  
to file.  
1013#7  
Act 007/007#3

RECEIVED

OCT 18 1991

DIVISION OF  
OIL GAS & MINING

October 14, 1991

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Third Quarter 1991 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Third Quarter 1991 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*  
Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

**INTERMOUNTAIN POWER AGENCY  
SOUTH LEASE AREA  
WATER MONITORING PLAN**

**October 10, 1991**

**Prepared for:  
Department of Water and Power  
City of Los Angeles  
111 North Hope Street, RM 1161  
Los Angeles, CA 90012**

**Prepared by:  
JBR Consultants Group  
8160 So. Highland Dr. #A-4  
Sandy, UT 84093**

## WATER MONITORING PLAN IPA SOUTH LEASE AREA

### 1.0 Introduction

Intermountain Power Agency (IPA) is initiating permitting work for its South Lease Mine Plan Area (MPA), located south of the Horse Canyon Mine near Sunnyside, Utah. The MPA covers approximately 14 square miles, predominantly within the Book Cliffs. Selected wells, springs and streams in and adjacent to the MPA area will be monitored for two years to gather baseline data on seasonal variations of flow and quality of water.

### 1.1 Site Description

The MPA is located within two subbasins, both of which are tributary to the Price River. The higher elevation subbasin, Little Park, drains the gentle slopes east of the Book Cliffs escarpment and the steeper, west-facing slopes of the Roan Cliffs. To the west, the Cove area drains the Book Cliff escarpment via Marsh Flat Wash and Grassy Wash.

Little Park Wash flows north-south through a high elevation, broad valley. Runoff occurs only ephemerally, due to summer thunderstorm runoff or spring snowmelt. Gradient is moderate (approximately two percent) through the MPA, and the channel gently meanders. The eastern tributaries to Little Park flow through steep, narrow canyons, cutting through Colton, Flagstaff and North Horn Formations. They are also ephemeral, although some springs issue in the drainage bottoms.

The Cove area is located at the base of the Book Cliffs. Runoff is predominantly westward out of the steep, incised canyons, then south along the alluvial flank to the Price River. The escarpment is comprised of the Blackhawk Formation and Castlegate Sandstone and approaches 1,000 feet in relief. The flank area at the base of the Book Cliffs is comprised of both pediment surfaces and Mancos shale. Flow in the escarpment drainages is ephemeral, mainly the result of late summer thunderstorms. No springs are located within this area.

The Little Park area can be divided into three subareas, extending north-south based upon structural geologic considerations. A central graben has resulted in differentiation of three separate coal blocks, with the central block being displaced downward relative to the north and south blocks. All three coal blocks have the potential to be mined.

Precipitation varies with elevation throughout the MPA and adjacent areas, ranging from about 8 inches in the western, lower elevation area below the escarpment to up to 16 inches in the eastern Roan Cliffs portion. Within the study area, vegetation also varies with

elevation and with soil type. Sparse desert shrub and pinyon-juniper communities are present in the lowland areas, with salt tolerant species occurring in the shale-derived soils. Little Park and the canyons to the east are dominated by pinyon-juniper woodland grading to Douglas fir and ponderosa pine in the highest elevations.

### **1.2 Summary of Previously Obtained Information**

A seep and spring survey was done in the fall of 1981; it covered the entire MPA and adjacent areas. About 20 springs or seeps were found, all with flows less than one gallon per minute (gpm). They occurred within the intermittent tributaries of the west draining Roan Cliffs, tributary to Little Park Wash. Most appeared to issue within the drainage bottoms at contacts between alluvium or sandstone with the less permeable shales.

Another survey, done by JBR Consultants Group for Kaiser in the fall of 1985, covered the Horse Canyon drainage and extended southward into the headwaters of Lila Canyon adjacent to the MPA. Springs identified during that survey also appeared to be predominantly stratigraphically controlled. Flows averaged higher (up to about 10 gpm) in that survey area than in the survey covering the MPA, however the weather history likely accounts for at least some of the difference. The 1981 survey followed several years of low snowpack, while the 1985 survey followed two extremely wet winter seasons.

During the summer of 1991, several of the sites identified during the 1981 survey were revisited. Flows were even less than recorded during the survey, and in most cases, there was no measurable flow.

### **1.3 Proposed Monitoring**

IPA proposes to monitor a representative selection of spring sites identified during the 1981 survey, ephemeral stream sites representative of where surface facilities may ultimately be proposed, and a well site in which an exploration hole has been converted to serve as a monitoring well. Three spring sites, one monitor well, and three stream sites are proposed. Details on sites, site selection, and monitoring are discussed below.

## 2.0 Description of Monitoring Sites

### 2.1 Spring and Seep Sites

Representative springs and seeps within the MPA and adjacent area were chosen for baseline monitoring based upon the following considerations:

- (1) the representativeness of the spring regarding geologic occurrence, and the representativeness of the flow rate and quality of the spring within that geologic occurrence;
- (2) the use of the spring: high priority was given springs that were developed for livestock use, had evidence of extensive wildlife use, and/or had water rights associated with them; and
- (3) the location within the MPAS, both areally and in relation to the three coal blocks.

The three monitoring sites chosen based upon the above considerations are shown on the attached map. They represent both springs issuing from the Colton Formation (Site 1) and the North Horn Formation (Sites 2 and 3). Site 1 is located within the north block, site 2 within the central graben area, and site 3 within the south block. Sites 1 and 3 are used and developed for livestock watering, although both were in disrepair at the time of the 1991 visits. Site 3, the Williams Draw spring, has been named and marked by the BLM. All three sites appear on USGS 7.5 minute quadrangle sheets, and have water rights associated with them. They occur stratigraphically above the coal seam to be mined.

During the 1991 visits, sites 1 and 3 were damp, but no surface water flow was occurring; site 2 was entirely dry. This is likely in part due to the several previous years' low snowpack.

These sites represent the best combination of considerations for monitoring. Although flows were negligible during the 1991 visit, no better sites regarding flow quantity are apparent. It is expected that these sites will result in no data collection at least during some visits.

### 2.2 Stream Sites

There are no perennial or intermittent streams within the MPA. Representative ephemeral streams will be monitored as follows. Little Park Wash below the confluence with Williams Draw Wash will be monitored as it is possible that surface disturbance will occur in this region. A crest gage was established there during 1981, but no data was obtained during several months of monitoring.

Below the Book Cliffs escarpment, two ephemeral canyons will be monitored: Lila Canyon and the unnamed canyon located in section 26. The potential for surface facilities exists in both of these canyons, and stream channels appear well enough defined to install monitoring stations. There is also the potential for surface facilities to be located elsewhere along the

face of the cliffs, but no monitoring is proposed as site conditions are unfavorable. Data gathered from the two proposed sites could be used to project conditions at the other sites if needed.

### **2.3 Groundwater Sites**

The existing monitor well site is located in the southern portion of the MPA as shown on the figure. It is completed through the Sunnyside Sandstone, the first water bearing zone below the coal seams. Water levels were measured in that hole twice during 1981.

## **3.0 Monitoring Parameters**

### **3.1 Springs and Seeps**

Water temperature, pH and conductivity will be measured as close to the spring source as possible to determine characteristics before the flow has been exposed to the atmosphere or to surficial materials. Discharge rate of the spring will be measured volumetrically or with a portable parshall flume depending upon quantity of flow. Samples will be taken at each visit and sent for laboratory analysis. Field filtering will be done for metals analysis. Parameters for analysis are shown in Table 1.

### **3.2 Stream Sites**

The ephemeral channel monitoring sites will consist of a crest gage and a single-stage sediment sampler. At each visit, the high water stage will be determined from the crest gage. A stage-discharge relationship will be used to determine peak discharge. It is expected that most site visits to these stations will result in a record of a no-flow month.

Analysis of any samples collected by the single stage sediment samplers at the ephemeral sites will only include total suspended solids. If flow is occurring at the time of the site visit, samples will be taken for a full range of chemical analyses, however, this possibility is considered slight.

### 3.3 Groundwater Sites

Water level in the monitoring well will be read using a well sounder, and samples will be taken using a portable bailer. Field filtering will be done for dissolved metals analysis. Sample analysis will be done according to the parameters listed in Table 1. Water temperature, pH, and conductivity measurements will be done in the field.

Table 1. Parameter List for Spring and Well Sites

Total Dissolved Solids	Total Hardness
Aluminum	Arsenic
Barium	Bicarbonate
Boron	Carbonate
Cadmium	Calcium
Chloride	Chromium
Copper	Fluoride
Iron	Lead
Magnesium	Manganese
Mercury	Molybdenum
Nickel	Nitrogen: Ammonia
Nitrite	Nitrate
Potassium	Phosphate
Selenium	Sodium
Sulfate	Sulfide
Zinc	

\*\*\*Trace Metals will be analyzed in dissolved form only.\*\*\*

### 4.0 Monitoring Schedule

Baseline data will be collected at spring, stream, and well sites for two years, beginning with October, 1991. Spring sites will be monitored four times a year, during the summer/fall season at monthly intervals (July, August, September, October). The ephemeral stream channels sites will be monitored on a monthly basis, when access permits. The monitoring well will be inspected quarterly as access permits.

### 5.0 Result Reporting

Records of flow and quality will be compiled and submitted to the State Division of Oil, Gas and Mining on a quarterly basis.

*Route to Henry then  
file Act/007/013 #7*

RECEIVED

AUG 28 1991

August 20, 1991

DIVISION OF  
OIL GAS & MINING

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Second Quarter 1991 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Second Quarter 1991 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*  
Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

Por - route to bib  
Susan, then file  
det 1007/013 #7

RECEIVED

MAY 13 1991

DIVISION OF  
OIL GAS & MINING

May 5, 1991

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: First Quarter 1991 Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the First Quarter 1991 Hydrologic Report for  
the Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,



Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

FILE  
007/013  
WATER MONITORING  
DATA

November 15, 1990

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

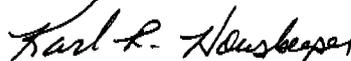
Dear Lowell:

Re: Third Quarter Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Third Quarter Hydrologic Report for the  
Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,



Karl R. Houskeeper

cc: Dave Anderson  
Denise Drago

Enclosure(s)

Mine file  
cc cover letter

P.G. Litty UB  
**RECEIVED**

JUL 18 1990

DIVISION OF  
OIL, GAS & MINING

July 11, 1990

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Second Quarter Hydrologic Report for Horse  
Canyon Mine Act 007/013 #7

Please find enclosed the Second Quarter Hydrologic Report for the  
Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. Dave Anderson in L.A. California.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: Dave Anderson  
Denise Dragoo

Enclosure(s)

**KAISER  
COAL**

KAISER COAL CORPORATION  
OF YORK CANYON  
P. O. BOX 1107  
RATON, NEW MEXICO 87740  
(505) 445-5531

Mine file  
CC  
even letter only P.G. L. #114  
UB

RECEIVED  
APR 12 1990

DIVISION OF  
OIL, GAS & MINING

April 9, 1990

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: First Quarter Hydrologic Report for Horse  
Canyon Mine Act 007/013.

#7

Please find enclosed the First Quarter Hydrologic Report for the  
Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. John Palfy at York Canyon Mine Site in Raton New Mexico.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: John Palfy

Enclosure(s)

**KAISER  
COAL**

KAISER COAL CORPORATION  
OF YORK CANYON  
P. O. BOX 1107  
RATON, NEW MEXICO 87740  
(505) 445-5531

Mine file #7 UR  
cc - cover letter P.6/4.

**RECEIVED**  
JAN 26 1990

DIVISION OF  
OIL, GAS & MINING

January 19, 1990

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Fourth Quarter Hydrologic Report for Horse  
Canyon Mine Act/007/013

Please find enclosed the fourth Quarter Hydrologic Report for the  
Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. John Palfy at the York Canyon Mine Site in Raton, New Mexico.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: John Palfy

Enclosure(s)

Mine file #7  
cc cover letter R.V. Smith CB

**KAISER  
COAL**

KAISER COAL CORPORATION  
OF YORK CANYON  
P. O. BOX 1107  
RATON, NEW MEXICO 87740  
(505) 445-5531

**RECEIVED**  
NOV 08 1989

DIVISION OF  
OIL, GAS & MINING

November 6, 1989

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Third Quarter Hydrologic Report for Horse Canyon  
Mine Act/007/013

Please find enclosed the Third Quarter Hydrologic Report for the  
Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. John Palfy at the York Canyon Mine Site in Raton, New Mexico.

Sincerely Yours,



Karl R. Houskeeper

cc: John Palfy

Enclosure(s)

**KAISER  
COAL**

KAISER COAL CORPORATION  
OF YORK CANYON  
P. O. BOX 1107  
RATON, NEW MEXICO 87740  
(505) 445-5531

*mine file #7 CB  
cc cover letter R. Smith*

**RECEIVED**  
SEP 18 1989

DIVISION OF  
OIL, GAS & MINING

September 11, 1989

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: Second Quarter Hydrologic Report for Horse  
Canyon Mine Act 007/013.

Please find enclosed the Second Quarter Hydrologic Report for the  
Horse Canyon Mine.

If you have any questions please feel free to contact myself or  
Mr. John Palfy at York Canyon Mine Site in Raton New Mexico.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: John Palfy

Enclosure(s)

**KAISER  
COAL**

KAISER COAL CORPORATION  
OF YORK CANYON  
P. O. BOX 1107  
RATON, NEW MEXICO 87740  
(505) 445-5531

Mine file V3  
cc: even letter S. King

June 9, 1989

**RECEIVED**  
JUN 21 1989

DIVISION OF  
OIL, GAS & MINING

Lowell Braxton  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center  
Suite 350  
Salt Lake City, Utah 84180-1203

Dear Lowell:

Re: First Quarter Hydrologic Report for Horse Canyon  
Mine Act 007/013 and Wellington Prep. Plant Act  
007/012.

Please find enclosed the First Quarter Hydrologic Report for the  
Horse Canyon Mine and the Wellington Prep. Plant.

If you have any questions please feel free to contact myself or  
Mr. John Palfy at York Canyon Mine Site in Raton New Mexico.

