



Suzanne Steab <suzannesteab@utah.gov>

2017 Annual Report Review Completion

Suzanne Steab <suzannesteab@utah.gov>

Thu, Jun 28, 2018 at 6:33 AM

To: Kirt Tatton <ktatton@bowieresources.com>, RMarshall@bowieresources.com

The Division staff completed the review of the 2017 Annual Report for the Dugout Mine. Attached is a copy of the review with comments.

No hard copy will follow.

Thank you for your diligence in completing the Annual Report.

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 **Dugout.pdf**
46K

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	Canyon Fuel Company, LLC	Mine Name	Dugout Mine
Permit Number	C/007/0039	Permit expiration Date	March 16, 2023
Operator Name	Same	Phone Number	+1 (435) 637-6360
Mailing Address	P.O. Box 1029	Email	dspillman@bowieresources.com
City	Wellington		
State	Utah	Zip Code	84542

DOGM 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	
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS Met Requirements Did Not Meet Requirements

The Permittee provided the certified inspection reports for the refuse piles and impoundments in Appendix A of the Annual Report.

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: ANNUAL RAPTOR SURVEYS

Objective: To obtain baseline data prior to mining disturbances including subsidence of cliff habitat and any surface disturbances (construction, reclamation, or exploration). Conduct follow-up surveys within one year if nests were observed during the baseline surveys and if the nest or raptors could be impacted from mining (subsidence or proximity to surface facilities).

Frequency: Annually

Status: Ongoing

Reports: Annual

Citation: MRP, Chapter 3, Page 3-20

Operator Comments

See Appendix D Confidential

Reviewer Comments Met Requirements Did Not Meet Requirements

Raptor surveys for 2017 were completed and submitted. There was no activity observed at the known eagle nest. During observation, however, a pair of eagles flew by the nest leading the observing biologist to speculate that another nest may be in the area. After a search, however, no new nest was discovered. The last observed activity at the known eagle nest was in 2009. The red-tailed hawk and raven nests could not be located from 2009 to 2011 and have therefore not been surveyed from 2012 to 2017. No new raptor nests were discovered in 2017. (3/22/18 TM)

Title: SUBSIDENCE MONITORING VISUAL INSPECTIONS

Objective: To check for surface subsidence features.

Frequency: Annually

Status: Ongoing

Reports: Annual

Citation: MRP, Volume 3, Chapter 5, Section 525.100, page 5-29

Operator Comments

Please note that an annual subsidence map is no longer required under Dugout's current Mining and Reclamation Plan as approved under DOGM's Task # 5562. The Mine's Annual Report for 2016 verify's no subsidence change for the established control points for two consecutive years. Indicating that the period of potential subsidence was completed and no further annual subsidence surveys will be conducted unless secondary mining is re-established at the Mine. Visual ground checks for subsidence will still be made of areas surrounding monitored seeps, springs and streams during hydrologic monitoring.

Reviewer Comments Met Requirements Did Not Meet Requirements

The Dugout Canyon Mine stopped longwall mining and switched to exclusively continuous miner room and pillar extraction (first mining) in 2012. Longwall mining (second mining) is a method where subsidence is encouraged and expected, and since it has been five years since it was last employed, subsidence has been limited to pre-2013 mining activities. Monitoring has been conducted for the last five years to track the degree and extent of residual subsidence since longwall mining was discontinued in 2012.

There has been no subsidence change for the last two consecutive years and no additional secondary mining is planned going forward. Additionally, a check of recent annual reports submitted to the Division verifies that indeed there has been no reportable subsidence detected in the last two years. Therefore, Permittee considers the period of potential subsidence to be complete and will terminate all additional subsidence surveys at this time. If second mining is once again planned to be employed, Permittee will notify the Division of this change and a subsidence control plan re-instated. JE

Title: WASTE ROCK SAMPLING

Objective: To protect ground and surface water and potentially substantiate lesser cover at the waste rock site.

Frequency: One sample per 5,000 cubic yards taken to the waste rock site. Acid/toxic material to be buried within 30 days and should be compacted, and isolated from water infiltration.

Status: Ongoing. **Please indicate the volumes or tonnage placed during the year into the refuse pile and the remaining capacity in the pile.**

Reports: Annual report, and to be included in RA attachment 5-4.

