

A Report on the Success of Achieving Reclamation Standards on
Surface Coal Mining Operations in Ohio

Evaluation of Bond Releases and Contemporaneous Reclamation

FINAL Report
August 2004

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I. Introduction

This report summarizes the Office of Surface Mining's (OSM) oversight review of mined land that has achieved the reclamation standards of the Ohio Program. We conducted an on-the-ground evaluation of a sample of the reclamation segments approved for bond release by the Ohio Division of Mineral Resources Management (DMRM). Our contemporaneous reclamation evaluation was based on data from bond releases and other documents provided by DMRM. Our purpose is to verify that DMRM is approving bond releases only when the permittee has met all standards required by the Ohio Program and to determine if the objective of contemporaneous reclamation was met. Achieving the reclamation standards necessary for approval of a bond release is a measure of a State's success in carrying out the requirements of the Surface Mining Control and Reclamation Act (SMCRA). We report these results and the results of other measurements to Congress to comply with the Government Performance and Results Act (GPRA). We are also reporting information that shows how timely reclamation is being completed in Ohio.

II. Methodology

We conducted inspections on five percent of the reclamation segments that the DMRM District Offices approved for bond release between July 1, 2003, and June 30, 2004. We collected information for this evaluation from most of our inspections and from DMRM's bond release data. We evaluated each reclamation phase using these success standards:

<u>Phase I</u>	Depth of soil restoration	Tree and riparian vegetation planting
Elimination of highwalls	Establishing vegetation	Productivity records
Restoring approximate original contour	Prime farmland restoration records	Permanent structures
Establishing drainage controls	Water quality	Hydrologic impacts
Achieving stability		Ground cover
		Responsibility period
		Land use capability

Phase III

Phase II

We measured contemporaneous reclamation using information provided by DMRM for all Phase I, II, and III bond releases the District Offices approved between July 1, 2003, and June 30, 2004. The information provided the date the permittee first identified a segment for reclamation and the date the permittee submitted a bond release request that DMRM approved for that segment. We considered a reasonable time for achieving a Phase I release to be one year, Phase II two years, and Phase III six to seven years from the time the segment is identified for reclamation. We based our measure on the principle that a permittee's request for bond release is the first indication that the permittee has asked for a reduction in liability and the first time DMRM determines whether reclamation is completed.

We completed a bond release evaluation form for each bond release inspection OSM conducted. We also collected information on remining, land use, hydrology, and surface water features on most oversight inspections. Appendices I, II, and III contain a summary of our bond release inspection findings. Appendix IV provides data from DMRM's bond releases. Appendix V lists permits where mining has been completed for more than two years and Phase II bond release has not yet been achieved.

Table A provides the number of bond releases approved by DMRM during the review period. Table B provides a summary of our bond release inspections.

Table A					
Bond Releases Approved by DMRM					
July 1, 2003 - June 30, 2004					
Phase I		Phase II		Phase III	
Acres	Number of Segments	Acres	Number of Segments	Acres	Number of Segments
2778.4	67	2519.0	62	5121.2	108

Table B					
Bond Releases Approved by DMRM and Inspected through OSM Oversight					
July 1, 2003 - June 30, 2004					
Phase I		Phase II		Phase III	
Acres	Number of segments	Acres	Number of segments	Acres	Number of segments
325.5	4	452.7	7	128.1	2

III. Reclamation Success Findings

Reclamation Success at Phase I Bond Release

OSM inspections on four of 67 segments that DMRM approved for Phase I bond release concurred with DMRM's decisions that the segments met the performance standards for a phase I bond release. We evaluated 6 percent of all of the Phase I bond releases approved by DMRM during the period. All four segments met the required standards for Phase I bond release. Appendix I provides specific findings on each segment. The evaluation considered: regrading to the approximate original contour or the approved land configuration; elimination of all highwalls; the appearance of stability of regraded slopes; installation of proper drainage controls; and a preliminary data and field review of hydrologic impacts.

Reclamation Success at Phase II Bond Release:

OSM inspections on seven of 62 segments that DMRM approved for Phase II bond release concurred with DMRM's decisions that the segments met the performance standards for a Phase II bond release. We evaluated 11 percent of all of the Phase II bond releases approved by DMRM during the period. We determined that all seven segments met the standards for Phase II bond release. Appendix II reports the specific findings on each segment/permit. The evaluation considered: vegetative cover; control of runoff; soil restoration; prime farmland yield restoration; and a preliminary data and field review of hydrologic impacts.

Reclamation Success at Phase III Bond Release:

OSM conducted inspections on two of 108 segments that DMRM approved for Phase III bond release. OSM concurred with DMRM's decisions that the segments met the performance standards for a Phase III bond release.

We evaluated two percent of all of the Phase III bond releases approved by DMRM during the period. Appendix III reports the specific findings on each segment/permit. Our evaluation considered: vegetative cover; tree and riparian vegetation planting and success; productivity; appropriateness of permanent structures; hydrologic impacts; post-mining land use; and expiration of the responsibility period for ensuring successful vegetation.

Contemporaneous Reclamation

Although the Ohio Program (OAC 1501:13-9-13) does not set a specific number of days, months, or years for achieving each phase of bond release, it does require reclamation and bond release "as contemporaneous as practicable with mining operations." Our evaluation considered a reasonably expected number of years for achieving the standards for each phase of bond release. Our purpose is to provide a general indication of how well DMRM and the industry are fulfilling the objective of contemporaneous reclamation.

Appendix IV provides the actual time in years between the dates segments were identified for reclamation and the dates the permittees requested bond releases approved during this evaluation period. The request for and approval of bond release is the only formal mechanism that exists for verifying and documenting completion of each phase of reclamation. For the last six years, we have reported information based on all DMRM Phase I, II, and III bond releases. We used this information again this year and provided a comparison of the last five years of data. The data shows the actual time frame between identification of segments for reclamation, receipt of bond release requests, and actual approval of bond releases by DMRM's District Offices. The following findings identify the range in reclamation time frames on all segments DMRM released.

Timeliness of Reclamation and Bond Release of Reclamation Segments

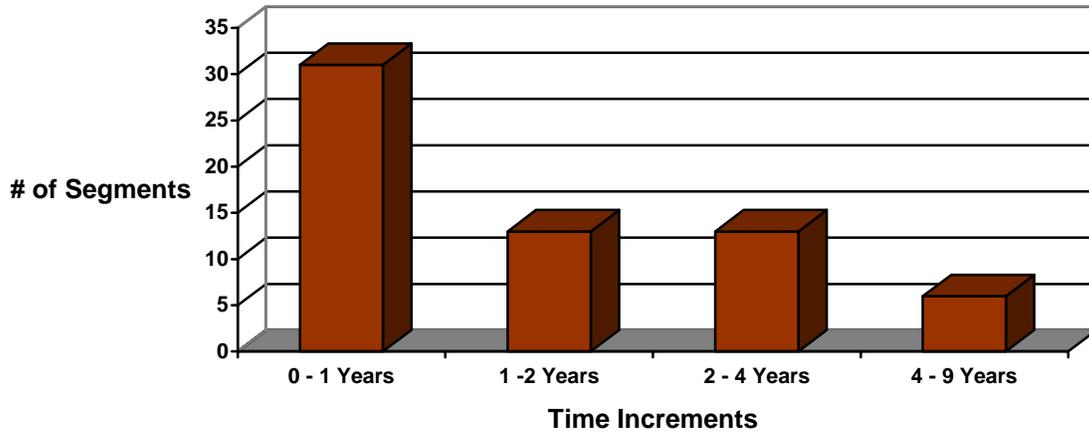
Phase I

Time frames for completing Phase I reclamation ranged from -0.5 years to 9.8 years¹ and averaged 1.7 years on 63 Phase I releases approved by DMRM. Ohio's contemporaneous reclamation rule (OAC 1510:13-9-13) requires completion of backfilling and rough grading within 60 days or 180 days after coal removal, depending on the mining method. Based on expected reclamation practices, adding 60 days beyond the rough backfilling and grading time requirements provides a reasonable time for completion of final grading and preparation of the bond release request. Based on these time frames, a reasonably expected time for meeting Phase I requirements following identification of a reclamation segment is between 120 days (0.3 years) and 240 days (0.7 years). For purposes of this study and to account for extenuating circumstances, we determined that requests for Phase I should be submitted within one year after a segment is identified for reclamation. The data in Appendix IV and Chart A shows that permittees requested Phase I bond release within one year or less of identifying the segment for reclamation on 49 percent of the segments approved for Phase I release. These segments included 56 percent of the acreage approved for Phase I release.

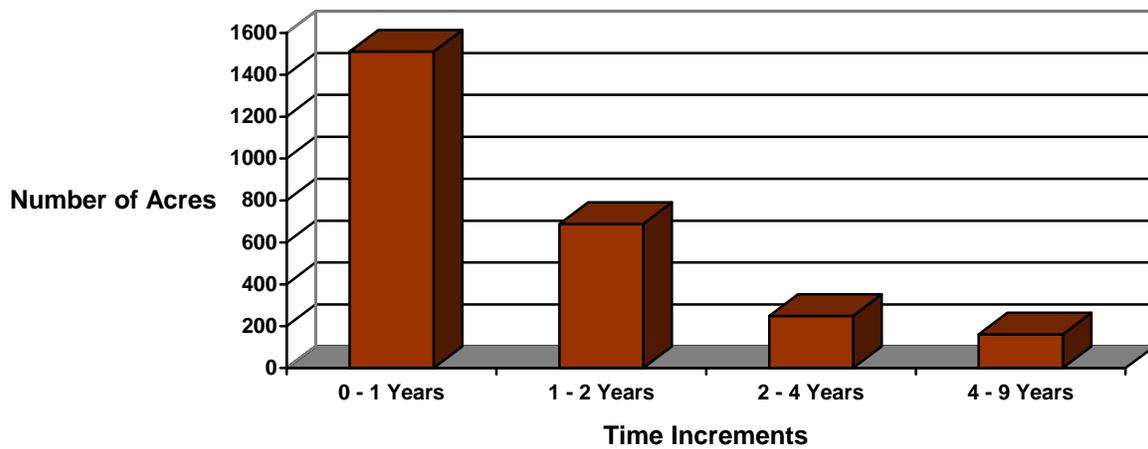
Chart A shows the number of segments, acreage, and time increments of the Phase I releases DMRM approved between July 1, 2003, and June 30, 2004.

