Annual Report 2009

PACIFICORP
A MIDAMERICAN ENERGY HOLDINGS COMPANY

ENERGY WEST
MINING COMPANY
A SUBSIDIARY OF PACIFICORP

Incoming C0150018
C0150019
C0150017
C0150009
cc: Pete
Karl
Steve D.
3530
OK

Cottonwood Coal Mine
C/015/019

Deer Creek Mine
C/015/018

Des-Bee-Dove Mines
C/015/017

Trail Mountain Mine
C/015/009

File in:
☐ Confidential
☒ Shelf Annual Reports
☐ Expandable
Date Folder 04/3/10 C/0150009

See Incoming For additional information
Confidential

Annual Hrdrology Report
2009

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Incoming C0150018 C0150019 C0150017 C0150009

Cottonwood Coal Mine
C/015/019

Deer Creek Mine
C/015/018

Des-Bee-Dove Mines
C/015/017

Trail Mountain Min
C/015/009

ile In C0150009 Incoming
Date: 04/30/2010 Refer to:
☐ Confidential
☒ Shelf annual Report
☐ Expandable
For additional information

This Annual Report shows information the Division has for your mine. Please review the information to see if it is current. If the information needs to be updated please do so in this document. At the end of each section the operator is asked to verify if the information is correct. Please answer these questions and make all comments on this document. Submit the completed document and any additional information identified in the Appendices to the Division by April 30, 2010. During a complete inspection an inspector will check and verify the information. To enter text, click in the cell and type your response. You can use the tab key to move from one field to the next. To enter an X in a box, click next to the box, right click, and select properties, then the checked circle, then hit enter, or hit the unchecked circle if the X is to be removed.

GENERAL INFORMATION

Permittee Name	PacifiCorp
Mine Name	Cottonwood/Wilberg Mine
Operator Name (If other then permittee)	Energy West Mining Company
Permit Expiration Date	July 6, 2014
Permit Number	C/015/0019
Authorized Representative Title	Geological and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	kenneth.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	42-01221	Cottonwood/Wilberg Mine	None
MSHA Impoundment(s)	1211-UT-09-02052-02	North Sediment Pond	None
	1211-UT-09-02052-02	South Sediment Pond	None
NPDES/UPDES Permit(s)	UT0022896	Sites 001, 003, 004, and 005 consisting of mine discharge and sediment ponds.	11/30/2012
PSD Permit(s) (Air)	DAQE-694-95	Issued 8/9/95, includes Trail Mtn Mine	None
	DAQE-835-91	Issued 12/16/91, includes WRS	None

Other

Operator, please update any incorrect information.

RECEIVED
APR 13 2010
DIV. OF OIL, GAS & MINING

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	**Required** Yes	No	**Included** Included	**or**	**DOGM file location** Vol, Chapter, Page
Excess Spoil Piles	☐	☐	☐		
Refuse Piles	☒	☐	☐		Submitted Quarterly to DOGM
Impoundments	☒	☐	☒		
Other					
	☐	☐	☐		
	☐	☐	☐		

Operator Comments:
Mine site in temporary cessation since 2001.

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the MRP and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If the particular section is blank, no commitment has been identified and no response is required for this report. If additional written response is required, it should be filed under Appendix B to this report.

Admin R645-301-100
Soils R645-301-200
Biology R645-301-300
Landuse, Cultural Resources, Air Quality R645-301- 400
Engineering R645-301-500 All secondary extraction activities were completed prior to 2001, when the Mine was sealed and placed in temporary cessation status. All areas are considered as having reached maximum deformation and dormancy.

Geology R645-301-600
Hydrology R645-301-700
Bonding & Insurance R645-301-800
Other Commitments

*Reminder: If equipment has been abandoned during 2009, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Operator Comments:
Vegetation monitoring report is located in Appendix B.

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

Change in administration or corporate structure can often bring about necessary changes to information found in the mining and reclamation plan. The Division is Requesting that each permittee review and update the legal, financial, compliance and related information in the plan as part of the annual report. Please provide the Department of Commerce, Annual Report of Officers, or other equivalent information as necessary to ensure that the information provided in the plan is current. Provide any other change as necessary regarding land ownership, lease acquisitions, legal results from appeals of violations, or other changes as necessary to update information required in the mining and reclamation plan. Include certified financial statements, audits or worksheets, which may be required to meet bonding requirements. Specify whether the information is currently on file with the Division or included as Appendix C to the report.

Legal / Financial Update	**Required** Yes	No	**Included** Included	**or**	**DOGM File location** Vol, Chapter, Page
Department of Commerce, Annual Report Officers	☐	☒	☒		Submittal includes updated corporate Officer's and Director's lists. Refer to Appendix C.
Other					
	☐	☐	☐		

	☐	☐	☐
	☐	☐	☐

MAPS

Copies of mine maps, current and up-to-date through at least December 31, 2009, are to be provided to the Division as Appendix D to this report in accordance with the requirements of R 645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential. (Please provide a CD.)

Confidential information is limited to:

R645-300-124.310. Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on components of such coal which are potentially toxic in the environment.

R645-300-124.330. Information on the nature and location of archeological resources on public land and Indian land as required under the Archeological Resources Protection Act of 1979 (P. L. 96-95, 93 Stat. 721, 16 U.S.C. 470).

R645-301-322, Fish and Wildlife Information; R645-301-322.100, the scope and level of detail for such information will be determined by the Division in consultation with state and federal agencies with responsibilities for fish and wildlife and will be sufficient to design the protection and enhancement plan required under R645-301-333 and R645-301-322.230, other species or habitats identified through agency consultation as requiring special protection under state or federal law; R645-301-333.300, Include protective measures that will be used during the active mining phase of operation.

The Division will provide procedures, including notice and opportunity to be heard for persons both seeking and opposing disclosure.

Map Number(s)	Map Title/ Description		
Annual subsidence map	Submitted with Subsidence Report		
Mine map	No changes to mine map since 2001		
Other maps		**Confidential** Yes	No
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

OTHER INFORMATION

Please provide any comments of further information to be included as part of the Annual Report. Any other attachments are to be provided as Appendix E to this report. If information is submitted as a group rather then by individual mine, please identify each of the mine's data in the list below.

Additional attachment to this report? **Yes** ☒ **No** ☐

Annual Raptor Survey Report (confidential folder submitted separately).
Subsidence Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines)
Hydrology Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines).

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

This Annual Report shows information the Division has for your mine. Please review the information to see if it is current. If the information needs to be updated please do so in this document. At the end of each section the operator is asked to verify if the information is correct. Please answer these questions and make all comments on this document. Submit the completed document and any additional information identified in the Appendices to the Division by April 30, 2010. During a complete inspection an inspector will check and verify the information. To enter text, click in the cell and type your response. You can use the tab key to move from one field to the next. To enter an X in a box, click next to the box, right click, and select properties, then the checked circle, then hit enter, or hit the unchecked circle if the X is to be removed.

GENERAL INFORMATION

Permittee Name	PacifiCorp
Mine Name	Deer Creek Mine
Operator Name (If other then permittee)	
Permit Expiration Date	February 7, 2011
Permit Number	C/015/0018
Authorized Representative Title	Geological and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Kenneth.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

Operator, please update any incorrect information.

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	42-00121	Deer Creek Mine	None
MSHA Impoundment(s)			None
			None
NPDES/UPDES Permit(s)	UT0023604	Outfalls 001 and 002, consisting of mine and sediment pond discharges	11/30/2012
PSD Permit(s) (Air)	DAQE-AN239003-02	Issued 6/14/02 Deer Creek Mine Tipple	None
	DAQE-694-91	Issued 12/5/91, Waste Rock Site	None

Other

Operator, please update any incorrect information.

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	**Required** Yes	No	**Included** Included	**or**	**DOGM file location** Vol, Chapter, Page
Excess Spoil Piles	☐	☐	☐		
Refuse Piles	☒	☐	☐		Submitted quarterly to DOGM
Impoundments	☒	☐	☒		
Other					
	☐	☐	☐		
	☐	☐	☐		

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the MRP and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If the particular section is blank, no commitment has been identified and no response is required for this report. If additional written response is required, it should be filed under Appendix B to this report.

Admin R645-301-100
Soils R645-301-200

Title: RILDA SOIL SALVAGE PLAN
Objective: The Permittee will have a qualified person (familiar with the soil survey and salvage plan) on site to monitor the soil salvage operations (Section R645-301-231.100).
Frequency: During any construction.
Status: Ongoing.
Reports: As-built volumes of salvaged soil.
Citation: Vol. 11. Section R645-301-231.100.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
This commitment was completed in the 4th qtr. of 2008.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: RILDA TOPSOIL PILE CONSTRUCTION
Objective: After construction, the stockpile will be surveyed and the volume of topsoil stockpiled will be documented.
Frequency: After construction.
Status: Ongoing.
Reports: As-built of topsoil stockpile.
Citation: Vol. 11. R645-301-232.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;

Operator Comments:
As-build volumes have been reported.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: SUBSOIL TESTING
Objective: Regraded subsoil will be sampled on 500 ft intervals to a depth of four ft (three or four samples for the 2,000 linear ft in the facilities area). The samples will be analyzed on site for pH and EC. Problem areas will be further sampled and sent to a laboratory for analysis.
Frequency: Final regrading.
Status: Ongoing .
Reports: Laboratory analysis to be provided to the Division.
Citation: Vol. 11. Section R645-301-231.300.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
This commitment will be addressed during reclamation.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: TOPSOIL HANDLING TESTING PLAN
Objective: Three composite samples will be taken from the facilities area and sediment pond. Samples will be analyzed for parameters to be compared with baseline information and to determine the need for amendments, including fertilizer
Frequency: Final Reclamation
Status: Ongoing.
Reports: Annual.
Citation: Vol. 11. Section R645-301-242.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
This commitment will be addressed during reclamation.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: BULK DENSITY TESTING
Objective: The experimental practice will provide an indication of the degree of compaction related to the loading of the in place soil through measurements of the bulk density of the in-place soil before and after burial. Bulk density of the Rominger Mine soils will occur to a depth of 6 ft. (or lithic contact) prior to and after disturbance.
Frequency: Prior to subsoil pile construction and again during reclamation, using a split spoon.
Status: once before construction and once again during reclamation
Reports: Analysis to be provided to the Division. A [bulk] change greater than 10% from an undisturbed state will require that the Permittee increase the gouging depth by one foot.
Citation: Vol. 11. Chapter 2 R645-301-242 and R645-302-216 and Experimental Practice pgs.36 and 40.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
Bulk density testing was completed on the topsoil storage location prior to placement. There will be no subsoil storage facility.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: POLYACRYLAMIDE APPLICATION
Objective: Reduce erosion from 1.6 acres undisturbed soil on 60 degree slopes buried by subsoil and unearthed at reclamation. Fill removal will be done by small earth moving equipment and/or by hand labor to minimize disturbance of the topsoil. The soil will be re-exposed in 5-10 foot horizontal zones that can and worked by hand from the adjacent pad fill level. (After the pad fill has been removed, the backfilled culvert will serve as the primary access way for machinery and materials associated with the remaining reclamation efforts.) Slopes steeper than 50% will be treated with an anionic polyacrylamide (PAM) during seeding to increase cohesion and infiltration of water without disrupting soil structure. Bareroot or containerized plant stock will be pre-treated with PAM and used as enhancement plantings on the re-exposed, steep slopes.
Frequency: Final Reclamation
Status: during reclamation
Reports: During reclamation.
Citation: Vol. 11. Chapter 2 Section R645-302-216 and Experimental Practice Plan pg.40.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
This commitment will be addressed during reclamation.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: WASTE ROCK SITE SAMPLING
Objective: Monitor chemical quality of waste at waste rock site
Frequency: Grab samples upon completion of each two foot lifts. Parameters as described.
Status: Ongoing during mining.
Reports: Annual Report
Citation: MRP Volume 10, Chap. VII, p. 7-4 to 7-5.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment.
Operator Comments:
Quality sampling was completed at the Deer Creek waste rock site in 2009. Results are located in Appendix A.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: WASTE ROCK SITE RECLAMATION SAMPLING
Objective: Monitor chemical quality of upper four feet of final waste reclaimed surface at waste rock site
Frequency: Grab samples within four feet of final elevation at a rate of two samples per acre per lift. Parameters as described.
Status: Final reclamation of waste rock cell
Reports: Annual Report
Citation: MRP Volume 10, Chap. VII, p. 7-5

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment.
Operator Comments:
This commitment will be addressed during reclamation.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: DEMONSTRATION OF SELECTED OVERBURDEN AS BEST AVAILABLE MATERIAL IN THE PERMIT AREA FOR USE AS SUBSTITUTE TOPSOIL
Objective: Monitor chemical quality of identified substitute topsoil to show reduction in sodicity
Frequency: Sampling as described
Status: Prior to permit renewal
Reports: Annual Report
Citation: MRP Vol. 2, Part4, Section R645-301-233, pg. 2-3

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment.
Operator Comments:
This commitment will be conducted during the field season of 2010.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: WILDLIFE
Objective: Adhere to wildlife exclusionary periods.
Frequency: Annual
Status: Ongoing during Rilda portal construction in 2005 and reclamation.
Reports: Annual Report.
Citation: MRP, Sec. 322, p. 10; Sec. 330, p.16, #14 in list; Sec. 342, p. 32, #7 in list.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment.
Operator Comments:
Rilda Construction was completed in 2008.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title MACROINVERTEBRATES "AQUATIC".
Objective: Monitor macroinvertebrates in Rilda Creek.
Frequency: Spring/fall two years prior to and spring/fall one year immediately following start of construction. Spring every three years during operations and reclamation.
Status: **OVERDUE. Please submit the 2008 surveys to fulfill the pre-construction survey commitment.** Construction was complete in Fall 2008. Spring and Fall 2009 are the first required surveys and Spring 2012 is the anticipated date for the first of the three-year monitoring surveys.
Reports: Division Annual Report.
Citation: MRP, Sec. 330, p. 26.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
These reports are completed and are on file at EWMC. The reports will be included in Volume 11 Appendix Volume, Biology Section, Appendix D.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: FISH "AQUATIC".
Objective: DWR will monitor fish in Rilda Creek as part of annual surveys.
Frequency: Spring/fall two years prior to and spring/fall one year immediately following start of construction. Spring every three years during operations and reclamation.
Status: **OVERDUE. Please submit the 2008 surveys to fulfill the pre-construction survey commitment.** Construction was complete in Fall 2008. Spring and Fall 2009 are the first required surveys and Spring 2012 is the anticipated date for the first of the three-year monitoring surveys.

Reports: Division Annual Report.
Citation: MRP, Sec. 330, p. 26.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
These reports are completed and are on file at EWMC. The reports will be included in Volume 11 Appendix Volume, Biology Section, Appendix D.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: RAPTORS.
Objective: Over-flight surveys.
Frequency: Yearly.
Status: On going for life of mine.
Reports: Upon request.
Citation: MRP, Sec. 322, Subsec. Terrestrial Species.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
Completed in May, 2009. Confidential Report submitted separately.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Title: AERIAL PHOTOGRAPHY
Objective: To monitor the effects of mining including surface disturbances and subsidence on vegetation
Frequency: Aerial Photography annually and Infrared photography every five years starting in 1987.
Status: OVERDUE
Reports: annually and every five years for infrared
Citation: MRP. Vol. 1 Sec. 321 page 2-174

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
EWMC has conducted aerial photography annually and infrared photography every 5 years according to the Vegetation Monitoring Plan on page 2-174. Company staff have not noted any changes to vegetation due to impacts from mining. Subsidence is not considered an impact according to Utah coal regulations.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Landuse, Cultural Resources, Air Quality R645-301- 400

Engineering R645-301-500

Title: SPECIAL MONITORING - CASTLEGATE CLIFF ESCARPMENT
Objective: Monitor Cliff Escarpments
Frequency: Daily measuring during mining.
Status: Ongoing.
Reports: Annual.
Citation: Volume 11 p 28.

Operator: Has this commitment been acted on this year?
Yes ☐ No ☐ Not required this year. ☐ If yes, comment;
Operator Comments:
Commitment was completed. Mining is no longer conducted in this area.

