Bowie No. 1 Mine
PO Box 1488
Paonia, CO. 81428
Office (970)986-6236

Certified Mail No.: 7016 1370 0000 8339 8417

February 3, 2020

Mr. Rob Zuber
Environmental Protection Specialist
1313 Sherman St., Room 215
Denver, CO. 80203

RE: Bowie No. 1 Mine
Permit No. C-1981-038
2019 Annual Reclamation Report

Dear Ms. Binns:

As required, find enclosed Bowie No. 1 Mine, 2019 Annual Reclamation Report.

Sincerely;

Basil R. Bear
Mine Manager

Colorado Division of Reclamation, Mining and Safety

Annual Reclamation Report for Calendar Year – 2019

Bowie No. 1 Mine	C1981038	Bowie Resources, LLC
Mine Name	Permit Number	Permittee

P.O. Box 1488, Paonia, CO 81428
Address

This report, required by Rule 2.04.13, is due by February 15 of each year, or other date, as agreed upon by the Division. It should include text, discussion, and maps, at a minimum, in addition to any other reclamation monitoring data as required by the approved permit. The location of the acreage reported under each land status category and year of seeding (if applicable) should be clearly identified on a map included with the report.

Land Category	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Acreage in Active Mining Areas[1]	0	0	0	=	0

Land Category	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Acres Disturbed[2]	156.10	0	0	=	156.1
Acres Backfilled and Graded	99	0	0	=	101.46
Acres Topsoiled	91.27	0	0	=	86.17

Acreage in Long-term Facilities[3]	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Non-Permanent Facilities	Bowie 1 Loadout, West Mine Ponds, Roads	0	0	=	54.64
Permanent Facilities (permitted)		0	0	=	
Totals				=	

Acres Seeded (permanent)	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
9 Years and Less	21.56	0	0	=	20.01
10 Years and Greater	87.42	0	0	=	88.59
Totals	108.60			=	108.60

Bond Release	Last Year's Cumulative Total (from last year's ARR)	This Calendar Year			Cumulative Total
		Acres Added (+)	Acres Subtracted (-)		
Phase I Released	86.01	0	0	=	86.01
Phase II Released	82.14	0	0	=	82.14
Phase III Released	0	0	0	=	0

[1]Includes pits, topsoil stripped areas in advance of pits, and spoil not backfilled and graded

[2]Surface Mine Acres Disturbed = B&G + Long-Term Facilities + Active Mining Areas; Underground Mine Acres Disturbed = B&G + Long-Term Facilities; Separately-permitted Loadouts = B&G + Long-Term Facilities

[3]Includes haul, access and light-use roads, temporary dams and impoundments; permanent dams and impoundments; diversion and collector ditches, water and air monitoring sites; topsoil stockpiles; overburden stockpiles; repair, storage and construction areas; office area, repair shops, and parking; coal stockpiles, loading, and processing areas; railroads; coal conveyors; refuse piles and coal mine waste impoundments; head-of-hollow fills; valley fills; ventilation shafts and entryways; and non-coal waste disposal area (garbage dumps and coal combustion by-products disposal areas).

BOWIE RESOURCES LIMITED
BOWIE NO. 1 MINE
2019 ANNUAL RECLAMATION REPORT
PERMIT NO. C-81-038

BOWIE RESOURCES LIMITED
1720 4010 DRIVE
PAONIA, COLORADO

Introduction:

In compliance with Rule 2.04.13, Bowie Resources LLC (BRL), Permit No. C-81-038, submits the following Reclamation Report for the calendar year 2018.

2019: Reclamation Activities: Reclamation for the RY2019 consisted of normal site maintenance including noxious weed control. Site maintenance consisted of silt fence/waddle repair at various locations and site cleanup of the Bowie 1 Old Loadout Facility. This included removing scrap metal and trash and burning of various brush piles.

Noxious weed control was performed at various location at the Bowie 1 Loadout, East and West Mines. Thistle was treated with the herbicide Curtail and Jointed Goat Grass with Glystar.

A Phase III vegetation study was completed in July of 2019 by Cedar Creek Associates. This study included the R.O.M. area and portions of the West Mine. This was the first of two required studies for Phase III release. Bowie anticipates doing the second study this year (2020).

2018: Reclamation Activities: Reclamation activities for the RY2018 involved site maintenance and noxious weed control. Maintenance consisted of silt fence repair, signage replacement and removal of volunteer trees around the Bowie 1 Loadout area. Noxious weed control involved spraying of various thistles and Jointed Goat Grass. Controlling the various species of thistle was done by spot spraying using the herbicide Curtail. Jointed Goat Grass was treated with Glystar.

Thistle locations consisted of loadout, East Mine, West Mine and ROM areas. Treating of the Jointed Goat Grass was limited to the loadout area, the southern outslope of the rail bed east of the actual loadout, and areas at the East Mine access road.

2017: Reclamation Activities; During the RY2017, Bowie completed 3 projects, the first was the reclamation of 6 sedimentation control ponds located at the East Mine and ROM area (*shown on drawing "2017 Reclamation" as Zone 14*). Reclamation consisted of removing 4 bin-wall dams and 2 earth-fill ponds then re-contouring back to its Approximate Original Contour (*AOC*), Upon completing AOC, the disturbed areas were then reseeded with the approved seed mix (*shown below*) and covered with straw blankets. (*It should be noted that all available top soil was used during the initial reclamation of the Bowie East Mine so no topsoil was available for RY2017 reclamation).*

The second item was the removal of gravel from the access road to Pond 3 and 4. This area can be seen on the attached drawing "2017 Reclamation".

The final item completed was the Phase I release on 25 drill pads. This phase release is described in SL-06 and the list of sites is found on page 4 of this report.

Zone	Description	Acreage	Top Soiled	Revegetated
Zone 14	Ponds 1-4	2.31	0.00	2.31
	West Ridge Pond	0.13	0.00	0.13
	R.O.M. Pond	0.84	0.00	0.84
	Totals	**3.28**	**0.00**	**3.28**

(ind: Cropworx East Mine Perm Mix
.ot: 26938

.ind & Variety:	Pure%	Germ	Origin
.ntelope Bitterbrush	22.02	91	CO
Voods Rose	12.12	62	UT
mall Burnett	11.65	86	WA
Vinter Fat	10.44	72	UT
icer Milkvetch	6.34	79	WY
kunkbrush	5.57	90	UT
ıdian Ricegrass	5.27	95	CO
Vestern Wheatgrass	5.17	97	WY
lender Wheatgrass	3.13	96	WA
treambank Wheatgrass	3.10	97	WA
hickspike Wheatgrass	3.04	99	WA
.ubb. Rabbitbrush	2.82	71	UT
ewis Flax	2.72	92	WA
ocky Mountain Penstemon	1.24	81	CO
rizona Fescue	1.08	93	WY

Crop: .00% Inert: 4.28% Weeds: ..01% Net Wt: 29.75#(16.10pls#/acre)
Noxious Weeds: NONE FOUND Tested: 11/16
Remarks: Cropworx
Arkansas Valley Seed 4300 Monaco St. Denver, CO 802

Kind: Cropworx East Mine Perm Mix
Lot: 26938

Kind & Variety:	Pure%	Germ	Origin
Antelope Bitterbrush	22.02	91	CO
Woods Rose	12.12	62	UT
Small Burnett	11.65	86	WA
Winter Fat	10.44	72	UT
Cicer Milkvetch	6.34	79	WY
Skunkbrush	5.57	90	UT
Indian Ricegrass	5.27	95	CO
Western Wheatgrass	5.17	97	WY
Slender Wheatgrass	3.13	96	WA
Streambank Wheatgrass	3.10	97	WA
Thickspike Wheatgrass	3.04	99	WA
Rubber Rabbitbrush	2.82	71	UT
Lewis Flax	2.72	92	WA
Rocky Mountain Penstemon	1.24	81	CO
Arizona Fescue	1.08	93	WY

Crop: .00% Inert: 4.28% Weeds: ..01% Net Wt: 29.75#(16.10pls#/acre)
Noxious Weeds: NONE FOUND Tested: 11/16
Remarks: Cropworx
Arkansas Valley Seed 4300 Monaco St. Denver, CO 80216

Kind: Cropworx East Mine Perm Mix
Lot: 26938

Kind & Variety:	Pure%	Germ	Origin
Antelope Bitterbrush	22.02	91	CO
Woods Rose	12.12	62	UT
Small Burnett	11.65	86	WA
Winter Fat	10.44	72	UT
Cicer Milkvetch	6.34	79	WY
Skunkbrush	5.57	90	UT
Indian Ricegrass	5.27	95	CO
Western Wheatgrass	5.17	97	WY
Slender Wheatgrass	3.13	96	WA
Streambank Wheatgrass	3.10	97	WA
Thickspike Wheatgrass	3.04	99	WA
Rubber Rabbitbrush	2.82	71	UT
Lewis Flax	2.72	92	WA
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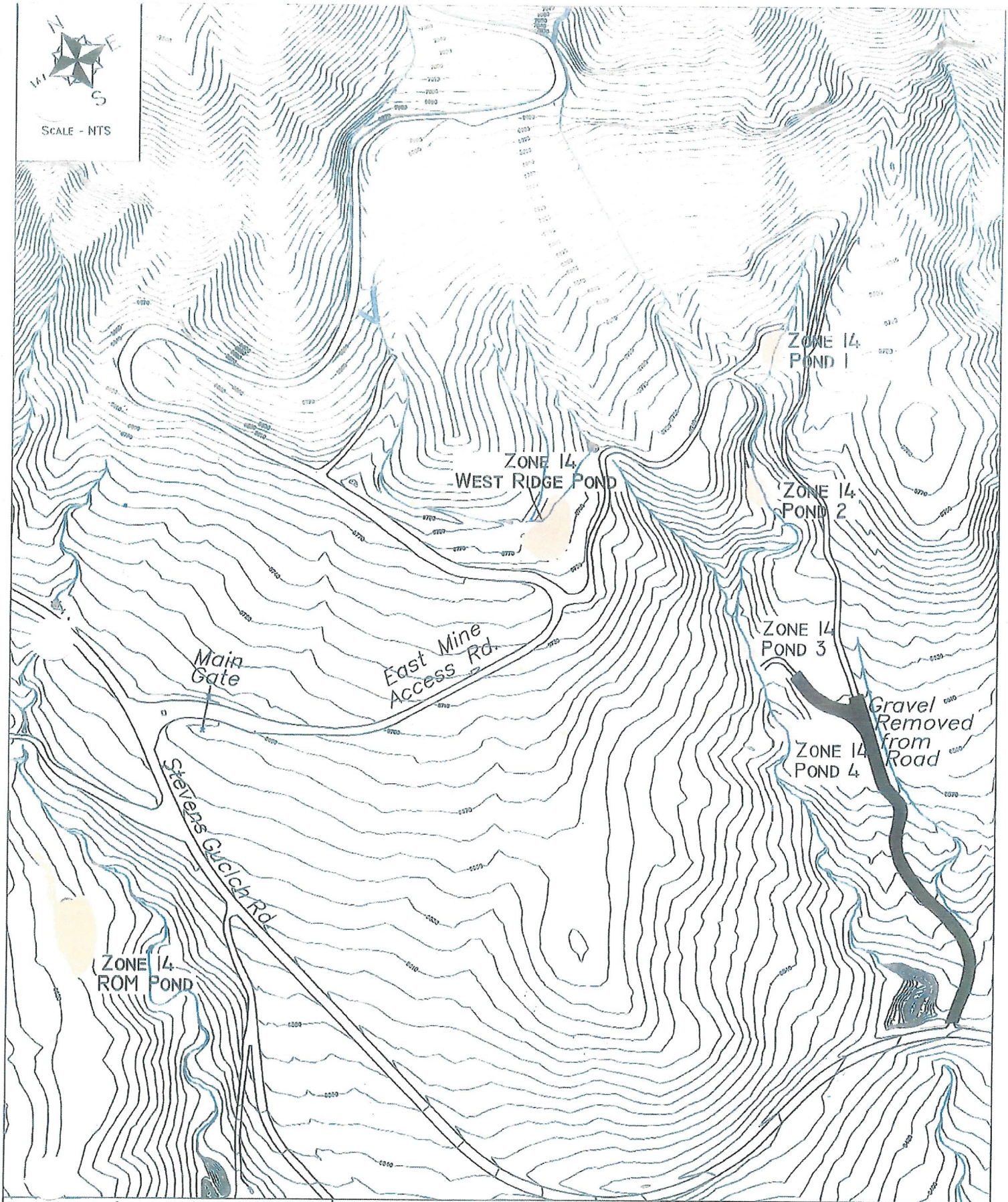
Noxious Weeds: NONE FOUND Tested: 11/16
Remarks: Cropworx
Arkansas Valley Seed 4300 Monaco St. Denver, CO 80216