Sincerely Yours,

*Karl R. Houskeeper*

Karl R. Houskeeper

cc: John Palfy

Enclosure(s)

Mine file 007-013 #7  
CL R. Smith (Cover letter only)

SUNNYSIDE RECLAMATION & SALVAGE, INC.

2033 11th Street, Boulder, Colorado 80302  
P. O. Box 99, Sunnyside, Utah 84539

March 8, 1989

**RECEIVED**  
MAR 10 1989

DIVISION OF  
OIL, GAS & MINING

EPA - Region VIII  
Denver Place  
999 Eighteenth Street  
Suite 500  
Denver, Colorado 80202-2405

To Whom It May Concern:

Re: Discharge Monitoring Report - Horse Canyon

Attached is the Discharge Monitoring Report for the Horse Canyon Mine for the month of January, 1989.

If you have any questions, please feel free to call me.

Sincerely,

*Karl R. Houskeeper/th*

Karl R. Houskeeper  
Environmental Technician

KRH:th

Attachment

cc: Department of Health  
Division of Oil, Gas & Mining  
Bill Balaz

# MEMO

Date 6/3/86

From: Doug Pearce  
TO: DOGm, John Whitehead

These are the May reports  
for the Horse Canyon Mine, permit  
No. UT0022926, ACT/007/013.

**RECEIVED**  
JUN 04 1986

DIVISION OF  
OIL, GAS & MINING

**KAISER  
COAL**

Sunnyside Mines  
Sunnyside, Utah

# MEMO

Date 6/3/86

From: Doug Pearce

To: DOG M, John Whitehead

These are the April Reports  
for the Horse Canyon Mine, permit  
No. UT 0022 926, ~~1007~~/007/013

**KAISER  
COAL**

Peczuh Printing Co. - Price, Utah

Sunnyside Mines  
Sunnyside, Utah

**KAISER  
STEEL**

KAISER STEEL CORPORATION  
SUNNYSIDE COAL MINES  
SUNNYSIDE, UTAH 84539  
TELEPHONE 801-888-4421

*DAVE H*

*ACT/007/013*

*#9*

RECEIVED

APR 19

DIVISION OF OIL  
GAS & MINING

April 16, 1985

D. Wayne Hedberg  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

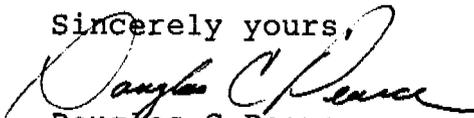
RE: Discharge Monitoring Reports  
Permit No. UT0022926  
ACT/007/013, Emery County, Utah

Dear Mr. Hedberg:

During preparation of the discharge monitoring reports I found that monthly reports are required. Having just been assigned this permit, we assumed that reports would be submitted quarterly as is required for NPDES permit UT0022942, at the Sunnyside Mines. Enclosed are the reports that are due or in arrears.

Future reports will be submitted monthly as required by the terms of the discharge permit. We are sorry for the inconvenience that this mistake may have caused you.

Sincerely yours,



Douglas C Pearce  
Mine Engineer

RECEIVED

APR 19 1985

DIVISION OF OIL  
GAS & MINING

To: Wayne



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

December 11, 1984

**RECEIVED**  
DEC 17 1984

DIVISION OF  
OIL, GAS & MINING

WESTERN DISTRICT

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, UT

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of November, 1984.

Sincerely,

G. H. Sides  
General Superintendent

GHS:VRW:fs

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, UT 84114  
Attn: James Smith



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

November 21, 1984

*To: Wayne  
ACT/007/013  
#9*

WESTERN DISTRICT

**RECEIVED**  
NOV 27 1984

**DIVISION OF  
OIL, GAS & MINING**

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, UT

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of October, 1984.

Sincerely,

Glenn H. Sides  
General Superintendent

GHS:VRW:fs

Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln Street  
Denver, CO 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Building  
Salt Lake City, UT 84114  
Attn: James Smith



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

October 10, 1984

To Wayne

ACT/007/013 #9

WESTERN DISTRICT

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, UT

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of September, 1984.

Sincerely,

*G. H. Sides (VRW)*

G. H. Sides  
General Superintendent

GHS:VRW:fs  
Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Building  
Salt Lake City, UT 84114  
Attn: James Smith

RECEIVED

OCT 12 1984

DIVISION OF OIL  
GAS & MINING



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

September 24, 1984

*AO 1007/013  
#9*

*To Wayne*

**RECEIVED**

SEP 27 1984

**DIVISION OF OIL  
GAS & MINING**

**JIM**

**OCT 01 1984**

WESTERN DISTRICT

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, UT 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of August, 1984.

Sincerely,

G. H. Sides  
General Superintendent

GHS:VRW:fs  
Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

bc: F. Boinsky  
U. S. Steel Corporation  
Environment & Energy  
125 Jamison Lane  
Monroeville, PA 15146

✓ State of Utah  
Dept. Of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Bldg.  
Salt Lake City, UT 84114  
Attn: James Smith

J. O. Hawthorne  
Div. Chief-Envir. Research  
U. S. Steel Corporation  
125 Jamison Lane  
Monroeville, PA 15146

B. A. Filas  
Coal Cleaning Plant  
Wellington, UT



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

August 20, 1984

*ACT/*

*To Wayne*

WESTERN DISTRICT

**JIM**

**AUG 27 1984**

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, UT 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of  
July, 1984.

Sincerely,

G. H. Sides  
General Superintendent

GHS:VRW:md

Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Bldg.  
Salt Lake City, UT 84114  
Attn: James Smith



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

July 25, 1984

*Watts*

WESTERN DISTRICT

**JIM**

**JUL 30 1984**

**RECEIVED**

**JUL 27 1984**

**DIVISION OF OIL  
GAS & MINING**

James W. Smith, Jr.  
Coordinator of Mined Land Development  
Division of Oil, Gas, and Mining  
4241 State Office Building  
Salt Lake City, UT 84114

Re: Hydrologic Monitoring  
Geneva Mine  
ACT/007/013

Dear Mr. Smith:

Please find the updated hydrologic monitoring results for Geneva Mine.  
Note that no flow was recorded at station B-1.

Sincerely,

*V.R. Watts*

V. R. Watts  
District Environmental  
and Appropriation Engineer

md

Enclosure

cc: B. A. Filas  
EC File (w/o enc.)

Wayne



# U. S. Steel Mining Co., Inc.

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

WESTERN DISTRICT

July 24, 1984

RECEIVED

JUL 27 1984

JIM

JUL 30 1984 DIVISION OF OIL  
GAS & MINING

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, UT 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

ACT/007/013

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of June, 1984.

Sincerely,

G. H. Sides  
General Superintendent

GHS:VRW:md  
Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Bldg.  
Salt Lake City, UT 84114  
Attn: James Smith



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

June 15, 1984

RECEIVED

JUN 18 1984

DIVISION OF OIL  
GAS & MINING

WESTERN DISTRICT

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, UT 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of May,  
1984.

Sincerely,

G. H. Sides  
General Superintendent

By VRWatts

GHS:VRW:md  
Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Bldg.  
Salt Lake City, UT 84114  
Attn: Wayne Hedberg



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

May 21, 1984

*ACT/007/013  
#9*

WESTERN DISTRICT

**RECEIVED**

MAY 24 1984

DIVISION OF OIL  
GAS & MINING

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the Discharge Monitoring Reports for the month of April, 1984.

Sincerely,

G. H. Sides  
Chief Engineer

GHS:md

Enclosures

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas, & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

April 9, 1984

**RECEIVED**

APR 12 1984

**DIVISION OF OIL  
GAS & MINING**

WESTERN DISTRICT

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

*ACT/009/013  
#19*

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of  
March, 1984.

Sincerely,

G. H. Sides  
General Superintendent

By

GHS:VRW:md  
Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

bc: F. Boinsky  
U. S. Steel Corp.  
Environment & Energy  
125 Jamison Lane  
Monroeville, PA 15146

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, UT 84114  
Attn: Wayne Hedberg

J. O. Hawthorne  
Div. Chief-Envir. Research  
125 Jamison Lane  
Monroeville, PA 15146

B. A. Filas  
Coal Cleaning Plant  
Wellington, UT



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

*File ACT/007/013  
Folder #17  
Copy to Wayne*

WESTERN DISTRICT

**RECEIVED**  
MAR 20 1984

March 20, 1984

**DIVISION OF  
OIL, GAS & MINING**

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of  
February 1984.

Sincerely,

G. H. Sides  
Chief Engineer

GHS:wl

Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

bc: F. Boinsky  
U.S. Steel Corp.  
Environment & Energy  
125 Jamison Lane  
Monroeville, PA 15146

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

J. O. Hawthoren  
Div. Chief-Envir. Research  
125 Jamison Lane  
Monroeville, PA 15146



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P.O. BOX AE  
PAONIA, COLORADO 81428  
303/527-4816

*To Sue*  
File ACT/007/012

007/013

Folder #9

**JIM**

MAR 14 1984

WESTERN DISTRICT

March 6, 1984

James W. Smith, Jr.  
Coordinator of Mined Land Development  
4241 State Office Building  
Salt Lake City Ut. 84114

Dear Mr. Smith:

Re: Hydrologic Monitoring  
Wellington Coal Cleaning Plant  
ACT/007/012  
Geneva Mine  
ACT/007/013

Please find the updated hydrologic monitoring results for the Wellington Coal Cleaning Plant and Geneva Mine.

Sincerely,

Glenn H. Sides  
Acting General Superintendent

cc: EC File  
161.4  
163.1  
B.A. Filas



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

February 16, 1984

*To Wayne*

**JIM**

FEB 28 1984

**RECEIVED**  
FEB 27 1984

**DIVISION OF  
OIL, GAS & MINING**

WESTERN DISTRICT

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, UT 84110

RE: U. S. Steel Corporation  
Geneva Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of January, 1984.

Sincerely,

G. H. Sides  
Chief Engineer

GHS:md

Attachments

cc: Environmental Protection Agency  
State of Utah, Dept. of Natural Resources ✓  
F. J. Boinsky  
J. O. Hawthorne



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

January 23, 1984

**RECEIVED**  
JAN 25 1984

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

**DIVISION OF  
OIL, GAS & MINING**

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of December 1983.

Sincerely,

G. H. Sides  
Chief Engineer

GHS:cs  
Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

December 22, 1983

**RECEIVED**  
DEC 27 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

**DIVISION OF  
OIL, GAS & MINING**

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

*ACI/007/013#9*

Gentlemen:

Attached are the discharge monitoring reports for the month  
of November 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

GHS:cs

Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

November 23, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of October 1983.

Sincerely,

G. H. Sides  
Chief Engineer

By *G. H. Sides*

GHS:cs

Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**

NOV 25 1983

**DIVISION OF  
OIL, GAS & MINING**

RECEIVED

OCT 27 1983  
WESTERN DISTRICT

DIVISION OF  
OIL, GAS & MINING



U. S. Steel  
Mining Co., Inc.

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

*copy to  
wayne  
file orig  
AOT/007/013  
Folder # 9*

October 24, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U.S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of  
September 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By *VR Watts*

GHS:cs  
Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

ACT/007/013  
#9



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

RECEIVED  
SEP 21 1983

WESTERN DISTRICT

DIVISION OF  
OIL, GAS & MINING

September 19, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

*007/013*

Attached are the discharge monitoring reports for the  
month of August 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By *Glenn H. Sides (GHS)*

GHS:VRW:cs  
Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

August 26, 1983

**RECEIVED**  
AUG 29 1983

WESTERN DISTRICT

*ACT/007/01B*

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

**DIVISION OF  
OIL, GAS & MINING**

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of July, 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By *VR Watta*

GHS:th

Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln Street  
Denver, Co. 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas, & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

file ACT/057/012  
#79



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

August 9, 1983

State of Utah  
Department of Health  
Division of Environmental Health  
Bureau of Water Pollution Control  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: NPDES Discharge Permit  
UT-0022926 - Geneva Mine

Gentlemen:

It was noted on the water analysis report received August 5, 1983 of the July 12, 1983 sampling of point source discharge 003 that the seven day limit for total coliform was exceeded by 51,500. This is not considered to have had any adverse impact since the discharge is several miles from the Price River and the receiving stream is intermittent.

On July 9, 1983, a flash flood in Horse Canyon Creek destroyed two sections of fence surrounding the sewage treatment plant and deposited quantities of wood and debris in the retention pond. The debris would have made it difficult to control the coliform level at the treatment plant discharge. The retention pond has been cleaned out and repaired.

Sincerely,

R. E. Yourston  
General Superintendent

REY:VRW:cs

cc: U. S. Environmental Protection Agency  
Utah State Division of Oil, Gas and Mining  
F. Boinsky  
EC File  
161.1



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

*ACT/007/013  
#9*

WESTERN DISTRICT

July 26, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U.S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of June 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By *Glenn H. Sides*

Enc.  
cs

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
JUL 28 1983

DIVISION OF  
OIL, GAS & MINING



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

June 20, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of May, 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By *VR Watts*

CS  
Enc.

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, CO 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
JUN 22 1983

**DIVISION OF  
OIL, GAS & MINING**



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

May 23, 1983

*ACT/007/013  
#9*

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of April 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By *JR Watts*

CS  
Enc.

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, Co. 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
MAY 25 1983

DIVISION OF  
OIL, GAS & MINING



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

April 25, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U.S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of March 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By VR Watts

Enc.

cs

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Div. of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**

APR 27 1983

**DIVISION OF  
OIL, GAS & MINING**



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

April 4, 1983

#7075475

REGISTERED RETURN RECEIPT REQUESTED

Mr. Paul E. Watson  
U. S. Steel Corporation  
P. O. Box 807  
East Carbon, Utah 84520

RE: Technical Assessment of Water  
Quality Monitoring Data  
Collected in Conjunction with  
Small Area Exemption Request  
Geneva Mine  
ACT/007/013  
Folder Nos. #2 and #9  
Carbon County, Utah

Dear Mr. Watson:

The Division has completed a review of the data submitted in association with your small area exemption request of August 3, 1981. From a technical standpoint, the data collected do not provide sufficient information to assess the influence of the areas studied upon water quality in Horse Canyon Creek. Briefly, the problems associated with the sampling plan include the timing of sampling and the number of samples collected. In all cases, the lack of stream flow estimates to correlate with the quality measurements hinder a meaningful assessment of these data.