Inspector:
Has the operator complied with this commitment? Yes ☐ No ☐
Inspector Comments:

Geology R645-301-600

Hydrology R645-301-700

Bonding & Insurance R645-301-800

Other Commitments

*Reminder: If equipment has been abandoned during 2009, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Operator Comments:
Report sealing of 2nd, 3rd, and 4th Left section in the Deer Creek Mine. If required, an amendment will be submitted in 2010. Refer to Appendix E for information.

Vegetation monitoring report is located in Appendix B.

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

Change in administration or corporate structure can often bring about necessary changes to information found in the mining and reclamation plan. The Division is Requesting that each Permittee review and update the legal, financial, compliance and related information in the plan as part of the annual report. Please provide the Department of Commerce, Annual Report of Officers, or other equivalent information as necessary to ensure that the information provided in the plan is current. Provide any other change as necessary regarding land ownership, lease acquisitions, legal results from appeals of violations, or other changes as necessary to update information required in the mining and reclamation plan. Include certified financial statements, audits or worksheets, which may be required to meet bonding requirements. Specify whether the information is currently on file with the Division or included as Appendix C to the report.

Legal / Financial Update	**Required** Yes	No	**Included** Included	**or**	**DOGM File location** Vol, Chapter, Page
Department of Commerce, Annual Report Officers	☐	☒	☒ Submittal includes updated corporate Officer's and Director's lists. Refer to Appendix C.		
Other					
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		

Operator Comments:

Inspector:
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Inspector Comments:

MAPS

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R645-300-124.310. Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on components of such coal which are potentially toxic in the environment.

R645-300-124.330. Information on the nature and location of archeological resources on public land and Indian land as required under the Archeological Resources Protection Act of 1979 (P. L. 96-95, 93 Stat. 721, 16 U.S.C. 470).

R645-301-322, Fish and Wildlife Information; R645-301-322.100, the scope and level of detail for such information will be determined by the Division in consultation with state and federal agencies with responsibilities for fish and wildlife and will be sufficient to design the protection and enhancement plan required under R645-301-333 and R645-301-322.230, other species or habitats identified through agency consultation as requiring special protection under state or federal law; R645-301-333.300, Include protective measures that will be used during the active mining phase of operation.

The Division will provide procedures, including notice and opportunity to be heard for persons both seeking and opposing disclosure.

Map Number(s)	Map Title/ Description	Confidential Yes	Confidential No
Annual subsidence map	Subsidence maps included with subsidence report.		
Mine map			
Other maps			
Production Map		☒	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐

Inspector Comments:

OTHER INFORMATION

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Additional attachment to this report? **Yes** ☒ **No** ☐

Annual Raptor Survey Report (confidential folder submitted separately).
Subsidence Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines)
Hydrology Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines).

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

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GENERAL INFORMATION

Permittee Name	PacifiCorp
Mine Name	Des Bee Dove Mines
Operator Name (If other then permittee)	Energy West Mining Company
Permit Expiration Date	August 30, 2010
Permit Number	C/015/0017
Authorized Representative Title	Geological and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Kenneth.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	N/A	Record abandoned by MSHA March 27, 1987	
MSHA Impoundment(s)	None		
NPDES/UPDES Permit(s)	None		
PSD Permit(s) (Air)	None		

Other

Operator, please update any incorrect information.

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	**Required** Yes	No	**Included** Included	**or**	**DOGM file location** Vol, Chapter, Page
Excess Spoil Piles	☐	☒	☐		
Refuse Piles	☐	☒	☐		
Impoundments	☐	☒	☐		
Other					
	☐	☐	☐		
	☐	☐	☐		

Operator Comments:
Final Reclamation completed in 2003 of mine site and 2006 of sediment pond.

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the MRP and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If the particular section is blank, no commitment has been identified and no response is required for this report. If additional written response is required, it should be filed under Appendix B to this report.

Admin R645-301-100
Soils R645-301-200
Biology R645-301-300
Landuse, Cultural Resources, Air Quality R645-301- 400
Engineering R645-301-500
Geology R645-301-600

Hydrology R645-301-700
Bonding & Insurance R645-301-800
Other Commitments

*Reminder: If equipment has been abandoned during 2009, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Operator Comments:
The annual vegetation monitoring report is included in Appendix B

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

Change in administration or corporate structure can often bring about necessary changes to information found in the mining and reclamation plan. The Division is Requesting that each permittee review and update the legal, financial, compliance and related information in the plan as part of the annual report. Please provide the Department of Commerce, Annual Report of Officers, or other equivalent information as necessary to ensure that the information provided in the plan is current. Provide any other change as necessary regarding land ownership, lease acquisitions, legal results from appeals of violations, or other changes as necessary to update information required in the mining and reclamation plan. Include certified financial statements, audits or worksheets, which may be required to meet bonding requirements. Specify whether the information is currently on file with the Division or included as Appendix C to the report.

Legal / Financial Update	**Required** Yes	No	**Included** Included	**or**	**DOGM File location** Vol, Chapter, Page
Department of Commerce, Annual Report Officers	☐	☒	☒ Submittal includes updated corporate Officer's and Director's lists. Refer to Appendix C.		
Other					
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		

MAPS

Copies of mine maps, current and up-to-date through at least December 31, 2009, are to be provided to the Division as Appendix D to this report in accordance with the requirements of R 645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential. (Please provide a CD.)

Confidential information is limited to:

R645-300-124.310. Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on components of such coal which are potentially toxic in the environment.

R645-300-124.330. Information on the nature and location of archeological resources on public land and Indian land as required under the Archeological Resources Protection Act of 1979 (P. L. 96-95, 93 Stat. 721, 16 U.S.C. 470).

R645-301-322, Fish and Wildlife Information; R645-301-322.100, the scope and level of detail for such information will be determined by the Division in consultation with state and federal agencies with responsibilities for fish and wildlife and will be sufficient to design the protection and enhancement plan required under R645-301-333 and R645-301-322.230, other species or habitats identified through agency consultation as requiring special protection under state or federal law; R645-301-333.300, Include protective measures that will be used during the active mining phase of operation.

The Division will provide procedures, including notice and opportunity to be heard for persons both seeking and opposing disclosure.

Map Number(s)	Map Title/ Description	Confidential Yes	Confidential No
Annual subsidence map			
Mine map			
Other maps			
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

OTHER INFORMATION

Please provide any comments of further information to be included as part of the Annual Report. Any other attachments are to be provided as Appendix E to this report. If information is submitted as a group rather then by individual mine, please identify each of the mine's data in the list below.

Additional attachment to this report? **Yes** ☒ **No** ☐

Annual Raptor Survey Report (confidential folder submitted separately).
Subsidence Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines)
Hydrology Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines).

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

This Annual Report shows information the Division has for your mine. Please review the information to see if it is current. If the information needs to be updated please do so in this document. At the end of each section the operator is asked to verify if the information is correct. Please answer these questions and make all comments on this document. Submit the completed document and any additional information identified in the Appendices to the Division by April 30, 2010. During a complete inspection an inspector will check and verify the information. To enter text, click in the cell and type your response. You can use the tab key to move from one field to the next. To enter an X in a box, click next to the box, right click, and select properties, then the checked circle, then hit enter, or hit the unchecked circle if the X is to be removed.

GENERAL INFORMATION

Permittee Name	PacifiCorp
Mine Name	Trail Mountain Mine
Operator Name (If other then permittee)	Energy West Mining Company
Permit Expiration Date	February 20, 2015
Permit Number	C/015/0009
Authorized Representative Title	Geological and Environmental Affairs Manager
Phone Number	(435) 687-4712
Fax Number	(435) 687-2695
E-mail Address	Kenneth.fleck@pacificorp.com
Mailing Address	P.O. Box 310 Huntington, Utah 84528
Designated Representative	Ken Fleck
Resident Agent	Ken Fleck
Resident Agent Mailing Address	Same as above
Number of Binders Submitted	2

IDENTIFICATION OF OTHER PERMITS

Identify other permits that are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expiration Date
MSHA Mine ID(s)	42-01211	Trail Mountain Mine	None
MSHA Impoundment(s)	None		
NPDES/UPDES Permit(s)	UT0023728	Site 001, Sediment Pond	31 December, 2012
		Site 002, Mine Discharge	
PSD Permit(s) (Air)	DAQE-694-95	Issued 8/9/95, includes Cottonwood/Wilberg Mine.	None

Other

Operator, please update any incorrect information.

CERTIFIED REPORTS

List the certified inspection reports as required by the rules and under the approved plan that must be periodically submitted to the Division. Specify whether the information is included as Appendix A to this report or currently on file with the Division.

Certified Reports:	Required Yes	Required No	Included Included	or DOGM file location Vol, Chapter, Page
Excess Spoil Piles	☐	☐	☐	
Refuse Piles	☒	☐	☐	Submitted quarterly to DOGM
Impoundments	☒	☐	☒	
Other				
	☐	☐	☐	
	☐	☐	☐	

Operator Comments:
Mine site in temporary cessation since 2001.
Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the MRP and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If the particular section is blank, no commitment has been identified and no response is required for this report. If additional written response is required, it should be filed under Appendix B to this report.

Admin R645-301-100
Soils R645-301-200
Biology R645-301-300
Landuse, Cultural Resources, Air Quality R645-301- 400
Engineering R645-301-500 The Mine was sealed in 2001; no mining has occurred since then. Areas 23 and 24 have reached maximum deformation and are considered dormant as far as subsidence.
Geology R645-301-600

Hydrology R645-301-700

Bonding & Insurance R645-301-800

Other Commitments

*Reminder: If equipment has been abandoned during 2009, an amendment must be submitted that includes a map showing its location, a description of what was abandoned, whether there were any hazardous or toxic materials and any revision to the PHC as necessary.

REPORTING OF OTHER TECHNICAL DATA

List other technical data and information as required under the approved plan, which must be periodically submitted to the Division. Specify whether the information is included as Appendix B to this report or currently on file with the Division.

Operator Comments:
Vegetation monitoring report in included in Appendix B.

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

Change in administration or corporate structure can often bring about necessary changes to information found in the mining and reclamation plan. The Division is Requesting that each permittee review and update the legal, financial, compliance and related information in the plan as part of the annual report. Please provide the Department of Commerce, Annual Report of Officers, or other equivalent information as necessary to ensure that the information provided in the plan is current. Provide any other change as necessary regarding land ownership, lease acquisitions, legal results from appeals of violations, or other changes as necessary to update information required in the mining and reclamation plan. Include certified financial statements, audits or worksheets, which may be required to meet bonding requirements. Specify whether the information is currently on file with the Division or included as Appendix C to the report.

Legal / Financial Update	**Required** Yes	No	**Included** Included	**or**	**DOGM File location** Vol, Chapter, Page
Department of Commerce, Annual Report Officers	☐	☒	☒ Submittal includes updated corporate Officer's and Director's lists. Refer to Appendix C.		
Other					
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		

MAPS

Copies of mine maps, current and up-to-date through at least December 31, 2009, are to be provided to the Division as Appendix D to this report in accordance with the requirements of R 645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential. (Please provide a CD.)

Confidential information is limited to:

R645-300-124.310. Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on components of such coal which are potentially toxic in the environment.

R645-300-124.330. Information on the nature and location of archeological resources on public land and Indian land as required under the Archeological Resources Protection Act of 1979 (P. L. 96-95, 93 Stat. 721, 16 U.S.C. 470).

R645-301-322, Fish and Wildlife Information; R645-301-322.100, the scope and level of detail for such information will be determined by the Division in consultation with state and federal agencies with responsibilities for fish and wildlife and will be sufficient to design the protection and enhancement plan required under R645-301-333 and R645-301-322.230, other species or habitats identified through agency consultation as requiring special protection under state or federal law; R645-301-333.300, Include protective measures that will be used during the active mining phase of operation.

The Division will provide procedures, including notice and opportunity to be heard for persons both seeking and opposing disclosure.

Map Number(s)	Map Title/ Description	Confidential Yes	Confidential No
Annual subsidence map	Included in Annual Subsidence Report.		
Mine map	No changes to mine map since 2001		
Other maps			
	Lease Relinquishment Map	☒	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Operator Comments:
Partial lease relinquishment of Leases UTU64375 and U49332 was approved by BLM January 9, 2009. Operator has not right of entry into these relinquished areas (see map). Permit reduction amendment is forthcoming in 2010.

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

OTHER INFORMATION

Please provide any comments of further information to be included as part of the Annual Report. Any other attachments are to be provided as Appendix E to this report. If information is submitted as a group rather then by individual mine, please identify each of the mine's data in the list below.

Additional attachment to this report? **Yes** ☒ **No** ☐

Annual Raptor Survey Report (confidential folder submitted separately).
Subsidence Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines)
Hydrology Report (Reported for Cottonwood/Wilberg, Des Bee Dove, Deer Creek, and Trail Mountain mines).

Operator Comments:

Inspector:
Has the operator complied with this section? Yes ☐ No ☐
Inspector Comments:

APPENDIX A

Certified Reports

Excess Spoil Piles
Refuse Piles
Impoundments

As required under R645-301-514

CONTENTS

Quarterly Pond Inspection Reports for 2009
Deer Creek Waste Rock Site Sampling – March 2009
Deer Creek In-Mine Roof, Rib, and Floor Sampling – December 2009

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0019	Report Date	MARCH 30, 2009
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number		UT 0022896-003A	UT 0022896-005
MSHA ID NUMBER.....	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	MARCH 25, 2009	
Inspected By	Rick Cullum/ John Christensen	
		1ST Quarter Inspection 2009

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Pond	North Pond	South Pond	Waste Rock
60% Design Storage Capacity	.34 A.F. at 7351.0 ft.	.19 A.F. at 7322.3 ft.	1.45 A.F. at 6761.5 ft.
100% Sediment Capacity	.56 A.F. at 7354.83 ft.	.32 A.F. at 7325.33 ft.	2.42 A.F. at 6765.3 ft.

Principle and emergency spillway elevations.

	North Pond	South Pond	Waste Rock Pond
Principal Spillway Elevation	7354.83	7325.33	6766.3
Emergency Spillway	7363.33	7334.2	6770.0

Elevation

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	North Pond	South Pond	Waste Rock Pond
Water Elevation	DRY	DRY	DRY
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	North Pond	South Pond	Waste Rock Pond
Sediment Volume	0.10 AF	0.00 AF	1.19 AF
Remaining Sediment Storage Capacity	0.24 AF	0.19 AF	.26 AF
Water Impounded	0.0 AF	0.0 AF	0.0 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 4/14/09

Signature: Richard Cullum **Date:** 4/15/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0019	Report Date	June 30, 2009
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number		UT 0022896-003A	UT 0022896-005
MSHA ID NUMBER.....	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	June 24, 2009
Inspected By	Rick Cullum/ John Christensen
	2ND Quarter Inspection 2009

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Pond	North Pond	South Pond	Waste Rock
60% Design Storage Capacity	.34 A.F. at 7351.0 ft.	.19 A.F. at 7322.3 ft.	1.45 A.F. at 6761.5 ft.
100% Sediment Capacity	.56 A.F. at 7354.83 ft.	.32 A.F. at 7325.33 ft.	2.42 A.F. at 6765.3 ft.

Principle and emergency spillway elevations.

	North Pond	South Pond	Waste Rock Pond
Principal Spillway Elevation	7354.83	7325.33	6766.3
Emergency Spillway	7363.33	7334.2	6770.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT

Elevation

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	North Pond	South Pond	Waste Rock Pond
Water Elevation	DRY	DRY	DRY
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	North Pond	South Pond	Waste Rock Pond
Sediment Volume	0.10 AF @7348 ft.	0.00 AF	1.19 AF @6760.5 ft.
Remaining Sediment Storage Capacity	0.24 AF	0.19 AF	.26 AF
Water Impounded	0.0 AF	0.0 AF	0.0 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 7/29/09

Signature: Richard Cullum **Date:** 8/6/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0019	Report Date	SEPT. 25, 2009
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number		UT 0022896-003A	UT 0022896-005
MSHA ID NUMBER.....	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION		
Inspection Date	SEPT. 2, 2009	
Inspected By	Rick Cullum/ John Christensen	
		3RD Quarter Inspection 2009

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Pond	North Pond	South Pond	Waste Rock
60% Design Storage Capacity	.34 A.F. at 7351.0 ft.	.19 A.F. at 7322.3 ft.	1.45 A.F. at 6761.5 ft.
100% Sediment Capacity	.56 A.F. at 7354.83 ft.	.32 A.F. at 7325.33 ft.	2.42 A.F. at 6765.3 ft.

