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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*

August 1, 2017

Kirk Nicholes, Resident Agent  
Alton Coal Development, LLC  
463 North 100 West, Ste. 1  
Cedar City, UT 84720

Subject: 2016 Annual Report Review Completion, Coal Hollow Mine, Alton Coal Development, LLC, C/025/0005, Task #5423

Dear Mr. Nicholes:

The Division staff has completed the review of the 2016 Annual Report. A commitment required by the approved Mining and Reclamation Plan has been identified as outstanding. Enclosed is a copy of the review where a more detailed discussion of the outstanding commitment is provided. Enclosed is a copy of the review with each reviewer's comments completed on July 27, 2017.

Please submit the additional information to the Division by September 1, 2017. If you have any questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen  
Permit Supervisor

SKC/ss  
O:\025005.COL\WG5423 ANNUAL RPT\Review.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	Alton Coal Development, LLC	Mine Name	Coal Hollow Mine
Permit Number	C/025/0005	Permit expiration Date	Nov. 8, 2020
Operator Name	Alton Coal Development, LLC	Phone Number	+1 (435) 867-5331
Mailing Address	463 N 100 W Suite 1	Email	knicholes@altoncoal.com
City	Cedar City		
State	Utah	Zip Code	84721

### DOG M File Location or Annual Report Location

Excess Spoil Piles	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	
Refuse Piles	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required	
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	
Other:		

### OPERATOR COMMENTS

Certified inspection of sediment ponds 1, 1B, 2, 3 and 4 was completed on March 18, 2016. Certified inspection of construction of Pond 5 & 6 was completed on April 8, 2016. Certified inspection of the SPL excess spoil pile was completed on March 15, June 28, September 15 and November 16, 2016. For the NPL excess spoil pile, March 31, June 28, September 15 and November 16, 2016. Copies of the inspection reports can be found in ACD's Cedar City office and the Coal Hollow Mine office. Reports were also emailed to the Division each quarter and have been included with this Annual Report.

**REVIEWER COMMENTS**       Met Requirements       Did Not meet Requirements

# 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: TOPSOIL AND SUBSOIL SALVAGE AND FINAL RECLAMATION PLACEMENT

**Objective:** Monitor topsoil and subsoil salvage by suitability criteria and depth described in Appendix 2-1, Table 4-1.

**Frequency:** During operations. Sampling regime will be reviewed and updated as necessary. In 2015 monitoring, add-in water soluble selenium analysis to the list of parameters run on replaced topsoil/subsoil.

**Status:** Long term

**Reports:** Provide laboratory reports and keep a tally of volumes salvaged, stockpiled and live hauled. In 2015 monitoring, add-in water soluble selenium analysis to the list of parameters run on replaced topsoil/subsoils.

**Citation:** MRP, Volume 1, Chapter 2, Section 231.300 (topsoil sampling), Section 232.500 (subsoil sampling), and Appendix 2-1, pg. 4-2.

Operator Comments

Topsoil Stockpile: #1 25,289 cyds, #2 73,177 cyds, #3 consumed in 2013, #4 consumed in 2016, #5 consumed in 2015;  
NPL 56,169 cyds  
Livehaul Topsoil: NPL 0 cyds  
Subsoil Stockpile: #1 73,070 cyds, #2 73,177 cyds, #3 consumed in 2014;  
NPL 27,307 cyds,  
Livehaul Subsoil: NPL 8,459 cyds

Reviewer Comments  Met Requirements  Did Not Meet Requirements

7/26/2017, PB. An estimate of live haul of subsoil from the excess spoil pile to reclamation areas in 2016 should be reported. Topsoil pile #6 volume should be reported.

A comparison of the 2015 and 2016 annual report stockpile volumes provides the following information. During 2016, 101,498 CY of subsoil in subsoil stockpile #2 were either redistributed over 40.092 acres of Phase 1 bond release areas BRP1-6, BRP1-7, BRP1-8, and BRP1-9 (Task 5097 and Task 5306) or stockpiled in berms along the haul roads in those locations. In addition, subsoil was live hauled from the Excess Spoil Pile and was also replaced over these 40 acres. The expected depth of subsoil cover in the South Lease reclaimed area is 39 inches (Mining and Reclamation Plan, Section 240), but this cannot be confirmed with information provided.

