m/027/007

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October 14, 1999

VIA FEDERAL EXPRESS

RECEIVED
OCT 27
DIV. OF OIL, GAS & MINING

Mr. Tom Mitchell
Assistant Attorney General
160 East 300 South
5th Floor
Salt Lake City, UT 84114

0013-0022

Re: Drum Mine site agreements

Dear Tom:

At your request, I am forwarding hard copies of the First Amended Settlement Agreement and the revised Reclamation Plan, for review and signature by the Agencies. Please let me know if I should also be forwarding copies to additional people, such as Bruce Hill, or if you will be handling distribution to the BLM and its counsel.

This version of the Reclamation Plan does not contain those of the various Appendices that were included in prior versions and have not changed. It does include the new Appendix G, although I will have to forward by separate cover the map which is supposed to be attached as Figure G-1. Whenever I attempt to view this figure on my computer, it causes Word to crash. Consequently, Jim Ashton is forwarding copies to me by mail.

Please call if you have any questions.

Very truly yours,

Craig R. Carver

Enclosures

cc (w/o encl.): Mr. John F. Carmody
Mr. E. M. Gerrick

U:\Clients\WSMC -\DrumDOGMLit-13-22-4016\Correspondence\Mitchell 10-14-99.doc

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OCT 27 1999
DIV. OF OIL, GAS & MINING

FIRST AMENDED

SETTLEMENT AND RECLAMATION AGREEMENT

BETWEEN AND AMONG

WESTERN STATES MINERALS CORPORATION

AND

THE UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT

and STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF OIL, GAS AND MINING and DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY

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This First Amended Settlement and Reclamation Agreement (the "First Amended Agreement") is entered into between and among WESTERN STATES MINERALS CORPORATION ("Western") on the one hand and the UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT ("BLM"), and THE STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF OIL, GAS AND MINING ("DOGM") and DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY ("DWQ") (BLM, DOGM AND DWQ are each individually referred to as an "Agency," and are collectively referred to herein as the "Agencies") on the other.

RECITALS

The Utah State Director of the BLM issued a Decision dated October 20, 1997, affirming a decision dated July 14, 1997, issued by the BLM Area Manager, and ordering, *inter alia*, that Western submit a plan of operations to reclaim specified portions of the Drum mine site in Millard County, Utah.

DOGM commenced formal adjudicatory proceedings (Docket No. 97-009, Cause No. M/027/007) to obtain, *inter alia,* reclamation by Western of the specified portions of the site.

DWQ reviewed and commented upon proposed reclamation plans for the Drum mine site in order to reduce the possibility that there could be any significant long-term discharge of contaminants to the subsurface from the specified portions of the site.

Western complied with the decision of the BLM State Director by submitting a plan of operations and entering into a Settlement Agreement dated April 13, 1998 to reclaim specified portions of the Drum site in the manner required by the BLM's governing laws and regulations. To that end, Western committed to perform the obligations specified in such Agreement, and it commenced performance of those obligations by submitting a sampling plan to the Agencies and performing the sampling called for in such plan. The results of the sampling have now been used to develop a suitable plan of operations pursuant to which Western will reclaim the site, in the manner set forth herein.

All parties entered into the original Settlement Agreement to avoid the expenses, delays and other inefficiencies involved in adjudicating past, present and future disputes over Western's reclamation responsibilities at the Drum mine site. To accomplish that goal, the parties agreed to settle and resolve all such disputes, and to terminate and resolve all pending formal adjudicatory proceedings before the Agencies by entering into that Agreement.

Since executing the original Settlement Agreement, the parties have obtained and analyzed the results of Western's sampling program, they have utilized such results to revise and refine the Reclamation Plan for the site, they have obtained and evaluated

cost estimates for implementing the construction phase of the reclamation plan, and they have negotiated a revised division of responsibilities among themselves designed to make reclamation of the site more cost effective, efficient and beneficial for the environment.

The results of such negotiations are documented in this First Amended Agreement, the terms of which supersede and replace those of the original Settlement Agreement.

Western's performance of the obligations imposed upon it in this First Amended Agreement shall constitute full, complete and final compliance by Western of all obligations with respect to the Drum mine site that have been or may be imposed upon it by any of the Agencies.

NOW, THEREFORE, for and in consideration of the mutual covenants set forth herein, the parties agree as follows:

1 Coordination of Agency Determinations To Be Made Under the Agreement.

1.1 Lead Agency.

As specified in the State Director's October 20, 1997, decision, since the Drum mine site occurs on federal land administered by BLM, BLM is and will remain the lead agent for all operations conducted on the site. Pursuant to the terms of the Memorandum of Understanding between DOGM and BLM concerning regulation of minerals mining and reclamation, BLM accepts lead responsibility for management of all operations and other obligations to be performed under this agreement. That responsibility shall be carried out in the manner set forth herein.

1.2 Notices.

Western shall submit copies of all plans and notices required under this agreement to each of the agencies at the addresses, or (where and when appropriate) by fax or e-mail as specified below.

BLM (State Office):
Mr. G. William Lamb
State Director
Utah State Office (UT-930)
Bureau of Land Management
P. O. Box 45155
Salt Lake City, UT 84145-0155
Phone: (801) 539-4010
Fax: (801) 539-4013 With cc to:

BLM (Area Office)

Mr. Rex Rowley, Area Manager
Bureau of Land Management
Fillmore Office
35 East 500 North
Fillmore, Utah 84631
Phone: (435) 743-3104
Fax: (435) 743-3135

Bruce Hill, Esq.
Office of the Solicitor
6201 Federal Bldg.
125 S. State Street
Salt Lake City, UT 84138-1180
Phone: (801) 524-5677 (ext. 228)
Fax: (801) 524-4506

DOGM:
Mr. D. Wayne Hedberg
Permit Supervisor
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Phone: (801) 538-5286
Fax: (801) 359-3940

With cc of notices and cover letters to:
Mr. Tom Mitchell
Office of the Attorney General
Natural Resources Division
160 East 300 South
Fifth floor
Salt Lake City, Utah 84114
Phone: (801) 366-0216
Fax: (801) 538-7440

DWQ:
Mr. Don Ostler, Director
Department of Environmental Quality
Division of Water Quality
288 North 1460 West
Salt Lake City, Utah 84116
Phone: (801) 538-6170
Fax: (801) 538-6715

Notices shall be provided to Western at the following address or fax:

WESTERN STATES MINERALS CORPORATION
Attn: John F. Carmody
4975 Van Gordon Street
Wheat Ridge, CO 80033
Phone: (303) 425-7042 ext. 23
Fax: (303) 425-6634

With cc to:
Craig R. Carver
Alfers & Carver, LLC
730 17th Street, Suite 340
Denver, CO 80202
Phone: (303) 592-7674
Fax: (303) 592-7680
e-mail: ccarver@alfers-carver.com

1.3 Administration of the Agreement.

All responses to be provided by the Agencies to Western under this agreement will be coordinated through BLM. Upon receipt of and prior to approval of any proposals submitted by Western hereunder, or any revisions thereof, the BLM will consult with and give due consideration to timely comments from DOGM and DWQ. If DOGM or DWQ cannot provide comments within 30 days of receipt of the proposal, BLM will proceed independently in processing it. Should there be any disagreement between any of the Agencies, BLM will take the lead in conducting whatever meetings or negotiations are necessary to resolve the problems, including raising the problem to the directors of the agencies for resolution, if necessary.

The Agencies shall inspect jointly or independently for compliance with all obligations of Western hereunder, and shall promptly notify the other agencies of operations not complying with such obligations.

2 Tasks To Be Undertaken By Western; Termination of This Agreement; Release of Western.

The parties have agreed upon a revised Reclamation Plan, a copy of which is attached as Exhibit A. Western shall perform all obligations specified in such Plan through completion of the Reclamation section thereof.

Western shall notify the Agencies upon completion of its obligations hereunder. BLM shall promptly inspect the reclaimed area with Western and will then notify Western within sixty days of receipt of such notice, after consulting with DOGM and DWQ, if it concurs that Western

has successfully completed all such requirements, or, if it does not, then what requirements remain to be met. At such time as BLM and DOGM have concurred in writing that Western has successfully completed all its requirements hereunder, then DOGM shall release Western's remaining bond in conformance with Section 3.2 below, and, except for DOGM's remaining payment obligations, on the date of bond release this Agreement shall terminate. Termination of this Agreement shall constitute the Agencies' full release of Western from any and all future obligations and responsibilities with respect to the Drum Mine site.

Following termination, any and all obligations to monitor or further reclaim the site shall become the responsibility of the Agencies.

2.1 Implementation.

Western shall implement the provisions of the approved Reclamation Plan as soon as practicable after execution of this First Amended Agreement by all parties.

2.2 Partial payment of Western's expenses.

As partial payment of Western's expenses allocable to those portions of the site that were the responsibility of the Agencies under the original Settlement Agreement of April 13, 1998, DOGM shall pay to Western all of the funds realized from calling the JUMBO performance bond posted with respect to the site (in the amount of $ 143,000), plus all accrued interest earned with respect to such funds. In addition, DOGM shall pay $20,000 for closure of underground mine openings located in the North Pit and $19,000 gained from calling the JUMBO performance bond posted with respect to the Alto Pit, Ibex Decline, Keystone & Monarch Test Pits, plus all accrued interest earned with respect to such funds for closure of the Alto Pit (as described in the revised Reclamation Plan), equaling a total Agency contribution of $189,128, plus any accrued interest on JUMBO bond funds earned through date of final payment, as their combined contribution to the construction phase of the reclamation project. One-half of these amounts shall be paid at the commencement of construction activities, and the balance shall be paid within 45 days of submission by Western of notice of its completion of the construction phase of the project.

3 Bonding.

3.1 Adequacy of Existing Bond.

The parties desire to increase the efficiency of the reclamation process. The parties also recognize that all activities to be conducted by Western on the Drum site are to take place on or in the immediate vicinity of previously disturbed lands. Western's activities will serve to reduce the potential impacts of the existing disturbances on the environment and the costs required to be spent in the future to reclaim the site. Accordingly, for so long as Western remains in compliance with its obligations under this First Amended Agreement, the Agencies agree to accept Western's existing bond as adequate for purposes of securing Western's performance of its reclamation obligations hereunder. Should any of the Agencies determine that Western is not performing in conformance with its obligations under this Agreement, then at the conclusion of the dispute resolution and appeal procedures specified in Article 7 below the Agencies may

separately establish any bonding obligations authorized under their governing law and regulations.

3.2 Release of Bond.

Within 45 days of the responsible Agencies' approval of Western's completion of its reclamation obligations hereunder, then DOGM shall release all bond funds provided to it by Western to secure reclamation of the Drum Mine Site.

4 Status of Pending Administrative Proceedings.

Submission of its proposed Sampling Plan and execution of the Original Settlement Agreement by all parties constituted timely compliance by Western of all requirements specified in the State Director's October 20, 1997, decision and the Area Manager's decision affirmed by such decision, and brought Western and its operations into compliance with Federal regulations.

Execution of the Original Settlement Agreement and this First Amended Agreement by all parties resolves and settles all issues between Western, DOGM and the Board of Oil, Gas and Mining, in the formal proceeding instituted before the Board entitled "In the matter of the petition filed by the Division of Oil, Gas and Mining For an Order requiring Immediate Reclamation of the Drum Mine From Western States Minerals Corporation and Jumbo Mining Company, Millard County, Utah," Docket No. 7-009, Cause No. M/027/007; provided, however, that such settlement does not release Western from any obligations assumed by it under this First Amended Agreement and all exhibits hereto.

