2019 ANNUAL REPORT

C/025/0005
2019 Annual Report
Received 4/1/20
Task #6124

Submit the completed document and any additional information identified to the Division by March 31, 2020.

GENERAL INFORMATION

Company Name	Alton Coal Development, LLC	Mine Name	Coal Hollow Mine
Permit Number	C/025/0005	Permit Expiration Date	2020-11-08
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

		DOGM File Location or Annual Report Location
Excess Spoil Piles	☒ Required ☐ Not Required	
Refuse Piles	☐ Required ☒ Not Required	
Impoundments	☒ Required ☐ Not Required	
Other:		

OPERATOR COMMENTS

Inspection of sediment ponds 1, 1B, 2, 4, 5 and 6 was completed on March 28, June 18, Sept. 17, and Nov. 12, 2019 with the Annual Recertification completed during the June 18th inspection. Certified inspection of the SPL & NPL Northwest Temporary excess spoil pile was completed on Mar. 28, Jun. 18, Sept. 17 and Nov. 12, 2019. 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: Chapter 2, Section 231.300 (topsoil sampling), Section 232.500 (subsoil sampling), and Appendix 2-1, page 4-2

OPERATOR COMMENTS

Topsoil	cyds	Subsoil	cyds		
SPL Stk#1	25,289	SPL Stk#1	73,070		
SPL Stk#2	98,522	SPL Stk#2	47,690		
		Livehauled	19,430		
NPL Stk	85,850	NPL Stk	110,121		
DRH-A	19,315	DRH-B	71,452	DRH-C	5,885
GDH-A	16,401	GDH-B	33,056	GDH-C	Not Built
OGP-A	7,000	OGP-B	22,801	OGP-C	Not Built

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: Appendix 3-8, page 14 & 15

OPERATOR COMMENTS

ACD, through a contract with Wildlife Services effective from April 21, 2019 through April 20, 2020, continued it's predator control program in 2019, Wildlife Services annual summary of work is included in the report titled "Greater Sage-grouse Population Monitoring and Habitat Improvement, Alton-Sink Valley, Utah, November 28, 2019." A copy of the agreement with Wildlife Services has been included with the Annual Report.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: Chapter 3, pages 3-29

OPERATOR COMMENTS

Wildlife Awareness training was held on January 26, 2019 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

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 2018 mitigation and disturbance to ensure mitigation is implemented prior to disturbance.
Citation: Appendix 3-8, pages 11 & 12

OPERATOR COMMENTS

2018's project brought ACD's mitigation efforts to a total of 2,700 acres as required in the current MRP. No additional sage-grouse mitigation was done in 2019.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

Title: RECLAMATION TIMETABLE

Objective: To ensure timely reclamation
Frequency: Map detailing reclamation actives for the year. (Drawing 5-38 and 5-76)
Status: Annually updated.
Reports: Annual summary of work completed to date.
Citation: Chapter 5, page 5-83 and Chapter 3, page 33

OPERATOR COMMENTS

No new reclamation activities were completed in 2019. Drawings 5-38, 5-76A and 5-76B have been updated and are provided with this annual report with C1C2 for inclusion to the MRP.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: Chapter 2, Section 231.300 and 243

OPERATOR COMMENTS

There were no final graded surfaces topsoiled in 2019 that required sampling.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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 #4

OPERATOR COMMENTS

An evaluation of mine discharges for impacts to the Kanab Creek AVF have been included with this submission as report "Stipulation 5 statement for 2019"

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: Chapter 3, Appendix 3-8, page 11

OPERATOR COMMENTS

Data from the monitoring activities is included in the report titled "Greater Sage-grouse Population Monitoring and Habitat Improvement, Alton-Sink Valley, Utah, November 28, 2019." Since last year, birds with transmitters had either died or lost their backpack, resulting in no data for the 2019 year. During the fall, crews led by Dr. Frey attempted to trap sage-grouse to resume high accuracy monitoring, however, no additional birds were trapped.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

Title: SUBSIDENCE MONITORING

Objective: Company will conduct surface observation walkovers of each of the panels within 60days of the completion of mining. Two additional observation walkovers will be made at approximately one year intervals following the initial walkover. The Division will be notified of the results as either no effects or repairs needed.
Frequency: Quarterly inspections
Status: Started underground 4th quarter 2015
Reports: 60 days after completion of panel and two annually
Citation: Chapter 5 page 5-45

OPERATOR COMMENTS

Underground mining was suspended on June 1, 2016. Mining completed, consist of a distance of approximately 1,200' in the entry, no mining was completed within the permitted panels.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

Title: NOISE MONITORING TO SAGE GROUSE

Objective: Observe if noise changes bird behavior
Frequency: One sound station at each cardinal direction at 100, 500m, and 1000m from North Lease Mine Site.
Status: Ongoing
Reports: Provide observations and data in the annual conservation and management plan.
Citation: Appendix 3-8, page 11

OPERATOR COMMENTS

No further Noise Monitoring was completed in 2019.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

Title: BLASTING CERTIFICATION

Objective: Submit annual seismograph calibration certification
Frequency: Annually
Status: Ongoing
Reports: Seismograph annual calibration certificate
Citation: Chapter 5, page 5-44

OPERATOR COMMENTS

Calibration Certificate 3763 has been included with the annual report.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: Once. Sites must monitored during surface disturbance of the topsoil in the location of the two eligible sites. Public presentation on the mitigation project must be given.
Status: Tier I testing and data recovery occurred in 2016. On-site monitor must be present when disturbing eligible sites. Public presentation on data analysis must be given.
Reports: Documentation of on-site monitor and public presentation of technical report.
Citation: Appendix 4, Archaeological Monitoring & Historic Properties Treatment Plan for the Alton Coal North Private Lease Area, Kane County, Utah

OPERATOR COMMENTS

Sites 42Ka6080 and 42Ka3077 were present within the North Private Lease mining disturbance. The monitoring & historic treatment plan has been executed for both sites. Monitoring during topsoil removal for 42Ka6080 has been completed and the final monitoring report for these efforts are included in the letter date May 2, 2017 titled "Archaeological Monitoring within the Coal Hollow Mine, North Private Lease Area, Kane County, Utah (February-March2017). Site 42Ka3077 was to be disturbed with mining in Area 3 of the NPL. Area 3 disturbance was removed from the MRP in 2019 and there is no further plans of disturbance of Site 42Ka3077.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: Chapter 7, Appendix 7-5, Section 2.2 Plan Review, page 2

OPERATOR COMMENTS

The Facility Spill Plan has been reviewed and is included with some minor modifications to the responsible person. It has been included with the annual report.

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

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: 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: Chapter 3, Appendix 3-8

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 ☐ Met Requirements ☐ Did Not Meet Requirements

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	5-38, 5-76A and 5-76B	☒	☐	☐	☒
Mine Map	CHM SurfaceMineMap, NPL Su	☒	☐	☐	☒
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

REVIEWER COMMENTS ☐ Met Requirements ☐ Did Not Meet Requirements

Alton Coal Development, LLC

Coal Hollow Mine
1st Quarter

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

UTAH DNR OIL, GAS & MINING

Quarterly Inspection Form - Refuse Disposal Areas

(please provide to DOGM promptly after inspection is complete)

Permit Number :	C/025/0005	Inspection Date :	03/28/2019
Mine Name :	Coal Hollow Project	Quarter / Year :	1st / 2019
Mine Operator (Permittee) :	Alton Coal Development	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
Most of Main Pile has been removed. Remaining material will be removed during final borrow operation. Pile is regraded, subsoiled and seeded.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6918 , ____ , ____

3. Vertical Angle of Outslope(s) / Location(s) where measured 3H:1V Avg. /No. Slope / So. Slope / ____

4. Total storage capacity: 8,600,000 cy Remaining storage capacity 8,211,000 cy Volume placed during year : 0

5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck / Pushed by dozer / Compaction primarily from large trucks / Tested with nuclear density unit.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted. Most of pile has been removed.

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 ☐	NO ☑
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑
Do slope erosion problems exist ?	YES ☐	NO ☑
Cracks or scarps in slope ?	YES ☐	NO ☑
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑
Erosion of Toe ?	YES ☐	NO ☑
Water impounded by structure ?	YES ☐	NO ☑
Are diversion ditches stable?	YES ☑	NO ☐
Is drainage positive ?	YES ☑	NO ☐

Could failure of structure create an impoundment (provide description) ? No

(place P.E. certification below)

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

Proctor Determination : 88% minimum - 98% maximum compaction as determined by nuclear density tests on 5/13/13.

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.

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
3/28/19
STATE OF UTAH

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
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UTAH DNR OIL, GAS & MINING

Quarterly Inspection Form - Refuse Disposal Areas

(please provide to DOGM promptly after inspection is complete)

Permit Number :	C/025/0005	Inspection Date :	03/28/2019
Mine Name :	Northwest Temporary Spoil Pile	Quarter / Year :	1st / 2019
Mine Operator (Permittee) :	Coal Hollow Project - Alton Coal	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
Initial inspection for this temporary pile.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6920 , ____ , ____
3. Vertical Angle of Outslope(s) / Location(s) where measured N/A / Not Graded / ____ / ____
4. Total storage capacity: 215,000 cy Remaining storage capacity 152,500 cy Volume placed during year : 50,000 cy
5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Vegetation removed. Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck. Will be graded and pushed by dozer. Compaction will be primarily from large trucks.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted.

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 ☐	NO ☑	
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑	
Do slope erosion problems exist ?	YES ☐	NO ☑	
Cracks or scarps in slope ?	YES ☐	NO ☑	
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑	
Erosion of Toe ?	YES ☐	NO ☑	
Water impounded by structure ?	YES ☑	NO ☐	Pockets of water from snowmelt.
Are diversion ditches stable?	YES ☑	NO ☐	
Is drainage positive ?	YES ☑	NO ☐	

Could failure of structure create an impoundment (provide description) ? No

Are design standards established within the mining and reclamation plan for the disposal facility being met ?
Yes. Pile grading not yet completed due to snow and snowmelt conditions.

Proctor Determination :

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.

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
3/28/19
STATE OF UTAH

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**3/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1	
	Impoundment Number	Pond 1	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**28-Mar-19**
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.	2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.** Sediment Storage Capacity: 60 % Elevation: 6912 (1.26') 100% Elevation: 6913 (2.03') The pond contained approximately 8.0' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout level. The pond bottom and sediment level is approximately at elevation 6911.3.
	3. **Principle and emergency spillway elevations.** Principle and Emergency Spillway Elevation: **6920 feet (The outlet structure for Pond 1 serves as both the Principle and Emergency Spillways)** Total volume of pond at Spillway: **3.16 Acre-Feet (Elev. 6920.00')** Required runoff storage: **2.57 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslooes of embankments, etc.

The water level is approximately at elevation 6919. Embankments appear to be stable. There is a small sediment delta visible at the pond inlet. Inlet ditch is open and functioning properly. Outlet and oil skimmer are also okay. There was no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The main change noted in the structure during the 1st quarter of 2019 was that the pond contained more water from recent storms and snow melt.

9

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**Report Date 03/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1B	
	Impoundment Number	Pond 1B	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**28-Mar-19**
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6900.00 (6.00')

100% Elevation: 6902.08 (8.08')

The pond contained approximately 6.5' of water at the time of the inspection. The sediment marker is in place. The sediment elevation is approximately 6897.0.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6906.45 feet (The outlet structure for Pond 1B serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 0.894 Acre-Feet (Elev. 6906.45)

Required runoff storage: 0.50 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The water level is approximately at elevation 6903.5. There are 2 inlets to the pond - both have been previously rip-rapped and are operating properly; however, there is a considerable sediment build up below each of the inlets. These will be cleaned when conditions permit. The outlet is also open and functional. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection include a slight increase in the water level, and a larger increase in the sediment level. The pond appears to be stable and operating properly. There was no discharge at the time of the inspection.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT		
Permit Number	C/025/0005	**3/28/2019**
Mine Name	Coal Hollow Mine	
Company Name	Alton Coal Development, LLC	
Impoundment Identification	**Impoundment Name**	Pond 2
	Impoundment Number	Pond 2
	MSHA Mine ID Number	42-02519

IMPOUNDMENT INSPECTION	
Inspection Date	**28-Mar-19**
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: **6892.1 (3.10')**

100% Elevation: **6893.5 (4.50')**

The pond contained approximately 10.0' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The approximate sediment elevation is 6889.8.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: **6900 feet (The outlet structure for Pond 2 serves as both the Principle and Emergency Spillways)**

Total volume of pond at Spillway: **2.675 Acre-Feet (Elev. 6901.09')**

Required runoff storage: **1.71 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The water level is right at the spillway at elevation 6900. The single pond inlet is rip-rapped and operating properly. A weld on the oil skimmer at the outlet has broken, allowing the skimmer to tip. This is scheduled for repair. The outlet is open and otherwise okay. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only noted changes to the pond noted since the last inspection are an increase in the water level, a slight increase in the sediment level and the broken weld on the oil skimmer. The pond appears to be stable and operating properly.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**3/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 3	
	Impoundment Number	Pond 3	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**28-Mar-19**	
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6805.0 (4.0')

100% Elevation: 6807.0 (6.0')

The pond contained an average of approximately 5.0' of water at the time of the inspection. The sediment marker is in place. The estimated sediment elevation is 6805.0.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6811 feet (The outlet structure for Pond 3 serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 12.60 Acre-Feet (Elev. 6811.00')

Required runoff storage: 6.30 Acre-Feet

Decant Elevation: 6808.0

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6810.0. The inlet, spillway and decant are all open and operational. Some erosion was noted above the east inlet. There was no inflow and the pond was being decanted at the time of the inspection. Samples have been taken as required.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only noted change since the last inspection was an increase in the water level. The pond and the dam appear to be stable and are operating properly.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**Report Date 03/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 4	
	Impoundment Number	Pond 4	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**28-Mar-19**	
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6829.0 (7.0')

100% Elevation: 6830.0 (8.0')

The pond contained approximately 6.0' of water. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The bottom of pond and approximate sediment elevation is 6827.5.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6834 feet (The outlet structure for Pond 4 serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 5.50 Acre-Feet (Elev. 6834.00')

Required runoff storage: 3.80 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water elevation is approximately 6833.5. The open-channel spillway is in place and rip-rapped. The inlet is open and operating properly. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted since the last inspection is an increase in the water level. The pond appears to be stable and operating properly. There was no inflow and no discharge at the time of the inspection.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**03/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 5	
	Impoundment Number	Pond 5	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**28-Mar-19**	
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.	2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.** Sediment Storage Capacity: 60 % Elevation: 6843.0 (3.00') 100% Elevation: 6844.0 (4.00') The pond had approximately 5.0' of water at the time of inspection . The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated to be 6841.5.
	3. **Principle and emergency spillway elevations.** Principle Spillway Elevation: 6848 feet Emergency Spillway Elevation: 6849 feet Total volume of pond at Spillway: 1.43 Acre-Feet (Elev. 6848.00') Required runoff storage: 1.28 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6846.5. The inlets are open and appear to be operating properly. The inverted elbow at the principle spillway has become disconnected from the outlet pipe. This is scheduled for repair. The outlet pipe and spillway are both open. No inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only changes were noted to the pond since the last inspection include an increase in the water level and sediment elevation, and the disconnected elbow on the spillway pipe. The pond and embankment appear to be stable.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**3/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 6	
	Impoundment Number	Pond 6	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**28-Mar-19**	
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6860.0 (5.00')

100% Elevation: 6861.0 (6.00')

The pond contained approximately 9.0' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated at 6855.5.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6866 feet

Emergency Spillway Elevation: 6867 feet

Total volume of pond at Spillway: 3.36 Acre-Feet (Elev. 6866.00')

Required runoff storage: 1.43 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6864.5. The inlets and outlet are open and functional. There was some erosion noted on the north east corner of the pond. This is scheduled to be repaired. No inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only changes noted since the last inspection is that there is an increase in the amount of water in the pond, and the noted erosion on the north east corner scheduled for repair. The pond and embankment appear to be stable and operating properly.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 3/28/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**3/28/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 7	
	Impoundment Number	Pond 7	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**28-Mar-19**	
Inspected By	Dan Guy / Joe Kumpe / Brian Heaton	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.79 (4.79')

100% Elevation: 6844.91 (5.91')

There was approximately 8' of water in the pond at the time of inspection. The sediment marker was not visible due to the depth of the water; however, field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation were estimated to be 6840.0.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848.00

Emergency Spillway Elevation: 6849.00

Total volume of pond at principle spillway: 12.97 Acre-Feet (Elev. 6848.00)

Required runoff storage: 7.11 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water elevation is at the principle spillway level at 6848.0. Inlet structures appear to be open and functioning properly. The oil skimmer has again become disconnected from the principle spillway, and the scheduled repairs include replacement of the principle spillway and skimmer with cmp. The spillways are still operational.There was an approximately 150 gpm inflow and the pond was discharging at the time of the inspection. Samples have been taken as required.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection are an increase in the water and sediment levels and the issue with the oil skimmer as noted above. The pond appears stable and repairs are scheduled as soon as conditions allow.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 3/28/19

Alton Coal Development, LLC

Coal Hollow Mine
2nd Quarter

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

UTAH DNR OIL, GAS & MINING

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

Permit Number :	C/025/0005	Inspection Date :	06/18/2019
Mine Name :	Northwest Temporary Spoil Pile	Quarter / Year :	2nd / 2019
Mine Operator (Permittee) :	Coal Hollow Project - Alton Coal	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
No changes noted since last inspection.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6920 , ____ , ____
3. Vertical Angle of Outslope(s) / Location(s) where measured N/A Not Graded / ____ / ____
4. Total storage capacity: 215,000 cy Remaining storage capacity 152,500 cy Volume placed during year : 50,000 cy
5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Vegetation removed. Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck. Will be graded and pushed by dozer. Compaction will be primarily from large trucks.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted.