During 2016, 63,844 CY of topsoil from topsoil stockpile #2, and 33,070 CY of topsoil in stockpile #4 were redistributed over 71.9 acres reclaimed area in the South Lease (Dwg 2-38 In. 2016 Ann. Rpt). Using these figures an average topsoil redistribution depth of 0.83 feet (9.96 in.) is calculated.

There remains 98,466 CY of topsoil stockpiled in topsoil stockpiles #1 and #2 at the South Lease for reclamation of 116.3 acres (Figure 1 In. 2016 Ann Rpt). This volume will cover the 116 acres to a depth of 6 inches. This is shy of the required 8 inches proposed as an average topsoil redistribution depth in the South Lease (MRP Section 240).

There remains 146,247 CY of subsoil in stockpiles #1 & #2 at the South Lease. If this is redistributed only over Pit 10 (22.4 acres) and Pond 3 (4.1 acres) and the additional acreage of Ponds 1, 1B, and 2 (approximately 3.5 acres), the subsoil depth will be 3.02 feet. Stockpile #2 was graded smooth and seeded with an interim mix in the winter 2017.

The 22.4 acres of Pit 10 will be reclaimed utilizing fill from the borrow area and substitute (cultivated) topsoil. The 30 acres of borrow area will be reclaimed using topsoil stored in Stockpile #6 and substitute (cultivated) topsoil. The South Lease topsoil stockpile #6 was formed in 2016, but the volume was not surveyed until recently. Therefore it was not reported above (personal communication with K. Nicholes, 7/26/2017). An estimate that 73,446 CY would be stored in topsoil stockpile #6 was reported in Table 1 of App. 2-2 dated September 2, 2016.

At the end of 2016, topsoil and subsoil had been redistributed over North Lease Pits 1-3 (12.213 acres in BRP1-10) and there was 56,169 CY of topsoil and 27,307 CY subsoil in the North Private Lease stockpiles.

### **Title: PREDATOR CONTROL**

**Objective:** To effectively manage predators and increase the population of birds at the Alton lek.

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Annual summary of work completed to date. Include data, locations, summary and analysis of predator control efforts. Please include any reports from USDA Wildlife Services.

**Citation:** MRP, Appendix 3-8, pg 14 & 15.

Operator Comments

ACD, through a contract with Wildlife Services effective from April 2016 through April 2017, continued its predator control program in 2016. Wildlife Services annual summary of work is included in the report titled "Greater Sage-grouse Population Monitoring and Habitat Improvement, Alton-Sink Valley, Utah, December 26, 2016." (LR 4/18/17)

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The Permittee submitted the 2016 Progress Report on 1/16/17 and it was evaluated as task #5356. All requirements were met and the report was incorporated into the MRP at the end of Appendix 3-6. The annual report includes a contract between ACD and USDA/APHIS for the predator control program. (LR 4/1/17)

### **Title: WILDLIFE AWARENESS PROGRAM**

**Objective:** To provide protection for the resident wildlife and minimize impacts (collisions) from vehicles and heavy equipment.

**Frequency:** Continuous and as needed for new employees throughout the life of the mine.

**Status:** Ongoing

**Reports:** Annual, log of employee awareness meetings, road kills for deer, elk, sage grouse and domestic livestock from the mine site to highway 89.

**Citation:** MRP, Volume 2, Chapter 3, pages 3-29

Operator Comments

Wildlife Awareness training was held on January 29, 2016 for all employees. Instruction was given by Kirk Nicholes. Attendance sheets and slides from the training presentation have been included with this submittal. There were no employee road kills for deer, elk, sage-grouse or domestic livestock from the mine site to highway 89.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

Attendance sheets and the presentation is included with the annual report. (LR 4/11/17)

**Title: GPS Monitoring of Sage-grouse**

**Objective:** To record bird movement and habitat use patterns for both the Coal Hollow and NPL areas.

**Frequency:** ACD will provide four additional GPS backpacks, 2 in 2016 and 2 more in 2017, increasing the number of birds being monitored to six. In 2016, two hens will be trapped and collared. Two more hens in 2017. ACD will maintain the collaring program to support six active collars within the Alton/Sink Valley area.