¹The number of years is the time between the date an incremental area or segment was identified for reclamation on the permittee's annual/final maps and the date the permittee submitted a request for bond release. For example, the Year 1 segment of a permit was identified on an annual or final report as ending in July 1998. The permittee submitted a request for Phase I bond release on Year 1 in December 1998. For purposes of this report, the time (rounded to five months) is reported as 0.4 years. Less than one year or a negative number indicates that the bond release request was dated prior to the date the segment was identified for reclamation in an annual report or the permit was finalized before the anniversary date of permit issuance.

Chart A Timing of Phase I Requests (Segments)



Approved Phase I Requests (Acres)

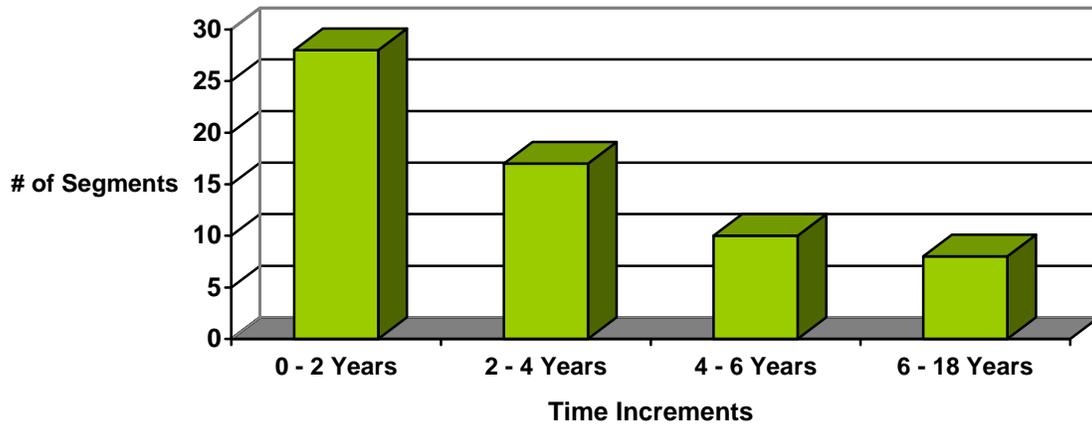


Phase II

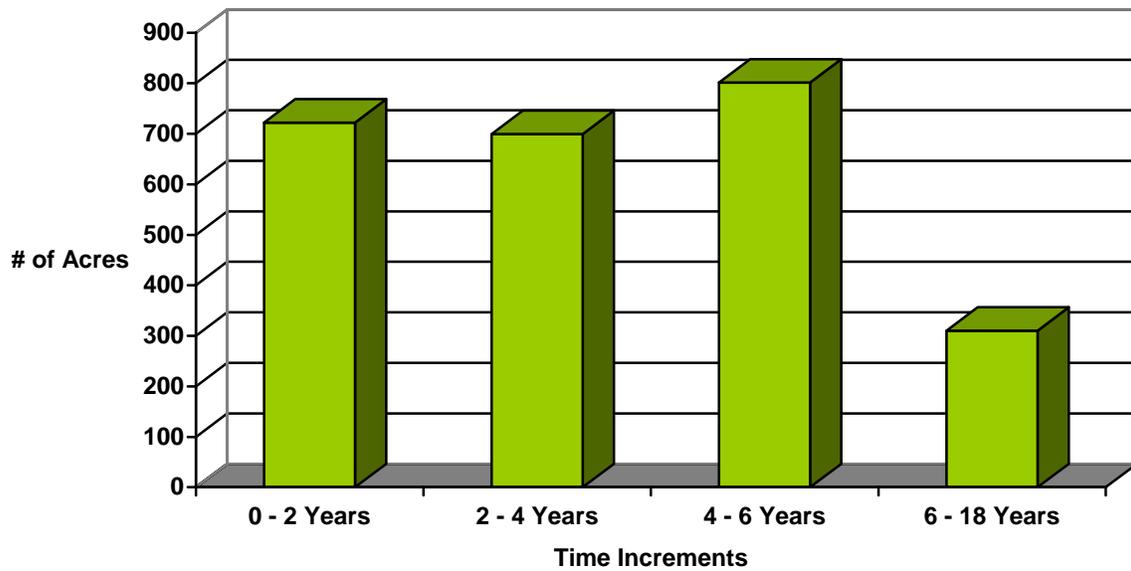
Time frames for completing Phase II reclamation ranged from 0 years to 18.8 years and averaged 3.6 years on 63 phase II releases approved by DMRM. For the most part, a segment is eligible for phase II bond release once the area is resoiled and vegetation is established to control erosion. On prime farmland (PFL), the permittee must also demonstrate restored productivity for three years. Once a site is graded, resoiling is required within the first acceptable growing season. In most cases, it is reasonable to expect that a segment be resoiled, planted, and vegetation established to control erosion within two years after the segment is identified for reclamation. Two years allow for the backfilling and grading schedules identified under OAC 1501:13-9-13, adequate time for resoiling, seasonal impacts, time to establish adequate vegetation following seeding, and time for some rework. We acknowledge there will always be site-specific exceptions to the two-year expectation. For example, segments containing PFL require three years of productivity data before a phase II release can be approved. The data in Appendix IV and Chart B show that permittees requested Phase II bond release within two years of identifying the segment for reclamation on 44 percent of the segments approved for Phase II release. These segments included 28 percent of the acreage approved for Phase II bond release. Phase II bond releases were requested on 71 percent of the segments approved within four years of identifying the segment for reclamation.

Chart B shows the number of segments, acreage, and the time increments of the Phase II releases DMRM approved between July 1, 2003, and June 30, 2004.

Chart B
Timing of Phase II Requests (Segments)



Approved Phase II Requests (Acres)

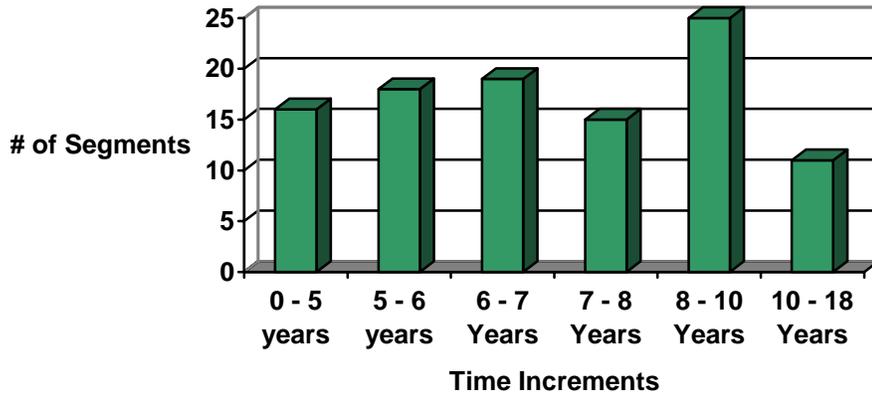


Phase III

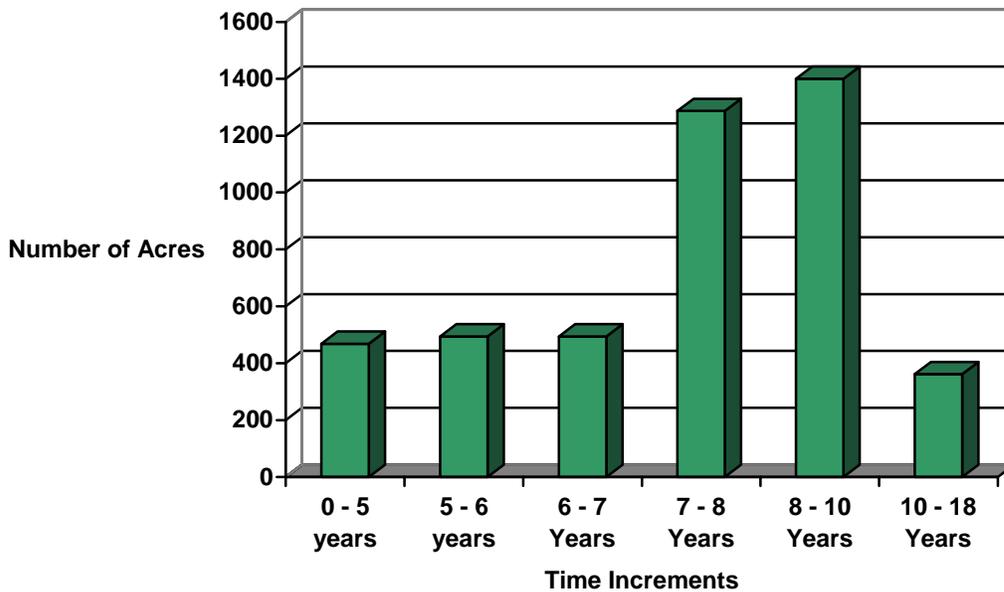
Time frames for completing Phase III reclamation ranged from 0 years to 18.8 years and averaged 7.2 years on the 104 phase III releases approved by DMRM. A site is eligible for Phase III release when all standards are met and either a two-year period or five-year revegetation responsibility period expires. The responsibility period starts at the last time of augmented seeding. The two-year period applies only to sites eligible for re-mining. In most cases, it is reasonable to expect a phase III release in six to seven years after identifying a segment for reclamation if the site is not eligible for re-mining. A six to seven-year period provides one year to complete grading; a second year to complete resoiling, seeding, and establishing vegetation; and the remaining four to five years to demonstrate productivity and for expiration of the five-year responsibility period. We acknowledge there will always be site-specific exceptions to this expectation. On occasion, the period may be extended due to rework and re-seeding that may restart the five-year responsibility period. The data in Appendix IV and Chart C show that permittees requested Phase III bond release within seven years of identifying the segment for reclamation on 51 percent of the segments approved for Phase III release. These segments included 36 percent of the acreage approved for Phase III bond release. The segments in the negative number to five-year range were either sites eligible for a two-year responsibility period, sites that did not require vegetation based on the land use, or sites that were seeded prior to the date the segment was identified for reclamation.