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 ☐	NO ☑	
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑	
Do slope erosion problems exist ?	YES ☐	NO ☑	
Cracks or scarps in slope ?	YES ☐	NO ☑	
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑	
Erosion of Toe ?	YES ☐	NO ☑	
Water impounded by structure ?	YES ☑	NO ☐	Very minor. Small pockets of water from snowmelt and recent rain.
Are diversion ditches stable?	YES ☑	NO ☐	
Is drainage positive ?	YES ☑	NO ☐	

Could failure of structure create an impoundment (provide description) ? No

Are design standards established within the mining and reclamation plan for the disposal facility being met ?
Yes. Pile grading not yet completed due to wet ground conditions.

Proctor Determination : ____

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

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.

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

UTAH DNR OIL, GAS & MINING

Quarterly Inspection Form - Refuse Disposal Areas

(please provide to DOGM promptly after inspection is complete)

Permit Number :	C/025/0005	Inspection Date :	06/18/2019
Mine Name :	Coal Hollow Project	Quarter / Year :	2nd / 2019
Mine Operator (Permittee) :	Alton Coal Development	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
Most of Main Pile has been removed. Remaining material will be removed during final borrow operation. Pile is regraded, subsoiled and seeded.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6918 , ____ , ____

3. Vertical Angle of Outslope(s) / Location(s) where measured 3H:1V Avg. /No. Slope / So. Slope / ____

4. Total storage capacity: 8,600,000 cy Remaining storage capacity 8,211,000 cy Volume placed during year : 0

5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck / Pushed by dozer / Compaction primarily from large trucks / Tested with nuclear density unit.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted. Most of pile has been removed.

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 ☐	NO ☑	
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑	
Do slope erosion problems exist ?	YES ☐	NO ☑	
Cracks or scarps in slope ?	YES ☐	NO ☑	
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑	
Erosion of Toe ?	YES ☐	NO ☑	
Water impounded by structure ?	YES ☐	NO ☑	
Are diversion ditches stable?	YES ☑	NO ☐	
Is drainage positive ?	YES ☑	NO ☐	

Could failure of structure create an impoundment (provide description) ? No

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

Proctor Determination : 88% minimum - 98% maximum compaction as determined by nuclear density tests on 5/13/13.

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.

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**6/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1	
	Impoundment Number	Pond 1	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**18-Jun-19**
Inspected By	Dan Guy / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6912 (1.26')

100% Elevation: 6913 (2.03')

The pond contained approximately 7.0' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout level. The pond bottom and sediment level is approximately at elevation 6911.5.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: **6920 feet (The outlet structure for Pond 1 serves as both the Principle and Emergency Spillways)**

Total volume of pond at Spillway: **3.16 Acre-Feet (Elev. 6920.00')**

Required runoff storage: **2.57 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslooes of embankments, etc.

The water level is approximately at elevation 6918.5. Embankments appear to be stable. There is a small sediment delta visible at the pond inlet. Inlet ditch is open and functioning properly. Outlet and oil skimmer are also okay. There was no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted in the structure during the 2nd quarter inspection of 2019 was that the pond contained less water. The pond appears to be stable and operating properly.

9

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**Report Date 06/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1B	
	Impoundment Number	Pond 1B	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**18-Jun-19**
Inspected By	Dan Guy / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6900.00 (6.00')

100% Elevation: 6902.08 (8.08')

The pond contained approximately 5.5' of water at the time of the inspection. The sediment marker is in place. The sediment elevation is approximately 6897.0.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6906.45 feet (The outlet structure for Pond 1B serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 0.894 Acre-Feet (Elev. 6906.45)

Required runoff storage: 0.50 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The water level is approximately at elevation 6902.5. There are 2 inlets to the pond - both have been previously rip-rapped and are operating properly; however, there is some sediment build up below each of the inlets. These will be cleaned when conditions permit. The outlet is also open and functional. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The main change noted since the last inspection is a decrease in the water level. The sediment level appears to be unchanged. The pond appears to be stable and operating properly. There was no discharge at the time of the inspection.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**6/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 2	
	Impoundment Number	Pond 2	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**18-Jun-19**
Inspected By	Dan Guy / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: **6892.1 (3.10')**

100% Elevation: **6893.5 (4.50')**

The pond contained approximately 8.0' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The approximate sediment elevation is 6890.0.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: **6900 feet (The outlet structure for Pond 2 serves as both the Principle and Emergency Spillways)**

Total volume of pond at Spillway: **2.675 Acre-Feet (Elev. 6901.09')**

Required runoff storage: **1.71 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The water level is approximately at elevation 6898. The single pond inlet is rip-rapped and operating properly. A weld on the oil skimmer at the outlet has broken, allowing the skimmer to tip slightly. This is scheduled for repair. The outlet is open and otherwise okay. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only noted changes to the pond noted since the last inspection are a decrease in the water level, and a slight increase in the sediment level. The broken weld on the oil skimmer was previously noted, and is considered a minor maintenance issue. The pond appears to be stable and operating properly.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**6/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 3	
	Impoundment Number	Pond 3	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**18-Jun-19**
Inspected By	Dan Guy / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6805.0 (4.0')

100% Elevation: 6807.0 (6.0')

The pond has been pumped down and was nearly dry at the time of the inspection. The sediment marker is in place. The estimated sediment elevation is 6805.0. The pond is in the process of being cleaned.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6811 feet (The outlet structure for Pond 3 serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 12.60 Acre-Feet (Elev. 6811.00')

Required runoff storage: 6.30 Acre-Feet

Decant Elevation: 6808.0

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The pond is mostly dry and is being cleaned. The inlet, spillway and decant are all open and operational. Previous erosion noted above the east inlet will be repaired along with the cleaning process. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection include the removal of the water and the start of the sediment cleaning. The pond and the dam appear to be stable and are operating properly. The pond will be resurveyed and recertified upon completion of the cleaning.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**Report Date 06/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 4	
	Impoundment Number	Pond 4	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**18-Jun-19**	
Inspected By	Dan Guy / Kirk Nicholes	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6829.0 (7.0')

100% Elevation: 6830.0 (8.0')

The pond contained approximately 2.0' of water. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The bottom of pond and approximate sediment elevation is 6827.5.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6834 feet (The outlet structure for Pond 4 serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 5.50 Acre-Feet (Elev. 6834.00')

Required runoff storage: 3.80 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water elevation is approximately 6829.5. The open-channel spillway is in place and rip-rapped. The inlet is open and operating properly. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted since the last inspection is the decrease in the water level. The pond appears to be stable and operating properly. There was no inflow and no discharge at the time of the inspection.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**06/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 5	
	Impoundment Number	Pond 5	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**18-Jun-19**
Inspected By	Dan Guy / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an Impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.0 (3.00')

100% Elevation: 6844.0 (4.00')

The pond had approximately 3.5' of water at the time of inspection . The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated to be 6841.7.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848 feet

Emergency Spillway Elevation: 6849 feet

Total volume of pond at Spillway: 1.43 Acre-Feet (Elev. 6848.00')

Required runoff storage: 1.28 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6845.2. The inlets are open and appear to be operating properly. The inverted elbow at the outlet pipe has been repaired. The outlet and spillway are both open. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted to the pond since the last inspection include a decrease in the water level, a slight increase in the sediment elevation and the disconnected elbow on the spillway pipe has been repaired. The pond and embankment appear to be stable and operating properly.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**6/18/2019**
Mine Name	Coal Hollow Mine	
Company Name	Alton Coal Development, LLC	
Impoundment Identification	**Impoundment Name**	Pond 6
	Impoundment Number	Pond 6
	MSHA Mine ID Number	42-02519

IMPOUNDMENT INSPECTION

Inspection Date	**18-Jun-19**
Inspected By	Dan Guy / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6860.0 (5.00')

100% Elevation: 6861.0 (6.00')

The pond contained approximately 0.5' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated at 6855.7.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6866 feet

Emergency Spillway Elevation: 6867 feet

Total volume of pond at Spillway: 3.36 Acre-Feet (Elev. 6866.00')

Required runoff storage: 1.43 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6856.2. The riser overflow on the principle spillway is off, and is scheduled for repair. The outlet pipe is open. The inlets and spillway are also open and functional. The erosion previously noted on the north east corner of the pond has been repaired. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection include a decrease in the amount of water in the pond, a slight increase in the sediment level, the previously noted erosion on the north east corner has been repaired and the riser overflow needs to be replaced on the principle spillway. The pond and embankment appear to be stable and operating properly.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**6/18/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 7	
	Impoundment Number	Pond 7	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**18-Jun-19**	
Inspected By	Dan Guy / Kirk Nicholes	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Annual Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.79 (4.79')

100% Elevation: 6844.91 (5.91')

There was approximately 5' of water in the pond at the time of inspection. The sediment marker was not visible; however, field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation were estimated to be 6840.2.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848.00

Emergency Spillway Elevation: 6849.00

Total volume of pond at principle spillway: 12.97 Acre-Feet (Elev. 6848.00)

Required runoff storage: 7.11 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6845.0. Inlet structures appear to be open and functioning properly. The oil skimmer is disconnected from the principle spillway, and the scheduled repairs include replacement of the principle spillway and skimmer with cmp. The spillways are still operational. Water was being pumped into the pond from the pit, and the pond water was being pumped into the water truck at the time of the inspection. No discharge.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection are a decrease in the water level, a slight increase in the sediment level and the issue with the oil skimmer as noted above. It also appears that the sediment marker may be down. The pond appears stable and operational, and repairs are scheduled as soon as conditions allow.

Certification Statement

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
6/18/19
STATE OF UTAH

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 6/18/19

Alton Coal Development, LLC

Coal Hollow Mine
3rd Quarter

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**9/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1	
	Impoundment Number	Pond 1	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**17-Sep-19**
Inspected By	Dan Guy / Clint Butterfield
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.	
	2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.** Sediment Storage Capacity: 60 % Elevation: 6912 (1.26') 100% Elevation: 6913 (2.03') The pond contained approximately 3.5' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout level. The pond bottom and sediment level is approximately at elevation 6911.5.
	3. **Principle and emergency spillway elevations.** Principle and Emergency Spillway Elevation: **6920 feet (The outlet structure for Pond 1 serves as both the Principle and Emergency Spillways)** Total volume of pond at Spillway: **3.16 Acre-Feet (Elev. 6920.00')** Required runoff storage: **2.57 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslooes of embankments, etc.

The water level is approximately at elevation 6915.0. Embankments appear to be stable. There is a small sediment delta visible at the pond inlet. Inlet ditch is open and functioning properly. Outlet and oil skimmer are also okay. There was no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted in the structure during the 3rd quarter inspection of 2019 was that the pond contained less water. The pond appears to be stable and operating properly.

9

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**Report Date 09/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1B	
	Impoundment Number	Pond 1B	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**17-Sep-19**	
Inspected By	Dan Guy / Clint Butterfield	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6900.00 (6.00')

100% Elevation: 6902.08 (8.08')

The pond was dry at the time of the inspection. The sediment marker is in place. The sediment elevation is approximately 6900.5. The pond is scheduled for cleaning.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6906.45 feet (The outlet structure for Pond 1B serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 0.894 Acre-Feet (Elev. 6906.45)

Required runoff storage: 0.50 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond is dry and the sediment level is slightly above the 60% cleaning point. There are 2 inlets to the pond - both have been previously rip-rapped and are operational; however, there is sediment build up below each of the inlets. These will be cleaned along with the rest of the pond as scheduled. The outlet is also open and functional. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The main change noted since the last inspection is that the pond is dry. The sediment level is slightly above the cleaning point, and the pond is scheduled to be cleaned. The pond appears to be stable and operational. There was no discharge at the time of the inspection.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT		
Permit Number	C/025/0005	**9/17/2019**
Mine Name	Coal Hollow Mine	
Company Name	Alton Coal Development, LLC	
Impoundment Identification	**Impoundment Name**	Pond 2
	Impoundment Number	Pond 2
	MSHA Mine ID Number	42-02519

IMPOUNDMENT INSPECTION	
Inspection Date	**17-Sep-19**
Inspected By	Dan Guy / Clark Atwood
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: **6892.1 (3.10')**

100% Elevation: **6893.5 (4.50')**

The pond was dry at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The approximate sediment elevation is 6890.0.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: **6900 feet (The outlet structure for Pond 2 serves as both the Principle and Emergency Spillways)**

Total volume of pond at Spillway: **2.675 Acre-Feet (Elev. 6901.09')**

Required runoff storage: **1.71 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond is dry. The single pond inlet is rip-rapped and operating properly. The single pipe outlet and oil skimmer are open and operational. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only noted change to the pond noted since the last inspection is that the pond is now dry. The sediment level appears to be unchanged. The pond appears to be stable and operating properly.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**9/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 3	
	Impoundment Number	Pond 3	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**17-Sep-19**
Inspected By	Dan Guy / Clark Atwood
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6803.4 (7.4')

100% Elevation: 6804.9 (8.9')

The pond has been cleaned and enlarged per the approved plans. The sediment marker is in place. The surveyed pond bottom and sediment elevation is 6796.0. There was only a small puddle of water in the pond at the time of the inspection.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6812 feet (The outlet structure for Pond 3 serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 18.03 Acre-Feet (Elev. 6812.00')

Required runoff storage: 14.89 Acre-Feet

Decant Elevation: 6808.0

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The pond has been cleaned and enlarged. There was only a small puddle of water in the bottom of the pond. The inlet, spillway and decant are all open and operational. Previous erosion noted above the east inlet has been repaired along with the cleaning process. The sediment marker is in place. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection include the completion of the cleaning and enlargement of the pond. The pond and the dam appear to be stable and are operating properly. The pond has been resurveyed and was certified on 9/16/19.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**Report Date 09/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 4	
	Impoundment Number	Pond 4	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**17-Sep-19**	
Inspected By	Dan Guy / Clark Atwood	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.	2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.** Sediment Storage Capacity: 60 % Elevation: 6829.0 (7.0') 100% Elevation: 6830.0 (8.0') The pond contained approximately 1.0' of water in the upper section only. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The bottom of pond and approximate sediment elevation is 6827.5.
	3. **Principle and emergency spillway elevations.** Principle and Emergency Spillway Elevation: 6834 feet (The outlet structure for Pond 4 serves as both the Principle and Emergency Spillways) Total volume of pond at Spillway: 5.50 Acre-Feet (Elev. 6834.00') Required runoff storage: 3.80 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water elevation is approximately 6828.5. The open-channel spillway is in place and rip-rapped. The inlet is open and operating properly. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted since the last inspection is the decrease in the water level. The pond appears to be stable and operating properly. There was no inflow and no discharge at the time of the inspection.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**09/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 5	
	Impoundment Number	Pond 5	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**17-Sep-19**
Inspected By	Dan Guy / Clark Atwood
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.0 (3.00')

100% Elevation: 6844.0 (4.00')

The pond had approximately 1.5' of water at the time of inspection . The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated to be 6841.7.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848 feet

Emergency Spillway Elevation: 6849 feet

Total volume of pond at Spillway: 1.43 Acre-Feet (Elev. 6848.00')

