

0010

OK

**PLATEAU
MINING
CORPORATION**

Willow Creek Mine
847 NW Hwy 191
Helper, Utah 84526
(435) 472-0475
Fax: (435) 472-4780

An affiliate of



April 10, 2002

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

*Inclosure
2/007/006*

Re: Reduce Water Monitoring Requirements, Plateau Mining Corporation, Star Point Mine, C/007/006-AM02A, Carbon County, Utah

Dear Mr. Haddock:

Plateau Mining Corporation (PMC) is submitting 7 clean copies of the permit change to reduce its water monitoring requirements pursuant to the Division's March 22, 2002, Technical Analysis.

As required by the Technical Analysis, PMC has modified its monitoring program to include site 971 until the citizen's complaint, issued on August 19, 1998, is resolved. The continued monitoring of spring 971 along with surface water monitoring sites ST-1 and 10-1 is reflected on Table 731.211a.

PMC is most appreciative of the Division for its timely review of this permit change. If the Division has any questions or needs additional information, please do not hesitate to contact me at (435) 472-4741.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Pappas'.

Johnny Pappas
Sr. Environmental Engineer

Enclosures

File: Star Point Mine - Water Monitoring Amendment
Chron.: JP020401.ltr

RECEIVED

APR 12 2002

DIVISION OF
OIL, GAS AND MINING

APPLICATION FOR PERMIT PROCESSING

| | | | | | | |
|--|-------------------------------------|----------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|---------------------------------|
| <input checked="" type="checkbox"/> Permit Change | <input type="checkbox"/> New Permit | <input type="checkbox"/> Renewal | <input type="checkbox"/> Transfer | <input type="checkbox"/> Exploration | <input type="checkbox"/> Bond Release | Permit Number: C/007/006 |
| Title of Proposal: Reduce Water Monitoring Requirements, C/007/006-AM02A | | | | | | Mine: STAR POINT MINES |
| | | | | | | Permittee: PLATEAU MINING CORP. |

Description, include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

| | | |
|---|--|---|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO # _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 4. Does application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 5. Does application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 6. Does the application require or include public notice/publication? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?) |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 15. Does application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps, or calculations? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided for? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

Attach 7 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein. (R645-301-123)

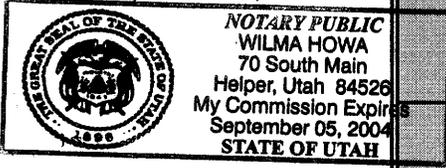
Johnny Rogers - Sr. Env. Engineer - 4/9/02
Signed - Name - Position - Date

Subscribed and sworn to before me this 9th day of April, 2002.

Wilma J. Howa
Notary Public

My Commission Expires: Sept 05, 2004

Attest: STATE OF Utah
COUNTY OF Carbon



Received by Oil, Gas & Mining

RECEIVED

APR 12 2002

DIVISION OF
OIL, GAS AND MINING

ASSIGNED TRACKING NUMBER

TABLE OF CONTENTS - (Continued)
R645-301-700 (HYDROLOGY)

| | Prime Reference |
|---|----------------------------|
| Map 761a, Reclamation Watersheds and Diversions | Page 700- 187 |
| Map 761b, Reclamation Watersheds and Diversions | Page 700- 187 |
| Map 761c, Reclamation Watersheds and Diversions | Page 700- 187 |

LIST OF EXHIBITS

| | |
|---|---------------|
| Exhibit 722.100a, Field and Laboratory Water Quality Data from Representative Springs Obtained During the 1986 Inventory of Springs | Page 700- 14 |
| Exhibit 722.100b, USGS Stream Data | Page 700- 32 |
| Exhibit 724.100a, Water Quality Data Summary | Page 700- 38 |
| Exhibit 724.200a, Field and Laboratory Methods for the Analysis of Water Quality Samples | Page 700- 48 |
| Exhibit 728a, Spring Flow Hydrographs | Page 700- 55 |
| Exhibit 728b, In-mine Well Completion Details, and Approval and Condition for Abandonment of Gentry Ridge Wells | Page 700- 60 |
| Exhibit 728c, Aquifer Evaluations | Page 700- 67 |
| Exhibit 728d, Special Water Quality Analyses | Page 700- 72 |
| Exhibit 728e, Dispersion Calculations | Page 700- 84 |
| Exhibit 728f, Spring and Ground Water Comparisons | Page 700- 89 |
| Exhibit 728g, Hydrologic Reports Pertaining to the Abandonment of Equipment Underground | Page 700- 82 |
| Exhibit 728h, Evaluation of Hydrologic Monitoring at the Star Point Mine | Page 700- 107 |
| Exhibit 731.110a, Hydrologic Response to Land Subsidence Cause by Underground Coal Mining, Miller Creek Drainage, Carbon County, Utah | Page 700- 96 |
| Exhibit 731.122a, Water Rights Mitigation Plan | Page 700- 100 |
| Exhibit 732.300a, Diversion Ditch and Culvert Peak Flow Calculations | Page 700- 122 |
| Exhibit 732.300b, Hydrologic Calculation Update | Page 700- 122 |
| Exhibit 732.300c, Unit Train Hydrology | Page 700- 122 |
| Exhibit 733.210a, Sedimentation Pond Approval, Documentation and Certification ... | Page 700- 123 |
| Exhibit 742a, Pond 5 Hydrologic Calculations | Page 700- 147 |
| Exhibit 742b, Ditch No. 14 Hydraulic Calculations | Page 700- 148 |