Chart C shows the number of segments, acreage, and the time increments of the Phase III releases DMRM approved between July 1, 2003, and June 30, 2004.

Chart C
Timing of Phase III Requests
(Segments)



Approved Phase III Requests (Acres)



Six-Year Bond Release Summary Data

This year's data shows that the average time for requesting Phase I bond release was back in line with the overall average of 1.6 years. The number of acres approved for Phase I release in 2004 was 43 percent less than in 2003. The average time for requesting Phase II bond release decreased slightly from last year and the number of acres approved for Phase II release in 2004 decreased slightly from 2003. The average time for requesting Phase III release remained the same as last year. The acreage approved for Phase III bond release in 2004 increased slightly over 2003. The six-year average annual Phase III acreage is 6115 acres. Table C summarizes the timing and acreage released over the last six years.

Table C						
Timing and Acreage Released Over a Six-Year Period						
	Phase I		Phase II		Phase III	
	Years Between Date Segment Identified & Date Operator Submitted Request	Acres Released	Years Between Date Segment Identified & Date Operator Submitted Request	Acres Released	Years Between Date Segment Identified & Date Operator Submitted Request	Acres Released
1999	1.9	5470.1	3.9	7117.7	6.5	5961.9
2000	1.2	2615.3	3.8	4751.7	6.5	8688.9
2001	1.7	7671.6	3.6	7640.0	6.9	6844.4
2002	1.3	2444.1	3.5	2862.2	6.8	5277.3
2003	2.6	4840.4	3.7	2603.9	7.2	4800.4
2004	1.7	2778.4	3.6	2519.0	7.2	5121.2
6-year average	1.73 years	4303.3	3.68 years	4582.4	6.85 years	6115.6

Charts D, E, and F provide a six-year comparison of acres released by year, segments released by year, and the average time between the date a segment is identified for reclamation and the date the permittee requested bond release.

Chart D
Acres of Each Phase of Bond Release
by Year

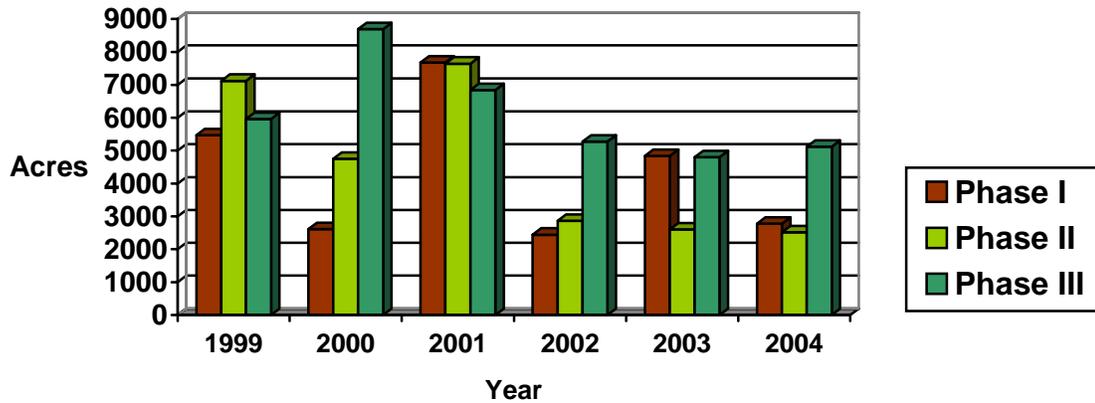


Chart E
Number of Bond Release Segments
Approved by Year

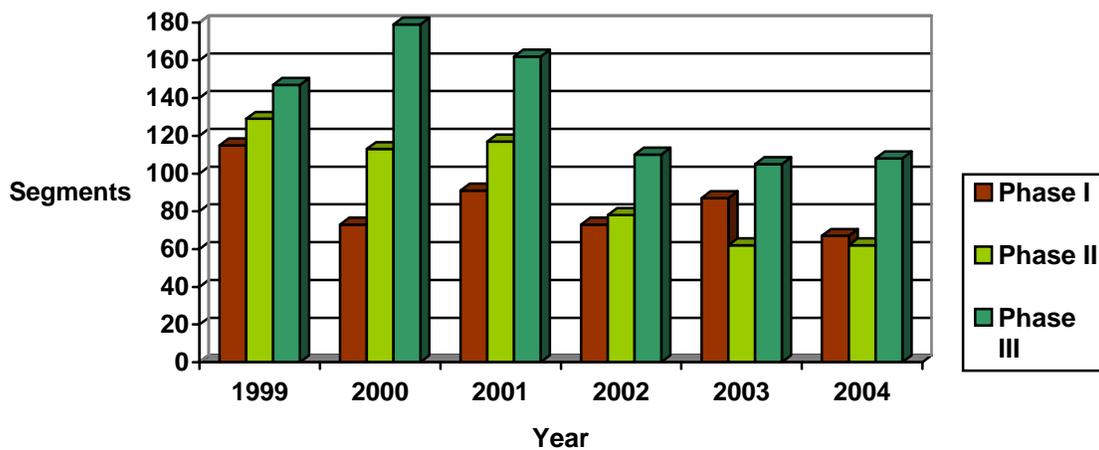
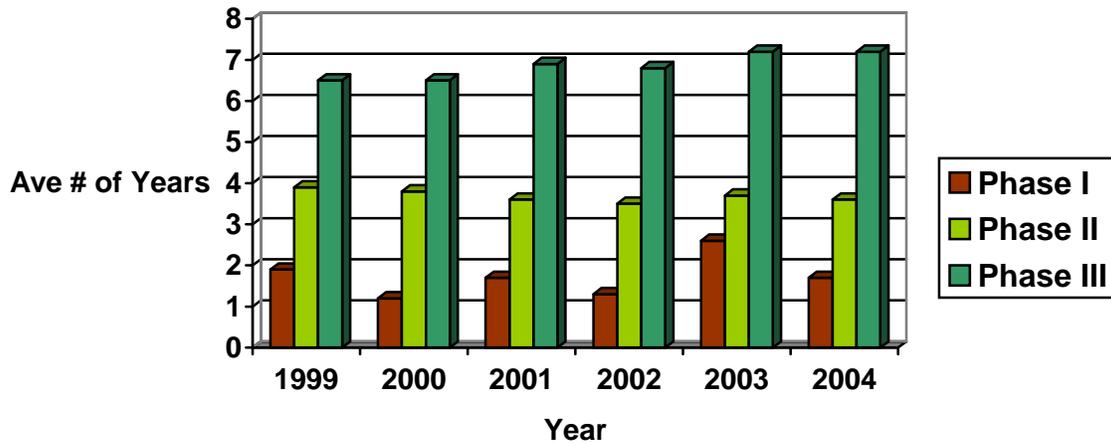


Chart F
Average Number of Years Between
Reclamation Date & Release Request



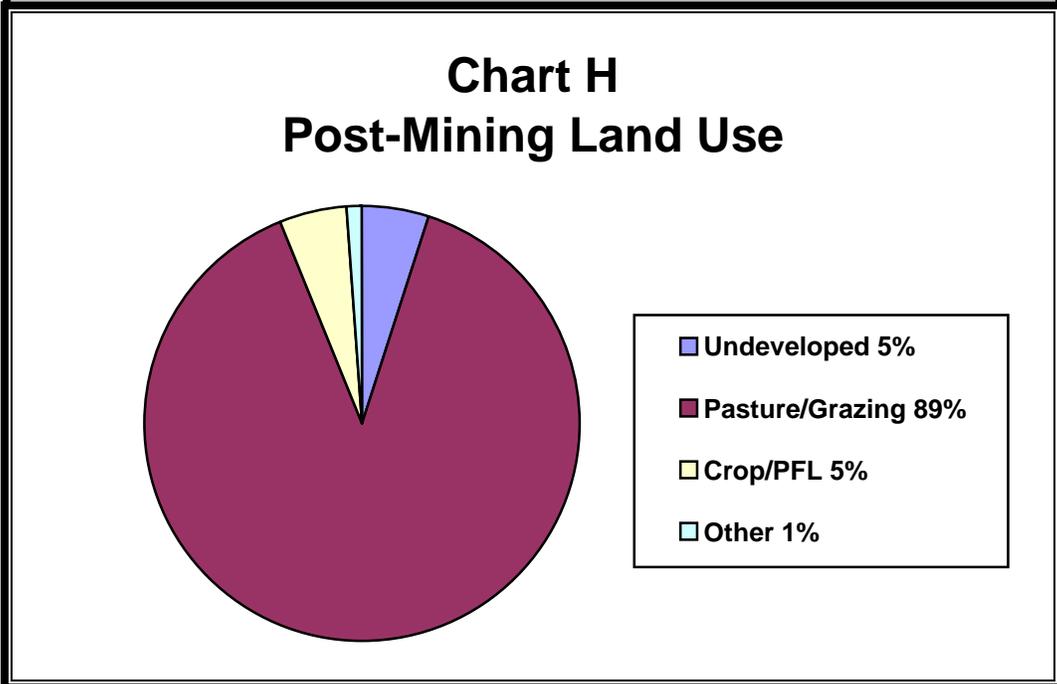
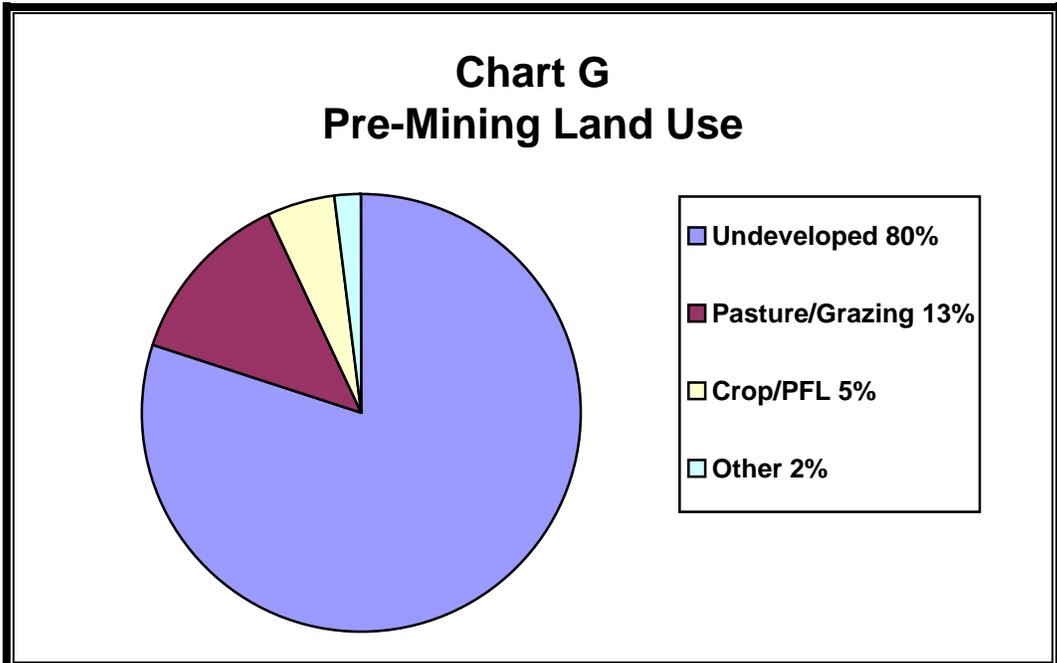
OSM and Ohio have continued to track reclamation status on permits where mining has been completed for at least two years, but bond release standards have not yet been met. In August 2003, 36 permits existed that had not yet achieved a Phase II bond release, although mining had been completed for more than two years. As of August 2004, there are 41 permits that meet these criteria. These 41 permits range in age from one month to 13 years since the two-year criterion was met. In August 2003 there were 32 and in August 2004 there are 31 where mining has been completed for more than six years and standards for phase III bond release have not been met. These 31 permits range in age from one month to nine years since the six-year criterion was met. They range from over one to eight years since the site achieved phase II bond release. Eight permits in this category have not achieved phase II bond release and are still considered active. Appendices V and VI provide lists of permits that exist in each category as of July 26, 2004.