Nothing contained in this Agreement shall release Jumbo Mining Company from any proceedings, liabilities or obligations pending or asserted or to be asserted by any of the parties to this Agreement.

5 Relationship Between Western, BLM and the Claimant/Operator of the Remaining Portions of the Drum Mine Site.

The activities undertaken by Western at the Drum Mine site are being conducted on public lands of the U.S., managed by the BLM and regulated by the Agencies. Pursuant to laws and regulations governing such lands, the BLM and DOGM have issued orders requiring that Western undertake the reclamation activities described in this Agreement. All operations conducted by Western in conformance with such plan and any other BLM or DOGM directives are undertaken under the authority of BLM and DOGM. The Drum Mine site is covered by lapsed unpatented mining claims and the portions of the site not covered by Western Reclamation Areas were formerly operated by Jumbo Mining Company. Jumbo has filed for liquidation under Chapter 7 of the United States Bankruptcy Code. Consequently, the parties to this Agreement do not anticipate that any entity will operate or seek to operate the mine site during the construction phase of the Reclamation Plan. However, should Jumbo or any successor-in-interest operate or propose to operate the site or any portion thereof, then BLM and DOGM shall exercise their authority and discretion under all applicable laws and regulations to either: (1) transfer all or any portion agreed to by Western of Western's obligations hereunder to

the operator under such terms and conditions as are acceptable to BLM and DOGM; or (2) regulate operator's activities in such a manner as to prevent it from interfering with the performance of Western's obligations hereunder. In the event of a transfer of all or any portion of Western's obligations hereunder to the operator, then such transfer shall, as to the lands and obligations affected, constitute a full, complete and irrevocable release of Western from any further obligations with respect to such lands and requirements.

6 DWQ.

Western and DWQ separately agree that:

6.1 Limitation on Scope of Release.

Nothing in this Agreement, to include the Recitals and Article 2, shall constitute or be construed as a release from any claim, to include a natural resource damage claim, which the State of Utah in its trust responsibilities may have against Western arising out of or relating to the release of pollutants to waters of the State by Western.

6.2 Ongoing Reclamation Activities by Western.

Nothing in the Agreement, to include Exhibit A, shall constitute or be construed to preclude DWQ from taking action to enforce compliance by Western with State permits or State laws with respect to ground water and surface water as it undertakes its reclamation activities hereunder.

6.3 Nondelegation of Authority.

Western acknowledges that DWQ has not by the language and provisions of the Agreement, to include Articles 1 and 2, delegated or granted to BLM or DOGM any authority under State water quality laws over which it has jurisdiction.

6.4 Responsibilities of Agencies.

Western acknowledges that even though the language in Articles 3 and 5 of the Agreement refers to "Agencies" and the "State," the determinations and responsibilities under those Articles are that of the Department of Natural Resources, Division of Oil Gas and Mining, and not the Department of Environmental Quality, Division of Water Quality.

7 Dispute Resolution and Appeal Procedures.

7.1 Notice of Breach.

In the event that any of the Agencies concludes that Western is not complying with its obligations hereunder, that Agency shall provide written notice to Western containing the full details of all breaches asserted to have occurred. Western shall have 30 days after receipt of such notice to either cure the asserted breaches, or dispute the assertions. Should Western dispute any of the breaches specified in the Agency notice, it shall provide a responsive notice to the Agency within 30 days of Western's receipt of the Agency's notice, setting forth the bases for its disagreement.

7.2 Mediation of Disputes.

Upon receipt of a responsive notice from Western, the Agency may work informally with Western toward resolution of the dispute. Whether or not the Agency chooses to work with Western toward resolution, Western may, at any time after receipt of a responsive notice, invoke the mediation provisions of this Agreement by providing notice thereof to the Agency. Mediation shall be accomplished in the manner set forth in this Section 7.2.

7.2.1 Appointment of Mediator.

Within 3 days after receipt of Western's notice invoking mediation Western and the Agency shall meet and seek to reach agreement on the appointment of a mediator. In the event of failure to reach such agreement, each party shall present simultaneously to the other a list of five names of proposed mediators, ranked in order of preference (1 highest and 5 lowest). Each proposed mediator shall be a third party professional engineer registered in the State of Utah, with expertise in the issues raised by the dispute. The mediator selected shall be the individual who appears on the lists of both parties, with the highest total ranking. In the event that no engineer appears on both lists, then the process shall be repeated until a mediator is selected.

7.2.2 Mediation Procedures.

Within 30 days of selection of a mediator, the parties shall submit and exchange a written statement of their respective positions, along with all data and documentation deemed appropriate. Within 10 days of the written submission, the parties shall meet with the mediator and follow such procedures as are specified by the mediator in an effort to resolve the dispute. If, at the end of the mediation the parties are unable to reach agreement, then within 10 days thereafter the mediator shall submit to each party a written statement containing his or her recommended resolution of the dispute, and the bases therefore.

7.2.3 Costs of Mediation.

All fees and costs of the mediator shall be paid by Western.

7.2.4 Procedures in the event that mediation does not resolve the dispute.

If the parties to a dispute are not able to resolve their disagreement through mediation, then the Agency shall be entitled to issue such decisions and institute such procedures as are permitted by its governing rules and regulations to enforce the obligations of Western under this Agreement and under the Agency's laws, rules and regulations. In any such procedures, the mediator's recommended resolution shall be admissible evidence and both it and the testimony of the mediator may be submitted by either party.

WESTERN STATES MINERALS CORPORATION

By _____

Name _____

Title _____

UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT

By _____

Name _____

Title _____

THE STATE OF UTAH, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF OIL, GAS AND MINING

By _____

Name _____

Title _____

DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY

By _____

Name _____

Title _____

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RECLAMATION & CLOSURE PLAN

FOR THE

DRUM MINE

MILLARD COUNTY, UTAH

December 1998
Updated
October 14, 1999

Prepared for
Western States Minerals Corporation

Prepared by
E.M. (Buzz) Gerick - VP Operations
James Ashton, PE – Senior Project Engineer

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APPENDIX G – Alto Pit and Haul Road Reclamation

RECLAMATION PLAN

INTRODUCTION

Western States Minerals Corporation (WSMC) considers reclamation and closure to be an integral and important component of the mining sequence. The reclamation and closure plan for the Drum Mine has been prepared to comply with the requirements of the Bureau of Land Management (BLM), the Utah Department of Natural Resources, Division of Oil, Gas and Mining (DOGM) and the Division of Water Quality (DWQ). The goals of the reclamation and closure plan are:

- Ensure public safety, reduce or eliminate adverse impacts, and to minimize unsightly visual impacts
- Minimize off-site impacts by controlling deleterious infiltration, erosion, sedimentation and related degradation of existing drainages.
- Return the disturbed areas to a stabilized condition similar to that which existed prior to mining activities.
- Re-establish a stable environment that will support a diverse self-sustaining vegetation and wildlife habitat, consistent with accepted land use objectives.
- Achieve a visual compatibility with the surrounding landscape.

The Drum Mine was a conventional gold heap leach operation, operated by WSMC from 1984 to October 1988 when it was sold to Jumbo Mining Company (E.B. King, President). Mine disturbances consisted of pits, heaps, dumps, ponds, plant site, access roads and drill holes and pads. The land package consisted entirely of unpatented mining claims on BLM ground. The major permits were a Notice of Intent filed with DOGM, and a Plan of Operations filed with the BLM. JUMBO was to have assumed all reclamation liabilities but a contractual dispute litigated for nine years resulted in split reclamation responsibilities. Pursuant to a "Settlement and Reclamation Agreement" dated April 13, 1998 between WSMC and the three agencies (the "Settlement Agreement"), WSMC agreed to perform reclamation on part of the site. After results of the sampling program were obtained and analyzed, the Agencies and WSMC reached agreement on the requirements of this final Reclamation and Closure Plan. In addition, to obtain efficiencies of operation and to assist the Agencies in the face of funding deficiencies, the split reclamation obligations have been re-allocated by agreement so that WSMC will perform the reclamation tasks allocated to it as set forth herein for the entire site. Finally, at the request of the Agencies and in consideration of additional funds paid to Western, Western has agreed to perform certain contractual services on behalf of the BLM and DOGM at an additional area known as the Alto Pit in the manner described in

Appendix G. This Reclamation and Closure Plan is submitted as an attachment to the First Amended Settlement Agreement.

TABLE #1

Drum Mine Reclamation/Closure
Original Responsibility and Reclaimed Area
(as per 4/13/98 Settlement Agreement)

Reclamation Responsibility	Area Description	Area Size (Acres)
WSMC	LG1	3.5
WSMC	LG2	17.9
WSMC	LG3	12.7
WSMC	HG6	5.0
WSMC	HG7	9.4
WSMC	W1	20.1
WSMC	W2	14.9
WSMC	W3	5.9
WSMC	W7	13.4
WSMC TOTAL	**---**	**102.8**
DOGM/JUMBO	HG1	11.5
DOGM/JUMBO	HG2	8.8
DOGM/JUMBO	HG3	8.1
DOGM/JUMBO	HG4&5	17.8
DOGM/JUMBO	W4	3.5
DOGM/JUMBO	SW EX PIT	19.5
DOGM/JUMBO	NR PIT	18.2
DOGM/JUMBO	POND/FACILITY	17.9
DOGM/JUMBO	OTHER	1.5
DOGM/JUMBO	**TOTAL**	**106.8**
WSMC & DOGM	SOIL BORROW	43.9
	SITE TOTAL	**253.5**

LOCATION

The Drum Mine is located in Millard County, approximately 35 miles northwest of Delta, Utah. The mine facilities are in sections 7 and 8 of T15S/R10W. Situated in the Drum Hills, the site is semi-arid with mean annual rainfall of 7.79 inches. There are no perennial streams on the property, and runoff is limited to periods of snowmelt and major storms. The elevation of the mine is from 5,800 to 6,300 feet with mean temperature of 50.1 degrees Fahrenheit. Please refer to Figure #1, Drum Mine Location Map.

POST MINING LAND USE

This reclamation and closure plan is designed to achieve post-mining land use consistent with those that existed prior to mining. These land uses include wildlife habitat, domestic grazing, diverse recreation, and mineral exploration and development. These objectives will be achieved by ensuring that affected areas are reclaimed to geotechnically and erosionally stable configurations capable of supporting a diverse, self-perpetuating plant community similar in appearance and function to nearby undisturbed areas.

RECLAMATION SCHEDULE

The proposed reclamation schedule is presented in Figure #2. Pursuant to the request of the parties involved, the schedule shown is one in which the entire mine is reclaimed. Though it would be possible for WSMC and JUMBO/DOGM to individually reclaim their respective areas of responsibility, the most efficient process in terms of time, money and materials is to complete the reclamation at one time. Therefore, a consolidated reclamation approach is the premise for this report. All financial estimations, equipment requirements, time requirements and supplies are based on completing reclamation for the whole site at one time. It is anticipated that reclamation activities would commence after this plan is approved, and when weather conditions allow for efficient equipment operation. Therefore, Figure #2 assumes a commencement of activities beginning the third or fourth quarter of 1999, and completion during year 2000 .