TABLE OF CONTENTS - (Continued)
R645-301-700 (HYDROLOGY)

Prime
Reference

| | |
|---|---------------|
| Exhibit 742.221a, Treatment of Underflow from Thickener Tank using Settling Ponds | Page 700- 151 |
| Exhibit 742.221b, Thickener Underflow Design Detail Maps | Page 700- 152 |
| Exhibit 742.221c, Sediment Pond Water Quality Data | Page 700- 153 |
| Exhibit 742.221d, NPDES Permit | Page 700- 142 |
| Exhibit 742.221e, Pond Calculations | Page 700- 153 |
| Exhibit 742.221f, Pond No. 2 Outlet Modification | Page 700- 160 |
| Exhibit 742.221g, Culvert Capacity Calculations | Page 700- 166 |
| Exhibit 742.221h, Pond Inlet and Outlet Design Calculations | Page 700- 166 |
| Exhibit 742.312a, Riprap Calculations | Page 700- 172 |
| Exhibit 761a, Ditch and Channel Design Calculations | Page 700- 187 |
| Exhibit 761b, River Gas Road Culvert and Ditch Designs | Page 700- 188 |

characteristically below dissolved water quality limitations, it is felt that the water quality analysis schedules presented within this permit are adequate to meet the requirements of the regulations.

Complete water quality sets of data collected to date under the current monitoring plan are not submitted with this report because the data as available on computer are voluminous and not practically manageable in a report of this type, however, water quality summaries were presented in response to Section 724.200. Annual summaries of water quality and quantity are provided the Division of Oil, Gas & Mining which document conditions at each sampling station included within the monitoring program. Samples will continue to be analyzed according to the testing methodologies presented in Exhibit 724.200a.

Surface and ground water monitoring will continue for the life of the operation as per the schedule shown on Table 731.211a. Typically this will be on a quarterly basis for in-mine stations and on a monthly basis between May or June and September for all other surface and ground water stations. Monitoring will continue during post-mining operations until the reclamation effort is approved by DOGM. Post-mining samples will be analyzed according to the plan described above unless an abbreviated schedule is approved. Post-mining samples will be analyzed in accordance with regulatory agency guidelines in effect during post-mining monitoring.

Monitoring of all mine related discharges will be conducted in accordance with the currently held National Pollutant Discharge Elimination System (NPDES) permits. Notices of non-compliance with NPDES permits, from either mine water discharge or discharge from sedimentation ponds, will be filed with the appropriate agencies.

Postmining water monitoring will be conducted in accordance with Exhibit 728h. The Star Point Mine ceased mining in February 2000, with the Lion Deck portal sealed in December 2000. Ground water monitoring data accumulated during premining, mining, and postmining has been evaluated and presented in Exhibit 728h. The data show that no sustained impacts to ground water quantity or quality has been detected that can be attributed to underground mining. Those impacts that can be potentially attributed to mining within the permit area have since been mitigated and the hydrologic balance of the ground water system within the permit and adjacent areas has returned to normal.

Based on the evaluation of the data, no future impacts to ground water within the permit area or adjacent areas are anticipated due to mining activities within the permit area. Hence, continued ground water monitoring is considered unnecessary to protect the hydrologic balance in the permit and adjacent areas.

