



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Kathleen Clarke  
Executive Director

Lowell P. Braxton  
Division Director

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

## INSPECTION REPORT

Partial  Complete  Exploration   
 Inspection Date: 06/19/2002 / Time: 11:00 to 3:00  
 Date of Last Inspection: 03/13/2002

Mine Name: Cottonwood/Wilberg Mine County: Emery Permit Number: C/015/019  
 Permittee and/or Operator's Name: PacifiCorp  
 Business Address: P.O. Box 310, Huntington, Utah 84528  
 Company Official(s): Dennis Oakley  
 State Official(s): Joe Helfrich Federal Official(s): \_\_\_\_\_  
 Weather Conditions: Increasing clouds and wind during the day  
 Type of Mining Activity: Underground  Surface  Prep Plant  Other   
 Existing Acreage: Permitted 11532 Disturbed 102 Regraded  Seeded   
 Status: Temporary Cessation

### REVIEW OF PERMIT, PERFORMANCE STANDARDS & PERMIT CONDITION REQUIREMENTS

1. Substantiate the elements on this inspection by checking the appropriate performance standard.
  - a. For complete inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check N/A.
  - b. For partial inspections check only the elements evaluated.
2. Document any noncompliance situation by referencing the NOV issued at the appropriate performance standard listed below.
3. Reference any narratives written in conjunction with this inspection at the appropriate performance standard listed below.
4. Provide a brief status report for all pending enforcement actions, permit conditions, Division Orders, and amendments.

	EVALUATED	N/A	COMMENTS	NOV/ENF
1. PERMITS, CHANGE, TRANSFER, RENEWAL, SALE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. SIGNS AND MARKERS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. TOPSOIL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. HYDROLOGIC BALANCE:				
a. DIVERSIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. SEDIMENT PONDS AND IMPOUNDMENTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. OTHER SEDIMENT CONTROL MEASURES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. WATER MONITORING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. EFFLUENT LIMITATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. EXPLOSIVES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. DISPOSAL OF EXCESS SPOIL/FILLS/BENCHES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. COAL MINE WASTE/REFUSE PILES/IMPOUNDMENTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. NONCOAL WASTE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. PROTECTION OF FISH, WILDLIFE AND RELATED ENVIRONMENTAL ISSUES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. SLIDES AND OTHER DAMAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. CONTEMPORANEOUS RECLAMATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. BACKFILLING AND GRADING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. REVEGETATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. SUBSIDENCE CONTROL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. CESSATION OF OPERATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. ROADS:				
a. CONSTRUCTION/MAINTENANCE/SURFACING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. DRAINAGE CONTROLS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. OTHER TRANSPORTATION FACILITIES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. SUPPORT FACILITIES/UTILITY INSTALLATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. AVS CHECK (4 <sup>th</sup> Quarter- April, May, June)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. AIR QUALITY PERMIT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. BONDING & INSURANCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OK

**INSPECTION REPORT**  
(Continuation Sheet)

PERMIT NUMBER: C/015/019

DATE OF INSPECTION: 06/19/2002

(COMMENTS ARE NUMBERED TO CORRESPOND WITH TOPICS LISTED ABOVE)

**1. PERMITS, CHANGE, TRANSFER, RENEWAL, SALE**

The permit was renewed on August 10, 1999 and expires July 6, 2004. One stipulation is attached to the permit. The stipulation requires water-monitoring data to be submitted into the Division's Water Quality Database. Alyson Boye has nearly completed the backlog of data entry. There are two amendments pending, BR99D-2, the Miller Canyon Phase I bond release, and MT02, the Cottonwood midterm review.

**2. SIGNS AND MARKERS**

Permit entry signs were in place for the waste rock sites, Cottonwood Fan portal, sewer adsorption field, and facilities. Disturbed area markers were noticed.

**4A. HYDROLOGIC BALANCE: DIVERSIONS**

Drainages were clean and functional.

**4B. HYDROLOGIC BALANCE: SEDIMENT PONDS AND IMPOUNDMENTS**

Sediment ponds were inspected on May 15, 2002.

**4C. HYDROLOGIC BALANCE: OTHER SEDIMENT CONTROL MEASURES**

Silt fences and sediment basins were functioning. The Fan Portal site was inspected on April 2, 2002 for Phase I bond release. The two sediment basins were removed and reclaimed. Silt fences were installed at the base of the two reclaimed areas.