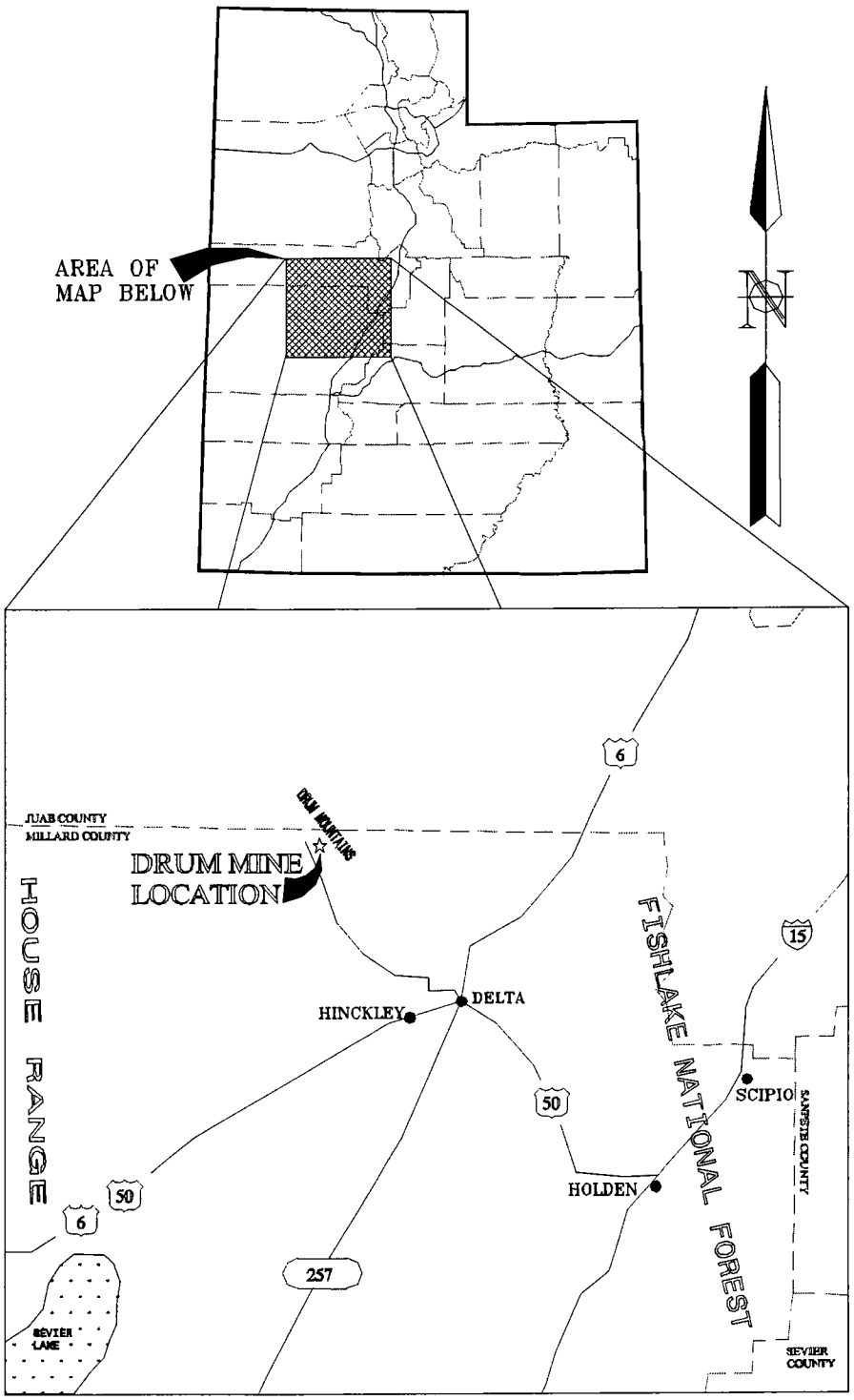

FIGURE #1
DRUM MINE LOCATION MAP

FIGURE #2
PROJECTED RECLAMATION SCHEDULE AND SEQUENCE

Task	Year of Drum Mine Reclamation			
	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Recontouring, Ripping				
Removal of Facilities, Demolition				
Growth Medium Application				
Drainage Construct				
Pit Perimeter Berm				
Fill Process Pond				
Grade Borrow Area				
Bio-solids & Seed				
Reclamation Monitoring *				

Note: * = Monitoring continues for a period of two years after reclamation has been completed.
Dashed lines indicate flexibility within the schedule.

The starting time is dependent on approval of the First Amended Settlement Agreement and this Reclamation and Closure Plan, and thus no specific starting date has been cited. The time required for each task is based on estimates to complete earthwork and related activities by a third party contractor. For the purposes of this document, reclamation is initiated in the beginning of October, but may be initiated earlier or later depending on approval and weather conditions, with completion estimated sometime around the middle of April. Total time to reclaim the lands is estimated at 5.5 months.

RECLAMATION APPROACH

Disturbed areas within the project boundary, except the SW EX Pit and NR Pit, will be reclaimed by regrading, applying growth media, fertilization (possibly using manure or other bio-solids), and seeding. Soil samples of the growth medium were collected and analyzed ensuring that the correct soil amendments will be used. Prior to recontouring any slopes with a grade greater than two or three horizontal feet to one vertical foot, all accessible soil will be removed from the toe of the slope, and either applied directly on a recontoured area or stockpiled for future use. Surface drainage will be reestablished throughout the property to minimize excessive overland flow and the resultant erosion of reclaimed areas. In general, all reclamation activities will be performed in accordance with the requirements of the BLM's Surface Management Regulations (e.g. as found in 43 CFR 3809) and DOGM's Mineral Regulatory Program (e.g. as found in the State of Utah Rule R647). Pursuant to Utah regulation R647-4-112, a request for variance from the open pit reclamation requirement of R647-4-111.7 will be made.

The waste dumps will be regraded to provide gentle transitions and remove sharp slope changes, thus blending into the surrounding topography. Following regrading, a layer of growth medium (soil) will be added and spread evenly across the regraded surface. Final waste dump slope angles are designed to be 2-3H:1V or flatter as established by field decisions made by designated representatives of Western and the Agencies. Some type of bio-solid (manure) will be added to the growth media prior to "dimpling" (roughening the surface by creating small depressions in order to enhance water collection) the surface and applying an approved seed mixture.

The heap leach pads will be reclaimed in a fashion similar to that used for the waste dumps. The heaps will be regraded to a maximum 2-3H:1V slope and shaped to eliminate the potential for standing water. Next, a layer of growth medium will be placed over the recontoured surface. Bio-solids will be added and the surface will then be "dimpled" and seeded. Diversion channels will be created, where needed, to convey potential run-on away from these reclaimed surfaces.

The underground mine openings (four (4) adits and one (1) glory hole) located in the bottom of the Southwest Extension Pit will be closed by backfilling using material from nearby sources within that pit.

All haul roads will be reclaimed by regrading, ripping compacted surfaces, replacing growth medium and revegetating the area. Regrading will, to the extent possible, restore the areas to pre-disturbance topography. Consultation with the BLM and DOGM indicate that no roads will remain, thus, all roads will be reclaimed.

All ancillary facilities will be demolished and removed prior to reclamation. Concrete foundations will be broken up to the extent possible and buried onsite. Other areas will be regraded and compacted surfaces will be ripped prior to application of growth medium and revegetated.

RECLAMATION PROCEDURES

Areas for final reclamation include the mine facilities site (the waste rock dumps and two open pits), and the processing facility sites (the heap leach pads, ponds and buildings). The final site topography will resemble that shown on Map 1 (found in the attached map pocket).

Regrading and Recontouring:

Regrading and or recontouring of the mine area will commence upon approval of the reclamation and closure plan and when weather conditions allow efficient equipment operation. The final reclaimed slope angle for the leach pads and waste rock dumps is anticipated to be approximately 2-3H:1V as established by field decision. A bulldozer will be the primary tool used to grade the areas to the design slope. Other areas of the mine site, which do not require recontouring, will be scarified in preparation for growth medium replacement.

Growth Medium Replacement:

After regrading to achieve the post-mining contours, the remaining disturbed areas with flatter surfaces will be ripped or scarified to eliminate areas of compaction. Next, approximately six (6) inches of suitable growth medium will be placed on all disturbed areas where it does not currently exist. The growth medium will be spread using a bulldozer, which will break up the medium minimizing clogging and compaction. All spreading operations will be conducted on the contour to minimize soil erosion. The final finished seedbed will result in a "dimpled" configuration. This will minimize erosion, optimize available soil moisture, and produce a soil surface appropriate for broadcast seeding. In addition to the existing stockpiled growth media (soil), an area of approximately 44 acres will be disturbed in order to supply the total required growth

media.

Revegetation will be performed to provide erosional stability, reduce infiltration by optimizing evapotranspiration, and establish a plant community consistent with the post-mine land uses. After final regrading of the heaps and waste rock dumps, approximately six (6) inches of suitable growth media will be placed over all disturbed areas where it does not currently exist. Bio-solids (manure) will be applied and incorporated into the upper substrate to add organic material and help increase the effective rooting depth of the new vegetation. After the bio-solids have been incorporated into the regraded surface, "dimpling" of the surface will occur to create small micro-ecosystems. Seed will be applied to all surfaces, during the "dimpling" process using a broadcast seeder attached to the "dimpling" machine.

The mine site has limited amounts of suitable growth medium available. In addition to the stockpiled growth media (soil), the proposed borrow areas (see Map 3, Topsoil/Growth Medium Areas) appear to contain the remaining required quantity of growth medium. The area disturbed during the process of obtaining the growth medium will be kept to a minimum. Every effort will be made to salvage any suitable growth medium, in the immediate vicinity, during the reclamation process. Enough growth media will be left in the borrow areas to revegetate those sites.

Revegetation and Stabilization:

Bio-solids (manure) will be applied to enhance the growth medium's fertility. Seedbed preparation will be completed during the addition of the bio-solids to the growth medium. Seedbed preparation will occur just before seeding to provide the highest probability for successful germination. The seed mixture will be composed of introduced annual and perennial plants adapted to the conditions of the area. Table #2, below, lists the seed mixture to be used.

During the post closure and reclamation period, revegetation will be monitored by the Agencies for herbaceous production, ground cover, and overall species diversity. If revegetation success has not been achieved the information obtained from monitoring will be used by the Agencies to identify alternative practical revegetation approaches to be incorporated into a revegetation program to be undertaken by the Agencies, as appropriate.

TABLE #2

REVEGETATION SEED MIXTURE

Species	Variety	PLS** lb./Acre	PLS/Square Feet
Crested Wheatgrass	Hycrest	2.0	10
Immigrant Kochia *	Immigrant	0.5	5
Alfalfa	Ladak	1.0	5
Fourwing Saltbush	Native	2.0	2
Wyoming Big Sagebrush *	None	0.1	12
Indian Ricegrass	Paloma	3.0	12
Intermediate Wheatgrass	Luna	2.0	8
Western Wheatgrass	Rosanna	2.0	??
Yellow Sweet Clover	None	0.5	??