Principle and emergency spillway elevations.

	North Pond	South Pond	Waste Rock Pond
Principal Spillway Elevation	7354.83	7325.33	6766.3
Emergency Spillway	7363.33	7334.2	6770.0

Elevation

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	North Pond	South Pond	Waste Rock Pond
Water Elevation	DRY	DRY	DRY
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	North Pond	South Pond	Waste Rock Pond
Sediment Volume	0.10 AF @7348 ft.	0.00 AF	1.31 AF @6760.7 ft.
Remaining Sediment Storage Capacity	0.24 AF	0.19 AF	.26 AF
Water Impounded	0.0 AF	0.0 AF	0.0 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT. Bentonite clay was place around the discharge upright to seal a small seep hole.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Richard Carlson **Date:** 11/3/09

Signature: John Christensen **Date:** 10/28/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0019	Report Date	DEC. 29, 2009
Mine Name	Cottonwood/Wilberg		
Company Name	PacifiCorp		
Impoundment Name...	North Pond	South Pond	Waste Rock Pond
Impoundment Number.			
UPDES Permit Number		UT 0022896-003A	UT 0022896-005
MSHA ID NUMBER.....	1211-UT-09-02052-02	1211-UT-09-02052-03	

IMPOUNDMENT INSPECTION

Inspection Date	DEC. 3, 2009	
Inspected By	Rick Cullum/ John Christensen	
		4th Quarter Inspection 2009

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

North Pond: No instabilities or weaknesses observed.

South Pond: No instabilities or weaknesses observed.

Waste Rock Site Pond: No instabilities observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Pond	North Pond	South Pond	Waste Rock
60% Design Storage Capacity	.34 A.F. at 7351.0 ft.	.19 A.F. at 7322.3 ft.	1.45 A.F. at 6761.5 ft.
100% Sediment Capacity	.56 A.F. at 7354.83 ft.	.32 A.F. at 7325.33 ft.	2.42 A.F. at 6765.3 ft.

Principle and emergency spillway elevations.

	North Pond	South Pond	Waste Rock Pond
Principal Spillway Elevation	7354.83	7325.33	6766.3
Emergency Spillway	7363.33	7334.2	6770.0

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT | **Elevation** |

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

	North Pond	South Pond	Waste Rock Pond
Water Elevation	DRY	DRY	DRY
Discharging	NO	NO	No
Inlet/Outlet Condition	Good	Good	Good
Slope conditions	Good	Good	Good

*See "Hydrologic Monitoring Data" report submitted to DOGM quarterly for monitoring information.

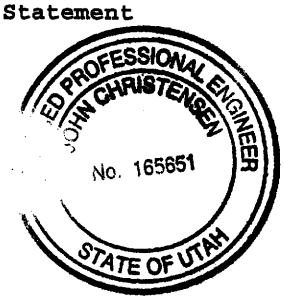
Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

	North Pond	South Pond	Waste Rock Pond
Sediment Volume	0.10 AF @7348 ft.	0.00 AF	1.31 AF @6760.7 ft.
Remaining Sediment Storage Capacity	0.24 AF	0.19 AF	.26 AF
Water Impounded	0.0 AF	0.0 AF	0.0 AF

Changes, Comments,

THE COTTONWOOD MINE WAS IDLED IN 2001, SO THE ONLY WATER THAT REPORTS TO THE PONDS are RUN-OFF DURING A STORM EVENT. The ground was partially covered with snow.

Qualification Statement



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 1/28/10

Signature: Richard Cullum **Date:** 2/3/10

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0018	**Report Date**	MARCH 31, 2009
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	**Impoundment Name**	**Mine Site Pond:**	**Waste Rock Pond:**
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A

3

Inspection Date	3/30/09	**Waste Rock Pond** 3/30/9
Inspected By	Rick Cullum / John Christensen	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	1ST Quarter 2009 Inspection	

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

	Mine Site Pond	**Waste Rock Pond**
Conditions, Comments Etc.	No hazards observed.	No hazards observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

	Mine Site Pond:	**Waste Rock Pond:**
60% Design Storage Capacity ft.	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7
100% Sediment Capacity ft.	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45

Principle and emergency spillway elevations.

	Mine Site Pond	**Waste Rock Pond**
Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
Emergency Spillway Elevation	7232.03	6318.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities

associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

	Mine Site Pond	Waste Rock Pond
Water Elevation	7225.37	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	Mine Site Pond	Waste Rock Pond
Sediment Volume	1.79 A.F. @7213.15	None
Remaining Sediment Storage Capacity	1.33 A.F.	0.59 A.F.
Water impounded	6.51 A.F.	

Changes, Comments, etc. The Deer Creek Pond was cleaned in the early 4th Qtr. 2008. The pond was partially covered with a thin ice layer that may have affected the volumetric survey. It will be resurveyed in the second quarter.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER JOHN CHRISTENSEN No. 165651 STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 4/14/09

Signature: Richard Cullum **Date:** 4/15/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0018	**Report Date**	JUNE 30, 2009
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	**Impoundment Name**	**Mine Site Pond:**	**Waste Rock Pond:**
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A

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Inspection Date	6/29/09	**Waste Rock Pond** 6/29/09
Inspected By	Rick Cullum / John Christensen	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	2nd Quarter 2009 Inspection	

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

	Mine Site Pond	**Waste Rock Pond**
Conditions, Comments Etc.	No hazards observed.	No hazards observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

	Mine Site Pond:	**Waste Rock Pond:**
60% Design Storage Capacity ft.	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7
100% Sediment Capacity ft.	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45

Principle and emergency spillway elevations.

	Mine Site Pond	**Waste Rock Pond**
Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
Emergency Spillway Elevation	7232.03	6318.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities

associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

	Mine Site Pond	Waste Rock Pond
Water Elevation	7225.37	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	Mine Site Pond	Waste Rock Pond
Sediment Volume	2.10 A.F. @7213.93	None
Remaining Sediment Storage Capacity	1.02 A.F. (to design capacity)	0.59 A.F.
Water impounded	4.70 A.F.	

Changes, Comments, etc. The Deer Creek Pond was cleaned in the early 4th Qtr. 2008. The sediment level is over the cleanout level and the pond will be scheduled to be cleaned

Qualification Statement

LICENSED PROFESSIONAL ENGINEER JOHN CHRISTENSEN No. 165651 STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 7/29/09

Signature: Richard Cullen **Date:** 8/6/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0018	**Report Date**	SEPT. 25, 2009
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	**Impoundment Name**	**Mine Site Pond:**	**Waste Rock Pond:**
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A

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Inspection Date	9/17/09 **Waste Rock Pond** 9/15/09
Inspected By	Rick Cullum / John Christensen
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	3rd Quarter 2009 Inspection

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

	Mine Site Pond	**Waste Rock Pond**
Conditions, Comments Etc.	No hazards observed.	No hazards observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

	Mine Site Pond:	**Waste Rock Pond:**
60% Design Storage Capacity ft.	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7
100% Sediment Capacity ft.	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45

Principle and emergency spillway elevations.

	Mine Site Pond	**Waste Rock Pond**
Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
Emergency Spillway Elevation	7232.03	6318.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities

associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

	Mine Site Pond	Waste Rock Pond
Water Elevation	7222.63	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	Mine Site Pond	Waste Rock Pond
Sediment Volume	2.10 A.F. @7213.93	None
Remaining Sediment Storage Capacity	1.02 A.F. (to design capacity)	0.59 A.F.
Water impounded	4.60 A.F.	

Changes, Comments, etc. The Deer Creek Pond was cleaned in the early 4th Qtr. 2008. Decanting of the pond began the last week in September and cleaning is schedule to start on 10/19/09.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER JOHN CHRISTENSEN No. 165651 STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Richard Cuthbert **Date:** 11/3/09

Signature: John Christensen **Date:** 10/28/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0018	**Report Date**	DEC. 29, 2009
Mine Name	Deer Creek Mine		
Company Name	Energy West Mining		
Impoundment Identification	**Impoundment Name**	**Mine Site Pond:**	**Waste Rock Pond:**
	Impoundment Number		
	UPDES Permit Number	UT-0023604-001	
	MSHA ID Number	N/A	N/A

0

Inspection Date	12/16/09	**Waste Rock Pond** 12/16/09
Inspected By	Rick Cullum / John Christensen	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	4th Quarter 2009 Inspection	

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

	Mine Site Pond	**Waste Rock Pond**
Conditions, Comments Etc.	No hazards observed.	No hazards observed.

Required for an impoundment which functions as a SEDIMENTATION POND.

Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

	Mine Site Pond:	**Waste Rock Pond:**
60% Design Storage Capacity ft.	1.87 A.F. at 7213.1 ft.	.59 A.F. at 6312.7
100% Sediment Capacity ft.	3.12 A.F. at 7216.0 ft.	.98 A.F. at 6313.45

Principle and emergency spillway elevations.

	Mine Site Pond	**Waste Rock Pond**
Principle Spillway Elevation (F.A.S.L.):	7218.64	6318.0
Emergency Spillway Elevation	7232.03	6318.0

Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities

associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

	Mine Site Pond	Waste Rock Pond
Water Elevation	7225.15	None
Discharging	Yes	Never
Inlet, Outlet, Spillway Conditions	Good	Good
Out slope Conditions	No Change	No Change

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

	Mine Site Pond	Waste Rock Pond
Sediment Volume	(see note)	None
Remaining Sediment	(N.A.)	0.59 A.F.
Water impounded	8.20 A.F.	

Changes, Comments, etc. The Deer Creek Pond was cleaned in the early 4th Qtr. 2009. The pond was not able to be surveyed because of ice build up. It will be floated as soon as ice is clear.

Qualification Stamp

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 1/28/10

Signature: Richard Cullum **Date:** 2/3/10

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0009	**Report Date**	MARCH 30, 2009
Mine Name	Trail Mountain Mine		
Company Name	Energy West Mining Company		
Impoundment Identification	**Impoundment Name**	**Trail Mountain Mine Pond:**	
	Impoundment Number		
	UPDES Permit Number	UT-G04003-001	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	MARCH 25, 2009	
Inspected By	John Christensen / Rick Cullum	
		1ST Quarter 2009 Inspection

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No unstable or structural weaknesses found.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

60% Design Storage Capacity 0.282 A.F. at 7182

100% Sediment Capacity 0.47 A.F. at 7183.6

3. Principle and emergency spillway elevations.

Principle Spillway Elevation (F.A.S.L.): 7186.6

Emergency Spillway Elevation:(F.A.S.L.): 7194.6

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of

samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water Elevation	SMALL AMOUNT OF WATER FROM SNOW MELT
Discharging	No
Inlet, Outlet Conditions	Good
Slope conditions	Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume	0.24 A.F.
Remaining Sediment Storage Capacity	0.04 A.F.
Water Impounded	0.01 A.F.
Changes, comments, etc.	Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005.

Qualified Professional Engineer Statement

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 4/14/09
Signature: Richard Cullum **Date:** 4/15/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0009	**Report Date**	June 30, 2009
Mine Name	Trail Mountain Mine		
Company Name	Energy West Mining Company		
Impoundment Identification	**Impoundment Name**	**Trail Mountain Mine Pond:**	
	Impoundment Number		
	UPDES Permit Number	UT-G04003-001	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	June 24, 2009	
Inspected By	John Christensen / Rick Cullum	
		2ND Quarter 2009 Inspection

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No unstable or structural weaknesses found.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

60% Design Storage Capacity 0.282 A.F. at 7182

100% Sediment Capacity 0.47 A.F. at 7183.6

3. Principle and emergency spillway elevations.

Principle Spillway Elevation (F.A.S.L.): 7186.6

Emergency Spillway Elevation:(F.A.S.L.): 7194.6

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of

samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water Elevation	7182.93
Discharging	No
Inlet, Outlet Conditions	Good
Slope conditions	Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume	0.24 A.F. @7181.6 ft.
Remaining Sediment Storage Capacity	0.04 A.F.
Water Impounded	0..4 A.F.
Changes, comments, etc.	Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER JOHN CHRISTENSEN STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen Date: 7/29/09

Signature: Richard Cullen Date: 8/6/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0009	**Report Date**	SEPT. 25, 2009
Mine Name	Trail Mountain Mine		
Company Name	Energy West Mining Company		
Impoundment Identification	**Impoundment Name**	**Trail Mountain Mine Pond:**	
	Impoundment Number		
	UPDES Permit Number	UT-G04003-001	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	SEPT. 21, 2009	
Inspected By	John Christensen / Rick Cullum	
		3RD Quarter 2009 Inspection

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No unstable or structural weaknesses found.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

60% Design Storage Capacity 0.282 A.F. at 7182

100% Sediment Capacity 0.47 A.F. at 7183.6

3. Principle and emergency spillway elevations.

Principle Spillway Elevation (F.A.S.L.): 7186.6

Emergency Spillway Elevation:(F.A.S.L.): 7194.6

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of

samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water Elevation	7182.34
Discharging	No
Inlet, Outlet Conditions	Good
Slope conditions	Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. Field Evaluation. Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume	0.25 A.F. @7181.9 ft.
Remaining Sediment Storage Capacity	0.03 A.F.
Water Impounded	0.14 A.F.
Changes, comments, etc.	Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Richard Sullivan Date: 11/3/09
Signature: John Christensen Date: 10/28/09

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT			Page 1 of 2
Permit Number	C/015/0009	**Report Date**	DEC. 29, 2009
Mine Name	Trail Mountain Mine		
Company Name	Energy West Mining Company		
Impoundment Identification	**Impoundment Name**	**Trail Mountain Mine Pond:**	
	Impoundment Number		
	UPDES Permit Number	UT-G04003-001	
	MSHA ID Number	N/A	

IMPOUNDMENT INSPECTION

Inspection Date	DEC. 3, 2009	
Inspected By	John Christensen / Rick Cullum	
		4th Quarter 2009 Inspection

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

No unstable or structural weaknesses found.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

60% Design Storage Capacity 0.282 A.F. at 7182

100% Sediment Capacity 0.47 A.F. at 7183.6

3. Principle and emergency spillway elevations.

Principle Spillway Elevation (F.A.S.L.): 7186.6

Emergency Spillway Elevation:(F.A.S.L.): 7194.6

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of

samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Water Elevation	DRY
Discharging	No
Inlet, Outlet Conditions	Good
Slope conditions	Good

*See "Hydrologic Monitoring Data" report submitted quarterly to DOGM for monitoring information.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Sediment Volume	0.25 A.F. @7181.9 ft.
Remaining Sediment Storage Capacity	0.03 A.F.
Water Impounded	0.0 A.F.

Changes, comments, etc. Mining has seized at Trail Mtn. operations, only storm run off will run into the pond. The pond was cleaned in 4th Quarter 2005. Snow was present at time of the inspection.

Qualification Statement

LICENSED PROFESSIONAL ENGINEER
JOHN CHRISTENSEN
No. 165651
STATE OF UTAH

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: John Christensen **Date:** 1/28/10
Signature Richard Cullum **Date:** 2/3/10

Deer Creek Mine
Waste Rock Site Sampling

March 2009

INTER-MOUNTAIN LABS

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801

ph: (800) 828-1407 fax: (307) 672-6053

April 2, 2009

Mr. Dennis Oakley
Energy West Mining Company
P.O. Box 310
Huntington, Utah 84528

Dear Mr. Oakley:

Enclosed are the analytical results for soil samples our laboratory received on March 13, 2009. The analyses were completed according to methods described in USDA Handbook 60 and the American Society of Agronomy monographs.

Feel free to contact me at your convenience if you have any questions or concerns.