Required runoff storage: 1.28 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6843.2. The inlets are open and appear to be operating properly. The inverted elbow at the outlet pipe has been repaired. The outlet and spillway are both open. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted to the pond since the last inspection is the decrease in the water level. The pond and embankment appear to be stable and operating properly.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**9/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 6	
	Impoundment Number	Pond 6	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**17-Sep-19**
Inspected By	Dan Guy / Clark Atwood
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6860.0 (5.00')

100% Elevation: 6861.0 (6.00')

The pond was dry at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated at 6855.7.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6866 feet

Emergency Spillway Elevation: 6867 feet

Total volume of pond at Spillway: 3.36 Acre-Feet (Elev. 6866.00')

Required runoff storage: 1.43 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The pond is dry. The inlets, outlet and spillway are also open and functional. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted since the last inspection is that the pond is now dry. The pond and embankment appear to be stable and operating properly.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 9/17/19

IMPOUNDMENT INSPECTION AND REPORT

Permit Number	C/025/0005	**9/17/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 7	
	Impoundment Number	Pond 7	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION

Inspection Date	**17-Sep-19**
Inspected By	Dan Guy / Clark Atwood
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.79 (4.79')

100% Elevation: 6844.91 (5.91')

There was approximately 3' of water in the pond at the time of inspection. The sediment marker was not visible; however, field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation were estimated to be 6840.5.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848.00

Emergency Spillway Elevation: 6849.00

Total volume of pond at principle spillway: 12.97 Acre-Feet (Elev. 6848.00)

Required runoff storage: 7.11 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6843.5. Inlet structures appear to be open and functioning properly. The oil skimmer is disconnected from the principle spillway, and the scheduled repairs include replacement of the principle spillway and skimmer with cmp. The spillways are still operational. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The changes noted since the last inspection are a decrease in the water level and a slight increase in the sediment level. The repair of the principle spillway and reseting of the sediment marker will be completed as soon as the water level is sufficiently reduced. The pond appears stable and operational.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 9/17/19

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
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UTAH DNR OIL, GAS & MINING

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

Permit Number :	C/025/0005	Inspection Date :	09/17/2019
Mine Name :	Coal Hollow Project	Quarter / Year :	3rd / 2019
Mine Operator (Permittee) :	Alton Coal Development	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
Most of Main Pile has been removed. Remaining material will be removed during final borrow operation. Pile is regraded, subsoiled and seeded.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6918

3. Vertical Angle of Outslope(s) / Location(s) where measured 3H:1V Avg. /No. Slope / So. Slope /

4. Total storage capacity: 8,600,000 cy Remaining storage capacity 8,211,000 cy Volume placed during year : 0

5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck / Pushed by dozer / Compaction primarily from large trucks / Tested with nuclear density unit.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted, Most of pile has been removed.

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 ☐	NO ☑	
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑	
Do slope erosion problems exist ?	YES ☐	NO ☑	
Cracks or scarps in slope ?	YES ☐	NO ☑	
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑	
Erosion of Toe ?	YES ☐	NO ☑	
Water impounded by structure ?	YES ☐	NO ☑	
Are diversion ditches stable?	YES ☑	NO ☐	
Is drainage positive ?	YES ☑	NO ☐	

Could failure of structure create an impoundment (provide description) ? No

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

Proctor Determination : 88% minimum - 98% maximum compaction as determined by nuclear density tests on 5/13/13.

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.

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
9/17/19
STATE OF UTAH

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
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UTAH DNR OIL, GAS & MINING

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

Permit Number :	C/025/0005	Inspection Date :	09/17/2019
Mine Name :	Northwest Temporary Spoil Pile	Quarter / Year :	3rd / 2019
Mine Operator (Permittee) :	Coal Hollow Project - Alton Coal	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
No changes noted since last inspection.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6920 ____ / ____ / ____
3. Vertical Angle of Outslope(s) / Location(s) where measured N/A Not Graded / ____ / ____
4. Total storage capacity: 215,000 cy Remaining storage capacity 152,500 cy Volume placed during year : 50,000 cy
5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Vegetation removed. Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck. Will be graded and pushed by dozer. Compaction will be primarily from large trucks.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted.

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 ☐ NO ☑	
Is there any detectable sloughing or bulging ?	YES ☐ NO ☑	
Do slope erosion problems exist ?	YES ☐ NO ☑	
Cracks or scarps in slope ?	YES ☐ NO ☑	
Surface movements? (valley bottom, hillsides)	YES ☐ NO ☑	
Erosion of Toe ?	YES ☐ NO ☑	
Water impounded by structure ?	YES ☐ NO ☑	
Are diversion ditches stable?	YES ☑ NO ☐	
Is drainage positive ?	YES ☑ NO ☐	

Could failure of structure create an impoundment (provide description) ? No

Are design standards established within the mining and reclamation plan for the disposal facility being met ?
Yes. Pile grading not yet completed due to wet ground conditions.

Proctor Determination : ____

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
9/17/19
STATE OF UTAH

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.

Alton Coal Development, LLC

Coal Hollow Mine
4th Quarter

State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining
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UTAH DNR OIL, GAS & MINING

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

Permit Number :	C/025/0005	Inspection Date :	11/12/2019
Mine Name :	Northwest Temporary Spoil Pile	Quarter / Year :	4th / 2019
Mine Operator (Permittee) :	Coal Hollow Project - Alton Coal	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
No changes noted since last inspection.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6920 , ____ , ____
3. Vertical Angle of Outslope(s) / Location(s) where measured N/A / Not Graded / ____ / ____
4. Total storage capacity: 215,000 cy Remaining storage capacity 152,500 cy Volume placed during year : 50,000 cy
5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Vegetation removed. Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck. Will be graded and pushed by dozer. Compaction will be primarily from large trucks.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted.

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 ☐	NO ☑
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑
Do slope erosion problems exist ?	YES ☐	NO ☑
Cracks or scarps in slope ?	YES ☐	NO ☑
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑
Erosion of Toe ?	YES ☐	NO ☑
Water impounded by structure ?	YES ☐	NO ☑
Are diversion ditches stable?	YES ☑	NO ☐
Is drainage positive ?	YES ☑	NO ☐

Could failure of structure create an impoundment (provide description) ? No

Are design standards established within the mining and reclamation plan for the disposal facility being met ?
Yes. Pile grading not yet completed. Pile to be pushed into pit in near future.

Proctor Determination : ____

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.

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
11/12/19
STATE OF UTAH

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

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UTAH DNR OIL, GAS & MINING

Quarterly Inspection Form - Refuse Disposal Areas

(please provide to DOGM promptly after inspection is complete)

Permit Number :	C/025/0005	Inspection Date :	11/12/2019
Mine Name :	Coal Hollow Project	Quarter / Year :	4th / 2019
Mine Operator (Permittee) :	Alton Coal Development	Inspector Name :	Dan W. Guy
MSHA ID # :	42-02519	Inspector Signature :	Dan W. Guy

Facility Name / Location / Address : 2060 South Alton Road, Alton, UT 84710

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes):
Most of Main Pile has been removed. Remaining material will be removed during final borrow operation. Pile is regraded, subsoiled and seeded.

2. Lift Height / Thickness Avg 4.0' Maximum 4.0' # ____ Elevation of Active Benches : 6918 , ____ , ____

3. Vertical Angle of Outslope(s) / Location(s) where measured 3H:1V Avg. /No. Slope / So. Slope / ____

4. Total storage capacity: 8,600,000 cy Remaining storage capacity 8,211,000 cy Volume placed during year : 0

5. Describe foundation preparation (including removal of vegetation, stumps, topsoil, and all other organic material) :
Topsoil and subsoil removed and stored on site.

6. Describe placement and compaction of fill materials (including an explanation of how compaction is confirmed) :
Dumped by truck / Pushed by dozer / Compaction primarily from large trucks / Tested with nuclear density unit.

7. Is there any evidence of fires or burning on the structure ? (If YES, specify extent, location, and abatement/extinguishment of such fires) :
None

8. Describe placement of under drains, protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow) :
None

9. Describe any appearances of instability, structural weakness, or other hazardous conditions :
No instability noted. Most of pile has been removed.

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 ☐	NO ☑
Is there any detectable sloughing or bulging ?	YES ☐	NO ☑
Do slope erosion problems exist ?	YES ☐	NO ☑
Cracks or scarps in slope ?	YES ☐	NO ☑
Surface movements? (valley bottom, hillsides)	YES ☐	NO ☑
Erosion of Toe ?	YES ☐	NO ☑
Water impounded by structure ?	YES ☐	NO ☑
Are diversion ditches stable?	YES ☑	NO ☐
Is drainage positive ?	YES ☑	NO ☐

Could failure of structure create an impoundment (provide description) ? No

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

Proctor Determination : 88% minimum - 98% maximum compaction as determined by nuclear density tests on 5/13/13.

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.

(place P.E. certification below)

REGISTERED PROFESSIONAL ENGINEER
No. 154168
DAN W. GUY
11/12/19
STATE OF UTAH

IMPOUNDMENT INSPECTION AND REPORT		
Permit Number	C/025/0005	**11/12/2019**
Mine Name	Coal Hollow Mine	
Company Name	Alton Coal Development, LLC	
Impoundment Identification	**Impoundment Name**	Pond 1
	Impoundment Number	Pond 1
	MSHA Mine ID Number	42-02519

IMPOUNDMENT INSPECTION	
Inspection Date	**12-Nov-19**
Inspected By	Dan Guy / Joe Kumpe / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6912 (1.26')

100% Elevation: 6913 (2.03')

The pond contained approximately 4.5' of water at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout level. The pond bottom and sediment level is approximately at elevation 6910.5.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: **6920 feet (The outlet structure for Pond 1 serves as both the Principle and Emergency Spillways)**

Total volume of pond at Spillway: **3.16 Acre-Feet (Elev. 6920.00')**

Required runoff storage: **2.57 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslooes of embankments, etc.

The water level is approximately at elevation 6915.0. Embankments appear to be stable. There is a sediment delta visible at the pond inlet. Inlet ditch is open and functioning properly. Outlet and oil skimmer are also okay. There was no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted in the structure during the 3rd quarter inspection of 2019 was that the pond contained slightly more water. The pond appears to be stable and operating properly.

9

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**Report Date 11/12/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 1B	
	Impoundment Number	Pond 1B	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**12-Nov-19**	
Inspected By	Dan Guy / Joe Kumpe / Kirk Nicholes	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6900.00 (6.00')

100% Elevation: 6902.08 (8.08')

The pond has been cleaned and contained approximately 1.0' of water at the time of the inspection. The sediment marker is in place. The sediment elevation is approximately 6894.5.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6906.45 feet (The outlet structure for Pond 1B serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 0.894 Acre-Feet (Elev. 6906.45)

Required runoff storage: 0.50 Acre-Feet

4. Field Information. Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond has been cleaned and contained only a small amount of water. There are 2 inlets to the pond - both have been previously rip-rapped and are operational. The outlet is also open and functional. There was no inflow and no discharge at the time of the inspection.

5. Field Evaluation. Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The main change noted since the last inspection is that the pond has been cleaned. The pond appears to be stable and operational. There was no discharge at the time of the inspection.

Certification Statement

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.

By:

Dan W. Guy, P.E.

Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**11/12/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 2	
	Impoundment Number	Pond 2	
	MSHA Mine ID Number	42-02519	
IMPOUNDMENT INSPECTION			
Inspection Date	**12-Nov-19**		
Inspected By	Dan Guy / Joe Kumpe / Kirk Nicholes		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.		

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

N/A - No appearance of any instability, structural weakness or other hazardous condition was noted.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: **6892.1 (3.10')**

100% Elevation: **6893.5 (4.50')**

The pond was dry at the time of the inspection. Ditches have been re-routed to by-pass the pond. The impoundment no longer functions as a sediment pond.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: **6900 feet (The outlet structure for Pond 2 serves as both the Principle and Emergency Spillways)**

Total volume of pond at Spillway: **2.675 Acre-Feet (Elev. 6901.09')**

Required runoff storage: **1.71 Acre-Feet**

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond is dry. The single pond inlet , the single pipe outlet and oil skimmer are still open and operational, although the pond no longer functions as a sediment pond. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

Ditches have been re-routed according to the approved plan, and this pond is no longer functioning as a sediment pond. It is still considered an impoundment, and will be checked per regulation until its removal during the mining process.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**11/12/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 3	
	Impoundment Number	Pond 3	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**12-Nov-19**
Inspected By	Dan Guy / Joe Kumpe / Kirk Nicholes
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None Noted.

Required for an impoundment which functions as a SEDIMENTATION POND.	
	2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.** Sediment Storage Capacity: 60 % Elevation: 6803.4 (7.4') 100% Elevation: 6804.9 (8.9') The pond has been cleaned and enlarged per the approved plans. The sediment marker is in place. The surveyed pond bottom and sediment elevation is 6796.0. There was only a small puddle of water in the pond at the time of the inspection.
	3. **Principle and emergency spillway elevations.** Principle and Emergency Spillway Elevation: 6812 feet (The outlet structure for Pond 3 serves as both the Principle and Emergency Spillways) Total volume of pond at Spillway: 18.03 Acre-Feet (Elev. 6812.00') Required runoff storage: 14.89 Acre-Feet Decant Elevation: 6808.0

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The pond has been cleaned and enlarged. There was only a small puddle of water in the bottom of the pond. The inlet, spillway and decant are all open and operational. Previous erosion noted above the east inlet has been repaired along with the cleaning process. The sediment marker is in place. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

There were no noted changes to the pond since the last inspection. Some additional erosion control has been completed on the refuse area above the pond. The pond and the dam appear to be stable and are operating properly. The pond has been resurveyed and was certified on 9/16/19.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**Report Date 11/12/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 4	
	Impoundment Number	Pond 4	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION		
Inspection Date	**12-Nov-19**	
Inspected By	Dan Guy / Joe Kumpe / Kirk Nicholes	
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)		Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6829.0 (7.0')

100% Elevation: 6830.0 (8.0')

The pond contained less than 1.0' of water in the upper section only. The sediment marker is in place, and field observation shows the sediment level to be well below the cleanout elevation. The bottom of pond and approximate sediment elevation is 6827.5.

3. **Principle and emergency spillway elevations.**

Principle and Emergency Spillway Elevation: 6834 feet (The outlet structure for Pond 4 serves as both the Principle and Emergency Spillways)

Total volume of pond at Spillway: 5.50 Acre-Feet (Elev. 6834.00')

Required runoff storage: 3.80 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water elevation is approximately 6828.0. The open-channel spillway is in place and rip-rapped. The inlet is open and operating properly. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted since the last inspection is the decrease in the water level. The pond appears to be stable and operating properly. There was no inflow and no discharge at the time of the inspection.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT			
Permit Number	C/025/0005	**11/12/2019**	
Mine Name	Coal Hollow Mine		
Company Name	Alton Coal Development, LLC		
Impoundment Identification	**Impoundment Name**	Pond 5	
	Impoundment Number	Pond 5	
	MSHA Mine ID Number	42-02519	

IMPOUNDMENT INSPECTION	
Inspection Date	**12-Nov-19**
Inspected By	Dan Guy / Joe Kumpe
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.0 (3.00')

100% Elevation: 6844.0 (4.00')

The pond had approximately 1.5' of water at the time of inspection . The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated to be 6841.7.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848 feet

Emergency Spillway Elevation: 6849 feet

Total volume of pond at Spillway: 1.43 Acre-Feet (Elev. 6848.00')

Required runoff storage: 1.28 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6843.2. The inlets are open and appear to be operating properly. The outlet and spillway are both open. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

There were no changes noted to the pond since the last inspection. The pond and embankment appear to be stable and operating properly.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT		
Permit Number	C/025/0005	**11/12/2019**
Mine Name	Coal Hollow Mine	
Company Name	Alton Coal Development, LLC	
Impoundment Identification	**Impoundment Name**	Pond 6
	Impoundment Number	Pond 6
	MSHA Mine ID Number	42-02519

IMPOUNDMENT INSPECTION	
Inspection Date	**12-Nov-19**
Inspected By	Dan Guy / Joe Kumpe
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.	
	2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.** Sediment Storage Capacity: 60 % Elevation: 6860.0 (5.00') 100% Elevation: 6861.0 (6.00') The pond was dry at the time of the inspection. The sediment marker is in place, and field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation is estimated at 6855.7.
	3. **Principle and emergency spillway elevations.** Principle Spillway Elevation: 6866 feet Emergency Spillway Elevation: 6867 feet Total volume of pond at Spillway: 3.36 Acre-Feet (Elev. 6866.00') Required runoff storage: 1.43 Acre-Feet

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The pond is dry. The inlets, outlet and spillway are also open and functional. The sediment marker is in place. There was no inflow or discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

There were no changes noted since the last inspection. The pond and embankment appear to be stable and operating properly.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19

IMPOUNDMENT INSPECTION AND REPORT		
Permit Number	C/025/0005	**11/12/2019**
Mine Name	Coal Hollow Mine	
Company Name	Alton Coal Development, LLC	
Impoundment Identification	**Impoundment Name**	Pond 7
	Impoundment Number	Pond 7
	MSHA Mine ID Number	42-02519

IMPOUNDMENT INSPECTION	
Inspection Date	**12-Nov-19**
Inspected By	Dan Guy / Joe Kumpe
Reason for Inspection (Annual, Quarterly or Other Periodic Inspections, Critical Installation, or Completion of Construction)	Quarterly Inspection.