** PLS-Pure Live Seed: * Current year crop, buy as late as possible.

DECOMMISSIONING OF FACILITIES

Upon closure, all remaining buildings and facilities will be dismantled and disposed of appropriately. Concrete foundations will be broken up and placed either in the mine waste dump and buried, or buried in place. Subsequent to the removal of all facilities, the facilities site will be graded to re-establish a suitable drainage pattern. The remaining synthetic liners in the process water ponds will be freed from their anchors, folded in on themselves and covered with fill material prior to the placement of topsoil and revegetation. The solution in the process ponds will be disposed by spraying and evaporation over HG1. The sediment in the two ponds will be left in place, encapsulated within the remaining liner, and buried.

Unless designated by the BLM for land management or recreation purposes, all roads will be closed and reclaimed following mine closure. The compacted roads will be ripped, graded and water-barred to permit suitable drainage and revegetation. The existing fencing around the property will remain until reclamation and revegetation have been determined to be successful. This perimeter fence will be maintained and posted throughout the revegetation monitoring period.

The BLM has assumed responsibility for the project water well and the microwave communications station. The water delivery pipeline has been sold and removed.

Storage tanks, which have not been sold, will be disposed of properly. Any hazardous materials found will be disposed of off site at an appropriate disposal facility in accordance with all applicable state and federal regulations for handling and disposal. Non-hazardous waste will be left in place.

DRAINAGE AND EROSION CONTROL

The Drum Mine site is located in an ephemeral drainage environment and water only flows during times of intense precipitation or during snow melt. Suitable drainage patterns through the mine site will be established in a manner that will minimize the potential for erosion and run-on to the reclaimed facilities. All drainage channels will be rip-rapped where appropriate and constructed in a manner as to minimize erosion. The side slopes of the heaps and waste rock piles will be recontoured to an approximate 2-3H:1V slope. This will allow the growth medium placed on these slopes to be disced along contour, and thus help prevent excess erosion and moisture loss. The use of other erosion control methods such as: the installation of silt fences, straw bales, mulch and energy dissipation boulders will be determined in the field at the time of reclamation.

SITE CHARACTERIZATION

Active leaching of all the heaps was discontinued in October 1990. Since that time, the heaps have sat idle. No known rinsing of the heaps, with fresh water, has taken place. Therefore, only meteoric water has come in contact with the heaps and waste dumps with no apparent adverse affects. In May and June of 1998, a site characterization sampling program was undertaken by WSMC and DOGM. The goal of the characterization program was to determine the characteristics of the spent ore heaps and waste dumps at the Drum Mine site. A sampling and testing program was developed and is attached in appendix A. Essentially, the program consisted of excavating small pits on the heaps and waste dumps and collecting samples every five feet. A total of 318 samples were collected from the heaps and 14 samples from the waste dumps. The solution and sediment in the process water ponds was also sampled. Nine (9) samples from the proposed growth medium borrow areas were also collected with assistance from DOGM. These samples were used to determine bio-solid and fertilizer requirements.

In order to thoroughly characterize the spent ore heaps and waste dumps, the following analytical procedures were performed:

- NDEP Meteoric Water Mobility Test (MWMT)
- Acid Generation/Acid Neutralization Potential
- EPA Profile II
- Wad Cyanide and Paste pH
- Permeability and Moisture Content

Laboratory testing results and summary tables are attached as Appendix B. All results confirm that the site is benign and does not pose a threat to the waters of the state.

DEMONSTRATION OF NON-DEGRADATION OF STATE WATERS

Approach:

The following steps were undertaken to clearly demonstrate that the conditions in which the spent ore heaps and waste dumps will be closed, will not create a potential for degradation of the waters of the state (R647-4-111).

- Constituent concentrations for each method of site characterization have been compared to drinking water standards (DWS) and best engineering practices to determine if a potential exists to degrade the water of the state.
- If constituent concentrations are less than the DWS or pass the best engineering practice test, then it is deemed that no degradation of state waters will occur.
- If constituent concentrations are greater than the DWS and fail to pass the best engineering practice test, a hydrologic evaluation will be conducted to determine the potential impacts of the constituents on the ground water beneath the heaps or waste dumps.

Analytical Results:

Analytical results from the site characterization sampling program are considered to be representative for the site and each heap and waste dump. These results, summarized in Tables B-1 through B-4 in Appendix B, indicate the following:

MWMT results (only exceedances are noted):

- pH was slightly elevated for LG2-2, HG1 (both samples), HG2 (both samples), HG4&5-2, HG7 (2 of 4 samples) where the highest value was 9.03 in HG1-1.
- Arsenic exceeded the DWS in HG1-1, HG3 (both samples), HG4&5-1, and HG7 (3 of 4 samples) where the highest value was 0.19 mg/l in HG7-3.
- Iron exceeded the DWS in LG2-1, LG2-2, HG1-1, HG3 (both samples), HG4&5)2 of 3 samples), HG6 (both samples), HG7 (2 of 4 samples). The highest value was recorded in HG6-1 at 2.1 mg/l.
- Lead exceeded the DWS in HG6-1 and HG7-1 where the highest value was 0.019 mg/l in HG6-1.
- Manganese exceeded the DWS in LG2-3 at 0.48 mg/l.

- Sulfate exceeded the DWS in LG2-3 at 400 mg/l.
- Results from the pregnant pond solids show that the DWS were exceeded for arsenic, chloride, manganese, sulfate and TDS. All concentrations were only minimally over the standard.
- Results from the barren pond solids show that the DWS were exceeded for pH, chloride, sulfate and TDS. The pond solids are mainly composed of lime, which accounts for the high pH and TDS. The other concentrations were only minimally above the standard.

EPA Profile II Results (only exceedances are noted):

- Results from the pregnant pond solution show that the DWS were exceeded for pH, arsenic, chloride, iron, lead, sulfate and TDS. All constituents, but chloride, sulfate and TDS, only minimally exceeded the standard.
- Results from the barren pond solution show that the DWS were exceeded for pH, chloride, fluoride, iron, sulfate and TDS. Only chloride and TDS were more than three times the standard.

Acid Generation/Acid Neutralization Potential (AG/ANP) Testwork:

The following sequence of waste testing was conducted on all samples to determine the presence and extent, if any, of net acid generating potential.

- Stage 1 Testing – Total sulfur was determined by Leco furnace method and the acid NP using acid titration. Results are expressed in terms of percent Calcium Carbonate Equivalent. Samples which have NP greater than three times the AP can be considered nonacid generating.
- Stage 2 Testing – Determine the sulfide sulfur content of the sample. Express the results in terms of percent Calcium Carbonate Equivalent. Samples that have a neutralization capacity (determined in Stage 1) greater than three times the sulfide sulfur content can be considered to be nonacid generating.
- Stage 3 Testing – Perform humidity cell testing, or the equivalent, and collect weekly leachate samples for analysis over a period of not less than one month. Use the results of the leachate analyses as an indicator of waste leachate characteristics.

AG/ANP results (only exceedances are noted):

- All but LG2-1 and LG2-3 passed the Stage 1 and Stage 2 testing. Due to the arid environment and low rainfall, the Stage 3 testing was not done. Results from the hydrologic evaluation also show that no leachate will be produced.

Hydrologic Evaluation:

Results of the hydrologic evaluation are shown in Appendix C, Tables C-1 through C-11. Due to the arid environment and relatively low rainfall, the hydrologic evaluation predicted no measurable leachate production from the heaps under the conditions simulated.

The evaluation method used the program, Hydrologic Evaluation of Landfill Performance, HELP Model Version 3.05a (June 5, 1996) (HELP3). Pertinent data used by the program includes weather data from the area, and soil and design data. The weather data (Table C-11) was obtained from station 422090 in Delta, Utah, approximately twenty five miles from the mine site. The weather data used was from the period 1978 to 1987, a ten (10) year time frame with 29% higher than average precipitation, thus simulating a worst case scenario. Table B-1 contains laboratory results for the heap material parameters: saturated hydraulic conductivity, porosity and field capacity. Wilting point was calculated using the ratio of initial and final moisture percentages and the calculated field capacity. Thus the wilting point for the heap material is essentially the initial moisture content. The growth medium data made use of the default parameters for a sandy loam.

Data from each section of a particular heap was averaged to get one set of parameters for that heap. Two scenarios were simulated: the first, was the recontoured heap without growth medium, and the second, was the recontoured heaps with six (6) inches of growth medium applied. Both simulations yielded no leachate, however, the scenario with the growth medium dramatically reduced the amount of water taken up by the heap.

RECLAMATION

Mine Pits:

It has been determined that it is not economically feasible to reclaim the SW EX and NR open pits; therefore, pursuant to R647-4-112, a request for exemption from the open pit reclamation requirements of R647-4-111-7 (Highwalls) inclusive, is being made.

At this time, backfilling all of the SW EX and NR open pits is not economically or practically feasible due to the associated costs and resulting environmental impacts. Backfilling the two pits would require the relocation of approximately 6 million cubic yards of material and would require several years to complete. Backfilling would require a significant investment in manpower, equipment, fuel and time. The extended time period required for backfilling may also contribute to continued impacts to other resources, including air quality, groundwater consumption, wildlife, and livestock grazing and an increased consumption of non-renewable petroleum products.

Although present technologies do not provide an economically feasible method of recovering gold from low-content ores, future technologies may become available and additional mining may once again be feasible. If the pits are backfilled, future mining of the pits could not be accomplished in a cost effective manner. In addition, backfilling would remove evidence of remaining mineralization. Maintaining this evidence is allowed by the BLM's Surface Management regulations contained in 43 CFR 3809.

The open pits were designed to provide long-term stability. No post mining stabilization of the pit walls is proposed. The open pits were mined at slopes ranging from approximately 47 degrees to 30 degrees. Laying back the pit walls or other methods of mechanically altering the designed walls to obtain shallower slopes would be cost prohibitive and may not totally remove the unstable and unsafe conditions.

Public motorized access to the pits will be eliminated and an earthen berm will be constructed around the open pit highwall, to discourage unsafe access. The berm will be located so that any potential post-closure pit failure will not affect their integrity. The underground mine openings located in the bottom of the Southwest Extension Pit will be closed by backfilling using material from nearby sources within that pit.

An objective of this reclamation plan is to facilitate future mineral exploration and development in areas immediately surrounding and including this mine site. None of the reclamation activities proposed will adversely impact any future mining in the area.

Revegetation of the open pits will not be conducted except in areas of disturbance around the surface perimeter of the pit and all accessible ramps into the pits. Revegetation of these areas will be completed as described previously in the revegetation/stabilization section.

Waste Rock Storage:

The waste rock dumps occupy approximately 81.2 acres (includes LG1 heap which was never leached). These areas will be reclaimed by regrading to the final configurations shown on Map 1, Approximate Final Topography. This final reclamation configuration was developed to minimize regrading and to satisfy the design criteria. The design criteria were established to: 1) ensure the stability of the reclaimed slopes, 2) minimize erosion, and 3) provide surface configurations similar to the surrounding topography and suitable for successful revegetation.

The final reclamation configuration, as shown on Map 1, Approximate Final Topography, depicts an overall slope configuration of approximately 2-3H:1V. Prior to recontouring, the additional area at the toe of the waste rock disposal sites, which will be covered due to sloping, will be cleared and grubbed. All material, including growth medium, will be salvaged and the shrubs will be piled up at the toe creating small animal habitat. All waste dumps will be reclaimed and closed as outlined in the Reclamation Procedure section.

Heap Leach and Processing Facility:

The heap leach pads occupy approximately 71.3 acres (excluding LG1 heap). The final reclamation configuration of the heap leach pads is shown on Map 1, Approximate Final Topography.