TABLE 731.211a
Ground and Surface Water Monitoring Schedule (for 1997)

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|-------|-----|-----|
| SPIRINGS | | | | | | | | | | | | |
| S11-1 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| S149 | | | | | F1 | F2 | F | F | F.0 | | | |
| S18-2 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 85-26-1 | | | | | F1 | F2 | F | F | F | | | |
| 85-35-1 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| CVS7 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| CVS9 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| CVS10 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 229 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 232 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 238 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 424 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 438 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 444 | | | | | F1 | F2 | F | F | F.0 | | | |
| 452 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 458 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 486 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 492 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 518 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 530 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 751 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 753 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 971 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 978 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| Birch Spring | F.0 | | | | F.0 | | | F.0 | | | F.0 | |
| Bie Bear Spring | F.0 | | | | F.0 | | | F.0 | | | F.0 | |
| STREAMS | | | | | | | | | | | | |
| ST-1 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| ST-2 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| S-1 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| M-8 | | | | | F1.01 | F2.02 | F.0 | F | F.0 | | | |
| 10-1 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 34-1 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 34-2 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 36-1 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 87101CV | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 87102CV | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 87103CV | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 93341CV | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| MINE FLOWS | | | | | | | | | | | | |
| 1WN6 | F.0 | | | | F.0 | | | F.0 | | | F.0 | |
| 9L1Z | F.0 | | | | F.0 | | | F.0 | | | F.0 | |
| Gentry RHee | M.O | M | M | M.O | M | M | M.O | M | M | M.O | M | M |
| WELLS | | | | | | | | | | | | |
| P86-01-TD* | W | | | W | | | W | | | W | | |
| P86-02-HD* | W | | | W | | | W | | | W | | |
| P86-03-WD* | W | | | W | | | W | | | W | | |
| 86-26-6 | | | | | W1 | W2 | W | W | W | | | |
| 86-35-2-3 | | | | | F1.01 | F2.02 | F | F | F.0 | | | |
| 92-10-1 | | | | | W1 | W2 | W | W | W | | | |
| P92-01C-WD* | F.O.W | | | F.O.W | | | F.O.W | | | F.O.W | | |
| P92-02-WD* | F.O.W | | | F.O.W | | | F.O.W | | | F.O.W | | |
| P92-04-WD* | W | | | W | | | W | | | W | | |
| P93-01-WD* | W | | | W | | | W | | | W | | |

KEY
 F = FIELD MEASUREMENTS AS PER WATER QUALITY ANALYTICAL SCHEDULE TABLES
 F.O = BASELINE QUALITY SAMPLING PER ANALYTICAL SCHEDULE TABLES
 W = OPERATIONAL QUALITY SAMPLING PER ANALYTICAL SCHEDULE TABLES
 M.O = IN-MINE STATION TO BE ABANDONED UPON RETREAT OF MINING

INCORPORATED
EFFECTIVE

WATER LEVEL
 IN WEATHER PERMITS
 IF NOT DONE IN PREVIOUS MONTH
 FLOW METER READING
 97C

TABLE 731.211a (Continued)
Ground and Surface Water Monitoring Schedule (2002 through Phase II Bond Release)

| Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------------|-----|-----|-----|-----|-------|-------|-----|-----|-----|-----|-----|-----|
| S11-1 | | | | | | | | | | | | |
| S14-9 | | | | | | | | | | | | |
| S18-2 | | | | | | | | | | | | |
| 85-26-1 | | | | | | | | | | | | |
| 85-35-1 | | | | | | | | | | | | |
| CVS7 | | | | | | | | | | | | |
| CVS9 | | | | | | | | | | | | |
| CVS10 | | | | | | | | | | | | |
| 229 | | | | | | | | | | | | |
| 232 | | | | | | | | | | | | |
| 238 | | | | | | | | | | | | |
| 424 | | | | | | | | | | | | |
| 438 | | | | | | | | | | | | |
| 444 | | | | | | | | | | | | |
| 452 | | | | | | | | | | | | |
| 458 | | | | | | | | | | | | |
| 486 | | | | | | | | | | | | |
| 492 | | | | | | | | | | | | |
| 518 | | | | | | | | | | | | |
| 530 | | | | | | | | | | | | |
| 751 | | | | | | | | | | | | |
| 753 | | | | | | | | | | | | |
| 971* | | | | | F1,O1 | F2,O2 | F,O | F | F,O | | | |
| 978 | | | | | | | | | | | | |
| Birch Spring | | | | | | | | | | | | |
| Big Bear Spring | | | | | | | | | | | | |
| ST-1 | | | FO | | FO | | | FO | | FO | | |
| ST-2 | | | | | | | | | | | | |
| 5-1 | | | | | | | | | | | | |
| M-8 | | | | | | | | | | | | |
| 10-1 | | | FO | | FO | | | FO | | FO | | |
| 34-1 | | | | | | | | | | | | |
| 34-2 | | | | | | | | | | | | |
| 36-1 | | | | | | | | | | | | |
| 87101CV | | | | | | | | | | | | |
| 87102CV | | | | | | | | | | | | |
| 87103CV | | | | | | | | | | | | |
| 93341CV | | | | | | | | | | | | |
| 86-26-6 | | | | | | | | | | | | |
| 86-35-2-3 | | | | | | | | | | | | |
| 92-10-1 | | | | | | | | | | | | |