Sincerely,

Karen Secor

Karen Secor
Mining Soils

xc: File
Encl

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Energy West Mining Co
P.O. Box 310
Huntington, UT 84528

Report ID: S0903205001

Project:
Date Received: 3/13/2009

Date Reported: 4/1/2009
Work Order: S0903205

Lab ID	Sample ID	Depths Feet (comp)	pH s.u.	Electrical Conductivity dS/m	Color C.U.	PE Calcium meq/L	PE Magnesium meq/L	PE Sodium meq/L	SAR
S0903205-001	DC0109	0-2	7.7	4.29	2.5Y 2.5/1	23.5	15.7	12.8	2.88
S0903205-002	DC0209	0-2	7.5	19.2	5Y 2.5/1	44.8	42.5	148	22.5
S0903205-003	DC0309	0-2	7.6	9.11	5Y 2.5/1	14.2	12.7	52.9	14.4
S0903205-004	DC0409	0-2	7.6	16.7	5Y 2.5/1	46.7	35.2	109	17.1

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Energy West Mining Co
P.O. Box 310
Huntington, UT 84528

Report ID: S0903205001

Project:
Date Received: 3/13/2009

Date Reported: 4/1/2009
Work Order: S0903205

Lab ID	Sample ID	Depths Feet (comp)	Sand %	Silt %	Clay %	Texture	Boron ppm	Selenium ppm
S0903205-001	DC0109	0-2	69.0	25.0	6.0	Sandy Loam	0.66	0.12
S0903205-002	DC0209	0-2	82.0	13.0	5.0	Loamy Sand	0.89	0.33
S0903205-003	DC0309	0-2	96.0	4.0	<0.1	Sand	0.28	0.03
S0903205-004	DC0409	0-2	80.0	17.0	3.0	Loamy Sand	0.95	0.11

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Purchase Order - DBN-5972

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CHAIN OF CUSTODY RECORD

Client/Project Name: Energy West

Project Location:

Sampler: (Signature):

Chain of Custody Tape No.:

ANALYSES / PARAMETERS

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers						Remarks
DC0109	3/9/09	1200		Compost 0'-2'	See Attached						Cell 1 -
DC0209	"	"		"							Cell 1
DC0309	"	"		"							Cell 2
DC0409	"	"		"							Cell 2

Please send electronic files of data.

dennis.oakley@pacificorp.com

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Dennis Oakley	3/9/09	3:00pm	Karen Secor	3/13/09	
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by laboratory: (Signature)		

Inter-Mountain Laboratories, Inc.

35103

☒ 1633 Terra Avenue, Sheridan, Wyoming 82801, Telephone (307) 672-8945

☐ 1701 Phillips Circle, Gillette, Wyoming 82718, Telephone (307) 682-8945

☐ 2506 West Main Street, Farmington, NM 87401, Telephone (505) 326-4737

☐ 1160 Research Dr., Bozeman, Montana 59715, Telephone (406) 586-8450

☐ 11183 SH 30, College Station, TX 77845, Telephone (409) 776-8945

☐ 3304 Longmire Drive, College Station, TX 77845, Telephone (409) 774-4999

In-Mine Roof, Rib, and Floor Sampling

December 2009

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801

ph: (800) 828-1407 fax: (307) 672-6053

January 12, 2010

Mr. Dennis Oakley
Energy West Mining Company
P.O. Box 310
Huntington, Utah 84528

Dear Mr. Oakley:

Enclosed are the analytical results for soil samples our laboratory received on December 17, 2009. The analyses were completed according to methods described in USDA Handbook 60 and the American Society of Agronomy monographs.

Feel free to contact me at your convenience if you have any questions or concerns.

Sincerely,

Karen Secor
Mining Soils

xc: File
Encl

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Energy West Mining Co
P.O. Box 310
Huntington, UT 84528

Report ID: S0912229001

Project: Deer Creek Mine 7th Left XC-21
Date Received: 12/17/2009

Date Reported: 1/11/2010
Work Order: S0912229

Lab ID	Sample ID	pH s.u.	Saturation %	Electrical Conductivity dS/m	Field Capacity %	Wilt Point %	PE Calcium meq/L	PE Magnesium meq/L	PE Sodium meq/L	SAR
S0912229-001	DC0509	6.7	56.8	0.45	12	4.6	1.15	0.65	1.21	1.28
S0912229-002	DC0609	6.1	76.0	0.31	6.0	5.1	0.77	0.43	0.79	1.01
S0912229-003	DC0709	6.4	34.2	0.45	15	4.4	1.12	1.30	0.73	0.66

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Energy West Mining Co
P.O. Box 310
Huntington, UT 84528

Report ID: S0912229001

Project: Deer Creek Mine 7th Left XC-21
Date Received: 12/17/2009

Date Reported: 1/11/2010
Work Order: S0912229

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Coarse Fragment %	Nitrogen Nitrate ppm	Selenium ppm	Boron ppm	TKN %
S0912229-001	DC0509	92.0	7.0	1.0	Sand	4.87	<0.1	<0.02	0.50	0.97
S0912229-002	DC0609	92.0	7.0	1.0	Sand	5.46	<0.1	<0.02	0.27	1.09
S0912229-003	DC0709	82.0	10.0	8.0	Loamy Sand	45.5	<0.1	<0.02	0.20	0.24

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

Inter-Mountain Laboratories, Inc.
1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Energy West Mining Co
P.O. Box 310
Huntington, UT 84528

Report ID: S0912229001

Project: Deer Creek Mine 7th Left XC-21
Date Received: 12/17/2009

Date Reported: 1/11/2010
Work Order: S0912229

Lab ID	Sample ID	Total Carbon %	TOC %
S0912229-001	DC0509	80.4	80.3
S0912229-002	DC0609	83.3	83.2
S0912229-003	DC0709	16.8	12.0

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

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1673 Terra Avenue, Sheridan, Wyoming 82801
(307) 672-8945

Soil Analysis Report
Energy West Mining Co
P.O. Box 310
Huntington, UT 84528

Report ID: S0912229001

Project: Deer Creek Mine 7th Left XC-21
Date Received: 12/17/2009

Date Reported: 1/11/2010
Work Order: S0912229

Lab ID	Sample ID	Total Sulfur %	T.S. AB t/1000t	Neutral. Potential t/1000t	T.S. ABP t/1000t	Sulfate Sulfur %	Pyritic Sulfur %	Organic Sulfur %	PyriticS AB t/1000t	PyriticS ABP t/1000t
S0912229-001	DC0509	0.87	27.2	13.6	-13.7	<0.01	0.18	0.68	5.74	7.84
S0912229-002	DC0609	0.49	15.2	8.76	-6.44	0.08	0.02	0.39	0.50	8.26
S0912229-003	DC0709	0.13	3.98	404	400					

These results apply only to the samples tested.
Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage

Reviewed by: Karen A Secor
Karen Secor, Soil Lab Supervisor

imi Inter-Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
Energy West Mining	7th Left Deer Creek Mine XC-21	
Sampler: (Signature)	Chain of Custody Tape No.	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers					Remarks
DC0509	12/14/09	—	50912 229-001			Refer				Floor
DC0609	"	—		002		to				Mid-Seam
DC0709	"	—		003		Attached				Roof

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Dennis Oakley	12/14/09	1500	Kara Allen	12/17/09	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

Inter-Mountain Laboratories, Inc.

35103

- ☒ 1633 Terra Avenue, Sheridan, Wyoming 82801, Telephone (307) 672-8945
- ☐ 1701 Phillips Circle, Gillette, Wyoming 82718, Telephone (307) 682-8945
- ☐ 2506 West Main Street, Farmington, NM 87401, Telephone (505) 326-4737
- ☐ 1160 Research Dr., Bozeman, Montana 59715, Telephone (406) 586-8450
- ☐ 11183 SH 30, College Station, TX 77845, Telephone (409) 776-8945
- ☐ 3304 Longmire Drive, College Station, TX 77845, Telephone (409) 774-4999

APPENDIX B

Reporting of Technical Data

Including monitoring data, reports, maps, and other information
As required under the approved plan or as required by the Division

In accordance with the requirement of R645-310-130 and R645-301-140

CONTENTS

Vegetation Monitoring Report - 2009

MT NEBO SCIENTIFIC, INC.
research & consulting

March 15, 2010

Dennis Oakley
Energy West Mining Company
P.O. Box 310
15 North Main Street
Huntington, Utah 84528

Dear Mr. Oakley:

Enclosed please find three (3) hard copies (1 bound, 2 unbound) and a CD with electronic files of the following vegetation monitoring reports:

Vegetation Monitoring
For Phase III Bond Release: Year 2
for the
Deer Creek Mine
2009

VEGETATION MONITORING
IN
MILLER CANYON
Sample Year 2: 2009

Please call or write if you have questions or comments.

Sincerely,

Patrick Collins, Ph.D.
Biologist/Environmental Consultant

Enclosures

330 East 400 South, Ste. 6, P.O. Box 337, Springville, Utah 84663
(801) 489-6937, (fax) 489-6779

Vegetation Monitoring
For Phase III Bond Release: Year 2
for the
Deer Creek Mine
2009

9th East Portal Areas &
Pinyon-Juniper Reference Area
Located in the
Cottonwood Mine Area

Prepared by

MT. NEBO SCIENTIFIC, INC.
330 East 400 South, Suite 6
P.O. Box 337
Springville, Utah 84663
(801) 489-6937

Patrick D. Collins, Ph.D.

for

ENERGY WEST MINING COMPANY
P.O. Box 310
Huntington, Utah 84528

March 2010

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INTRODUCTION

An area where the land surface was once disturbed by coal mining and related activities has been reclaimed and revegetated to a state that approximates its pre-mining condition. The vegetation of the reclaimed land must meet specific state and federal requirements. As dictated by the regulations, vegetative cover must be "*diverse, effective and permanent*". Accordingly, there are often specific requirements associated with cover, density, productivity and diversity of reclaimed lands. The purpose of this document is to compare the vegetation of a reclaimed area of a mine site to specific pre-determined standards for final revegetation success.

The content of this report provides **Year 2** results of the two consecutive years of quantitative sampling required prior to submittal of an application for *Final* or *Phase III Bond Release* by the mine operator. The bond release application process is conducted through the State of Utah, Division of Oil, Gas & Mining (DOGM).

A **Year 1** study was also conducted; the final report for that study was submitted previously to Energy West Mining Company. The earlier report was called *Vegetation Monitoring for Phase III Bond Release: Year 1 (2008).*

Even though the study sites were in the vicinity of the Cottonwood Mine, the reclaimed site was located in Grimes Wash and is associated with the Deer Creek Mine, which is located approximately 2.5 air-miles northward. The study sites in this report are called the **Reclaimed**

9th East Portal Area and the **Pinyon-Juniper Reference Area** (see photographs included in this document for views of the study areas).

General Site Description

The Cottonwood Mine Area is located in Emery County, Utah approximately 7 air-miles northwest of the town of Orangeville. Elevation of the study sites ranged between 7,400 ft and 7,800 ft above sea level.

Prior to disturbance by the mining activities, the reclaimed area was most likely dominated by pinyon-pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) trees, with Salina wildrye (*Elymus salinus*) as the dominant grass understory species.

A Pinyon-Juniper Reference Area at the Cottonwood Mine site was chosen at an earlier date to be used to create standards for revegetation success at the time final reclamation. This reference area was dominated by the same plant species as those mentioned above for the reclaimed area before it was disturbed. The reference area was chosen to comply with guidelines provided by DOGM and was thought to generally have similar slopes, soils, exposure, species composition, precipitation, elevation and other environmental variables as the reclaimed areas of the mine site.

METHODS

Prior to the two-year bond release studies, vegetation establishment on the reclaimed area has been monitored for several years following reclamation. Quantitative sampling for this report, or Year 2 at the site, was conducted in September 2009. Methods have remained consistent for all monitoring years and follow those methods suggested in guidelines provided by DOGM.

Transect Placement

Transect lines for quantitative sampling were randomly placed the entire length of the reclaimed and reference areas in an attempt to adequately represent each sample area as a whole. From these transect lines, sample locations were chosen using random numbers at right angles to them.

Cover, Frequency and Composition

Cover estimates were made using ocular methods with meter square quadrats. Species composition and relative frequencies were also assessed from the quadrats. Additional information recorded on the raw data sheets were: estimated precipitation, slope, exposure, grazing use, animal disturbance and other appropriate notes. Plant nomenclature follows *"A Utah Flora*" (Welsh et al. 2008).

Density

Density estimates for the woody plant species on the reclaimed and reference areas were made using a distance method called the point-quarter method. In this method, random points were placed on the sample sites and measured into four quarters. The distances to the nearest woody plant species were then recorded in each quarter. The average point-to-individual distance was equal to the square root of the mean area per individual.

Production

Total annual biomass production was estimated by clipping, drying and weighing current annual growth in each sample quadrat. "Double sampling" methods were employed by placing four additional quadrats around the clipped quadrat, then estimating the production of them relative to the clipped plot. Herbaceous and woody species production were recorded separately.

Sample Adequacy

Sample adequacy for cover and density was attempted with the goal that 90% of the samples were within 10% of the true mean for the plant communities in the area. The following formula was used:

$$nMIN = \frac{t^2 s^2}{(dx)^2}$$

where,

nMIN	= minimum adequate sample
t	= appropriate confidence t-value
s	= standard deviation
x	= sample mean
d	= desired change from mean

Diversity

Two diversity indices have been provide in this document for the reclaimed area and the reference area. To begin, *MacArthur's Diversity Index* was calculated. This index is an effective diversity measurement and is computed using the equation $1/\sum pi^2$ (MacArthur and Wilson 1976, The Theory of Island Biogeography, Princeton: Princeton University Press). In this equation *pi* is the proportion of sum frequency contributed by the *i*th species in the sample area of concern. The proportional contribution of each species is then squared and the values for all species in the sample areas are summed. This index integrates the number of species and the degree to which frequency of occurrence was equitably distributed among those species. In other words, this index provides greater weight to those species that are present more often (with greater frequency) than those that are merely "present" in one or two quadrats.

The *average number of species* per sample quadrat is another measure of species diversity provided from the data in this report.

Photographs

Color photographs were taken of the sample areas and are included in this report.

RESULTS

Reclaimed 9th East Portal Area

Quantitative sampling the vegetation at the Reclaimed 9th East Portal Area at Grimes Wash indicated that the area was dominated a shrub, sagebrush *(Artemisia tridentata)*, a forb, Pacific aster (*Aster chilensis*), and a grass, Salina wildrye (*Elymus salinus*). All species present in the sample quadrats along with their cover and frequency values are shown on Table 1.

The total living cover of this reclaimed area was estimated at 48.38% (Table 2-A). Of this cover, grasses comprised 43.78%, shrubs 39.23% and forbs 16.99% (Table 2-B).

Woody species density totaled 3,872 plants per acre (Table 3) and was dominated by sagebrush, fourwing saltbush (*Atriplex canescens*), shadscale (*Atriplex confertifolia*) and rubber rabbitbrush (*Chrysothamnus nauseosus*).

The total annual biomass productivity of the area was estimated at 1,026.64 pounds per acre, of which was divided into herbaceous (446.21 lbs/ac) and woody plants (580.43 lbs/ac). Results for all productivity measurements are shown on Table 4.

Pinyon-Juniper Reference Area

The reference area chosen earlier to be used for final revegetation success standards was an undisturbed pinyon-juniper plant community. This community was also sampled during the same period to enable the results to be compared to the results of the reclaimed slopes.

Overstory cover of the reference area was comprised of Utah serviceberry (*Amelanchier utahensis*), pinyon-pine *(Pinus edulis*),white fir (*Abies concolor*) and Douglas fir (*Pseudotsuga menziesii*). The understory living cover had several species present, but was dominated by Salina wildrye (*Elymus salinus*) by a rather wide margin. For a cover and frequency listing of all species present in the sample quadrats refer to Table 5.

The total living cover of the Pinyon-Juniper Reference Area was estimated at 30.83%, of which 26.83% was from understory cover and 4.00% from overstory (Table 6-A). The composition of the understory cover consisted of 53.80% grasses, 36.43% shrubs and 9.77% forbs (Table 6-B).