Both WSMC and the Agencies believe that the existing heaps can be classified as being detoxified and neutralized according to the BLM's standards. This conclusion is based on the results of the site characterization program done by both WSMC and DOGM. Results from the site characterization program indicate that the heap leach pads and solution ponds are detoxified and can be closed as proposed herein.

All side slopes will be regraded to achieve an overall slope configuration of approximately 2-3H:1V. The top surface of all the heaps will be shaped to eliminate the potential for standing water and minimize the potential for runoff down the side slopes. All heap leach pads will be reclaimed and closed as outlined in the Reclamation Procedure section.

During the regrading process, diversion channels will be constructed to collect and convey potential run-on away from the reclaimed areas. The channels will be designed to contain the precipitation from the 100-year 24-hour storm event. This regrading will enhance the blending of the heap leach pad with the surrounding topography by providing a smooth transition. The establishment of a revegetated surface over the heap leach pad, in conjunction with the high evaporation rate for the area, will significantly limit the mount of potential infiltration, and thus potential outflow. Based on the limited infiltration and the stable chemical composition of the heap material, no monitoring or collection of the outflow is anticipated or expected.

Process Ponds:

All ponds will be backfilled and regraded and the areas will be seeded. Impounded water and/or solutions in the process ponds or sediment pond that is present at the time of reclamation will be allowed or induced to evaporate or utilized in dust suppression. The solids on the bottom of the ponds have been analyzed and demonstrated to be benign. The accumulated solids will be encapsulated using the remaining liner and buried in place. The remaining pond liners and solids will be buried to a minimum depth of 5 feet below the final reclamation surface. The pond areas will be backfilled and the surface graded to establish a reclaimed surface configuration approximately as shown on Map #1, Approximate Final Topography. The final reclaimed surface configuration will be designed to promote runoff.

Mine Facilities:

During the reclamation process all ancillary buildings and structures will be dismantled for disposal. Any remaining reagents will be returned to suppliers or properly disposed of off site. Non-salvageable items that are relatively inert, such as HDPE liner, concrete, and scrap building material and equipment will be buried on-site or disposed of off-site in compliance with state of Utah regulations. Equipment and building materials that have been in contact with cyanide or other toxic chemicals will be decontaminated prior to sale or disposal. Materials buried on site or removed to an off-site landfill will be disposed of in accordance with both state and federal regulations.

Concrete foundations, walls, and sumps will be broken up where possible and buried to a minimum depth of five feet so they do not interfere with the plant growth. Disturbed areas will be graded to blend with the natural topography and seeded. No visible structures will remain. Material contaminated with hazardous waste (if any) will be disposed of off-site at an approved landfill for hazardous materials, and will follow appropriate state and federal regulations. All mine facilities will be reclaimed and closed as outlined in the Reclamation Procedure section. All access roads will be reclaimed to the mine boundary. Access for monitoring purposes will be by foot, or with use of a small ATV.

Surface Water Diversions:

The diversion channels shown on Map 1, Approximate Final Topography, will be constructed to divert potential up gradient run-on and to direct runoff from reclaimed process facilities. Each channel will be constructed to contain precipitation from a 100-year, 24-hour storm event and to convey the flow away from the reclaimed surfaces, where possible, and into natural or re-established drainage channels.

Where possible, the diversion channels will follow natural contours at a slope of approximately 1.0%. Energy dissipation will be provided at channel outlets to reduce flow velocities and prevent surface erosion. Diversion channels will be protected using appropriately sized rip-rap and energy dissipation boulders to minimize surface erosion, where necessary.

Roads:

The Drum Mine area has approximately 2.2 acres of access roads, and 1.5 acres of additional roads not included as part of previously discussed reclaimed areas. All roads within the project boundary will be reclaimed during the reclamation process. Most of the roads will be reclaimed as part of the reclamation activities associated with the waste rock dumps and heap leach pads. Within the project boundary, the primary access road will be removed during the reclamation process as this road lies within the proposed

growth medium borrow area. Any culverts will be removed during reclamation and the natural drainages will be re-established. All access and haul roads will be reclaimed and closed as outlined in the Reclamation Procedure section.

Landfill and Sanitary Wastes:

The permitted landfill site is located on the eastside of waste rock disposal site W1. The landfill will be reclaimed concurrently with W1. Special care will be taken so not disturb the landfill. The landfill will be covered with a minimum of five feet of material prior to application of the growth medium, bio-solids and seed. The septic system will be disconnected and piping will be sealed. This site will be reclaimed in a similar fashion as that described for the mine facilities.

Exploration:

Any open drill holes within the project boundary will be plugged pursuant to R647-4-108, inclusive. Holes, which encountered water, will be closed as per R647-4-108-2.12.112, filling from the bottom up (through the drill stem) with a high grade bentonite/water slurry mixture. .

WSMC shall also reclaim the disturbance around Busby Spring, an unplugged drill hole, and any other disturbances caused by exploration activities conducted under notices UT-057-39N, UT-056-64N, UT-056-062N and unserialized notices submitted December 13, 1983 and February 1, 1985.

The Mizpah area will be jointly reclaimed by WSMC and DOGM. The area consists of unplugged drill holes and unreclaimed access roads. The Mizpah area encompasses roughly 5 acres, all of which is not disturbed.

RECLAMATION MONITORING

Environmental and surface water monitoring of the project area after completion of the reclamation work described above will be the responsibility of the Agencies. Any repair or re-seeding of areas required after completion of the construction phase will similarly be the responsibility of the Agencies.

Ground Water Monitoring:

Based upon the results of the characterization data and the site conditions, no ground water monitoring is necessary.

RECLAMATION COST ESTIMATE

INTRODUCTION

The reclamation responsibility for the Drum Mine as originally agreed to by the BLM and DOGM was to be jointly split between Western States Minerals Corporation (WSMC) and DOGM, which was to conduct its reclamation work under bond forfeiture by JUMBO. The following table lists the areas of reclamation responsibility originally allocated between the two entities. Figure #3 and Map #2 show the areas for which each operator was originally responsible.

Reclamation Responsibility	Area Description	Area Size (Acres)
WSMC	LG1	3.5
WSMC	LG2	17.9
WSMC	LG3	12.7
WSMC	HG6	5.0
WSMC	HG7	9.4
WSMC	W1	20.1
WSMC	W2	14.9
WSMC	W3	5.9
WSMC	W7	13.4
WSMC TOTAL	---	**102.8**
DOGM/JUMBO	HG1	11.5
DOGM/JUMBO	HG2	8.8
DOGM/JUMBO	HG3	8.1
DOGM/JUMBO	HG4&5	17.8
DOGM/JUMBO	W4	3.5
DOGM/JUMBO	SW EX PIT	19.5
DOGM/JUMBO	NR PIT	18.2
DOGM/JUMBO	POND/FACILITY	17.9
DOGM/JUMBO	OTHER	1.5
DOGM/JUMBO	**TOTAL**	**106.8**
WSMC & DOGM	SOIL BORROW	43.9
	SITE TOTAL	**253.5**

WSMC currently maintains a reclamation performance bond in the amount of $264,080 and JUMBO maintained a reclamation performance bond in the amount of $143,000 for the Drum Mine and a separate reclamation performance bond in the amount of $19,000 for the Alto Pit. The amount of these bonds was based on prior estimated costs

associated with reclaiming the areas affected by existing mining activities. The existing bonds do not cover the current expected reclamation requirements, as outlined in this document. As specified in the First Amended Settlement Agreement, WSMC and the Agencies have agreed to re-allocate their original responsibilities so that WSMC will perform all construction activities at the site, DOGM will pay the entire JUMBO performance bonds and all accrued interest on such bonds to WSMC, plus contribute an additional $20,000 for closure of the underground workings, all to partially fund such activities, and the Agencies will perform any needed monitoring and post-construction phase activities as the means of completing their share of the tasks required at the site.

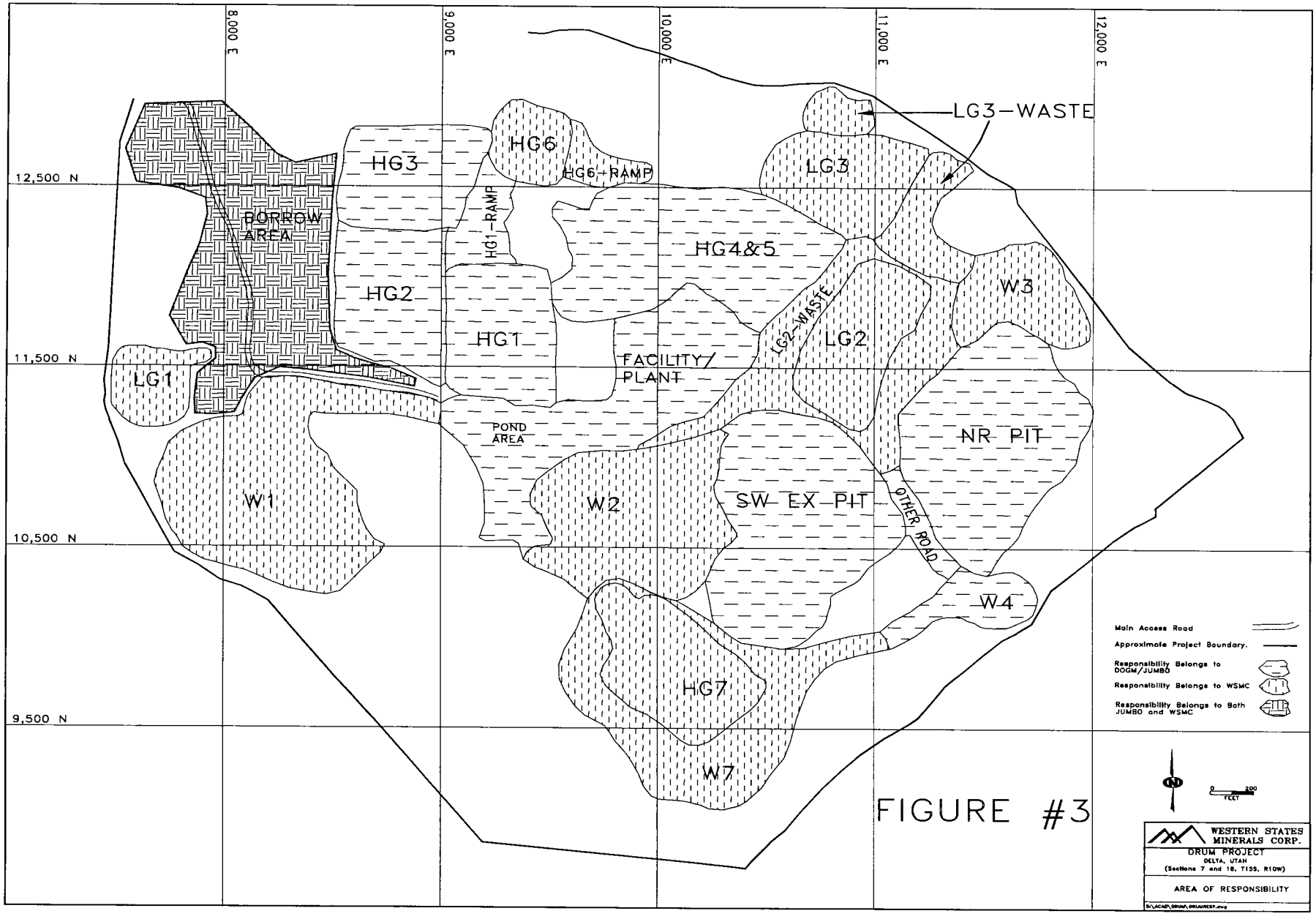
8,000 E
9,000 E
10,000 E
11,000 E
12,000 E
12,500 N
11,500 N
10,500 N
9,500 N
LG3-WASTE
HG3
HG6
HG6-RAMP
LG3
BORROW AREA
HG1-RAMP
HG4&5
HG2
W3
HG1
LG2-WASTE
LG2
FACILITY/ PLANT
LG1
POND AREA
NR PIT
W1
W2
SW EX PIT
OTHER ROAD
W4
HG7
W7
Main Access Road
Approximate Project Boundary.
Responsibility Belongs to DOGM/JUMBO
Responsibility Belongs to WSMC
Responsibility Belongs to Both JUMBO and WSMC
0
200
FEET
WESTERN STATES MINERALS CORP.
DRUM PROJECT
DELTA, UTAH
(Sections 7 and 18, T15S, R10W)
AREA OF RESPONSIBILITY

FIGURE #3

The purpose of this **Reclamation Cost Estimate** is to develop a realistic cost appraisal for an independent contractor to complete site reclamation. The cost estimate presented in this section is based on the planned final reclamation procedures presented in the preceding portion, **Reclamation Plan**, of this document.