1. **Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

No instability of the embankment or hazardous condition was noted during the inspection.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. **Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Sediment Storage Capacity:

60 % Elevation: 6843.79 (4.79')

100% Elevation: 6844.91 (5.91')

There was approximately 5' of water in the pond at the time of inspection. The sediment marker was not visible; however, field observation shows the sediment level to be below the cleanout elevation. The bottom of pond and sediment elevation were estimated to be 6840.5.

3. **Principle and emergency spillway elevations.**

Principle Spillway Elevation: 6848.00

Emergency Spillway Elevation: 6849.00

Total volume of pond at principle spillway: 12.97 Acre-Feet (Elev. 6848.00)

Required runoff storage: 7.11 Acre-Feet

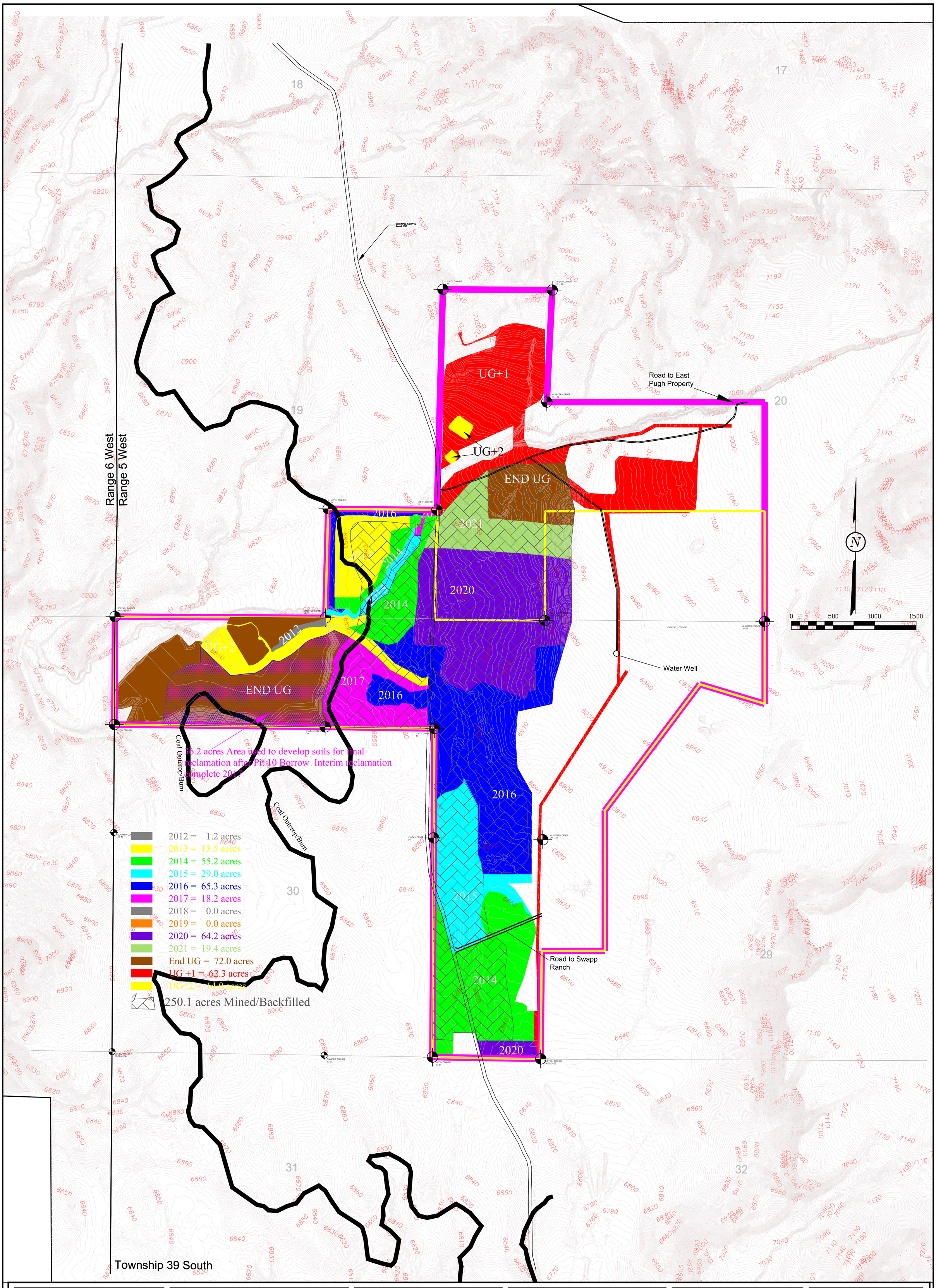
4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions or other related activities associated with the pond decanting, embankment erosion/repairs, monitoring information, vegetation on outlopes of embankments, etc.

The water level is approximately at elevation 6845.5. Inlet structures appear to be open and functioning properly. The oil skimmer is disconnected from the principle spillway, and the scheduled repairs include replacement of the principle spillway and skimmer with cmp. The spillways are still operational. There was no inflow and no discharge at the time of the inspection.

5. **Field Evaluation.** Describe any changes in the geometry of the structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The only change noted since the last inspection is an increase in the water level. The repair of the principle spillway and reseting of the sediment marker will be completed as soon as the water level is sufficiently reduced. The pond appears stable and operational.

Certification Statement	I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed 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.
	By:
	Dan W. Guy, P.E.
	Signature: Dan W. Guy Date: 11/12/19



LEGEND:

- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER
- POSTMINING ROADS

DRAWN BY:	CHECKED BY:
K. NICHOLES	LWJ
DRAWING: 5—38	DATE: 12/18/2014
	SCALE: 1" = 500'
JOB NUMBER: 1400	SHEET

REVISIONS

DATE:	BY:
07/29/16	KN
08/01/16	KN
03/31/17	KN
03/22/18	KN
8/9/18	AC
8/14/19	AC
3/31/20	AC

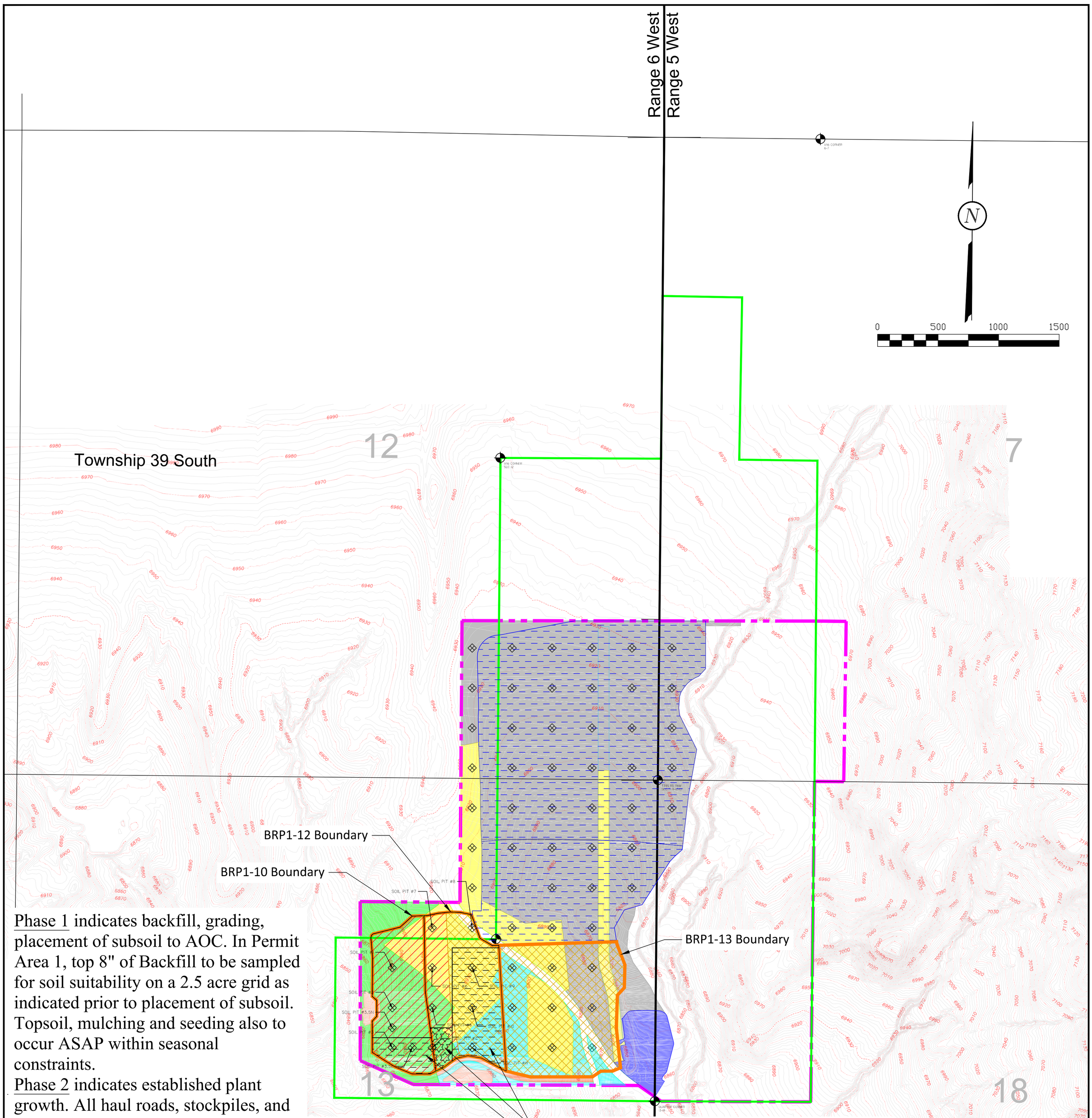
RECLAMATION SEQUENCE

COAL HOLLOW PROJECT
ALTON, UTAH

DRAWING: 5-38

PROFESSIONAL ENGINEER 10230818 ANDREW R. CHRISTENSEN STATE OF UTAH

Alton Coal Development
Coal Hollow Project
463 North 100 West, Suite 1
Cedar City, Utah 84721
Phone (435)867-5331
Fax (435)867-1192



Phase 1 indicates backfill, grading, placement of subsoil to AOC. In Permit Area 1, top 8" of Backfill to be sampled for soil suitability on a 2.5 acre grid as indicated prior to placement of subsoil. Topsoil, mulching and seeding also to occur ASAP within seasonal constraints.

Phase 2 indicates established plant growth. All haul roads, stockpiles, and non-drainage facilities removed.

Phase 3 indicates completed reclamation and acceptable drainage without erosion. All drainage facilities removed*.

* See Drawing 5-76B for Facilities Reclamation Sequence

Dashed hatching indicates area (2.9 acres) of 30" subsoil placement within BRP1-10. Remainder of area received 18" subsoil placement. Placement depths were determined by spoil sampling results as described in MRP Chapter 2.

Dashed hatching indicates area (8.8 acres) of 30" subsoil placement within BRP1-12 due to unsuitability of sampled spoil. Star-hatched area (1.2 acres) received 24" subsoil placement over the top of 6" of spoil sampled as suitable subsoil replacement.
Remainder of BRP 1-12 (6.3 acres) was live-hauled with full depth (30") of subsoil and unsampled. Placement depths were determined by spoil sampling results as described in MRP Chapter 2.

Post Mining Topography
Contour Interval = 2'

Phase 1 Reclamation:

- 2016 Reclaim = 17.9 Acres
- 2017 Reclaim = 34.7 Acres
- 2018 Reclaim = 0.0 Acres
- 2019 Reclaim = 0.0 Acres
- 2020 Reclaim = 98.7 Acres
- 2021 Reclaim = 0.0 Acres
- 2022 Reclaim = 0.0 Acres
- 2023 Reclaim = 0.0 Acres
- 2024 Reclaim = 0.0 Acres

Total Ph. 1 Reclamation = 151.3 Acres

Phase 2/Surface Mulch & Seeding:

- 2016 Seeding = 18.4 Acres
- 2017 Seeding = 11.9 Acres
- 2018 Seeding = 0.0 Acres
- 2019 Seeding = 0.0 Acres
- 2020 Seeding =105.6 Acres
- 2021 Seeding = 33.6 Acres
- 2022 Seeding = 2.9 Acres
- 2023 Seeding = 5.5 Acres
- 2024 Seeding = 0.0 Acres
- Unseeded Road = 3.9 Acres

Total Ph. 2 Reclamation = 181.8 Acres

Phase 3 Reclamation to be completed and released within the 10 year timeframe from Phase 1.

LEGEND:

- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER
- BACKFILL SAMPLE PIT

DRAWN BY:	CHECKED BY:
A. CHRISTENSEN	DWG
DRAWING: 5-76A	DATE: 4/16/15
	SCALE: 1" = 400'
JOB NUMBER: 0001	SHEET

REVISIONS

DATE:	BY:
2/2/17	AC
3/31/17	AC
5/4/17	AC
8/2/17	AC
4/6/18	AC
6/19/18	AC
3/29/19	AC

EARTHWORKS RECLAMATION SEQUENCE

NORTH COAL HOLLOW PROJECT
ALTON, UTAH

DRAWING: 5-76A

PROFESSIONAL ENGINEER 10230818 ANDREW R. CHRISTENSEN STATE OF UTAH

Alton Coal Development
Coal Hollow Project
463 North 100 West, Suite 1
Cedar City, Utah 84721
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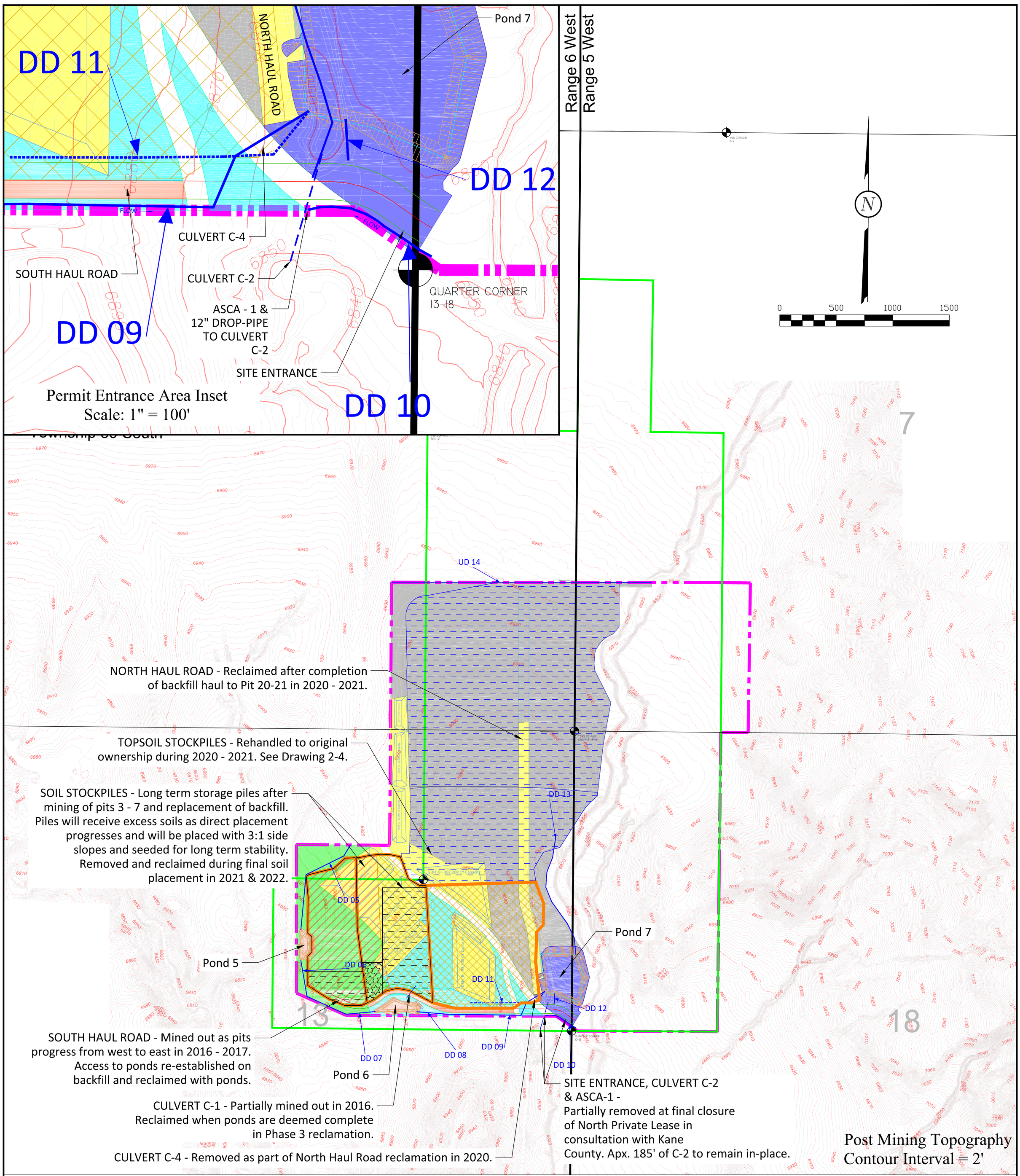

