



Suzanne Steab <suzannesteab@utah.gov>

Skyline, 2016 Annual Report Review Completion, Task #5425

Gregg Galecki <ggalecki@bowieresources.com>

Sat, Jul 22, 2017 at 12:18 PM

To: Suzanne Steab <suzannesteab@utah.gov>

Cc: Priscilla Burton <priscillaburton@utah.gov>, Gregg Galecki <ggalecki@bowieresources.com>

All:

Attached are copies of the 4th quarter 2016 Refuse Pile survey and the 3rd quarter 2016 Waste Rock analysis for seven (7) samples (WRS2016-15 through WRS2016-21).

Let me know if you have any additional questions,

Gregg A. Galecki
Environmental Engineer



Canyon Fuel Company, LLC

A Subsidiary of Bowie Resource Partners, LLC

HC 35 Box 380

Helper, UT 84526

O: 435-448-2636

C: 435-469-1432

ggalecki@bowieresources.com

From: Suzanne Steab [mailto:suzannesteab@utah.gov]

Sent: Tuesday, July 18, 2017 7:46 AM

To: Corey Heaps <CHeaps@bowieresources.com>; Gregg Galecki <ggalecki@bowieresources.com>


Cc: Priscilla Burton <priscillaburton@utah.gov>

Subject: Skyline, 2016 Annual Report Review Completion, Task #5425

[Quoted text hidden]

2 attachments

 **4th Qtr 2016Refuse_signed.pdf**
149K

 **SkylineS1703227rev.pdf**
32K



Soil Analysis Report
Canyon Fuel Company

HC 35 Box 380
Helper, UT 84526

Report ID: S1703227001

Project: Skyline Mine - Utah Table 3

Date Reported: 4/20/2017

Date Received: 3/17/2017

Work Order: S1703227

Lab ID	Sample ID	pH s.u.	Saturation %	Electrical	Organic Matter	Calcium	Magnesium	Potassium	Sodium	SAR	
				Conductivity dS/m	LOI %						CaCO3 %
S1703227-001	WRS2016-15	8.2	45.6	0.65	59.6	10.9	2.14	1.89	0.45	1.86	1.31
S1703227-002	WRS2016-16	8.5	50.3	0.57	69.3	5.5	0.84	0.55	0.30	3.66	4.38
S1703227-003	WRS2016-17	8.6	47.9	0.59	58.6	7.2	0.44	0.40	0.29	4.53	6.99
S1703227-004	WRS2016-18	8.1	52.2	0.46	74.6	3.8	1.48	0.96	0.24	1.75	1.59
S1703227-005	WRS2016-19	8.0	44.8	1.01	66.7	7.4	2.85	1.99	0.41	4.86	3.13
S1703227-006	WRS2016-20	8.5	49.2	0.72	65.6	6.6	0.50	0.39	0.27	5.60	8.44
S1703227-007	WRS2016-21	7.9	35.2	1.15	47.1	7.1	5.35	3.45	0.64	2.63	1.25

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
Canyon Fuel Company**

HC 35 Box 380
Helper, UT 84526

Report ID: S1703227001

Date Reported: 4/20/2017

Work Order: S1703227

Project: Skyline Mine - Utah Table 3

Date Received: 3/17/2017

Lab ID	Sample ID	Sand %	Silt %	Clay %	Texture	Very Fine					Available
						Sand %	Boron ppm	Phosphorus ppm	Selenium ppm	Nitrate(as N) ppm	Potassium meq/100g
S1703227-001	WRS2016-15	79.0	13.0	8.0	Loamy Sand	1.3	0.53	2	<0.02	0.4	0.21
S1703227-002	WRS2016-16	82.0	12.0	6.0	Loamy Sand	3.6	0.74	2	<0.02	0.2	0.13
S1703227-003	WRS2016-17	81.0	13.0	6.0	Loamy Sand	2.3	0.85	2	<0.02	0.2	0.15
S1703227-004	WRS2016-18	82.0	12.0	6.0	Loamy Sand	3.3	0.95	2	<0.02	0.3	0.08
S1703227-005	WRS2016-19	76.0	16.0	8.0	Sandy Loam	2.3	1.04	3	<0.02	0.2	0.13
S1703227-006	WRS2016-20	82.0	13.0	5.0	Loamy Sand	4.6	0.67	2	<0.02	0.3	0.11
S1703227-007	WRS2016-21	71.0	19.0	10.0	Sandy Loam	1.3	0.74	2	<0.02	0.2	0.22