**4D. HYDROLOGIC BALANCE: WATER MONITORING**

The monitoring data entered in the database for the first two quarters of 2002 is provided with this report. The Bio-monitoring toxicity report was prepared on 01/14/2002. The results were pass.

**4E. HYDROLOGIC BALANCE: EFFLUENT LIMITATIONS**

Hard copies of the DMR's were current through May 2002.

**7. COAL MINE WASTE/REFUSE PILES/IMPOUNDMENTS**

John Christensen inspected the refuse pile on 04/08/2002. The pile is at 36% capacity and currently is only being used for sediment pond clean out. At the time of this inspection, crews were removing trash from the refuse pile.

**8. NONCOAL WASTE**

The properties were mostly clean of any garbage and paper waste.

**12. BACKFILLING AND GRADING**

Phase I bond release for the Fan Portal will be finalized on June 21, 2002.

INSPECTION REPORT  
(Continuation Sheet)

PERMIT NUMBER: C/015/019

DATE OF INSPECTION: 06/19/2002

15. CESSATION OF OPERATIONS

This mine is currently in temporary cessation of mining.

21. BONDING AND INSURANCE

Associated Electric and Gas is the insurance carrier for the mine. Insurance expires April 1, 2003. St. Paul Fire and Marine Insurance Co. reissued the Bond #400JN6138 in the amount of \$3,082,587.

Inspector's Signature: \_\_\_\_\_

  
Joseph C. Helfrich #1

Date: June 20, 2002

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas & Mining.

cc: James Fulton, OSM  
Chuck Semborski, PacifiCorp  
Price Field office

O:\015019.CWW\Compliance\2002\c\_0619.doc

LEGEND	
EDI	EDI SAMPLES IN THE PIPELINE
HIST	HISTORICAL DATA
WARN	PARAMETER WARNINGS
	PARAMETER ERRORS
NOTES	NOTES
ACZ	ACZ Laboratories
AWA	American West Analytical Laboratory
CHE	Chem Tech
CTE	Commercial Testing & Engineering
DMR	DMR (Discharge Monitoring Report)
DRY	Dry Wells
FLD	Field Data NOT ASSOCIATED w/ Sample
IML	Inter-Mountain Laboratories
MSA	Mountain States Analytical
NOA	No Access
NOF	No Flow
OTH	Other - Misc. Labs

## COTTONWOOD/WILBERG

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION								
Stream	CCC1 USGS FLUME	SURFACE	Cottonwood Cyn Creek @ USC								
SPECIFIC SITE PARAMETERS HAVE BEEN SET.											
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D-Al mg/l
OPER	NOF	06/05/2002	1154	----NOF----							
Stream bed dry											
OPER	NOF	05/08/2002	1010	----NOF----							
Stream bed dry											
OPER	NOF	04/09/2002	1441	----NOF----							

Stream bed is dry

OPER	FLD	03/13/2002		--NREQ--							
------	-----	------------	--	----------	----------	----------	----------	----------	----------	----------	----------

F-pH	pH units	7.1	This Parameter is out by 2.00 Standard Deviations(STD). One S								
------	----------	-----	---	--	--	--	--	--	--	--	--

Cond(FLD)	umhos/cm	16000.	This Parameter is out by 9.99 Standard Deviations(STD). One S REASON: Value stated is as recorded								
-----------	----------	--------	--	--	--	--	--	--	--	--	--

OPER	NOF	03/11/2002	1121	----NOF----							
------	-----	------------	------	-------------	--	--	--	--	--	--	--

Stream is frozen

OPER	NOF	02/05/2002	1210	----NOF----							
------	-----	------------	------	-------------	--	--	--	--	--	--	--

Stream was frozen

OPER	NOF	01/14/2002	1051	----NOF----							
------	-----	------------	------	-------------	--	--	--	--	--	--	--

All water was frozen

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D-Al mg/l
--------	----------	------	------	-----------------	-------------	---------------------	----------------	--------------	------------------------	------------	--------------

BASE	NOF	12/12/2001	1033	----NOF----							
------	-----	------------	------	-------------	--	--	--	--	--	--	--

All water was frozen

OPER	FLD	11/09/2001	1154	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	10/03/2001	1206	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	09/20/2001	1134	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