Phase 1 Reclamation:

- 2016 Reclaim = 17.9 Acres
- 2017 Reclaim = 34.7 Acres
- 2018 Reclaim = 0.0 Acres
- 2019 Reclaim = 0.0 Acres
- 2020 Reclaim = 98.7 Acres
- 2021 Reclaim = 0.0 Acres
- 2022 Reclaim = 0.0 Acres
- 2023 Reclaim = 0.0 Acres
- 2024 Reclaim = 0.0 Acres

Total Ph. 1 Reclamation = 151.3 Acres

Phase 2/Surface Mulch & Seeding:

- 2016 Seeding = 18.4 Acres
- 2017 Seeding = 11.9 Acres
- 2018 Seeding = 0.0 Acres
- 2019 Seeding = 0.0 Acres
- 2020 Seeding =105.6 Acres
- 2021 Seeding = 33.6 Acres
- 2022 Seeding = 2.9 Acres
- 2023 Seeding = 5.5 Acres
- 2024 Seeding = 0.0 Acres
- Unseeded Road = 3.9 Acres

Total Ph. 2 Reclamation = 181.8 Acres

Phase 3 Reclamation to be completed and released within the 10 year timeframe from Phase 1. **Ponds, culverts and ditches (except Area 1 extension)** to be assessed and reclaimed as Phase 3 nears completion. Area 1-A structures will be removed as mining advances.

Contour Interval = 2'

LEGEND:
- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER

DRAWN BY:	CHECKED BY:
A. CHRISTENSEN	DWG
DRAWING: 5-76B	DATE: 10/12/15
	SCALE: 1" = 400'
JOB NUMBER: 0001	SHEET

REVISIONS

DATE:	BY:
9/7/16	AC
10/3/16	AC
3/31/16	AC
5/4/17	AC
4/6/18	AC
6/19/18	AC
3/29/19	AC

FACILITIES RECLAMATION SEQUENCE

NORTH COAL HOLLOW PROJECT
ALTON, UTAH

DRAWING: 5-76B

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Greater Sage-grouse Population Monitoring and Habitat Improvement

Alton - Sink Valley, Utah

2018-2019

Progress Report

For

Alton Coal Development, LLC

November 28, 2019

Prepared by
Steven L. Petersen, Ph.D.
Sage-grouse Population and Habitat Consultant

Greater Sage-grouse Population Monitoring and Habitat Improvement Alton – Sink Valley, Utah

2018-2019

Steven L. Petersen, Ph.D., Consultant

Introduction and Background

The mining of coal, minerals and natural gas are important for providing most of Utah's current energy demand. According to John Baza, the director of the Utah Division of Oil, Gas and Mining (2019), "the mining of coal, minerals, oil and natural gas production play an important part in Utah's economy, and without these natural resources we would not enjoy the standard of living we do in our modern society". In 2017, approximately 70% of Utah's net electricity generation was produced from coal (USEIA 2019). In this same year, five coal companies produced 14.4 million short tons of coal, valued at an estimated $439 million https://www.ogm.utah.gov/coal/index.php).

Alton, Utah supports an active coal mine located 2.7 km south of town. This coal mine industry supports the local and regional economy, providing employment to neighboring communities and coal that is purchased by regional coal-based power plants. The pasturelands surrounding Alton are used to raise livestock (beef cattle) and grow alfalfa hay. Mule deer and pronghorn frequent the valley floor where they feed off native vegetation and agricultural production. Of significant importance to this area are the sagebrush habitats that sustain both obligate and facultative wildlife species. Of conservation significance is the local population of greater sage-grouse (*Centrocercus urophasianus*; hereafter sage-grouse). In an effort to promote healthy rangelands and ensure the sustainability of the local sage-grouse population and sagebrush habitats, management strategies are needed that facilitate sagebrush habitat conservation, rangeland improvement, and effective wildlife management (Petersen et al. 2016).

Objectives

The purpose of this report is to provide an assessment of the habitat conservation accomplishments from fall 2017 to fall 2018 within the Alton and Sink Valley region and to describe management strategies important in natural resource sustainability. Specifically, this report describes the conditions of the local sage-grouse population, characterizes habitat improvements implemented in the past year (including post-disturbance habitat reclamation and pinyon-juniper tree removal), and explains predator control (i.e. ravens and coyotes) efforts over the past year.

Following is a summary of the primary management efforts presented in this document.

1. During non-breeding months, ACD monitored sage-grouse in the Sink Valley area within important habitats that include:
    - the sagebrush field to the south of the mine
    - the bullhogged area further south and southwest of the mine
    - the conservation area to the east
    - the historic and new leks plus surrounding sagebrush habitats
2. Counted a maximum of 5 male birds attending the lekking areas during February, 2019.
3. Killed 2,629 pinyon pine and Utah juniper trees in primary habitats throughout the Alton/Sink Valley area.
4. Destroyed approximately 200 ravens, 15 coyotes, and 1 red fox. All three species are known to represents threats to sage-grouse nesting success, chick survival, and adult survival.

Table of Contents

Introduction and Background 2
Objectives 2
Table of Contents 4
1. Sage-grouse Population Monitoring 5
1.1 Employee Observations and Sage-grouse Population Monitoring 5
1.2 Ground-based Sage-grouse Surveys 6
1.3 GPS Collaring and Monitoring 10
1.4 Historic and Current Lek use in Alton/Sink Valley 10
2. Habitat Mitigation and Improvements 11
2.1 Reclamation 12
2.2 Juniper Mastication 12
3. Predator Control Activities 14
3.1 Raven Control 14
4. Participation and Involvement with Local Working Groups 15
References 16
Acknowledgements 17

1. Sage-grouse Population Monitoring

1.1 Employee Observations and Sage-grouse Population Monitoring

ACD employees are trained annually to identify sage-grouse and report any sighting to Kirk Nicholes, ACD Environmental Manager. Kirk records all information associated with the observation including the number of birds observed, the coordinate location of the observation, and the time of day the observation occurred (Table 1). Recorded observations are made when employees are fulfilling regular employment duties. No additional sage-grouse surveys are conducted by ACD employees.

These sightings are recorded to provide additional distribution information. They are not designed to provide sage-grouse density and distribution information within the mining area, only additional insight. It is recognized that variability in observations may be a result of heightened awareness (or lack) by employees rather than an increase in bird use activity or density.

During the 2018-19 season, only 1 sighting was recorded. The reason for the low number of sighting reports is likely that mining efforts have been concentrated in the North Lease area. The number of birds observed by employees in that area is low since birds do not typically frequent the North Lease region compared to Sink Valley and the south bullhog area.

Table 1. Observations of sage-grouse reported by ACD employees between November 2018 and October 2019 within the Alton/Sink Valley region and the North Lease mining area.

Obs ID	Date	Time of observation	Number of birds Observed	Location	State Plane Coordinates
1	July 1, 2019	8:00 am	1	Observed 1 bird north of the well in the upper CA (near road; observed by C. McDonald)	354071.8 E 1770210.4 N

1.2 Ground-based Sage-grouse Surveys

Monthly surveys are conducted by Dr. Steven Petersen to monitor the sage-grouse population within the Sink Valley and surrounding area. During this survey, the sighting location is recorded and the total number of birds per flock is reported. Generally, the search area is located in the general vicinity of the mining headquarters, the sagebrush flat located south of the mine, the new lek location, the bullhog region to the south, the well and conservation area. The specific location of all search areas are described in the following table and figure (Table 2, Figure 1).

Table 2. Sage-grouse observations are conducted throughout the mining area to monitor sage-grouse populations and identify distribution patterns in relation to mining activity. Areas surveyed are shown here.

Name	ID	Description
Sagebrush flat	SF	Sagebrush dominated field located south of the mine site. The dominant shrub is black sagebrush (*Artemisia nova*)
New lek	NL	The displaying area is positioned along the ridge crest, located at the hilltop south of the sagebrush flat.
South Mine Sagebrush Patch	SMSP	This area is surrounded by PJ woodland, and supports a springtime pond, located just south of the original spoils pile.
North Mine Sagebrush Patch	NMSP	Positioned north of the original spoils pile, this area is being invaded by young pinyon and juniper trees.
Original Lek	OL	Until 2010, this area supported the primary lek site for Sink Valley. The birds have since shifted strutting behaviors in the NL area. The OL was mined in 2012 and is currently existing as reseeded pasture, dominated by perennial grasses, forbs, and a few naturally recruiting sagebrush seedlings.
Wet meadow	WM	This site supports a grass/rush/sedge community which has served historically as a site for raising chicks. This area supports a natural spring, the well, and orchard.
East Sagebrush Patch	ESP	This site is located east of the mine and west of the conservation area. It is dominated by black sagebrush and surrounded by PJ.
Conservation Area	CA	Located east of the mine site along the upper bench. This includes some grassland but also disked sagebrush surrounded by oak and PJ woodland.
West Sagebrush Fields	WSF	Including all of the bullhog area located south of the new lek which connects to the sagebrush fields west of Sink Valley.

During breeding months, surveys are limited to non-nesting habitats to prevent hens flushing from nests or disturbing hens with chicks during the early brood-rearing period. Survey efforts in these months concentrate on lek counts and road surveys only.

A survey path that was previously established has made it possible to conduct relatively consistent and comparable monthly surveys. From these surveys, we can look for increasing or decreasing sage-grouse population patterns or trends within a given year and between years. The path courses through primary sage-grouse preferred habitats that include sagebrush (black and mountain big sagebrush), bullhogged areas, and post-mining reseedings. Each survey is conducted by slowly walking along looking for any sign of birds that includes fecal deposits, nest sites, feather piles, and flushed birds. Each time an individual bird or group of birds are observed, the coordinate position for that location is recorded (using GPS) along with the time of day.

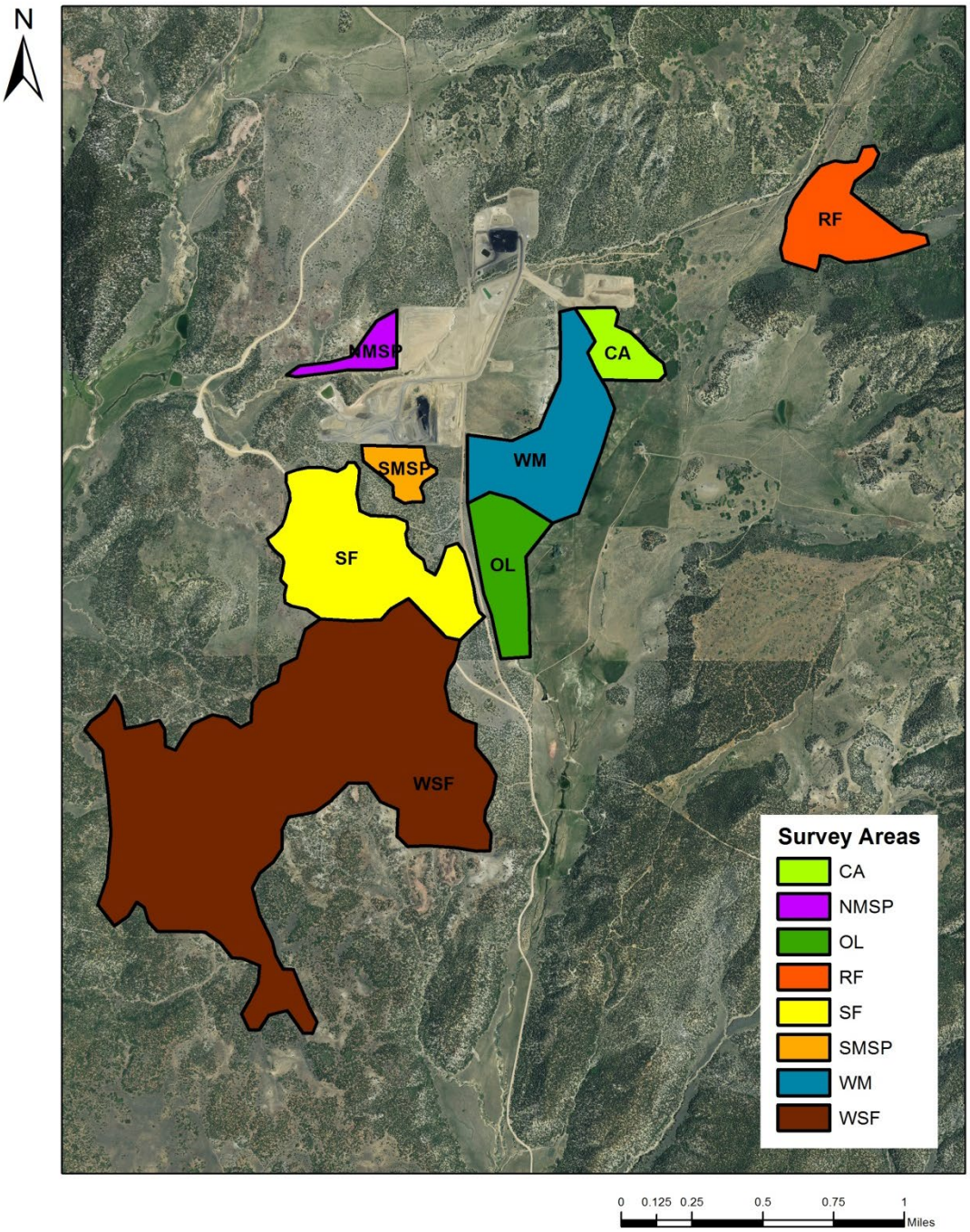

Figure 1. Location of survey areas for sage-grouse during the 2012-2019 monitoring seasons. CA = Conservation area, NMSP = North mine sagebrush patch, OL = Original lek, RL = Rabbitbrush field, SF = Sagebrush flat, SMSP = South mine sagebrush patch, WM = Wet meadow, and WSF = West sagebrush fields. Additional sites not shown above include the corridor (C) and the alfalfa fields (AF) east and south of the town Alton, respectively.

A summary of the results recorded for each monthly sage-grouse survey is provided in table 3. Historically, highest occurrence of sage-grouse occurred in the immediate sagebrush flat site. However, with extensive bullhogging south of that area, birds are now found nearly exclusively in these treated areas. Pinyon-juniper removal has been a valued method for increasing total sage-grouse non-breeding habitat (Frey et al. 2013).

Table 3. Observations from monthly surveys conducted by S.L. Petersen between December 2018 and November 2019.

Date	Time of observation	Number of birds	Location
December 15, 2018	8:55am	29	Flushed 29 birds in the south bullhog region (south of the new lek).
January 7, 2019	10:15-11:06am	11	Flushed 10 birds near the cattle guard sagebrush patch and 1 bird at the patch north of the SF and county road.
February 1, 2019	5:15-5:44pm	36	Flushed a single bird at the south bullhog, 18 at the sagebrush flat and 16 in the patch north of the county road and SF.
March 9, 2019	7:30-10:30am	39	Flushed 3 birds from the new lek area, 4 birds from the spoils pile area, and 32 from the north end of the south bullhog region.
April 26, 2019	7:00am	5	5 males lekking. No other surveys conducted to avoid disturbing lekking birds.
May 25 2019	8:25–12am	10	Flushed 7 birds in the south bullhog area and 2 birds from the patch north of the SF and county road. A hen aggressively defended territory in the upper conservation area. The chicks were not seen and the area avoided to disrupt brood rearing efforts.
June 22, 2019	7:34am	5	Flushed all 5 birds from the south bullhog area. A hen with 4 chicks was seen in the upper CA by Kevin Heaton the previous week.
August 10, 2019	6:55–8:10am	23 (32)	Flushed 23 birds in the south bullhog area (near the county road). Flushed 9 birds from the south bullhog, possibly birds that were a part of the original group.
September 19, 2019	7:33-7:52am	27	Flushed 11 birds from the sagebrush flat and 15 birds from the south bullhog area (3 groups of 7, 6, and 2 birds)
October 26, 2019	8:28–9:03am	41 (52)	Flushed 3 groups of birds from the south bullhog area (6, 24, and 17 birds). A flock of 11 birds flew overhead near the north of county road patch 20 min after the original group was observed (0.5 miles away). It is unlikely they were the same birds.