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
Canyon Fuel Company

HC 35 Box 380
Helper, UT 84526

Report ID: S1703227001

Project: Skyline Mine - Utah Table 3

Date Received: 3/17/2017

Date Reported: 4/20/2017

Work Order: S1703227

Lab ID	Sample ID	Total	T.S.	Neutral.	T.S.
		Sulfur	AB	Potential	ABP
		%	t/1000t	t/1000t	t/1000t
S1703227-001	WRS2016-15	0.47	14.7	109	94.4
S1703227-002	WRS2016-16	0.58	18.1	55.2	37.1
S1703227-003	WRS2016-17	0.55	17.2	72.2	55.1
S1703227-004	WRS2016-18	0.67	20.8	38.1	17.3
S1703227-005	WRS2016-19	0.63	19.6	74.2	54.6
S1703227-006	WRS2016-20	0.59	18.4	66.1	47.7
S1703227-007	WRS2016-21	0.41	12.8	71.0	58.2

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

State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
 Telephone (801) 538-5340 facsimile (801) 359 3940 TTY (801) 538-7458
www.ogm.utah.gov



Quarterly Inspection Form - Refuse Disposal Areas
 (please provide to DOGM promptly after inspection is complete)

Permit Number : C/007/005 Inspection Date : December 19, 2016
 Mine Name : Skyline Mine Quarter / Year : Q04/Y2016
 Mine Operator (Permittee) : Canyon Fuel Company, LLC Inspector Name : Craig Brown / G. Galecki
 MSHA ID # : 42-01566; Pile 1211-UT-09-01566 Inspector Signature : _____
 Facility Name / Location / Address : 7 miles SW of Scofield, Utah. HC35 Box 380, Helper, Utah 84526

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
No obvious instability or structural weakness was observed during the 4th Quarter 2016 inspection.
No signs of slumping or heating were observed. The previously exposed highwall has been backfilled. No instrumentation is

2. Lift Height / Thickness Avg 2-ft Maximum _____ # _____ Elevation of Active Benches : _____, _____, _____
 3. Vertical Angle of Outslope(s) / Location(s) where measured 1 1/2h:1v / _____ / _____ / _____
 4. Total storage capacity: 334,125 tons (cu) Remaining storage capacity site expansion is Volume placed during year: 42,562 tons
 5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
The Refuse Pile is currently disturbed, and material placement is occurring in previously disturbed areas.
Subsoil that was collected from a DOGM reclamation project is stored in the lower topsoil/subsoil storage area.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
No refuse material was placed at the site during the quarter.
Once a sufficient amount of waste rock has accumulated, the material is placed in lifts of 24-inches or less and compacted in pl

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
There is no evidence of fires or burning on the refuse pile.

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
No under-drains are present or required at the site. Areas that are to final grade are capped with the prescribed amount of topso

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No obvious instability or structural weakness, or other hazardous conditions were noted during the 4th Quarter 2016 inspection

10. Please provide any other information pertaining to the stability of the structure (attach any photos taken during the inspection)

Are there cracks or scarps in crest ?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Is there any detectable sloughing or bulging ?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Do slope erosion problems exist ?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Cracks or scarps in slope ?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Surface movements? (valley bottom, hillsides)	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Erosion of Toe ?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Water impounded by structure ?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Are diversion ditches stable?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<u>functioning as designed.</u>
Is drainage positive ?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	

Could failure of structure create an impoundment (provide description) ? Yes. Failure of the south slope could dam a small ephemeral stream.

Are design standards established within the mining and reclamation plan for the disposal facility being met ?
Yes

Proctor Determination : N/A

I hereby certify that: I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with structure; that the fill structure has been maintained in accordance with the approved design and meets or exceeds the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