Interesting Facts on End-Results of Mining and Reclamation

Another part of evaluating reclamation success is reporting some of the actual results of mining and reclamation. During our inspections of 47 permits that included over 14,000 permitted acres, we assembled some basic information about:

- Land use
- Restored productivity
- Permanent structures
- Remining

Charts G and H show land use trends. Chart G identifies the percent of acreage for the major land use categories that existed before mining on 47 permits that OSM inspected. Chart H identifies the percent of acreage for post-mining land use categories on these same permits. Chart G shows that 76 percent of the permitted areas were classified as undeveloped land prior to mining. Undeveloped land includes wooded/forested areas, fish and wildlife habitat, abandoned farmland, previously mined areas, and other land that is not managed. Chart H shows that 74 percent of the mined land is being restored to pasture or grazing land after mining.



OSM inspectors recorded information on the benefits of re-mining on the permits they inspected. Based on their review of permit applications and on-the-ground assessments of 31 permits that included some aspect of re-mining, OSM inspectors estimated the following statistics about re-mining.

Permit applications proposed the following improvements due to re-mining on these 31 permits:

- i Remove an estimated 26 miles of abandoned highwalls
- i Reclaim approximately 1600 acres of unreclaimed mine spoil
- i Eliminate an estimated 41 mine openings or entries

As of the date of our inspection, re-mining on these 26 permits had:

- i Eliminated nearly 18 miles of highwall
- i Reclaimed an estimated 877 acres of unreclaimed mine spoil
- i Mined out nine mine openings or entries

The difference between proposed and actual improvements resulting from re-mining is because mining may not have been completed at the time of the OSM inspection or the permittee may have decided not to affect all areas originally proposed in the permit application.

IV. Summary

On the 13 bond release segments that we inspected, all standards required for each phase of bond release were met at the time DMRM approved bond releases and on-the-ground reclamation met or exceeded performance standards.

Mined land is restored to productive use, with a high percentage being restored to pasture/grazing land. Overall, DMRM and the mining industry continue to ensure that reclamation, including bond release on most sites, is contemporaneous with mining. Although there are some mine sites that are not considered contemporaneous, DMRM continues to work with the permittees to resolve any problems preventing completion of final reclamation and bond release.

Appendix I

Permits Evaluated by OSM for Phase I Bond Release

(July 1, 2003 – June 30, 2004)

Permit & Segment	Acreage Evaluated	Highwalls Eliminated?	AOC or other approved land form achieved?	Drainage controls functional?	Backfilled Slopes stable?
D-2115-2	120.9	Y	Y	Y	Y
D-2028-2	121.4	Y	Y	Y	Y
D-533-17	57.2	Y	Y	Y	Y
D-283-19	26.0	Y	Y	Y	Y
4 segments	325.5 ac				

Appendix II

Permits Evaluated by OSM for Phase II Bond Release

(July 1, 2003 – June 30, 2004)

Permit & Segment	Acreage Evaluated	Vegetation Established to Control Erosion?	Soil restoration achieved?		PFL Soil Restored, Target yield met?	Surface Water Quality Acceptable?
			Topsoil	ARM		
D-2028-2	121.4	Y	Y	NA	NA	Y
D-1133-5	47.0	Y	Y	NA	NA	Y
D-1030-5	44.6	Y	Y	NA	NA	Y
D-1030-6	138.0	Y	Y	NA	NA	Y
D-1015-7	26.5	Y	Y	NA	NA	Y
D-594-7	48.0	Y	Y	Y	NA	Y
D-594-8	27.2	Y	Y	Y	NA	Y
7 segments	452.7 ac					

Appendix III

Permits Evaluated by OSM for Phase III Bond Release (July 1, 2003 – June 30, 2004)

Permit & Segment	Acres	Trees/Riparian Vegetation Meet Requirements?	Target Yields Achieved?		Permanent Structures Comply with Permit?			Surface Water Quality Standards Achieved?	Ground Water Quality & Quantity Standards Achieved?	Est. % of Ground Cover	Liability Period Expired?	Post-mining land use			
			County Average	Post-mining Yield	Ponds	Roads	Other					Approved PMLU(s)	Area capable of supporting PMLU?	PFL Acres recl	
															Acres
D-1125-1	25.6	NA	2.0	3.0	NA	NA	NA	NA	Y	Y	>90	Y	PAST	Y	NA
D-1129-2	102.5	Y	2.0	3.0	?	4	2	NA	Y	Y	>90	Y	PAST	Y	NA
² segments	128.1														

APPENDIX IV
BOND RELEASES APPROVED BY DMRM (JULY 1, 2003 – JUNE 30, 2004)
MEASURE OF CONTEMPORANEOUS RECLAMATION

Phase I Releases

Permit Number	Permit Issued	Yearly Segment	Phase of Release	Date Segment Identified for Reclamation	Due Date to Request Release	Date Operator Submitted Release Request	Acreage in Segment	Date Release Approved by DMRM	Years from Date Identified to Request
D-1184	23-Nov-98	5	PH1	23-Nov-2003	23-Nov-04	4-Jun-03	9.5	3-Dec-2003	-0.5
D-1188	13-Jan-99	5	PH1	13-Jan-2004	13-Jan-05	12-Nov-03	72	13-Jan-2004	-0.2
D-0944	20-May-91	12	PH1	20-May-2003	20-May-04	6-May-2003	2.4	15-Jul-2003	0.0
D-2066	01-Sep-00	3	PH1	1-Sep-2003	1-Sep-04	2-Oct-03	8.4	18-Dec-2003	0.1
D-2059	18-Jul-00	3	PH1	18-Jul-2003	18-Jul-04	26-Aug-03	28.7	6-Nov-2003	0.1
D-1186	03-Dec-98	5	PH1	3-Dec-2003	3-Dec-04	15-Jan-04	9.6	23-Apr-2004	0.1
D-1167	12-Jun-98	5	PH1	12-Jun-2003	12-Jun-04	30-Jul-03	119.6	30-Sep-2003	0.1
D-2019	15-Dec-99	3	PH1	15-Dec-2002	15-Dec-03	11-Mar-03	39.2	11-Jul-2003	0.2
D-1083	30-Jun-94	9	PH1	30-Jun-2003	30-Jun-04	29-Sep-03	33.7	24-Feb-2004	0.2
D-0594	25-Jun-86	17	PH1	25-Jun-2003	25-Jun-04	30-Sep-2003	57.3	24-Feb-2004	0.3
D-2115	16-Jul-01	2	PH1	16-Jul-2003	16-Jul-04	24-Oct-03	120.9	2-Feb-2004	0.3
D-1149	12-Aug-97	6	PH1	12-Aug-2003	12-Aug-04	24-Nov-03	11.4	29-Jan-2004	0.3
D-2087	17-Jan-01	2	PH1	17-Jan-2003	17-Jan-04	7-May-03	57.1	28-Jul-2003	0.3
D-2014	21-Oct-99	4	PH1	21-Oct-2003	21-Oct-04	13-Feb-04	21.2	30-Mar-2004	0.3
D-2011	16-Sep-99	4	PH1	16-Sep-2003	16-Sep-04	22-Jan-04	89.5	10-May-2004	0.4
D-0283	27-Feb-84	19	PH1	27-Feb-2003	27-Feb-04	24-Jul-03	26	16-Dec-2003	0.4
D-0246	01-Dec-83	19	PH1	12/1/2002	1-Dec-03	28-Apr-2003	19.5	21-Jul-2003	0.4
D-0981	11-May-92	11	PH1	11-May-2003	11-May-04	23-Oct-03	3.9	30-Mar-2004	0.5
D-1173	16-Sep-98	5	PH1	16-Sep-2003	16-Sep-04	4-Mar-04	21.5	4-May-2004	0.5
D-2142	28-Feb-02	1	PH1	28-Feb-2003	28-Feb-04	29-Sep-03	10	25-Nov-2003	0.6
D-0957	23-Aug-91	12	PH1	23-Aug-2003	23-Aug-04	1-Apr-2004	50.2	30-Jun-2004	0.6
D-2096	19-Mar-01	2	PH1	19-Mar-2003	19-Mar-04	1-Dec-03	35.5	17-Feb-2004	0.7
D-2047	12-May-00	3	PH1	12-May-2003	12-May-04	27-Jan-04	14.8	20-Apr-2004	0.7
D-0313	17-Apr-84	19	PH1	17-Apr-2003	17-Apr-04	22-Jan-2004	2.1	4-May-2004	0.8
D-2014	21-Oct-99	3	PH1	21-Oct-2002	21-Oct-03	3-Aug-03	14.5	21-Nov-2003	0.8
D-1084	21-Jul-94	8	PH1	21-Jul-2002	21-Jul-03	5-May-03	526.2	28-Jul-2003	0.8
D-1038	17-Sep-93	9	PH1	17-Sep-2002	17-Sep-03	8-Jul-03	8.8	8-Oct-2003	0.8
D-1167	12-Jun-98	4	PH1	12-Jun-2002	12-Jun-03	4-Apr-03	24.6	29-Jul-2003	0.8
D-1193	30-Mar-99	3	PH1	30-Mar-2002	30-Mar-03	5-Mar-03	18.7	15-Oct-2003	0.9
D-1026	22-Jul-93	9	PH1	22-Jul-2002	22-Jul-03	25-Jul-03	25.7	15-Sep-2003	1.0
D-0313	17-Apr-84	18	PH1	17-Apr-2002	17-Apr-03	28-Apr-2003	28	7-Jul-2003	1.0
Phase I Release in 0 – 1 Year Interval						Total	1510.5	Count 31	
D-0533	13-Dec-85	17	PH1	13-Dec-2002	13-Dec-03	15-Jan-2004	57.2	5-Apr-2004	1.1
D-1135	30-Jan-97	5	PH1	30-Jan-2002	30-Jan-03	18-Mar-03	35.9	1-Oct-2003	1.1
D-2095	08-Mar-01	1	PH1	8-Mar-2002	8-Mar-03	29-Apr-03	15.8	1-Oct-2003	1.1