Cond(FLD)	umhos/cm	1017.	This Parameter is out by 2.39 Standard Deviations(STD). One S REASON: The value stated is correct								
-----------	----------	-------	--	--	--	--	--	--	--	--	--

OPER	FLD	08/14/2001	1418	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	07/05/2001	1404	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	06/06/2001		--NREQ--							
------	-----	------------	--	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	05/09/2001	1121	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	04/05/2001	1251	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	03/08/2001	1320	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

F-D.O.	mg/l	3.	This Parameter is out by 2.98 Standard Deviations(STD). One S REASON: stated value is correct snow melt may be cause								
--------	------	----	---	--	--	--	--	--	--	--	--

Cond(FLD)	umhos/cm	1008.	This Parameter is out by 2.34 Standard Deviations(STD). One S REASON: stated value is correct snow melt may be cause								
-----------	----------	-------	---	--	--	--	--	--	--	--	--

OPER	NOF	02/05/2001	1205	----NOF----							
------	-----	------------	------	-------------	--	--	--	--	--	--	--

Frozen

OPER	FLD	01/03/2001	1113	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES		SITE DESCRIPTION									
Stream	GWR01	SURFACE		Grimes Wash R fk runoff									
SPECIFIC SITE PARAMETERS HAVE BEEN SET.													
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D-Al mg/l	
OPER	NOF	06/05/2002	1206	----NOF----									
Stream bed dry													
OPER	NOF	05/08/2002	1022	----NOF----									
Stream bed dry													
OPER	NOF	04/09/2002	1456	----NOF----									
Stream bed is dry													
OPER	NOF	03/11/2002	1258	----NOF----									
Stream is dry													
OPER	NOF	02/05/2002	1220	----NOF----									
Stream was dry													
OPER	NOF	01/14/2002	1104	----NOF----									
No water to sample													
BASE	NOF	12/12/2001	1049	----NOF----									
OPER	FLD	11/09/2001	1205	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	10/16/2001	1130	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D-Al mg/l	
OPER	FLD	09/20/2001	1329	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	08/14/2001	1142	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	07/10/2001	1240	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	NOF	06/06/2001	1142	----NOF----									
OPER	NOF	05/11/2001	0951	----NOF----									
OPER	NOF	04/06/2001	1050	----NOF----									
OPER	NOF	03/08/2001	1400	----NOF----									
OPER	NOF	02/05/2001	1217	----NOF----									
Dry													
OPER	NOF	01/03/2001	1126	----NOF----									

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
Stream	GWR02	SURFACE	Grimes Wash L fk runoff

SPECIFIC SITE PARAMETERS HAVE BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l
OPER	NOF	05/08/2002	1030	---NOF---							

Stream bed dry

OPER	NOF	04/09/2002	1501	---NOF---							
------	-----	------------	------	-----------	--	--	--	--	--	--	--

Stream bed is dry

OPER	NOF	03/11/2002	1304	---NOF---							
------	-----	------------	------	-----------	--	--	--	--	--	--	--

Stream is frozen

OPER	NOF	01/14/2002	1109	---NOF---							
------	-----	------------	------	-----------	--	--	--	--	--	--	--

All water was frozen

BASE	NOF	12/12/2001	1110	---NOF---							
------	-----	------------	------	-----------	--	--	--	--	--	--	--

All water was frozen

OPER	FLD	11/09/2001	1209	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

OPER	FLD	10/16/2001	1138	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

BASE	CTE	09/20/2001	1344	<5.	<0.1	--NREQ--	--NREQ--	329.	7.	--NREQ--	9.8
------	-----	------------	------	-----	------	----------	----------	------	----	----------	-----

DIS.METALS FILTERED @ LAB

D-Al	mg/l	0.5	Method left blank from lab
------	------	-----	----------------------------

D-K	mg/l	1.	Value is as reported
-----	------	----	----------------------

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l
OPER	FLD	08/14/2001	1159	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	07/10/2001	1246	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--

OPER	FLD	07/10/2001	1246	--NREQ--							
------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------

NOT GIVEN	CTE	06/06/2001	1206	<5.	<0.5	--NREQ--	--NREQ--	370.	<5.	--NREQ--	60.
-----------	-----	------------	------	-----	------	----------	----------	------	-----	----------	-----

DIS.METALS FILTERED @ LAB

D-Na	mg/l	59.	This Parameter is out by 2.50 Standard Deviations(STD). One S REASON:Value is reported correctly
------	------	-----	--