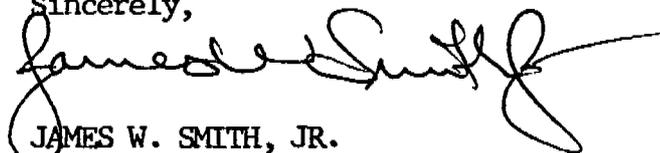
Therefore, the small area exemptions as previously requested on August 3, 1981 are hereby denied. This denial is based upon the inadequacy, to date, of the monitoring program to substantiate the exemption request. Sediment control, as required by UMC 817.45 and 817.46, must be implemented for these areas.

The Division is available for consultation in developing an acceptable sediment control plan for the areas in question, if the operator so desires.

Mr. Paul E. Watson  
ACT/007/013  
April 4, 1983  
Page 2

Should you have any questions, please contact Joe Lyons or D. Wayne Hedberg of my staff.

Sincerely,



JAMES W. SMITH, JR.  
COORDINATOR OF MINED  
LAND DEVELOPMENT

JWS/JL:btb

cc: Jodie Merriman, OSM, Albuquerque  
Raymond Blake, OSM, Denver  
S. Pruitt, DOGM  
K. Wyatt, DOGM  
J. Lyons, DOGM



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

March 14, 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of February 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By JR Watts

Enc.

CS

cc: U. S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, Colorado 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
MAR 15 1983

DIVISION OF  
OIL, GAS & MINING



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

February 21, 1983

**RECEIVED**  
FEB 24 1983

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

**DIVISION OF  
OIL GAS & MINING**

Re: U.S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of January 1983.

Sincerely,

Glenn H. Sides  
Chief Engineer

By VR Watts

Enc.

cs

cc: U.S. EPA  
Suite 103  
1860 Lincoln St.  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

ACT/007/013  
ZL9



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

January 31, 1983

Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Attn: Ken Wyatt

Re: Small Area Exemption Request  
Geneva Mine

Dear Ken,

Per your request, I am enclosing copies of the water sample data relative to the small area exemption at Geneva Mine.

Sincerely,

*Glenn H. Sides (by CRW)*

Glenn H. Sides  
Chief Engineer

GHS:VRW:cs

Enc.

cc: EC File w/o enc.  
161.4 w/o enc.

**RECEIVED**

FEB 02 1983.

**DIVISION OF  
OIL, GAS & MINING**



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

January 10, 1983

Utah State Department of Health  
Division of Environmental Health  
Bureau of Water Pollution Control  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: NPDES Discharge Permit  
UT-0022926 - Geneva Mine

Gentlemen:

It was noted on the analysis report received January 6, 1983 of the December 22, 1982 water sampling of point source discharge 002 that the Daily maximum limit for Total Dissolved Solids concentration was exceeded by 10 mg/l. The flow rate was approximately 258,000 gallons per day. Therefore, the daily average loading would have been 2.70 tons per day which did not exceed the daily average limitation of 4 tons per day.

There is no known reason for the discharge exceeding the daily maximum total dissolved solids limitation other than a change in mine inflows.

Sincerely,

R. E. Yourston  
General Superintendent

CS

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Dnever, Colorado 80295  
Attn: Enforcement - Permits

Utah State Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Ken Wyatt

**RECEIVED**

JAN 11 1983

**DIVISION OF  
OIL, GAS & MINING**



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

January 10, 1983

**RECEIVED**

JAN 12 1983

**DIVISION OF  
OIL, GAS & MINING**

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month  
of December 1982.

Sincerely,

G. H. Sides, Chief Engineer

By *V.R. Watts*

Enc.  
CS

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

✓ State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg



# U. S. Steel Mining Co., Inc.

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

December 28, 1982

Utah State Department of Health  
Division of Environmental Health  
Bureau of Water Pollution Control  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: NPDES Discharge Permit  
UT-0022926 - Geneva Mine

Gentlemen:

It was noted on the analysis report received December 22, 1982 of the December 8, 1982 water sampling of point source discharge 002 that the daily maximum limit for Total Dissolved Solids concentration was exceeded by 5 mg/l. The flow rate was approximately 270,000 gallons per day. Therefore, the daily average loading would have been 1.3 tons per day which did not exceed the daily average limitation of 4 tons per day.

There is no known reason for the discharge exceeding the daily maximum total dissolved solids limitation other than a change in mine inflows.

Sincerely,

R. E. Yourston  
General Superintendent

**RECEIVED**  
DEC 29 1982

DIVISION OF  
OIL, GAS & MINING

CS  
cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement-Permits

✓ Utah State Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Ken Wyatt



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

December 15, 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of November

1982.

Sincerely,

G. H. Sides, Chief Engineer

By *WR Watts*

Att.  
cs

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**

DEC 20 1982

DIVISION OF  
OIL, GAS & MINING



# U. S. Steel Mining Co., Inc.

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

December 14, 1982

Utah State Department of Health  
Division of Environmental Health  
Bureau of Water Pollution Control  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: NPDES Discharge Permit  
UT-0022926 - Geneva Mine

Gentlemen:

It was noted on the analysis report received December 8, 1982 of the November 24, 1982 water sampling of point source discharge 002 that the daily maximum limit for Total Dissolved Solids concentration was exceeded by 50 mg/l. The flow rate was approximately 180,000 gallons per day. Therefore, the daily average loading would have been 1.9 tons per day which did not exceed the daily average limitation of 4 tons per day.

There is no known reason for the discharge exceeding the daily maximum total dissolved solids limitation other than a change in mine inflows.

Sincerely,

  
R. E. Yourston  
General Superintendent

cs

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement - Permits

✓ Utah State Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Ken Wyatt

DIVISION OF  
OIL, GAS & MINING

DEC 16 1982

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**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

December 3, 1982

Utah State Department of Health  
Division of Environmental Health  
Bureau of Water Pollution Control  
P. O. Box 2500  
Salt Lake City, Utah 84110

#9

Re: NPDES Discharge Permit  
UT-0022926 - Geneva Mine

Gentlemen:

It was noted on the analysis report received November 30, 1982 of the November 10, 1982 water sampling of point source discharge 002 that the daily maximum limit for Total Dissolved Solids concentration was exceeded by 110 mg/l. The flow rate was approximately 159,000 gallons per day. Therefore, the daily average loading would have been 1.7 tons per day which did not exceed the daily average limitation of 4 tons per day.

There is no known reason for the discharge exceeding the daily maximum total dissolved solids limitation.

Sincerely,

R. E. Yourston  
General Superintendent

CS

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement - Permits

Utah State Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Ken Wyatt

**RECEIVED**

DEC 06 1982

DIVISION OF  
OIL, GAS & MINING



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

41 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

November 22, 1982

Mr. R.E. Yourston  
U.S. Steel Mining Co., Inc.  
Western District  
P.O. Box 807  
East Carbon, Utah 84520

#9

RE: Water Monitoring at  
Geneva Mine and Wellington  
Coal Cleaning Plant  
ACT/007/012  
ACT/007/013  
Carbon County, Utah

Dear Mr. Yourston:

The Division has received your correspondence of November 3, 1982 regarding water monitoring at the Geneva Mine and the Wellington Coal Cleaning Plant. Cessation of surface water monitoring at both the mine and the coal cleaning plant is not warranted at this time. Pursuant to UMC 817.52 the Division has established guidelines for establishment of surface and ground water monitoring programs. A copy of these guidelines is enclosed with this letter. Please note that these guidelines separate the monitoring requirements into three phases: (1) Baseline data collection, (2) Operational monitoring and (3) Postmining monitoring.

In the opinion of the Division, sufficient baseline monitoring data has been collected at the Wellington Coal Cleaning Plant monitoring points, allowing U.S. Steel to begin sampling the Price River under operational status. One notable deficiency in the data submitted for station A, B and D is the lack of flow measurements at the time of water quality sampling. A measurement of streamflow at the time of water quality sampling at these points is requested for all future monitoring. The U.S. Geological Survey maintains a streamflow gauge on the Price River below its confluence with Miller Creek (station number 09314250). Discharge records from this gauge could serve as streamflow estimates for the Price River at U.S. Steel's Wellington facilities.

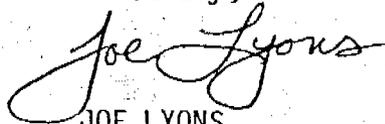
Although U.S. Steel Mining has notified the Division of the temporary cessation of operations at the Geneva Mine, continued monitoring of surface water quality and quantity is required (UMC 817.52, UMC 817. 131). Again, referencing the enclosed guidelines document, the Division recommends monitoring of surface water stations B-1, HC-1, RF-1 and RS-2 under the schedule suggested for post-mining monitoring.

Mr. R.E. Yourston  
November 22, 1982  
Page Two

Underground monitoring at the Geneva Mine will not be required during the temporary cessation. However, prior to restoration of mining activities at the Geneva Mine, underground monitoring should be reinstated. Monitoring at locations 2LN-K, 12N-M, 2 Dip, 1E-B, 1W-B, Main Slope, 2W-B could be reinstated at the operational monitoring status. Also, surface water monitoring at the Geneva Mine should be undertaken at the operational level upon mine reactivation.

Please contact me if you have any questions.

Sincerely,



JOE LYONS  
RECLAMATION HYDROLOGIST

JL/mn

Enclosure

cc: OSM, Denver - Mel Schilling  
OSM, Albuquerque - Tom Ehmett  
Bureau of Water Pollution Control  
Joe Helfrich, OGM  
Wayne Hedberg, OGM  
Ken Wyatt, OGM  
Jim Smith, OGM



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 868-4431

WESTERN DISTRICT

November 19, 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of October,

1982.

Sincerely,

G. H. Sides, Chief Engineer

By *[Signature]*

Att.

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
NOV 24 1982

DIVISION OF  
OIL, GAS & MINING



# U. S. Steel Mining Co., Inc.

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

November 3, 1982

Mr. James W. Smith  
Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Attn: D. Wayne Hedberg

Re: Water Monitoring  
Geneva Mine ACT/007/013

Dear Mr. Smith:

Enclosed is all water quality data collected to date at Geneva Mine. The attached sheets include approximately two years of monitoring data in addition to that submitted in the Geneva Mine Mining and Reclamation Plan. The water quality data collected to date appears adequate for permitting. Please note that NPDES discharge quality data is not included since it is submitted to the Division quarterly and should be in your files.

This letter is to notify you that, unless the Division advises the Operator of a reason to continue, all surface and underground water monitoring at Geneva Mine is being discontinued as of November 1, 1982 with the following exceptions:

1. All monitoring of discharges required by the Geneva Mine NPDES Permit will be continued.
2. All monitoring of precipitation events pursuant to the small area exemption request will be continued.

The following is a list of the sampling locations which will be discontinued:

Surface Water Monitoring

B-1  
HC-1  
RF-1  
RS-2

Underground Monitoring

✓2LN-K	✓2E-B
✓12N-M	✓1W-B
2 Dip	✓Main Slope
✓1E-B (1E-2R)	✓2W-B

Sincerely,

R. E. Younston  
General Superintendent

Enc.

cc: F. Boinsky  
B. Gardner  
L. P. Clark  
C. W. Winters  
161.4  
Environmental Contact File

*received  
Nov 3, 1982  
along with similar  
letter for monitoring  
at Wellington Shop  
Plant  
11/16/82*



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 868-4431

WESTERN DISTRICT

October 19, 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of September  
1982.

Sincerely,

G. H. Sides, Chief Engineer

By *G. H. Sides*

Att.

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**

OCT 25 1982

**DIVISION OF  
OIL, GAS & MINING**



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

September 23, 1982

**RECEIVED**  
SEP 28 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

**DIVISION OF  
OIL, GAS & MINING**

Re: U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of August,  
1982.

Sincerely,

Glenn H. Sides, Chief Engineer

By *Glenn H. Sides*

Attach.

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
SEP 28 1982

**DIVISION OF  
OIL, GAS & MINING**



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

August 23, 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

U. S. Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of  
July, 1982.

Sincerely,

Glenn H. Sides, Chief Engineer

By VA Watta

Attachments

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**

AUG 24 1982

DIVISION OF  
OIL, GAS & MINING



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 868-4431

WESTERN DISTRICT

July 9, 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

RECEIVED  
JUL 12 1982

DIVISION OF  
OIL, GAS & MINING

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of  
June, 1982.

Yours truly,

Glenn H. Sides, Chief Engineer

By VR Watts

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

June 15, 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of  
May, 1982.

Yours truly,

Glenn H. Sides, Chief Engineer

By VR Watts

Attachments

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement Permits

✓ State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
Attn: Wayne Hedberg

**RECEIVED**  
JUN 17 1982

DIVISION OF  
OIL, GAS & MINING



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

*File*  
*ACT/007/013*  
*Copy to Wayne*

WESTERN DISTRICT

**JIM**

May 17, 1982

JUN 03 1982

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the month of April, 1982.

Yours truly,

Glenn H. Sides, Chief Engineer

By *VR Watts*

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Attn: Wayne Hedberg

**RECEIVED**

MAY 20 1982

DIVISION OF  
OIL, GAS & MINING



**U.S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

File

ACT/007/013

Copy to Wayne

WESTERN DISTRICT

**JIM**

APR 29 1982

April 19, 1982

**RECEIVED**

APR 23 1982

Utah State Division of Health  
Division of Environmental Health  
Bureau of Water Pollution Control  
P.O. Box 2500  
Salt Lake City, Utah 84110

**DIVISION OF  
OIL, GAS & MINING**

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of  
January, February and March, 1982.

