



Rubio Peak Formation Demonstration Plot As-Built Report

Prepared by

Freeport-McMoRan Chino Mines Company

99 Santa Rita Mine Road

Vanadium, New Mexico 88023

Distribution:

2 Copies – Mining and Minerals Division, w/CD

2 Copies – New Mexico Environment Department, w/CD

2 Copies – Freeport-McMoRan Chino Mines Company, w/CD

Table of Contents

1. Introduction.....	1
2. Rubio Peak Demonstration Plots	3
2.1. Test Plot Design and Construction.....	3
2.2 Revegetation	3
2.2.1 Scarification and Seeding.....	4
2.2.2 Seed Mix	4
2.2.3 Mulching	4
3.0 Future Work	4

List of Tables

Table 1	Rubio Peak Conglomerate - Laboratory Results
---------	--

List of Figures

- | | |
|----------|---|
| Figure 1 | General Location Map of the Rubio Peak Formation |
| Figure 2 | Cover Borrow Source Area and Volcanic Formations |
| Figure 3 | Location of RPF Demonstration Plot |
| Figure 4 | RPF Demonstration Plot Plan and Profile Views |
| Figure 5 | Caterpillar D6 Ripping Through the RPF |
| Figure 6 | RPF Test Pit |
| Figure 7 | Surface Condition prior to RPF Demonstration Plot Construction |
| Figure 8 | RPF Demonstration Plot Surface Condition Two Months after Seeding |
| Figure 9 | RPF Demonstration Plot Surface Condition Seven Months after Seeding |

List of Appendices

- | | |
|-------------|------------------------|
| Appendix A. | Laboratory Data |
| Appendix B. | Seed Mix and Seed Tags |

1. INTRODUCTION

Chino Mines Company (Chino) operates an open pit copper mine, milling, and solution extraction-electrowinning (SX/EW) facility near Silver City, New Mexico. Chino is evaluating reclamation options with respect to meeting applicable requirements of the New Mexico Water Quality Control Act (WQA), the Water Quality Control Commission (WQCC) Regulations, and the New Mexico Mining Act (NMMA). Chino is permitted as an existing mine (No. GR009RE) with the New Mexico Mining and Minerals Division (MMD).

In the North Mine Area (NMA), the Kneeling Nun Rhyolite was approved by the MMD as suitable cover in Permit GR009RE. The New Mexico Environmental Department (NMED) indicated that the cover shall consist of volcanic rock (such as the Kneeling Nun Rhyolite Tuff or Sugarlump Tuff formations) under Discharge Permit 1340. Chino has completed test plot and characterization studies to evaluate the suitability of the reclamation material on the Upper South Stockpile. The Reclamation Cover Material (RCM) on the Upper South Stockpile (USSP) is composed predominantly of Santa Rita Stock and Colorado Formation with minor amounts of late-stage intrusive dikes and sills. These materials occur in association with the Kneeling Nun Rhyolite in the USSP and in other stockpiles subsequently designated for use as cover materials at Chino.

In addition to the known RCM sources, Chino has been evaluating options to stockpile or identify alternative RCM borrow sources closer to facilities to be reclaimed. Based on geologic information around the Lampbright Stockpile, Chino identified possible cover sources associated with the Rubio Peak Conglomerate east of the Lampbright area (Figure 2). Chino took steps to further investigate the Rubio Peak Conglomerate (RPF), which is an unmineralized volcanic formation.

This as-built report was developed in response to a request from the MMD after reviewing the North Lampbright Stockpile closure plan (comment letter dated May 24, 2016). This report provide details concerning the characteristics and extent of the RPF (Section 2) and a description of the methods used to develop a demonstration plot to assess the ability of the materials for reclamation (Section 2). Section 3 provides a summary of the future activities that will be conducted at the site.

Field reconnaissance surveys were conducted in the summer of 2014 to assess the character and general suitability of the RPF as a cover material. After extensive field inspections of the material by a geologist, samples were collected for lab analysis. Five soil samples were collected and shipped to Energy Laboratories in Billings, MT for chemical and physical analyses. Sample locations are presented in Figure 2. Samples were analyzed for pH, electrical conductivity, particle size, saturation percentage, lime, and sand, silt, and clay. The chemical and physical properties of the cover materials are summarized in Table 1; the laboratory data are included in Appendix A.

TABLE 1
Rubio Peak Conglomerate - Laboratory Results

Sample	Coarse Frags (%)	Sand/Silt/Clay (%)	Texture	pH (SU)	Saturation (%)	Conductivity (mmhos cm⁻¹)	Lime (%)
RB1-0703	44	80/12/8	LS	7.6	28.4	0.8	3.7
RB2-0703	29	76/13/11	SL	7.8	25.4	0.7	3.7
RB3-0703	39	72/16/12	SL	7.9	25.9	0.5	2.7
RB4-0703	60	75/14/11	SL	7.7	27.9	1.0	3.6
RB5-0703	43	76/16/8	SL	7.7	24.8	0.6	4.2
Mean	43	76/14/10	SL	7.74	26.5	0.7	3.6

The cover materials are moderately coarse-textured, represented mainly by sandy loams. The samples were slightly to moderately alkaline ranging from pH 7.6. to 7.9. Acid base accounting was not performed because the samples lacked any field evidence of sulfide mineralization.

In addition to characterizing the materials, Chino estimated the areal extent and the volume of Rubio Peak Conglomerate (RPF) available north east of Lampbright Stockpile. The volume of material available was estimated based on the thickness and areal extent of the deposit. An exposure of the Rubio Peak in an adjacent tributary, which lies approximately 500 feet from the demonstration plot is approximately 30 feet thick. The aerial extent of the unconsolidated Rubio

Peak Formation was mapped in the field and occupies approximately 192 acres. Thus, using a minimum thickness of 30 feet, approximately 9,300,000 yd³ of Rubio Peak Conglomerate is available as RCM.

2. Rubio Peak Demonstration Plots

After determining that the RPF was suitable from a chemical and physical perspective, Chino constructed a demonstration plot to assess vegetation establishment on the materials. The primary goal for the RPF demonstration plot is to evaluate the overall revegetation success on the RPF. The secondary goal is to assess mulching techniques and a variation of the seed mix. This report documents final configuration of the demonstration plot, seed mix and seeding method as well as as-built diagrams of the demonstration plots.