Bowie Resources LLC Bowie No. 1 Mine P.O. Box 1450 Paonia, CO. 81428 (970)527-5910	Bowie Resource LLC Bowie No. 1 Mine Permit No. C-1981-038	2017 Reclamation Scale: NTS Drawn by: basil bear Page No. 4 of 4	File Path: File Name: East-ROM 2017 Reclamation Plot Date: 02-19-2018 Plot Time: 09:00

Bowie No. 1 Mine
Drill Hole List and Status

Map Code	Hole Number	Section	Township	Range	Date Drilled	Depth	Comment	Sealed Status
	OVMW	23	13S	92W	12/12/1986	76	Destroyed	
1	B-1	24	13S	92W	10/22/1981	40.8	Destroyed 6/2002	
2	B-2	24	13S	92W	10/22/1981	36.5	Destroyed 2008	
3	B-3	24	13S	92W	10/19/1981	99	Blocked	
4	B-4	24	13S	92W	10/23/1981	54.9	Destroyed 2012	
5	DH-37	24	13S	92W			Reclaimed	
6	DH-38	24	13S	92W			Reclaimed	
7	DH-39	24	13S	92W			Reclaimed	
8	DH-40	24	13S	92W			Reclaimed	
9	DH-41	13	13S	92W	10/12/1977	740	Reclaimed	Sealed 1978
10	DH-42	13	13S	92W	8/17/1977	1440	Reclaimed	Sealed 1978
11	DH-45	13	13S	92W	11/28/1978	1200	Reclaimed	
12	DH-46	13	13S	92W	11/28/1978	1935	Reclaimed	
13	DH-54	11	13S	92W	10/27/1981	2073.5	Sealed 1982	Sealed 1982
14	DH-55	10	13S	92W	11/18/1981	2035	Sealed 1982	Sealed 1982
15	DH-56	15	13S	92W	11/17/1981	1165.5	Sealed 1982	Sealed 1982
16	DH-59	14	13S	92W	1981	1401.5	Sealed 1982	Sealed 1982
17	DH-63	11	13S	92W	1982	1380	Sealed 1982	Sealed 1982
18	DH-64	11	13S	92W	1982	1760	Sealed 1982	Sealed 1982
19	DH-66	15	13S	92W	1982	1528	Sealed 1982	Sealed 1982
20	DH-67	15	13S	92W	1982	925	Sealed 1982	Sealed 1982
21	DH-87	23	13S	92W	1986	360	Reclaimed	
22	DH-90	23	13S	92W	1986	523	Reclaimed	
23	DH-91	23	13S	92W	1986	360	Reclaimed	
24	BV-1	14	13S	92W	2008		Reclaimed	
25	BV-2	24	13S	92W	2008		Reclaimed	

2016: Reclamation Activities: Except for ongoing maintenance, there was no reportable reclamation activities during this reporting period.

2015: Reclamation Activities: Except for ongoing maintenance, there was no reportable reclamation activities during this reporting period.

2014 Reclamation Activities: Except for ongoing maintenance, there was no reportable reclamation activities during this reporting period.

2013 Reclamation Activities: Except for minor repair to ditch, #7 there was no reclamation activities during this reporting period.

2012 Reclamation Activities: Except for minor repair to ditch, #7 there was no reclamation activities during this reporting period.

2011 Reclamation Activities: Reclamation activities for the reporting year 2011 consisted of additional hydro seeding of the Bowie No. 1 East Mine. Hydro seeding consisted of an approved permanent seed mix @ 32.2 PLS lbs. /acre, mulched with wood fiber mulch at a rate of 1,500 lbs. /acre and a tackifier (Star-tac 100) @ 90 lbs. /acre. The following areas were reseeded. *(See 2011 Reclamation Map)*

Zones	Description	Acreage	Top Soiled	Revegetated
Zone 1 (1-C, D)	Above Portal Bench	0.00	0.00	3.37
Zone 2 (4-C, 2-D, 2-E)	Portal/Office Bench	0.00	0.00	5.17
Zone 3 (2-D)	Substation	0.00	0.00	1.40
Zone 4 (1-E)	Belt Transfer	0.00	0.00	0.48
Zone 5 (2-A)	Rock Cut	0.00	0.00	0.47
Zone 6 (2-A)	Warehouse/Shop	0.00	0.00	1.93
Zone 7 (1-B)	Tire Shop Area	0.00	0.00	0.47
Zone 8	Access Road	0.00	0.00	0.92
Zone 9	Access Road	0.00	0.00	1.06
Zone 10 (5)	West Ridge Pile	0.00	0.00	0.45
Zone 11 (5)	Top Soil Pile	0.00	0.00	0.28
Zone 12 (5)	Access Road	0.00	0.00	0.33
Zone 13	Access Road	0.00	0.00	0.78
Totals			17.11	

From: Granite Seed
1697 W 2100 N
Lehi, UT 84043

Mix Name: Old Bowie Mine #1 206817

Mix # 88803 Old Bowie Mine #1

% Pure	Common Name	Variety	G + D or H	Origin
20.30	ANTELOPE BITTERBRUSH	VNS	91 -TZ	CA
14.74	WINTERFAT	VNS	47 -TZ	NM
9.43	SMALL BURNET	Delar	98 -TZ	OR
9.43	FOURWING SALTBUSH	VNS	49 + 0 -TZ	UT
9.12	SKUNKBUSH SUMAC	VNS	76 -TZ	UT
4.91	CICER MILKVETCH	Lutana	94 -TZ	MT
4.91	WESTERN WHEATGRASS	Arriba	94 -TZ	WA
4.86	INDIAN RICEGRASS	Paloma	95 + 0 -TZ	CO
2.98	STREAMBANK WHEATGRASS	Sodar	93 -TZ	WA
2.86	THICKSPIKE WHEATGRASS	Critana	97 -TZ	WA
2.86	SLENDER WHEATGRASS	San Luis	97 + 0 -TZ	WA
2.36	LEWIS BLUE FLAX	Appar	98 -TZ	WA
1.90	RUBBER RABBITBRUSH	VNS	97 + 0 -TZ	UT
1.04	ROCKY MOUNTAIN PENSTEMON	VNS	99 -TZ	OR
0.96	ARIZONA FESCUE	Redondo	96 -TZ	WY

0.03 Other Crop Date Tested: 11-OCT-10
7.29 Inert Matter % Hard Seed: 0.00
0.02 Weed Seed
Restricted Weed: salsola kali

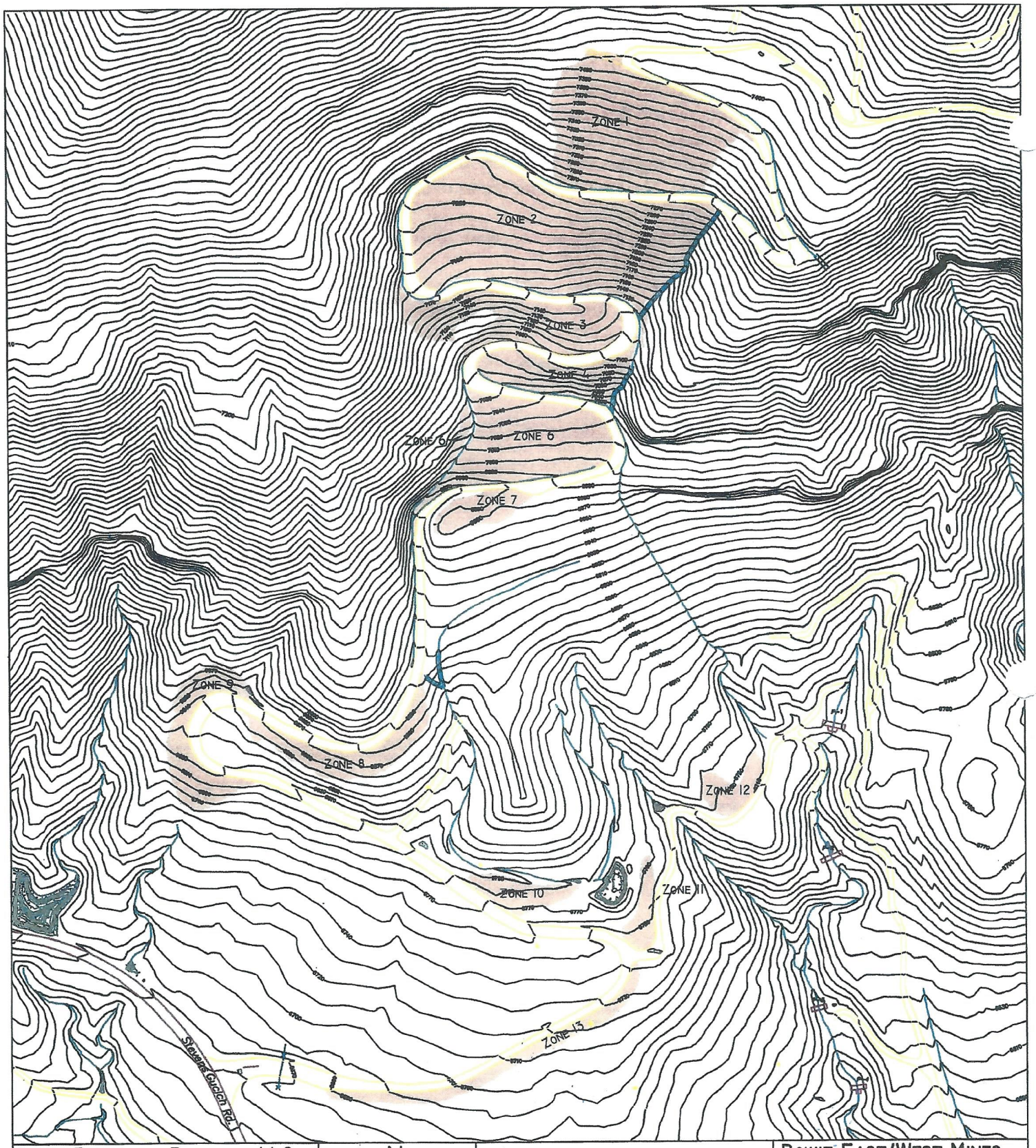
From: Granite Seed
1697 W 2100 N
Lehi, UT 84043

Mix Name: Copy of Old Bowie Mine #1 207139

Mix # 88962 Old Bowie Mine #1

% Pure	Common Name	Variety	G + D or H	Origin
19.10	ANTELOPE BITTERBRUSH	VNS	91 -TZ	CA
14.49	WINTERFAT	VNS	45 -TZ	UT
8.87	SMALL BURNET	Delar	98 -TZ	MT
8.16	SLENDER WHEATGRASS	San Luis	92 -TZ	
8.05	FOURWING SALTBUSH	VNS	64 -TZ	AZ
5.86	SKUNKBUSH SUMAC	VNS	95 -TZ	UT
4.62	CICER MILKVETCH	Lutana	94 -TZ	MT
4.57	INDIAN RICEGRASS	Paloma	95 + 0 -TZ	CO
4.49	WESTERN WHEATGRASS	Arriba	97 -TZ	WA
2.87	THICKSPIKE WHEATGRASS	Critana	91 + 0	
2.63	STREAMBANK WHEATGRASS	Sodar	99 -TZ	WA
2.62	LEWIS BLUE FLAX	Appar	93 -TZ	
1.89	RUBBER RABBITBRUSH	VNS	92 -TZ	UT
0.99	ARIZONA FESCUE	Redondo	88 -TZ	WA
0.98	ROCKY MOUNTAIN PENSTEMON	VNS	89 -TZ	OR

9.03 Other Crop Date Tested: 28-SEP-10
8.79 Inert Matter % Hard Seed: 0.00
0.02 Weed Seed
Restricted Weed: thistle, russina, brome, downy



BOWIE RESOURCES PARTNERS LLC
BOWIE NO. 1 MINE
P.O. BOX 1488
PAONIA, CO. 81428

N
W E
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2011 REVEGETATION

FILE LOCATION: N:\BASIL\ANNUAL REPORTS\ANNUAL RECLAMATION REPORTS\2015\ACAD FILES\2011 REVEGETATION AREA.DWG

DATE PLOTTED: 7-DEC-15

BOWIE EAST/WEST MINES

MSHA I.D.: 05-04591

DRMS PERMIT NO.: C-1981-038

DRAWN BY:

REV. DATE: 12/7/2015 10:00 AM

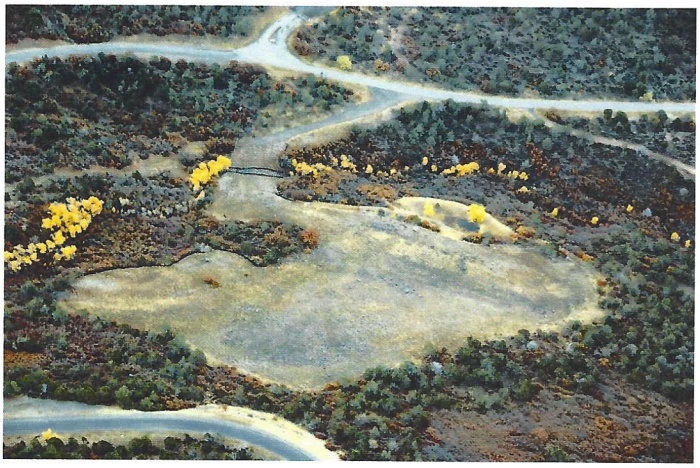
REV NO.:

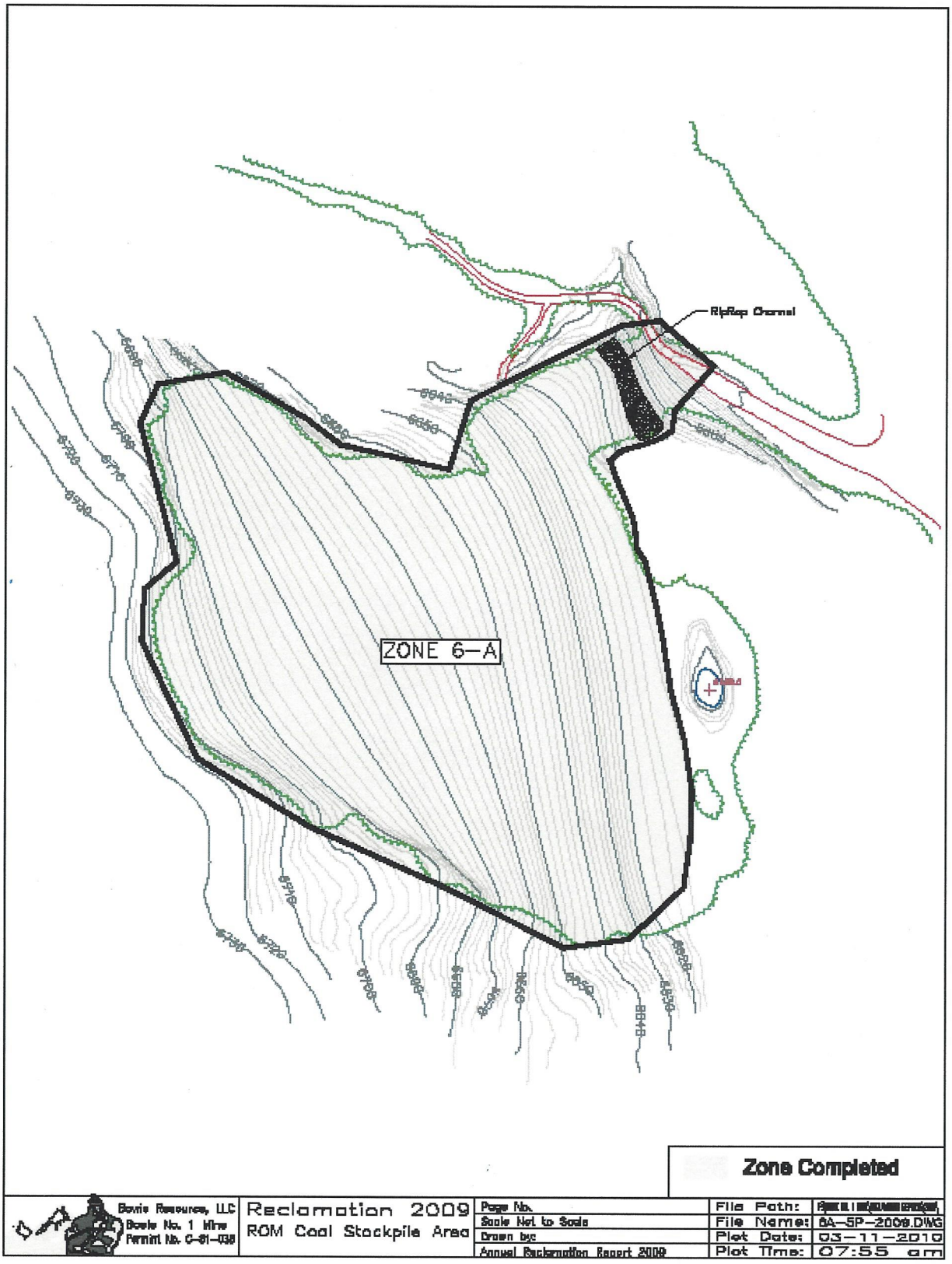
PAGE NO.:

2009 Reclamation Activities:

During the reporting year 2009, Bowie completed final grading of the Bowie #1 East Mine *(excluding required sediment control structures).* The 2009 reclamation activities, which was a continuation of the 2008 activities, included the final grading and hydro seeding with an approved permanent seed mix and mulched with wood fiber mulch at a rate of 2,000 lbs/acre of the following areas. *(See "2009 Reclamation Map")*

Zones	Description	Acreage	Top soiled	Revegetated
Zone 4-C	Portal Bench	5.17	2.89	No
Zone 2-E	Substation/Access Road	0.18	0.18	No
Zone 2-D	Access Road	0.15	0.00	No
Zone 1-E	Belt Transfer	0.07	0.07	No
Zone 2-A	Shop/Warehouse	1.63	1.63	No
Zone 4-B	Storage Bench	1.17	1.17	1.17
Zone 2-C	Access Road	0.44	0.00	No
	Total	8.81	5.94	1.17

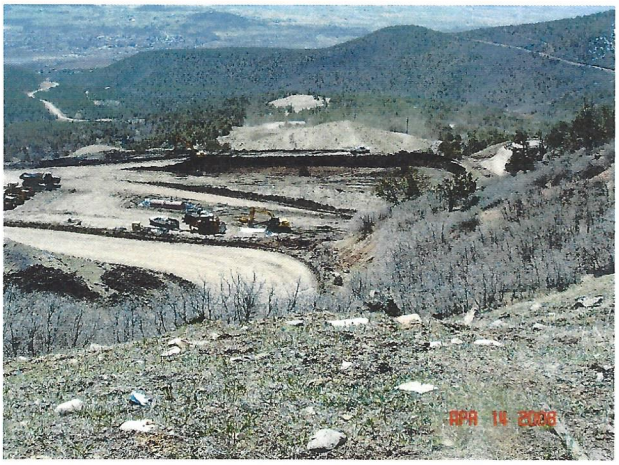


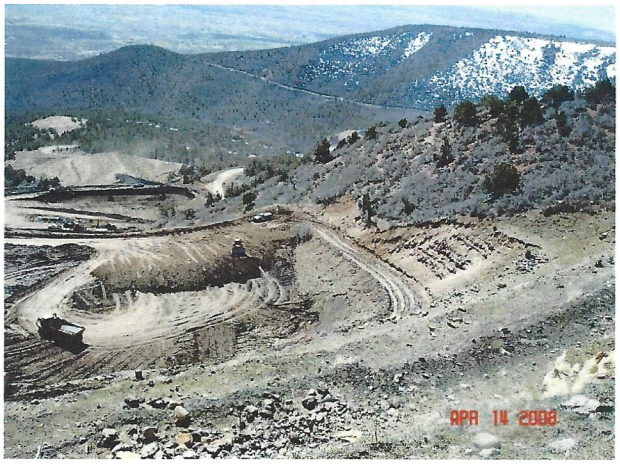

RipRap Channel
ZONE 6-A
Zone Completed
Bowie Resources, LLC
Bowie No. 1 Mine
Permit No. C-81-038
Reclamation 2009
ROM Coal Stockpile Area
Page No.
Scale Not to Scale
Drawn by:
Annual Reclamation Report 2009
File Path:
File Name: 6A-SP-2009.DWG
Plot Date: 03-11-2010
Plot Time: 07:55 am

2008 Reclamation Activities:

During the reporting year 2008, Bowie Resources LLC continued with the partial reclamation of the Bowie No. 1 East Mine. (*The 2008 reclamation is a continuation of the 2001 activities in which surface structures were removed.*) The 2008 reclamation consisted of returning portions of the disturbed area back to approximate original contours and hydro seeding with a permanent seed mix and wood fiber mulch. The following zones were completed during the 2008 reporting period. (Reference attached Drawings "Reclamation Zones East Mines and "ROM Coal Stockpile Area")

Zones	Description	Acreage	Top soiled	Revegetated
Zone 1-A	Crushing & Screening Level Fill	Yes	Yes	2.64
Zone 1-B	Shop & Warehouse Level Fill	Yes	Yes	3.08
Zone1-D	Substation Level Fill	Yes	Yes	0.36
Zone 2-B	Portal Level Fill	No	No	
Zone 3-A	Diversion Channel Cut	Yes	Yes	
Zone 3-B	Diversion Channel Cut	Yes	Yes	
Zone 3-C	Diversion Channel Cut	Yes	Yes	5.48 (Total)
Zone 4-A	Rock Cut above Crushing & Screening	Yes	Yes	2.64
Zone 4-D	Rock Cut below Fan Level	No	Yes	3.50
Zone 5-A	Waste Rock Disposal Site	Yes	No	0.82
Zone 6-A	R.O.M. Coal Stockpile & Access Road	Yes	Yes	11.16
Totals				29.82





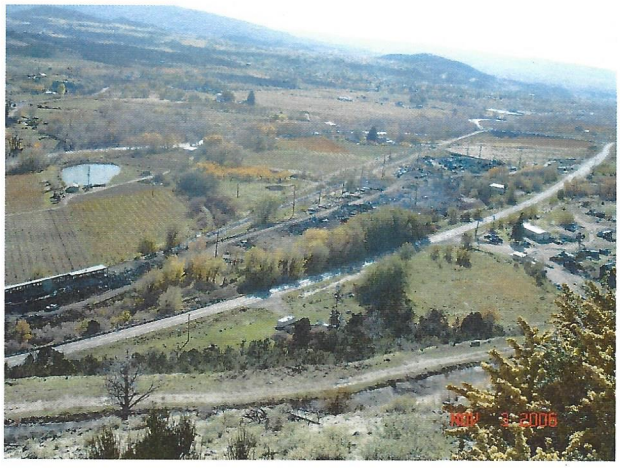
2007 Reclamation Activities:

There were no reclamation activities during this reporting period.

2006 Reclamation Activities:

Bowie Resources LLC began partial reclamation of the Bowie No. 1 Mine Loadout facilities. The partial reclamation project consisted of demolition of the following structures:

Three (3) Concrete Silo's
Truck Loadout
Truck Dump MCC Building
Dust Collection System
Truck Dump to Silo Belt Structure
Silo to Loadout Belt Structure
Silo MCC Building
Train Loadout Facilities
Train Loadout MCC Building
Approximately 1,200 feet of railroad track



2005 Reclamation Activities:

During the reporting year of 2005, Bowie Resources continued with the reclamation of the Bowie #1 West Mine Ventilation shaft site. Reclamation consisted of distributing and grading of topsoil back to its approximate original contour over shaft site. Upon completion of the grading, the entire area was re-seeded with the approved permanent seed mix and covered with straw mats.

There were also drill hole sites on the Bowie #1 permit area that were reclaimed in 2005.

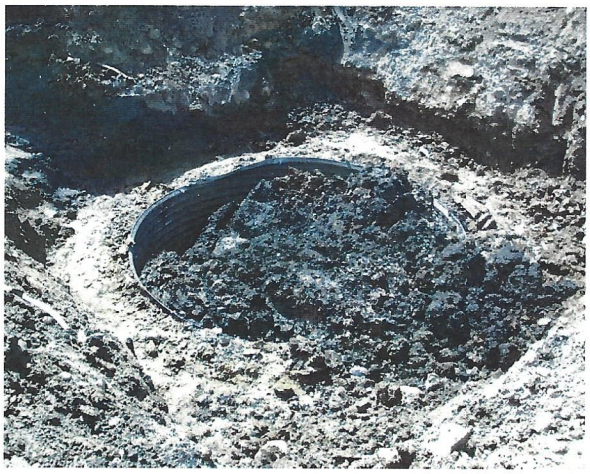
Zones	Description	Acreage	Top soiled	Revegetated
	West Mine Fan Shaft/Drill Hole Sites	0.45	Yes	Yes

2004 Reclamation Activities:

There were no reclamation activities during this reporting period.

2003 Reclamation Activities:

During the reporting period of 2003, Bowie Resources completed sealing the Bowie 1 West Mine ventilation shaft. A 12-inch concrete cap with steel reinforcement, extending 2 feet beyond the shaft liner was completed in September of this year. This included one 4-inch vent pipe as required and backfilling. The following photographs are of the shaft-sealing project.