Cond(FLD)	umhos/cm	987.	This Parameter is out by 2.14 Standard Deviations(STD). One S REASON:Value reported correctly
-----------	----------	------	---

L-Sp. Cond	umhos/cm	1169.	This Parameter is out by 3.89 Standard Deviations(STD). One S REASON:Value reported correctly									
SO4	mg/l	172.	This Parameter is out by 2.07 Standard Deviations(STD). One S REASON:Value reported correctly									
T-Anis	meq/l	11.3	This Parameter is out by 2.47 Standard Deviations(STD). One S									
T-Cats	meq/l	11.	This Parameter is out by 2.77 Standard Deviations(STD). One S REASON:Value reported correctly									
TDS	mg/l	601.	This Parameter is out by 3.12 Standard Deviations(STD). One S REASON:Value reported correctly									

NOT GIVEN	CTE	06/06/2001	1153	<5.	<0.5	--NREQ--	--NREQ--	370.	<5.	--NREQ--	8.	<
-----------	-----	------------	------	-----	------	----------	----------	------	-----	----------	----	---

DIS.METALS FILTERED @ LAB

L-Sp. Cond	umhos/cm	917.	This Parameter is out by 2.03 Standard Deviations(STD). One S REASON:Value reported correctly									
------------	----------	------	--	--	--	--	--	--	--	--	--	--

OPER	FLD	05/11/2001	1010	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	04/06/2001	1101	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	NOF	03/08/2001	1407	----NOF----								
OPER	NOF	02/05/2001	1221	----NOF----								

Frozen

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	I
OPER	NOF	01/03/2001	1130	----NOF----								

Frozen

NOT GIVEN	CTE	09/13/2000	1105	17.	--NREQ--	--NREQ--	--NREQ--	296.	<5.	--NREQ--	10.	-
-----------	-----	------------	------	-----	----------	----------	----------	------	-----	----------	-----	---

Dis met filt @lab.

Wat. Temp	Deg. C	24.9	This Parameter is out by 2.25 Standard Deviations(STD). One S REASON:As reported									
T-Fe	mg/l	0.1	As Reported									

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
Stream	GWR03	SURFACE	Grimes Wash BL mine (runoff)

SPECIFIC SITE PARAMETERS HAVE BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D-Al mg/l
--------	----------	------	------	-----------------	-------------	---------------------	-----------------------	----------------	--------------	------------------------	------------	--------------

OPER	FLD	05/08/2002	1035	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	04/09/2002	1541	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	NOF	03/11/2002	1310	----NOF----								

Stream is frozen

OPER	NOF	02/05/2002	1230	----NOF----								
------	-----	------------	------	-------------	--	--	--	--	--	--	--	--

Stream was frozen

OPER	NOF	01/14/2002	1114	----NOF----								
------	-----	------------	------	-------------	--	--	--	--	--	--	--	--

All water was frozen

BASE	CTE	12/12/2001	1110	<5.	<0.1	--NREQ--	--NREQ--	423.	<5.	8.1	75.6	<0.5
	D-Ca	mg/l	143.	This Parameter is out by 2.24 Standard Deviations(STD). One STD is REASON:The value is as stated								
	D-Mg	mg/l	118.	This Parameter is out by 2.91 Standard Deviations(STD). One STD is REASON:The value is as stated								

OPER	FLD	11/09/2001	1218	--NREQ--								
OPER	FLD	10/16/2001	1158	--NREQ--								
BASE	CTE	09/26/2001	1314	<5.	<0.1	--NREQ--	--NREQ--	349.	<5.	--NREQ--	170.5	<0.5
OPER	FLD	08/14/2001	1204	--NREQ--								
OPER	FLD	07/10/2001	1254	--NREQ--								
OPER	FLD	05/11/2001	1018	--NREQ--								

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D-Al mg/l
OPER	FLD	04/06/2001	1112	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
BASE	CTE	03/08/2001	1440	<5.	<0.5	--NREQ--	--NREQ--	346.	<5.	--NREQ--	651.	<1.
OPER	FLD	02/05/2001	1227	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
OPER	FLD	01/03/2001	1141	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--
NOT GIVEN	CTE	12/04/2000	1440	18.	--NREQ--	--NREQ--	--NREQ--	323.	<5.	--NREQ--	400.	--NREQ--

DIS.METALS FILTERED @ LAB

NOT GIVEN	CTE	09/13/2000	1126	34.	--NREQ--	--NREQ--	--NREQ--	311.	<5.	--NREQ--	272.	--NREQ--
-----------	-----	------------	------	-----	----------	----------	----------	------	-----	----------	------	----------

Dis met filt @lab.