Yours truly,

Glenn H. Sides, Chief Engineer

By VR Watts

**Attachments**

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels

WESTERN DISTRICT



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

*(Geneva)  
file ACT/007/013  
Cops to [unclear]*

February 24, 1982

**RECEIVED**  
FEB 26 1982

Division of Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

**DIVISION OF  
OIL, GAS & MINING**

Attn: Sandy Pruitt

Re: Variance Request for Small Area  
Exemption - Geneva Mine  
ACT/007/013

Dear Sandy:

Per your request, the small area exemption water sample in-  
formation is attached.

Sincerely,

Glenn H. Sides  
Chief Engineer

Enc.

To Wayne



**U. S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

January 5, 1982

**RECEIVED**

JAN 12 1982

DIVISION OF  
OIL, GAS & MINING

Utah State Department of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

U. S. Steel Mining Co., Inc.  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of October, November and December.

Yours truly,

Glenn H. Sides, Chief Engineer

By VR Watts

Att.

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement-Permits

✓ State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116  
Attn: Ron Daniels

Scott M. Matheson  
Governor

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110



(801) 533-6146  
December 8, 1981

Alvin E. Rickers, Director  
Room 426 801-533-6121

James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

ACT 1007/013  
#9  
FILE COPY

DIVISIONS

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

OFFICES

Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory

Mr. Steven Durham  
Regional Administrator  
Environmental Protection Agency  
Region VIII (8E)  
1860 Lincoln Street, Suite 103  
Denver, Colorado 80295

Re: U.S. Steel - Geneva Coal  
NPDES Certification  
Permit No. UT-0022926

ATTENTION: Roger E. Frenette, Acting Director  
Enforcement Division

Dear Mr. Durham:

From our review of the above referenced draft permit and public notice dated August 10, 1981, it is hereby certified that the proposed conditions to be imposed for said permit should result in compliance with applicable State water quality standards.

It is further certified that to the best of our knowledge no other applicable effluent limitation or other limitation under Section 208e, 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et. seq.) presently exist.

Sincerely,

UTAH WATER POLLUTION CONTROL COMMITTEE

*CK*  
Calvin K. Sudweeks  
Executive Secretary

*JMS*  
*FHP*  
*dm*  
SRM:drb

JUN 17 1993

cc: U.S. Steel - Geneva Coal  
Mr. F. J. Boinski, U.S. Steel - Pittsburg  
Southeastern District Health Department  
Southeastern Utah Association of Governments

DIVISION OF  
AIR, SOIL & WATER



**U.S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

*To: [unclear]  
& File Original  
Ran*

WESTERN DISTRICT

OCT 26 1981

October 23, 1981

U.S. DEPT. OF MINING  
ACT 1007/013

Utah State Department of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

U.S. Steel Mining Co., Inc.  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of July, August and September.

Yours truly,

Glenn H. Sides, Chief Engineer

By VR Watts

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attention: Enforcement-Permits

~~State of Utah~~  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116  
Attention: Ron Daniels

ACT/007/013  
wagner



# U. S. Steel Mining Co., Inc.

a Subsidiary of United States Steel Corporation

P. O. BOX 827  
EAST CARBON, UTAH 84520  
801 / 888-4431

PAUL E. WATSON  
GENERAL SUPERINTENDENT

October 22, 1981

OCT 29 1981

U. S. Environmental Protection Agency  
Water and Hazardous Waste Enforcement Branch  
Enforcement Division  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Division of Environmental Protection  
155 West North Temple  
P. O. Box 3500

Attn: Roger E. Frenette, Chief

Salt Lake City, Utah 84110

Re: NPDES Permit Modification

155 West Geneva Mine UT-0022926

Salt Lake City, Utah 84110

Dear Sir:

Persuant to Office of Surface Mining and Utah State Division of Oil, Gas, and Mining regulations, nine sedimentation ponds have been constructed at Geneva Mine. It is requested that the subject NPDES permit be modified to include the following additional discharges:

Point Source Discharge U. S. Sedimentation Pond Source

Pittsburgh, Pa. 15230

- |     |                    |
|-----|--------------------|
| 004 | Pond No. 1         |
| 005 | Pond No. 7         |
| 006 | Pond No. 2         |
| 007 | Pond No's. 3 and 4 |
| 008 | Pond No. 9         |
| 009 | Pond No. 5         |
| 010 | Pond No. 6         |
| 011 | Pond No. 8         |

A revised re-a-map showing the proposed point source discharges is enclosed.

U. S. Environmental Protection Agency

Page 2

Sincerely,

*Paul E. Watson*

Paul E. Watson

Enc.

cc: Utah State Department of Health  
Bureau of Water Quality  
Division of Environmental Health  
150 West North Temple  
P. O. Box 2506  
Salt Lake City, Utah 84110

✓ Utah State Division of Oil, Gas, and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116  
Attn: J. Helfrich

F. Boinsky, Environmental Control  
U. S. Steel Corporation  
Pittsburgh, Pa. 15230

S. Todd, Legal  
U. S. Steel Corporation  
Pittsburgh, Pa. 15230

Case ACT/007/013  
copy to W. S. Sides



**U.S. Steel  
Mining Co., Inc.**

a Subsidiary of United States Steel Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520  
801 / 888-4431

WESTERN DISTRICT

July **RECEIVED**

JUL 27 1981

DIVISION OF  
OIL, GAS & MINING

Utah State Department of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

U.S. Steel Mining Co., Inc.  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months  
of April, May and June.

Yours truly,  
Glenn H. Sides, Chief Engineer  
By VR Watts

**Attachments**

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

State of Utah  
Dept. of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels

COPY TO WAYNE  
FILE: A2007/013



WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

April 27, 1981

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

Re: U. S. Steel Corp.  
Geneva Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months  
of January, February and March.

Yours truly,

Glenn H. Sides, Chief Engineer

By CR Watts

Attachments

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement - Permits

~~State of Utah~~  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels

DIVISION OF  
OIL, GAS & MINING  
APR 22 1981  
[Stamp]

File ACT/007/013



PAUL E. WATSON  
GENERAL SUPERINTENDENT

WESTERN DISTRICT COAL OPERATIONS  
P. O. BOX 807  
EAST CARBON, UTAH 84520

March 27, 1981

Utah State Department of Health  
Bureau of Water Quality  
Division of Environmental Health  
150 West North Temple  
P. O. Box 2506  
Salt Lake City, Utah 84110

Re: NPDES Discharge Permit  
Ut-0022926  
Geneva Coal Mine

Gentlemen:

It was noted on the analysis report received on March 24, 1981 of the March 11, 1980 sampling of point source discharge 003 that the seven-day period allowance for fecal coliform of 250 was exceeded by 1,050. An investigation was conducted and resulted in the following results:

1. The chlorinator ran out of chlorine on approximately February 25th. When an attempt was made to connect up the spare chlorine tank, it was discovered that the tank could not be opened and it was therefore unusable.
2. Another chlorine tank could not be obtained until March 11, 1981. During the period of time which the sewer plant was out of chlorine, the discharge was being treated with sodium hypochlorite and the free chlorine concentration was being monitored. On the morning of March 11th, the free chlorine concentration was checked by titration and was found to be 0.3 - 0.40 mg/l.
3. During conversations with Ford Chemical Laboratory, we were told that sodium hypochlorite is not as efficient a bactericide as chlorine gas.

In the event that for some reason Geneva Mine must use sodium hypochlorite as a chlorination agent, the amount added will be substantially increased to allow for the reduced efficiency discussed above.

The following is a list of the coliform sampling results for the previous five months:

<u>Date</u>	<u>Fecal Coliform</u>	<u>Total Coliform</u>
3-11-81	790	1,300
2-11-81	< 2.0	8.0
1-14-81	Not Available	Not Available
12-10-80	< 2.0	11.0
11-12-80	< 2.0	< 2.0

The out of compliance is considered to have had no impact since the approximately 19,000 gallons per day discharge is diluted with some 400,000 gallons per day from the upstream point source discharges 001 and 002.

Sincerely,

*Paul E. Watson*

Paul E. Watson

cc: Environmental Protection Agency  
Water & Hazardous Waste Enforcement Branch  
Roger E. Frenette, Chief  
Suite 103, 1860 Lincoln St.  
Denver, Colorado 80295

Environmental Control  
G. H. Sides

 **United  
States  
Steel  
Corporation**

*To: Wayne,*

WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

January 16, 1981

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of  
October, November and December, 1980.

Yours truly,  
Glenn H. Sides, Chief Engineer

By *VR Watts*

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

~~State of Utah~~  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116  
Attn: Ron Daniels

**RECEIVED**  
JAN 19 1981

DIVISION OF  
OIL, GAS & MINING

To: Wayne



United States Steel Corporation

RECEIVED

OCT 27 1980

P. O. BOX 807  
EAST CARBON, UTAH 84520

October 21, 1980 DIVISION OF  
OIL, GAS & MINING

WESTERN DISTRICT COAL OPERATIONS

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of July, August, and September, 1980.

Yours truly,  
G.H. Sides, Chief Engineer  
By \_\_\_\_\_

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

bc: D.R. Conin, w/att  
Manager- Environmental Control, w/e  
Room 5953, Pittsburgh, Pa.

Attn: Enforcement- Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

T.L. Myron- w/att  
Division Chief- Chemicals  
125 Jamison Lane  
Monroeville, Pa. 15146

Muriel St.- w/att  
Attn: Supvr. Scheduling & Control

Attn: Ron Daniels



**United States Steel Corporation**

*TO WAYNE*

WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

July 8, 1980

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of April, May, and June 1980.

Yours truly,

Glenn H. Sides, Chief Engineer

By *JR Watts*

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement-Permits

✓ State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels

**RECEIVED**  
JUL 10 1980

DIVISION OF  
OIL, GAS & MINING



United  
States  
Steel  
Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520

Tom  
Copy for file,  
Then return to me  
MS

WESTERN DISTRICT COAL OPERATIONS

April 15, 1980

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

Re: United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of  
January, February and March, 1980.

Yours truly,

Glenn H. Sides, Chief Engineer

By VR Watts

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels

RECEIVED  
APR 17 1980

DIVISION OF  
OIL, GAS & MINING

Totom  
File



WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

January 18, 1980

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JAN 23 1980

DIVISION OF  
OIL, GAS & MINING

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of  
October, November, and December.

Yours truly,

Glenn H. Sides, Chief Engineer

By V.R. Watts

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

~~XXXXXXXXXX~~  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels

File



United  
States  
Steel  
Corporation

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JAN 21 1980

WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

DIVISION OF  
OIL, GAS & MINING

January 17, 1980

Mr. Cleon B. Feight, Director  
State of Utah  
Division Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attention: Mr. Thomas J. Suchoski

Re: Water Monitoring Plans  
United States Steel Corporation  
Geneva Mine  
Carbon County, Utah  
ACT/007/013

Dear Sir:

The following is submitted in accord with your November 9, 1979 request:

1. Copies of the three Geneva Mine NPDES discharge permits are attached which provide the requested information concerning these discharges.

Geneva mine, in a survey of the drainage area above the mine, has identified seven springs, not all of which flow each year. The outflow from each active spring is sampled annually in the Autumn; and samples are analyzed; copies of 1978 and 1979 analysis of these samples are attached. The approximate locations of the sampling points are shown on the attached map D3-524.

It is pointed out that the flow from these springs disappear into their stream beds within short distances.

2. Underground water sources were sampled at Geneva mine on November 29 & 30, 1979. The sampling points of the water are shown on the attached map D3-524. The analysis of the samples were as follows:



United  
States  
Steel  
Corporation

P. O. BOX 807  
EAST CARBON, UTAH 84520

*Tom File  
TJS  
ACT/007/013*

WESTERN DISTRICT COAL OPERATIONS

October 24, 1979

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of July, August, and September 1979.

Yours truly,

Glenn H. Sides, Chief Engineer

By *VR Watts*

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels





SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
Chairman

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

September 24, 1979

Mr. Glen Sides  
U.S. Steel Corporation  
P.O. Box 807  
East Carbon, Utah 84520

RE: Geneva Complex  
ACT/007/013

Dear Mr. Sides:

For those mines which have not upgraded their monitoring plans to comply with the permanent program, modification of the federal rules for the Interim Program have caused a change in the reporting schedule for water quality results. Those mines which have upgraded their monitoring programs should maintain the same schedules.

On June 22, 1979, the Office of Surface Mining (O.S.M.) modified its regulations requiring reporting of water quality information by surface and underground coal mines during the Initial Regulatory Program (Federal Register, Volume 22, No. 122, pages 36886-87). These modifications have been made to the rules (30 CFR 715.17 and 717.17) to make reporting time period requirements more consistent with similar requirements of the Environmental Protection Agency and to eliminate the filing of duplicate reports.

More specifically, the modified rules allow for two alternative reporting periods for sample measurements of discharges to surface waters. As one alternative, reports are to be made to the regulatory authority by the discharger within 60 days of the end of each 60-day sample collection period. (If the mining activity involves Federal coal, the regulatory authority includes the State and O.S.M.).

September 24, 1979

Page Two

A second acceptable method is reporting through compliance with equivalent time period reporting requirements under the NPDES permit system of the Clean Water Act. Use of the second alternative is conditioned upon the discharges being subject to NPDES requirements. It should be noted that compliance with the second alternative may be achieved by either filing the NPDES reporting form with the regulatory authority, or by identifying the State or Federal government official with whom the NPDES reporting form was filed.

I should emphasize that the regulations require that in all cases in which analytical results of samples indicate a violation of a permit condition or applicable standard, the operator shall notify the regulatory authority immediately. I should also note that when the Permanent Regulatory Program becomes effective, the reporting requirements of 30 CFR 816.52 and 817.52 will apply.

If questions should arise with respect to these reporting requirements, please contact Thomas Suchoski on my staff. Thank you for your cooperation.

Sincerely,



RONALD W. DANIELS

COORDINATOR OF MINED LAND DEVELOPMENT

RWD/te

*Rt. to Tom*



**United States Steel Corporation**

WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

July 13, 1979



Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P. O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of April, May and June, 1979.