D-0725	08-Dec-87	15	PH1	8-Dec-2002	8-Dec-03	12-Apr-2004	4.8	30-Jun-2004	1.3	
D-1173	16-Sep-98	4	PH1	16-Sep-2002	16-Sep-03	4-Mar-04	23.6	4-May-2004	1.5	
D-1015	21-May-93	9	PH1	21-May-2002	21-May-03	1-Dec-03	15.6	25-Nov-2003	1.5	
D-0678	15-Jun-87	15	PH1	15-Jun-2002	15-Jun-03	30-Jan-2004	27.5	20-Apr-2004	1.6	
D-1086	08-Aug-94	7	PH1	8-Aug-2001	8-Aug-02	30-Apr-03	99.1	15-Jul-2003	1.7	
D-0340	24-May-84	17	PH1	24-May-2001	24-May-02	28-Feb-2003	73.8	1-Oct-2003	1.8	
D-2014	21-Oct-99	2	PH1	21-Oct-2001	21-Oct-02	3-Aug-03	16.4	21-Nov-2003	1.8	
D-1084	21-Jul-94	7	PH1	21-Jul-2001	21-Jul-02	5-May-03	185.8	28-Jul-2003	1.8	
D-1167	12-Jun-98	3	PH1	12-Jun-2001	12-Jun-02	31-Mar-03	98.3	29-Jul-2003	1.8	
D-0678	15-Jun-87	14	PH1	15-Jun-2001	15-Jun-02	24-Jun-2003	34.1	18-Sep-2003	2.0	
Phase I Release in 1 - 2 Year Interval							Total	687.9	Count 13	
D-1122	22-Apr-96	5	PH1	22-Apr-2001	22-Apr-02	27-May-03	89.4	28-Jul-2003	2.1	
D-0706	14-Sep-87	14	PH1	14-Sep-2001	14-Sep-02	22-Oct-2003	17.8	20-Apr-2004	2.1	
D-0706	14-Sep-87	15	PH1	14-Sep-2002	14-Sep-03	22-Oct-2004	11	20-Apr-2004	2.1	
D-2047	12-May-00	1	PH1	12-May-2001	12-May-02	24-Jun-03	3.9	18-Sep-2003	2.1	
D-2055	19-Jun-00	1	PH1	19-Jun-2001	19-Jun-02	6-Aug-03	23.9	3-Nov-2003	2.1	
D-1173	16-Sep-98	3	PH1	16-Sep-2001	16-Sep-02	4-Mar-04	8.5	4-May-2004	2.5	
D-1086	08-Aug-94	6	PH1	8-Aug-2000	8-Aug-01	30-Apr-03	18.1	15-Jul-2003	2.7	
D-1038	17-Sep-93	7	PH1	17-Sep-2000	17-Sep-01	8-Jul-03	12.3	8-Oct-2003	2.8	
D-0706	14-Sep-87	13	PH1	14-Sep-2000	14-Sep-01	8-Jul-2003	7.2	20-Apr-2004	2.8	
D-0958	29-Aug-91	9	PH1	29-Aug-2000	29-Aug-01	8-Jul-2003	15.4	8-Oct-2003	2.9	
D-0533	13-Dec-85	15	PH1	13-Dec-2000	13-Dec-01	28-Oct-2003	5.1	24-May-2004	2.9	
D-1173	16-Sep-98	2	PH1	16-Sep-2000	16-Sep-01	4-Mar-04	8.2	4-May-2004	3.5	
D-1086	08-Aug-94	5	PH1	8-Aug-1999	8-Aug-00	30-Apr-03	28.3	15-Jul-2003	3.7	
D-1138	12-Mar-97	2	PH1	12-Mar-1999	12-Mar-00	5-May-03	61.9	28-Jul-2003	4.2	
D-1086	08-Aug-94	4	PH1	8-Aug-1998	8-Aug-99	30-Apr-03	15.5	15-Jul-2003	4.7	
D-1086	08-Aug-94	3	PH1	8-Aug-1997	8-Aug-98	30-Apr-03	60.4	15-Jul-2003	5.7	
D-0951	30-Jul-91	6	PH1	30-Jul-1997	30-Jul-98	15-Aug-2003	16.6	18-Aug-2003	6.0	
D-0981	11-May-92	4	PH1	11-May-1996	11-May-97	23-Oct-2003	1.3	30-Mar-2004	7.5	
D-0313	17-Apr-84	10	PH1	17-Apr-1994	17-Apr-95	22-Jan-04	5.4	4-May-2004	9.8	
Phase I Release in 2 – 9.8 Year Interval							Total	410.2	Count 19	

Summary Statistics for Phase 1 Releases ₂	Phase I Total	2608.6 acres	Count	63
			Min	-0.5
			Max	9.8
			Average	1.7

Phase II Releases									
Permit Number	Permit Issued	Yearly Segment	Phase of Release	Date Segment Identified for Reclamation	Due Date to Request Release	Date Operator Submitted Release Request	Acreage in Segment	Date Release Approved by DMRM	Years from Date Identified to Request
D-0944	20-May-91	12	PH2	20-May-2003	20-Jul-03	6-May-03	2.4	15-Jul-2003	0.0
D-2075	20-Oct-00	2	PH2	20-Oct-2002	20-Dec-02	1-Nov-02	21.5	29-Sep-2003	0.0
D-2114	13-Jul-01	2	PH2	13-Jul-2003	13-Sep-03	3-Aug-03	16.4	10-Nov-2003	0.1
D-2087	17-Jan-01	2	PH2	17-Jan-2003	17-Mar-03	7-May-03	57.1	22-Aug-2003	0.3
D-0246	01-Dec-83	19	PH2	1-Dec-2002	1-Feb-03	28-Apr-03	19.5	28-Jul-2003	0.4
D-1095	14-Nov-94	8	PH2	14-Nov-2002	14-Jan-03	21-Aug-03	13.6	19-Dec-2003	0.8
D-2014	21-Oct-99	3	PH2	21-Oct-2002	21-Dec-02	3-Aug-03	14.5	24-Nov-2003	0.8
D-1153	16-Oct-97	5	PH2	16-Oct-2002	16-Dec-02	2-Sep-03	12.1	25-Nov-2003	0.9
D-0957	23-Aug-91	11	PH2	23-Aug-2002	23-Oct-02	23-Jul-03	40.3	30-Sep-2003	0.9
D-2047	12-May-00	3	PH2	12-May-2003	12-Jul-03	12-Apr-04	14.8	29-Jun-2004	0.9
D-2009	15-Sep-99	3	PH2	15-Sep-2002	15-Nov-02	29-Aug-03	38.9	25-Nov-2003	1.0
D-0313	17-Apr-84	18	PH2	17-Apr-2002	17-Jun-02	28-Apr-03	28	7-Jul-2003	1.0
D-1087	17-Aug-94	8	PH2	17-Aug-2002	17-Oct-02	29-Aug-03	26	25-Nov-2003	1.0
D-1153	16-Oct-97	4	PH2	16-Oct-2001	16-Dec-01	3-Jan-03	3.6	7-Aug-2003	1.2
D-1004	30-Nov-92	10	PH2	30-Nov-2002	30-Jan-03	11-Mar-04	33.5	25-May-2004	1.3
D-0725	08-Dec-87	15	PH2	8-Dec-2002	8-Feb-03	12-Apr-04	4.8	30-Jun-2004	1.3
D-0981	11-May-92	11	PH2	11-May-2003	11-Jul-03	13-Oct-04	3.8	30-Mar-2004	1.4
D-1193	30-Mar-99	3	PH2	30-Mar-2002	30-May-02	2-Sep-03	18.7	25-Nov-2003	1.4
D-1173	16-Sep-98	4	PH2	16-Sep-2002	16-Nov-02	4-Mar-04	23.6	4-May-2004	1.5
D-1191	08-Mar-99	3	PH2	8-Mar-2002	8-May-02	2-Sep-03	8.5	2-Dec-2003	1.5
D-0973	24-Feb-92	10	PH2	24-Feb-2002	24-Apr-02	22-Aug-03	16.1	3-Dec-2003	1.5
D-2028	14-Feb-00	2	PH2	14-Feb-2002	14-Apr-02	29-Oct-03	121.4	23-Dec-2003	1.7
D-2018	29-Nov-99	2	PH2	29-Nov-2001	29-Jan-02	28-Aug-03	4.2	19-Dec-2003	1.7
D-1095	14-Nov-94	7	PH2	14-Nov-2001	14-Jan-02	28-Aug-03	55.5	19-Dec-2003	1.8
D-1133	16-Dec-96	5	PH2	16-Dec-2001	16-Feb-02	13-Oct-03	47	23-Mar-2004	1.8
D-0678	15-Jun-87	15	PH2	15-Jun-2002	15-Aug-02	12-Apr-04	27.5	30-Jun-2004	1.8
D-0957	23-Aug-91	10	PH2	23-Aug-2001	23-Oct-01	14-Jul-03	14.4	1-Oct-2003	1.9
D-0678	15-Jun-87	14	PH2	15-Jun-2001	15-Aug-01	24-Jun-03	34.1	18-Sep-2003	2.0
Phase II Release in 0 to 2 Year Interval						Total	721.8	Count 28	
D-2047	12-May-00	1	PH2	12-May-2001	12-Jul-01	24-Jun-03	3.9	18-Sep-2003	2.1
D-1173	16-Sep-98	3	PH2	16-Sep-2001	16-Nov-01	4-Mar-04	8.5	4-May-2004	2.5

² Total number of acres and number of segments receiving Phase I release reported by DMRM in Table A (67 segments totaling 2778.4 acres) differs slightly from the totals reported in this appendix. The difference is not significant for purposes of this appendix.