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
UPDES Permit discharge point	UT0022896-001		TMA-001 Mine Q into Cottonwood C

SPECIFIC SITE PARAMETERS HAVE BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	D m
UPDS	CTE	09/18/2001	1600	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	393.	<5.	--NREQ--	23.8	--NREQ--

DIS.METALS FILTERED @ LAB

UPDS	CTE	08/22/2001	0936	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	387.	<5.	--NREQ--	27.9	--NREQ--
------	-----	------------	------	----------	----------	----------	----------	----------	------	-----	----------	------	----------

DIS.METALS FILTERED @ LAB

BASE	NOF	07/31/2001		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

UPDS	NOF	06/30/2001		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
UPDES Permit discharge point	UT0022896-002	UPDES	Fan portal sed pond Q to Cttnwd Ck

SPECIFIC SITE PARAMETERS HAVE NOT BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De feet
OPER	NOF	04/30/2002		----NOF----									

No flow for entire month

OPER	NOF	03/31/2002		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

No flow for entire month

OPER	NOF	02/28/2002		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

No flow for entire month

BASE	NOF	12/31/2001		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

No flow for entire month

BASE	NOF	11/30/2001		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

No flow for entire month

BASE	NOF	10/31/2001		----NOF----									
------	-----	------------	--	-------------	--	--	--	--	--	--	--	--	--

No flow for entire month

BASE	NOF	09/30/2001		----	NOF	----	No flow for entire month						
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
BASE	NOF	08/31/2001		----	NOF	----	No flow for entire month						
BASE	NOF	07/31/2001		----	NOF	----	No flow for entire month						
BASE	NOF	06/30/2001		----	NOF	----	No flow for entire month						
BASE	NOF	05/31/2001		----	NOF	----	No flow for entire month						
BASE	NOF	04/30/2001		----	NOF	----	No flow for entire month						
BASE	NOF	03/31/2001		----	NOF	----	No flow for entire month						
BASE	NOF	02/28/2001		----	NOF	----	No flow for entire month						
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
BASE	NOF	01/31/2001		----	NOF	----	No flow for entire month						
BASE	NOF	12/01/2000		----	NOF	----	No flow for entire month						
OPER	NOF	11/30/2000		----	NOF	----	No flow for entire month						
OPER	NOF	10/31/2000		----	NOF	----	No flow for entire month						
OPER	NOF	09/30/2000		----	NOF	----	No flow for entire month						
OPER	NOF	08/31/2000		----	NOF	----	No flow for entire month						

No flow for entire month

BASE	NOF	07/31/2000		----NOF----
------	-----	------------	--	-------------

No flow for entire month

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
--------	----------	------	------	--------------	-------------------	----------	---------------	-----------------	-------------	-----------	------------------	---------	--------

OPER	NOF	06/30/2000		----NOF----
------	-----	------------	--	-------------

No flow for entire month

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
UPDES Permit discharge point	UT0022896-003	UPDES	Sed pond Q to Grimes Wash

SPECIFIC SITE PARAMETERS HAVE NOT BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l
--------	----------	------	------	--------------	-------------------	----------	---------------	-----------------	-------------	-----------	------------------	---------

OPER	NOF	04/30/2002		----NOF----
------	-----	------------	--	-------------

No flow for entire month

OPER	NOF	03/31/2002		----NOF----
------	-----	------------	--	-------------

No flow for entire month

OPER	NOF	02/28/2002		----NOF----
------	-----	------------	--	-------------

No flow for entire month

OPER	NOF	01/31/2002		----NOF----
------	-----	------------	--	-------------

No flow for entire month

OPER	NOF	12/31/2001		----NOF----
------	-----	------------	--	-------------

No flow for entire month

BASE	NOF	11/30/2001		----NOF----
------	-----	------------	--	-------------

No flow for entire month

BASE	NOF	10/31/2001		----NOF----
------	-----	------------	--	-------------

No flow for entire month

--	--	--	--	--

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l
BASE	NOF	09/30/2001		----	NOF	----						

