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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

October 26, 2015

Ken Fleck, Manager of Geology and Environmental Affairs  
Interwest Mining Company  
P.O. Box 910  
Huntington, Utah 84528

Subject: 2014 Annual Report Review Completion, Deer Creek Mine, C/015/0018, Task ID #4857

Dear Mr. Fleck:

The Division staff has completed the review of the 2014 Annual Report. Enclosed is a copy of the review with each reviewer's comments.

Thank you for your diligence in completing the Annual Report. If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron R. Haddock  
Coal Program Manager

DRH/sqs  
Enclosure  
O:\015018.DER\WG4857 ANNUAL REPORT\ReviewCompletionLetter.doc



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# Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

## GENERAL INFORMATION

Company Name	Energy West Mining Company	Mine Name	Deer Creek Mine
Permit Number	C/015/0018	Permit expiration Date	2016-02-07
Operator Name	Energy West Mining Company	Phone Number	+1 (435) 687-9821
Mailing Address	P.O. Box 310	Email	kenneth.fleck@pacificcorp.com
City	Huntington		
State	Utah	Zip Code	84528

## DOG M File Location or Annual Report Location

Excess Spoil Piles	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required	
Refuse Piles	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	A copy of the quarterly Refuse pile reports are found in Attachment A
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	A copy of the quarterly Impoundment reports are found in Attachment A
Other:		Submitted as a separate confidential attachment.

## OPERATOR COMMENTS

## REVIEWER COMMENTS Met Requirements Did Not meet Requirements

The annual report included copies of the quarterly inspection of the Refuse pile completed on: 3/27/14, 6/27/14, 9/25/14, and 12/29/14 for the Waste rock disposal site and Elk Canyon. The inspection reports were completed by Mark Reynolds, a Utah PE certified professional engineer. The construction of both sites has been completed for approximately 18 years. The field inspections state that all foundation preparation were completed according to design specification. An under drain was installed when the site was construed in 1989. In March, June, and September a small amount of flow was documented coming through the drain at the time of inspection. The slopes showed no signs of instability such as rills, gullies, or sloughage. The Permittee has addressed the requirements of this commitment. (CP 6-15/15)

# COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan 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 additional written response is required, it should be filed as an attachment to this report.

## **Title: RAPTORS**

**Objective:** To document the location and activity of nests that could be affected by mining.

**Frequency:** annually

**Status:** Ongoing

**Reports:** Submit annually in annual report.

**Citation:** MRP, Section 322, Subsection Terrestrial Species.

### Operator Comments

Raptor monitoring was conducted in May 2014. Refer to (Confidential) file.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

A map of the flight line and species status along with a spreadsheet is provided. However, in order for the division to determine if any nests have been impacted a comprehensive report from a qualified biologist is required. The map and raw data alone are useless as they are presented. The map with the flight survey should include subsidence areas at a minimum in order to adequately determine if any impacts may have occurred. It is speculated that nests 1710 and 1475 are within the subsidence zone of area 27. Nest 1710 is a Golden Eagle nest that was not located during the survey and Nest 1475 was a previously active Golden Eagle nests. The permittee must address these two nests and determine if they were impacted by subsidence. (LR 4/5/15)

## **Title: SUBSIDENCE MONITORING REPORT**

**Objective:** To Determine the effects of subsidence

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Submit in annual report

**Citation:** MRP, Volume 3, Appendix X

### Operator Comments

The annual subsidence report is submitted as a separate volume

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The Permittee included a subsidence mine map, subsidence monitoring report and summary table with the annual report. The subsidence map shows the recorded subsidence contours for the Deer Creek Mine Area 27 and Area 28 as of the end of 2014. The subsidence monitoring report includes a summary table of predicted vs observed subsidence. The observed subsidence in Area 27 and Area 28, in Mill Fork were 9.2 ft and 12.9 ft respectively. The Permittee has addressed the requirements of this commitment. (CP)

**Title: ROOF, FLOOR, AND MID-SEAM MATERIAL IN ACTIVE SECTIONS TO BE SAMPLED ANNUALLY.**

**Objective:** Transport and dispose of waste rock in a controlled manner.

**Frequency:** Annually in active sections

**Status:** Ongoing during mining

**Reports:** Annual report

**Citation:** MRP, Part 3, Estimated Waste Rock Volumes, R645-301-536, page 75

Operator Comments

Roof, rib, and floor samples were collected in 2014. Analysis results are found in Attachment D.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

**Title: WASTE ROCK SITE OPERATIONAL SAMPLING**

**Objective:** Monitor chemical quality of waste at waste rock site.

**Frequency:** Grab samples upon completion of each two foot lift. Parameters as described.

**Status:** Ongoing during mining.

**Reports:** Annual Report

**Citation:** MRP, Volume 10, Chapter 7, page 7-4 to 7-5

Operator Comments

No Deer Creek waste rock site sampling was conducted in 2014.