Yours truly,

Glenn H. Sides, Chief Engineer

By *VR Watts*

Attachments

cc: U. S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn. Enforcement - Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn. Ron Daniels

bc: D. R. Conin - w/att  
Manager-Environmental Control, we  
Room 5953, Pittsburgh, Pa.

T. L. Myron, w/att  
Division Chief - Chemicals  
125 Jamison Lane  
Monroeville, Pa. 15146

Muriel St., w/att  
Attn. Supervisor-Scheduling & Cont



United States Steel Corporation

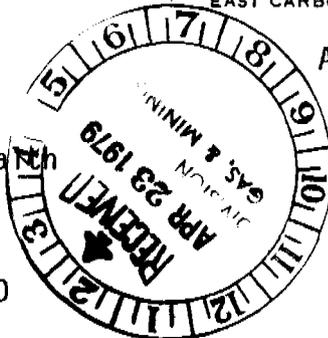
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WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

April 20, 1979

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110



United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of January, February, and March, 1979.

Yours Truly,

Glenn H. Sides, Chief Engineer

By

Glenn H. Sides

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295

Attn: Enforcement- Permits

~~State of Utah~~  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Attn: Ron Daniels



United States Steel Corporation

Mike T  
XMP

WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON UTAH 84520

January 16, 1979

ACT/007/013

Utah State Division of Health  
Water Quality Section  
160 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

Gentlemen:

Attached are the discharge monitoring reports for the months of October, November, and December, 1978.

Very truly yours,

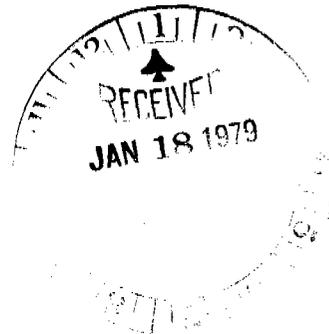
Glenn H. Sides, Chief Engineer  
Original Signed

By G. H. SIDES *VRW*

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement- Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116  
Attn: Ron Daniels





WESTERN DISTRICT COAL OPERATIONS

P. O. BOX 807  
EAST CARBON, UTAH 84520

October 24, 1978

Utah State Division of Health  
Water Quality Section  
150 West North Temple  
P.O. Box 2500  
Salt Lake City, Utah 84110

United States Steel Corporation  
Geneva Coal Mine  
NPDES Permit UT-0022926

*W.T.*  
*have you  
seen these?*  
*[Signature]*  
*H.T.M.*  
*JWS*  
*[Signature]*

Gentlemen:

Attached are the discharge monitoring reports for the months of July, August and September, 1978.

Very truly yours,

G.H. Sides, Chief Engineer

By *RF [Signature]*

Attachments

cc: U.S. Environmental Protection Agency  
Suite 103, 1860 Lincoln Street  
Denver, Colorado 80295  
Attn: Enforcement - Permits

State of Utah  
Department of Natural Resources  
Division of Oil, Gas & Mining  
1538 West North Temple  
Salt Lake City, Utah 84116  
Attn: Ron Daniels



SCOTT M. MATHESON  
Governor

ORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771



June 20, 1978

United States Steel Corporation  
Environmental Control Department  
600 Grant Street, Room 5953  
Pittsburgh, PA. 15230

Gentlemen:

This Division would like to request copies of U.S. Steel's NPDES monitoring reports at the same frequency as required by its NPDES permits.

If there is any charge for these reports, please bill the Division at the above address. Also, please send these reports to the attention of Ron Daniels.

Thank you,

*Toni Butterfield*

Toni Butterfield  
Mining Secretary

OIL, GAS, AND MINING BOARD

*Chick*  
I. DANIEL STEWART  
Chairman

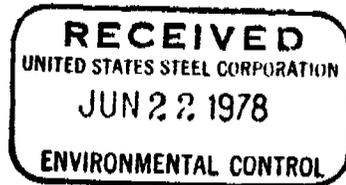
*if this is the*  
CHARLES R. HENDERSON  
JOHN L. BELL  
THADIS W. BOX  
C. RAY JUVELIN

*ACT/007/013 minor steel mill.*

*Row,*  
Geneva COA Carbon Co.

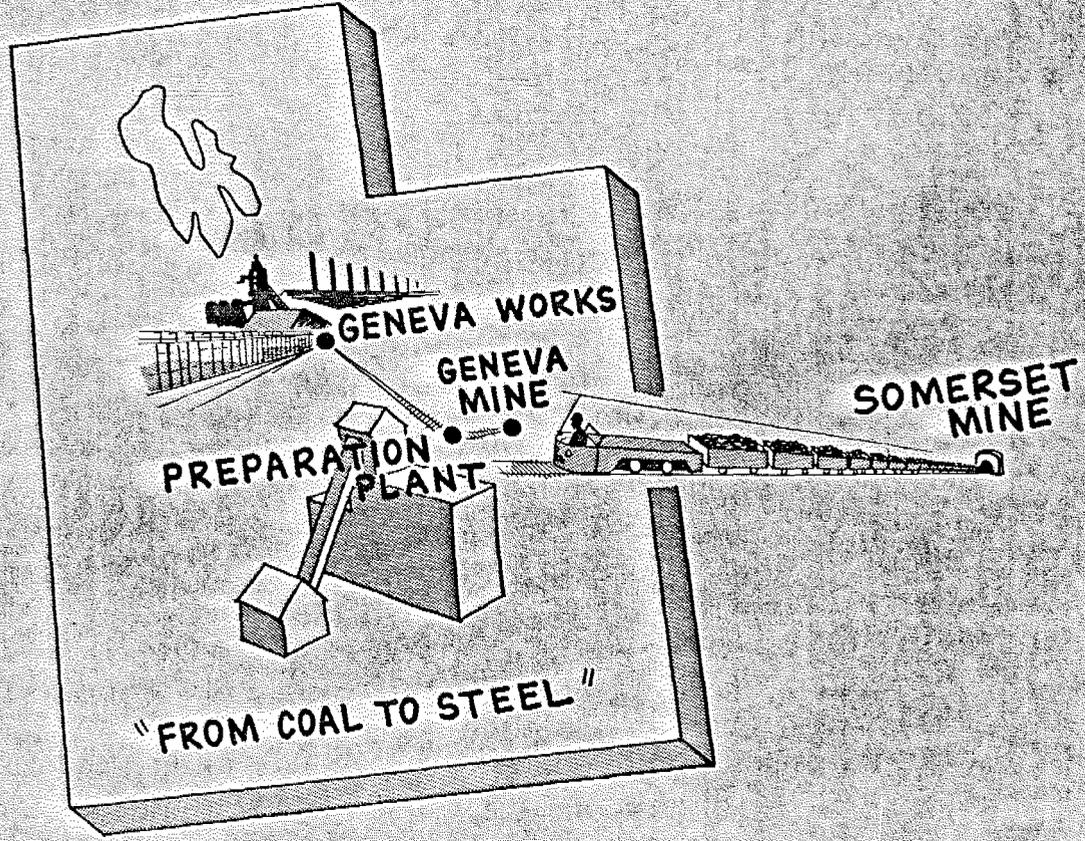
*Sewage treatment Plant & mine water Discharge Re: Rob Williams EPA, Denver #MP 126*

*Sandy 12/8*  
*Full US Steel Columbia bond mine.*



Western District-Coal **USS** United States Steel

MINING PLAN  
UNITED STATES GOVERNMENT  
LEASE SL-046612  
LEASE SL-066145  
GENEVA COAL MINE  
UNITED STATES STEEL  
CORPORATION



(c)(6)(xii) Logs and Analyses of Overburden

It is assumed that the purpose of logs and analyses of drill holes on 40-acre spacings applies to surface mining only as underground mining does not require removal of overburden strata. Three holes have been drilled through the Lower Sunnyside seam. No analysis was made of one while only coal coking quality analyses were made of the other two. Logs were made while penetrating the overburden strata. Drawings G-1, G-2 and G-3 are included herein. No analysis was made of the overburden strata. Since no surface materials will be removed in Lila Canyon, no segregation can be made.

(c)(6)(xiii) Area Hydrology

There are few intermittent and no perennial streams on the leases. Due to the generally small drainages and lack of rainfall, flow occurs in these streams only during the spring runoff or at times of summer thundershowers. Horse Canyon Wash presently carries mine discharge water a few miles into the desert on a nearly full-time basis. This flow will be terminated upon abandonment of the mine but may possibly reappear some years later if the mine is filled by natural inflow. Total flow of these discharges varies from 0.94 cfs to 1.12 cfs.

As discussed on pages 27 (paragraph 211.4(d)(3)), and 30 (paragraph 211.4(e)), and 31 (paragraph 211.40(a)(7)), a point source discharge permit has been applied for and water discharges will be monitored as required. The water discharges do not appear to degrade the stream flow an acceptable quality level.

A ground water study has not been conducted in the mine area but the presence of water in the mine is evidence of an aquifer in the area. It has been suggested that an 1800-foot section of saturated strata containing about 50 percent sandstone rests on top of the Mancos shale. The sandstone members are recharged at their updip edges by the intermittent streams on the face of the Book Cliffs. The terrace gravels that occur intermittently along the front of the Book Cliffs lie on top of irregular eroded surfaces of Mancos shale and do not represent potential groundwater sources. All water which is used at the mine is from this aquifer and should have the same approximate analysis as the mine discharge. An average of 83 gpm is used by the mine on days which it is operating.

No data is available regarding dissolved or suspended solids under seasonal flow conditions in the mine area.

Mining impacts the area hydrology by collecting groundwater in the mine workings and by discharging a portion of the collected water into the surface drainage pattern. Although no definite water table elevation has been determined since the level varies across the mine area and with seasonal and annual precipitation changes, it is possible that mining has lowered the water table. The original water table level should be regained through natural filling of the mine following its abandonment. Most of the mine water has only been recently tapped following the mine's approach to the Sunnyside fault in 1972-75. The surface discharge is beneficial in that it provides water for downstream cattle and deer.

(c)(6)(xiv) Plans for Protection of Oil, Gas and Water Wells and Resources

There are no known oil, gas, or water wells in the mine area located above the Lower Sunnyside seam; and no known oil or gas resources are located in the overburden strata to be affected by the mining of coal. However, all federal mineral lands in the mine area are either open for oil and gas leasing or are leased. As has been previously discussed, the presence of ground water is known in the strata above the mine. Some of this water is brought into the mine as a result of mining activity, but due to the intermittent layers of porous sandstones and impermeable shales, large portions of this ground water are not affected by mining.

In the event that oil or gas drilling is conducted which might result in the placement of a well through the mine prior to the cessation of mining, methods will be used to protect the wells such that the applicable regulations are complied with.

(c)(6)(xv) Maximum Practical Recovery

Based on the USGS guidelines of a minimum 28-foot seam separation and minimum 4-foot seam thickness, the Upper Sunnyside seam is not mineable as it meets neither criteria.

The Kenilworth seam may not be continuous across the mine area and is believed to be less than 4 feet thick at all locations in the mine area.

It is the objective of the operator to effect maximum recovery of the coal resources. However, since only the Lower Sunnyside seam is considered mineable, recovery is restricted to that seam. Recovery is and will be further

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Alkaline Mine Drainage, Coal Preparation Plant, and Associated Areas)

- i. During the period beginning immediately and lasting through December 31, 1979, the permittee is authorized to discharge from all point sources associated with active mining operations indicated on the area maps submitted pursuant to Part III, A.1. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u> b/	
	<u>Daily Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow - M <sup>3</sup> /Day, gpd	N/A	N/A	Two per month <sup>2</sup>	Measured a/
Total Suspended Solids	25.0 mg/l	30.0 mg/l c/	Two per month <sup>2</sup>	Grab
Total Iron	3.5 mg/l	7.0 mg/l	Two per month <sup>2</sup>	Composite
Alkalinity - Acidity (At all times Alkalinity shall be greater than Acidity)			Two per month <sup>2</sup>	Grab
Total Dissolved Solids	N/A	3,300 mg/l	Two per month <sup>2</sup>	Composite

Oil and Grease shall not exceed 10 mg/l and shall be monitored monthly by a grab sample.

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored twice per month by grab sample.<sup>2</sup>

There shall be no sanitary wastes included in these discharges.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

2. Normal sampling days shall be the second and fourth Wednesday of each month.
3. See Schedule of Compliance. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location (s): At any point which is representative of each discharge prior to its mixing with the receiving stream and as indicated by the solid triangles on the current area maps submitted pursuant to Part III, A.1.

a/ See Part I, C.3.c.

b/ See Part III, A.2.

c/ In addition to the above daily maximum concentration limitation, the analysis of any single properly preserved, grab sample, shall not exceed 150 percent of the daily maximum concentration (1.5 times the limitation) for the parameter Total Suspended Solids.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. Effluent Limitations for Outfall 003 - Sewage Treatment Plant

Effective immediately and lasting through December 31, 1979, the quality of effluent discharged by the facility shall, as a minimum, meet the limitations as set forth below:

Parameter	Average Effluent Concentration		Monitoring Requirements	
	30 Consecutive Day Period	7 Consecutive Day Period	Measurement Frequency	Sample Type
BOD <sub>5</sub> - mg/l	25 <u>a/</u>	45 <u>b/</u>	Monthly	Composite
Total Suspended Solids - mg/l	25 <u>a/</u>	45 <u>b/</u>	Monthly	Composite
Fecal Coliforms - number/100 ml <u>c/</u>	200 <u>c/</u>	400 <u>c/</u>	Monthly	Grab
Total Coliforms - number/100 ml <u>c/</u>	2,000 <u>c/</u>	4,000 <u>c/</u>	Monthly	Grab
Total Residual Chlorine - mg/l	N/A	N/A	Monthly	Grab
pH - units shall remain between 6.5 and 9.0. <u>d/</u>			Monthly	Grab

Oil and Grease shall not exceed 10 mg/l and shall be monitored weekly for a visible sheen.

