



Suzanne Steab &lt;suzannesteab@utah.gov&gt;

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## Deer Creek, 2015 Annual Report Review Completion, Task ID #5155

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**Oakley, Dennis** <Dennis.Oakley@pacificorp.com>

Wed, Aug 3, 2016 at 8:47 AM

To: Suzanne Steab &lt;suzannesteab@utah.gov&gt;, "Fleck, Ken" &lt;Kenneth.Fleck@pacificorp.com&gt;

Cc: Keenan Storrar &lt;kstorrar@utah.gov&gt;

Suzanne,

Please note the attached revised 2015 annual report to include a soil analysis report for the Deer Creek Mine. Sampling was conducted in December 2014 and the report was produced in February 2015. However, we have no record of ever receiving this report. Ms. Priscilla Burton, Soil Scientist, uncovered the deficiency during her review of the 2015 annual report. On 8/3/2016 she informed me of the missing report in which I immediately contacted Intermountain Laboratory in Sheridan, Wy. The lab emailed me the analysis report late yesterday afternoon.

In this submittal, you will find the Annual Report form for the Deer Creek Mine. I revised a comment explaining the inclusion of the analysis report. The analysis report is also attached.

I hope this revision satisfies the deficiency. Please let me know otherwise.

Best Regards,

*Dennis Oakley*

Senior Mine Engineer



Huntington Office:

15 North Main Street | P.O. Box 310 | Huntington, Utah 84528

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[dennis.oakley@pacificorp.com](mailto:dennis.oakley@pacificorp.com)**From:** Suzanne Steab [mailto:[suzannesteab@utah.gov](mailto:suzannesteab@utah.gov)]**Sent:** Tuesday, August 02, 2016 9:17 AM**To:** Fleck, Ken <[Kenneth.Fleck@pacificorp.com](mailto:Kenneth.Fleck@pacificorp.com)>; Oakley, Dennis <[Dennis.Oakley@pacificorp.com](mailto:Dennis.Oakley@pacificorp.com)>**Cc:** Keenan Storrar <[kstorrar@utah.gov](mailto:kstorrar@utah.gov)>

**Subject:** [INTERNET] Deer Creek, 2015 Annual Report Review Completion, Task ID #5155

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**2 attachments**

 **2015 Annual Repor Revised 8-3-16.pdf**  
336K

 **EnergyWestS1412105.pdf**  
1171K



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

August 2, 2016

Kenneth S. Fleck, Manager of Geology and Environmental Affairs  
Interwest Mining Company  
P.O. Box 310  
Huntington, Utah 84528

Subject: 2015 Annual Report Review Completion, Deer Creek Mine, C/015/0018, Task ID #5155

Dear Mr. Fleck:

The Division staff has completed the review of the 2015 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  
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Print Form

Submit by Email

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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	PacifiCorp	Mine Name	Deer Creek Mine
Permit Number	C/015/0018	Permit expiration Date	February 7, 2016
Operator Name	Interwest Mining Company	Phone Number	+1 (435) 687-9821
Mailing Address	P.O. Box 310	Email	ken.fleck@pacificorp.com
City	Huntington		
State	Utah	Zip Code	84528

## DOGGM 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	
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	Included in Attachment A
Other:		Sampling of Roof, Rib and Floor - Included in Attachment B

## OPERATOR COMMENTS

Refuse pile inspection reports have been reported quarterly to the Division.

## REVIEWER COMMENTS

Met Requirements  Did Not meet Requirements

The annual report included copies of the quarterly inspection of the Refuse pile completed on: 3/26/15, 6/29/15, 9/22/16, and 12/17/15 for the Deer Creek pond and Rilda 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 constructed in 1989. The slopes showed no signs of instability such as rills, gullies, or sloughage. The Permittee has addressed the requirements of this commitment. (CP)

## 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

Located in confidential file

Reviewer Comments  Met Requirements  Did Not Meet Requirements

4/29/16: LR: The raptor survey was performed as evidenced by data and flight map. I performed analysis to determine that the tended nest (2065) is barely outside the 1/2 mile buffer of the Rilda surface facilities. During closure, please note the 1/2 mile buffer area in case materials are flown in for portal closures. Flight-lines must stay outside of the buffer.