Reviewer Comments  Met Requirements  Did Not Meet Requirements



Reviewer Comments  Met Requirements

Did Not Meet Requirements

The lack of noticeable differences in invertebrate diversity and taxa richness across sites indicated that water quality conditions are similar between control and test sites. The low Hilsenhoff biotic index (HBI) values (i.e., typically below 4), suggested that pollution levels in Rilda Creek were low across all test and control sites. Overall, results of spring and fall surveys conducted to date suggest that the aquatic invertebrate community has not changed drastically following construction activities in Rilda Canyon and suggests that water quality conditions have remained stable after the completion of the construction project. Observed differences cannot be associated to construction and operation activities given that they occurred at all sites, including the control site located upstream of the construction area.

**Title: FISH SURVEYS**

**Objective:** 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:** Construction complete in Fall 2008. Spring and Fall 2009 surveys complete. 2011 survey complete. 2014 is the anticipated date for the first of the three-year surveys.

**Reports:** Annual Report

**Citation:** MRP, Volume 11, Biology Section , page 25

Operator Comments

Fish surveys were conducted in the spring of 2014. Refer to the Macroinvertebrate and Fish monitoring report in Attachment B

Reviewer Comments  Met Requirements

Did Not Meet Requirements

As noted in previous reports, the only two fish species that have been observed along Rilda Creek are brown trout (*Salmo trutta*) and cutthroat trout (*Oncorhynchus clarki*). Fish sampling efforts during spring of 2014 resulted in the capture of three cutthroat trout; brown trout were not observed. Consistent with previous surveys, no fish were observed above the concrete structure located downstream of the road crossing in Rilda Canyon during the 2014 surveys. The presence of fish post-construction indicates that Rilda Creek continues to provide fish habitat and suggests that water quality conditions have been maintained since construction activities took place.

# FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

**Title: WILDLIFE**

**Objective:** Adhere to wildlife exclusionary periods.

**Frequency:** Ongoing

**Status:** Ongoing during Rilda portal reclamation

**Reports:** Not required

**Citation:** MRP, Section 322, page 10; Section 330, page 16 #14; Section 342, page 32, #7

**Title: SUBSOIL TESTING**

**Objective:** Regraded subsoil will be sampled on 500 ft intervals to a depth of four feet (three or four samples for the 2,000 linear feet 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 of analysis.

**Frequency:** At final regrading

**Status:** Ongoing at reclamation

**Reports:** Laboratory analysis to be provided to the Division

**Citation:** MRP, Volume 11, Section R645-301-231.300

**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:** Analysis to be provided to the Division

**Citation:** MRP, Volume 11, Section R645-301-242

**Title: WASTE ROCK SITE RECLAMATION SAMPLING**

**Objective:** Monitor chemical quality of upper four feet of final waste reclaimed surface at waste rock site.

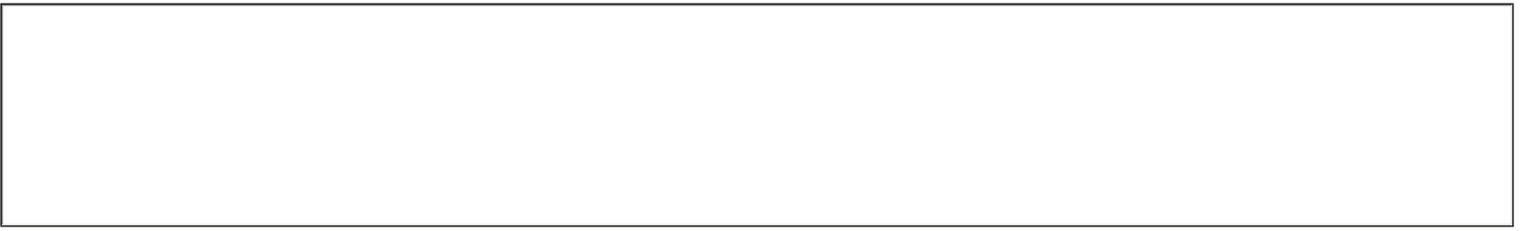
**Frequency:** Grab samples within four feet of final elevation at a rate of two samples per acre per lift. Parameters as described.

**Status:** At final reclamation of waste rock cell.

**Reports:** Annual report

**Citation:** MRP, Volume 10, Chapter 7, page 7-5

**OPERATOR COMMENTS (OPTIONAL)****REVIEWER COMMENTS**



## REPORTING OF OTHER TECHNICAL DATA

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

Reviewer Comments

The Permittee has submitted the Annual Hydrology quality and quantity data for all of the MRP approved water monitoring sites in each quarter during 2014 (KS).

# MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The Deer Creek Mine map included in the annual report shows the final year of mining operations at Deer Creek of the Hiawatha seam. The Permittee also included a 2014 Annual subsidence map showing the subsidence contours in the Mill Fork Canyon area. The Permittee has addressed the requirements of this commitment. (CP)