D-1015	21-May-93	7	PH2	21-May-2000	21-Jul-00	16-Dec-02	26.5	28-Jan-2004	2.6	
D-2014	21-Oct-99	1	PH2	21-Oct-2000	21-Dec-00	3-Aug-03	22.4	24-Nov-2003	2.8	
D-1186	03-Dec-98	2	PH2	3-Dec-2000	3-Feb-01	21-Oct-03	3.2	30-Jan-2004	2.9	
D-0678	15-Jun-87	13	PH2	15-Jun-2000	15-Aug-00	24-Jun-03	71.1	18-Sep-2003	3.0	
D-1106	18-Jul-95	5	PH2	18-Jul-2000	18-Sep-00	7-Aug-03	8.3	28-Jun-2004	3.1	
D-0784	09-Aug-88	12	PH2	9-Aug-2000	9-Oct-00	8-Sep-03	284.8	2-Dec-2003	3.1	
D-1097	28-Nov-94	5	PH2	28-Nov-1999	28-Jan-00	7-Mar-03	3.5	11-Jul-2003	3.3	
D-1173	16-Sep-98	2	PH2	16-Sep-2000	16-Nov-00	4-Mar-04	8.2	4-May-2004	3.5	
D-1015	21-May-93	6	PH2	21-May-1999	21-Jul-99	16-Dec-02	12.6	13-Aug-2003	3.6	
D-1086	08-Aug-94	5	PH2	8-Aug-1999	8-Oct-99	15-May-03	28.3	4-Aug-2003	3.8	
D-1043	30-Sep-93	5	PH2	30-Sep-1998	30-Nov-98	10-Jul-02	0.4	24-Sep-2003	3.8	
D-0958	29-Aug-91	8	PH2	29-Aug-1999	29-Oct-99	16-Jun-03	7.1	8-Oct-2003	3.8	
D-1133	16-Dec-96	3	PH2	16-Dec-1999	16-Feb-00	13-Oct-03	13.5	23-Mar-2004	3.8	
D-1137	18-Feb-97	3	PH2	18-Feb-2000	18-Apr-00	16-Dec-03	59	25-Nov-2003	3.8	
D-1030	09-Aug-93	6	PH2	9-Aug-1999	9-Oct-99	7-Jul-03	138	2-Feb-2004	3.9	
Phase II Release in 2 to 4 Year Interval							Total	699.3	Count 17	
D-0784	09-Aug-88	11	PH2	9-Aug-1999	9-Oct-99	8-Sep-03	346.3	3-Dec-2003	4.1	
D-1097	28-Nov-94	4	PH2	28-Nov-1998	28-Jan-99	3-Jan-03	2	17-Jul-2003	4.1	
D-0839	15-May-89	10	PH2	15-May-1999	15-Jul-99	24-Jun-03	64.5	8-Oct-2003	4.1	
D-1030	09-Aug-93	5	PH2	9-Aug-1998	9-Oct-98	8-Nov-02	44.6	2-Feb-2004	4.3	
D-1086	08-Aug-94	4	PH2	8-Aug-1998	8-Oct-98	15-May-03	15.5	7-Aug-2003	4.8	
D-0261	13-Jan-84	15	PH2	13-Jan-1999	13-Mar-99	21-Jan-04	22.4	4-May-2004	5.0	
D-1030	09-Aug-93	4	PH2	9-Aug-1997	9-Oct-97	30-Oct-02	98.4	3-Nov-2003	5.2	
D-0968	19-Nov-91	6	PH2	19-Nov-1997	19-Jan-98	4-Apr-03	128.4	29-Jul-2003	5.4	
D-1146	16-Jun-97	1	PH2	16-Jun-1998	16-Aug-98	4-Mar-04	10.3	8-Jun-2004	5.7	
D-0922	16-Jan-91	7	PH2	16-Jan-1998	16-Mar-98	29-Oct-03	68.9	26-Dec-2003	5.8	
D-1086	08-Aug-94	2	PH2	8-Aug-1996	8-Oct-96	15-May-03	12.9	7-Aug-2003	6.8	
D-1063	15-Mar-94	1	PH2	15-Mar-1995	15-May-95	8-Aug-03	25.9	8-Oct-2003	8.4	
D-0742	01-Mar-88	6	PH2	1-Mar-1994	1-May-94	19-Nov-02	38.9	14-Oct-2003	8.7	
D-0594	25-Jun-86	8	PH2	25-Jun-1994	25-Aug-94	8-Jul-03	27.2	24-Sep-2003	9.0	
D-0594	25-Jun-86	7	PH2	25-Jun-1993	25-Aug-93	3-Jul-03	48	24-Sep-2003	10.0	
D-0404	10-Sep-84	8	PH2	10-Sep-1992	10-Nov-92	4-Aug-03	139.7	15-Nov-2003	10.9	
D-0088	21-Dec-82	2	PH2	21-Dec-1984	21-Feb-85	25-Sep-03	8.9	15-Jan-2004	18.8	
D-0088	21-Dec-82	2	PH2	21-Dec-1984	21-Feb-85	25-Sep-03	8.9	15-Jan-2004	18.8	
Phase II Release Greater Than 4 Years							Total acres	1111.7	Count 18	
Summary Statistics for Phase II Releases ₃							Phase II Total	2532.8 acres	Count:	63
									Min:	0
									Max:	18.8
									Average:	3.6

₃ Total number of acres and number of segments receiving Phase II release reported by DMRM in Table A (62 segments totaling 2519 acres) differs slightly from the totals reported in this appendix. The difference is not significant for purposes of this appendix.

Phase III Releases									
Permit Number	Permit Issued	Yearly Segment	Phase of Release	Date Segment Identified for Reclamation	Due Date to Request Release	Date Operator Submitted Release Request	Acreage in Segment	Date Release Approved by DMRM	Years from Date Identified to Request
D-0944	20-May-91	12	PH3	20-May-2003	17-Oct-91	6-May-03	2.4	15-Jul-2003	0.0
D-0246	01-Dec-83	19	PH3	1-Dec-2002	22-Jul-84	28-Apr-03	19.5	28-Jul-2003	0.4
D-0725	08-Dec-87	15	PH3	8-Dec-2002	11-Jun-88	12-Apr-04	4.8	30-Jun-2004	1.3
D-1148	12-Aug-97	4	PH3	12-Aug-2001	5-Oct-97	7-Oct-03	15	30-Jan-2004	2.2
D-0533	13-Dec-85	15	PH3	13-Dec-2000	17-Jun-86	28-Oct-03	5.1	24-May-2004	2.9
D-0944	20-May-91	9	PH3	20-May-2000	11-Sep-91	6-May-03	38.4	16-Jul-2003	3.0
D-0706	14-Sep-87	12	PH3	14-Sep-1999	11-Feb-88	3-Apr-03	15.2	19-Nov-2003	3.6
D-0867	29-Nov-89	9	PH3	29-Nov-1998	23-Mar-90	15-Nov-02	74.7	15-Jul-2003	4.0
D-1038	17-Sep-93	6	PH3	17-Sep-1999	4-Dec-93	7-Oct-03	23.3	14-Oct-2003	4.1
D-0940	29-Apr-91	8	PH3	29-Apr-1999	9-Aug-91	24-Nov-03	31.1	5-Feb-2004	4.6
D-0619	09-Oct-86	12	PH3	9-Oct-1998	8-Mar-87	9-Aug-03	36.8	17-Oct-2003	4.8
D-1153	16-Oct-97	1	PH3	16-Oct-1998	3-Nov-97	21-Aug-03	65.8	25-Nov-2003	4.8
D-1113	17-Oct-95	3	PH3	17-Oct-1998	28-Nov-95	2-Sep-03	81.1	27-Oct-2003	4.9
D-1097	28-Nov-94	4	PH3	28-Nov-1998	21-Jan-95	21-Nov-03	2	27-Feb-2004	5.0
D-1001	21-Oct-92	6	PH3	21-Oct-1998	7-Jan-93	17-Oct-03	7.2	11-Jun-2004	5.0
D-1108	23-Aug-95	3	PH3	23-Aug-1998	4-Oct-95	22-Aug-03	46.3	25-Nov-2003	5.0
Phase III Release 0 to 5 Year Interval						Total	468.7	Count 16	
D-0796	23-Sep-88	10	PH3	23-Sep-1998	27-Jan-89	20-Oct-03	35.7	23-Dec-2003	5.1
D-0958	29-Aug-91	7	PH3	29-Aug-1998	27-Nov-91	30-Sep-03	20.5	2-Dec-2003	5.1
D-1149	12-Aug-97	1	PH3	12-Aug-1998	30-Aug-97	17-Oct-03	9.2	13-Jan-2004	5.2
D-1145	20-May-97	1	PH3	20-May-1998	7-Jun-97	3-Aug-03	25.1	25-Nov-2003	5.2
D-0939	11-Apr-91	7	PH3	11-Apr-1998	10-Jul-91	7-Jul-03	18.5	1-Oct-2003	5.2
D-1106	18-Jul-95	3	PH3	18-Jul-1998	29-Aug-95	13-Oct-03	51.4	28-Jun-2004	5.2
D-0347	07-Jun-84	14	PH3	7-Jun-1998	28-Nov-84	9-Sep-03	9.7	3-Dec-2003	5.3
D-0483	17-Jun-85	13	PH3	17-Jun-1998	26-Nov-85	23-Sep-03	24.1	23-Dec-2003	5.3
D-1129	10-Oct-96	2	PH3	10-Oct-1998	9-Nov-96	26-Jan-04	102.5	18-Mar-2004	5.3
D-0968	19-Nov-91	6	PH3	19-Nov-1997	5-Feb-92	4-Apr-03	128.4	5-Aug-2003	5.4
D-0931	11-Mar-91	7	PH3	11-Mar-1998	9-Jun-91	3-Oct-03	25.1	5-Feb-2004	5.6
D-1136	10-Feb-97	1	PH3	10-Feb-1998	28-Feb-97	28-Oct-03	29.2	23-Dec-2003	5.7
D-1146	16-Jun-97	1	PH3	16-Jun-1998	4-Jul-97	4-Mar-04	10.3	8-Jun-2004	5.7
D-0619	09-Oct-86	11	PH3	9-Oct-1997	24-Feb-87	9-Aug-03	31.4	8-Oct-2003	5.8
D-0921	02-Jan-91	4	PH3	2-Jan-1995	25-Feb-91	06-Nov-00	61.7	26-Sep-2003	5.8
D-0900	30-Aug-90	7	PH3	30-Aug-1997	28-Nov-90	7-Jul-03	150.7	8-Oct-2003	5.9
D-0821	14-Dec-88	9	PH3	14-Dec-1997	7-Apr-89	23-Oct-03	14	2-Feb-2004	5.9
D-1035	09-Sep-93	4	PH3	9-Sep-1997	2-Nov-93	3-Aug-03	34.5	25-Nov-2003	5.9
Phase III Release 5 to 6 Year Interval						Total	782	Count 18	
D-0958	29-Aug-91	6	PH3	29-Aug-1997	15-Nov-91	19-Aug-03	45.5	18-Aug-2003	6.0
D-1125	03-Jul-96	1	PH3	3-Jul-1997	21-Jul-96	26-Jun-03	25.6	23-Mar-2004	6.0
D-0787	10-Aug-88	9	PH3	10-Aug-1997	2-Dec-88	4-Aug-03	37.1	8-Oct-2003	6.0