### 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

Included with this submittal as stand alone report.

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 2015. 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 7.2 ft and 13.1 ft respectively. The Permittee has addressed the requirements of this commitment. (CP)

**Title: Wildlife**

**Objective:** Adhere to wildlife exclusionary periods during reclamation activities

**Frequency:** During Reclamation

**Status:** Reclamation Pending

**Reports:** Not Required

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

Operator Comments

Reviewer Comments    Met Requirements                       Did Not Meet Requirements

4/29/16: LR: Please keep wildlife exclusionary periods in mind while initiating reclamation plans.

**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 will occur once within each permit term until such time as the soils are found acceptable for substitute topsoil use. The last sample, collected in 2010, did not show suitability. The current permit term is 2011-2016.

**Status:** To be conducted once in current permit term (2011-Feb 2016).

**Reports:** Annual Report

**Citation:** MRP, Volume 2, Part 4, section R645-301-233, page 2-3

Operator Comments

Sampled December 2, 2014 and reported in 2014 Annual Report.  
  
8/3/2016 comment: It came to the operators attention that the soil analysis was not included in the 2014 report. The operator is revising the 2015 annual report to include the analysis.

Reviewer Comments    Met Requirements                       Did Not Meet Requirements

7/28/2016, PWB. Laboratory analysis of for soil sample locations 3 and 4 could not be found with the 2014 Annual Report (task 4857, received 3/27/2015). The 2014 Annual Report did provide field pH and field conductivity for two samples at two locations, but the laboratory analysis of parameters described in MRP, Volume 2, Part 4, section R645-301-233, page 2-3 could not be found.



**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.

Reviewer Comments

Production Map is included with this report as Attachment C.

Please List Attachments

# 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	See Subsidence Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Raptor survey within permit boundary		<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"/>

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The annual report meets the State of Utah R645 Hydrologic requirements for Water Monitoring. The Deer Creek annual report updates the 2015 Annual Hydrologic Report. The report summarizes the 2015 water year for the local and regional climate patterns. The quality and quantity of surface and groundwater is analyzed and summarized in narratives and graphs. KS

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 2015 Annual subsidence map showing the subsidence contours in the Mill Fork Canyon area. The Permittee has addressed the requirements of this commitment. (CP)



Date: 2/6/2015

**CLIENT:** Energy West Mining Co  
**Project:** Deer Creek Soil Suitability  
**Lab Order:** S1412105

**CASE NARRATIVE**  
**Report ID:** S1412105001

Samples DC0114, DC0214, DC0314, and DC0414 were received on December 5, 2014.

Samples were analyzed using the methods outlined in the following references:

- U.S.E.P.A. 600/2-78-054 "Field and Laboratory Methods Applicable to Overburden and Mining Soils", 1978
- American Society of Agronomy, Number 9, Part 2, 1982
- USDA Handbook 60 "Diagnosis and Improvement of Saline and Alkali Soils", 1969
- Wyoming Department of Environmental Quality, Land Quality Division, Guideline No. 1, 1984
- New Mexico Overburden and Soils Inventory and Handling Guideline, March 1987
- State of Utah, Division of Oil, Gas, and Mining: Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, April 1988
- Montana Department of State Lands, Reclamation Division: Soil, Overburden, and Regraded Spoil Guidelines, December 1994
- State of Nevada Modified Sobek Procedure
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

*Karen A Secor*



**Soil Analysis Report**  
**Energy West Mining Co**

P.O. Box 310  
Huntington, UT 84528

Report ID: S1412105001

Project: Deer Creek Soil Suitability

Date Reported: 2/6/2015

Date Received: 12/5/2014

Work Order: S1412105

Lab ID	Sample ID	Depths Feet	pH s.u.	Saturation %	Electrical	Field	Wilt	Organic	CO3 %
					Conductivity dS/m	Capacity %	Point %	Matter %	
S1412105-001	DC0114	0-3	7.8	34.3	1.74	22.7	10.1	4.3	34.2
S1412105-002	DC0214	3-5	7.8	33.1	6.31	22.6	9.3	3.5	31.7
S1412105-003	DC0314	0-3	8.4	32.1	1.50	17.2	10.0	2.5	32.5
S1412105-004	DC0414	0-0	8.2	38.5	4.21	20.0	12.7	2.4	34.2

