



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

File
ACT/007/001 #2
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August 28, 1987

Mr. Barry Barnum
Valley Camp of Utah, Inc.
Scofield Route
Helper, Utah 84526

Dear Mr. Barnum:

Re: Condition #5 and #6, Valley Camp of Utah, Belina Complex,
ACT/007/001, Folder No. 2, Carbon County, Utah

On July 21, 1987 Lynn Kunzler and James Leatherwood of the Division met with Mark Humphrey and Rick Holbrook of the Office of Surface Mining and Barry Barnum, Company representative at the Valley Camp Mine site. The primary purpose of the meeting was to develop an operational test plot program to satisfy conditions #5 and #6 of the approved permit for Valley Camp of Utah's Belina Mine Complex. All representatives agreed that the conditions could be met if two test plots are implemented and a wording change made in the permit to change substitute soil to suitable growth materials. The Belina site will contain one test plot, on the slope south of the sediment pond. This plot will contain two typical soils of the area. A fertilizer treatment and no fertilizer treatment will be examined. The Utah site will have one test plot site located south of the truck loadout pad and east of the railroad tracks on an old coal storage area. Soil material from the southwest corner of the main loadout pad will be removed and redistributed on the test plot site.

The following detailed test plot design and implementation is based according to meeting notes. If this is not as to your understanding please notify the Division as soon as possible. The mentioned soil analysis and seed should be obtained upon receipt of this document (see foot note on attached seed list). Fertilizer treatment can be determined after the soil analyses are received.

Belina Site

The test plot will be approximately 60 feet by 60 feet in size. The previously constructed area where the test plots are to be implemented at the Belina site consists of two differing soil materials. This break will be the boundary running east and west. The plots will be divided again perpendicular to the slope, thereby subdividing the test plot into equal cells of 30 by 30 feet. The

Page 2
Mr. Barry Barnum
ACT/007/001
August 28, 1987

second division will contain a no fertilizer and a fertilizer treatment. The fertilizer treatment will consist of amending the suitable growth material to be equivalent to the native undisturbed soils. The native sample location will be located above the portals in the undisturbed permit area. The two soil types in the test plot area will also be sampled. All sampling will consist of the upper six inches of the soil profile. Analysis will consist of the following parameters: nitrogen, available phosphorus, potassium, and pH. A total of three soil samples will be obtained at the Belina site.

The recommended fertilizer application will be broadcast, followed by deep raking on the respective treatment. The test plot will be broadcast seeded with the attached seed mix and mulched with 2000 lbs/ac wood fiber hydromulch. The test site will have markers on the corners of each treatment a minimum of three feet above ground.

Utah Site

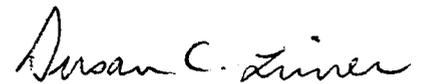
The test plot will be approximately 20 by 40 feet in size. The surficial materials are contaminated with coal materials from previous coal stockpiling. All contaminated material will be scraped from the test plot site. The suitable growth materials will be amended to be equivalent to the surrounding undisturbed soils. This will entail obtaining one soil sample from the native undisturbed soils on the adjacent hill slope and one soil sample from the soil materials to be redistributed. Samples will be analyzed as described above. After the site has been scraped clean the plot will be ripped to a 10-12 inch depth to reduce compaction and enhance the adherence of the suitable growth materials to be redistributed.

Approximately 14.8 cubic yards of suitable growth material will be salvaged from the southwest corner of the main loadout pad and redistributed to a six inch depth over the ripped soil materials. The fertilizer will then be broadcast and deep raked, the area broadcast seeded with the attached seed mix and mulched with 2000 lbs/ac wood fiber hydromulch. This site is to be fenced within one week of seeding.

Page 3
Mr. Barry Barnum
ACT/007/001
August 28, 1987

The test plots should be established the first week of October, 1987, weather permitting. Please inform the Division of the exact day of implementation so that the Division staff may be onsite to resolve any implementation problems, should they arise. Monitoring of the test plots should be conducted as per the attached schedule. If you have any questions or comments please contact Lynn Kunzler or James Leatherwood. Thank you for your cooperation.

Sincerely


Susan C. Linner,
Reclamation Biologist/
Permit Supervisor

JSL:jvb
Attachment
cc. L. Braxton R. Holbrook
 M. Humphrey L. Kunzler
 J. Leatherwood
0534R-40

Monitoring & Reporting

Monitoring of the test plots will include sampling species composition, cover (by species and total vegetation cover), woody plant density and productivity as per the following schedule:

Species composition -	years 1 thru 5
Cover	years 2 thru 5
Woody plant density	years 3 thru 5
Productivity	years 4 thru 5

Results of monitoring are to be summarized in a report and submitted with the annual report for the mine.