- a/ This limitation shall be determined by the arithmetic mean of a minimum of three (3) consecutive samples taken on separate weeks in a 30-day period (minimum total of three (3) samples); not applicable to Coliforms - see footnote c/.
- b/ This limitation shall be determined by the arithmetic mean of a minimum of three (3) consecutive samples taken on separate days in a 7-day period (minimum total of three (3) samples); not applicable to Coliforms - see footnote c/.
- c/ Averages for Coliforms shall be determined by the geometric mean of a minimum of three (3) consecutive grab samples taken during separate weeks in a 30-day period for the 30-day average, and during separate days in a 7-day period for the 7-day average. (minimum total of three (3) samples is required for enforcement.)
- d/ Any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

001-002

ADD TO 2 Week Quarterly Report (Mar, Jun, Sept, Dec)

BOD <sub>5</sub>	GR
Total Coliforms / 100 ml	GR
Fecal Coliforms / 100 ml	GR
Arsenic	Monthly GR
Selenium	Monthly GR

A. OTHER REQUIREMENTS (Continued)

1. General Requirements (Continued)

(e) The monitoring reports must indicate the active-inactive status of all discharge points which are listed on the current area maps. These discharge points shall be assigned numbers 001, 002, 003, etc.

b. Monitoring of a discharge may be terminated if either:

(1) Sufficient data has been accumulated to show to the satisfaction of the Regional Administrator or his designee that the untreated discharge from an area where active mining has ceased will meet the limitations herein; or

(2) The discharge emanates from an area on which the State of Utah has released the grading bond or has taken other similar action.

c. Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge after the expiration date, the permittee shall, no later than 180 days prior to the expiration date of this permit, submit a new NPDES application and fees as required by the permit issuing authority.

✓  
DOE  
2/31

d. This permit is subject to the attached agreement between the United States Environmental Protection Agency and United States Steel Corporation.

2. Special Requirements

Federal law provides that any more stringent or additional limitations or conditions established pursuant to State law must be met by the permittee. The following limitations and monitoring requirements are state requirements included pursuant to Section 401(d) of the Act.

a. Additional Monitoring Requirements - Mine Drainage

<u>Effluent Characteristic</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Arsenic	Monthly	Grab
Total Selenium	Monthly	Grab

## A. OTHER REQUIREMENTS (Continued)

## 2. Special Requirements (Continued)

a. Additional Monitoring Requirements - Mine Drainage (Continued)

<u>Effluent Characteristic</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
BOD <sub>5</sub>	Quarterly	Grab
Total Coliforms/100 ml	Quarterly	Grab
Fecal Coliforms/100 ml	Quarterly	Grab

- b. The permittee shall submit to the permit issuing authority and the State of Utah by July 1, 1979, an implementation plan for an abatement program designed to achieve Arsenic, and Selenium reductions, wherever practical. Where appropriate, the plan shall include the following:

- (1) Methods of reducing Arsenic and Selenium to Class "C" stream standards.
- (2) Economic practicality of achieving the reductions; and
- (3) Estimate of time needed to achieve such plans.

*Original to file*

*File ACT/007/013 #4*  
Form B (Additional Insured) *Copy*

Certificate Number: **No. 20557**

*Copy Pam*

**ASSOCIATED ELECTRIC & GAS INSURANCE SERVICES LIMITED**  
Hamilton, Bermuda

**CERTIFICATE OF INSURANCE**

(~~Excess Liability~~)  
PRIMARY LIABILITY

This Certificate is furnished to the Certificate Holder named below as a matter of information only. Neither this Certificate nor the issuance hereof modifies the policy of insurance identified below (the "Policy") in any manner. The Policy terms are solely as stated in the Policy or in any endorsement thereto. Any amendment, change or extension of the Policy can only be effected by a specific endorsement issued by the Company and attached to the Policy.

The undersigned hereby certifies that the Policy has been issued by Associated Electric & Gas Insurance Services Limited (the "Company") to the Named Insured identified below for the coverage described and for the policy period specified.

Notwithstanding any requirements, terms or conditions of any contract or other document with respect to which this Certificate may be issued or to which it may pertain, the insurance afforded by the Policy is subject to all of the terms of the Policy.

NAME OF INSURED: INTERMOUNTAIN POWER AGENCY  
PRINCIPAL ADDRESS: 480 East 6400 South  
Murray, Utah 84107  
POLICY NUMBER: XO 416A1A91  
POLICY From: 06/09/91  
PERIOD: To: 06/09/92

RETROACTIVE DATE: 06/09/86 *Primary*

DESCRIPTION OF COVERAGE: ~~Claims-First-Made Excess~~ *Primary* Liability Policy covering claims for Bodily Injury, Property Damage and Personal Injury arising from the operations described below.

LIMIT OF LIABILITY: \$ 25,000,000 per occurrence and in the aggregate, where applicable.

ADDITIONAL INSURED: The Certificate Holder is an additional Insured under the Policy but only (i) to such extent and for such Limits of Liability (subject always to the terms and Limits of Liability of the Policy) as the Named Insured has agreed to provide insurance for the Certificate Holder under the following contract:

and (ii) with respect to the following operations:  
HORSE CANYON MINE, ACT /007/013

Damage due to explosives is covered. Insurance Company will notify DOGM of changes.

Should the Policy be cancelled, assigned or changed in a manner that is materially adverse to the Insured(s) under the Policy, the undersigned will endeavor to give 30 days advance written notice thereof to the Certificate Holder, but failure to give such notice will impose no obligation or liability of any kind upon the Company, the undersigned or any agent or representative of either.

DATE: 09/04/91

ISSUED TO: STATE OF UTAH  
ADDRESS: Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1204  
Attn: Pam Grubaugh-Littig

("Certificate Holder")

AEGIS INSURANCE SERVICES, INC.

BY: *Juan Madden*

At Jersey City, New Jersey



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

*Page 1*

Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

## INSPECTION REPORT

INSPECTION DATE & TIME: October 22, 1991  
9:00 am to 3:00 pm

Permittee and/or Operator's Name: Intermountain Power Agency  
Business Address: Rm 1164, 111 N. Hope St., Los Angeles, CA 90012  
Mine Name: Horse Canyon Permit Number: ACT/007/013  
Type of Mining Activity: Underground X Surface    Other     
County: Carbon  
Company Official(s): Paul Clark, Henry Straw, Joe Jarvis  
State Officials(s): Susan White, Henry Sauer  
Partial:    Complete: X Date of last Inspection: 09/05/91  
Weather Conditions: Fair and Cool  
Acreage: Permitted    Disturbed 63.6 Regraded 53 Seeded     
Bonded 63.6 Enforcement Action: None

### COMPLIANCE WITH PERMITS AND PERFORMANCE STANDARDS

	YES	NO	N/A	COMMENTS
1. PERMITS	(X)	( )	( )	(X)
2. SIGNS AND MARKERS	(X)	( )	( )	(X)
3. TOPSOIL	(X)	( )	( )	(X)
4. HYDROLOGIC BALANCE:				
a. STREAM CHANNEL DIVERSIONS	(X)	( )	( )	(X)
b. DIVERSIONS	(X)	( )	( )	(X)
c. SEDIMENT PONDS AND IMPOUNDMENTS	(X)	( )	( )	(X)
d. OTHER SEDIMENT CONTROL MEASURES	(X)	( )	( )	(X)
e. SURFACE AND GROUNDWATER MONITORING	(X)	( )	( )	(X)
f. EFFLUENT LIMITATIONS	(X)	( )	( )	( )
5. EXPLOSIVES	( )	( )	(X)	( )
6. DISPOSAL OF DEVELOPMENT WASTE & SPOIL	( )	( )	(X)	( )
7. COAL PROCESSING WASTE	(X)	( )	( )	( )
8. NONCOAL WASTE	(X)	( )	( )	( )
9. PROTECTION OF FISH, WILDLIFE AND RELATED ENVIRONMENTAL VALUES	(X)	( )	( )	( )
10. SLIDES AND OTHER DAMAGE	(X)	( )	( )	( )
11. CONTEMPORANEOUS RECLAMATION	(X)	( )	( )	( )
12. BACKFILLING AND GRADING	(X)	( )	( )	(X)
13. REVEGETATION	(X)	( )	( )	(X)
14. SUBSIDENCE CONTROL	(X)	( )	( )	(X)
15. CESSATION OF OPERATIONS	( )	( )	(X)	( )
16. ROADS				
a. CONSTRUCTION	(X)	( )	( )	(X)
b. DRAINAGE CONTROLS	(X)	( )	( )	( )
c. SURFACING	(X)	( )	( )	( )
d. MAINTENANCE	(X)	( )	( )	( )
17. OTHER TRANSPORTATION FACILITIES	( )	( )	(X)	( )
18. SUPPORT FACILITIES UTILITY INSTALLATIONS	(X)	( )	( )	( )

## INSPECTION REPORT

(Continuation sheet)

Page 2 of 3

PERMIT NUMBER: ACT/007/013

DATE OF INSPECTION: 10/22/91

(Comments are Numbered to Correspond with Topics Listed Above)

### GENERAL

The site was in good condition, no rain since the last inspection. During the inspection, equipment of the reclamation contractor was being transported off site. Reclamation activities are nearly complete.

#### 1. PERMITS

The permit was signed on May 6, 1991. There was one stipulation attached to the permit, R614-301-233 (HS)(1). This stipulation was approved as complete on July 3, 1991 in a memo from Henry Sauer to Pamela Grubaugh-Littig.

The insurance certificate issued by Associated Electric and Gas Insurance Services Limited has been submitted and was in good order. The policy period is from June 9, 1991 to June 9, 1992.

The bond is an Irrevocable Letter of Credit held by Zions First National Bank.

The operator submitted an application for Phase I Bond Release then upon further consideration and a field visit, withdrew the request until Spring 1992.

#### 2. SIGNS AND MARKERS

Signs and markers were in place.

#### 3. TOPSOIL

All topsoil and substitute topsoil material has been spread on site for areas to be reclaimed during the operation phase.

#### 4. HYDROLOGIC BALANCE

All diversions were in place. The operator should soon be submitting as-built maps which designate all the diversions. New berms and silt fences were installed at the water tank.

The sediment ponds were nearly complete except for the grouted emergency spillway, oil skimmers, and valves on primary spillways. The operator was working on as-built maps of the ponds, some variations were observed between designs and the

INSPECTION REPORT

(Continuation sheet)

Page 3 of 3

PERMIT NUMBER: ACT/007/013

DATE OF INSPECTION: 10/22/91

constructed pond. Sediment pond inspections for the 3rd quarter had been completed. The operator was reminded to submit certified inspections of the ponds during construction.

The 3rd quarter water monitoring data has been received and appeared in order.

12. BACKFILLING AND GRADING

Most all backfilling and grading has been completed for the areas to be reclaimed during the operational phase.

13. REVEGETATION

The revegetation contractor was on site working at the time of inspection. The need to "key in" netting at the top of slopes and to adequately staple edges was reemphasized. The use of wooden stakes in lieu of staples was suggested for difficult areas. The operator stated that additional seed was ordered. Concern was stated that on soils which were very loose that the seed drill was perhaps burying the seed too deep. Seeding equipment passing over the site has decreased surface roughness considerably.

14. SUBSIDENCE CONTROL

The operator is reminded of his commitment to perform a once over subsidence walk this year. If this is not possible, the operator should request a change in the permit.

16. ROADS: CONSTRUCTION

The temporary by-pass road has been reclaimed to meet AOC requirements. The road which leads into the borrow area through Horse Creek has had waterbars and sediment control structures installed. The permit states that after the road is not needed for the mining reclamation phase, that the road will be closed to access.

Copy of this Report: Engels

Mailed to: Bill Engels, IPA; Bernie Freeman, OSM

Given to: Joe Helfrich, DOGM

Inspector's Signature: Susan M. White #35 Date: 10/23/91

Field No.

TC  TM  Nut   
 PC  PM  BOD

Pest.   
 Rad.   
 Bact.   
 Spec.

Date Recd.: \_\_\_\_\_

Received By: \_\_\_\_\_

### ENVIRONMENTAL HEALTH WATER ANALYSES

Sample No. 701

10024907

Storet No. \_\_\_\_\_ Water Syst. No. \_\_\_\_\_ Source No. \_\_\_\_\_

Date Collected 702 Time Collected 703 704  
 8 2 09 28 714 15 50 610 \_\_\_\_\_ 707  
 yr. mo. dy. 24-hour clock

Exact Description of sampling Point  
 DRAINAGE AREA 646  
 DRAINAGE FLOWING  
 THROUGH HOLE IN FENCE

Supply Owned by \_\_\_\_\_ Sample Type \_\_\_\_\_  
 VS STEEL CORP 712 \_\_\_\_\_ 710

Sample Collected by \_\_\_\_\_ 713  
 KEM WYATT

SEND REPORT TO: Phone 533 5771  
 DIV OIL GAS MINING 715  
 4241 STATE OFFICE Bldg 648  
 SALT LAKE CITY 84143 717  
 zip code

14 Sample Source 719  
 01 Spring 14 Other  
 02 Well 15 Tunnel  
 03 Stream 18 Artesian  
 04 Lake well  
 06 Dist. syst. 19 Swimming pool  
 07 Effluent  
 08 Storm sewer

04 County 611  
 01 Beaver 16 Piute  
 02 Box Elder 17 Rich  
 03 Cache 18 Salt Lake  
 04 Carbon 19 San Juan  
 05 Daguerre 20 Sanpete  
 06 Davis 21 Sevier  
 07 Duchesne 22 Summit  
 08 Emery 23 Tooele  
 09 Garfield 24 Uintah  
 10 Grand 25 Utah  
 11 Iron 26 Wasatch  
 12 Juab 27 Washington  
 13 Kane 28 Wayne  
 14 Millard 29 Weber  
 15 Morgan

Current use 708  
 Proposed use 709  
 1. Culinary  
 2. Agriculture  
 3. Industrial  
 4. Other  
 350B

#### 1 FIELD TESTS

Temperature (°C) 792 CO<sub>2</sub>, mg/l 672  
 D.O., mg/l 793 Depth, m 809  
 Sp. Cond.  $\mu$ mhos 653 Cl Resid., mg/l 753  
 pH 651 Flow, MGD 652  
 Sp. Gravity 608 Flow, GPM 604  
 Transparency, m 649 Flow cfs 659