**Status:** Any additional costs associated with trapping, collaring, and monitoring (fuel, travel and trapping time) will be provided to Dr. Frey for her assistance in a formal contract with USU. This level of support will be maintained for the length of the mining operation and will be reevaluated prior to post mining for the purpose of monitoring during the 10-year liability period.

**Reports:** Provide copy of formal contract with USU. Annual Report. Provide

**Citation:** Appendix 3-8, page 11

**Operator Comments**

ACD purchased and assisted Dr. Frey in trapping and collaring 2 young female Sage-grouse on November 2, 2016 and 1 additional young female Sage-grouse on November 3, 2016 in the Alton/Sink Valley area. This brings the total number of collared Sage-grouse to 5. Data from the monitoring collars is included in the report titled "Greater Sage-grouse Population Monitoring and Habitat Improvement, Alton-Sink Valley, Utah, December 26, 2016." A copy of the fully executed contract has been included with the annual report.

Reviewer Comments     Met Requirements                       Did Not Meet Requirements

The Permittee submitted the 2016 Progress Report on 1/16/17 and it was evaluated as task #5356. All requirements were met and the report was incorporated into the MRP at the end of Appendix 3-6. The annual report includes a fully executed contract with USU detailing the research to be conducted to determine the response of sage-grouse to coal mining activities. This project will go through December 2021. (LR 4/1/17)

**Title: Compensatory Mitigation**

**Objective:** Improve sage-grouse habitat in a 4:1 ratio to disturbance.

**Frequency:** Mitigation will be implemented prior to disturbance

**Status:** Ongoing

**Reports:** Provide plans for 2017 mitigation and disturbance to ensure mitigation is implemented prior to disturbance.

**Citation:** Appendix 3-8, pg 11 & 12.

**Operator Comments**

1,000 acres of mitigation has been committed to for the planned 231 acres of disturbance in the NPL. Currently ACD has completed 591.79 acres of this mitigation and current planned disturbance through the end of 2017 will be approximately 90 acres. At the 4:1 mitigation to disturbance ratio, this would yield an excess of approximately 231 mitigation acres or allow for an additional 57.75 acres of disturbance. In addition, ACD is in negotiation to complete an additional 200 acres of mitigation with NRCS through the WRI program in 2017. Although early in the planning stages, the 2017 project will involve removal of invasive Russian Olives and Tamerix along the Kanab Creek corridor from a point approximately 3 miles above the NPL down stream to the "Elbow".

Reviewer Comments  Met Requirements

Did Not Meet Requirements

The Division verified 591 acres of habitat improvement are credited towards the disturbance associated with the North Private Lease. At a 4:1 ratio, the mine can disturb up to 147 acres to stay within the requirement. The planned disturbance through the end of 2017 is 90 acres.

**Title: RECLAMATION TIMETABLE**

**Objective:** To ensure timely reclamation

**Frequency:** Map detailing reclamation actives for the year. (Dwg 5-38 and 5-76)

**Status:** Annually updated.

**Reports:** Annual summary of work completed to date.

**Citation:** MRP, Chapter 5, page 5-83 and Ch.3 page 33.

Operator Comments

Drawings 5-38, 5-76A and 5-76B have been updated and included with this annual report for submission to the MRP.

Reviewer Comments  Did Not Meet Requirements

Met Requirements

7/19/2017, PB. The information provided meets the requirements of R645-301-542.100 to provide a detailed timetable for the completion of each major step in the reclamation plan, because Reclamation Sequence Drawings 5-38 (South Lease) and 5-76A & B (North Lease), all dated 3/31/2017, show the annual progression of reclamation. These maps will amend the MRP and were reviewed under task # 5424.

In the South Lease, Dwg 5-38 shows a total of 191.7 acres have been mined. At the end of 2016, 71.9 additional acres had been reclaimed. This is 85% of the projected reclamation shown for 2016 on Dwg 5-38, dated August 1, 2016. The total acreage reclaimed at the site to date is 175 acres.