2002 Reclamation Activities:

For the reporting year 2002, Bowie Resources, Ltd., continued with the reclamation of the Bowie No. 1 West Mine Site. Reclamation consisted of distributing and grading of nearly 49,000 yrd^3 of subsoil and topsoil back to its approximate original contour. Two new sedimentation control ponds have been established near the bottom of the reclaimed area. Upon completion of the grading, the entire area was hydro-seeded with the approved permanent seed mix and using cellulose mulch at a rate of 1,500 pounds per acre and a tackifier at 100 pounds per acre. In conjunction with the hydro seeding, a fertilizer was applied at a rate that applied at least 30 pounds per acre of nitrogen and 60 pounds of phosphorus.

During this reporting period the ventilation shaft located at the Bowie No. 1 West Mine was re-filled due to settling. Approximately 2,500 yrd^3 was placed into the shaft. As required by the Mine Safety and Health Administration, CFR 30 Part 75.1711-1 beginning from the bottom of the coal seam and extending upward for a distance of 150 feet, the shaft was filled with non-combustible material. The remaining portion of the shaft was filled with other available material.

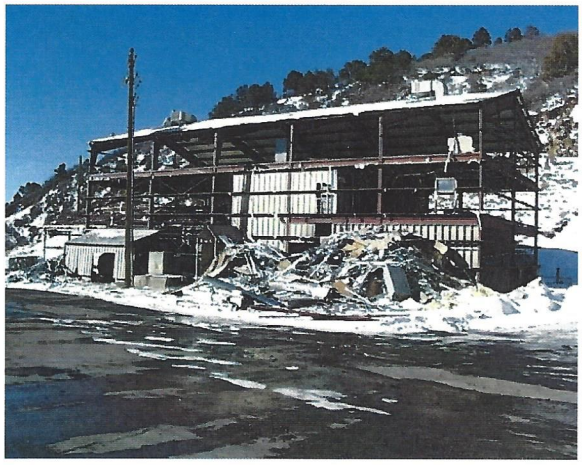
Reclamation of the East Mine consisted of completing the demolition of permanent structures located on the Old Fan Level, Office/Bathhouse Level, and crushing and screening level.

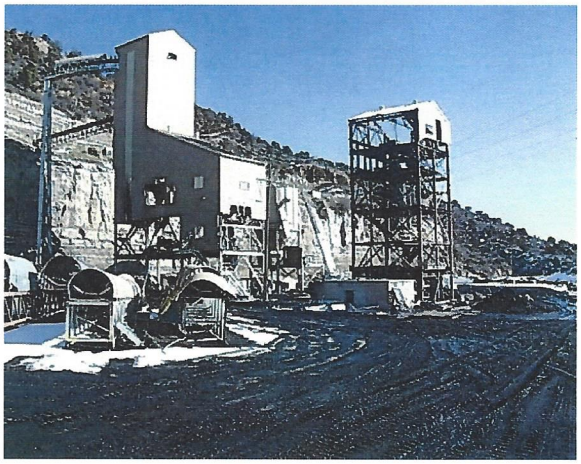
Zones	Description	Acreage	Top soiled	Revegetated
	West Mine	13.10	Yes	Yes

2001 Reclamation Activities:

During the year 2001, the Bowie No. 1 West Mine continued to be reclaimed. At the end of the 2001 reporting year, Bowie Resources Ltd. had completed approximately 80 percent of the backfilling. Topsoil located on the fill outslopes was moved to a temporary storage location during the backfilling process. The West Mine Ventilation Shaft was filled during this same period.

The Bowie East Mine reclamation during 2001 consisted of demolition and removal of permanent structures. The following structures were removed; bathhouse/office, storage tanks, MCC buildings, fire house, belt structures, transfer towers, shop/warehouse, tire shop, loading bin, fire house, belt structure, the majority of the 2,000-ton bin, guard shack, sewage treatment plant, crushing and screening plant, truck loadout, and stacking tube.





2000 Reclamation Activities:

In November 2000, Bowie Resources began partial reclamation of the Bowie No. 1 East and West Mines. A description of what was completed during this reporting period is as follows:

West Mine- Reclamation of the West Mine consisted of sealing three portals and backfilling with 25 feet of non-combustible material. Sealing ventilation shaft with 50 feet of non-combustible material and removing all structures from the portal area. Partially removing some structures from the fan site and begin restoring portal area back to approximate original contours.

East Mine - Reclamation of the East Mine consisted of removing some steel structures. During this reporting period, only the steel shelter for the fuel station located on the office bench and the lump bin located on crushing and screening level were completely demolished. Demolition of transfer station #2, and crushing and screening facility was started but not completed during this reporting period.

1999 Reclamation Activities:

No reclamation activities were undertaken at the Bowie No. 1 Mine during the 1999 calendar year. The mine is currently idle due to economic reasons. Reclamation options are under consideration.

1998 Reclamation Activities:

No reclamation activities were undertaken at the Bowie No. 1 Mine during the 1998 calendar year. The mine is currently idle due to economic reasons. Reclamation options are under consideration.

1997 Reclamation Activities:

No reclamation activities were undertaken at the Bowie No. 1 Mine during the 1997 calendar year. The mine is currently idle due to economic reasons. Reclamation options are under consideration.

1996 Reclamation Activities:

Reclamation in 1996 consisted of seeding and mulching a small area on the West Ridge Refuse Pile. Area seeded was 0.1 acres. The mine is currently idle due to economic reasons. Reclamation options are under consideration.

1995 Reclamation Activities:

No additional acreage was newly disturbed by mining or construction activity during the 1995 calendar year. Reclamation activities conducted included seeding and mulching operations on the outslopes of the west ridge waste pile. (See locatoins37, exhibit 8). This area was seeded during the month of December using permanent seed mix (mix no. 5 less shrub species). Also reseeded during this period was a small area around the fan area using a temporary seed mix, (see table 6 for seed mix). This area was also seeded during the month of December.

1994 Reclamation Activities:

No additional acreage was newly disturbed by mining or construction activity during the 1994 calendar year. Reclamation activities conducted included seeding and mulching operations on the outslopes of the West Ridge waste pile. (See location 32 on exhibit 7). This area was reseeded on November 17, 1994 with a permanent grass mix (mix no. 5 less shrub species). In addition, the Gross-Rhode stock trail at the Orchard Valley West mine was seeded with the temporary seed mix (see table #6 for seed mix) immediately following construction on May 4 and 5, 1994.

1993 Reclamation Activities:

No additional acreage was newly disturbed by mining or construction activity during the 1993 calendar year. Reclamation activities conducted included seeding and mulching operations on the outslopes of the west ridge waste pile. (See location 32 on exhibit 7). Topsoil and subsoil piles in the vicinity of the West Ridge waste pile which were disturbed because of pile reconstruction activities were seeded with the temporary seed mix (seed mixture #6 (during the fall of 1993.

At the close of 1993 reclamation activities on the West Ridge waste pile, the total reclaimed acreage on this site was approximately 2.85 acres. Of this total acreage, 0.83 acres was newly revegetated in 1993.

Approximately 0.12 acres of additional disturbance occurred in association with a landslide at the west mine portal cut during 1993. Topsoil was salvaged from an area surrounding the slide crest and stockpiled near this location (refer to Exhibit 8 in this report and Map No. 8-6, Permit No. C-81-038). Disturbed areas associated with this slide and the subsequent stabilization work were seeded with the temporary seed mix (seed mixture #6) mulched. Table 7 of this report depicts reclaimed acreages throughout the mine site has been revised to reflect 1993 activities.

1992 Reclamation Activities:

No additional acreage was newly disturbed by mining or construction activity during the 1992 calendar year. Reclamation activities conducted included seeding and mulching operations on the outslopes of the west ridge waste pile. (See location 32 on exhibit 7). Topsoil and subsoil piles in the vicinity of the West Ridge waste pile which were disturbed because of pile reconstruction activities were seeded with the temporary seed mix (seed mixture #6 (during the fall of 1992.

At the closed of 1992 reclamation activities on the West Ridge pile, the total reclaimed acreage on this site was approximately 2.02 acres. A total of 0.63 acres was newly revegetated in 1992 with the remainder having been seeded in 1983. At the close of 1983 reclamation activities on the West Ridge waste pile, the total reclaimed acreage on this site was approximately 2.20 acres. During gob salvage and sale operations, occurring in the first and second quarters of 1992, approximately 0.81 acres of seeded topsoil and subsoil was stripped from the pile to allow access to the gob. Table 7 of this report depicting reclaimed acreages throughout the mine site has been revised to reflect this sequence of events.

1991 Reclamation Activities:

No additional acreage was newly disturbed by mining or construction activity during the 1991 calendar year. Reclamation activities conducted were primarily confined to interim stabilization seeding and mulching operations on topsoil piles and subsoil piles in the vicinity of the West Ridge waste pile (See exhibit 7). Soil storage piles in this area saw additions of materials due to the topsoil and subsoil stripping operations required to access gob for sale and shipment. Topsoil piles were seeded with temporary seed mix (see mixture #6) and mulched. Subsoil piles were only seeded and were left in a roughened condition to prevent erosion.

One additional pile located at the parking lot area (See Exhibit 6) and consisting of windrowed subsoil material isolated for future reclamation purposes was seeded with temporary seed mix in response to NOV 91-004.

1990 Reclamation Activities:

No additional acreage was newly disturbed by mining or construction activities during the 1990 calendar year. Small acreages on both the east and west ridge waste disposal areas were re-disturbed to accommodate repairs to the West Ridge waste pile.

This report will serve as the baseline reference document for all future reclamation reports. The report summarizes available information concerning the current reclamation status and reclamation history of both the Orchard Valley and Orchard Valley West mine sites.

Reclamation History

An extensive reclamation project was initiated in the fall of 1977 to address the Orchard Valley upper mine area, middle mine area, mine roads, and the new country road alignment near the existing coal stockpile. The reader is referred to the following document for a complete discussion of the details of this program: "Final Report, Reclamation, Colorado Westmoreland, Inc., Orchard Valley Mine, Paonia, Colorado, January 1978, by Thorne Ecological Institute", and "History of Revegetation, Orchard Valley Mine, 1977-1982, April, 1983, Prepared for CWI, Orchard Valley Mine, Paonia, Colorado, by Harner and Associates."

Revegetation of cut and fill slopes was accomplished in 1978 on previously seeded but sparsely vegetated and eroded slopes stemming from excessive water runoff caused by the lack of an effective water diversion system.

In 1979, a diversion channel and four sedimentation ponds were constructed to divert water away from the main mine facilities. Access roads to the sedimentation ponds and parking lot were also constructed. The Revegetation program of 1979 addressed disturbed areas associated with these facilities and encompassed approximately 12 acres of reclamation.