The Alton and Sink Valley area supports a viable population of sage-grouse with a diversity of habitat types that assist with all phases of the sage-grouse life cycle. The area just south of the county road supports a well-established and intact stand of black sagebrush that historically was the primary nesting habitat for sage-grouse in this area. Because this area has experienced

limited disturbance (ie. fire, mechanical treatment) for more than 15-20 years, the plant community is relative closed, with a maximum cover and density of sagebrush and limited forb and grass availability. While it provides excelling nesting and hiding cover, brood rearing hens are likely to go outside of that area to find insects and forbs for the chicks. The well site located south of the CA, dominated by wet meadow obligate and facultative species that include species of sedge, rush, and a diversity of forbs (*Iris missouriensis* Nutt.) and shrubs (i.e. *Rosa woodsia* Lindl.). Hens have been observed using this area consistently over the past decade for early to late brood rearing, likely due to high forb diversity, high insect availability, and no disturbance. The CA is dominated by black and mountain big sagebrush that was historically treated to reduce decadence and increase early seral sagebrush community structure.

Since 2015, the region south of the county road (WSF-SB) has been extensively cleared of Utah juniper (*Juniperus osteosperma* (Torr.) Little) and pinyon pine (*Pinus edulis* Engelm.). The primary method for clearing mature trees has been bullhogging by the Bureau of Land Management. This effort has greatly expanded suitable habitat for sage-grouse and promoted the reestablishment of sagebrush dominated plant communities. Sage-grouse are almost exclusively observed in this bullhogged area, utilizing areas where debris piles are found. Black sagebrush (*Artemisia nova* A. Nelson) and mountain big sagebrush (*Artemisia tridentata* Nutt. ssp. *vaseyana* (Rydb.) Beetle) are the predominant sagebrush species found in this area. There is also scattered rubber rabbitbrush (*Ericameria* nauseosa (Pall. ex Pursh) G.L. Nesom & Baird).

1.3 GPS Collaring and Monitoring

Sage-grouse are monitored with monthly surveys, however, significant effort has been made to use GPS technology to track sage-grouse during the breeding and winter time periods. In 2018 birds that carried transmitters died resulting in no data collected for most of the 2018 year. In spring 2019, sage-grouse trapping crews attempted to trap and collar birds in the Alton/Sink Valley area. However, no birds were caught resulting in no movement and distribution data for 2019.

1.4 Historic and Current Lek use in Alton/Sink Valley

Lekking grounds are located in the southern end of the Sink Valley area. Displaying males are most often observed at the New Lek location, found just south of the sagebrush flat (at the upper portion of the hillsides). Males have also been observed displaying in the bullhog area. In 2019, birds were observed on one sample date, observed at the New Lek location. A total of 5 male birds were observed strutting on April 26, 2019. The area was surveyed to identify all lekking males, however, this represents a single observation date and it is possible that more than 5 birds had been lekking in the area during the breeding season.

Lek counts are typically recorded annually by wildlife biologists to estimate bird populations for a particular area. These data are maintained by the UDWR to track population trends and

determine sage-grouse population health. During the past two years these counts were not provided to ACD. Figure 2 represents lek counts at the Sink Valley lek between 1991-2018, with data provided by the UDWR and ACD. Data from 1991 to 2016 were provided by the UDWR. Data from 2017-2018 are observations made by ACD employees since no data was made available from the UDWR. With the exception of 2019, lek counts suggest a general trend toward a sustainable sage-grouse population in this Sink Valley area. During 2005 and 2007, no males were observed at the lek. Similarly, in 2011 no males were counted at the historic lek (HL), however, it may have been that birds were displaying at NL and were not detected. Observations from 1991-2011 were of birds lekking at HL only.

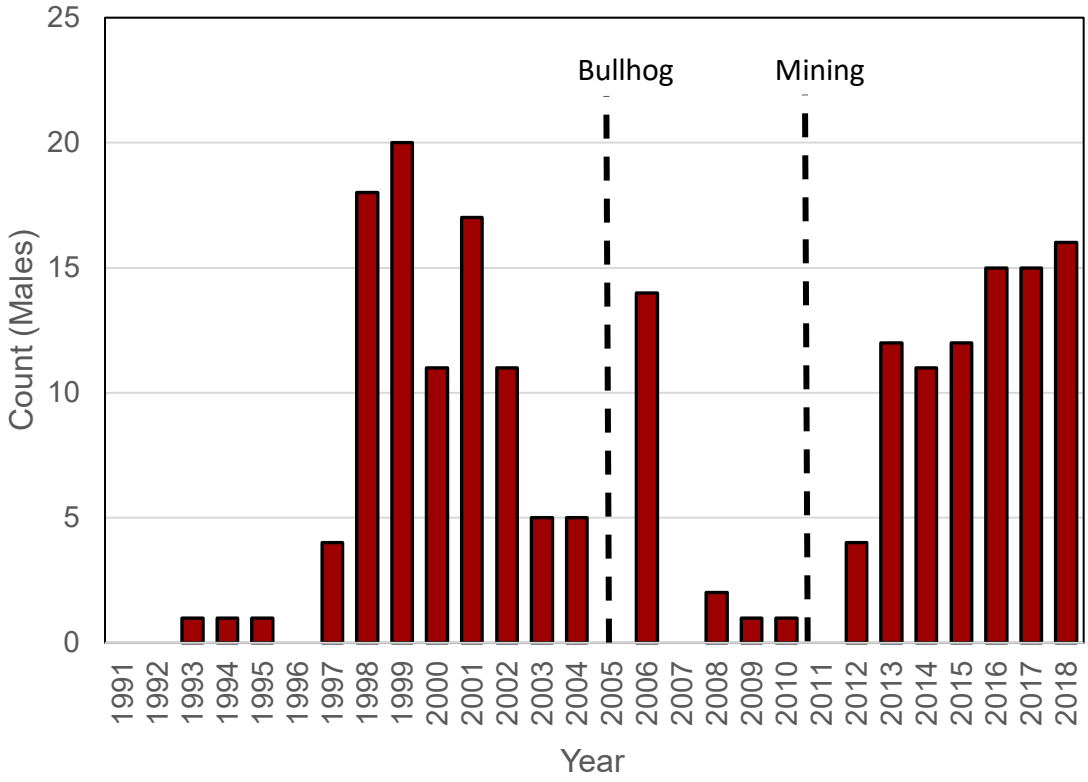

Figure 2. Male sage-grouse lek attendance at the Sink Valley lek, located south of Alton, Utah. All males were observed during morning hours strutting on the primary lek. Only 5 birds were observed in 2019 based on a single day survey on April 26, 2019.

2. Habitat Mitigation and Improvements

Effective habitat improvement methods have been shown to increase sage-grouse in disturbed or altered ecosystems (Dahlgren et al. 2006). ACD focuses significant attention on improving habitat for greater sage-grouse and other native wildlife species that occur within the Alton-Sink Valley region. In addition to facilitating suitable habitat for sage-grouse, these efforts also improve plant community structure, increase biodiversity, reduce erosion potential, improve

ecosystem resilience, and create aesthetically pleasing ecosystems. Extensive habitat improvement efforts have been made since mining began in 2010 and annual management plans focus on improving ecological health (BLM 2001).

2.1 Reclamation

Plant community reclamation projects are implement to improve habitat conditions and increase forage availability. These projects stabilize sites disturbed by mining activities, and in turn promote healthy rangeland vegetation. For nearly a decade, the Sink Valley region has experienced a significant reduction in pinyon-juniper woodlands through mining activities, and these sites have become reclaimed with an early seral perennial grass and forb plant community that will facilitate the establishment of a shrub dominated ecosystem. These reclaimed and improved areas are monitored annually to determine total plant cover, species composition, and frequency. These data are presented in reports that are available through ACD (see Bond Release by Patrick Collins).

2.2 Juniper Mastication

Pinyon-juniper woodland removal is a high priority in the Sink Valley area. Research has shown that woodland reduction improves sage-grouse habitat suitability and expands breeding potential and movement (Baruch-Mordo et al. 2013). This includes an increase in sage-grouse food for adults and chicks (Bates et al. 2017). In cooperation with the US BLM (Kanab field office) significant areas of woodlands were treated over the past 10 years. In most cases, entire woodland clearcutting has created open landscapes and reduced competition with sagebrush. Tree removal has consisted of tree cutting using chainsaws and tree mastication using bullhogging. Pinyon-juniper woodland removal provides an important ecological service by connecting intact sagebrush habitats and providing corridors for animal movement. This mechanical operation also creates conditions that increase food forb and insect availability for greater sage-grouse, mostly by releasing resources otherwise tied up woodlands for shrub, forb, and grass growth and development, particularly higher soil moisture content (Young et al. 2013, Bybee et al. 2016). Woodland mastication reduces runoff and erosion, increases plant community diversity and subsequently promotes ecological resilience (Cline et al. 2010).

The expansion of pinyon-juniper woodlands into new areas or its reinvasion in previously treated areas is an ongoing issue that requires consistent effort to prevent the reestablishment of phase I to phase III woodlands. To slow this expansion and infill of pinyon-juniper, seedlings and juvenile trees are removed. ACD sage-grouse consultant (Steve Petersen) removed 2,629 seedling and juvenile pinyon and juniper trees during 2019 using tree loppers throughout the Sink Valley area (Table 4). Tree ranged in size from 2” to 7’.

Table 4. Number of trees killed throughout the Sink Valley area from December 2018 to November 2019.

Location	Dec 18	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	**Total**
SF	41	27	0	0	0	154	21	0	25	67	4	0	**339**
SF-North side of road	27	50	0	0	0	46	47	0	21	0	0	0	**191**
SF-East Valley	22	76	49	0	0	0	13	0	32	3	33	0	**228**
NL	5	30	0	0	402	14	0	0	18	0	1	0	**470**
NL-West Bowl	43	102	0	0	0	118	24	0	37	17	28	0	**369**
WSF-SB	48	201	78	28	74	0	44	0	106	104	111	0	**794**
HL-West	0	0	0	0	0	0	0	0	0	0	0	0	**0**
CGP	27	100	8	0	0	22	20	0	17	0	0	0	**194**
CA-Upper	1	9	0	0	0	0	6	0	0	0	0	0	**16**
CA-Lower	0	0	0	0	0	0	6	0	0	0	0	0	**6**
NMSP	0	0	0	0	0	0	0	0	0	0	0	0	**0**
SMSP	0	10	0	0	0	12	0	0	0	0	0	0	**22**
Other	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**214**	**605**	**135**	**28**	**476**	**366**	**181**	**0**	**256**	**191**	**177**	**0**	**2629**

SF = sagebrush flat, NL = New Lek, WSF = west sagebrush flat, SB = South bowl, HL = Historic Lek, CA = Conservation Area, NMSP = North of Mine Spoil Area, SMSP = South of Mine Spoil Area.

3. Predator Control Activities

Sage-grouse are impacted by predators in the Alton/Sink Valley area. To reduce the threat of predation on sage-grouse, avian and mesoppredators are destroyed to increase sage-grouse nesting, brood rearing and adult survival. The primary predators removed included common ravens (*Corvus corax),* coyotes (*Canis latrans*), and red fox (*Vulpes vulpes*). Predator control activities were carried out by USDA APHIS Wildlife Services, a federal agency that provides an integrated wildlife damage management approach to help resolve wildlife conflicts and promote human-wildlife coexistence (APHIS 2019). ACD provides funding to Wildlife Services to cover the costs of materials and labor. A total of $7,500 was paid to cover the year's costs.

3.1 Raven Control

Raven control activities were coordinated by Teresa Wright, a raven control specialist with USDA Wildlife Services. Control efforts were focused on time periods when raven populations are high and during peak sage-grouse breeding periods. The primary method used to control ravens is by dispersing hard-boiled eggs treated with DRC-1339 3-chloro-p-toluidine hydrochloride, a restricted pesticide with acute toxicity in corvids including ravens, crows, blackbirds, starlings and magpies (US EPA 2015). When consumed, DRC-1339 is readily absorbed into the circulatory system where it is metabolized in the liver forming glucuronides and mercapturides. Uric acid posits build up in the kidney and blood vessels resulting in necrosis and circulatory impairment. The cause of death is from uremic poison and congestion of the major organs (https://ovocontrol.com/search-ovocontrol/bird-poisons/). In most cases, the target species dies as soon as 3 hours after consuming the bait. For application at in the Alton/Sink Valley area, the pesticide is injected into hard-boiled eggs rather than dispersed in granular form to reduce uptake by other susceptible species including non-target corvids, rock dove, Eurasian collared dove, ducks, geese, and pheasants.

Between January and June, 2019, 1200 treated eggs were dispersed throughout the target area (Figure 3). According to Teresa Wright, a wildlife control specialist with Wildlife Services, ravens cache eggs at a ratio of 1 kill for every 6 eggs distributed. Therefore, the total number of ravens killed was approximately 200 birds.

3.2 Mesopredator Control

Mesopredators that occur within the Sink Valley/Alton area include coyotes, red fox, raccoon, and skunk. Mesopredator control efforts were coordinated by Roger Nauer, USDA Wildlife Services trapper and mesopredator control specialist. To control mesopredators, Wildlife Services used foot snares, traps, and fixed-wing aircraft. Between October 1, 2018 and

September 30, 2019, Wildlife Services harvested 15 coyotes and 1 red fox by trapping and 1 coyote by fixed wing aircraft.

Figure 3. Hard-boiled eggs treated with the neurotoxin DRC-1339 were distributed eggs in the same general areas where raven densities and their risk to sage-grouse chicks are high. Areas where eggs are distributed are shown as blue polygons. This includes roadsides near critical habitat and the stock yard near Alton where birds congregate. The yellow polygon represents the location where coyote snares are set and trapped.

4. Participation and Involvement with Local Working Groups

ACD participates as members of the Color Country Adaptive Resource Management (CCARM) organization. CCARM contributes meaningful input and suggestions for improving habitat conservation efforts within the Alton/Sink Valley area. This includes recommendations for sage-grouse population and habitat conservation planning. Feedback is considered in all aspects of

project planning and implementation. Maintaining this cooperation with CCARM has been instrumental in the success of this project.

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We would like to express our most sincere thanks to all of those who have assisted in helping sustain the sage-grouse population in the Alton-Sink Valley area. We appreciate Kirk Nicholes (ACD Environmental Scientists), Larry Johnson (ACD Project Manager), Kevin Heaton (USU Extension, habitat reclamation), Nicki Frey (SUU/USU Extension, sage-grouse collaring and monitoring), biologists from UDOGM, Teresa Wright (USDA WS, raven control), Roger Nauer (USDA WS, coyote control), biologists from the Utah DWR, and to the Color-Country Adaptive Resource Management group for support, contribution of resources, project feedback and input and financial contribution to this effort. The collaboration from these people has been critical in the successful work accomplished in the Alton/Sink Valley area that ensures a stable and successful sage-grouse population. With this help, this sage-grouse population has experienced long-term persistence within the mining area.

PETERSEN HYDROLOGIC

29 March 2020

Mr. Kirk Nicholes
Environmental Specialist
Alton Coal Development, LLC
463 North 100 West, Suite 1
Cedar City, Utah 84721

Kirk,

At your request, I have performed an evaluation of Coal Hollow Mine water discharges during 2019 as specified in Stipulation #5 of the approved Coal Hollow Mine Mining and Reclamation Plan. The stipulation states that the applicant will be required to evaluate discharges from the mine to determine impacts to the designated alluvial valley floor (AVF) on Kanab Creek. 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.

During the period from January through June of 2019 there were UPDES discharges of water from the Coal Hollow Mine (Table 1). The discharges occurred from Pond 1A, Pond 1B, Pond 2, Pond 3, and Pond 4 in the south mine area, and from Pond 5 and Pond 7 in the North Private Lease area.