2.1. Test Plot Design and Construction

In March 2015, Chino selected an area of the Rubio Peak Conglomerate that was as close to a 3:1 slope as possible on the south facing outslope. The vegetation and soil were stripped off the surface using Caterpillar D6 dozer exposing the Rubio Peak Conglomerate Formation. Figure 4 shows the pre-existing and post grading topographical maps. The final slope gradient is 5:1. The stripped material was used to construct berms to prevent run-on from the surroundings. The subgrade was ripped to about 3 feet deep to emulate a cover system.

The demonstration plot area is approximately 1.3 acres in area and is separated into two treatments including mulching prior to seeding and mulching after seeding. Mulching prior to seeding has been practiced at other FMI sites and yielded a positive vegetation response. Chino used this opportunity to test this concept locally. Figure 3 shows the treatment areas. The slope length on the plots is approximately 230 feet.

2.2 Revegetation

The demonstration plot was revegetated in a manner consistent with requirements of Appendix C of Permit GR009RE. The revegetation operations were performed by Freeport-McMoRan seeding crew on May 20, 2015. Operationally, the revegetation procedures included: 1) scarification and seedbed preparation, 2) seeding, and 3) mulching and crimping. The seed mix deviated from the

primary seed mix in Appendix C of the MMD permit modification 06-3 to accommodate the availability of seeds and also to experiment additional species Chino will be proposing to use based on their performance. The experimental species are all native to the Desert Southwest region. The seed mix and seed tags can be found on Appendix B of this report.

2.2.1 Scarification and Seeding

Scarification was performed on the contour at a depth of 8-12 inches. The seed were drilled and broadcast simultaneously using a modified rangeland drill with depth control bands, packer wheels, agitators and augers, and picker wheels. The light and fluffy seeds were allowed to fall freely behind the drill and were covered using chain drags pulled behind the drill. Compact seeds were drilled to promote proper seed placement.

2.2.2 Seed Mix

The seed mix applied on Lampbright demonstration plot is listed in Appendix B. The seed mix included 10 warm season grass, 8 cool season grass, 11 forb, and 7 shrub species. The seed mix deviated from the typical seed mix in Appendix C of Permit GR009RE and included a number of experimental species native to the Desert Southwest region.

2.2.3 Mulching

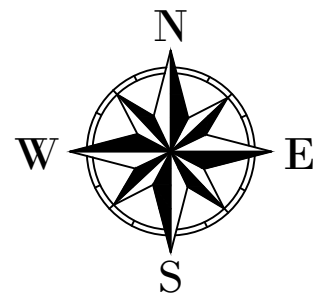
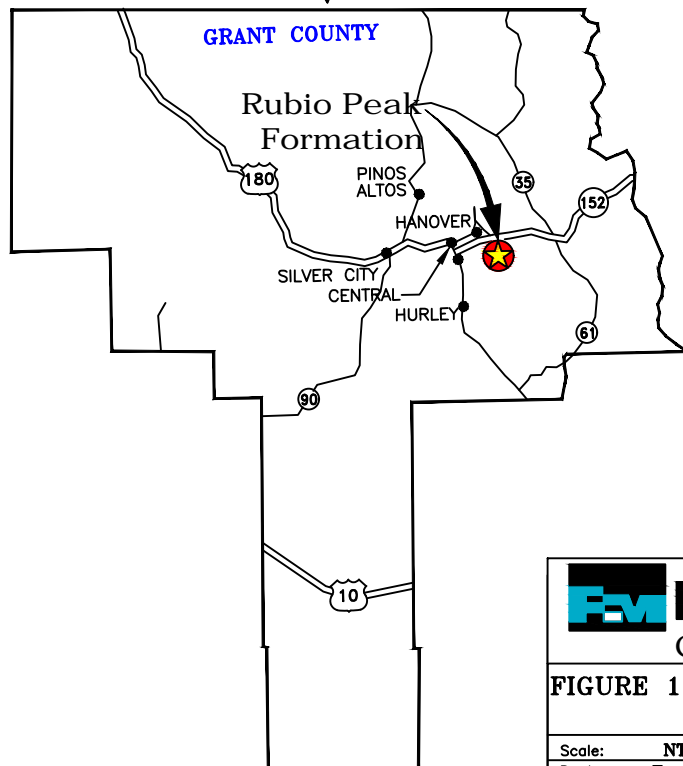
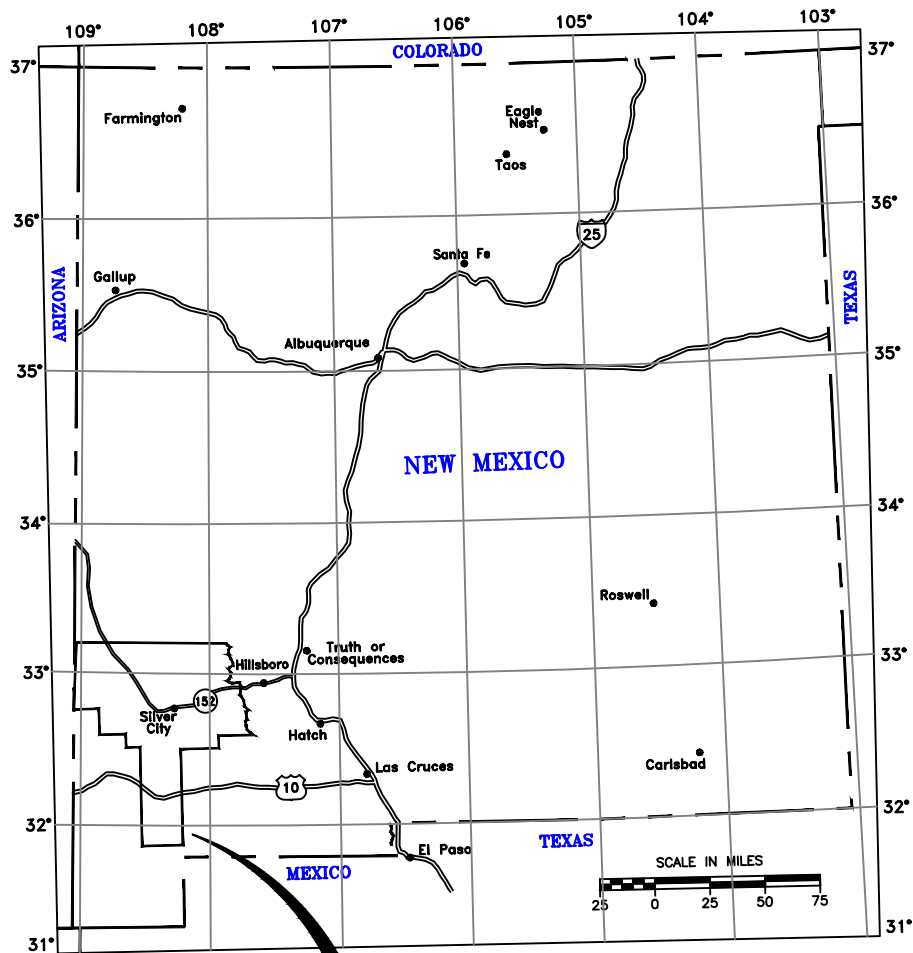
Certified weed-free, long-stem, native hay was supplied by Rocky Mountain Reclamation and used to mulch the test plots. The mulch was delivered in square bales originating from Kansas and Oklahoma. Specially-adapted mulch-spreading equipment pulled behind a 4-wheel drive tractor was used to uniformly spread the mulch at the rate of about 2.0 tons per acre. The mulch was then crimped 3 to 4 inches into the cover using a disc harrow with straight coulter discs spaced approximately 6 to 8 inches apart. The crimping operation was performed on the contour.