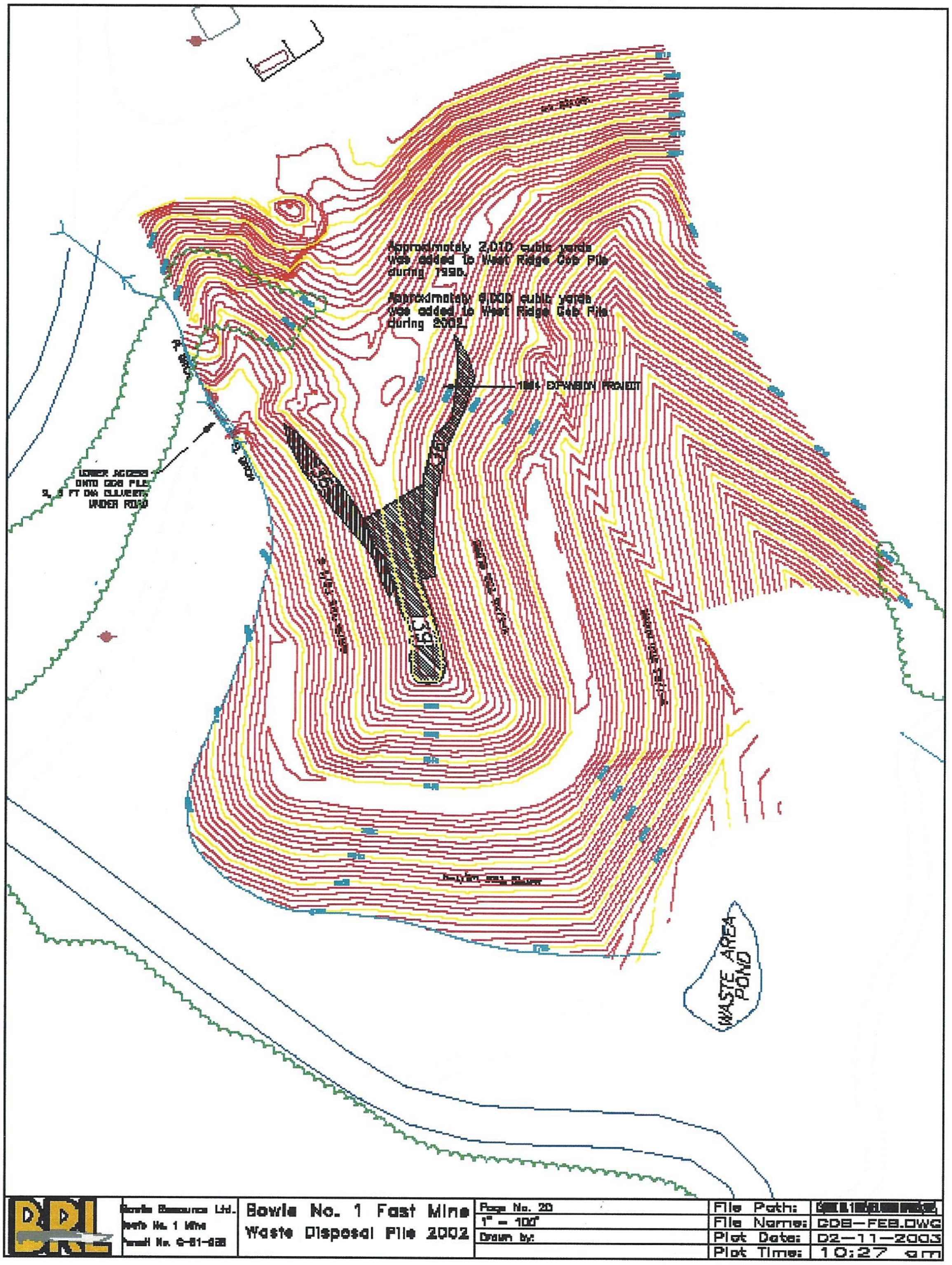
Reclamation activities in 1980 focused on revegetating lands disturbed through minor construction activities conducted in 1979. The areas addressed in 1980 included the Orchard Valley Mine water pipeline, exploration drill pads, and miscellaneous roadways. The majority of the acreage reclaimed in 1980, approximately 3.5 acres, was associated with reclamation of the water line.

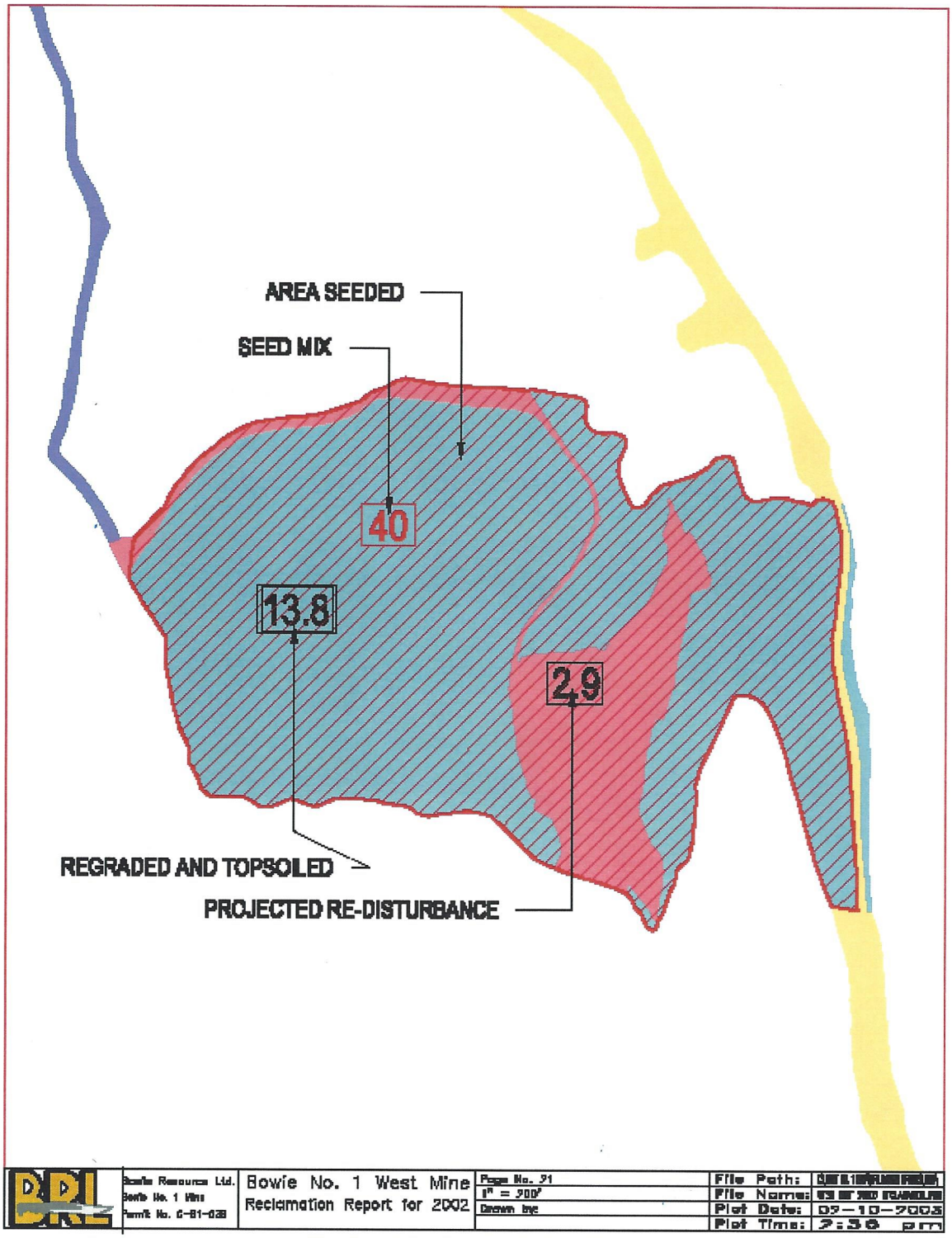
The 1981 revegetation program encompassed minor disturbances consisting of miscellaneous roadways, Steven's Gulch well field structures, and the scale house and truck scales near the truck dump station.

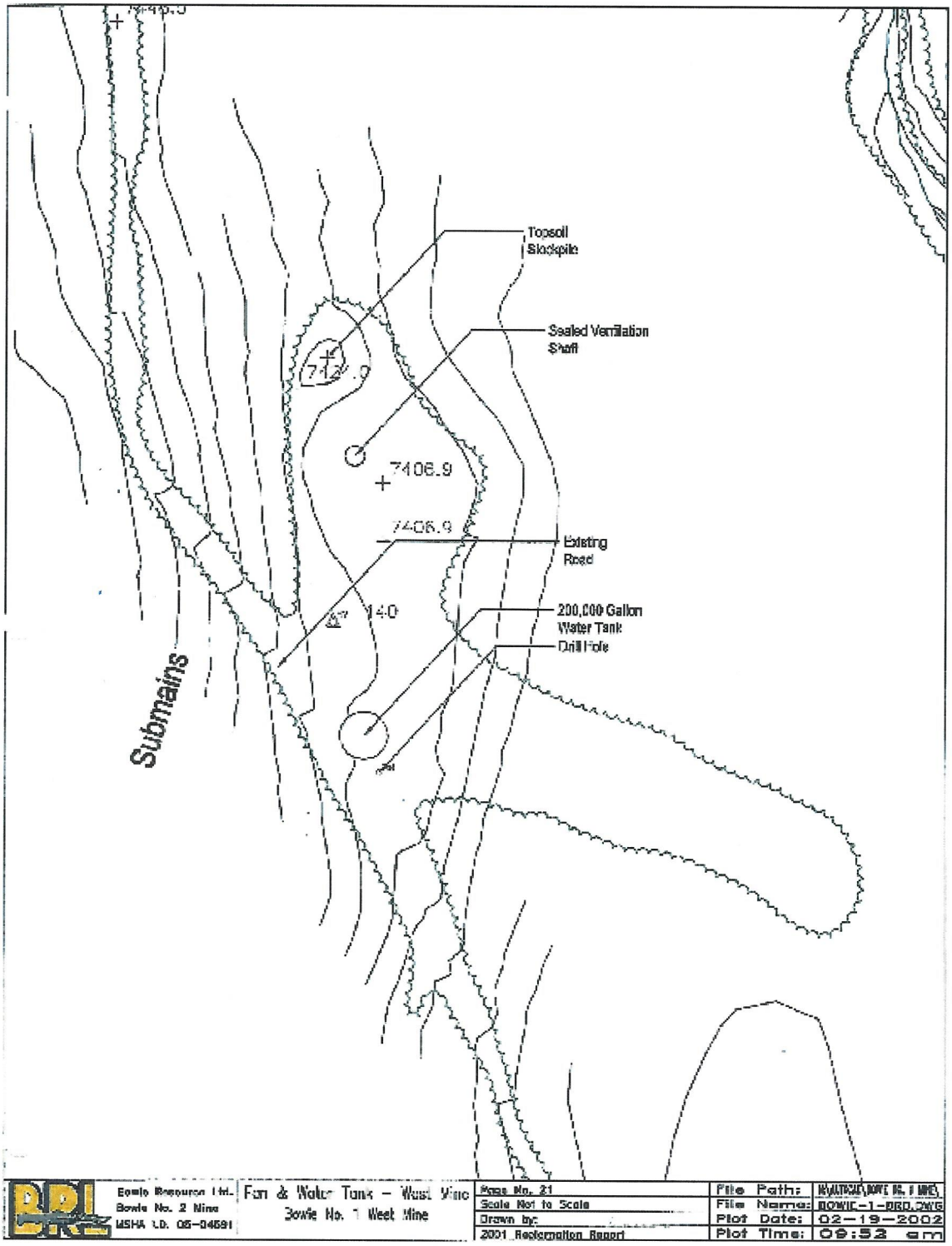
Construction of the West Ridge waste disposal area was initiated in July 1983. Lands available for reclamation at this site have been seeded and mulched on an approximately annual base since development began. The West Ridge waste disposal site encompasses approximately 3.37 acres. Approximately 2.20 acres of this site are currently reclaimed. Reclamation of the old waste disposal site near ponds 1 and 2 was completed in November of 1983. Vegetation was established on this 0.86-acre site the following spring. Development of the East Ridge waste disposal site was initiated in 1983 in conjunction with development of the West Ridge site. The East Ridge saw topsoil salvaged and an intermediate material stockpile established to accommodate material being generated from the West Ridge development.

Reclamation of the Orchard Valley West Mine fill slopes and associated disturbance was completed by the fall of 1987. Slope instability necessitated the relocation of topsoil at the mine site and subsequent reseeding and mulching of both the new pile and the old pile footprint was competed in the fall of 1990.

Several small topsoil piles exist throughout the various disturbance areas on the mine. Those piles project to remain undisturbed for longer than five years are seeded with the permanent seed mixture. Those piles projected to be redistributed within five years were seeded with the temporary seed mixture.