D-0192	13-Sep-83	14	PH3	13-Sep-1997	5-Mar-84	9-Sep-03	7.9	15-Dec-2003	6.0	
D-0199	29-Sep-83	14	PH3	29-Sep-1997	21-Mar-84	24-Oct-03	9.1	18-Dec-2003	6.1	
D-0174	12-Aug-83	14	PH3	12-Aug-1997	2-Feb-84	9-Sep-03	57.2	17-Dec-2003	6.1	
D-1151	11-Sep-97	1	PH3	11-Sep-1998	29-Sep-97	21-Oct-04	5.9	20-Apr-2004	6.1	
D-1088	17-Aug-94	3	PH3	17-Aug-1997	28-Sep-94	17-Oct-03	18.4	17-Dec-2003	6.2	
D-0954	05-Aug-91	6	PH3	5-Aug-1997	22-Oct-91	21-Oct-03	52	16-Oct-2003	6.2	
D-1034	09-Sep-93	4	PH3	9-Sep-1997	2-Nov-93	26-Nov-03	0.3	15-Dec-2003	6.2	
D-1067	11-Apr-94	3	PH3	11-Apr-1997	23-May-94	2-Sep-03	23.6	3-Nov-2003	6.4	
D-1075	17-May-94	3	PH3	17-May-1997	28-Jun-94	21-Oct-03	8.6	16-Oct-2003	6.4	
D-0931	11-Mar-91	6	PH3	11-Mar-1997	28-May-91	24-Sep-03	86.2	5-Feb-2004	6.5	
D-1103	01-Mar-95	2	PH3	1-Mar-1997	31-Mar-95	6-Oct-03	33.4	15-Dec-2003	6.6	
D-0975	12-Mar-92	3	PH3	12-Mar-1995	23-Apr-92	15-Nov-01	28.1	28-Jan-2004	6.7	
D-0665	15-Apr-87	9	PH3	15-Apr-1996	7-Aug-87	4-Feb-03	14.5	14-Oct-2003	6.8	
D-0619	09-Oct-86	10	PH3	9-Oct-1996	12-Feb-87	9-Aug-03	24.7	8-Oct-2003	6.8	
D-0821	14-Dec-88	8	PH3	14-Dec-1996	26-Mar-89	22-Oct-03	5	2-Feb-2004	6.9	
D-1015	21-May-93	3	PH3	21-May-1996	2-Jul-93	2-Apr-03	11.1	28-Nov-2003	6.9	
Phase III Release 6 to 7 Year Interval							Total	494.2	Count 19	
D-0199	29-Sep-83	13	PH3	29-Sep-1996	9-Mar-84	24-Oct-03	13.4	16-Dec-2003	7.1	
D-1086	08-Aug-94	2	PH3	8-Aug-1996	7-Sep-94	19-Sep-03	19.8	3-Dec-2003	7.1	
D-0840	16-May-89	7	PH3	16-May-1996	14-Aug-89	11-Jul-03	11.9	15-Sep-2003	7.2	
D-1002	03-Nov-92	4	PH3	3-Nov-1996	27-Dec-92	8-Jan-04	9.9	14-Apr-2004	7.2	
D-0771	07-Jun-88	7	PH3	7-Jun-1995	5-Sep-88	19-Aug-02	51.2	16-Jul-2003	7.2	
D-1034	09-Sep-93	3	PH3	9-Sep-1996	21-Oct-93	26-Nov-03	391.5	8-Mar-2004	7.2	
D-0483	17-Jun-85	11	PH3	17-Jun-1996	2-Nov-85	23-Sep-03	10	23-Dec-2003	7.3	
D-0826	06-Mar-89	7	PH3	6-Mar-1996	4-Jun-89	9-Sep-03	329.9	31-Dec-2003	7.5	
D-0931	11-Mar-91	5	PH3	11-Mar-1996	16-May-91	3-Oct-03	52.6	5-Feb-2004	7.6	
D-0975	12-Mar-92	2	PH3	12-Mar-1994	11-Apr-92	12-Nov-01	39.4	28-Jan-2004	7.7	
D-0247	29-May-84	11	PH3	29-May-1995	14-Oct-84	4-Feb-03	52.8	15-Jan-2004	7.7	
D-0619	09-Oct-86	9	PH3	9-Oct-1995	31-Jan-87	9-Aug-03	34.4	8-Oct-2003	7.8	
D-0404	10-Sep-84	11	PH3	10-Sep-1995	26-Jan-85	4-Aug-03	68.2	5-Nov-2003	7.9	
D-0737	17-Feb-88	7	PH3	17-Feb-1995	17-May-88	5-Feb-03	36.9	13-Jan-2004	8.0	
D-0873	22-Jan-90	5	PH3	22-Jan-1995	29-Mar-90	4-Feb-03	164.6	3-Nov-2003	8.0	
D-0840	16-May-89	6	PH3	16-May-1995	2-Aug-89	11-Jul-03	25.2	15-Sep-2003	8.2	
D-1002	03-Nov-92	3	PH3	3-Nov-1995	15-Dec-92	8-Jan-04	3.1	14-Apr-2004	8.2	
D-1004	30-Nov-92	2	PH3	30-Nov-1994	30-Dec-92	10-Apr-03	37	15-Jul-2003	8.4	
D-0922	16-Jan-91	4	PH3	16-Jan-1995	11-Mar-91	9-Jul-03	62.8	8-Sep-2003	8.5	
D-0826	06-Mar-89	6	PH3	6-Mar-1995	23-May-89	9-Sep-03	349.9	31-Dec-2003	8.5	
D-0821	14-Dec-88	6	PH3	14-Dec-1994	2-Mar-89	22-Oct-03	3.3	2-Feb-2004	8.9	
D-0903	01-Oct-90	3	PH3	1-Oct-1993	12-Nov-90	23-Sep-02	17.4	6-Feb-2004	9.0	
D-0313	17-Apr-84	10	PH3	17-Apr-1994	21-Aug-84	28-Apr-03	28	7-Jul-2003	9.0	
D-0873	22-Jan-90	4	PH3	22-Jan-1994	17-Mar-90	4-Feb-03	52.3	10-Nov-2003	9.0	
D-0594	25-Jun-86	8	PH3	25-Jun-1994	5-Oct-86	12-Aug-03	27.2	11-May-2004	9.1	
D-0840	16-May-89	5	PH3	16-May-1994	21-Jul-89	11-Jul-03	19.1	15-Sep-2003	9.2	
D-1002	03-Nov-92	2	PH3	3-Nov-1994	3-Dec-92	8-Jan-04	4.7	14-Apr-2004	9.2	
D-0327	02-May-84	10	PH3	2-May-1994	5-Sep-84	8-Aug-03	6.7	27-Oct-2003	9.3	