Woody species density of this area consisted of 742 individuals per acre with the most common plants for this parameter consisting of Utah serviceberry and pinyon-pine (Table 7).

Total annual biomass production was estimated at 341.49 pounds per acre, or 84.63 pounds from herbaceous plants and 256.87 pounds from woody species (Table 8).

DISCUSSION & CONCLUSIONS

Results from quantitative sampling the vegetation in **Year 2** suggest that the Reclaimed 9th East Portal Area exceeded those revegetation standards set by using a native, undisturbed Pinyon-Juniper Reference Area for parameter comparisons. Or, total living cover, woody species density and total annual biomass productivity was significantly higher in the reclaimed areas when these parameters were compared statistically using Student's t-tests (Table 9).

Results of these parameters can also be compared graphically for the two areas by reviewing Figures 1, 2 and 3. [NOTE: In those figures, **Year 1** (2008) results were also included along with the **Year 2** (2009) results to facilitate a review of the two consecutive years of data necessary for Phase III Bond Release]

Diversity was also compared graphically between the reclaimed and reference areas for **Year 1** and **Year 2** sampling results. Figure 4 shows a comparison of MacArthur's Index; the reclaimed area was obviously more diverse according to this index. Figure 5 compared another diversity index, or the average number of species encountered in each sample quadrat. Again, this measurement suggests that the reclaimed area was more diverse.

In conclusion, it appears evident that the 9th East Portal revegetation has met or exceeded the revegetation success standards when compared to the Pinyon-Juniper Reference Area located at the Cottonwood Mine for: 1) total living cover, 2) woody species density, 3) annual biomass productivity and 4) diversity. Therefore, the reclaimed area appears to be a likely candidate for Phase III Bond Release through the State of Utah.

FIGURES

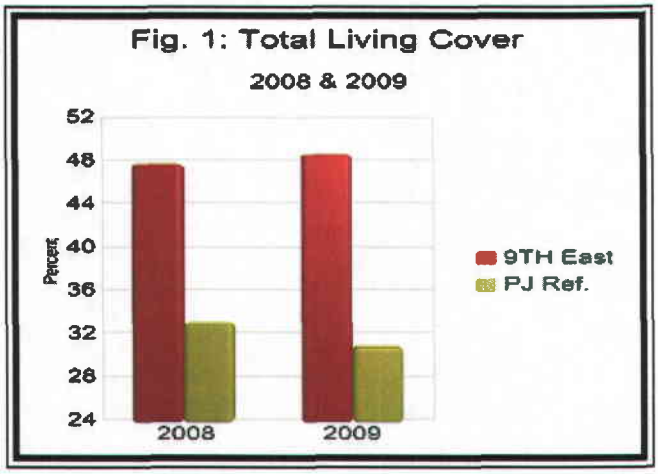
Fig. 1: Total Living Cover
2008 & 2009
52
48
44
40
36
32
28
24
Percent
2008
2009
9TH East
PJ Ref.

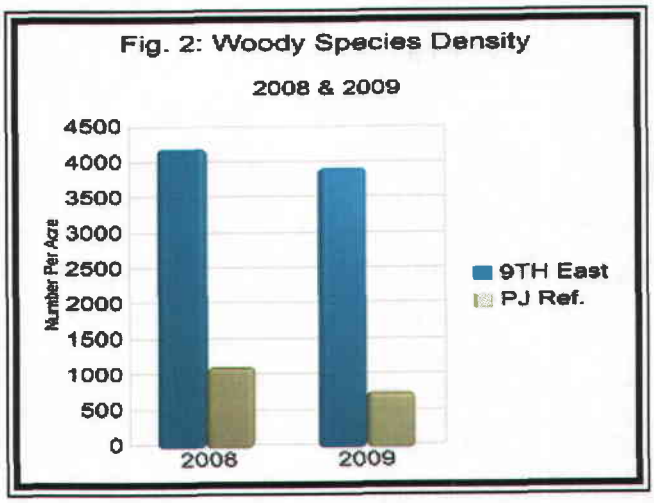
Fig. 2: Woody Species Density
2008 & 2009
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Number Per Acre
2008
2009
9TH East
PJ Ref.

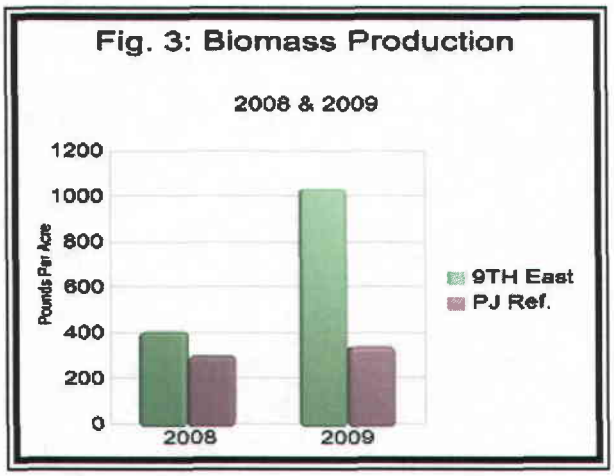
Fig. 3: Biomass Production
2008 & 2009
1200
1000
800
600
400
200
0
Pounds Per Acre
2008
2009
9TH East
PJ Ref.

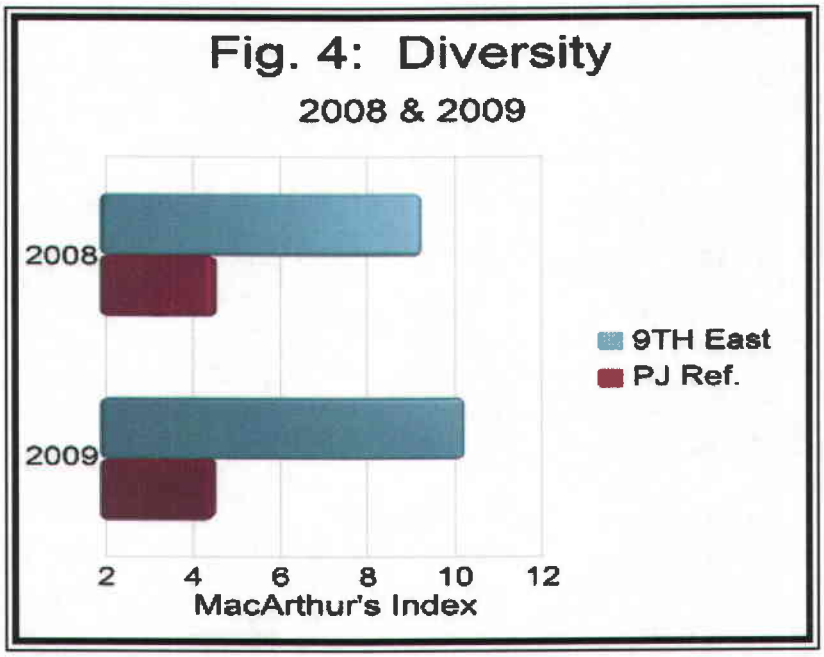
Fig. 4: Diversity
2008 & 2009
2008
2009
9TH East
PJ Ref.
2
4
6
8
10
12
MacArthur's Index

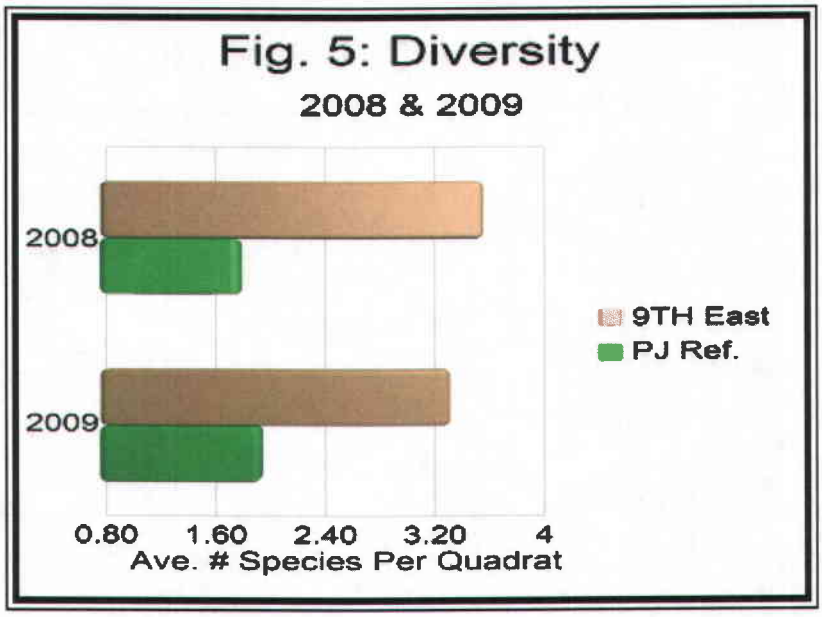
Fig. 5: Diversity
2008 & 2009
2008
2009
9TH East
PJ Ref.
0.80
1.60
2.40
3.20
4
Ave. # Species Per Quadrat

DATA SUMMARY TABLES

Table 1: Cover and frequency by plant species at the Deer Creek Mine (2009).

9th East Portals of Grimes Wash	MEAN	STANDARD DEVIATION	FREQUENCY
TREES & SHRUBS			
Artemisia tridentata	13.35	14.76	60.00
Atriplex canescens	3.63	8.25	17.50
Atriplex confertifolia	1.06	4.31	7.50
Cercocarpus ledifolius	0.19	0.95	3.75
Chrysothamnus nauseosus	1.13	3.87	8.75
Eriogonum corymbosum	0.40	2.35	5.00
Gutierrezia sarothrae	0.06	0.56	1.25
FORBS			
Aster chilensis	6.75	9.46	51.25
Linum lewisii	1.09	2.92	15.00
Hedysarum boreale	0.13	0.78	2.50
Penstemon palmeri	0.25	1.09	5.00
GRASSES			
Agropyron cristatum	0.25	2.22	1.25
Bromus carinatus	0.56	3.26	3.75
Elymus cinereus	1.06	4.38	6.25
Elymus lanceolatus	2.38	4.26	30.00
Elymus salinus	5.04	11.84	21.25
Elymus smithii	4.21	6.69	40.00
Elymus spicatus	2.94	7.36	22.50
Elymus trachycaulus	1.00	3.91	8.75
Poa secunda	1.69	7.33	10.00
Stipa hymenoides	1.23	4.17	10.00

Table 2: Total cover and composition at the Deer Creek Mine (2009).

9th East Portals of Grimes Wash

A. COVER	MEAN	STD. DEV.
Total Living Cover	48.38	12.52
Litter	12.88	5.74
Bareground	14.38	8.45
Rock	24.38	12.26
B. % COMPOSITION		
Shrubs	39.23	28.97
Forbs	16.99	18.75
Grasses	43.78	25.80

Table 3: Woody species density at the Deer Creek Mine (2009).

9th East Portals of Grimes Wash	Number/Acre
Artemisia nova	24.20
Artemisia tridentata	2670.30
Atriplex canescens	395.30
Atriplex confertifolia	250.09
Cercocarpus ledifolius	32.27
Chrysothamnus nauseosus	354.96
Eriogonum corymbosum	129.08
Gutierrezia sarothrae	16.13
TOTAL	**3872.33**

Table 4: Production at the Deer Creek Mine (2009).

9th East Portals of Grimes Wash

	Pounds/Acre	
LIFEFORM	**MEAN**	**STD. DEV.**
Herbaceous	446.21	361.69
Woody	580.43	489.90
TOTAL	**1026.64**	**406.13**

Table 5: Cover and frequency by plant species at the Deer Creek Mine (2009).

Pinyon-Juniper Reference Area			
OVERSTORY	MEAN	STANDARD DEVIATION	FREQUENCY
Abies concolor	0.17	1.28	1.67
Amelanchier utahensis	2.92	9.46	10.00
Pinus edulis	0.75	3.39	5.00
Pseudotsuga menziesii	0.17	1.28	1.67
UNDERSTORY			
TREES & SHRUBS			
Abies concolor	0.50	3.84	1.67
Amelanchier utahensis	3.83	9.05	23.33
Artemisia tridentata	0.17	1.28	1.67
Chrysothamnus nauseosus	1.50	5.27	10.00
Gutierrezia sarothrae	0.92	2.66	13.33
Juniperus osteosperma	1.17	5.43	5.00
Pinus edulis	2.25	6.02	15.00
Pseudotsuga menziesii	0.17	1.28	1.67
FORBS			
Aster chilensis	0.08	0.64	1.67
Galium bifolium	0.08	0.64	1.67
Hedysarum occidentalis canone	1.45	3.42	21.67
Machaeranthera grindelioides	0.50	1.76	8.33
GRASSES			
Elymus salinus	13.13	9.46	81.67
Stipa hymenoides	1.08	4.84	8.33

Table 6: Total cover and composition at the Deer Creek Mine (2009).
Pinyon-Juniper Reference Area

A. COVER	MEAN	STD. DEV.
Overstory (o)	4.00	9.87
Understory (u)	26.83	8.71
Litter	18.25	8.36
Bareground	15.67	11.38
Rock	39.25	11.93
o + u	30.83	9.14
B. % COMPOSITION		
Trees & Shrubs	36.43	36.51
Forbs	9.77	20.13
Grasses	53.80	34.50

Table 7: Woody species density at the Deer Creek Mine (2009).

Pinyon-Juniper Reference Area	Number/Acre
Abies concolor	12.36
Amelanchier utahensis	259.60
Artemisia tridentata	6.18
Atriplex confertifolia	6.18
Chrysothamnus nauseosus	67.99
Ephedra viridis	12.36
Eriogonum corymbosum	15.45
Gutierrezia sarothrae	27.81
Juniperus osteosperma	55.63
Opuntia polyacantha	9.27
Pinus edulis	210.15
Pseudotsuga menziesii	40.18
Symphoricarpos oreophilus	18.54
TOTAL	741.70

Table 8: Production at the Deer Creek Mine (2009).
Pinyon-Juniper Reference Area

	Pounds/Acre	
LIFEFORM	**MEAN**	**STD. DEV.**
Herbaceous	84.63	89.51
Woody	256.87	385.34
TOTAL	**341.49**	**353.10**

TABLE 9: Statistical summary sheet for the reclaimed and reference areas (2009).

RECLAIMED 9th East Portal Area				
Total Living Cover	$\bar{x}$=48.38	s=12.52	n=80	nMIN=18.12
Density	$\bar{x}$=3872.33	s=2279.56	n=120	nMIN=93.78
Production	$\bar{x}$=1026.64	s=406.13	n=80 (400)*	nMIN=42.35
P-J REFERENCE AREA				
Total Living Cover (u+o)	$\bar{x}$=30.83	s=9.14	n=60	nMIN=23.78
Density	$\bar{x}$=741.70	s=335.16	n=60	nMIN=55.26
Production	$\bar{x}$=341.49	s=353.10	n=100 (500)*	nMIN=289.32 (1)
STATISTICAL ANALYSES				
Total Living Cover	t=9.175	df=138	SL=p<.01	
Density	t=10.567	df=178	SL=p<.01	
Production	t=14.818	df=158	SL=p<.01	

$\bar{x}$= sample mean, s = sample standard deviation, n = sample size,
nMIN= minimum adequate sample (@ 90% ± .10)
NS = non-significant, t = Student's t-value, df = degrees of freedom,
SL = significance level, p = probability level
o=overstory; u=understory
* with double sampling as described in the Methods section.

(1) NOTES ABOUT SAMPLE ADEQUACY: Results from sample adequacy for productivity were not surprising. Sample adequacy set at such a high confidence level [.90 ± 0.10 (90% of the samples would be within 10% of the true mean)] for production is often very difficult to achieve especially when the area is heterogenous in community structure as most native Pinyon-Juniper plant communities tend to be. Investigators can easily encounter one quadrat that is comprised of only grasses, and the next could be the middle of a pinyon-pine tree. The fact that the reclaimed area production was so much greater than the reference area, there is little doubt that revegetation success for this parameter was also achieved.