KEY
F = FIELD MEASUREMENTS AS PER WATER QUALITY ANALYTICAL SCHEDULE TABLES
O = OPERATIONAL QUALITY SAMPLING PER ANALYTICAL SCHEDULE TABLES
1 = IF WEATHER PERMITS
2 = IF NOT DONE IN PREVIOUS MONTH
 * MONITORING WILL CONTINUE UNTIL RESOLUTION OF 1998 CITIZEN COMPLAINT

TABLE 731.211b
Water Quality Analytical Schedule

| Field Parameters | Surface Water | | Ground Water | |
|--------------------------------|-----------------|--------------------|-----------------|--------------------|
| | Baseline List A | Operational List B | Baseline List C | Operational List D |
| FIELD MEASUREMENTS | | | | |
| Water Level or Flow | | | | |
| pH | | | | |
| Specific Conductivity | | | | |
| Water Temperature, °C | | | | |
| LABORATORY MEASUREMENTS | | | | |
| Anion - Cation Balance | | | | |
| Bicarbonate | | | | |
| Calcium, Diss | | | | |
| Carbonate | | | | |
| Chloride, Diss | | | | |
| Iron, Dissolved | | | | |
| Iron, Total | | | | |
| Lead, Total ⁺⁺ | | | | |
| Magnesium, Diss | | | | |
| Manganese, Total | | | | |
| Nitrate, Diss ⁺ | | | | |
| Nitrite, Diss ⁺ | | | | |
| Oil & Grease | | | | |
| Potassium, Diss | | | | |
| Sodium, Diss | | | | |
| Sulfate, Diss | | | | |
| Sulfide, Diss ⁺⁺ | | | | |
| Total Dissolved Solids | | | | |
| Total Suspended Solids | | | | |
| Total Hardness | | | | |

+ Stations 51MW and ST-1 only.
 ++ One year.

INCORPORATED
 EFFECTIVE:
 DEC 05 1997 97C
 Revised: 2/3/98
 UTAH DIVISION OIL, GAS AND MINING

As required, water monitoring data collected from water monitoring stations will be submitted to DOGM. Such reports will normally be submitted within 90 days of the end of each quarter, depending on the speed of the laboratory analyses. An annual summary of data will continue to be submitted at the end of each calendar year according to the DOGM schedule.

As part of the post mining water quality monitoring program, four surface water stations have been proposed for installation at the Cyprus Plateau Mine. The stations as proposed are located below existing Sediment Pond No. 4 at a point which is downgradient from final channel reclamation for reclaimed channel 25C, and below Sediment Ponds No. 6, No. 7, and No. 8. The locations of these stations are shown on Map 761b. These locations appear to be ideal for monitoring post mining water quality from upgradient mining areas due to their location and ease of access.

731.212. SAMPLING AND REPORTING DATA.

Ground water will be monitored as discussed within Section 731 of this permit application and the information obtained will be submitted to the regulatory agency quarterly. Should monitoring indicate noncompliance, CPMC will promptly notify the Division and take appropriate action as provided for in Sections 145 and 731. Ground water monitoring locations do not exist within the soil borrow area (see Exhibit 233).

731.213. NON ESSENTIAL AQUIFERS.

Information presented within Section 722 generally indicates that water issuing from high seeps and springs, and from within the mine originates from local perched aquifers of limited extent and storage. Waters encountered within the mine dry up soon after being encountered indicating that the source and storage are of limited extent. Waters issuing from these perched aquifers are being monitored as part of the water quality monitoring plan presented within this permit submittal.

731.214 thru 731.214.2. MONITORING DURATION AND COMPLIANCE.