In the North Lease, Dwg 5-76A & B show 17.9 acres reclaimed in Year 1 (2016), of which 16.2 acres were topsoiled and seeded. Total acres mined and backfilled in the North Lease is not included on these plates.

**Title: SAMPLING FINAL GRADED, TOPSOILED SURFACE**

**Objective:** To ensure a fertile growth medium.

**Frequency:** One composite sample every 2-5 acres based on variability.

**Status:** Contemporaneous with reclamation.

**Reports:** Laboratory analysis of available phosphorus, soluble potassium and nitrate-nitrogen.

**Citation:** MRP, Volume 1, Chapter 2, Section 231.300 and 243.

Operator Comments

Sampling results for final graded topsoil surface sampled in 2016 have been included in this submission as "Appendix 2-2 (Cont.) 2016 Soil Analytical Results"

Reviewer Comments  Met Requirements  Did Not Meet Requirements

These results were reviewed as task # 5424. This amendment was returned deficient on May 19, 2017.

**Title: Evaluate Mine Discharges for Impacts to Kanab Creek AVF**

**Objective:** To evaluate discharges that may impact the designated AVF on Kanab Creek.

**Frequency:** Annually

**Status:** Ongoing

**Reports:** An annual finding should be placed in the Annual Report during operation and reclamation of any adverse impacts to the channel, diminution of water quality and impacts to wildlife

**Citation:** Coal Hollow Permit, Attachment A, Special Condition #5

Operator Comments

An evaluation of mine discharges for impacts to the Kanab Creek AVF have been included with this submission as report "Coal Hollow Mine March 2017 Stipulation 5 report"

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The annual report meets the State of Utah R645 requirements for Hydrology.

The Coal Hollow mine has provided an analysis of the designated AVF downstream of the permit area in the annual report. This meets the Special Condition #5 within the Permit. The analysis concludes no impacts have occurred to the AVF located on Kanab Creek. All runoff from the mine site is treated by sediment ponds before being discharged to downstream receiving waters. Discharges from sediment ponds occurred in the south lease during spring months and one month in the fall. The discharges are monitored for quantity and quality and reported as per their UPDES requirements. The discharge monitoring data is given in Table 1 (KS 5/10/2017).

**Title: RESTORATION OF LEK**

**Objective:** To restore the original lek at the end of mining activities.

**Frequency:** Once

**Status:** Restoration of the lek will begin at final reclamation.

**Reports:** Annual summary of work completed after reclamation begins.

**Citation:** MRP, Volume 2, Chapter 3, Page 3-28

Operator Comments

Final reclamation of the area of the original Lek was completed in 2015 and 2016 now having 1 to 2 years growing season completed on the entire area. Sage-grouse have been documented utilizing the original Lek in 2016 and 2017 with between 12 and 15 males.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

This task is complete and will be removed from future annual report requirements. (4/11/2017, LR)

**Title: SAGE GROUSE MONITORING**

**Objective:** To monitor sage-grouse distribution and bird numbers. Total monitoring effort (GPS transmitters and information from DWR lek counts) will be combined to provide a comprehensive analysis of sage-grouse habitat use and population movement patterns.

**Frequency:** Annual

**Status:** Ongoing

**Reports:** Comprehensive report compiled into annual report.

**Citation:** MRP, Volume 2, Chapter 3, Appendix 3-8, page 11.

Operator Comments

Information from GPS transmitters, DWR Lek counts, mine employee sightings and Dr. Petersen's flush survey have all been included in the report titled "Greater Sage-grouse Population Monitoring and Habitat Improvement, Alton-Sink Valley, Utah, December 26, 2016."

Reviewer Comments     Met Requirements                       Did Not Meet Requirements

The Permittee submitted the 2016 Progress Report on 1/16/17 and it was evaluated as task #5356. All requirements were met and the report was incorporated into the MRP at the end of Appendix 3-6. (LR 4/13/17)

**Title: Dames Lease Annual Vegetation Survey**

**Objective:** To determine if mining or mining related activities are having an impact on the wet meadow habitat

**Frequency:** Annual

**Status:** Sampled in 2015

**Reports:** Annual Summary including species composition, percent cover and plant density

**Citation:**

Operator Comments

Sampling was completed in 2015 for the anticipated high-wall mining of the 85.88 acre New Dame Lease. There was no high-wall mining that occurred under the 85.88 acre New Dame Lease.