To further explore sample adequacy from a different angle, if one reduces variability in the reference area dataset by removing the extremes in both ends of the bell curve (or by removing the lightest and the heaviest production samples), additional insight can be gained. For example, when all samples were removed where the total pounds per acre were less than 100, and also removed were samples that were greater than 1,000 pounds per acre, sample adequacy would have be been met with the number of samples taken (without consideration of double-sampling). Yet, in this scenario, the mean production value does not significantly change when statistics are applied (see below).

$\bar{x}$ = 341.49; s=353.10 (actual lbs/ac using all samples)
$\bar{x}$ = 359.65; s=234.25 (minus samples where lbs/ac < 100 and > 1,000 were removed)
t = 0.361, df = 161, p< N.S. (Student t=values was non-significant)

It is also worth noting that similar production lbs/acre totals were found in 2008 and 2009 for the reference area even though sample adequacy for 2008 (which was used to drive the 2009 sample size) was much different.

RECLAIMED 9TH EAST PORTAL AREA

PINYON-JUNIPER REFERENCE AREA

VEGETATION MONITORING
IN
MILLER CANYON

Sample Year 2: 2009

Prepared by

MT. NEBO SCIENTIFIC, INC.
330 East 400 South, Suite 6
P.O. Box 337
Springville, Utah 84663
(801) 489-6937

Patrick D. Collins, Ph.D.

for

ENERGY WEST MINING COMPANY
P.O. Box 310
Huntington, Utah 84528

March 2010

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INTRODUCTION

Miller Canyon is a tributary of Cottonwood Canyon and is located in Emery County, Utah approximately 11 miles northwest of the town of Orangeville (Map 01). There were three portals in Miller Canyon, each only about 0.01 acre in size, that were once used for coal mine ventilation and limited access during mining activities in the area. In 2000, these portals were reclaimed with the goal to restore the disturbed plant communities to "*diverse, effective and permanent*" as dictated by the applicable regulations.

Elevation of the study site is about 7,500 ft above sea level. Slopes of the study areas were relatively steep at approximately 35 degrees with exposures primarily to the southeast.

Following final reclamation and revegetation of a mine site, a "*responsibility period*" for at least 10 years is required before the mine operator can submit a request for *Final or Phase III Bond Release* through state and federal regulatory authorities. It has been estimated that this period of time is long enough to determine whether or not adequate re-establishment of a given reclaimed plant community has occurred on sites at this precipitation zone in western United States.

Rehabilitated vegetation is usually monitored throughout the responsibility period, but beginning at year 9 of the 10-year period, intensive sampling can be initiated for two consecutive years to determine whether or not the reclaimed site has met pre-determined revegetation success standards. The vegetation of the reclaimed land must meet specific state and federal

requirements.

Year 1 of the two required final monitoring years was sampled in 2008, followed by a final report that was submitted to Emery Mining Company called: VEGETATION MONITORING IN MILLER CANYON: SAMPLE YEAR 1 (2008).

The purpose of this document is to report the results of **Year 2** quantitative sampling, analyses and statistical comparisons between the reclaimed area of the mine site with specific pre-determined standards for revegetation success. The results will also determine where or not the site could be a candidate for bond release through the State of Utah, Division of Oil, Gas & Mining (DOGM).

This document provides quantitative data comparisons of a *reclaimed portals* with a *reference area* where an undisturbed native plant community was chosen in the immediate area to represent revegetation success standards. The reference area was chosen in an attempt to have similar slopes, soils, exposure, species composition, precipitation, elevation and other environmental variables of the plant communities in the portal area before disturbance.

METHODS

Transect Placement

Transect lines for quantitative sampling were randomly placed the length of the reclaimed portals and reference areas in an attempt to adequately represent each sample area as a whole. From these transect lines, sample locations were chosen using random numbers at right angles to them. The three portals were sampled with an equal number of samples. The sample data were then combined to create a single dataset for each parameter.

Cover, Frequency and Composition

Cover estimates were made using ocular methods with meter square quadrats. Species composition and relative frequencies were also assessed from the quadrats. Additional information recorded on the raw data sheets were: estimated precipitation, slope, exposure, grazing use, animal disturbance and other appropriate notes. Plant nomenclature follows *"A Utah Flora*" (Welsh et al. 2008).

Density

Density estimates for the woody plant species on the reclaimed areas were made with belt transects. Because the area of the portals were so small in size, enough belts were placed to

virtually count all woody plants at each of the three portal sites. *No woody species estimates were required in the reference area according to Energy West's Mining and Reclamation Plan.*

Sample Adequacy

Sample adequacy for cover was attempted with the goal that 90% of the samples were within 10% of the true mean for the plant communities in the area. The following formula was used:

$$nMIN = \frac{t^2 s^2}{(dx)^2}$$

where,

nMIN	= minimum adequate sample
t	= appropriate confidence t-value
s	= standard deviation
x	= sample mean
d	= desired change from mean

Diversity

Two diversity indices have been reported in this document for the reclaimed portals and the reference area. To begin, *MacArthur's Diversity Index* was calculated. This index is an effective diversity measurement and is computed using the equation $1/\sum pi^2$ (MacArthur and Wilson 1976, The Theory of Island Biogeography, Princeton: Princeton University Press). In this equation *pi* is the proportion of sum frequency contributed by the *i*th species in the sample area of concern. The proportional contribution of each species is then squared and the values for all species in the sample areas are summed. This index integrates the number of species and the degree to which frequency of occurrence was equitably distributed among those species. In other words, this

index provides greater weight to those species that are present more often (with greater frequency) than those that are merely "present" in one or two quadrats.

The *average number of species* per sample quadrat is another measure of species diversity provided from the data in this report.

Similarity Index

There are several well-documented methods to assess similarities in plant communities. The "Motyka Index" is a modified form of the "Sorenson Index", but both are similarity indices. This index was used on the data and the equation is shown below:

$$IS_{MO} = \left(\frac{2MW}{MA + MB}\right) x100$$

where,

MW = $\sum$ of the smaller quantitative values of species of two communities,
MA = $\sum$ of the quantitative values of all species in one community,
MB = $\sum$ of the quantitative values of all species in another community.

Photographs

Color photographs were taken of the sample areas and are included in this report.

RESULTS

Reclaimed Portals

Quantitative data for cover, cover by species, composition, and woody species density were recorded at the reclaimed portals in Miller Canyon (see Color Photographs). The portals were dominated by western wheatgrass (*Elymus smithii*) and Salina wildrye (*E. salinus*). All species present in the sample quadrats along with their cover and frequency values are shown on Table 1. The total living cover of this reclaimed area was estimated at 39.50% (Table 2-A). Of this cover, grasses comprised 65.26%, shrubs 33.07% and forbs 1.67% (Table 2-B). Woody species density totaled 3,436 plants per acre (Table 3) and was dominated by broom snakeweed (*Gutierrezia sarothrae*), coyote willow (*Salix exigua*), rabbitbrush (*Chrysothamnus nauseosus*) and fourwing saltbush (*Atriplex canescens*).

Reference Area

The reference area chosen in the area to be used for final revegetation success standards was a Salina wildrye (with scattered pinyon-juniper) plant community (see Color Photographs). This community was also sampled for the same parameters during the same period to enable the results to be compared to the results of the reclaimed portals.

The understory living cover had several species present, but was dominated by Salina wildrye by a wide margin. For a cover and frequency listing of all species present in the sample quadrats

refer to Table 4. The total living cover of the reference area was estimated at 34.50% (Table 5-A); the composition of this cover consisted of 66.25% grasses, 33.20% shrubs and 0.56% forbs (Table 5-B).

CONCLUSIONS

FIG. 1: Statistical summary sheet for the reclaimed portals and reference areas in Miller Canyon (2009).

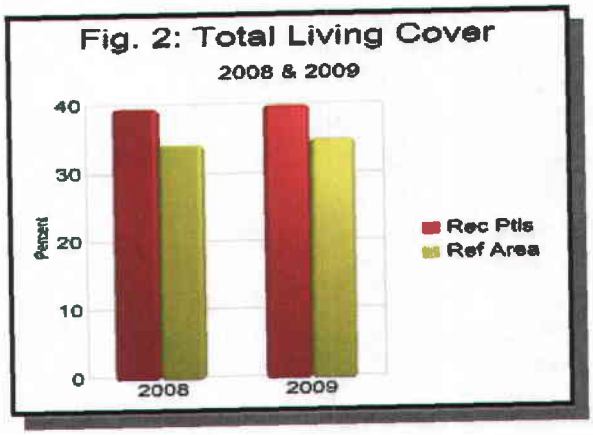
RECLAIMED PORTALS				
Total Living Cover	$\bar{x}$=39.50	s=7.89	n=30	nMIN=10.80
REFERENCE AREA				
Total Living Cover	$\bar{x}$=34.50	s=5.89	n=20	nMIN=7.89
STATISTICAL ANALYSES				
Total Living Cover	t=2.417	df=48	SL=p<.05	

$\bar{x}$= sample mean, s = sample standard deviation, n = sample size,
nMIN= minimum adequate sample (@ 90% ± 0.10)
NS = non-significant, t = Student's t-value, df = degrees of freedom,
SL = significance level, p = probability level
o=overstory; u=understory

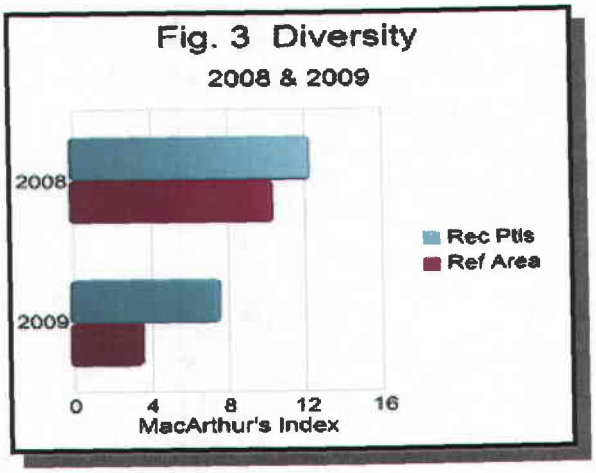
Summaries for the quantitative data have been described in the RESULTS section above. These data have been used to compare the reclaimed and reference areas statistically. *To facilitate comparisons between the two consecutive years required for potential bond release, both 2008 and 2009 results have been added to the figures in this report.* As mentioned, the complete dataset for 2008 can be reviewed by referring to the earlier, **Year 1** report.

When Student's t-tests were employed to compare areas for 2009, the **total living cover** of the reclaimed portals was significantly greater than the reference area (Fig. 1). [NOTE: The same

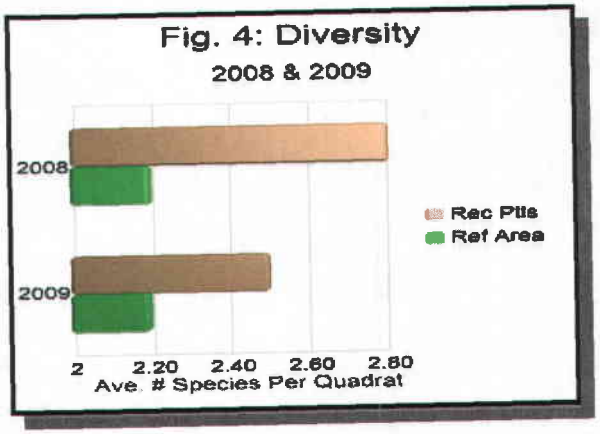
results were found for this parameter in 2008.] A graphical comparison of the 2008 and 2009 datasets for **total living cover** is shown on Fig. 2.



Next, **diversity indices** of the two areas were compared . *MacArthur's Index* suggested that the reclaimed portals were more diverse than the reference area (Fig. 3).



Furthermore, the *average number of plant species per quadrat* was higher in the reclaimed portals compared to the reference area both years (Fig. 4).



Finally, a **similarity index** for the two areas was compared. Motyka's Index indicates that the reclaimed portals were nearly 85% similar to the reference area in 2008, and 81% similar in 2009 (Fig. 4). The standard for similarity described in Energy West's MRP indicates that "*the index value is at least 70% of the reference area*".

FIG. 5: MOTYKA INDEX - A Comparison Between the Miller Canyon Reclaimed Portals and Reference Areas (2008 & 2009).

$$IS_{MO} = \left(\frac{2MW}{MA+MB}\right) x100 =$$

2008 = 84.827

2009 = 81.151

In conclusion, for **Year 1** (2008) and **Year 2** (2009) of the two consecutive years required by DOGM to study near the end of the *Responsibility Period* of the mine operator, the reclaimed portals in Miller Canyon appears to have met the standards set for revegetation success. These standards were derived from a native, undisturbed plant community that was located adjacent to the reclaimed areas.

COLOR PHOTOGRAPHS OF THE SAMPLE AREAS
RECLAIMED PORTALS

East Portal

Middle Portal

West Portal

REFERENCE AREA

DATA SUMMARY TABLES

Table 1: Cover and frequency by plant species (2009).

MILLER CANYON PORTALS	MEAN	STD. DEV.	FREQUENCY
TREES & SHRUBS			
Artemisia tridentata	0.50	2.69	3.33
Atriplex canescens	4.17	8.86	23.33
Chrysothamnus nauseosus	3.00	7.02	16.67
Eriogonum corymbosum	0.27	1.44	3.33
Gutierrezia sarothrae	3.23	5.58	33.33
Salix exigua	2.83	8.63	10.00
FORBS			
Cirsium sp.	0.33	1.80	3.33
Smilicina stellata	0.33	1.80	3.33
GRASSES			
Agrostis stolonifera	2.83	6.91	16.67
Elymus cinereus	0.17	0.90	3.33
Elymus lanceolatus	2.67	6.29	20.00
Elymus salinus	8.33	10.59	46.67
Elymus smithii	10.00	11.69	56.67
Juncus sp.	0.17	0.90	3.33
Juncus arcticus	0.33	1.80	3.33
Stipa hymenoides	0.33	1.80	3.33

Table 2: Total cover and composition (2009).

MILLER CANYON PORTALS		
A. COVER	**MEAN**	**STD. DEV**
Total Living Cover	39.50	7.89
Litter	17.17	12.69
Bareground	14.83	11.29
Rock	28.50	14.67
B. % COMPOSITION		
Shrubs	33.07	25.39
Forbs	1.67	6.24
Grasses	65.26	25.62

Table 3: Woody species density (2009).