#### 2 Temperature (°C) 650 pH 782 WASTEWATER ANALYSIS BACT. LAB. No.

B.O.D.<sub>5</sub> 794 T.O.C. 671  
 Tot. Sus. Solids 960 787 C.O.D. 777  
 NO<sub>2</sub>+NO<sub>3</sub>-N 602 Cyanide 775  
 T.K.N. 778 Phenolics 783  
 Oil & Grease 780 Sulfide 672  
 M.P.N. Total Coliforms/100ml 658  
 M.P.N. Fecal Coliforms/100ml 657  
 Fecal Strep C/100ml. 656  
 M.F. Total Coliforms/100ml. 654  
 M.F. Fecal Coliforms/100ml. 655  
 Plate Count-Org./ml. 659

#### 3 Filtered Unfiltered 4 CHEMICAL ANALYSIS pH, units

mg/l		ug/l (ppb)		mg/l		mg/l		mg/l		ug/l (ppb)	
CATIONS		ANIONS		TOTAL ANIONS		TOTAL METALS ANALYSIS		CATIONS		ANIONS	
Ammonia as N	722	Bicarbonate	758	Tot. Phosphorus	785	Aluminum	800	Aluminum	800	Aluminum	800
Arsenic	723	Carbon Dioxide	759	Total Alk. as CaCO <sub>3</sub>	752	Arsenic	860	Arsenic	860	Arsenic	860
Barium	724	Carbonate	760	T. Hdns. as CaCO <sub>3</sub>	754	Barium	861	Barium	861	Barium	861
Boron	725	Chloride	763	Surfactant as MBAS	773	Beryllium	801	Beryllium	801	Beryllium	801
Cadmium	727	CO <sub>3</sub> Solids	765	Turbidity, as NTU	757	Cadmium	862	Cadmium	862	Cadmium	862
Calcium	728	Fluoride	766	Sp. Gravity	608	Chromium	863	Chromium	863	Chromium	863
Chromium	729	Hydroxide	767			Cobalt	804	Cobalt	804	Cobalt	804
Chromium, Hex. as Cr	730	Nitrate as N	605			Copper	664	Copper	664	Copper	664
Copper	732	Nitrite as N	606			Gold	700	Gold	700	Gold	700
Iron, dissolved	733	Phosphorus, Ortho as P	607			Iron	755	Iron	755	Iron	755
Lead	734	Silica, dissolved as SiO <sub>2</sub>	750			Lead	665	Lead	665	Lead	665
Magnesium	737	Sulfate	772			Manganese	666	Manganese	666	Manganese	666
Manganese	738					Mercury	739	Mercury	739	Mercury	739
Nickel	740					Molybdenum	802	Molybdenum	802	Molybdenum	802
Potassium	743					Nickel	667	Nickel	667	Nickel	667
Selenium	743					Selenium	668	Selenium	668	Selenium	668
Silver	744					Silver	669	Silver	669	Silver	669
Sodium	745					Uranium	601	Uranium	601	Uranium	601
Zinc	749					Vanadium	803	Vanadium	803	Vanadium	803
						Zinc	670	Zinc	670	Zinc	670

#### 5 Sp. Cond. $\mu$ mhos/cm. 782 TDS @ 180°C 786

Alpha, gross 621 89Sr 633  
 Beta, gross 623 131I 635  
 Tritium, <sup>3</sup>H 625 134Cs 637  
 226 Radium 627 137Cs 639  
 228 Radium 629  
 90Sr 631

#### 6 INTERPRETATION OF ANALYSES: Based on State Standards, this sample was:

Remarks: \_\_\_\_\_

B.O.D.<sub>5</sub>  
 Tot. Sus. Solids  
 M.P.N. Total Coliform.  
 M.P.N. Fecal Coliform.

Satisfactory  
 Conditional  
 Unsatisfactory

Analyses Approved By: REU Date: 821007

By: \_\_\_\_\_ ENVIRONMENTAL HEALTH

RECEIVED

File ACT/007/013  
TO Sandy  
310752 Jim

Rev. 7/80  
Field No. \_\_\_\_\_  
TC  TM  Nut   
PC  PM  BOD

Pest.   
Rad.   
Bact.   
Spec.

UTAH STATE DEPARTMENT OF HEALTH  
Date Recd.: **MAY 7 1981**  
ENVIRONMENTAL HEALTH  
WATER ANALYSES

Sample No. **701**

Store No. **793/70**  
 Date Collected **8/10/81** Time Collected **15:30**  
 Water Syst. No. **702** Water Rights No. **707**  
 Division of **OIL, GAS & MINING**  
 Exact Description of sampling Point  
**GENTLEMAN** 646  
**MINING**  
 Supply Owned by \_\_\_\_\_ Sample Type **712** **710**  
 Sample Collected by \_\_\_\_\_ 713  
 SEND REPORT TO: Phone **334-771**  
**OIL & GAS MINING** 715  
**UTAH STATE DEPARTMENT OF HEALTH** 648  
 zip code **717**

Sample Source  
 01 Spring 14 Other  
 02 Well 15 Tunnel  
 03 Stream 18 Artesian well  
 04 Lake  
 05 Dist. syst. 19 Swimming pool  
 06 Effluent  
 07 Storm sewer  
 611 County  
 01 Beaver 16 Piute  
 02 Box Elder 17 Rich  
 03 Cache 18 Salt Lake  
 04 Carbon 19 San Juan  
 05 Daguerre 20 Sanpete  
 06 Davis 21 Sevier  
 07 Duchesne 22 Summit  
 08 Emery 23 Tooele  
 09 Garfield 24 Uintah  
 10 Grand 25 Utah  
 11 Iron 26 Wasatch  
 12 Juab 27 Washington  
 13 Kane 28 Wayne  
 14 Millard 29 Weber  
 15 Morgan  
 Current use **708**  
 Proposed use **709**  
 1. Culinary  
 2. Agriculture  
 3. Industrial  
 4. Other

1 FIELD TESTS  
 Temperature (°C) 792  
 D.O., mg/l 793  
 Sp. Cond.  $\mu$ mhos/cm 663  
 pH 651  
 Sp. Gravity 608  
 Transparency, m 649  
 CO<sub>2</sub>, mg/l 572  
 Depth, m 609  
 Cl Resid., mg/l 753  
 Flow, MGD 652  
 Flow, GPM 604  
 Flow, cfs 659

2 Temperature (°C) **650** pH **8.1** 782 WASTEWATER ANALYSIS BACT. LAB. No.

B.O.D. <sub>5</sub>	794	T.O.C.	671	M.P.N. Total Coliforms/100ml	658
Tot. Sus. Solids	787	C.O.D.	777	M.P.N. Fecal Coliforms/100ml	657
NO <sub>2</sub> +NO <sub>3</sub> , N	602	Cyanide	775	Fecal Strept C/100ml.	656
T.K.N.	778	Phenolics	783	M.F. Total Coliforms/100ml.	654
Oil & Grease	780	Sulfide	672	M.F. Fecal Coliforms/100ml.	655
				Plate Count-Org./ml.	699

3 Filtered Unfiltered 4 CHEMICAL ANALYSIS pH, units

CATIONS		ANIONS		TOTAL METALS ANALYSIS	
mg/l	ug/l (ppb)	mg/l	mg/l	mg/l	ug/l (ppb)
Ammonia as N	722	Bicarbonata	758	Aluminum	800
Arsenic	723	Carbon Dioxide	759	Arsenic	660
Berium	724	Carbonate	760	Barium	661
Boron	725	Chloride	763	Beryllium	801
Cadmium	727	CO <sub>2</sub> Solids	765	Cadmium	662
Calcium	728	Fluoride	767	Chromium	663
Chromium	729	Hydroxide	605	Cobalt	804
Chromium, Hex. as Cr	730	Nitrate as N	606	Copper	664
Copper	732	Nitrite as N	607	Gold	700
Iron, dissolved	733	Phosphorus, Ortho as P	607	Iron	755
Lead	734	Silica, dissolved as SiO <sub>2</sub>	750	Lead	665
Magnesium	737	Sulfate	772	Manganese	666
Manganese	738	TOTAL ANIONS		Mercury	739
Nickel	740	GRAND TOTAL		Molybdenum	802
Potassium	742	Tot. Phosphorus	785	Nickel	667
Selenium	743	Total Alk. as CaCO <sub>3</sub>	752	Selenium	668
Silver	744	T. Hdns. as CaCO <sub>3</sub>	754	Silver	669
Sodium	745	Surfactant as MBAS	773	Uranium	601
Zinc	749	Turbidity, as NTU	757	Vanadium	803
TOTAL CATIONS		Sp. Gravity	608	Zinc	670

5 Sp. Cond.  $\mu$ mhos/cm. 762  
 TDS @ 180°C 2024 786

6 RADIOLOGICS

Alpha, gross	621	<sup>89</sup> Sr	633
Beta, gross	623	<sup>131</sup> I	635
Tritium; <sup>3</sup> H	625	<sup>134</sup> Cs	637
<sup>226</sup> Radium	627	<sup>137</sup> Cs	639
<sup>228</sup> Radium	629		
<sup>90</sup> Sr	631		

7 INTERPRETATION OF ANALYSES:  
 Remarks:  
 Based on State Standards, this sample was:  
 B.O.D.<sub>5</sub>  
 Tot. Sus. Solids  
 M.P.N. Total Coliform.  
 M.P.N. Fecal Coliform.  
 Satisfactory  
 Conditional  
 Unsatisfactory

Analyses Approved By: **REJ** Date: **4/30/81**

By: \_\_\_\_\_ ENVIRONMENTAL HEALTH

PRECIPITATION RECORD FOR USE WITH YOUR

Taylor 11" CLEAR-VU RAIN GAUGE

LOCATION Horse Canyon

GENEVA COAL MINE

COUNTY CARBON

STATE UTAH

TIME OF OBSERVATION 3:00 PM

YEAR 1981

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1									-	-	- <sup>w</sup>	-	W- Weekend
2									-	*.65	-	-	H- Holiday
3									-	- <sup>w</sup>	-	-	T- TRACE
4									-	- <sup>w</sup>	-	-	Sx- SNOW
5									*.60 <sup>w</sup>	*.79	-	- <sup>w</sup>	
6									.27 <sup>w</sup>	-	*.022 <sup>w</sup>	- <sup>w</sup>	
7									.02 <sup>w</sup>	-	.004 <sup>w</sup>	-	
8									.27	.07	- <sup>w</sup>	-	
9									.03	-	-	-	
10									.03	- <sup>w</sup>	-	-	
11									-	- <sup>w</sup>	-	-	
12									0.00	- <sup>w</sup>	*1.15	-	
13									0.04	- <sup>w</sup>	-	-	
14									-	*.33	-	- <sup>w</sup>	
15									- <sup>w</sup>	-	.05	- <sup>w</sup>	
16									.33 <sup>w</sup>	-	-	-	
17									-	-	*.65 <sup>w</sup>	-	
18									-	-	- <sup>w</sup>	0.04	
19									.04	- <sup>w</sup>	-	-	
20									-	- <sup>w</sup>	-	-	
21									(.51)	.05	-	- <sup>w</sup>	
22									.28 <sup>w</sup>	-	-	- <sup>w</sup>	
23									-	-	-	-	
24									-	.05	- <sup>w</sup>	-	
25									-	-	- <sup>w</sup>	-	
26									-	- <sup>w</sup>	-	- <sup>H</sup>	
27									.08	- <sup>w</sup>	-	- <sup>H</sup>	
28									-	*.36	-	- <sup>w</sup>	
29									- <sup>w</sup>	-	*.020	- <sup>w</sup>	
30									- <sup>w</sup>	-	-	-	Sx
31									.31	X	- <sup>w</sup>	X	
Total									1.26	2.01	3.56	0.30	

RAIN GAUGE INSTALLED 8-12-81

SYBRON Taylor

Total Annual

GENEVA MINE SEWER TREATMENT PL. LL

ce	Total Water Treated in 24 Hrs	Setting of Chlorinator	Total Chlorine	Free Chlorine	Skimmer	Trickling Filter	Chlorinator	General Condition	Time	Signature	Remarks
			High Temp	Low Temp	clean	pt cloudy	cloudy	WIND			
	Barometric Pres	Precip									
0-81	24.12	NONE	70	50	✓			CALM	4:00pm	R. Gabe	
0-81	24.13	NONE	74	54	✓			CALM	3:45pm	R. Gabe	
0-81	23.94	* 0.65	78	50			✓	CALM	3:50PM	BA Filas	
5-81	24.12	* 0.79	64	46		✓		CALM	10:50am	R. Gabe	
6-81	24.14	NONE	68	42		✓		CALM	1:15 PM	PPM	DECANT # 459
7-81	23.90	NONE	68	46		✓		WINDY	3:45 PM	PPM	CAT DRAINAGE
8-81	23.78	0.07	62	43	✓			CALM	2:45pm	R. Gabe	
9-81	24.02	NONE	67	35		✓		LIGHT	4:01 PM	PPM	Rain gauge over flow.
10-81	23.85	* 1.05	64	38		✓		LIGHT	3:30 PM	R. Gabe	
11-81	23.90	NONE	54	36		✓		CALM	4:10 PM	R. Gabe	
12-81	23.95	NONE	68	33		✓		CALM	3:30 PM	R. Gabe	
13-81	23.97	.05	54	36			✓	CALM	4:30 PM	R. Gabe	
14-81	24.22	* .65	58	32	✓			CALM	4:00 PM	R. Gabe	
15-81	24.33	NONE	58	35	✓			CALM	4:17 PM	R. Gabe	
16-81	24.23	NONE	56	36	✓			CALM	4:30 PM	R. Gabe	
17-81	24.18	NONE	56	36	✓			CALM	4:20 PM	R. Gabe	
18-81	24.16	NONE	63	34	✓			CALM	4:00 PM	PPM	
19-81	24.17	NONE	66	30	✓		✓	CALM	4:30 PM	R. Gabe	
20-81	24.07	NONE	62	33			✓	CALM	4:00 PM	R. Gabe	
21-81	23.91	NONE	60	32			✓	SLIGHT	3:30 PM	BA Filas	
22-81	23.75	0.20	57	36			✓	SLIGHT	4:00 PM	R. Gabe	
23-81	24.03	NONE	67	25				CALM	4:00 PM	R. Gabe	
24-81	24.08	NONE	62	36				CALM	4:20 PM	R. Gabe	
25-81	24.08	NONE	63	34	✓			CALM	4:10 PM	R. Gabe	
26-81	24.08	NONE	60	34			✓	CALM	5:41 PM	R. Gabe	
27-81	24.19	NONE	60	34			✓	SLIGHT	4:10 PM	PPM	
28-81	24.16	* .22	56	35			✓	CALM	4:00 PM	R. Gabe	
29-81	24.25	ON PAUSE	56	34	✓			CALM	4:00 PM	R. Gabe	
30-81	24.17	NONE	57	32	✓			CALM	5:30 PM	PPM	
31-81	24.09	NONE	56	33	✓			SLIGHT	3:30 PM	PPM	