3.0 Future Work

Chino will continue to monitor plots to document vegetation establishment and to determine the relative effectiveness of the mulch treatments. The ultimate disposition of the demonstration plot study will be determined in consultation with the MMD and NMED. The incremental water

holding capacity of the cover will be provided at a later time. Visual vegetation monitoring this past year revealed that germination was successful and plant establishment was favorable.

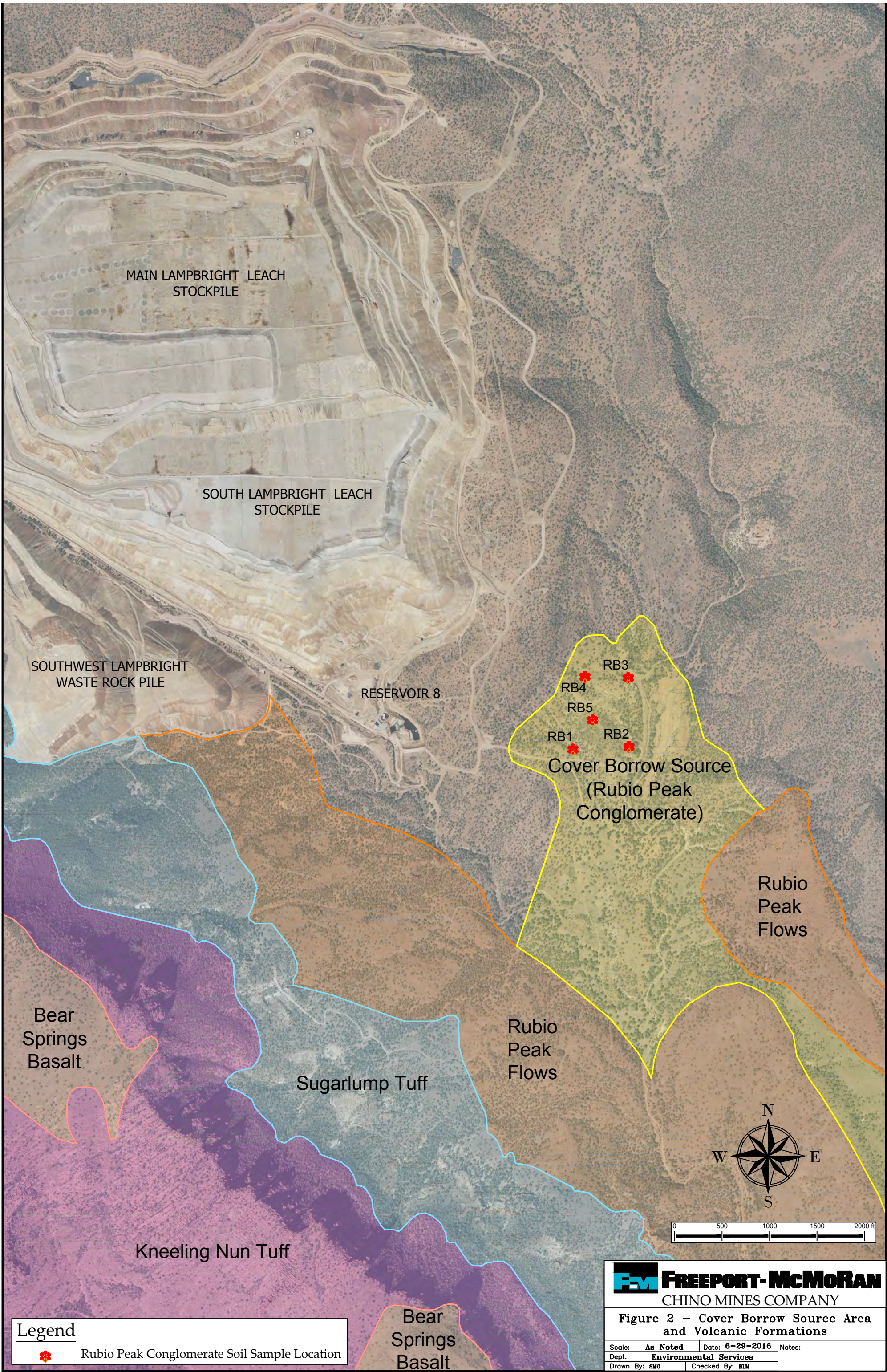
Figures



FREEPORT-McMoRAN
CHINO MINES COMPANY

FIGURE 1 – General Location Map of the Rubio Peak Formation

Scale: NTS	Date: 6-28-2016	Notes:
Dept. Environmental Services		
Drawn By: SMC	Checked By: RLM	