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2OSol= 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



**Soil Analysis Report**  
**Energy West Mining Co**

P.O. Box 310  
Huntington, UT 84528

Report ID: S1412105001

Project: Deer Creek Soil Suitability

Date Reported: 2/6/2015

Date Received: 12/5/2014

Work Order: S1412105

Lab ID	Sample ID	Depths Feet	PE	PE	PE	SAR	Sand %	Silt %	Clay %	Texture	Very Fine
			Calcium meq/L	Magnesium meq/L	Sodium meq/L						Sand %
S1412105-001	DC0114	0-3	5.59	6.64	7.69	3.11	54.0	33.0	13.0	Sandy Loam	6.8
S1412105-002	DC0214	3-5	24.6	36.6	27.7	5.02	56.0	32.0	12.0	Sandy Loam	7.8
S1412105-003	DC0314	0-3	1.39	1.37	12.3	10.5	52.0	33.0	15.0	Sandy Loam	12.1
S1412105-004	DC0414	0-0	3.05	5.90	32.5	15.3	32.0	44.0	24.0	Loam	6.2

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2OSol= 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



Soil Analysis Report
Energy West Mining Co

P.O. Box 310
Huntington, UT 84528

Report ID: S1412105001

Project: Deer Creek Soil Suitability

Date Reported: 2/6/2015

Date Received: 12/5/2014

Work Order: S1412105

Table with 11 columns: Lab ID, Sample ID, Depths Feet, Boron ppm, Plant Available Selenium ppm, Total Carbon %, TOC %, Total Sulfur %, T.S. AB t/1000t, Neutral. Potential t/1000t, T.S. ABP t/1000t. Rows include sample IDs S1412105-001 through S1412105-004.

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H2OSol= 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



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

Project ID: Deer Creek Soil Suitability  
Date Received: 12/5/2014

Report ID: S1412105001  
Date Reported: 2/6/2015  
Work Order: S1412105

Lab ID	Sample ID	Organic	Sand	Silt	Clay	Very	Texture	K-factor	Structure	Permeability	M	Description
		Matter				Fine						
		%	%	%	%	%	(t.ac.h/100acft.tf.in)	s	p			
S1412105-001	DC0114	4.3	54.0	33.0	13.0	6.8	Sandy Loam	0.18	3	2	3462.6	
S1412105-002	DC0214	3.5	56.0	32.0	12.0	7.8	Sandy Loam	0.20	3	2	3502.4	
S1412105-003	DC0314	2.5	52.0	33.0	15.0	12.1	Sandy Loam	0.25	3	2	3833.5	
S1412105-004	DC0414	2.4	32.0	44.0	24.0	6.2	Loam	0.28	3	3	3815.2	

These Results apply only to the samples tested.

Reviewed by:

Karen Secor  
Karen Secor, Soil Lab Supervisor



# CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS					
Sampler: (Signature)		Chain of Custody Tape No.		No. of Containers			Remarks		
Sample No./ Identification	Date	Time	Lab Number					Matrix	
DC0114	12/2/14	0745	51412105-001	Comp 0-3'	1	} Analyze to the criteria of Tables 4 & 7	to the of Tables		
DC0214	(	0745	↓ -002	Comp 3-5'	1				
DC0314		0830	↓ -003	Comp 0-3'	1				
DC0414		0830	↓ -004	Comp 3-5'	1				
Relinquished by: (Signature) <i>Dennis Oakley</i>				Date	Time	Received by: (Signature) <i>Kare Sean</i>		Date	Time
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	
<input checked="" type="checkbox"/> 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	<input type="checkbox"/> 1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945	<input type="checkbox"/> 2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	<input type="checkbox"/> 1160 Research Dr. Bozeman, Montana 59715 Telephone (406) 586-8450	<input type="checkbox"/> 11183 SH 30 College Station, TX 77845 Telephone (409) 776-8945	<input type="checkbox"/> 3304 Longmire Drive College Station, TX 77845 Telephone (409) 774-4999				