Reviewer Comments     Met Requirements                       Did Not Meet Requirements



**Title: Blasting Certification**

**Objective:** Submit annual **seismograph** calibration certification

**Frequency: annually**

**Status:** Ongoing

**Reports:** Semigraph annual calibration certificate

**Citation:** Ch. 5, page 5-33

Operator Comments

Two seismograph units were used by Southwest Energy during 2016. White Industrial Seismology, Model: MS II-2G, Serial # 3762 & White Industrial Seismology, Model: MS II-2G, Serial # 3763 were used and the calibration certificates have been included with this Annual Report.

Reviewer Comments  Did Not Meet Requirements  Met Requirements

Both seismograph units used by Southwest energy were calibrated and the results were within the International Society of Explosives Engineers Performance Specifications. The attached certificates from Industrial Seismology Inc satisfy this commitment. JE

**Title: CULTURAL RESOURCE DATA RECOVERY TREATMENT PLAN PLAN**

**Objective:** To direct data recovery efforts and set reporting standards for archaeological sites located within the NPLA

**Frequency:** Sites must be treated and reports submitted for review and approval PRIOR to commencement of mining activities in designated areas of NPLA

**Status:** Ongoing

**Reports:** Documentation of all tested and excavated components and associated features; synthesis of analytical data; technical report summarizing findings and results of analysis; public presentation of technical report; updates to site recordation forms; database for curation collection; updated maps and figures

**Citation:** Volume 9 Appendix 4, Archaeological Monitoring & Historic Properties Treatment Plan for the Alton Coal North Private Lease Area, Kane County, Utah

Operator Comments

Report number 16-12 - Testing Results contains the "Archaeological Testing & Historic Road Reconnaissance in the Alton Coal North Private Lease Area, Kane County, Utah". This cultural resource data recover treatment plan contains the documentation for resources at the NPLA.

Reviewer Comments  Did Not Meet Requirements  Met Requirements

This commitment is partially filled. The testing and technical report has been provided. The Permittee must conduct archaeological monitoring at the two eligible sites during excavation of the top soil. The Permittee must provide a public presentation on the mitigation results.

# 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:** REVIEW AND EVALUATE THE FACILITIES SPILL PLAN (APPENDIX 7-5)

**Objective:** To ensure the accuracy of the Facilities Spill Plan and to determine if additional or more effective spill prevention and control technology that is applicable to the facility must be added.

**Frequency:** At least once every five years.

**Status:** Last review 2015, next review due 2019.

**Reports:** Completed Plan Review form submitted for incorporation into Appendix B of Appendix 7-5.

**Citation:** MRP, Volume 7, Chapter 7, Appendix 7-5, Section 2.2 PLAN REVIEW, page 2.

**OPERATOR COMMENTS (OPTIONAL)**

**REVIEWER COMMENTS**

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## 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

7/26/2017, PB. The FY16 OSM Evaluation Topic (vegetation reference areas) review team requested an evaluation of reference areas representative of the disturbed plant communities per R645-301-356.110 Appendix A Vegetation Guidelines. Plant communities are described in MRP Section 321.100. Reference areas are described in appendix 3-2 and 3-4. Reference area gps locations are given on Dwg 3-1.

Zac Orton of the NRCS completed range surveys of the reference areas, including productivity estimates based on clipping. These Range Evaluations were included in the 2016 Annual Report. This NRCS report should now be incorporated into the MRP as information supplemental to Appendix 3-2 and 3-4.

# 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 Mine/ Reclamation Area Map		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map	MSHA CHM_SurfaceMineMap	<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 Division maintains a requirement that the Permittee provide maps that show at least five years of projected mining. This annual report provides a map that shows the locations of roads, culverts and other surface facilities, but is lacking a map that includes five year mining projections. JE