COST SUMMARY

The following table is a summary of the costs associated with reclamation of the Drum Mine site. The following reclamation cost estimate reflects the estimated cost to reclaim 253.5 acres. Costs are based on actual bids submitted by prospective contractors. Four Contractors were asked to provide bids to reclaim the entire mine site. This included every task from removal and disposal of the remaining process facilities to final seeding. Only two prospective contractors responded to the request for bid. These were N. A. Degerstrom, Inc. and Robinson Construction. The request for bid package is attached as Appendix E. The low bid was used to estimate final reclamation costs. Copies of the two bids are attached in Appendix F.

WSMC COST ESTIMATION SUMMARY TABLE

Original Reclamation Responsibility	Area Description	Earthwork / Recontouring	Revegetate Stabilization	Reclamation Activities (Other)
WSMC	HG6	$8,902	$1,168	-
WSMC	HG7	$15,130	$3,328	-
WSMC	LG1	$5,008	$1,239	-
WSMC	LG2	$31,538	$2,797	-
WSMC	LG3	$23,269	$2,620	-
WSMC	W1	$62,987	$7,115	-
WSMC	W2	$28,382	$5,275	-
WSMC	W3	$9,528	$2,089	-
WSMC	W7	$42,312	$4,744	-
WSMC	HG6-RAMP	$3,315	$602	-
WSMC	LG2-WASTE	$16,960	$3,540	-
WSMC	LG3-WASTE	$7,673	$1,876	-
WSMC	BORROW	$4,388	$7,770	-
WSMC	MONITORING	-	-	$2,853
WSMC	DRAINAGE	$4,238	-	-
WSMC	DEBRIS DISPOSAL	-	-	$6,080
WSMC	FENCE INSTALL	-	-	$1,000
WSMC	MIZPAH	-	-	$4,340
WSMC	MOB – DEMOB	-	-	$45,000
WSMC	SUPERVISION	-	-	$19,915
WSMC	FINAL REPORT	-	-	$869
WSMC TOTAL	---	**$263,630**	**$44,163**	**$80,057**

Engineering & Contingency (10%) = $38,785

Total WSMC cost for Drum Mine reclamation as originally allocated: = $426,635

DOGM/JUMBO COST ESTIMATION SUMMARY TABLE

Original Reclamation Responsibility	Area Description	Earthwork / Recontouring	Revegetate Stabilization	Reclamation Activities (Other)
DOGM/JUMBO	HG1	$13,898	$3,044	-
DOGM/JUMBO	HG2	$12,981	$3,115	-
DOGM/JUMBO	HG3	$14,964	$2,867	-
DOGM/JUMBO	HG4&5	$24,479	$6,301	-
DOGM/JUMBO	HG1-RAMP	$3,513	$1,027	-
DOGM/JUMBO	W4	$4,323	$1,239	-
DOGM/JUMBO	SW EX PIT	$12,016	$1,735	-
DOGM/JUMBO	NR PIT	$10,691	$1,451	-
DOGM/JUMBO	POND/FACIL	$78,133	$6,337	-
DOGM/JUMBO	OTHER ROADS	$1,979	$531	-
DOGM/JUMBO	BORROW	$4,388	$7,770	-
DOGM/JUMBO	MONITORING	-	-	$2,853
DOGM/JUMBO	REMOVE FACILITY	-	-	$19,405
DOGM/JUMBO	HAZARD. MATL.	-	-	$3,220
DOGM/JUMBO	MIZPAH	-	-	$4,340
DOGM/JUMBO	MOB - DEMOB	-	-	$45,000
DOGM/JUMBO	SUPERVISION	-	-	$19,915
DOGM/JUMBO	FINAL REPORT	-	-	$869
DOGM/JUMBO	**TOTAL**	**$181,365**	**$35,417**	**$95,602**

Engineering & Contingency (10%)= $31,238

Total DOGM/JUMBO cost for Drum Mine reclamation as originally allocated:= $343,622

TOTAL DRUM MINE RECLAMATION: = $770,257

GENERAL METHODOLOGIES AND ASSUMPTIONS

In completing the reclamation calculations necessary to estimate total reclamation costs for the Drum Mine, the following details were employed:

- The maximum disturbance configuration as shown on Map 2, Current Topography, in conjunction with Map 1, Approximate Final Topography, were used to calculated areas, volumes and costs. Map 2, Current Topography, was developed by Olympus Aerial Survey from photographs taken July 22, 1987. Since the time of that survey, no additional significant disturbance has taken place.

- Equipment and labor costs for incidental work were taken from the contractor labor and equipment rental rates. Other costs associated to work not covered in the request for bid have been calculated using published references where available. The Mine and Mill Equipment Costs: An Estimator's Guide, (MEC) published by Western Mine Engineering, Inc, and "Means Heavy Construction Cost Data, 11th Annual Edition 1997", published by R. S. Means, Inc. were the primary cost references. Also used was the Mining Cost Service book published by Western Mine Engineering, Inc. for cost of materials. The objective in developing specific cost data has been to identify unit costs which are representative of those which would be incurred for final reclamation, given site conditions and prevailing economics for contract earthwork. Unit costs were adjusted as appropriate to reflect regional economic factors and project scheduling.

- Required reclamation functions were identified based on the nature and extent of disturbance included in this document as part of the Reclamation Plan.

- Effective drainage will be reestablished during final reclamation. Drainage reestablishment will involve grading to develop a suitable channel, slope reduction, construction of transitional slopes to tie into the existing natural drainages and use of rip-rap where appropriate.

- Growth medium volumes were determined using disturbed area acreage and replacement depth of six inches over all disturbed areas. Haul distances were measured from Map 3, Material Destination Map, which shows the soil borrow area and each disturbed area.

- Equipment productivities for each specific function were determined using standard references and representative grades and haulage distances. All productivity calculations for various equipment units are included in the individual cost detail calculations.

- Based on sampling of the heap material (all constituents including WAD cyanide were below NDEP profile II standards), no detoxification of the heaps will be necessary.

EARTHWORK/RECONTOURING

Volumes and Initial Calculations:

Volumes of material were calculated using Map 2, Current Topography, and Map 4, Original Topography. The total volume of ore, including both high grade and low grade, is calculated at 2,286,000 cubic yards. The total volume of waste rock removed is calculated to be 3,878,000 cubic yards. The following table outlines material volumes for each area:

AREA	MEASURED VOL(CU YD)	TOE AREA (SQ FT)	TOE LENGTH (FT)	CREST (SQ FT)	CREST LENGTH (FT)	CALC AVE HEIGHT (FT)
HG1	180,727	280,649	2,101	152,095	1,538	23
HG2	138,040	316,705	2,418	233,718	2,000	14
HG3	194,964	271,942	2,102	131,530	1,410	27
HG4&5	665,563	541,212	3,527	320,200	2,903	42
HG6	87,207	95,987	1,183	39,608	763	36
HG7	268,529	351,813	2,902	207,826	1,916	26
LG1	44,534	126,944	1,533	80,539	1,080	12
LG2	414,740	297,545	2,479	102,856	1,704	58
LG3	291,591	232,045	1,875	111,791	1,411	47
TOTAL ORE	2,285,895					

W1	804,756	675,332	4,175	482,078	2,478	60
W2	582,924	365,451	2,745	242,432	1,515	45
W3	212,788	213,387	2,052	121,301	1,216	20
W4	39,435	148,464	2,415	76,698	350	10
W7	1,165,981	75,588	3,671	460,622	1,912	55
HG1-RAMP	6,320	68,961	1,118	26,079	880	10
HG6-RAMP	16,114	58,995	1,258	19,978	491	20
LG2-WASTE	945,358	915,960	4,426	684,958	1,322	35
LG3-WASTE	104,622	228,119	2,704	73,542	522	30
TOT WASTE	3,878,298					

Salvage Growth Media before Slope Reduction:

Assumptions:

- Bid by Contractor.
- Final slope 3H : 1V or less, as determined by field decision reached by the designated representatives of Western and the Agencies.
- Total cost includes manpower and equipment costs, no material costs incurred.

AREA	SALVAGE LENGTH (FT)	SALVAGE WIDTH (FT)	SALVAGE AREA (ACRES)	SALVAGE DEPTH (FT)	BID PRICE ($)	UNIT PRICE ($/ACRE)
HG1	1,400	15	0.48	2	1,450	3,020
HG2	2,000	15	0.69	2	2,084	3,020
HG3	1,650	20	0.76	2	2,295	3,020
HG4&5	1,900	30	1.31	2	3,956	3,020
HG6	900	25	0.52	2	1,570	3,020
LG1	800	10	0.18	2	544	3,020
LG2	800	30	0.55	2	1,661	3,020
LG3	1,300	40	1.19	2	3,594	3,020
W1	2,400	40	2.20	2	6,644	3,020
W3	800	15	0.28	2	846	3,020
W4	200	5	0.02	2	60	3,020
W7	2,000	40	1.84	2	5,557	3,020
HG6-RAMP	700	15	0.24	2	725	3,020
TOTAL					$30,986	3,020

Slope Reduction, Dumps (Waste Rock) & Heaps (Ore Material):

Assumptions:

- Bid by Contractor.
- Final slope 3H : 1V or less
- Total cost includes manpower and equipment costs, no material costs incurred.