No flow for entire month

BASE	NOF	08/31/2001		----	NOF	----						
------	-----	------------	--	------	-----	------	--	--	--	--	--	--

No flow for entire month

BASE	NOF	07/31/2001		----	NOF	----						
------	-----	------------	--	------	-----	------	--	--	--	--	--	--

No flow for entire month

BASE	NOF	06/30/2001		----	NOF	----						
------	-----	------------	--	------	-----	------	--	--	--	--	--	--

No flow for entire month

BASE	NOF	05/31/2001		----	NOF	----						
------	-----	------------	--	------	-----	------	--	--	--	--	--	--

BASE	NOF	04/30/2001		----	NOF	----						
------	-----	------------	--	------	-----	------	--	--	--	--	--	--

No flow for entire month

UPDS	CTE	03/20/2001	1325	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	301.	<5.	--NREQ--	462.
------	-----	------------	------	----------	----------	----------	----------	----------	------	-----	----------	------

NOT GIVEN	CTE	02/05/2001	1610	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	345.	<5.	--NREQ--	1520.
-----------	-----	------------	------	----------	----------	----------	----------	----------	------	-----	----------	-------

DIS.METALS FILTERED @ LAB

NOT GIVEN	CTE	01/09/2001	1405	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	22.	<5.	--NREQ--	156.
-----------	-----	------------	------	----------	----------	----------	----------	----------	-----	-----	----------	------

DIS.METALS FILTERED @ LAB

Bicarb mg/l 22. This Parameter is out by 4.91 Standard Deviations(STD). One STD is

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l
NOT GIVEN	CTE	12/19/2000	1410	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	329.	<5.	--NREQ--	1329.

DIS.METALS FILTERED @ LAB

Flow GPM 48. This Parameter is out by 2.01 Standard Deviations(STD). One STD is

NOT GIVEN	CTE	11/08/2000	1143	--NREQ--								
-----------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------	----------

Dis met filt @lab. State Sampling.

NOT GIVEN	CTE	11/06/2000	1105	21.	--NREQ--	--NREQ--	--NREQ--	--NREQ--	285.	<5.	--NREQ--	992.
-----------	-----	------------	------	-----	----------	----------	----------	----------	------	-----	----------	------

Dis met filt @lab.

NOT GIVEN	CTE	10/16/2000	1445	<10.	--NREQ--	--NREQ--	--NREQ--	--NREQ--	244.	<5.	--NREQ--	115.
-----------	-----	------------	------	------	----------	----------	----------	----------	------	-----	----------	------

Dis met filt @lab.

NOT GIVEN	CTE	09/20/2000	1245	--NREQ--								
-----------	-----	------------	------	----------	----------	----------	----------	----------	----------	----------	----------	----------

Dis met filt @lab.

NOT GIVEN	CTE	09/14/2000	0920	33.	--NREQ--	--NREQ--	--NREQ--	--NREQ--	238.	<5.	--NREQ--	213.
Dis met filt @lab.												
NOT GIVEN	CTE	08/07/2000	1050	<10.	--NREQ--	--NREQ--	--NREQ--	--NREQ--	296.	<5.	--NREQ--	196.
Dis met filt @lab. Sunny 80's.												
D-Mg	mg/l	91.	This Parameter is out by 2.04 Standard Deviations(STD). One STD is REASON:As reported									
D-K	mg/l	8.	This Parameter is out by 2.14 Standard Deviations(STD). One STD is REASON:As reported									
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l
NOT GIVEN	CTE	07/20/2000	1135	<10.	--NREQ--	--NREQ--	--NREQ--	--NREQ--	276.	<5.	--NREQ--	206.
Dis met filt @lab. Sunny 80's.												

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
UPDES Permit discharge point	UT0022896-004	UPDES	Mine Q to Cottonwood Ck

SPECIFIC SITE PARAMETERS HAVE NOT BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De
OPER	NOF	04/30/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	03/31/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	02/28/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	01/31/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	12/31/2001		----	NOF	----							
No flow for entire month													
BASE	NOF	11/30/2001		----	NOF	----							
No flow for entire month													

OPER	NOF	10/31/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
--------	----------	------	------	--------------	-------------------	----------	---------------	-----------------	-------------	-----------	------------------	---------	--------