SOUTH
LAMPBRIGHT
LEACH STOCKPILE


RESERVOIR 8

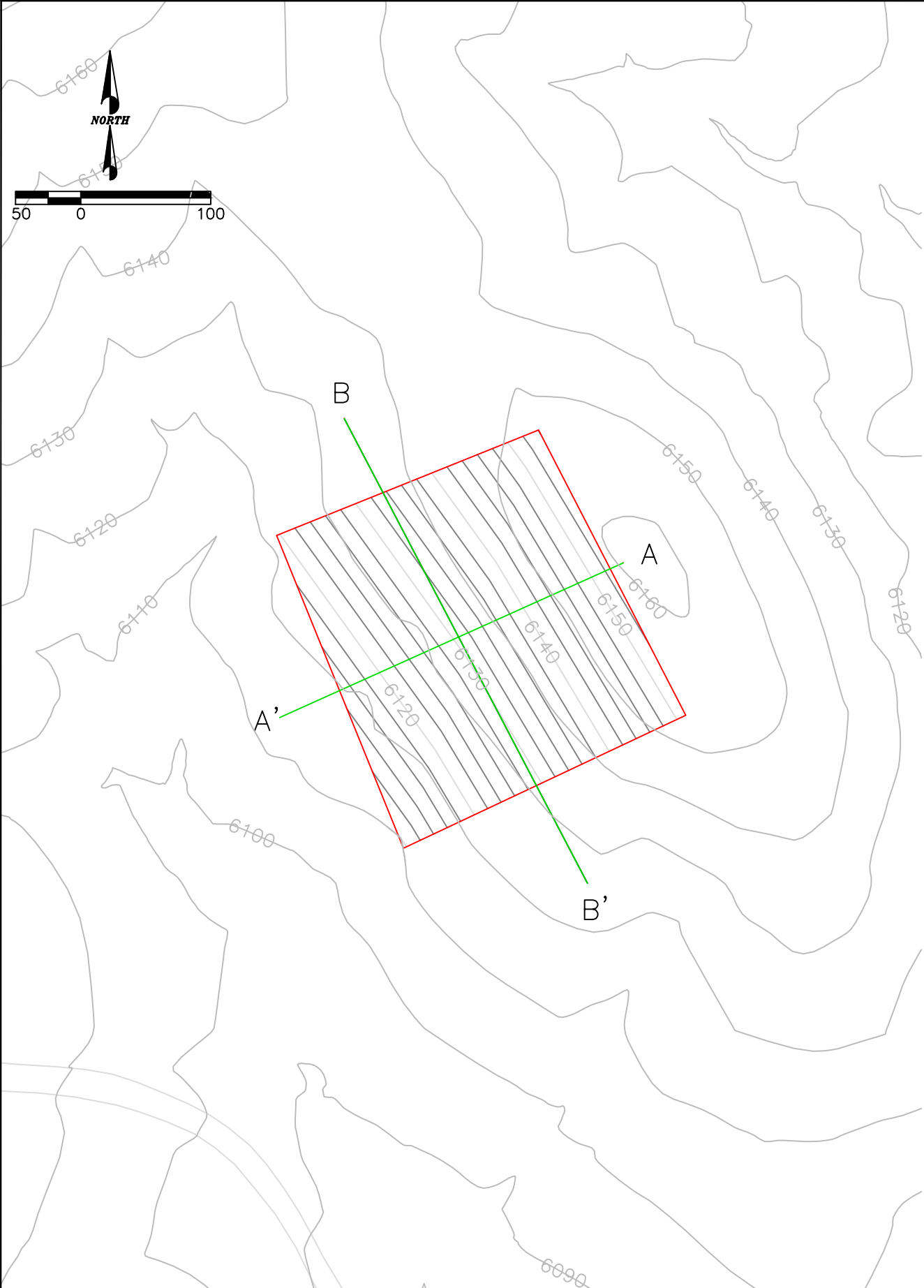
Rubio Peak Formation
Demonstration Plot
(1.3 Acres)