Climatic conditions during 2019

It is noted here that the climatic conditions that prevailed in the region during 2019 were variable. This is reflected in a plot of the Palmer Hydrologic Drought Index (PHDI) data for 2019 for Utah Region 4 (Figure 1). The PHDI is a monthly value generated by the National Climatic Data Center using a variety of hydrologic parameters that indicates wet and dry spells. The PHDI is calculated from several hydrologic parameters including precipitation, temperature, evapotranspiration, soil water recharge, soil water loss, and runoff. Consequently, it is a useful tool for evaluating the relationship between climate and groundwater and surface-water discharge data. During January and February 2019 the region experienced drought conditions as the region was recovering from an exceptionally dry period the region experienced during all of 2018. (It is noteworthy that the PHDI values measured during September of 2018 reflect the second deepest drought conditions ever measured in the region during the 125-year period of record for the PHDI

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(1895-2019). By March of 2019 the region began experiencing a severe wet spell that peaked in June of 2019 with extreme wet conditions (Figure 1). After peaking in June, the region began a gradual drying trend for the remainder of 2019, with mild to moderate wetness occurring in late 2019.

The wet conditions the region experienced during the first half of 2019 resulted in the accumulation of significant snowpack and subsequent appreciable surface-water runoff during the late winter and early spring time of the year. During this period, UPDES discharge from the mine ponds occurred and high streamflow conditions occurred in streams in the mine area in response to these wet conditions.

Notably, during the second half of the year, substantially dryer conditions prevailed and precipitation was scant. This condition is reflected in discharges measured in Kanab Creek and its tributaries during the 3rd quarter of 2019 (see data for sites SW-1A, SW-1, SW-1M, Kanab Creek @ C.R., SW-3, SW-2, SW-5, SW-15, and April Creek). Notably, discharge rates in Kanab Creek above the Coal Hollow Mine North Private Lease mining areas (see monitoring sites SW-1A and SW-1) were meager, with only 34 gpm being measured at each of those monitoring stations. (It is noted that much of the water from Kanab Creek upstream of mine area is utilized for irrigation and diverted into storage ponds higher in the drainage in Kanab Creek during the irrigation season). Further downstream, at monitoring stations SW-1M and Kanab Creek @ C.R., discharge was lower, with discharges at these stations measured at 16.4 gpm and 1.7 gpm, respectively. Further downstream, discharge at SW-3 was 8.27 gpm and at SW-2 (the most downstream active monitoring station on Kanab Creek) it was 10.8 gpm. There was no discharge in either SW-5 (Lower Robinson Creek) or SW-15 (Simpson Hollow wash) during the 3rd quarter.

Kanab Creek Stream Enhancements

It is noted that during 2017 and 2018 a stream restoration project was carried out on behalf of Alton Coal Development, LLC on an impaired reach of Kanab Creek within the designated AVF. Prior to the commencement of the restoration project, the stream channel in that area was in poor condition. Widespread stream channel and stream bank erosion was ongoing and there was a general lack of riparian vegetation along the impaired stream segment. The project was performed under the authorization of the U.S. Army Corps of Engineers in consultation with Utah State regulatory agencies and the private land owner. The purposes of the enhancement project included 1) reducing the loss of surrounding farm lands due to the stream bank erosion, 2) creating a more stable stream channel and flood plain by reducing stream gradients and emplacing erosion

control materials, and 3) enhancing riparian vegetation and wildlife habitat along the enhanced reach of the stream. During 2019 the stream channel conditions in the wetland restoration area remained good (no substantial erosion was apparent within the restoration area) and observations made in the area during 2019 suggested that the developing wetland vegetation in the restoration area remained. Overall, the newly reconstructed stream reach and adjacent agricultural fields in the wetland restoration area and designated AVF area appeared to benefit from the stream restoration work that has been performed in the area.

UPDES Discharges During 2019

Discharge rates and water quality parameters measured for the UPDES discharges from the Coal Hollow Mine during 2019 are summarized in Table 1. These discharges were intermittent and included discharges of storm waters and groundwaters.

As discussed above, UPDES discharges occurred from several ponds in the Coal Hollow Mine area during 2019. These discharges were largely in response to the wet conditions the region experienced during the first half of 2019. These discharges are summarized below.

UPDES discharge from Pond 1 occurred from 2/26/2019 to 3/21/2019, albeit at a meager rate. The average discharge rate during that period was only 0.7 gpm. The TDS concentrations of the water discharged during that period was good, averaging 612 mg/L. The other UPDES parameters monitoring during this period were in compliance with UPDES permit stipulations. It is noted that water in Lower Robinson Creek is not utilized for irrigation nor does it contribute to the essential hydrologic function of the designated AVF. Accordingly, the discharge of water from Pond 1 did not have any detrimental impacts to the designated AVF.

Similarly, UPDES discharge occurred from Pond 1B during the 16 day period from 3/5/2019 through 3/20/2019. This discharge was in response to the wet climatic conditions and snowmelt the region experienced during early 2019. The discharge rate from Pond 1B during this period was only 1 gpm (Table 1). The TDS of the water discharging from Pond 1B was 1,060 mg/L and the discharge was in compliance with all UPDES parameters. It is noted that water in Lower Robinson Creek is not utilized for irrigation nor does it contribute to the essential hydrologic function of the designated AVF. Accordingly, the discharge of water from Pond 1B did not have any detrimental impacts to the designated AVF.

UPDES discharge from Pond 2 occurred during the 22-day period from 3/5/2019 through 3/26/2019 in response to the wet climatic conditions and snowmelt conditions in the region during early 2019. The discharge rate from Pond 2 during this period was only 1 gpm. The TDS of the water discharging from Pond 2 was 512 mg/L and the discharge was in compliance with all UPDES parameters. It is noted that water in Lower Robinson Creek is not utilized for irrigation nor does it contribute to the essential hydrologic function of the designated AVF. Accordingly, the discharge of water from Pond 2 did not have any detrimental impacts to the designated AVF.

UPDES discharge from Pond 3 occurred during the period from 2/17/2019 through 4/30/2019, and also during the 9-day period from 6/3/2019 through 6/11/2019. The average TDS of the discharge from Pond 3 during 2019 was 1,099 mg/L, with a minimum TDS of 856 mg/L and a maximum TDS of 1,520 mg/L (occurring during the 9-day period in June). All other UPDES parameters measured at the Pond 4 discharges were in compliance with the UPDES effluent limitations (Table 1). The average of the Pond 3 discharge rates during 2019 is 49 gpm. It is noted that water in Lower Robinson Creek is not utilized for irrigation nor does it contribute to the essential hydrologic function of the designated AVF. Accordingly, the discharge of water from Pond 1B did not have any detrimental impacts to the designated AVF. Additionally, during surveys of the Lower Robinson Creek stream channel within the designated AVF area during 2019, there was no indication that the modest discharge of 50 gpm had significantly impacted the stream channel in the AVF area.

UPDES discharge from Pond 4 occurred during the 21-day period from 3/5/2019 through 3/25/2019 (Table 1). The discharge rate from Pond 4 was meager at 1 gpm. The water that discharged from Pond 4 had a monitored TDS concentration of 468 mg/L and all UPDES parameters were in compliance with the effluent limitations of the UPDES permit. The discharge from Pond 4 flows into the Sink Valley Wash drainage below the southernmost portions of the Coal Hollow Mine. This water provided a positive benefit to the overall surface water system in Sink Valley Wash and does not affect any designated AVF's.

UPDES discharge from Pond 5 occurred during the 12-day period from 3/5/2019 through 3/16/2019 (Table 1). The discharge rate during this 12 day period was 7 gpm. Discharge from Pond 5 is to Simpson Hollow wash. The TDS of the water discharging from Pond 5 during this period was 1,830 mg/L. However, the measured TDS concentration of the up-gradient discharge in Simpson Hollow monitored at April Creek during March of 2019 was 3,500 mg/L. Thus, in terms of the TDS concentrations, the discharge from

Pond 5 improved the overall quality of the receiving water in Simpson Hollow wash. All other UPDES parameters monitored at the Pond 5 discharge were in compliance with the effluent limitations of the UPDES permit (Table 1). It is our opinion that the short-term discharge from Pond 5 at 7 gpm during the non-irrigation season (surface water for irrigation is diverted from the drainage from 1 April through 31 October only) did not adversely impact the designated AVF along Kanab Creek.

UPDES discharge from Pond 7 occurred from 4 January 2019 through 31 March 2019 at a rate of 50 gpm. Beginning on 1 April 2019 and continuing through 23 May 2019 the discharge rate from Pond 7 increased to 1,200 gpm (Table 1). Much of the discharge from Pond 7 during 2019 was in response to the wet climatic conditions and snowmelt the region experienced during the first half of 2019. Notably, a substantial quantity of snowmelt runoff water breached diversion ditches and flowed from the agriculture fields north of the mine into the active mine pits in the North Private Lease mining area. This upset condition resulted in the necessity of discharging a substantial quantity of the snowmelt water from Pond 7 into the Kanab Creek drainage during April and May of 2019. The average TDS of the water discharged from Pond 7 during 2019 was 1,354 mg/L. Total suspended solids concentrations averaged less than 20 mg/L, with a maximum monitored concentration of 28 mg/L occurring during the period of drainage of the upset condition snowmelt waters during early May of 2019. Oil and grease was not detected in any Pond 7 discharges and pH and Fe(t) concentrations were within the effluent limitations of the UPDES permit. It is my opinion that the UPDES discharge of Pond 7 water (with moderately elevated TDS concentrations) likely did not significantly impact the designated AVF along Kanab Creek below the Coal Hollow Mine. Rather, the discharge of Pond 7 water likely provided an overall benefit to vegetation, wildlife, and livestock along the stream (including in the wetland restoration project) during this period.

Potential Impacts to Stream Channels

The Lower Robinson Creek and Kanab Creek stream channels in the designated AVF area were traversed and inspected on several occasions during 2019, including a post-2019 inspection of the drainages during March 2020. There were no indications during these surveys that the UPDES discharge waters from the Coal Hollow Mine had caused any appreciable adverse impacts to either the Lower Robinson Creek or Kanab Creek stream channels in the designated AVF.

This finding is not unanticipated, as much larger discharges of water occur periodically in both Kanab Creek and Lower Robinson Creek in response to torrential thunderstorm events and periods of copious snowmelt. Discharge rates measured in both drainages have exceeded several thousand gpm, which appreciably exceeds the magnitudes of the 2019 UPDES discharges.

As noted above, a large scale stream enhancement project was conducted on the Kanab Creek Stream channel in the designated AVF area during 2017 and 2018. This project has, based on field observations, apparently had a positive impact on the AVF by protecting existing farm lands from loss to stream erosion and also by improving the condition of the Kanab Creek stream channel and flood plain, increasing erosional stability, and generally improving to the riparian ecosystem/habitat along the creek.

Potential Water Quality Diminution

It should be noted that the surface water in Lower Robinson Creek does not contribute to the essential hydrologic function of the designated AVF in Kanab Creek. Lower Robinson Creek is incised within its channel in the AVF area and the water in the stream is not used for irrigation or sub-irrigation activities at the site. There are no irrigation diversions on Lower Robinson Creek in the AVF area. The lowermost irrigation diversions on Kanab Creek regionally (which is the source of irrigation water for the designated AVF) is located above the confluence of Lower Robinson Creek and thus the AVF was not influenced by the Coal Hollow Mine south area UPDES discharge waters. The overall quality of the Coal Hollow Mine discharges to Lower Robinson Creek during 2019, as reflected by the flow weighted average total dissolved solids (TDS) concentrations of the discharge waters, was acceptable for irrigation and stock watering use and was beneficial to wildlife. The water quality characteristics of the UPDES discharges from the North Private Lease area during 2019 (from Pond 5 and Pond 7) are described above. It is noted that while the overall quality of the Pond 7 discharge water was comparable to or better than that in many other streams in the Coal Hollow Mine area (see data on file in the Division's Coal Water Quality Database for monitoring sites April Creek, Priscilla Creek, SW-6, SW-9, SW-11, SW-15, and SW-101), the average total dissolved solids concentrations of the Pond 7 discharge water during high-flow conditions exceeded that of the Kanab Creek receiving water. It is noted that the TDS concentration measured in Kanab Creek below the Pond 7 outflow location during the low-flow conditions during the 3rd quarter 2019 (1,700 mg/L) exceeded the TDS concentrations of any monitored water that discharged from Pond 7 during 2019. It is my

opinion that the addition of the discharge water from the Coal Hollow Mine to the Kanab Creek drainage during 2019 likely provided an overall benefit to the stream course and its associated ecosystems - providing water to vegetation communities, wildlife, and livestock in downstream areas.

Potential Impacts to Wildlife

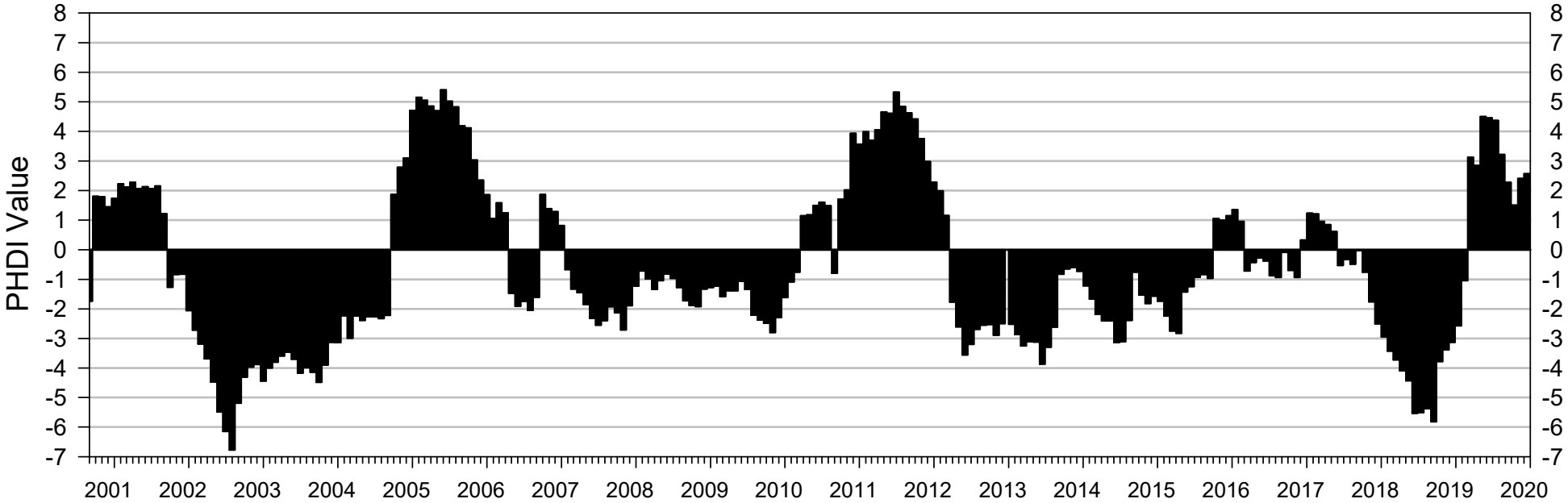
There are no indications that any impacts to wildlife within the designated AVF occurred as a result of the discharge of waters from the Coal Hollow Mine during 2019. Based on field observations, it appears that the stream restoration project on Kanab Creek within the designated AVF area will likely improve wildlife habitat within the riparian ecosystem along Kanab Creek.

Based on these considerations, it is our finding that there were no appreciable impacts to the designated AVF on Kanab Creek resulting from the intermittent discharge of water from the Coal Hollow Mine during 2019.

Please feel free to contact me should you have any questions in this regard.

Sincerely,

Erik C. Petersen, P.G.
Principal Hydrogeologist
Utah PG #5373615-2250



-1 to -2 Mild Drought
-2 to -3 Moderate Drought
-3 to -4 Severe Drought
-4 to -5 Extreme Drought

1 to 2 Mild Wet Spell
2 to 3 Moderate Wet Spell
3 to 4 Severe Wet Spell
4 to 5 Extreme Wet Spell

Figure 1 Plot of Palmer Hydrologic Drought Index for Utah Region 4.

Table 1 UPDES water quality and quantity for 2019.