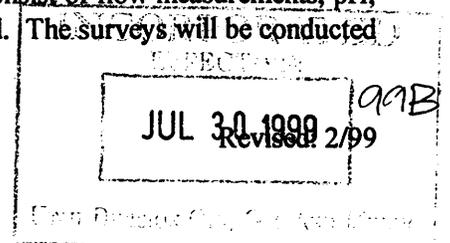
As required, ground water monitoring will continue through the period of reclamation until bond release. All attempts will be made through the accepted monitoring program to minimize disturbance to the prevailing hydrologic balance in the permit area and to prevent material damage to the hydrologic balance outside the permit area, and to assure that water rights are protected. Monitoring will cease once the purposes of the monitoring plan has been achieved.

731.215. GROUND WATER MONITORING EQUIPMENT AND STRUCTURES.

Equipment, structures and other devices utilized in conjunction with the ground water monitoring program will be properly installed, maintained and operated; and will be removed when no longer needed.

731.220. SURFACE-WATER MONITORING.

A stream survey of the NFRF of Miller Creek will be conducted in July and September of each year mining is conducted in Section 18 with a potential for subsidence. This survey will consist of flow measurements, pH, conductivity and water temperature at the stations shown on Map 722.100d. The surveys will be conducted until mining ceases in Section 18 or until subsidence stabilizes.



731.221. SURFACE-WATER MONITORING PLAN.

During year five of the mining permit (the year preceding permit renewal) the monitoring program will be expanded by sampling according to a baseline water quality analytical schedule during the low flow period of the year. For surface water sites and in-mine monitoring sites, this schedule will consist of the collection and analysis of water quality data throughout the year according to Table 731.211a and Table 731.211b. It should be noted that historic water quality data are generally in the "total" form and that dissolved concentrations have not been measured. As a general rule, grab sample total concentrations have been well below current dissolved quality limitations. Since total concentrations have been characteristically below the dissolved water quality limitations, it is felt that the water quality analysis schedules presented above (to be analyzed primarily for total concentrations only) are adequate to meet the requirements of the regulations.

As with ground water stations, each surface water station has been identified and proposed for inclusion within the water monitoring program based upon special considerations dealing with the identification of mining impacts. Some of the purposes for each surface water monitoring station are identified in Table 731.221a, Purpose of Surface Water Monitoring Stations.

Water quality and quantity parameters to be monitored within the permit area are identified within the section of this permit describing the surface and ground water monitoring programs. Impacts to the hydrologic balance will be determined by identifying trends shown in the data collected. Data obtained from the monitoring stations is submitted annually to the Division in the form of an Annual Hydrologic Report. The annual report includes plotted information such as flow rates over time, dissolved solids, total iron, conductivity, and water levels for representative stations and for separate geologic formations. Data collected will be reviewed by the applicant annually prior to the submission of the annual report, and a summary of conditions and changes to the hydrologic balance will be provided within the report based upon data collected.

Parameters monitored include as a minimum TDS, Conductivity, TSS, pH, Total Iron, Total Manganese, and flow. A complete list of parameters included within the monitoring program is provided in Table 731.211b.

Discharges from the mine plan area are confined to discharges from one treatment facility (Treatment Facility No. 1) and eight sedimentation ponds located in Sage Brush Canyon (an ephemeral watershed) and one mine discharge located in Mud Water Canyon. The locations of Treatment Facility No. 1 and the eight sedimentation pond discharges are shown on Maps 731.720a through 731.720f. The mine water discharge point located in Mud Water Canyon is illustrated on Map 722.200a. All these discharge locations are monitored according to NPDES discharge permit No. UT-0023736 dated January 22, 1988.

Surface water monitoring locations do not exist within the soil borrow area (see Exhibit 233).

Postmining water monitoring will be conducted in accordance with Exhibit 728h. The Star Point Mine ceased mining in February 2000, with the Lion Deck portal sealed in December 2000. Surface water monitoring data accumulated during premining, mining, and postmining has been evaluated and presented in Exhibit 728h. The data show that, with the minor exception to M-8 and ST-1 in the North Fork of the Right Fork of Miller Creek (NFRF), no sustained impacts to surface water quantity or quality has been detected that can be attributed to underground mining. Although the streamflow in the NFRF decreased during mining, the streamflow has returned to normal following the completion of mining.

Although the quality of water in the NFRF changed as a result to mining from a calcium magnesium bicarbonate to a magnesium sulfate and the total dissolved solids concentration increased, the quality of this water remains suitable for its stated post mining land uses and is in accordance with the existing water rights for stock watering.