Mulched Prior to Seeding

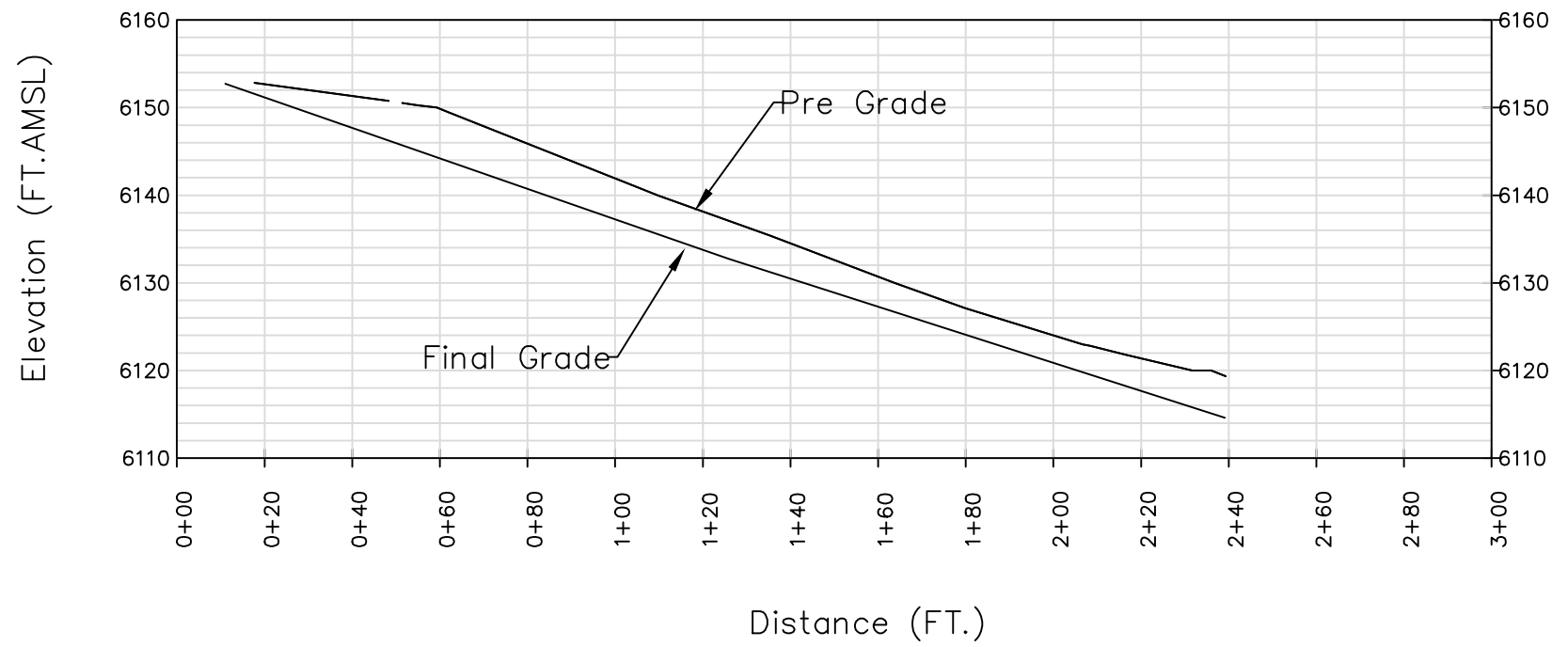
Mulched After Seeding



 FREEPORT-McMoRAN CHINO MINES COMPANY		
Figure 3 - Rubio Peak Formation Demonstration Plot Location		
Scale: As Noted	Date: 6-28-2016	Notes:
Dept. Environmental Services		
Drawn By: SMG	Checked By: RLM	



Rubio Peak Formation Demonstration Plot Profile A–A’



Rubio Peak Formation Demonstration Plot Profile B–B’

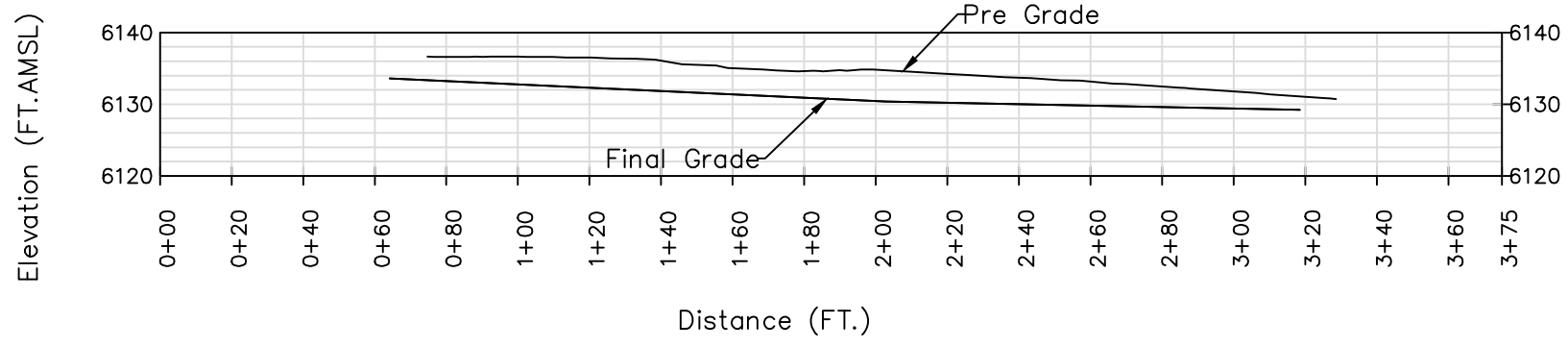


Figure 4 - Rubio Peak Formation Demonstration Plot Plan and Profiles Views



Figure 5. Caterpillar D6 ripping through the RPF



Figure 6. Test Pit



Figure 7. Surface Condition prior to RPF Demonstration Plot Construction
(March 4, 2015)



Figure 8. RPF Demonstration Plot Surface Condition Two Months After Seeding



Figure 9. RPF Demonstration Plot Surface Condition Seven Months After Seeding
(November 5, 2015)

Appendix A

ANALYTICAL SUMMARY REPORT

July 17, 2013

Golder Associates Inc
5200 Pasadena NE Ste C
Albuquerque, NM 87113

Workorder No.: B13070623

Project Name: LB REC Investigation, Lampbright

Energy Laboratories Inc Billings MT received the following 5 samples for Golder Associates Inc on 7/9/2013 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B13070623-001	RB1-0703	07/03/13 0:00	07/09/13	Soil	Coarse Fragments Conductivity Lime as CaCO ₃ , % pH, Saturated Paste Particle Size Analysis Saturation Percentage Texture
B13070623-002	RB2-0703	07/03/13 0:00	07/09/13	Soil	Same As Above
B13070623-003	RB3-0703	07/03/13 0:00	07/09/13	Soil	Same As Above
B13070623-004	RB4-0703	07/03/13 0:00	07/09/13	Soil	Same As Above
B13070623-005	RB5-0703	07/03/13 0:00	07/09/13	Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:





www.energylab.com
Analytical Excellence Since 1952

Helena, MT 877-472-0711 • Billings, MT 800-735-4489 • Casper, WY 888-235-0515
Gillette, WY 888-888-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-880-2218

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Report Date: 07/17/13
Date Received: 07/09/13

Client: Golder Associates Inc
Project: LB REC Investigation, Lampbright
Workorder: B13070623

Sample ID	Client Sample ID	Analysis		Sand	Silt	Clay	Texture	pH-Sat Paste s_u_	Saturation %	Cond-Sat Paste mmhos/cm	Lime %
		Units	Results								
B13070623-001	RB1-0703		44	80	12	8	LS	7.6	28.4	0.8	3.7
B13070623-002	RB2-0703		29	76	13	11	SL	7.8	25.4	0.7	3.7
B13070623-003	RB3-0703		39	72	16	12	SL	7.9	25.9	0.5	2.7
B13070623-004	RB4-0703		60	75	14	11	SL	7.7	27.9	1.0	3.6
B13070623-005	RB5-0703		43	76	16	8	SL	7.7	24.8	0.6	4.2