Approximately 2,010 cubic yards
was added to West Ridge Gob Pile
during 1990.
Approximately 6,000 cubic yards
was added to West Ridge Gob Pile
during 2002.
EXPANSION PROJECT
WASTE AREA POND
Bowie No. 1 Fast Mine
Waste Disposal Pile 2002
Page No. 20
1" = 100'
Drawn by:
File Path: [redacted]
File Name: GOB-FEB.DWG
Plot Date: 02-11-2003
Plot Time: 10:27 am


AREA SEEDED
SEED MIX
40
13.8
2.9
REGRADED AND TOPSOILED
PROJECTED RE-DISTURBANCE
Bowie Resource Ltd.
Bowie No. 1 Mine
Permit No. C-81-028
Bowie No. 1 West Mine
Reclamation Report for 2002
Page No. 21
1" = 300'
Drawn by:
File Path:
File Name:
Plot Date: 09-10-2003
Plot Time: 2:30 pm


Topsoil Stockpile
Sealed Ventilation Shaft
7406.9
7406.9
Existing Road
200,000 Gallon Water Tank
Drill Hole
Submains
Bowie Resource Ltd.
Bowie No. 2 Mine
MSHA I.D. 05-04591
Fan & Water Tank - West Mine
Bowie No. 1 West Mine
Mine No. 21
Scale Not to Scale
Drawn by:
2001 Reclamation Report
File Path:
File Name: BOWIE-1-RED.DWG
Plot Date: 02-19-2002
Plot Time: 09:52 am

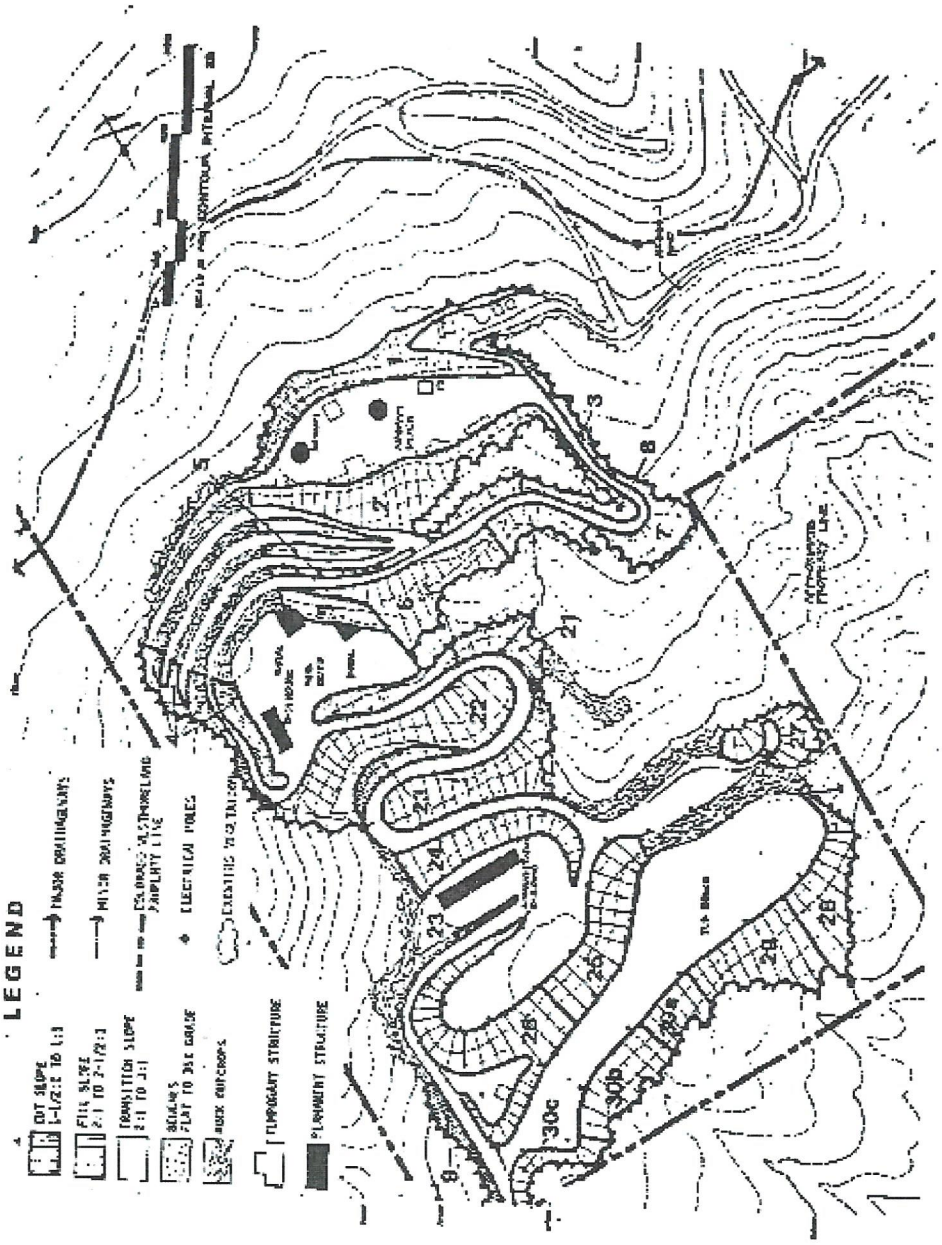


Exhibit 1 1977 Revegetation Program Test Plot Locations 1 through 8 and 21 through 30c along Access Road to Main Mine Facilities.

9

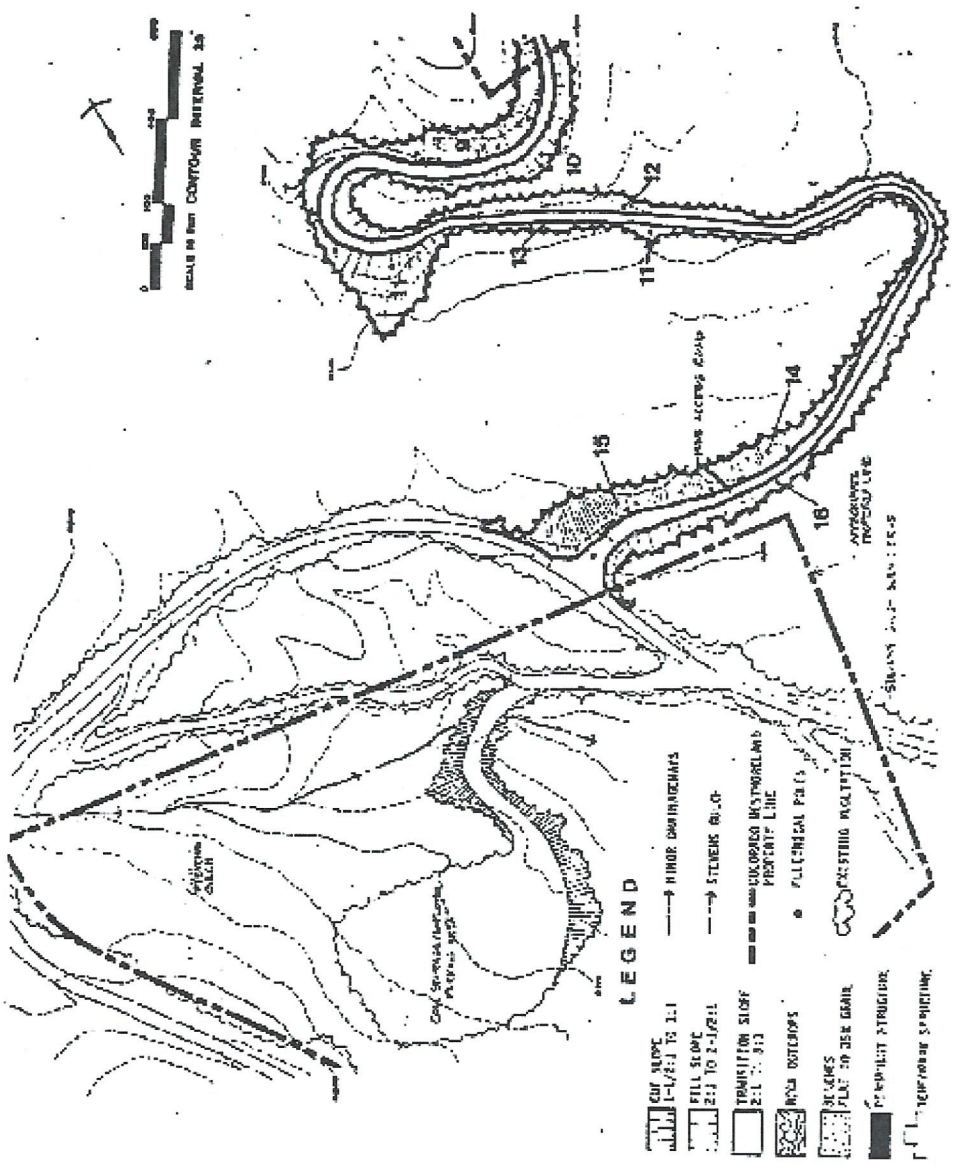


Exhibit 2 1977 Revegetation Program Test Plot Locations 9 through 16 along Access Road to Main Mine Facilities.

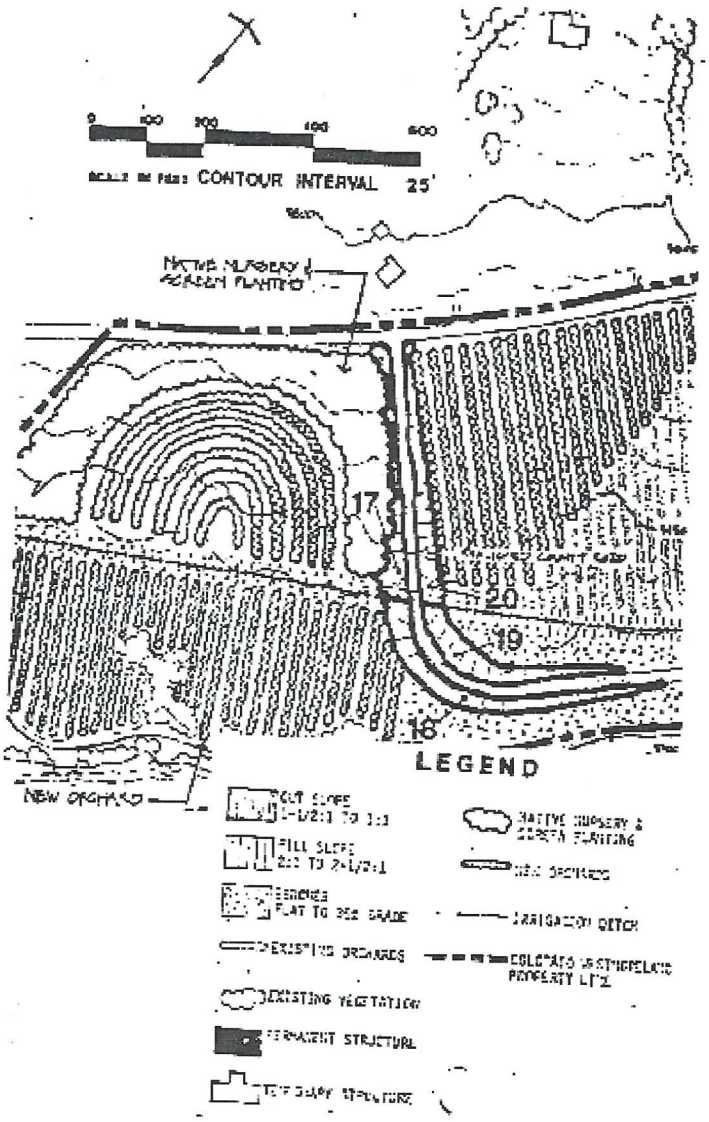


Exhibit 3 1977 Revegetation Program Test Plot Locations 17 through 20 at Coal Storage and Loadout Area.

11

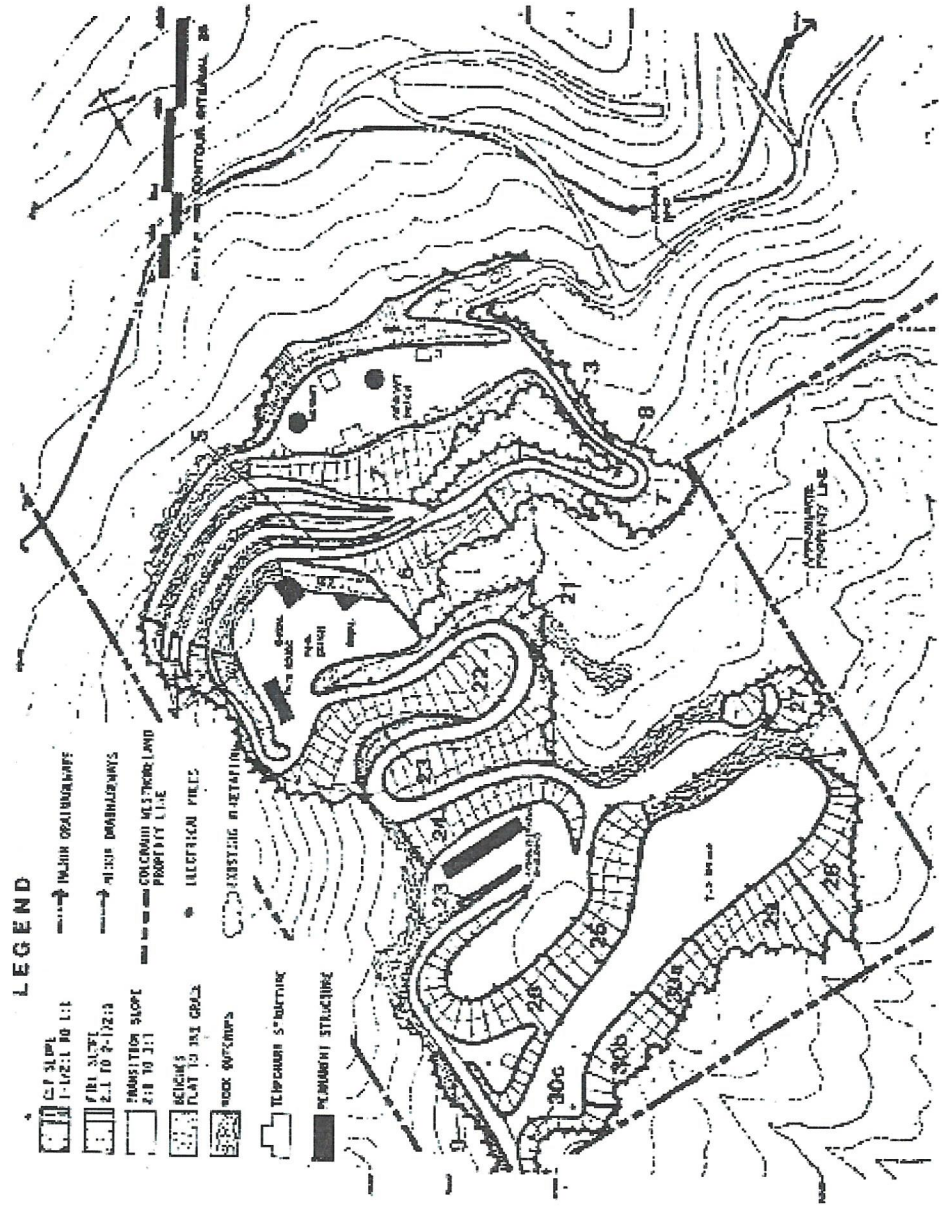


Exhibit 4 1978 Revegetation Program Sparsely Vegetated and Washout Areas within the Test Plots Access Road to Main Mine Facilities (Part 1).