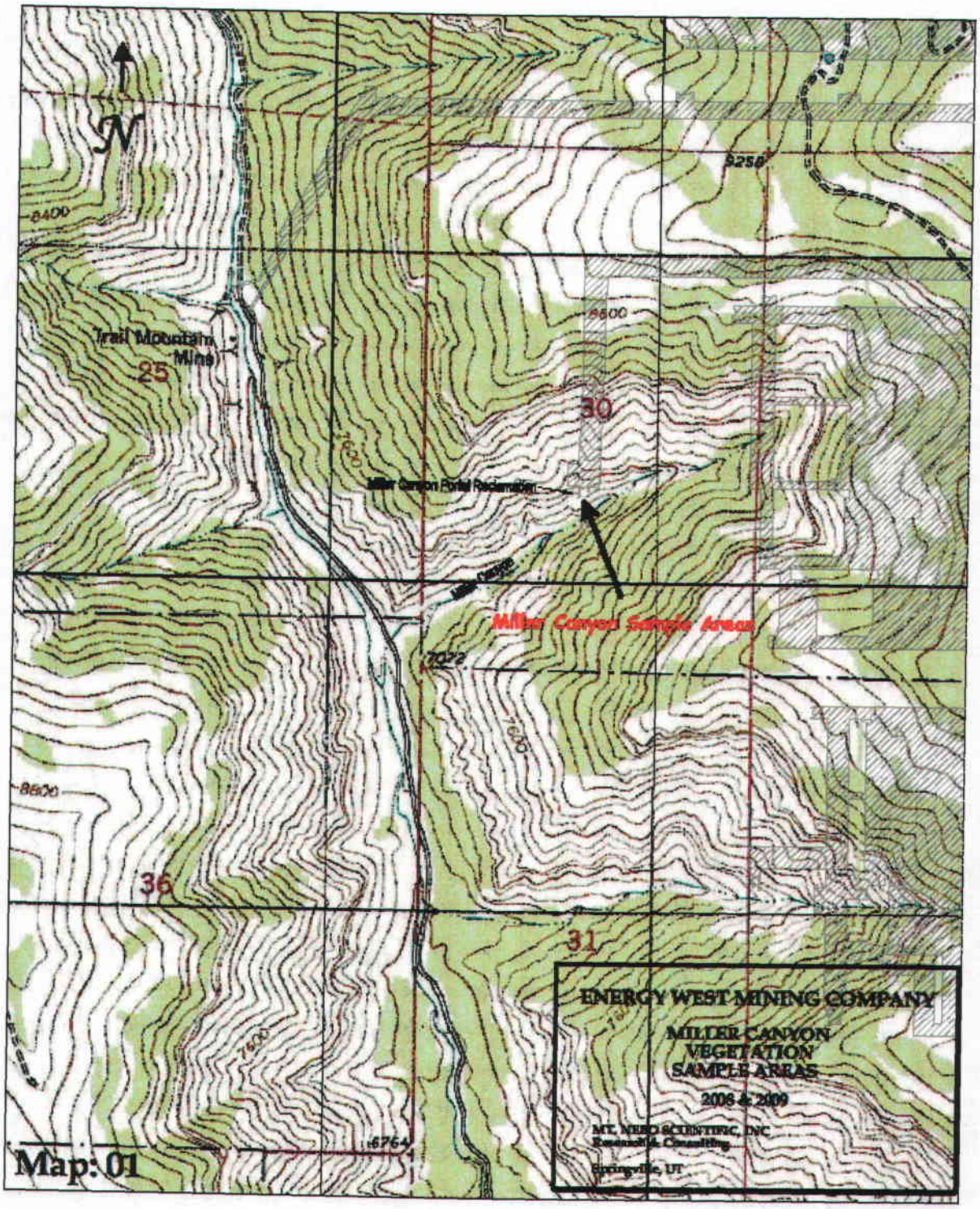
MILLER CANYON PORTALS	Number/Acre
Artemisia tridentata	48.40
Atriplex canescens	435.60
Atriplex confertifolia	48.40
Chrysothamnus nauseosus	580.80
Eriogonum corymbosum	145.20
Gutierrezia sarothrae	1306.80
Salix exigua	871.20
TOTAL	**3436.40**

Table 4: Cover and frequency by plant species (2009).

MILLER CANYON REFERENCE AREA	MEAN	STD. DEV.	FREQUENCY
TREES & SHRUBS			
Atriplex confertifolia	2.75	5.80	20.00
Chrysothamnus nauseosus	1.75	5.76	10.00
Eriogonum corymbosum	1.90	3.48	25.00
Gutierrezia sarothrae	4.75	5.36	55.00
Juniperus osteosperma	0.35	1.53	5.00
FORBS			
Machaeranthera grindelioides	0.25	1.09	5.00
GRASSES			
Elymus salinus	21.00	9.17	95.00
Juncus arcticus	1.75	7.63	5.00

Table 5: Total cover and composition (2009).

MILLER CANYON REFERENCE AREA	MEAN	STD. DEV.
A. COVER		
Total Living Cover	34.50	5.89
Litter	13.00	9.92
Bareground	19.00	11.36
Rock	33.50	13.14
B. % COMPOSITION		
Shrubs	33.20	22.96
Forbs	0.56	2.42
Grasses	66.25	22.55


N
8400
8250
8600
Trail Mountain Mine
25
30
Miller Canyon Portal Reclamation
Miller Canyon Sample Areas
7022
7600
8800
36
31
7500
6764
ENERGY WEST MINING COMPANY
MILLER CANYON
VEGETATION
SAMPLE AREAS
2008 & 2009
MT. NEBO SCIENTIFIC, INC
Research & Consulting
Springville, UT
Map: 01

APPENDIX C

Legal Financial, Compliance and Related Information

Annual Report of Officers
As submitted to the Utah Department of Commerce

Other change in ownership and control information
As required under R645-301-110

CONTENTS

Up-dated Officer and Director List

Current Officers and Directors List

As of February 1, 2010

BERKSHIRE HATHAWAY, INC. OFFICERS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Warren E. Buffett	Chairman of the Board Chief Executive Officer	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Charles T. Munger	Vice Chairman of the Board of Directors	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Marc D. Hamburg	Vice President, Principal Financial Officer	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

BERKSHIRE HATHAWAY, INC. DIRECTORS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Warren E. Buffett	Chairman of the Board Chief Executive Officer	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Charles T. Munger	Vice Chairman of the Board of Directors	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Howard G. Buffett	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Susan L. Decker	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	05/05/2007
William H. Gates, III	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
David S. Gottesman	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Charlotte Guyman	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Donald R. Keough	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Thomas S. Murphy	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Ronald L. Olson	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Walter Scott, Jr.	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY'S OFFICERS (as of March 15, 2010)			
Name	**Position**	**Address**	**Effective Date***
David L. Sokol	Chairman of the Board	1111 So. 103rd St. Omaha, NE 68214 (402) 231-1402	03/21/2006
Gregory E. Abel	President and Chief Executive Officer	666 Grand Avenue Des Moines, Iowa 50309	04/16/2008
Douglas L. Anderson	Senior Vice President, General Counsel and Corporate Secretary	1111 So. 103rd St. Omaha, NE 68214 (402) 231-1581	03/21/2006
Patrick J. Goodman	Senior Vice President and Chief Financial Officer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Brent E. Gale	Senior Vice President , Regulation and Legislation	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	03/21/2006
Calvin Haack	Vice President and Treasurer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/15/2010
Maureen E. Sammon	Senior Vice President and Chief Administrative Officer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Cathy S. Woollums	Senior Vice President, Environmental Services and Chief Environmental Counsel	106 E. Second Street PO Box 4350 Davenport, Iowa 52808 (563)333-8009	02/12/2007
A. Robert Lasich	Vice President and General Counsel - Procurement	4299 Northwest Urbandale Drive Urbandale, Iowa 50322-7916 (515) 281-2201	02/01/2010
John "Jack" Diesing, Jr.	Vice President, Corporate Insurance AON Risk Services	P.O. Box 3307 Omaha, Nebraska 68103-3307 (402) 697-1400	03/21/2006
Steven R. Evans	Vice President Taxation	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Wayne F. Irmiter	Vice President and Controller	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Paul J. Leighton	Vice President Corporate Law, Assistant General Counsel & Assistant Corporate Secretary	4299 Northwest Urbandale Drive Urbandale, Iowa 50322-7916 (515) 281-2201	03/21/2006
Jonathan M. Weisgall	Vice President Federal Regulation/IPP	1200 New Hampshire Ave. NW, Suite 300 Washington, DC 20036-6812 (202) 828-1378	03/21/2006
Russell H. White	Vice President, General Services	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Mitchell L. Pirnie	Vice President and Chief Litigation Counsel	1111 So. 103rd St. Omaha, NE 68214	02/12/2007

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

MIDAMERICAN ENERGY HOLDINGS COMPANY'S DIRECTORS (as of March 15, 2010)			
Name	**Position**	**Address**	**Effective Date**
Gregory E. Abel	Director	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Warren E. Buffett	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Marc D. Hamburg	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
Walter Scott, Jr.	Director	1440 Kiewit Plaza Omaha, Nebraska 68131	03/21/2006
David L. Sokol	Director	1111 So. 103rd St. Omaha, NE 68214	03/21/2006

* In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PPW HOLDINGS LLC OFFICERS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Gregory E. Abel	President	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	05/23/2005
Steven R. Evans	Vice President Taxation	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	05/18/2006
Brian K. Hankel	Vice President and Treasurer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	05/23/2005
Wayne F. Irmiter	Vice President and Controller	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	05/18/2006
Mitchell F. Ludwin	Vice President and Secretary	302 South 36th Street Omaha, Nebraska 68131 (402) 231-1587	05/18/2006
James C. Galt	Assistant Treasurer	666 Grand Avenue Des Moines, Iowa 50309	05/18/2006

*In place on date of MidAmerican Energy Holdings Company acquisition of PacifiCorp effective March 21, 2006, unless noted otherwise.

PACIFICORP'S OFFICERS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Gregory E. Abel	Chairman of Board and Chief Executive Officer	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Dean S. Brockbank	Vice President and General Counsel, PacifiCorp Energy	1407 West North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	08/30/2007
Micheal G. Dunn	President, PacifiCorp Energy	1407 West North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	02/01/2010
Jeffery B. Erb	Assistant Secretary	825 NE Multnomah, Suite 600 Portland, Oregon 97232 (503) 813-5000	03/13/2002
Natalie L. Hocken	Vice President and General Counsel, Pacific Power	825 NE Multnomah, Suite 1800 Portland, Oregon 97232 (503) 813-5000	01/01/2007
Mark C. Moench	Secretary	201 So. Main St. Suite 2400 Salt Lake City, UT 84111 (801) 220-2000	05/31/2007
Patrick J. Reiten	President, Pacific Power	825 NE Multnomah, Suite 1900 Portland, Oregon 97232 (503) 813-5000	09/15/2006
Douglas K. Stuver	Senior Vice President and Chief Finanial Officer	825 NE Multnomah, Suite 1900 Portland, Oregon 97232 (503) 813-5000	03/01/2008
A. Richard Walje	President, Rocky Mountain Power	201 So. Main St. Suite 2400 Salt Lake City, UT 84111 (801) 220-2000	03/21/2006
Bruce N. Williams	Vice President and Treasurer	825 NE Multnomah Suite 1900 Portland, OR 97232 (503) 813-5000	05/17/2006
	Treasurer		02/16/2000

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PACIFICORP'S DIRECTORS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Gregory E. Abel	Director	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Douglas L. Anderson	Director	302 South 36th Street Omaha, Nebraska 68131 (402) 231-1642	03/21/2006
Micheal G. Dunn	Director	1407 West North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	02/01/2010
Brent E. Gale	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	03/21/2006
Patrick J. Goodman	Director	666 Grand Avenue Des Moines, Iowa 50309 (515) 242-4300	03/21/2006
Natalie L. Hocken	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	08/30/2007
Mark Moench	Director	201 So. Main St. Suite 2400 Salt Lake City, UT 84111 (801) 220-2000	03/21/2006
Patrick J. Reiten	Director	825 NE Multnomah, Suite 2000 Portland, Oregon 97232 (503) 813-5000	09/15/2006
A. Richard Walje	Director	201 So. Main St. Suite 2400	07/02/2001

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ENERGY WEST MINING COMPANY'S OFFICERS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Micheal G. Dunn	President	1407 West North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	02/01/2010
Dean S. Brockbank	Vice President and General Counsel and Secretary	1407 West North Temple Suite 320 Salt Lake City, Utah 84116 (801) 220-2000	05/01/2008
Cindy A. Crane	Vice President	1407 West North Temple Suite 310 Salt Lake City, Utah 84116 (801) 220-2000	03/26/2009
Jeffery B. Erb	Assistant Secretary	825 NE Multnomah, Suite 1800 Portland, OR 97232 (503) 813-5000	10/01/2002
Bruce N. Williams	Treasurer	825 NE Multnomah, Suite 1900 Portland, OR 97232 (503) 813-5000	01/01/1992
Tanya S. Sacks	Assistant Treasurer	825 NE Multnomah, Suite 1900 Portland, OR 97232	02/01/2001

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ENERGY WEST MINING COMPANY'S DIRECTORS (as of February 1, 2010)			
Name	**Position**	**Address**	**Effective Date***
Micheal G. Dunn	Director	1407 West North Temple Suite 320	02/01/2010

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Current and Past Officers and Directors List

As of February 1, 2010

BERKSHIRE HATHAWAY, INC. OFFICERS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Warren E. Buffett	Chairman of the Board Chief Executive Officer	03/21/2006	Current
Charles T. Munger	Vice Chairman of the Board of Directors	03/21/2006	Current
Marc D. Hamburg	Vice President, Principal Financial Officer	03/21/2006	Current

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BERKSHIRE HATHAWAY, INC. DIRECTORS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Current Directors			
Warren E. Buffett	Chairman of the Board Chief Executive Officer	03/21/2006	Current
Charles T. Munger	Vice Chairman of the Board of Directors	03/21/2006	Current
Howard G. Buffett	Director	03/21/2006	Current
Susan Decker	Director	05/05/2007	Current
William H. Gates, III	Director	03/21/2006	Current
David S. Gottesman	Director	03/21/2006	Current
Charlotte Guyman	Director	03/21/2006	Current
Donald R. Keough	Director	03/21/2006	Current
Thomas S. Murphy	Director	03/21/2006	Current
Ronald L. Olson	Director	03/21/2006	Current
Walter Scott, Jr.	Director	03/21/2006	Current
Past Directors			
Malcolm G. Chace	Director	03/21/2006	05/05/2007
Daniel J. Jaksich	Controller	03/21/2006	09/26/2007

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MIDAMERICAN ENERGY HOLDINGS COMPANY'S OFFICERS (as of March 15, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Current Officers			
David L. Sokol	Chairman of the Board	03/21/2006	Current
	Chief Executive Officer	03/21/2006	04/16/2008
Gregory E. Abel	President and Chief Executive Officer	04/16/2008	Current
	President and Chief Operating Officer	03/21/2006	04/16/2008
Douglas L. Anderson	Senior Vice President, General Counsel	03/21/2006	Current
Patrick J. Goodman	Senior Vice President and Chief Financial Officer	03/21/2006	Current
Brent E. Gale	Senior Vice President , Regulation and Legislation	03/21/2006	Current
Calvin Haack	Vice President and Treasurer	03/15/2010	Current
Maureen E. Sammon	Senior Vice President and Chief Administrative Officer	03/21/2006	Current
Cathy S. Woollums	Senior Vice President, Environmental Services and Chief Environmental Counsel	02/12/2007	Current
	Vice President	03/21/2006	02/12/2007
A. Robert Lasich	Vice President and General Counsel - Procurement	02/01/2010	Current
John "Jack" Diesing, Jr.	Vice President, Corporate Insurance AON Risk Services	03/21/2006	Current
Steven R. Evans	Vice President Taxation	03/21/2006	Current
Wayne F. Irmiter	Vice President and Controller	03/21/2006	Current
Paul J. Leighton	Vice President Corporate Law, Assistant General Counsel & Assistant Corporate Secretary	03/21/2006	Current
Jonathan M. Weisgall	Vice President Federal Regulation/IPP	03/21/2006	Current
Russell H. White	Vice President, General Services	03/21/2006	Current
Mitchell L. Pirnie	Vice President and Chief Litigation Counsel	02/12/2007	Current

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MIDAMERICAN ENERGY HOLDINGS COMPANY'S OFFICERS (as of March 15, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Past Officers			
William J. Fehrman	Senior Vice President, Regulation and Legislation	03/21/2006	03/21/2006
Brian K. Hankel	Vice President and Treasurer	03/21/2006	03/15/2010
Keith D. Hartje	Senior Vice President	03/21/2006	05/15/2007
Mark C. Moench	Senior Vice President	03/21/2006	03/21/2006

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MIDAMERICAN ENERGY HOLDINGS COMPANY'S DIRECTORS (as of March 15, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Gregory E. Abel	Director	03/21/2006	Current
Warren E. Buffett	Director	03/21/2006	Current
Marc D. Hamburg	Director	03/21/2006	Current
Walter Scott, Jr.	Director	03/21/2006	Current
David L. Sokol	Director	03/21/2006	Current

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PPW HOLDINGS LLC OFFICERS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Gregory E. Abel	President	05/23/2005	Current
Steven R. Evans	Vice President Taxation	05/18/2006	Current
Brian K. Hankel	Vice President and Treasurer	05/23/2005	Current
Wayne F. Irmiter	Vice President and Controller	05/18/2006	Current
Mitchell F. Ludwin	Vice President and Secretary	05/18/2006	Current
James C. Galt	Assistant Treasurer	05/18/2006	Current