OPER	NOF	09/30/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

BASE	NOF	08/31/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

OPER	NOF	07/31/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

BASE	NOF	06/30/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

OPER	NOF	05/31/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

OPER	NOF	04/30/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

OPER	NOF	03/31/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
--------	----------	------	------	--------------	-------------------	----------	---------------	-----------------	-------------	-----------	------------------	---------	--------

BASE	NOF	02/28/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

OPER	NOF	01/31/2001		----	NOF	----
------	-----	------------	--	------	-----	------

No flow for entire month

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
-----------	-----------	----------------------	------------------

UPDES Permit discharge point	UT0022896-005	UPDES	Waste rock sed pond Q to Grimes W
------------------------------	---------------	-------	-----------------------------------

SPECIFIC SITE PARAMETERS HAVE BEEN SET.

--	--	--	--	--	--	--	--	--	--	--	--	--	--

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
UPDS	NOF	04/30/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	03/31/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	02/28/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	01/31/2002		----	NOF	----							
No flow for entire month													
OPER	NOF	12/31/2001		----	NOF	----							
No flow for entire month													
BASE	NOF	11/30/2001		----	NOF	----							
No flow for entire month													
OPER	NOF	10/31/2001		----	NOF	----							
No flow for entire month													
PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De fee
OPER	NOF	09/30/2001		----	NOF	----							
No flow for entire month													
BASE	NOF	08/31/2001		----	NOF	----							
No flow for entire month													
OPER	NOF	07/31/2001		----	NOF	----							
No flow for entire month													
BASE	NOF	06/30/2001		----	NOF	----							
No flow for entire month													
OPER	NOF	05/31/2001		----	NOF	----							
No flow for entire month													
OPER	NOF	04/30/2001		----	NOF	----							
No flow for entire month													
OPER	NOF	03/31/2001		----	NOF	----							

No flow for entire month

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De
BASE	NOF	02/28/2001		----	NOF	----							

No flow for entire month

OPER	NOF	01/31/2001		----	NOF	----							
------	-----	------------	--	------	-----	------	--	--	--	--	--	--	--

No flow for entire month

SITE TYPE	SITE NAME	SURFACE/GROUND/UPDES	SITE DESCRIPTION
Well	WCWR1	GROUND	Waste rock well

SPECIFIC SITE PARAMETERS HAVE BEEN SET.

PERIOD	LAB CODE	DATE	TIME	Acidity mg/l	F-Air Temp Deg. C	NH3 mg/l	B.O.D. 5 mg/l	Beta gross pc/l	Bicarb mg/l	Carb mg/l	Cat-Ani PC DIFF.	Cl mg/l	De
BASE	CTE	12/12/2001	1145	<5.	--NREQ--	<0.1	--NREQ--	--NREQ--	362.	<5.	4.2	2.	

Depth feet 168.471134 This Parameter is out by 4.21 Standard Deviations(STD). One S REASON: Value is as reported

BASE	CTE	09/20/2001	1300	5.	--NREQ--	<0.1	--NREQ--	--NREQ--	353.	<5.	--NREQ--	2.	
------	-----	------------	------	----	----------	------	----------	----------	------	-----	----------	----	--

DIS.METALS FILTERED @ LAB

BASE	CTE	06/26/2001	1024	<5.	--NREQ--	<0.1	--NREQ--	--NREQ--	289.	<5.	--NREQ--	1.	
------	-----	------------	------	-----	----------	------	----------	----------	------	-----	----------	----	--

BASE	CTE	03/08/2001	1520	7.	--NREQ--	<0.5	--NREQ--	--NREQ--	283.	<5.	--NREQ--	2.	
------	-----	------------	------	----	----------	------	----------	----------	------	-----	----------	----	--

Depth feet 145.013128 This Parameter is out by 3.37 Standard Deviations(STD). One S REASON: As reported

NOT GIVEN	CTE	12/04/2000	1452	--NREQ--	--NREQ--	--NREQ--	--NREQ--	--NREQ--	286.	<5.	--NREQ--	2.	
-----------	-----	------------	------	----------	----------	----------	----------	----------	------	-----	----------	----	--

DIS.METALS FILTERED @ LAB

NOT GIVEN	CTE	09/13/2000	1145	48.	--NREQ--	--NREQ--	--NREQ--	--NREQ--	336.	<5.	--NREQ--	3.	
-----------	-----	------------	------	-----	----------	----------	----------	----------	------	-----	----------	----	--

Dis met filt @lab. Reissued..data entry error..TDS