12

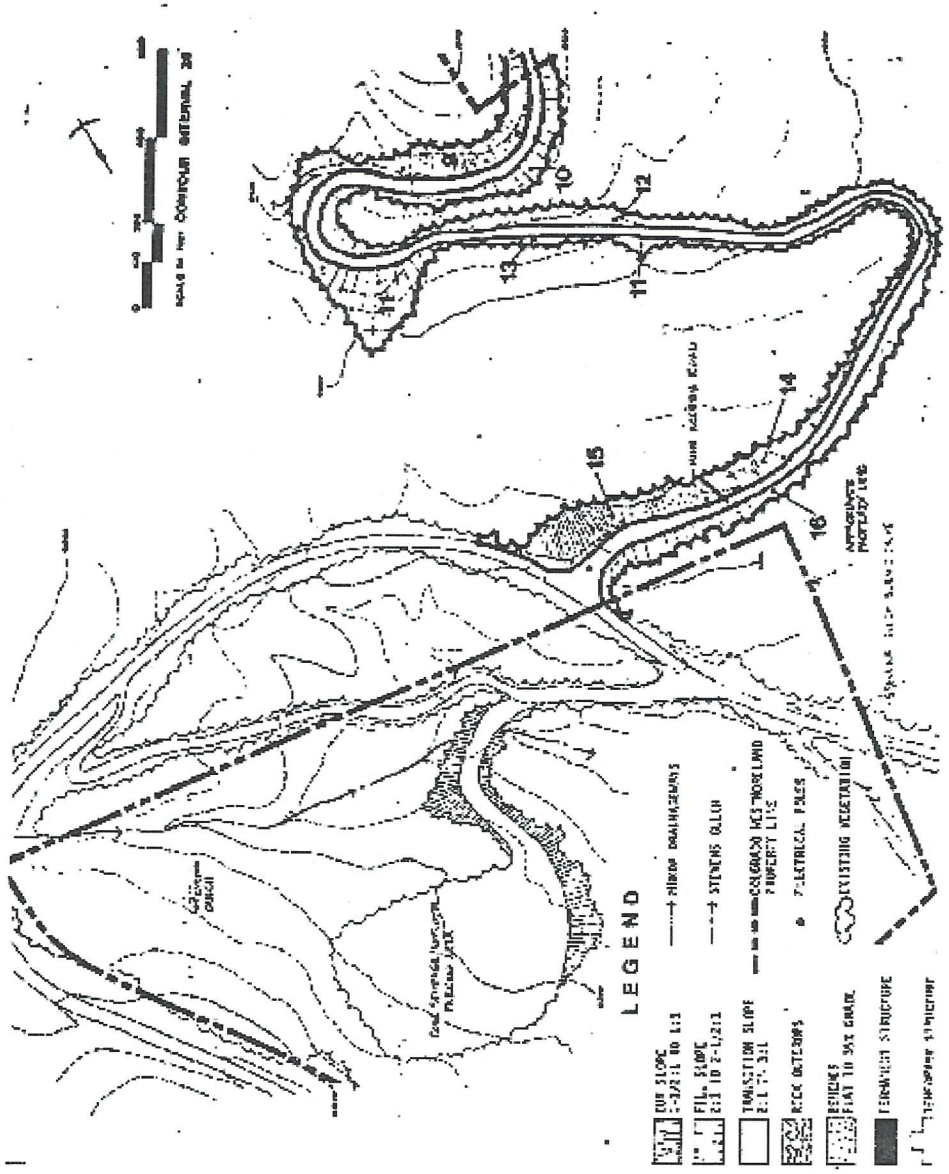


Exhibit 5 1978 Revegetation Program Sparsely Vegetated and Washout Areas within the Test Plots - Access Road to Main Mine Facilities (Part 2).

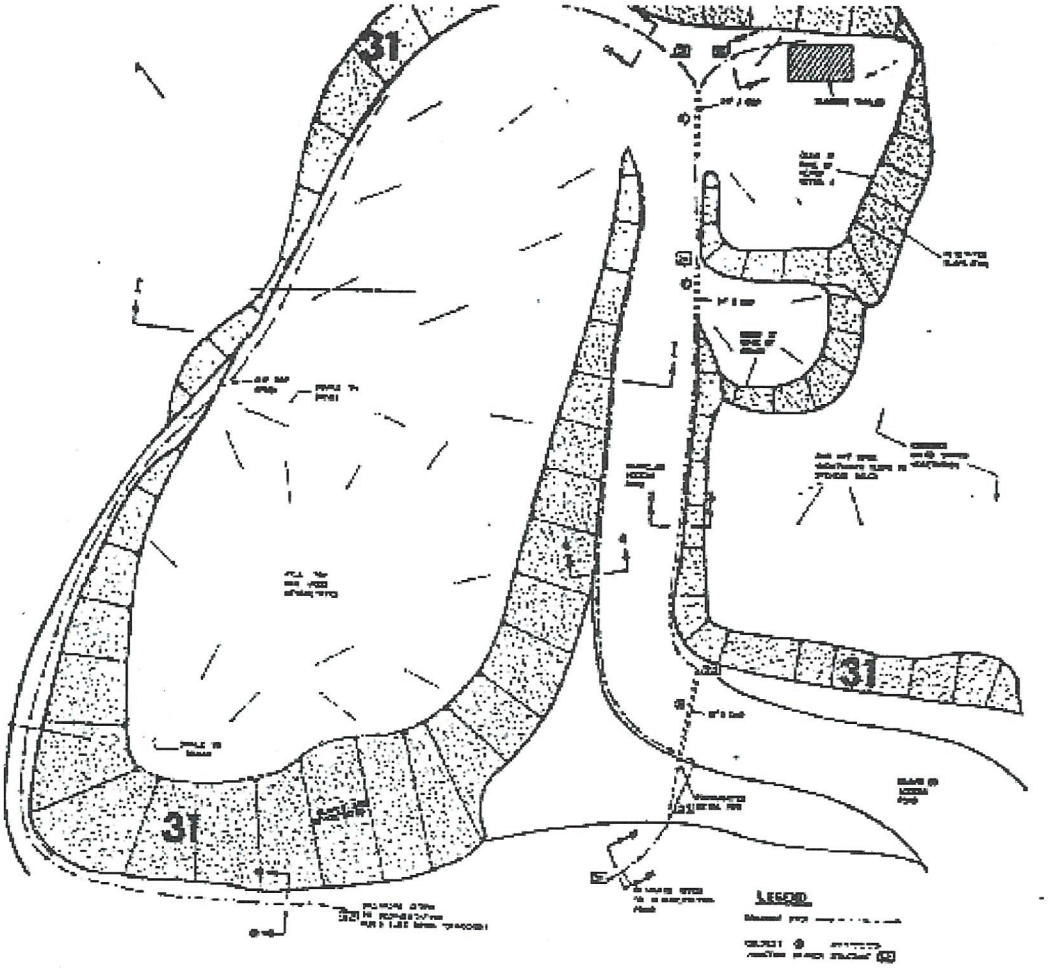


Exhibit 5 1979 Revegetation Program Parking lot/Emergency Coal Stockpile

Exhibit / 1979 Revegetation Program Sedimentation Ponds 1,2,3, and 4
1983 Revegetation Program Old Waste Disposal Area, West Ridge Waste File

15

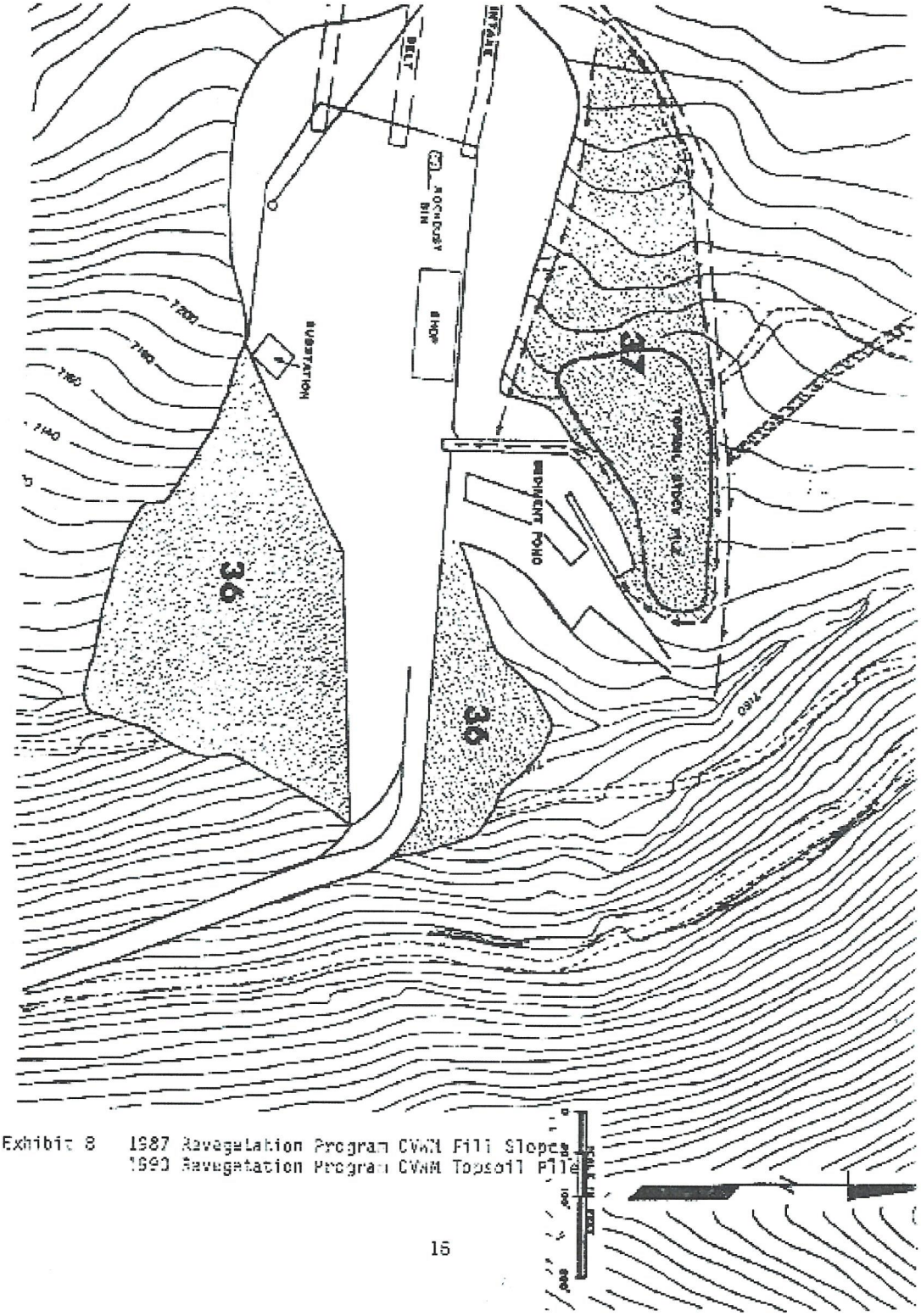


Exhibit 8 1987 Revegetation Program CVWM Fill Slopes
1990 Revegetation Program CVWM Topsoil Pile