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PACIFICORP'S OFFICERS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Current Officers			
Gregory E. Abel	Chairman of Board and Chief Executive Officer	03/21/2006	Current
Dean S. Brockbank	Vice President and General Counsel, PacifiCorp Energy	08/30/2007	Current
Micheal G. Dunn	President, PacifiCorp Energy	02/01/2010	Current
Jeffery B. Erb	Assistant Secretary	03/13/2002	Current
Natalie L. Hocken	Vice President and General Counsel, Pacific Power	01/01/2007	Current
Mark C. Moench	Secretary	05/31/2007	Current
Patrick J. Reiten	President, Pacific Power	09/15/2006	Current
Douglas K. Stuver	Senior Vice President and Chief Finanial Officer	03/01/2008	Current
A. Richard Walje	President, Rocky Mountain Power	03/21/2006	Current
Bruce N. Williams	Vice President and Treasurer	5/17/06	Current
	Treasurer	02/16/2000	5/17/06

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PACIFICORP'S OFFICERS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Past Officers			
Barry G Cunningham	Sr. Vice President	02/11/2002	05/23/2006
William Fehrman	President, PacifiCorp Energy	03/21/2006	08/30/2007
Donald A. Furman	Sr. Vice President	07/02/2001	06/03/2005
Andrew P. Haller	Sr. V.P. , General Counsel and Corporate Secretary	6/4/2001 12/11/2000	12/31/2006
Michael G. Jenkins	Assistant Secretary	05/12/1999	5/17/2006
Judth Johansen	President and Chief Executive Officer	06/04/2001	03/20/2006
Robert A. Klein	Sr. Vice President	08/06/2001	12/26/2005
Douglas A. Kusyk	Assistant Secretary	04/01/2005	05/17/2006
William D. Landels	Executive Vice President	11/29/1999	03/31/2004
Jeffery K. Larsen	Vice President	08/22/2002	09/10/2004
Donald (Doug) Larson	Vice President	07/02/2001	05/17/2006
A. Robert Lasich	President, PacifiCorp Energy	08/30/2007	02/01/2010
	Vice President and General Counsel	03/21/2006	08/30/2007
Andrew N. MacRitchie	Executive Vice President	06/04/2001	03/20/2006

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PACIFICORP'S OFFICERS CONTINUED (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Past Officers Continued			
Larry O. Martin	Assistant Secretary	06/04/2001	05/14/2006
David J. Mendez	Sr. V.P. and Chief Financial Officer	08/22/2006	02/29/2008
Robert A. Moir	Sr. Vice President	01/11/2002	03/31/2004
Richard D. Peach	Sr. V.P. and Chief Financial Officer	8/22/06 3/21/2006	11/22/2006
Michael J. Pittman	Sr. Vice President	05/19/1993	07/07/2005
Tanya S. Sacks	Assistant Treasurer	06/04/2001	05/17/2006
Alexander D. Tait	Assistant Secretary	06/04/2001	04/01/2004
Stan K. Watters	Sr. Vice President	9/15/06 3/21/06 6/3/03	3/16/07 9/15/06 3/20/06
Ernest E. Wessman	Vice President	03/21/2006	05/17/2006
Matthew R. Wright	Executive Vice President	01/01/2002	03/20/2006

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PACIFICORP'S DIRECTORS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Current Directors			
Gregory E. Abel	Director	03/21/2006	Current
Douglas L. Anderson	Director	03/21/2006	Current
Micheal G. Dunn	Director	02/01/2010	Current
Brent E. Gale	Director	03/21/2006	Current
Patrick J. Goodman	Director	03/21/2006	Current
Natalie L. Hocken	Director	08/30/2007	Current
Mark Moench	Director	03/21/2006	Current
Patrick J. Reiten	Director	09/15/2006	Current
A. Richard Walje	Director	07/02/2001	Current
Past Directors			
Barry C. Cunningham	Director	4/2002	03/20/2006
Stephen Dunn	Director	11/2005	03/20/2006
William J. Fehrman	Director	03/21/2006	08/30/2007
Andrew P. Haller	Director	5/2003	12/31/2006
Judith A. Johansen	Director	12/2000	03/20/2006
Nolan E. Karras	Director	2/1993	07/25/2007
William D. Landels	Director	11/1999	03/31/2004
A. Robert Lasich	Director	03/21/2006	02/01/2010
Andrew N. MacRitchie	Director	5/2000	03/20/2006
David J. Mendez	Director	08/30/2007	02/29/2008
Richard D. Peach	Director	5/2003	11/22/2006
Michael J. Pittman	Director	5/2000	7/2005
Ian M. Russell	Director	01/02/2008	01/16/2006
Stan K. Watters	Director	03/21/2006	03/16/2007
Matthew R. Wright	Director	7/2001	03/20/2006

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ENERGY WEST MINING COMPANY'S OFFICERS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Current Officers			
Micheal G. Dunn	President	02/01/2010	Current
Dean S. Brockbank	Vice President, General Counsel and Secretary	05/01/2008	Current
Cindy A. Crane	Vice President	03/26/2009	Current
Jeffery B. Erb	Assistant Secretary	10/01/2002	Current
Bruce N. Williams	Treasurer	12/01/1992	Current
Tanya S. Sacks	Assistant Treasurer	02/01/2001	Current
Past Officers			
Niel L. Getzelman	President	12/01/2006	04/30/2008
Andrew P. Haller	Senior Vice President, General Counsel and Secretary	2/2001	11/30/2006
Dee W. Jense	President	10/2002	11/30/2006
Robert P. King	Vice President	2/2001	08/15/2006
A. Robert Lasich	President	05/01/08	02/01/2010
	Vice President, General Counsel and Secretary	12/01/06	04/30/2008
Larry O. Martin	Assistant Secretary	2/0001	06/15/2006

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ENERGY WEST MINING COMPANY'S DIRECTORS (as of February 1, 2010)			
Name	**Position**	**Effective Date***	**Departure Date**
Current Directors			
Micheal G. Dunn	Director	02/01/2010	Current
Past Directors			
A. Robert Lasich	Director	05/01/08	02/01/2010
Niel L. Getzelman	Director	12/01/2006	04/30/2008
Dee W. Jense	Director	10/2002	11/30/2006
Robert P. King	Director	2/2001	08/15/2006

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APPENDIX D

Mine Maps

As required under R645-302-525-270

CONTENTS

Deer Creek Production Map – Hiawatha Seam
Deer Creek Production Map – Blind Canyon Seam

APPENDIX E

Other Information

In accordance with the requirements of R645-301 and R645-302

CONTENTS

Trail Mountain Mine Lease Relinquishment Information

Trail Mountain Mine
Partial Lease Relinquishment of UTU-49332 and UTU-64375

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

TAKE PRIDE IN AMERICA

IN REPLY PLEASE REFER TO:
3452
UTU-49332
UTU-64375
(UT-923)

SEP 24 2009

CERTIFIED MAIL – Return Receipt Requested 7008 1140 0000 3706 0997

DECISION

Interwest Mining Co. , Managing Agent	:	Coal Leases
Subsidiary of PacifiCorp	:	UTU-49332 (partial)
Scott M. Childs	:	UTU-64375 (partial)
Manager, Lands and Regulatory Affairs	:	
1407 W. North Temple, Suite 310	:	
Salt Lake City, Utah 84116	:	

Partial Coal Lease Relinquishments Accepted

Request for partial relinquishments of Federal coal leases UTU-49332 and UTU-64375 was filed in this office January 9, 2009, by Interwest Mining Co., Managing Agent, a Subsidiary of PacifiCorp the lessee of record. The partial relinquishments are (detail attached as pages 4 and 5 from "Exhibit A" for each lease in the submittals):

Lease UTU-49332

Original acreage	641.47
Relinquishment acres	261.47
Retained acres	380.00

Lease UTU-64375

Original acreage	2764.01
Relinquishment acres	2504.01
Retained acres	260.00

After reviewing the administrative record for this lease, BLM accepts the partial relinquishments requested for UTU-49332 and UTU-64375.

In accordance with 43 CFR 3452.1-3, the leases are hereby accepted as partially relinquished as of January 9, 2009. BLM has determined that this relinquishment is in the public interest, that

the accrued rentals and royalties have been paid, and that all obligations of the lessee under the regulations and the terms of the lease have been met. The relinquished lands are also subject to any reclamation actions deemed necessary under the requirements of the SMCRA permit. Application for refund of excess rental paid after the acceptance date should be made directly to the Minerals Management Service, Solid Minerals Staff, MS390B2, Box 25165, Denver, CO 80225. The lessee is obligated to resolve any discrepancies in payments to MMS that may be identified subsequent to this decision.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4, and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (at the above address) within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition (pursuant to regulation 43 CFR 4.21)(58 FR 4939, January 19, 1993) (request) for a stay (suspension) of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay **must** also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed in this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied,
(2) The likelihood of the appellant's success on the merits,
(3) The likelihood of immediate and irreparable harm if the stay is granted, and
(4) Whether the public interest favors granting the stay.

If you have further questions call Bill Buge at (801) 539-4086.

Kent Hoffman
Deputy State Director
Lands and Minerals

cc: MMS, MRM, Solid Minerals Staff, Attn: LeeAnn Martin, MS390B2, Box 25165, Denver, CO 80225-0165
Dana Dean, Associate Director, Mining, UDOGM, Box 145801, Salt Lake City, Utah 84114-5801

Pamela E. Brown, Forest Supervisor, Manti La Sal National Forest, 599 West Price River Drive, Price, Utah 84501
BLM Price Field Office (Attn: Steve Rigby)

Checklist and Documentation of Findings
Federal Coal Lease Relinquishment
Under 43 CFR 3452
UTU-49332

Exhibit A

Partial Relinquishment

The legal description for the area of partial relinquishment of UTU-49332 is described below:

T. 17 S., R. 6 E., SLM, Utah
Section 35: Lots 1 and 2, SE¼NE¼, E½SW¼NE¼, E½SE¼, E½W½SE¼

Total acres surrendered: 261.47

Lease Acreage Retained

The legal description for the area to be retained in UTU-49332 is described below:

T. 17 S., R. 6 E., SLM, Utah
Section 25: S½NW¼, W½SW¼, W½E½SW¼;
Section 26: SE¼NE¼, E½SW¼NE¼, E½SE¼, E½W½SE¼

Total acres retained: 380.00

Checklist and Documentation of Findings
Federal Coal Lease Relinquishment
Under 43 CFR 3452
UTU-64375

Exhibit A

Partial Relinquishment

The legal description for the area of partial relinquishment of UTU-64375 is described below:

T. 17 S., R. 6 E., SLM, Utah
Section 34: All;
Section 35: Lots 3 and 4, W½SW¼NE¼, S½NW¼, SW¼, W½W½SE¼

T. 18 S., R. 6 E., SLM, Utah
Section 1: Lots 1 – 8, S½N½, E½NE¼SW¼, E½NW¼NE¼SW¼, N½NW¼NE¼SE¼, N½NW¼SE¼
Section 2: Lots 1 – 8, S½N½, N½NE¼SW¼, N½SW¼NE¼SW¼, SE¼NE¼SW¼, NW¼NE¼SE¼, N½SW¼NE¼SE¼, N½NW¼SE¼, N½S½NW¼SE¼
Section 3: Lots 1, 2, 3, 7, 8, E½ of Lot 6, NE¼SE¼NE¼, NW¼SE¼NE¼, S½SE¼NE¼, NE¼SW¼NE¼

T. 18 S., R. 7 E., SLM, Utah
Section 6: Lots 4 – 7, W½SE¼NW¼, W½E½SW¼

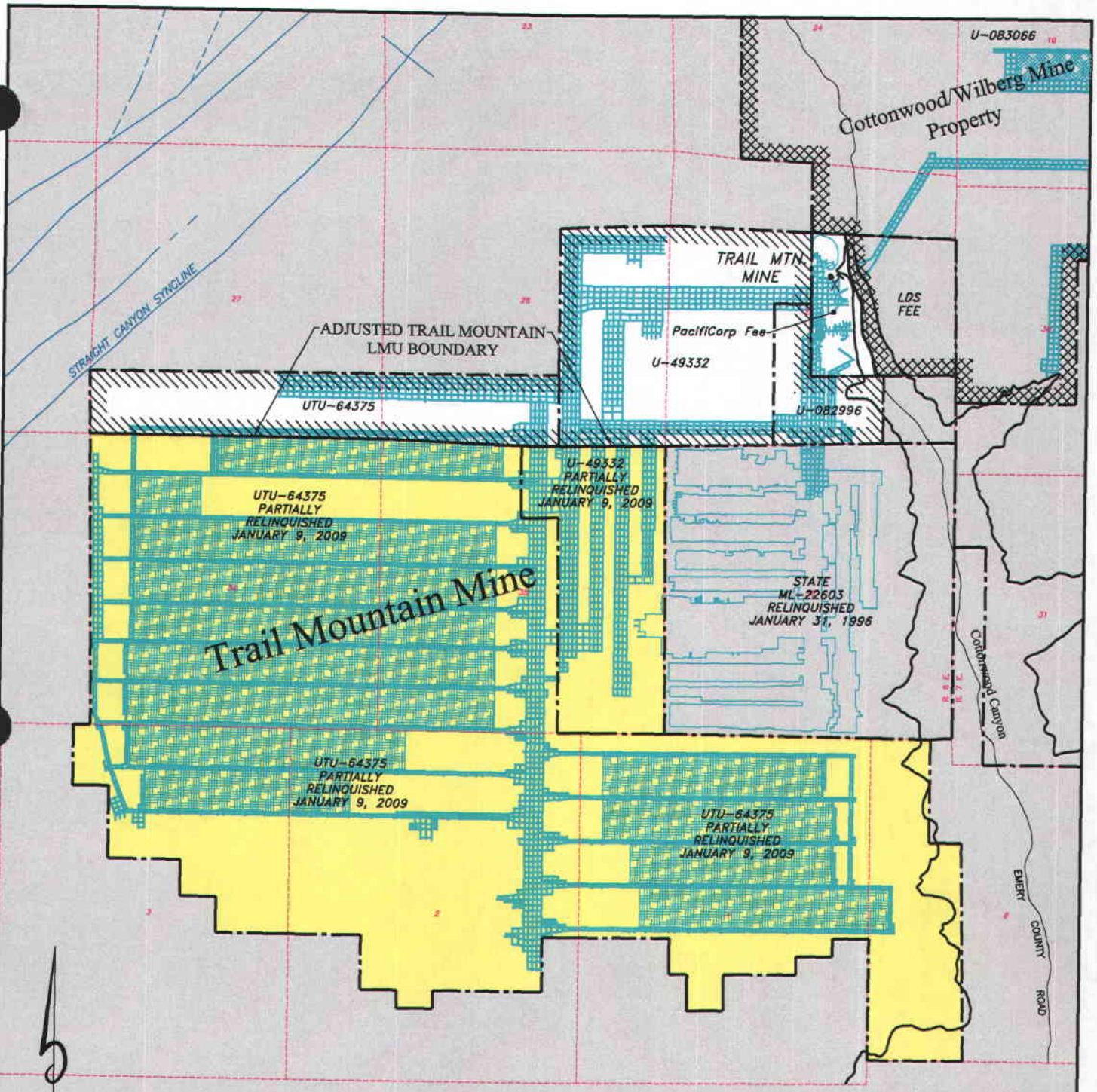
Total acres surrendered: 2,504.01

Lease Acreage Retained

The legal description for the area to be retained in UTU-64375 is described below:

T. 17 S., R. 6 E., SLM, Utah
Section 26: S½SW¼, W½SW¼SE¼,
Section 27: S½S½

Total acres retained: 260.00



CAD FILE NAME/DISK#: FIGURE 1

ENERGY WEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

LEGEND

- EXISTING MINE WORKINGS
- BLM ACCEPTED LEASE RELINQUISHMENT AREAS EFFECTIVE 1-9-2009 (THIS AREA IS REMOVED FROM LMU)
- ADJUSTED LOGICAL MINING UNIT BOUNDARY 720 ACRES

TRAIL MOUNTAIN MINE
PHASE 1 RELINQUISHMENT AREA

DRAWN BY:	K. LARSEN		
SCALE:	1" = 1/2 MILE	DRAWING #:	.....
DATE:	JANUARY 27, 2010	SHEET 1 OF 1	REV. ___