D-0591	19-Jun-86	8	PH3	19-Jun-1994	29-Sep-86	20-Nov-03	52.2	10-Jul-2003	9.4
D-0922	16-Jan-91	3	PH3	16-Jan-1994	27-Feb-91	9-Jul-03	40.3	8-Sep-2003	9.5
D-0826	06-Mar-89	5	PH3	6-Mar-1994	11-May-89	9-Sep-03	445.1	31-Dec-2003	9.5
D-0931	11-Mar-91	3	PH3	11-Mar-1994	22-Apr-91	3-Oct-03	10.3	5-Feb-2004	9.6
D-0374	10-Jul-84	10	PH3	10-Jul-1994	13-Nov-84	5-Feb-04	1.5	14-Apr-2004	9.6
D-0247	29-May-84	9	PH3	29-May-1993	20-Sep-84	4-Feb-03	19	20-Oct-2003	9.7
D-0088	21-Dec-82	11	PH3	21-Dec-1993	8-May-83	29-Sep-03	59.9	15-Jan-2004	9.8
D-0821	14-Dec-88	5	PH3	14-Dec-1993	18-Feb-89	22-Oct-03	0.2	2-Feb-2004	9.9
D-0404	10-Sep-84	9	PH3	10-Sep-1993	2-Jan-85	4-Aug-03	37.8	5-Nov-2003	9.9
D-0922	16-Jan-91	2	PH3	16-Jan-1993	15-Feb-91	31-Dec-02	39.6	28-Aug-2003	10.0
D-0877	26-Feb-90	3	PH3	26-Feb-1993	9-Apr-90	13-Feb-03	12.2	21-Jul-2003	10.0
D-0873	22-Jan-90	3	PH3	22-Jan-1993	5-Mar-90	4-Feb-03	45.3	30-Oct-2003	10.0
Phase III Release 7 to 10 Years						Total	2686.6	Count 40	
D-0594	25-Jun-86	7	PH3	25-Jun-1993	23-Sep-86	12-Aug-03	48	11-May-2004	10.1
D-1002	03-Nov-92	1	PH3	3-Nov-1993	21-Nov-92	8-Jan-04	4.7	5-Apr-2004	10.2
D-0088	21-Dec-82	10	PH3	21-Dec-1992	26-Apr-83	29-Sep-03	28.1	15-Jan-2004	10.8
D-0821	14-Dec-88	4	PH3	14-Dec-1992	6-Feb-89	22-Oct-03	2.8	2-Feb-2004	10.9
D-0922	16-Jan-91	1	PH3	16-Jan-1992	3-Feb-91	27-Dec-02	19.8	1-Jul-2003	11.0
D-0873	22-Jan-90	2	PH3	22-Jan-1992	21-Feb-90	4-Feb-03	58.9	23-Oct-2003	11.0
D-0374	10-Jul-84	8	PH3	10-Jul-1992	20-Oct-84	5-Feb-04	12	1-Apr-2004	11.6
D-0088	21-Dec-82	9	PH3	21-Dec-1991	14-Apr-83	26-Sep-03	41.6	15-Jan-2004	11.8
D-0594	25-Jun-86	5	PH3	25-Jun-1991	30-Aug-86	15-Apr-03	93.7	15-Jul-2003	11.8
D-0374	10-Jul-84	7	PH3	10-Jul-1991	8-Oct-84	5-Feb-04	15.5	14-Apr-2004	12.6
D-0088	21-Dec-82	2	PH3	21-Dec-1984	20-Jan-83	23-Sep-03	36.7	15-Jan-2004	18.8
Phase III Release Greater than 10 Years						Total	361.8	Count 11	
Summary Statistics for Phase III Releases ⁴					Phase III Total		4793.3 acres	Count	104
								Min	0
								Max	18.8
								Average	7.2

⁴ Total number of acres and number of segments receiving Phase III release reported by DMRM in Table A (108 segments totaling 5121.2 acres) differs slightly from the totals reported in this appendix. The difference is not significant for purposes of this appendix.

Appendix V
Permits Not Inactive Two Years After Final Map as of July 26, 2004

Permit	Permittee	Permit Issued	Status	Final Map
D-2058	SANDS HILL COAL CO	7/7/2000	A	7/7/2002
D-1194	B&N COAL CO	4/9/1999	A	4/8/2002
D-1193	SANDS HILL COAL CO	3/30/1999	A	3/30/2002
D-1062	OXFORD MINING CO	3/11/1994	A	3/11/2002
D-1190	MARIETTA COAL CO	3/3/1999	A	3/2/2002
D-1183	KIMBLE CLAY & LIMESTONE	11/20/1998	A	11/20/2001
D-0408	JAMES BROTHERS COAL CO	9/18/1984	A	9/17/2001
D-1135	MARIETTA COAL CO	1/30/1997	A	9/1/2001
D-1020	BELMONT COAL	7/2/93	A	7/7/01
D-0892	WATERLOO COAL	6/26/90	A	6/25/01
D-2048	BUCKEYE INDUSTRIAL MINING	5/19/2000	A	5/18/2001
D-1133	KIMBLE CLAY & LIMESTONE	12/16/96	A	3/16/01
D-1162	BUCKEYE INDUSTRIAL MINING	3/13/1998	A	3/12/2001
D-1176	HOLMES LIMESTONE	9/28/98	A	3/1/01
D-0340	OHIO RIVER COLLIERIES	5/24/84	A	1/31/01
D-1134	MARIETTA COAL CO	1/17/97	A	1/16/01
D-1175	BUCKEYE INDUSTRIAL MINING	9/24/98	A	12/31/00
D-0241	BELMONT COAL CO	11/22/1983	A	11/21/2000
D-0282	C&E COAL CO	2/24/84	A	10/25/00
D-1152	MARIETTA COAL CO	10/10/97	A	10/9/00
D-0904	KIMBLE CLAY & LIMESTONE	10/3/90	A	8/16/00
D-0597	MARIETTA COAL CO	7/21/1986	A	7/20/2000
D-1179	BUCKEYE INDUSTRIAL MINING	10/19/1998	A	5/1/2000
D-1144	ENZ INC	4/24/1997	A	4/24/2000
D-0705	JAMES BROTHERS	9/10/87	A	9/9/99
D-1056	J E ZEIGLER DOZER SERVICE	12/16/1993	A	8/16/1999
D-1028	HOLMES LIMESTONE CO	7/26/1993	A	7/26/1999
D-1138	MARIETTA COAL CO	3/12/1997	A	3/11/1999
D-1029	MARIETTA COAL CO	7/27/1993	A	2/15/1999
D-1146	HOLMES LIMESTONE CO	6/16/1997	A	1/19/1999
D-1055	BUCKEYE INDUSTRIAL MINING	12/14/1993	A	11/18/1998
D-0056	CENTRAL OHIO COAL CO	8/16/1982	A	9/21/1998
D-0907	R TG INC	10/10/1990	A	8/28/1998
D-1100	MILLER MINING CO	1/24/1995	A	1/23/1998
D-0374	THOMPSON BROTHERS MINING	7/10/1984	A	7/9/1996
D-0146	CAPSTONE HOLDING CO	5/17/1983	A	5/18/1996
D-0404	WEIRTON CONSTRUCTION CO	9/10/1984	A	3/21/1996
D-0325	PEABODY COAL CO	5/2/1984	A	5/1/1994
D-0248	CROOKSVILLE COAL CO INC	12/8/1983	A	12/7/1993
D-0107	BELVILLE MINING CO	2/23/1983	A	8/26/1991
D-0379	D & D MINING CO	7/13/1984	A	7/12/1989

Total permits – 41 Status: A – active, the entire site has **not** achieved Phase II bond release.

Appendix VI
Permits Not Retired Six years After Final Map as of July 26, 2004

Permit	Permittee	Permit Issued	Status	Final Map	Inactive
D-1150	CRAVAT COAL CO	9/5/1997	IN	7/10/1998	11/24/1999
D-1033	R&R MINERALS INC	8/30/1993	IN	6/12/1998	6/20/2000
D-1043	BUCKEYE INDUSTRIAL MINING	9/30/1993	IN	5/13/1998	9/24/2003
D-1089	ALLEN & IMMLER COAL SALES	8/26/1994	IN	5/1/1998	12/4/2000
D-0916	ALLEN & IMMLER COAL SALES	12/5/1990	IN	5/1/1998	1/12/1993
D-0929	BUCKEYE INDUSTRIAL MINING	2/25/1991	IN	3/24/1998	1/18/1995
D-1140	BUCKEYE INDUSTRIAL MINING	3/20/1997	IN	3/20/1998	1/12/2000
D-1100	MILLER MINING CO	1/24/1995	A	1/23/1998	
D-0728	F&M COAL CO	12/30/1987	IN	1/10/1998	9/20/2000
D-1037	MELVIN SCHANEY	9/16/1983	IN	9/15/1997	11/6/1996
D-0702	DARON COAL CO INC	9/4/1987	IN	9/3/1997	6/26/1998
D-1040	OXFORD MINING	9/24/93	IN	6/10/97	8/21/98
D-769	VALLEY MINING	6/1/88	IN	6/1/97	12/11/98
D-742	MARIETTA COAL CO	3/1/88	IN	1/24/97	10/14/2003
D-0374	THOMPSON BROTHERS MINING	7/10/1984	A	7/9/1996	
D-0677	S&D CONSTRUCTION CO	6/11/1987	IN	6/10/1996	10/4/1999
D-0146	CAPSTONE HOLDING CO	5/17/1983	A	05/18/1996	
D-0404	WEIRTON CONSTRUCTION CO	9/19/1994	A	3/21/1996	
D-0975	C & E COAL INC	3/12/1992	IN	3/11/1996	10/13/1997
D-0615	CROOKSVILLE COAL CO	9/29/1986	IN	2/14/1996	12/14/1999
D-0748	NORTHSHORE COAL INC	3/17/1988	IN	9/13/1995	4/1/1997
D-0559	CENTRAL OHIO COAL CO	3/13/1986	IN	3/12/1995	7/16/2004
D-1036	MARIETTA COAL CO	9/9/1993	IN	3/1/1995	11/16/2000
D-0328	SAGINAW MINING CO	5/3/1984	IN	10/5/1994	4/28/1997
D-0325	PEABODY COAL CO	5/2/1984	A	5/1/1994	
D-0994	BUCKEYE INDUSTRIAL MINING	9/8/1992	IN	2/28/1994	9/13/1996
D-0248	CROOKSVILLE COAL CO INC	12/8/1983	A	12/7/1993	
D-0137	D & D MINING CO	4/25/1983	A	4/24/1993	8/6/2001
D-0713	MARIETTA COAL CO	10/7/1987	IN	8/26/1992	12/11/2000
D-0107	BELVILLE MINING CO	2/23/1983	A	8/26/1991	
D-0379	D & D MINING CO	7/13/1984	A	9/11/1989	

Total permits – 31 Status: A - active, the entire site has **not** achieved Phase II bond release. IN- inactive, the entire site has achieved Phase II bond release.

Appendix VII

Ohio's Comments on the Draft Report

Ohio did not provide written comments on the draft report. However, they suggested that we adjust Chart C by correcting data errors in the chart and the supporting narrative. We made those corrections and adjusted Charts B and C to better reflect the timing of Phase II and III bond releases. No other changes were made in this final report.