16

Reclamation Summary

Date of Planting	Location	Area (acre)	Topsoiled	Acres Seeded	Mixture
1977	1	1.05	1.05	1.05	1
1977	3	0.21	0.21	0.21	1
1977	8	0.39	0.39	0.39	1
1977	11	0.90	0.90	0.90	1
1977	12	1.00	1.00	1.00	1
1977	13	0.20	0.20	0.20	1
1977	14	1.00	1.00	1.00	1
1977	16	1.10	1.10	1.10	1
1977	17	0.20	0.20	0.20	1
1977	18	0.30	0.30	0.30	1
1977	19	0.30	0.30	0.30	1
1977	20	0.30	0.30	0.30	1
1977	21	0.88	0.88	0.88	1
1977	22	1.22	1.22	1.22	1
1977	26	1.25	1.25	1.25	1
1977	27	0.50	0.50	0.50	1
1977	28	0.75	0.75	0.75	1
1977	29	0.75	0.75	0.75	1
1977	30a	0.35	0.35	0.35	1
1978	2	1.23	1.23	1.23	2
1978	4	0.42	0.42	0.42	2
1978	5	0.30	0.30	0.30	2
1978	6	1.00	1.00	1.00	2
1978	7	0.65	0.65	0.65	2
1978	9	1.30	1.30	1.30	2
1978	10	0.90	0.90	0.90	2
1978	15	0.80	0.80	0.80	2
1978	23	1.61	1.61	1.61	2
1978	24	0.92	0.92	0.92	2
1978	25	1.25	1.25	1.25	2
1978	30b	0.75	0.75	0.75	2
1978	30c	1.05	1.05	1.05	2
1979	31	3.20	3.20	3.20	2
1979	34	1.20	1.20	1.20	2
1979	35	1.10	1.10	1.10	2
1980	na	0.00	0.00	0.00	
1981	na	0.00	0.00	0.00	
1982	na	0.00	0.00	0.00	
1983	32	2.20	2.20	2.20	5
1983	33	0.90	0.90	0.90	5
1984	na	0.00	0.00	0.00	
1985	na	0.00	0.00	0.00	
1986	na	0.00	0.00	0.00	
1987	36	3.27	3.27	3.27	5
1988	na	0.00	0.00	0.00	
1989	na	0.00	0.00	0.00	
1990	37	2.43	2.43	2.43	6
1991	na	0.00	0.00	0.00	
1992	32	0.63	0.63	0.63	5
1992	32	-0.81	-0.81	-0.81	na
1993	32	0.83	0.83	0.83	5
1993	38	0.12	0.12	0.12	6
1995	37	0.10	0.10	0.10	5
1995	38	0.07	0.07	0.07	6
1996	39	0.04	0.04	0.04	5
1997	na	0.00	0.00	0.00	
1998	na	0.00	0.00	0.00	
1999	na	0.00	0.00	0.00	
2000	na	0.00	0.00	0.00	
2001	na	0.00	0.00	0.00	
2002	West Mine	16.70	13.80	13.80	7
2003	na	0.00	0.00	0.00	
2004	na	0.00	0.00	0.00	
2005	Vent Shaft/Drill Holes	0.45	0.45	0.45	7
2006	na	0.00	0.00	0.00	
2007	na	0.00	0.00	0.00	
2008	1-A	2.64	2.64	2.64	8
2008	1-B	3.08	3.08	3.08	8
2008	1-C	3.24	0.00	3.24	8
2008	1-D	0.36	0.36	0.36	8
2008	2-B	0.14	0.00	0.00	
2008	3-A,B,C	6.44	6.44	6.44	8
2008	4-A	2.64	2.64	2.64	8
2008	4-D	3.50	3.50	3.50	8
2008	5-A	0.82	0.82	0.00	
2008	6-A	11.16	11.16	11.16	8
2009	1-E	0.07	0.07	0.00	
2009	2-A	1.98	0.92	0.00	
2009	2-C	0.44	0.00	0.00	
2009	2-D	0.15	0.00	0.00	
2009	2-E	0.18	0.18	0.00	
2009	4-B	1.17	0.00	1.17	8
2009	4-C	2.91	0.00	0.00	
2010	na	0.00	0.00	0.00	
2011	Zone 1(1-C,D*)	0.00	0.00	3.37	#88803
2011	Zone 2 (4C,2D,2E)	0.00	0.00	5.17	#88803
2011	Zone 3 (2D)	0.00	0.00	1.40	#88803
2011	Zone 4 (1E)	0.00	0.00	0.48	#88804
2011	Zone 5 (2A)	0.00	0.00	0.09	#88805
2011	Zone 6 (2A)	0.00	0.00	1.93	#88806
2011	Zone 7 (1B)	0.00	0.00	0.47	#88807
2011	Zone 8	0.00	0.00	0.92	#88808
2011	Zone 9	0.00	0.00	1.06	#88809
2011	Zone 10(5)	0.00	0.00	0.45	#88810
2011	Zone 11 (5)	0.00	0.00	0.28	#88811
2011	Zone 12 (5)	0.00	0.00	0.33	#88812
2011	Zone 13	0.00	0.00	0.78	#88813
2012	na	0.00	0.00	0.00	
2013	na	0.00	0.00	0.00	
2014	na	0.00	0.00	0.00	
2015	na	0.00	0.00	0.00	
2016	na	0.00	0.00	0.00	
2017	Zone 14	3.28	0.00	3.28	#26938
2018	na	0.00	0.00	0.00	
2019	na	0.00	0.00	0.00	

Acres Disturbed	**156.10**
Acres Backfilled and Graded	**101.46**
Acres Topsoiled	**86.17**
Acres Re-Seeded	**108.60**
>10 Years	**20.01**
<10 Years	**88.59**
Acres Disturbed	**156.10**
Acres Backfilled and Graded	**101.46**
Remaining Reclamation	**54.64**

Table 1 - Seed Mixtures 1997 1977 Revegetation Program		
Species	Origin	Seeding Rate (PLS #ACRE)
Western Wheatgrass	Native	8.0
Crested Wheatgrass	Introduced	4.0
Pubescent Wheatgrass	Introduced	10.0
Intermediate Wheatgrass	Introduced	8.0
Yellow Sweetclover	Introduced	8.0
Dryland Alfalfa	Introduced	6.0
Total		44.0

Table 2 - Seed Mixture 2 1978 & 1979 Revegetation Program		
Species	Origin	Seeding Rate (PLS #ACRE)
Streambank Wheatgrass	Native	10.0
Western wheatgrass	Native	14.0
Pubescent Wheatgrass	Introduced	5.0
Intermediate Wheatgrass	Introduced	5.0
Yellow Sweetclover	Introduced	4.0
Indian Ricegrass	Native	2.0
Dryland Alfalfa	Introduced	2.0
Total		42.0

Table 3 - Seed Mixture 3 1980 Revegetation Program		
Species	Origin	Seeding Rate (PLS #ACRE)
Streambank Wheatgrass	Native	11.0
Western wheatgrass	Native	15.0
Pubescent Wheatgrass	Introduced	6.0
Intermediate Wheatgrass	Introduced	6.0
Yellow Sweetclover	Introduced	6.0
Indian Ricegrass	Native	3.0
Dryland Alfalfa	Introduced	3.0
Total		50.0

Table 4 - Seed Mixture 4 1981 Revegetation Program		
Species	Origin	Seeding Rate (PLS #ACRE)
Streambank Wheatgrass	Native	10.0
Western wheatgrass	Native	14.0
Beardless Wheatgrass	Introduced	5.0
Indian Ricegrass	Introduced	5.0
Thickspike Wheatgrass	Introduced	5.0
White Sweetclover	Native	10.0
Total		49.0

Table 5 - Seed Mixture 5
Orchard Valley Permanent Revegetation Program

Grass Species	Origin	Seeding Rate (PLS #ACRE)
Western Wheatgrass*	Native	6.0
Thickspike Wheatgrass*	Native	4.0
Slender Wheatgrass*	Native	3.0
Streambank Wheatgrass*	Native	4.0
Indian Ricegrass	Native	1.5
Sand Dropseed	Native	0.1
Beardless Wheatgrass	Native	2.0
Arizona Fescue	Native	2.0
Pubescent Wheatgrass	Introduced	2.0

Table 5 - Seed Mixture 5
Orchard Valley Permanent Revegetation Program

Forb Species Species	Origin	Seeding Rate (PLS #ACRE)
Utah Sweetvetch	Native	8.0
Rocky Mountain Penstemon	Native	0.5
Lewis Flax	Native	1.0
Arrowleaf Balsamroot	Native	5.0
Scarlet Globemallow	Native	0.5
Western Yallow	Native	0.1
Dryland Alfalfa	Introduced	1.0
Cicer Milvetch	Introduced	2.0
Small Burnet	Native	0.5
Smooth Aster	Native	0.5

Table 5 - Seed Mixture 5
Orchard Valley Permanent Revegetation Program

Shrub Species	Origin	Seeding Rate (PLS #ACRE)
Utah Serviceberry	Native	3.0
True Mountain Mahogany	Native	1.5
Bittersbrush	Native	5.5
Wood Rose	Native	2.0
Skunkbrush Sumac	Native	5.0
Winterfat	Native	1.0
Mountain Big Sagebrush	Native	0.1
Rubber Rabbitbrush	Native	0.3
Four-Wing Saltbrush	Native	2.0

Table 6 - Seed Mixture 6
Orchard Valley Temporary Revegetation Program

Species	Origin	Seeding Rate (PLS #ACRE)
Grasses		
Western Wheatgrass	Native	15.0
Indian Ricegrass	Native	10.0
Pubescent Wheatgrass	Introduced	5.0
Intermediate Wheatgrass	Introduced	5.0
Yellow Sweetclover	Introduced	5.0
Total		40.0

Table 7 - Seed Mixture 7
Bowie No. 2 West Mine Reclamation

Species	Origin	Seeding Rate (PLS #ACRE)
Grasses		
Thickspike Wheatgrass	Introduced	0.5
Green Needlegrass	Native	0.5
Streambank Wheatgrass	Native	0.5
Indian Ricegrass	Native	0.5
Arizona Fescue	Native	0.2
Western Wheatgrass	Native	0.5
Forbs		
Small Burnett	Native	2.0
Rocky Mountain Penstemon	Native	0.3
Cicer Milkvetch	Introduced	0.5
Lewis flax	Native	0.5
Shrubs		
Rubber Rabbitbrush	Native	0.2
Woods Rose	Native	1.0
Antelope Bitterbrush	Native	3.0
Winterfat	Native	1.0
Four-Wing Saltbrush	Native	1.0

Table 8 - Seed Mixture 8
Bowie No. 1 East Mine Reclamation

Species	Origin	Seeding Rate (PLS #ACRE)
Grasses		
Thickspike Wheatgrass	Introduced	0.5
Green Needlegrass	Native	0.5
Streambank Wheatgrass	Native	0.5
Indian Ricegrass	Native	0.5
Arizona Fescue	Native	0.2
Western Wheatgrass	Native	0.5
Forbs		
Small Burnett	Native	2.0
Rocky Mountain Penstemon	Native	0.3
Cicer Milkvetch	Introduced	0.5
Lewis flax	Native	0.5
Shrubs		
Rubber Rabbitbrush	Native	0.2
Woods Rose	Native	1.0
Antelope Bitterbrush	Native	3.0
Winterfat	Native	1.0
Four-Wing Saltbrush	Native	1.0

Table 9 - Seed Mixture 88803
Bowie No. 1 Mine

Species	Origin	Seeding Rate (PLS #ACRE)
Grasses		
Thickspike Wheatgrass	Introduced	0.5
Slender Wheatgrass	Native	0.6
Streambank Wheatgrass	Native	0.5
Indian Ricegrass	Native	0.5
Arizona Fescue	Native	0.2
Western Wheatgrass	Native	0.5
Forbs		
Small Burnett	Native	2.0
Rocky Mountain Penstemon	Native	0.3
Cicer Milkvetch	Introduced	0.5
Lewis Blue Flax	Native	0.5
Shrubs		
Rubber Rabbitbrush	Native	0.2
Skunkbush Sumac	Native	1.4
Antelope Bitterbrush	Native	3.0
Winterfat	Native	1.0
Four-Wing Saltbrush	Native	1.0

Table 10 - Lot 26938
Bowie No. 1 Mine

Species	Origin	Seeding Rate (PLS #ACRE)
Grasses		
Thickspike Wheatgrass	Introduced	0.5
Slender Wheatgrass	Native	0.6
Streambank Wheatgrass	Native	0.5
Indian Ricegrass	Native	0.5
Arizona Fescue	Native	0.2
Western Wheatgrass	Native	0.5
Forbs		
Small Burnett	Native	2.0
Rocky Mountain Penstemon	Native	0.3
Cicer Milkvetch	Introduced	0.5
Lewis flax	Native	0.5
Shrubs		
Rubber Rabbitbrush	Native	0.2
Woods Rose	Native	1.0
Antelope Bitterbrush	Native	3.0
Winterfat	Native	1.0
Skunkbrush	Native	1.4