Valley Camp of Utah, Inc.
Seed Mix for Vegetation Test Plots

Belina Mine

Species	#PLS/Ac.	PLS/ft ²	#PLS/plot
<u>Grasses:</u>			
* <u>Agropyron dasystachyum</u>	3.0	10.7	.25
'Critana' thickspike wheatgrass			
* <u>Agropyron smithii</u>	4.0	11.0	.33
'Arriba' western wheatgrass			
* <u>Bromus marginatus</u>	4.0	7.3	.33
'Bromar' mountain brome			
* <u>Poa canbyi</u>	0.5	10.6	.05
Canby bluegrass			
<u>Poa pratensis</u>	0.1	4.9	.01
Kentucky bluegrass			
<u>Forbs</u>			
* <u>Achillea millefolium</u>	0.2	12.9	.02
Western yarrow			
* <u>Artemisia ludoviciana</u>	0.1	10.3	.01
'summit' louisiana sagewort			
* <u>Linum lewisii</u>	1.0	6.7	.09
'Apar' lewis flax			
* <u>Hedysarum boreale</u>	2.0	1.6	.17
Northern sweetvetch			
<u>Melilotus officinalis</u>	2.0	11.9	.17
yellow sweetclover			
* <u>Penstemon strictus</u>	0.8	10.9	.07
'Bandera' Rocky Mtn. penstemon			
<u>Shrubs:</u>			
* <u>Amelanchier alnifolia</u>	2.0	2.1	.17
Serviceberry			
* <u>Artemisia tridentata vaseyana</u>	0.2	11.5	.02
Mountain big sagebrush			
<u>Chrysothamnus nauseosus albicaulis</u>	0.4	3.7	.04
Whitestem rubber rabbitbrush			
* <u>Rosa woodsii</u>	1.0	1.0	.08
Woods rose			
<u>Sambucus coerulea</u>	1.0	5.0	.09
Blue elderberry			
* <u>Symphoricarpos oreophilus</u>	2.0	3.4	.17
Mountain snowberry			
Totals	24.3	125.5	2.07

Rate is for broadcast or hydroseeding methods. Rate/plot is based on plot size of 60' X 60'.

* Seed for those species marked with "*" have been requested from the plant materials centers in Meeker, Colorado and Aberdeen, Idaho. Valley Camp will need to obtain seed for the unmarked species. As of 8/20/87, seed had not been located for the marked shrub species, although the PMC thought they could still provide the seed by the end of September. Valley Camp may need to purchase this seed also.

Valley Camp of Utah, Inc.
Seed Mix for Vegetation Test Plots

Utah Fuel #2

Species	#PLS/Ac.	PLS/ft ²	#PLS/plot
<u>Grasses:</u>			
* <u>Agropyron dasystachyum</u>	4.0	14.2	.08
'Critana' thickspike wheatgrass			
* <u>Agropyron smithii</u>	4.0	11.0	.08
'Arriba' western wheatgrass			
* <u>Bromus marginatus</u>	5.0	9.2	.1
'Bromar' mountain brome			
<u>Poa pratensis</u>	0.2	9.8	.01
Kentucky bluegrass			
<u>Forbs</u>			
* <u>Artemisia ludoviciana</u>	0.1	10.3	.01
'Summit' louisiana sagewort			
* <u>Linum lewisii</u>	1.0	6.7	.02
'Apar' lewis flax			
<u>Medicago sativa</u>	1.5	7.2	.03
'Ladak' alfalfa			
<u>Melilotus officinalis</u>	2.0	11.9	.04
yellow sweetclover			
* <u>Penstemon strictus</u>	0.5	6.8	.01
'Bandera' Rocky Mtn. penstemon			
<u>Shrubs:</u>			
* <u>Artemisia tridentata vaseyana</u>	0.1	5.8	.01
Mountain big sagebrush			
<u>Chrysothamnus nauseosus albicaulis</u>	0.5	4.6	.01
Whitestem rubber rabbitbrush			
* <u>Rosa woodsii</u>	1.0	1.0	.02
Woods rose			
Totals	19.9	98.5	0.42

Rate is for broadcast or hydroseeding methods. Rate/plot is based on plot size of 40' X 20'.

* Seed for those species marked with "*" have been requested from the plant materials centers in Meeker, Colorado and Aberdeen, Idaho. Valley Camp will need to obtain seed for the unmarked species. As of 8/20/87, seed had not been located for the marked shrub species, although the PMC thought they could still provide the seed by the end of September. Valley Camp may need to purchase this seed also.