AREA	CREST LENGTH (FT)	AVERAGE HEIGHT (FT)	AVE PUSH DISTANCE (FT)	VOLUME TO MOVE (LCY)	BID PRICE ($)	UNIT PRICE ($/LCY)
HG1	1,538	23	32	8,601	3,010	0.35
HG2	2,000	14	20	3,481	1,218	0.35
HG3	1,410	27	38	10,862	3,802	0.35
HG4&5	2,903	42	59	54,189	18,966	0.35
HG6	763	36	50	10,456	3,660	0.35
HG7	1,916	26	36	13,696	4,794	0.35
LG1	1,080	12	17	1,640	574	0.35
LG2	1,704	58	81	60,650	21,227	0.35
LG3	1,411	47	66	32,976	11,542	0.35
W1	2,478	60	84	94,439	33,054	0.35
W2	1,515	45	63	32,488	11,371	0.35
W3	1,216	20	28	5,134	1,797	0.35
W4	350	10	14	376	132	0.35
W7	1,912	55	77	61,184	21,414	0.35
HG1-RAMP	880	10	14	945	331	0.35
HG6-RAMP	491	20	28	2,073	725	0.35
LG2-WASTE	1,322	35	49	17,137	5,998	0.35
LG3-WASTE	522	30	42	4,969	1,739	0.35
TOTAL					$145,354	0.35

Ripping:

Assumptions:

- All compacted surfaces will be ripped prior to growth medium material replacement.
- Ripping depth will be 18 inches.
- Ripping will be completed by a Contractor.

Cost Estimate Summary - Ripping

AREA	ACREAGE	BID PRICE ($)	UNIT PRICE ($/ACRE)
W1	9.4	1,203	128
W2	5.4	691	128
W3	3.0	384	128
W4	2.2	282	128
W7	5.1	653	128
LG3-RAMP	1.2	154	128
SW EX PIT	4.9	627	128
NR PIT	4.1	525	128
POND/FACILITY	17.9	2,291	128
OTHER - ROADS	2.5	320	128
TOTALS	**55.7**	**$7,130**	**128**

Growth Medium Placement:

Assumptions:

- Average depth of growth medium is six (6) inches.
- Growth Medium will be obtained from the borrow area and stockpiles located around the site (See Map 1, Approximate Final Topography).
- The haulage distances and grades were determined from Map 3, Material Destination Map, and given to the Contractor.

HAUL AND SPREAD GROWTH MEDIA

AREA	ACREAGE	VOLUME (LCY)	DISTANCE TO BORROW (FT)	BID PRICE ($)	UNIT PRICE ($/LCY)
HG1	8.6	6,940	2,998	9,438	1.36
HG2	8.8	7,120	2,085	9,683	1.36
HG3	8.1	6,520	2,258	8,867	1.36
HG4&5	17.8	14,380	4,564	19,557	1.36
HG6	3.3	2,700	3,539	3,672	1.36
HG7	9.4	7,600	3,574	10,336	1.36
LG1	3.5	2,860	931	3,890	1.36
LG2	7.9	6,360	4,874	8,650	1.36
LG3	7.4	5,980	5,125	8,133	1.36
W1	20.1	16,240	2,526	22,086	1.36
W2	14.9	12,000	3,173	16,320	1.36
W3	5.9	4,780	4,910	6,501	1.36
W4	3.5	2,830	4,440	3,849	1.36
W7	13.4	10,800	3,749	14,688	1.36
HG1-RAMP	2.9	2,340	2,310	3,182	1.36
HG6-RAMP	1.7	1,390	3,100	1,890	1.36
LG2-WASTE	10	8,060	4,991	10,962	1.36
LG3-WASTE	5.3	4,250	4,744	5,780	1.36
SW EX PIT ROAD	4.9	3,940	4,089	5,358	1.36
NR PIT ROAD	4.1	3,280	5,416	4,461	1.36
POND/FACILITIES	17.9	4,810	500	6,542	1.36
OTHER - ROADS	1.5	1,220	3,888	1,659	1.36
TOTAL	180.9	136,400		$185,504	1.36

Miscellaneous Earthwork:

Assumptions:

- Material weight estimated at 2970 lb./loose cu yd.
- The construction of a new Landfill on W1.
- Drainage channels are 6 feet wide by 3 feet deep V-trenches.
- Material to fill process ponds will come from W2.
- Surface will be prepared to WSMC/DOGM's satisfaction prior to seeding.

MISCELLANEOUS EARTHWORK

TASK	ACREAGE	VOLUME (LCY)	TIME (HRS)	BID PRICE ($)	UNIT PRICE ($)
ESTABLISH DRAINAGE CHANNELS			52	8,476	$/HR 163.00
CONSTRUCT PIT PERIMETER BERMS			72	11,736	$/HR 163.00
FILL AND CONTOUR PROCESS PONDS	4.5	66,000		69,300	$/LCY 1.05
REMOVE OLD CONCRETE FOUNDATIONS	4500 SQ. FT.			11,475	$/SQFT 2.55
SCARIFY ALL REMAINING COMPACTED AREAS	45			8,775	$/ACRE 195
DISPOSE OF ALL REMAINING REFUSE				4,250	$/DAY 425
HAUL AND SPREAD 2 TONS/ACRE MANURE	254			16,256	$/ACRE 64.0
PREPARE SURFACE & SPREAD SEED	254			38,100	$/ACRE 150.
TOTAL	557.5	66,000	124	168,368	NA

The per foot cost for constructing the drainages and pit perimeter berms were deemed high. In order to estimate the cost, the labor and equipment rates for extra work were used. The contractor bid price for an excavator is $135/hr and the operator costs $28/hr. Using these costs and an estimated production of 100 feet per hour for both the drainages and perimeter berms, the total cost was calculated.

The adits (4) and glory hole in the bottom of the Southwest Extension will be backfilled using a trackhoe, a dozer and small dump truck and loader. This task will be completed using additional funds supplied by the Abandoned Mines Lands Division of DOGM.

Earthwork / Recontouring Cost Estimate Summary:

A cost estimate summary for the earthwork and recontouring phase for the Drum Mine site is presented in the following table. Costs include manpower, equipment and any material costs incurred.

COST SUMMARY - EARTHWORK / RECONTOURING

AREA	SALVAGE GROWTH MEDIUM	SLOPE REDUCTION	RIPPING	PLACE GROWTH MEDIUM	DRAINAGE CONST.	PIT BERM	FILL PROCESS PONDS	TOTAL
HG1	$1,450	$3,010	-	$9,438	-	-	-	$13,898
HG2	$2,080	$1,218	-	$9,683	-	-	-	$12,981
HG3	$2,295	$3,802	-	$8,867	-	-	-	$14,964
HG4&5	$3,956	$18,966	-	$19,557	-	-	-	$24,479
HG6	$1,570	$3,660	-	$3,672	-	-	-	$8,902
HG7	-	$4,794	-	$10,336	-	-	-	$15,130
LG1	$544	$574	-	$3,890	-	-	-	$5,008
LG2	$1,661	$21,227	-	$8,650	-	-	-	$31,538
LG3	$3,594	$11,542	-	$8,133	-	-	-	$23,269
W1	$6,644	$33,054	$1,203	$22,086	-	-	-	$62,987
W2	-	$11,371	$691	$16,320	-	-	-	$28,382
W3	$846	$1,797	$384	$6,501	-	-	-	$9,528
W4	$60	$132	$282	$3,849	-	-	-	$4,323
W7	$5,557	$21,414	$653	$14,688	-	-	-	$42,312
HG1-RAMP	-	$331	-	$3,182	-	-	-	$3,513
HG6-RAMP	$700	$725	-	$1,890	-	-	-	$3,315
LG2-WASTE	-	$5,998	-	$10,962	-	-	-	$16,960
LG3-WASTE	-	$1,739	$154	$5,780	-	-	-	$7,673
SW EX PIT	-	-	$627	$5,358	-	$6,031	-	$12,016
NR PIT	-	-	$525	$4,461	-	$5,705	-	$10,691
POND/FACIL	-	-	$2,291	$6,542	-	-	$69,300	$78,133
OTHER ROADS	-	-	$320	$1,659	-	-	-	$1,979
BORROW	-	-	$8,775	-	-	-	-	$8,775
MISC	-	-	-	-	$8,476	-	-	$8,479
TOTAL	$30,957	$145,354	$15,905	$185,504	$8,476	$11,736	$69,300	$467,232

REVEGETATION / STABILIZATION

Bio-solids, Seed Application and Medium Sampling:

Assumptions:

- Soil sampling costs were allocated in the site characterization program.
- No chemical fertilizer will be applied.
- Application of seed will be by mechanical broadcasting.
- Seed bed preparation will be completed during the spreading of growth medium.
- Seed application cost equals $150.00 per acre.
- Seed cost per acre is $140.00 (Quote from Plummer Seed Co.).

Bio-solid Application:

Assumptions:

- Use 2 ton/acre of manure. .
- Manure will be applied by use of a spreader truck.

Cost per Acre: $64.00

Cost Per Acre - Revegetation / Stabilization:

Total cost per Acre: $354.00

Cost Summary - Revegetation / Stabilization

AREA	ACREAGE	COST ($)
HG1	8.6	$3,044
HG2	8.8	$3,115
HG3	8.1	$2,867
HG4&5	17.8	$6,301
HG6	3.3	$1,168
HG7	9.4	$3,328
LG1	3.5	$1,239
LG2	7.9	$2,797
LG3	7.4	$2,620
W1	20.1	$7,115
W2	14.9	$5,275
W3	5.9	$2,089
W4	3.5	$1,239
W7	13.4	$4,744
HG1-RAMP	2.9	$1,027
HG6-RAMP	1.7	$602
LG2-WASTE	10	$3,540
LG3-WASTE	5.3	$1,876
SW EX PIT ROAD	4.9	$1,735
NR PIT ROAD	4.1	$1,451
POND/FACILITIES	17.9	$6,337
OTHER - ROADS	1.5	$531
BORROW	43.9	$15,541
TOTAL	224.8	$79,581

RECLAMATION MONITORING

Vegetation Monitoring:

Assumptions:

- One inspection at the end of 2 years from completion of reclamation.
- 2 person crew of vegetation specialists from Salt Lake City, Utah consulting firm.
  - Reclamation (vegetation) specialist @ $85/hr
  - Reclamation technician @ $55/hr
- 3 day field visit for 2-persons
- 2 days for reclamation specialist to write report.
- 1 day of word processor time @ $30/hr.
- Pickup truck @ $0.35/mile
- Approximately 330 mile round trip, Salt Lake City to Delta.
- Approximately 70 mile round trip, Delta to Drum Mine site.
- 2 nights @ Delta Motel

Manpower:

Reclamation Specialist:	
1 x ($85/hr) x (5 days) x (8 hr/day)	= $3,400
Reclamation Technician:	
1 x ($55/hr) x (3 days) x (8 hr/day)	= $1,320
Word Processor:	
1 x ($30/hr) x (1 day) x (8 hr/day)	= $ 240
Total	= $4,960

Equipment /Travel:

Pickup Truck:	
1 x (470 miles) x ($0.35/mile)	= $ 165
Motel:	
1 x (2 people) x (2 nights) x ($50/night)	= $ 200
Meals:	
1 x (2 people) x (3 days) x ($35/day)	= $ 210
Total:	= $ 575

Materials:

Assume $250/yr in supplies, postage, and telephone

1 x ($250/yr)	= $ 250

Total cost for Reclamation Monitoring:

Total Cost:	=**$5,785**

FACILITIES REMOVAL

Assumptions:

- Only large diameter leach lines will be removed and buried.
- Small diameter leach lines will be buried in place.
- All water tanks and the main water line have been sold and removed.
- All buildings, power poles and useable equipment have been sold and removed.
- Only minor debris remains to be picked up and placed in the on site landfill.
- Responsibility for the water well will be assumed by the BLM.
- Responsibility for the microwave station will be assumed by the BLM.

Cost to remove remaining debris will be split 60/40 between DOGM and WSMC respectively. This split is due to the distribution of debris at the site according to areas of responsibility.