Citation: MRP, Chapter 5, Section 513.400, Section 528.300, Section 536 and Refuse Pile Amendment Volume, Section 536.200

Operator Comments

See Appendix C

Reviewer Comments Met Requirements Did Not Meet Requirements

6/26/2018, PB. Appendix C states that in 2017, 81,412 CY refuse were placed and compacted in the Phase 1 expansion area on the South and West facing side. Seventeen refuse samples were taken of the material placed during the year, each representing approximately 5,000 CY. The location of the sampled refuse within the pile is unknown other than the 2017 refuse was placed in the Phase I area on the South and West facing sides. Six of the 2017 samples (35% of the refuse) is unacceptable for the surface 4 feet due to the following characteristics:

Unacceptable pH: sample 03 (pH 10.2).

Poor pH: sample 02 (pH = 8.5), sample 06 (pH 8.6), sample 07 (pH 8.6). All either loamy sand or sandy loam, with low EC, but SAR values of 6 to 8.4.

Borderline unacceptable selenium for the surface four feet: sample 04 = 0.14 ppm (The Division Guidelines Table 4 unacceptable value is 0.15 ppm.)

Poor SAR: sample 05 (SAR = 11.7) and sample 14 (SAR = 19.8, both sandy loam with pH values of 8.3 to 8.6).

Phase I expansion of the refuse area was brought to final grade on the North and East facing sides. A portion of the Phase I surface was reclaimed using live hauled subsoil and topsoil from the Phase II expansion this year. A test plot on the North facing slope was covered with less than four feet of cover as a demonstration plot for lesser cover (R645-301-553.252), in conjunction with the results of refuse sampling conducted in that location in 2015 (email from R. Marshall, 6/27/2018). A photograph of the surface of the refuse was taken just prior to covering with subsoil. That photograph is attached to inspection report #5982, sent to file 10/25/2017.

Title: SEALING OF WELLS

Objective: Permanent casing and sealing of wells when no longer in use.

Frequency: Once upon termination of use.

Status: N/A

Reports: Report on status of wells

Citation: Chp. 6, Section 631, Chp. 7, Section 765

Operator Comments

Degas Wells G-2 through G-7, G-9 through G-14, G-16, G-18, G-19, G-22, G-25, G-26, G-30 and G-31 are sealed.

Reviewer Comments Did Not Meet Requirements Met Requirements

[AU] Wells and associated drill pads/access roads were inspected on November 19, 2014 during a bond release inspection. Phases 1 and 2 bond release was achieved on sites G-2 through G-7, G-10, G-12, G-13, G-14, G-18 and G-31. Phase 1 bond release was achieved on G-9, G-16 (and access road), G-19, G-22 (and access road), G-25, G-26, G-30, G-31 (and access road), and about 1350 feet of the AMV road. Information for these wells is located in the Methane Degasification Amendment.



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: OVERBURDEN SAMPLING AND ANALYSIS

Objective: Generate quality substitute topsoil

Frequency: At Final Reclamation

Status: long term

Reports: at final reclamation

Citation: MRP, Chapter 2, Section 224, Section 233.100, .300, and .400.

Title: NUTRIENTS AND AMENDMENTS

Objective: Establishment of vegetation

Frequency: At final reclamation

Status: Long term

Reports: At final reclamation

Citation: MRP, Chapter 2, Section 243; Refuse Pile Amendment Volume, Section 243.

Title: VEGETATION MITIGATION PROJECT FOR BATS

Objective: Permittee will plant additional willows along the channel where sufficient space allows.

Frequency: At final reclamation

Status:

Reports: At final reclamation

Citation: Vol. Chap 3, Sec. 322, pp. 3-19 through 3-20.

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

NA

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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map - Gilson Seam	Appendix B	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map - Rock Canyon Seam	Appendix B	<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"/>

Reviewer Comments Met Requirements Did Not Meet Requirements

Comprehensive mine maps detailing the projected 5 year plan are included. Room and Pillar mining sections are planned and mapped out to May 2022, complete with seam thickness and overburden isopachs. An annual subsidence map is no longer required at this time since two consecutive years have elapsed since any measurable subsidence has occurred, and subsidence mining has been discontinued at the Dugout Mine. JE