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Golder Associates Inc

Report Date: 07/17/13

Project: LB REC Investigation, Lampbright

Work Order: B13070623

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA10-3									Batch: R208258
Sample ID: B13070623-002A DUP	Sample Duplicate					Run: MISC-SOIL_130716A			07/16/13 13:34
Conductivity, sat. paste	0.730	mmhos/cm	0.10				0.0		30
Sample ID: LCS-1307161334	Laboratory Control Sample					Run: MISC-SOIL_130716A			07/16/13 13:34
Conductivity, sat. paste	7.78	mmhos/cm	0.10	100	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Golder Associates Inc

Report Date: 07/17/13

Project: LB REC Investigation, Lampbright

Work Order: B13070623

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASA15-5									Batch: R208271
Sample ID: B13071178-001A DUP	Sample Duplicate					Run: MISC-SOIL_130716B			07/16/13 15:56
Sand	46	%	1.0				4.3	40	
Silt	28	%	1.0				7.4	40	
Clay	26	%	1.0				0.0	40	
Sample ID: LCS-1307161556	Laboratory Control Sample					Run: MISC-SOIL_130716B			07/16/13 15:56
Sand	44	%	1.0	107	50	150			
Silt	34	%	1.0	97	50	150			
Clay	22	%	1.0	92	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



www.energylab.com
Analytical Excellence Since 1952

Helena, MT 877-472-0711 • Billings, MT 800-735-4489 • Casper, WY 888-235-0515
Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-690-2218

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Golder Associates Inc

Project: LB REC Investigation, Lampbright

Report Date: 07/17/13

Work Order: B13070623

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: ASAM10-3.2									Batch: R208258
Sample ID: B13070623-002A DUP	Sample Duplicate					Run: MISC-SOIL_130716A			07/16/13 13:34
pH, sat. paste	7.80	s.u.	0.10				0.0	10	
Sample ID: B13071120-001A DUP	Sample Duplicate					Run: MISC-SOIL_130716A			07/16/13 13:34
pH, sat. paste	7.90	s.u.	0.10				1.3	10	
Sample ID: LCS-1307161334	Laboratory Control Sample					Run: MISC-SOIL_130716A			07/16/13 13:34
pH, sat. paste	7.00	s.u.	0.10	99	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Golder Associates Inc

Report Date: 07/17/13

Project: LB REC Investigation, Lampbright

Work Order: B13070623

Analyte	Result	Units	RL	% REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: USDA23c									Batch: R208173
Sample ID: B13070623-001A DUP	Sample Duplicate					Run: MISC-SOIL_130715B			07/15/13 15:06
Lime as CaCO ₃	3.70	%	0.10				0.0		30
Sample ID: LCS-1307151506	Laboratory Control Sample					Run: MISC-SOIL_130715B			07/15/13 15:06
Lime as CaCO ₃	7.50	%	0.10	94	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Golder Associates Inc

Report Date: 07/17/13

Project: LB REC Investigation, Lampbright

Work Order: B13070623

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: USDA27a									Batch: R208308
Sample ID: B13070623-002A DUP	Sample Duplicate					Run: MISC-SOIL_130717A			07/17/13 08:59
Saturation	25.5	%	0.10				0.4		20
Sample ID: LCS-1307170859	Laboratory Control Sample					Run: MISC-SOIL_130717A			07/17/13 08:59
Saturation	36.7	%	0.10	97	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

Golder Associates Inc

B13070623

Login completed by: Randa Nees

Date Received: 7/9/2013

Reviewed by: BL2000\jklier

Received by: jrjz

Reviewed Date: 7/10/2013

Carrier UPS Ground
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	22.2°C No Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Contact and Corrective Action Comments:

None

Chain of Custody Record

Project Name LB REC INVESTIGATION		Project No.		Special Instructions: Bill To:		Analytical Parameters																					
CHINO DP.		Project Manager		Lewis Munk																							
Project Location LAMPBRIGHT																											
Sampler(s) JOSHUA BROWNLOW																											
Sample Date & Time	Type	Comp.	Grab	Sample Identification (Field ID)	Matrix	No. of Containers	Special Instructions																				
							ANY QUESTIONS CALL TRISH POTTER 978-912-9519 JOSHUA BROWNLOW 210-325-4667																				
7-3-13	K			RA1-0703	Rock/soil	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Remarks
7-3-13	K			RA2-0703	Rock/soil	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
7-3-13	K			RA3-0703	Rock/soil	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
7-3-13	K			RA4-0703	Rock/soil	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
7-3-13	K			RA5-0703	Rock/soil	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	

Appendix B

Chino Rubio Peak Formation Demonstration Plot Seed Mix

Species	Common Name	Lbs/ac	Comments
Warm Season Grass			
Aristida purpurea var. purpurea	Purple three-awn	0.25	Approved Alternate List
Bothriochloa barbinodis	Cane bluestem	0.10	Approved Alternate List
Bouteloua curtipendula	Sideoats grama	1.00	Original MMD App. C
Bouteloua rothrockii	Rothrock's grama	0.05	Experimental
Eragrostis intermedia	Plains lovegrass	0.05	Experimental
Heteropogon contortus	Tanglehead	0.25	Approved Alternate List
Festuca arizonica	Arizona fescue	0.03	Approved Alternate List
Schizachyrium scoparium	Little bluestem	0.90	Approved Alternate List
Sporobolus airoides	Alkali sacaton	0.05	Approved Alternate List
Sporobolus cryptandrus	Sand dropseed	0.02	Original MMD App. C
Dalea purpurea var. purpurea	Purple prairie clover	0.10	Experimental
Pleuraphis jamesii	Galleta grass	0.25	Original MMD App. C
Cool Season Grass			
Elymus elymoides	Squirreltail	1.00	Original MMD App. C
Elymus glaucus	Blue wildrye	0.40	Approved Alternate List
Hesperostipa comata ssp. comata	Needle and thread	3.00	Approved Alternate List
Poa secunda	Sandberg bluegrass	0.05	Approved Alternate List
Achnatherum hymenoides	Indian ricegrass	1.50	Approved Alternate List
Thinopyrum intermedium	Intermediate wheatgrass	1.00	Approved Alternate List
Koeleria macrantha	Prairie junegrass	1.00	Approved Alternate List
Setaria vulpiseta	Plains bristlegrass	0.10	Approved Alternate List
Shrubs			
Acacia constricta	Whitethorn acacia	1.00	Experimental
Acacia greggii	Catclaw acacia	2.00	Experimental
Atriplex canescens	Fourwing saltbush	1.50	Original MMD App. C
Prosopis juliflora velutina	Velvet mesquite	0.25	Experimental
Encelia farinosa	Brittlebush	0.25	Experimental
Ericameria nauseosa	Rubber rabbitbrush	0.20	Approved Alternate List
Desert willow	Chilopsis linearis	2.50	Approved Alternate List
Forbs			
Achillea millefolium var. occidentalis	Western yarrow	0.01	Approved Alternate List
Artemisia ludoviciana	White sagebrush	0.05	Approved Alternate List
Baileya multiradiata	Desert marigold	0.05	Approved Alternate List
Erigeron speciosus	Aspen fleabane	0.05	Experimental
Isocoma tenuisecta	Burroweed	0.05	Experimental
Lotus rigidus	Deervetch	0.10	Experimental
Oenothera pallida	Pale evening primrose	0.10	Experimental
Penstemon palmeri	Palmer's penstemon	0.20	Approved Alternate List
Senna covesii	Coues' cassia	0.25	Approved Alternate List
Sphaeralcea ambigua	Desert globemallow	0.10	Approved Alternate List
PLS (lbs/acre)		19.76	