Cost to remove all remaining debris:	$ 4,250
Cost to remove remaining concrete foundations:	$11,475

Cost to dispose/recycle the tires (103 total) around the site will be split 50/50 between DOGM and WSMC. The cost is estimated at $8,760, which was obtained from Utah Tire Recyclers located in West Valley City, Utah.

Cost to install fence that has been removed due to sloping and growth medium salvage is estimated at $1.00 per foot for a four strand barbwire fence. The estimated total length of fence, which will need to be replaced, is 2,000 feet. Cost will be evenly split between WSMC and DOGM.

Cost to install new fence:	$2,000

Hazardous Material Disposal:

The Drum mine site contains a number of containers, which contain hazardous material. The bulk of the material is oil. The BLM had Rinchem sample and analyze all the drums and other containers on the site. Rinchem recorded the following: 9-55 gallon drums with oil, 5-5 gallon containers with oil, 3-20 gallon containers with oil, 8-55 gallon drums with some oil, sludge and water, 16-35 gallon drums containing CaCl and 1-5 gallon barrel of chemical drilling mud. Rinchem also found an undisclosed number of containers containing water or diesel fuel. The BLM also found at the well site and auxiliary pumping stations several barrels containing oil and water. The area around the well and pumping stations had indications of oil spills. There are also, several areas around the old mine facilities where an indication of oil spillage has occurred. All hydrocarbon contaminated soil will be removed according to state and federal regulations.

Assumptions:

- All containers containing oil will be accepted by an oil recycler.
- The county of Millard will take the 16-35 gallon drums of CaCl.
- The diesel fuel will be taken by the person who purchased the process building.
- All excavated hydrocarbon contaminated soil will be permanently placed on one of the waste dumps.
- Costs are based on quote from Americlean Inc., Silver Springs, NV.
- Rinchem will provide all testing paper work so the recycler will not need to re-test the containers.
- 580 gallons oil only and 605 gallons oil, sludge and water.
- A total of 475 cu yds. of hydrocarbon contaminated soil.

Waste Oil Disposal Costs:

$0.25 per gallon for oil only
$1.40 per gallon for oil, water and sludge
$65.00 per hr for transportation

(580 gallons oil) x ($0.25/gallon)	= $ 145
(605 gallons oil, sludge and water) x ($1.40/gallon)	= $ 847
(16 hrs transportation) x ($65.00/hour)	= $1,040
Total Cost:	= $2,032

Contaminated Soil Disposal Costs:
$2.50 per cubic yard to haul to W1 waste dump.

(475 cu yds X $2.50/cu yds)	=$1,188
Total Cost for Hazardous Material Disposal:	**=$3,220**

MIZPAH EXPLORATION AREA

Assumptions:

- A total of 175 drill holes to be plugged.
- Costs will be split evenly between WSMC and DOGM.
- Only those areas that have heavy road cuts will be reclaimed. All other areas will be ripped to remove compaction, seeded and left as is.
- Estimated total area of roads is 4.6 acres.
- Estimated area to be re-seeded is ½ total area or 2.3 acres.

Cost to plug one drill hole is 35$: (175 X $35)	=$ 6,125
Time to reclaim roads is estimated at 24 hrs.	
($51.00/hr Cat 325 excavator X 24 hrs)	=$ 1,224
($21.00/hr Operator X 24 hrs)	=$ 504
Time to seed roads is estimated at 16 hrs.	
($21.00/hr backhoe to scarify X 8 hrs)	=$ 168
($21.00/hr labor to seed X 16 hrs)	=$ 336
($140/acre for seed X 2.3 acres)	=$ 322
Total Mizpah Reclamation Cost	**=$8,679**

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R.S. Means Co., Inc. 1997. Heavy Construction Cost Data, 11th Annual Edition. Kingston, Massachusetts.

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Western Mine Engineering, Inc. 1997. Mining Cost Service. Spokane, Washington.

MAPS

Map 1	**Approximate Final Topography**
Map 2	**Current Topography**
Map 3	**Topsoil/Growth Media Areas**
Map 4	**Original Topography**
Map 5	**Material Destination Map**

APPENDIX B

Characterization Sampling Laboratory Results
And
Summary Tables

TABLE B-1	Spent Ore Heaps Characterization Results
TABLE B-2	Waste Dump Characterization Results
TABLE B-3	Process Facilities Characterization Results
TABLE B-4	Soil Characterization Results

LABORATORY RESULTS:

MWMP Profile II Results – All Heaps
WAD Cyanide (mg/kg) and Moisture Percent – All Heaps and Pond Solids
ANP/AGP Results – All Heaps and Waste Dumps
NDEP Profile II Results – Pregnant and Barren Pond Solution
NDEP Profile II Results – Heap Perimeter Soil Samples (4)
Hydraulic Conductivity Testing Results – All Heaps
Soil Test Results – All Nine (9) Tests

APPENDIX D

Settlement and Reclamation Agreement

APPENDIX G

Alto Pit and Haul Road Contract Reclamation

CONTRACT RECLAMATION WORK TO BE PERFORMED FOR THE ALTO PIT AND ASSOCIATED HAUL ROAD

This Appendix G sets out the contractual agreement whereby Western States Minerals Corporation (WSMC) agrees to perform specified reclamation tasks on behalf of the BLM and DOGM in the area known as Alto Pit and the associated haul road. The Alto Pit was mined by JUMBO Mining Company, and the associated haul road was constructed by that same company. That company has declared bankruptcy and defaulted on its reclamation obligations. WSMC has never claimed any mineral rights, nor conducted any exploration or other mining activities on these sites, and has no preexisting reclamation obligations with regard to them. In the event that the BLM obtains timely landowner and/or claimholder consents to conduct the activities set out herein, WSMC will perform the tasks itemized below concurrently with the Drum Mine reclamation. If such consents are not timely obtained, or if any other legal impediment to performance of the contractual work set out herein arises, then WSMC shall have no obligation to perform any of the work set out on this Appendix G.

If no legal bar exists to performing the work at the same time as WSMC conducts reclamation work on the Drum mine site, WSMC will act as a contractor for the Bureau of Land Management (BLM) and the Utah Division of Oil, Gas and Mining (DOGM) in performing the following tasks for the two areas mentioned.

ALTO PIT

The Alto Pit area encompasses approximately three (3) acres. The site is located on the top of a mountain at an elevation of roughly 6,680 feet (AMSL) in section 36 of Township 14 south, Range 11 west and approximately 2.5 miles northwest of the Drum Mine (Figure G-1, Alto Road and Site).

WSMC will contour the area to blend, as best as practicable, into the surrounding area, in accordance with field instructions received from BLM. The mine contains broken rock that was blasted and never mucked along with a small ramp for access. A berm will be left on the outer edge of the area as a safety precaution. The pit road will be scarified and blocked off leaving large boulders to give the appearance of a "moonscape". The area will then be lightly ripped along contour and seeded. The seed mix will be the same as that proposed for the Drum Mine and applied by broadcasting. No topsoil, fertilizer or bio-solids will be applied to the site.

HAUL ROAD

The haul road is approximately one mile in length; of which, only an estimated 3,000 feet will be reclaimed. The road is located adjacent to the Drum Mine and is roughly fifteen (15) feet wide (Figure G-1, Alto Road and Site).

WSMC will block the road at specified locations using nearby boulders and berm material. The remaining road between the blockages will be scarified and the berm will be pulled back where it is feasible. Only minor contouring will take place on some of the larger road cuts. Seed will be broadcast over the area once the earthwork is completed. No topsoil, fertilizer or bio-solids will be applied to the reclaimed road.
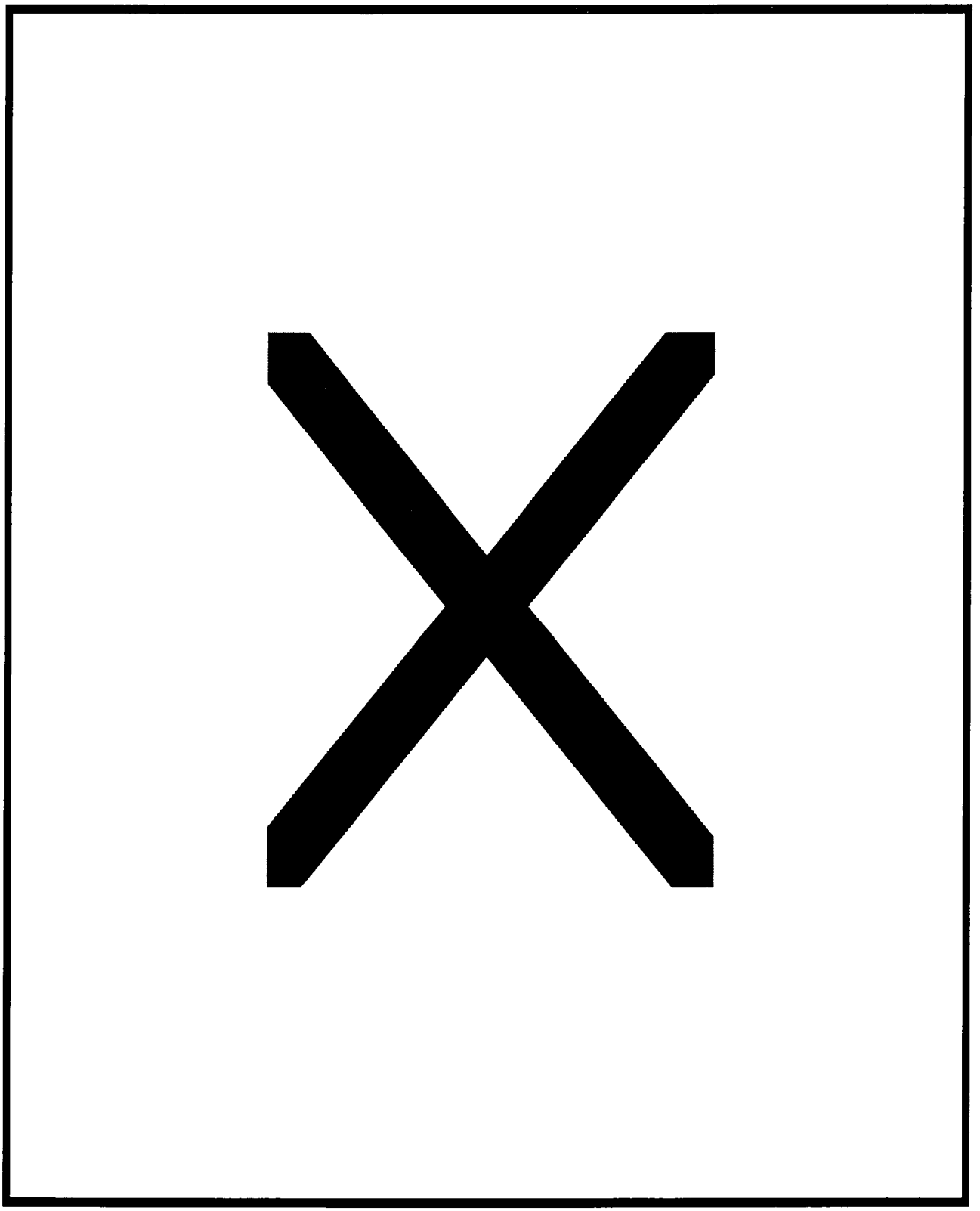
FIGURE G-1