GENEVA MINE SEWER TREATMENT PLANT LL

Date	Total Water Treated to 24 Hrs	Skying of Snow	Total Sunshine	Freeze or Snowing	Skinner	Freezing Water	ON/OFF Motor	General Condition	Time	Signature	Remarks
	BAR. PRES	PRECIP	HIGH TEMP	LOW TEMP	CLEAR	PT CLOUD	CLOUD	WIND			
1/3-81	24.12	NONE	59	36		V → V		SLIGHT	3:45 PM	PPM.	
1/6-81	24.14	NONE	62	36	✓			CALM	3:51 PM	R. Lutz	
1/7-81	23.98	NONE	60	34	✓			CALM	5:00 PM	R. Lutz	
1/10-81	24.12	0.04	56	36	✓			SLIGHT	4:04 PM	R. Lutz	
1/23-81	24.02	NONE	52	29			V	CALM	4:05 PM	PPM.	
1/24-81	23.82	NONE	56	36		V		SLIGHT	3:10 PM	PPM.	
1/25-81	23.73	TRACE	52	32		V		WINDY	4:11 PM	PPM.	
1/30-81	23.98	There was some snow on weekend	42	17		V		CALM	3:50 PM	R. Lutz	
1/31-81	24.03	NONE	33	12			V	CALM	2:50 PM	PPM.	
1/2-81	24.06	NONE	34	16		V		CALM	3:51 PM	R. Lutz	
1/3-81	24.26	NONE	45	19	✓			CALM	3:18 PM	R. Lutz	
1/4-81	24.25	NONE	44	24			V	CALM	4:10 PM	R. Lutz	
1/7-81	24.22	NONE	51	24	✓			CALM	4:38 PM	R. Lutz	
1/8-81	24.28	NONE	52	25	✓			CALM	4:21 PM	R. Lutz	
1/9-81								CALM	4:00 PM	R. Lutz	
1/10-81	24.12	NONE	50	28		V		CALM	4:31 PM	R. Lutz	
1/11-81	24.00	NONE	47	26	✓			CALM	4:10 PM	R. Lutz	
1/14-81	24.17	NONE	42	27			V	SLIGHT	2:30 PM	PPM.	
1/17-81	24.22	NONE	44	16		V		CALM	4:00 PM	R. Lutz	
1/18-81	24.29	NONE					V	CALM	4:00 PM	R. Lutz	
1/21-81	23.75	TRACE	48	20		V		WINDY	3:50 PM	R. Lutz	
1/22-81	23.98	NONE	36	20		V		WINDY	4:00 PM	R. Lutz	
1/28-81	23.92	1 to 2" snow over weekend	36	04	✓			SLIGHT BREEZE	3:45 PM	PPM.	
1/29-81	24.92	NONE	38	12		V		CALM	3:42 PM	R. Lutz	
1/30-81	23.70	NONE					V	CALM	4:01 PM	R. Lutz	
1/31-81	23.93	0.40 snow	46	04			V	CALM	3:31 PM	R. Lutz	SNOWING
1/6-82	23.93	1.19	32	18	✓			WINDY	3:10 PM	PPM.	
1/7-82	23.80	NONE	26	-06	✓			CALM	4:50 PM	R. Lutz	
1/8-82	24.38	NONE	25	02	✓			CALM	3:50 PM	PPM.	
1/11-82	23.80	NONE	26.30	12			V	CALM	4:10 PM	PPM.	

GENEVA MINE SEWER TREATMENT PLANT LOG

Date	Total Water Treated in 24 Hrs	Settling of Chlorina-tor	Total Chlorine	Free Chlorine	Skimmer	Trickling Filter	Chlorinator	General Condition	Time	Signature	Remarks
	Dano Press	PRECIP	HIGH TEMP	LOW TEMP	Clear	W/Cl	Clad	WIND			
2-2-82	23.89	NONE				✓		CALM	3:43 PM	R. Cade	
2-3-82	24.09	NONE	42	10	✓			CALM	3:10 PM	R. Cade	
2-4-82	24.00	NONE	40	12	✓			CALM	3:30 PM	R. Cade	
2-5-82	24.00	NONE	42	13	✓			CALM	4:05 PM	PPM	
2-8-82	23.77	NONE	46	18		✓		CALM	3:30 PM	R. Cade	
2-9-82	23.75	NONE	44	20	✓			SLIGHT	3:40 PM	R. Cade	
2-10-82	23.78	NONE	44	14		✓		SLIGHT	3:00 PM	R. Cade	
2-11-82	23.60	SNOW .32	34	22			✓	WINDY	3:45 PM	PPM	
2-12-82	23.98	NONE	30	10		✓		WINDY	3:55 PM	PPM	
2-15-82	24.22	NONE	38	16	✓			CALM	5:00 PM	R. Cade	
2-16-82	23.92	NONE	46	18		✓		BREEZY	3:40 PM	PPM	
2-17-82	23.82	NONE	44	20	✓			CALM	3:16 PM	R. Cade	
2-18-82	23.98	NONE	47	14	✓			BREEZY	3:00 PM	R. Cade	
2-19-82	24.00	NONE	34	10	✓			SLIGHT	3:00 PM	R. Cade	
2-20-82	23.76	NONE*	38	18		✓		CALM	3:30 PM	R. Cade	light snow fell for 1/2 hour, none on
2-21-82	23.78	NONE						CALM	3:37 PM	R. Cade	
2-22-82	24.14	NONE	34	-04	✓			CALM	3:30 PM	R. Cade	
2-23-82	23.89	NONE	33	-04	✓			CALM	4:18 PM	R. Cade	
2-24-82	23.94	NONE	38	12		✓		CALM	4:08 PM	R. Cade	
2-25-82	24.03	TRACE	42	10	✓			CALM	4:30 PM	R. Cade	
2-26-82	24.10	NONE	40	16			✓	CALM	4:10 PM	R. Cade	
2-27-82	24.06	NONE									
2-28-82	24.10	NONE	40	16	✓			CALM	4:55 PM	R. Cade	
2-29-82	24.22	NONE	50	24		✓		CALM	2:00 PM	R. Cade	
2-30-82	24.00	NONE			✓			CALM	4:45 PM	R. Cade	
2-31-82	23.89	NONE									
2-32-82	24.04	NONE	56	28		✓		CALM	4:00 PM	R. Cade	
2-33-82	24.06	NONE	55	29	✓			CALM	4:30 PM	R. Cade	
2-34-82	24.07	NONE	50	28			✓	CALM	3:55 PM	PPM	

GENEVA MINE SEWER TREATMENT PLANT LOG

Date	Total Water Treated in 24 Hrs	Setting of Chlorinator	Total Chlorine	Free Chlorine	Skimmer	Trickling Filter	Chlorinator	General Condition	Time	Signature	Remarks
	Baro Press	PRECIP	HIGH TEMP	LOW TEMP	CI	PT/CL	CLASH	WIND			
3-1-82	24.04	NONE	59	32			✓	NONE	4:15 AM	R. Guder	ALL SLOW COOL IN REACT ARE VERTICALLY MELT
3-2-82	23.80	<del>NONE</del> 0.20	52	36			✓	SLIGHT	3:45 PM	R. Guder	
3-3-82	23.79	NONE					✓	SLIGHT	4:30 AM	R. Guder	
3-8-82	24.01	NONE			✓			SLIGHT	4:26 PM	R. Guder	
3-10-82	24.01	NONE	61	19			✓	CALM	3:30 PM	R. Guder	
3-11-82	23.77	NONE	53	36			✓	CALM	3:00 PM	R. Guder	
3-12-82	23.88	NONE		30	✓			SLIGHT	12:30 PM	PM	
3-15-82	23.59	* 0.53	60	30	'		✓	CALM	7:05 AM	R. Guder	
3-16-82	23.75	0.08	46	32			✓	CALM	7:00 AM	R. Guder	
3-17-82	23.86	0.06	46	30		✓		CALM	7:02 AM	R. Guder	
3-18-82	23.71	0.02	46	30	←	✓		WINDY	7:00 AM	R. Guder	
3-19-82	23.88	?	52	19	✓			CALM	7:00 AM	R. Guder	
3-26-82		* 0.63					✓	CALM	4:00 PM	R. Guder	STORM, NO FUND
3-29-82	23.48	NONE					✓				
3-30-82	23.92	NONE	60	24		✓		CALM	4:00 PM	R. Guder	
3-31-82	23.94	NONE	56	20	✓			CALM	3:30 PM	R. Guder	
4-1-82	23.64	NONE					✓	WINDY	3:45 PM	R. Guder	
4-10-82	23.80	NONE	70	36	✓			CALM	4:20 PM	11:21 AM	
4-15-82	23.78	NONE	68	39		✓		WINDY	4:25 PM	PM	
4-16-82	23.98	NONE	57	34		✓		SLIGHT	4:15 PM	PM	
4-27-82	24.01	NONE	72	22		✓		WINDY	3:00 PM	R. Guder	
5-3-82	23.99	0.19	78	38	✓			CALM	2:30 PM	R. Guder	Raining slight
5-4-82	23.95	0.22	70	46	←	✓		SLIGHT	3:45 PM	R. Guder	
5-10-82	23.77	TRACE	70	32	✓			WINDY	4:00 PM	R. Guder	
5-20-82	24.01	0.20	72	38			✓	CALM	3:00 PM	R. Guder	
5-18-82	24.02	0.12	89	52			✓	SLIGHT	8:01 A	STF	Raining evening 6 and AM 6-7B
6-23-82	24.12	0.00	88	54		✓		CALM	11:30 AM	R. Guder	
6-29-82	23.98	0.00	92	54		✓		WINDY	3:00 PM	R. Guder	
6-30-82	24.02	0.03	82	64	✓			SLIGHT	2:00 PM	R. Guder	Raining slight

GENEVA MINE SEWER TREATMENT PLANT LLC

Date	Total Water Treated in 24 Hrs	Setting of Chlorinator	Total Chlorine	Free Chlorine	Skimmer	Trickling Filter	Chlorinator	General Condition	Time	Signature	Remarks
	BAR PRESS	PRECIPITATION	TEMP HIGH	TEMP LOW	CLEAR	PT CLOUDY	CLOUDY	WIND			
7/1-82	24.01	0.04	78	62	✓			WINDY	2:00PM	R. Gads	
7/6-82	24.17	.08	80	38	✓			CALM	11:00AM	RM	RAIN OVER WEEK END
7/7-82	24.12	NONE		42		✓		CALM	11:30AM	MF	
7/11-82	24.13	0.08	79	50	✓			CALM	11:30AM	MF	Received the NIGHT OF 7-2
7/12-82	24.05	NONE	96	50	✓			CALM	8:00PM	R. Gads	
7/23-82	24.20	0.11	100	60	✓			SLIGHT	2:00PM	R. Gads	
7/26-82	24.22	0.06	94	60			✓	CALM	7:30AM	R. Gads	
7/27-82	24.22	0.41	94	60	✗		✓	CALM	7:00AM	R. Gads	Raining lightly
7/28-82	24.20	0.02	84	60		✓		CALM	8:30AM	R. Gads	Raining lightly
7/31-82	24.07	0.08	94	58			✓	CALM	3:05PM	R. Gads	Raining lightly
8/3-82	24.10	NONE	80	62		✓		WINDY	3:00PM	R. Gads	
8/9-82	24.18	0.06	87	58	✓			CALM	2:35PM	RM	RAIN OVER WEEKEND
8/10-82	24.12	0	91	60		✓		WINDY	2:30PM	RM	
8/11-82	24.16	0.00	94	64		✓	✗	CALM	11:00AM	R. Gads	
8/12-82	24.16	0.32	84	60		✓		CALM	3:00PM	R. Gads	
8/13-82	24.16	0.37	74	58			✓	CALM	2:15P	RM	DRIZZLE ALL DAY
8/16-82	24.26	0.37	85	58				CALM	4:00PM	R. Gads	
8/18-82	24.22	0.11	89	58	✓			CALM	3:05P	RM	
8/23-82	24.12				✗			CALM	2:00PM	R. Gads	
8/30-82		0.37	94	52		✓		CALM	3:10P	RM	
9/02-82	24.22			58	✓			CALM	2:00PM	R. Gads	
9/07-82	24.24	0.26	92	50	✓			CALM	3:10PM	R. Gads	
9/13-82	23.91	0.19	84	39			✓	CALM	8:52AM	R. Gads	
9/15-82	24.08	0.28	84	34	✓			CALM	9:00AM	R. Gads	
9/20-82	24.11	0.45	76	48		✓		CALM	7:30AM	R. Gads	
9/21-82	24.24	0.07	78	50		✓		CALM	12:40PM	R. Gads	
9/23-82	24.20	NONE	82	56	✓			CALM	8:30AM	R. Gads	
9/27-82	23.68	0.47	84	50			✓	CALM	1:30AM	R. Gads	
9/28-82	23.76	0.56	64	48			✓	CALM	8:00AM	R. Gads	