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

1 of 3

Mix Name: STS2 DRILL
Mix # 151395

1-28865

% Pure Common Name		Variety	G + D or H	Origin
15 18	NEEDLE & THREAD GRASS	VNS	95 -12	CO
12 30	DESERT WILLOW	VNS	93 -12	MEX
10 59	CATCLAW ACACIA	VNS	91 -12	MEX
9 60	SALTBRUSH FOURWING	VNS	15 + 60 = 75	UT
7 91	INDIAN RICEGRASS	VNS	91 -12	VA
5 27	BOTTLEBRUSH SQUIRELTAIL	Pueblo	91 + 0 = 91	CO
5 11	SIDECATS GRAMA	Nine	82 + 12 = 94	CO
4 35	INTERMEDIATE WHEATGRASS	Orme	97 -12	SD
4 90	WHITEHORSE ACACIA	VNS	98 -12	MEX
4 60	BLUESTEM LITTLE	Cimarron	80 + 14 = 94	TX
2 06	MILDORE BLUE	Union Flat	81 + 12 = 93	WA
1 49	VELVET MESQUITE	VNS	91 -12	MEX
1 28	BRITTLERUSH	VNS	94 -12	MEX
1 24	JAMES GALLETA	VNS	97 + 0 = 97	TX
1 01	DESERT SENNA	VNS	97 -12	MEX
0 57	PENSTEMON PALMER	VNS	95 -12	NV
0 53	SHRUBBY DEERVETCH	VNS	84 -12	AZ
0 53	PLAINS BRISTLEGRASS	VNS	83 + 7 = 90	TX
0 53	CLOVER PURPLE PRAIRIE	Blmack	91 -12	WA

0 04 Other Seed Date Tested 29-MAY-14
9 08 Inert Matter % Hand Seed 0 00
0 02 Weed Seed

Nonxious Weed None

Net Weight 17 30 Lbs PLS 20 85 Lbs Bulk

Coverage: 1 Acre

NOTICE TO BUYER LIMITATIONS OF WARRANTIES AND REMEDIES

Crop yield and quality are dependent upon many factors beyond the control of the labeled seller and NO WARRANTY is made for crop yield and quality. The labeled seller warrants that all seed sold has been labeled as required under applicable state and federal seed law and that the seed conforms to the label description, within recognized tolerances. THIS WARRANTY IS IN FAVOR OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL.

No claim shall be asserted against the labeled seller unless Buyer reports to the labeled seller within a reasonable period after discovery (not to exceed thirty days), any condition that might lead to a complaint. BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM OR LOSS RESULTING FROM BREACH OF WARRANTY BREACH OF CONTRACT OR NEGLIGENCE (INCLUDING BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES) SHALL BE LIMITED TO REPAIRMENT OF THE PURCHASE PRICE.

By acceptance of the seed, Buyer agrees the terms and conditions stated above are a benefit to the bargain and constitute the entire agreement between Buyer and the labeled seller. Buyer shall return the original unopened seed package to the labeled seller within twenty days of receipt for a refund of the purchase price if not accepted under these terms.

NOTICE: REQUIRED ARBITRATION / CONCILIATION / MEDIATION

The seed laws of several states including Arkansas, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Minnesota, Mississippi, Missouri, North Dakota, South Carolina (Section 46-21-260), South Dakota, Texas and Washington require arbitration, conciliation or mediation of disputes involving alleged defective seed before certain legal actions may be maintained against a seller. North Carolina offers an alternative to court action that allows claims to be investigated and heard before the Special Seed Board. A complaint (written for AR, CO, FL, GA, IL, IN, IA, MI, MS, MN, NC, SC, TX, WA, signed only, CA, GA, ID, ND, SD) must be filed with the Department of Agriculture or Seed Commissioner (IN) or State Plant Board (AR) or Commissioner of Agriculture (NC) within such time to permit an inspection of seed, crops or plants (by an Arbitration Committee - AR, ID, MI, SC) in NC, failure to follow this procedure will limit the amount of damages recoverable. Certified copy of complaint must be sent by registered mail to the labeled seller as provided in applicable state law. Information about these requirements may be obtained from the state Department of Agriculture.

Ship To
Freight McMoran Reclamation Services
Reclam Chino
210 Cortez Ave
Attn: Brian 975-313-0861
Humboldt NM 96043

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

Mix Name: STS2 BROADCAST

Mix # 151394

1-28865

% Pure Common Name		Variety	G + D x H	Origin
43.06	PAIRIE JUVEGRASS	VNS	66 + 10 = 98	CAN
5.17	CANE BEARDGRASS	VNS	80 -12	AZ
4.59	DESERT GLOBEALLOW	VNS	90 -12	CA
4.35	PRIMROSE WHITE EVENING	VNS	81 + 14 = 95	CA
4.14	RABBIT BRUSH RUBBER	VNS	79 -12	UT
3.39	BURROWEED	VNS	61 -12	MEX
2.65	BLUEGRASS SANDBERG	VNS	49 + 29 = 78	WA
2.30	ASPERN DASY	VNS	26 + 64 = 90	CHI
2.30	SAGEBRUSH LOUISIANA	VNS	90 -12	WY
2.30	ROTHROCK GRAMA	VNS	90 -12	MEX
2.25	DESERT MARIGOLD	VNS	92 -12	CA
2.20	PLAINS LOVEGRASS	VNS	94 -12	AZ
2.13	ALKALI SACATON	VNS	18 + 79 = 97	NM
1.31	FESCUE ARIZONA	VNS	85 -12	MT
0.86	SAND DROPSSEED	Redondo	86 -12	CO
0.43	YARROW WESTERN	Eagle	96 -12	ID

0.08 Other Crop Date Tested 27-JUN-14
16.44 Inert Matter % Hard Seed 0.00
0.04 Weed Seed Noxious Weed None

Net Weight 1.83 Lbs PLS 2.42 Lbs Bulk

Coverage: 1 Acre

NOTICE TO BUYER LIMITATIONS OF WARRANTIES AND REMEDIES

Crop yield and quality are dependent upon many factors beyond the control of the labeled seller and NO WARRANTY is made for crop yield and quality. The labeled seller warrants that all seed sold has been labeled as required under applicable state and federal seed law and that the seed conforms to the label description, within recognized tolerances. THIS WARRANTY IS LIMITED TO ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL.

No claim shall be asserted against the labeled seller, unless Buyer reports to the labeled seller within a reasonable period after discovery (not to exceed thirty days), any condition that might lead to a complaint. BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM OR LOSS RESULTING FROM BREACH OF WARRANTY, BREACH OF CONTRACT OR NEGLIGENCE (INCLUDING BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES) SHALL BE LIMITED TO REPAIRMENT OF THE PURCHASE PRICE.

By acceptance of the seed, Buyer agrees the terms and conditions stated above are a benefit to the bargain and constitute the entire agreement between Buyer and the labeled seller. Buyer shall return the original unopened seed package to the labeled seller within twenty days of receipt for a refund of the purchase price if not accepted under these terms.

NOTICE: REQUIRED ARBITRATION / CONCILIATION / MEDIATION

The seed laws of several states including Arkansas, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Minnesota, Mississippi, Montana, North Dakota, South Carolina (Section 46-21-260), South Dakota, Texas and Washington require arbitration, conciliation or mediation of disputes involving alleged defective seed before certain legal actions may be maintained against a seller. North Carolina offers an alternative to court action that allows claims to be investigated and heard before the State Seed Board. A complaint (sworn for AR, CO, FL, IL, IN, MN, MS, MT, NC, SC, TX, WA, signed only, CA, GA, ID, ND, SD) must be filed with the Department of Agriculture or Seed Commissioner (NY) or State Plant Board (AR) or Commissioner of Agriculture (ND) within such time to permit an inspection of seed, crops or plants (by an Arbitration Committee - AR, ID, MS, SC) in NC. Failure to follow this procedure will limit the amount of damages recoverable. Certified copy of complaint must be sent by registered mail to the labeled seller as provided in individual state law information about these requirements may be obtained from the state Department of Agriculture.

SHIP TO
Freight McMoran Reclamation Services
Reclaim China
210 Center Ave
Baton Rouge 70803-0861
H/MSV NM 88043

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

1 of 3

Mix Name: STS2 WIRY
Mix # 151396

1-28865

% Pure Common Name

2361 TANGLHEAD	Variety	G + D or H	Origin
2473 PURPLE THREEAWN	VNS	91 -TZ	MEX
	VNS	97 -TZ	AZ

0 03 Other Crop Date Tested 08-OCT-14
45 52 Inert Matter % Hard Seed 0 00
0 01 Weed Seed

Noxious Weed None

Net Weight 0 50 Lbs PLS 1 00 Lbs Bulk

Coverage: 1 Acre

NOTICE TO BUYER: LIMITATIONS OF WARRANTIES AND REMEDIES

Copy and quality are dependent upon many factors beyond the control of the labeled seller and NO WARRANTY is made for crop yield and quality. The labeled seller warrants that all seed sold has been labeled as required under applicable state and federal seed law and that the seed conforms to the label description within recognized tolerances. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL.

No claim shall be asserted against the labeled seller, unless Buyer reports to the labeled seller within a reasonable period after discovery (not to exceed thirty days) any condition that might lead to a complaint. BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM OR LOSS RESULTING FROM BREACH OF WARRANTY, BREACH OF CONTRACT OR NEGLIGENCE, INCLUDING BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE.

By acceptance of the seed, Buyer agrees the terms and conditions stated above are a benefit to the bargain and constitute the entire agreement between Buyer and the labeled seller. Buyer shall return the original unopened seed package to the labeled seller within twenty days of receipt for a refund of the purchase price if not accepted under these terms.

NOTICE: REQUIRED ARBITRATION / CONCILIATION / MEDIATION

The seed laws of several states including Arkansas, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Minnesota, Mississippi, Montana, North Dakota, South Carolina, South Dakota, Texas, and Washington require arbitration, conciliation or mediation of disputes involving alleged defective seed before certain legal actions may be maintained against a seller. North Carolina offers an alternative to court action that allows claims to be investigated and heard before the Special Seed Board. A complaint against a seller may be filed with the Department of Agriculture or Seed Commissioner (IN) or State Plant Board (AZ) or GA, ID, NO, SD) must be filed with the Department of Agriculture or Seed Commissioner (IN) or State Plant Board (AZ) or Commissioner of Agriculture (NC) within such time to permit an inspection of seed, crops or plants (by an Arbitration Committee - AR / ID, MS, SC). In NC, failure to follow this procedure will limit the amount of damages recoverable. Certified copy of complaint must be sent by registered mail to the labeled seller as provided in individual state law. Information about these requirements may be obtained from the state Department of Agriculture.

Ship To
Forest McMoran Reclamation Services
Reclam Chgo
210 Conter Ave
Attn: Bryan 575-513-0961
Huffman, NM 88045