Pond	Date	Flow (gpm)	O&G vis. (Yes/No)	O&G (mg/L)	Fe(t) (mg/L)	TSS (mg/L)	TDS (mg/L)	pH	Lab pH
Pond 1	2/26/2019	0.02							
Pond 1	2/27/2019	0.02							
Pond 1	2/28/2019	0.02	No	ND	0.07	ND	776	8	7.8
Pond 1	3/1/2019	0.02							
Pond 1	3/2/2019	0.02							
Pond 1	3/3/2019	0.02							
Pond 1	3/4/2019	0.02							
Pond 1	3/5/2019	0.02							
Pond 1	3/6/2019	0.02							
Pond 1	3/7/2019	0.02							
Pond 1	3/8/2019	0.02							
Pond 1	3/9/2019	0.02							
Pond 1	3/10/2019	0.02							
Pond 1	3/11/2019	1.58	No	ND	0.3	11	448	8.1	8
Pond 1	3/12/2019	1.58							
Pond 1	3/13/2019	1.58							
Pond 1	3/14/2019	1.58							
Pond 1	3/15/2019	1.58							
Pond 1	3/16/2019	1.58							
Pond 1	3/17/2019	1.58							
Pond 1	3/18/2019	1.58							
Pond 1	3/19/2019	1.58							
Pond 1	3/20/2019	1.58							
Pond 1	3/21/2019	0.66							
Pond 1B	3/5/2019	1							
Pond 1B	3/6/2019	1							
Pond 1B	3/7/2019	1							
Pond 1B	3/8/2019	1							
Pond 1B	3/9/2019	1							
Pond 1B	3/10/2019	1							
Pond 1B	3/11/2019	1	No	ND	0.22	6	1060	7.9	7.7
Pond 1B	3/12/2019	1							
Pond 1B	3/13/2019	1							
Pond 1B	3/14/2019	1							
Pond 1B	3/15/2019	1							
Pond 1B	3/16/2019	1							
Pond 1B	3/17/2019	1							
Pond 1B	3/18/2019	1							
Pond 1B	3/19/2019	1							
Pond 1B	3/20/2019	1							
Pond 1B	3/21/2019	0							
Pond 2	3/4/2019	0							
Pond 2	3/5/2019	1							
Pond 2	3/6/2019	1							
Pond 2	3/7/2019	1							
Pond 2	3/8/2019	1							
Pond 2	3/9/2019	1							
Pond 2	3/10/2019	1							
Pond 2	3/11/2019	1	No	ND	0.14	4	512	8.01	7.9
Pond 2	3/12/2019	1							
Pond 2	3/13/2019	1							
Pond 2	3/14/2019	1							
Pond 2	3/15/2019	1							
Pond 2	3/16/2019	1							
Pond 2	3/17/2019	1							
Pond 2	3/18/2019	1							
Pond 2	3/19/2019	1							
Pond 2	3/20/2019	1							
Pond 2	3/21/2019	1							
Pond 2	3/22/2019	1							
Pond 2	3/23/2019	1							

Pond	Date	Flow (gpm)	O&G vis. (Yes/No)	O&G (mg/L)	Fe(t) (mg/L)	TSS (mg/L)	TDS (mg/L)	pH	Lab pH
Pond 2	3/24/2019	1							
Pond 2	3/25/2019	1							
Pond 2	3/26/2019	1							
Pond 3	2/17/2019	21							
Pond 3	2/18/2019	50							
Pond 3	2/19/2019	50							
Pond 3	2/20/2019	50							
Pond 3	2/21/2019	50							
Pond 3	2/22/2019	50							
Pond 3	2/23/2019	50							
Pond 3	2/24/2019	50							
Pond 3	2/25/2019	50							
Pond 3	2/26/2019	50							
Pond 3	2/27/2019	50	No	ND	0.14	6	1010	8	7.9
Pond 3	2/28/2019	50							
Pond 3	3/1/2019	50							
Pond 3	3/2/2019	50							
Pond 3	3/3/2019	50							
Pond 3	3/4/2019	50							
Pond 3	3/5/2019	50							
Pond 3	3/6/2019	50							
Pond 3	3/7/2019	50							
Pond 3	3/8/2019	50							
Pond 3	3/9/2019	50							
Pond 3	3/10/2019	50							
Pond 3	3/11/2019	50	No	ND	0.14	6	1010	8	7.9
Pond 3	3/12/2019	50							
Pond 3	3/13/2019	50							
Pond 3	3/14/2019	50							
Pond 3	3/15/2019	50							
Pond 3	3/16/2019	50							
Pond 3	3/17/2019	50							
Pond 3	3/18/2019	50							
Pond 3	3/19/2019	50							
Pond 3	3/20/2019	50							
Pond 3	3/21/2019	50							
Pond 3	3/22/2019	50							
Pond 3	3/23/2019	50							
Pond 3	3/24/2019	50							
Pond 3	3/25/2019	50							
Pond 3	3/26/2019	50							
Pond 3	3/27/2019	50							
Pond 3	3/28/2019	50							
Pond 3	3/29/2019	50							
Pond 3	3/30/2019	50							
Pond 3	3/31/2019	50							
Pond 3	4/1/2019	50							
Pond 3	4/2/2019	50							
Pond 3	4/3/2019	50	No	ND	0.21	16	856	8.5	8.8
Pond 3	4/4/2019	50							
Pond 3	4/5/2019	50							
Pond 3	4/6/2019	50							
Pond 3	4/7/2019	50							
Pond 3	4/8/2019	50							
Pond 3	4/9/2019	21							
Pond 3	4/12/2019	50							
Pond 3	4/13/2019	50							
Pond 3	4/14/2019	50							
Pond 3	4/15/2019	50							
Pond 3	4/16/2019	50							
Pond 3	4/17/2019	50							
Pond 3	4/18/2019	50							
Pond 3	4/19/2019	50							
Pond 3	4/20/2019	50							
Pond 3	4/21/2019	50							
Pond 3	4/22/2019	50							

Pond	Date	Flow (gpm)	O&G vis. (Yes/No)	O&G (mg/L)	Fe(t) (mg/L)	TSS (mg/L)	TDS (mg/L)	pH	Lab pH
Pond 3	4/23/2019	50							
Pond 3	4/24/2019	50							
Pond 3	4/25/2019	50							
Pond 3	4/26/2019	50							
Pond 3	4/27/2019	50							
Pond 3	4/28/2019	50							
Pond 3	4/29/2019	50							
Pond 3	4/30/2019	50							
Pond 3	6/3/2019	29	No	ND	0.1	ND	1520	8.7	8.8
Pond 3	6/4/2019	50							
Pond 3	6/5/2019	50							
Pond 3	6/6/2019	50							
Pond 3	6/7/2019	50							
Pond 3	6/8/2019	50							
Pond 3	6/9/2019	50							
Pond 3	6/10/2019	50							
Pond 3	6/11/2019	19							
Pond 4	3/5/2019	1							
Pond 4	3/6/2019	1							
Pond 4	3/7/2019	1							
Pond 4	3/8/2019	1							
Pond 4	3/9/2019	1							
Pond 4	3/10/2019	1							
Pond 4	3/11/2019	1	No	ND	0.29	11	468	8	8.2
Pond 4	3/12/2019	1							
Pond 4	3/13/2019	1							
Pond 4	3/14/2019	1							
Pond 4	3/15/2019	1							
Pond 4	3/16/2019	1							
Pond 4	3/17/2019	1							
Pond 4	3/18/2019	1							
Pond 4	3/19/2019	1							
Pond 4	3/20/2019	1							
Pond 4	3/21/2019	1							
Pond 4	3/22/2019	1							
Pond 4	3/23/2019	1							
Pond 4	3/24/2019	1							
Pond 4	3/25/2019	1							
Pond 4	3/26/2019	0							
Pond 5	3/5/2019	3							
Pond 5	3/6/2019	7							
Pond 5	3/7/2019	7							
Pond 5	3/8/2019	7							
Pond 5	3/9/2019	7							
Pond 5	3/10/2019	7							
Pond 5	3/11/2019	7	No	ND	0.2	7	1830	8	8
Pond 5	3/12/2019	7							
Pond 5	3/13/2019	7							
Pond 5	3/14/2019	7							
Pond 5	3/15/2019	7							
Pond 5	3/16/2019	3							
Pond 6	No Discharge during 2019								
Pond 7	1/4/2019	17							
Pond 7	1/5/2019	50							
Pond 7	1/6/2019	50							
Pond 7	1/7/2019	50	No	ND	0.06	ND	1580	8.2	8
Pond 7	1/8/2019	50							
Pond 7	1/9/2019	50							
Pond 7	1/10/2019	50							
Pond 7	1/11/2019	50							
Pond 7	1/12/2019	50							
Pond 7	1/13/2019	50							
Pond 7	1/14/2019	50							

Pond	Date	Flow (gpm)	O&G vis. (Yes/No)	O&G (mg/L)	Fe(t) (mg/L)	TSS (mg/L)	TDS (mg/L)	pH	Lab pH
Pond 7	1/15/2019	50							
Pond 7	1/16/2019	50							
Pond 7	1/17/2019	50							
Pond 7	1/18/2019	50							
Pond 7	1/19/2019	50							
Pond 7	1/20/2019	50							
Pond 7	1/21/2019	50							
Pond 7	1/22/2019	50							
Pond 7	1/23/2019	50							
Pond 7	1/24/2019	50							
Pond 7	1/25/2019	50							
Pond 7	1/26/2019	50							
Pond 7	1/27/2019	50							
Pond 7	1/28/2019	50							
Pond 7	1/29/2019	50							
Pond 7	1/30/2019	50							
Pond 7	1/31/2019	50							
Pond 7	2/1/2019	50							
Pond 7	2/2/2019	50							
Pond 7	2/3/2019	50							
Pond 7	2/4/2019	50							
Pond 7	2/5/2019	50							
Pond 7	2/6/2019	50							
Pond 7	2/7/2019	50							
Pond 7	2/8/2019	50							
Pond 7	2/9/2019	50							
Pond 7	2/10/2019	50							
Pond 7	2/11/2019	50							
Pond 7	2/12/2019	50							
Pond 7	2/13/2019	50							
Pond 7	2/14/2019	50							
Pond 7	2/15/2019	50							
Pond 7	2/16/2019	50							
Pond 7	2/17/2019	50							
Pond 7	2/18/2019	50							
Pond 7	2/19/2019	50	No	ND	0.08	ND	1460	8	8
Pond 7	2/20/2019	50							
Pond 7	2/21/2019	50							
Pond 7	2/22/2019	50							
Pond 7	2/23/2019	50							
Pond 7	2/24/2019	50							
Pond 7	2/25/2019	50							
Pond 7	2/26/2019	50							
Pond 7	2/27/2019	50							
Pond 7	2/28/2019	50							
Pond 7	3/1/2019	50							
Pond 7	3/2/2019	50							
Pond 7	3/3/2019	50							
Pond 7	3/4/2019	50							
Pond 7	3/5/2019	50							
Pond 7	3/6/2019	50							
Pond 7	3/7/2019	50							
Pond 7	3/8/2019	50							
Pond 7	3/9/2019	50							
Pond 7	3/10/2019	50							
Pond 7	3/11/2019	50	No	ND	0.24	18	1390	8	8.1
Pond 7	3/12/2019	50							
Pond 7	3/13/2019	50							
Pond 7	3/14/2019	50							
Pond 7	3/15/2019	50							
Pond 7	3/16/2019	50							
Pond 7	3/17/2019	50							
Pond 7	3/18/2019	50							
Pond 7	3/19/2019	50							
Pond 7	3/20/2019	50							
Pond 7	3/21/2019	50							
Pond 7	3/22/2019	50							

Pond	Date	Flow (gpm)	O&G vis. (Yes/No)	O&G (mg/L)	Fe(t) (mg/L)	TSS (mg/L)	TDS (mg/L)	pH	Lab pH
Pond 7	3/23/2019	50							
Pond 7	3/24/2019	50							
Pond 7	3/25/2019	50							
Pond 7	3/26/2019	50							
Pond 7	3/27/2019	50							
Pond 7	3/28/2019	50							
Pond 7	3/29/2019	50							
Pond 7	3/30/2019	50							
Pond 7	3/31/2019	50							
Pond 7	4/1/2019	1200							
Pond 7	4/2/2019	1200							
Pond 7	4/3/2019	1200	No	ND	ND	23	1100	8.2	8.3
Pond 7	4/4/2019	1200							
Pond 7	4/5/2019	1200							
Pond 7	4/6/2019	1200							
Pond 7	4/7/2019	1200							
Pond 7	4/8/2019	1200							
Pond 7	4/9/2019	1200							
Pond 7	4/10/2019	1200							
Pond 7	4/11/2019	1200							
Pond 7	4/12/2019	1200							
Pond 7	4/13/2019	1200							
Pond 7	4/14/2019	1200							
Pond 7	4/15/2019	1200							
Pond 7	4/16/2019	1200							
Pond 7	4/17/2019	1200							
Pond 7	4/18/2019	1200							
Pond 7	4/19/2019	1200							
Pond 7	4/20/2019	1200							
Pond 7	4/21/2019	1200							
Pond 7	4/22/2019	1200							
Pond 7	4/23/2019	1200							
Pond 7	4/24/2019	1200							
Pond 7	4/25/2019	1200							
Pond 7	4/26/2019	1200							
Pond 7	4/27/2019	1200							
Pond 7	4/28/2019	1200							
Pond 7	4/29/2019	1200							
Pond 7	4/30/2019	1200							
Pond 7	5/1/2019	1200	No	ND	0.24	28	1240	8.3	8.2
Pond 7	5/2/2019	1200							
Pond 7	5/3/2019	1200							
Pond 7	5/4/2019	1200							
Pond 7	5/5/2019	1200							
Pond 7	5/6/2019	1200							
Pond 7	5/7/2019	1200							
Pond 7	5/8/2019	1200							
Pond 7	5/9/2019	1200							
Pond 7	5/10/2019	1200							
Pond 7	5/11/2019	1200							
Pond 7	5/12/2019	1200							
Pond 7	5/13/2019	1200							
Pond 7	5/14/2019	1200							
Pond 7	5/15/2019	1200							
Pond 7	5/16/2019	1200							
Pond 7	5/17/2019	1200							
Pond 7	5/18/2019	1200							
Pond 7	5/19/2019	1200							
Pond 7	5/20/2019	1200							
Pond 7	5/21/2019	1200							
Pond 7	5/22/2019	1200							
Pond 7	5/23/2019	500							

Annual Refresher

1-26-2019

Topic: Environmental Issues **Instructor: Kirk Nicholes**

Kevin Heaton	
A. Karl Heaton	
Kevin Raines	
Tyson Heaton	
Casey Franklin	
John P Brown Jr	
Chad Spann	
[illegible]	
[illegible]	
[illegible]	
Andrew Christensen	
[illegible]	
[illegible]	
Charlie Davis	
Adam [illegible]	
Jocky Wheatley	
Jonathan [illegible]	
Kirt Anderson	
[illegible]	
Blake [illegible]	
Eric [illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
Scott [illegible]	

Alton Coal Development Wildlife Awareness

- Objective: Protection of resident wildlife, minimize impact to wildlife during mining.
  - Speed limits of all vehicles will be 25 mph inside the permit area.
  - No operations will be conducted that would likely jeopardize T&E species.
  - Electric power lines and other transmition facilities are designed and constructed to minimize electrocution hazards to raptors.

Alton Coal Development Wildlife Awareness cont.

- The mine site is considered habitat for:
  - Deer (mid April to mid November)
  - Elk
  - Black Bear
  - Sage grouse (throughout the year, report to Kirk)
- Wildlife and domestic livestock mortalities from coal haul and associated vehicles from the mine site to highway 89 reported to the Environmental Specialist.

Alton Coal Development Wildlife Awareness cont.

Alton Coal Development Wildlife Awareness cont.

Alton Coal Development Wildlife Awareness cont.

Alton Coal Development Wildlife Awareness cont.

Riley – Jan. 9, 2016

Davey – Jan. 25, 2016

White Industrial Seismology, Inc.
1206 Schifferdecker • P.O. Box 1256
Joplin, MO 64802-1256
417-624-0164 ♦ 800-641-4538 ♦ Fax: 417-624-9416
www.whiteseis.com

CALIBRATION CERTIFICATION

I certify that all seismic and acoustic components of this instrument were calibrated on a shake table at the listed input level and frequencies. The results are within the International Society of Explosives Engineers (ISEE) Performance Specifications for Blasting Seismographs.

Model: MSII-2G 1/2 M

Serial No.: 3763

Transducer No.: 3763

Microphone No.: 3763

Seismograph Response

Input Level	2 Hertz	3 Hertz	10 Hertz	30 Hertz
1.00 ips Vertical	0.91	0.98	1.00	1.00
1.00 ips Radial	0.94	0.98	1.00	1.00
1.00 ips Transverse	0.92	0.98	1.00	1.00
1.40 Mb Acoustic	1.12	1.28	1.40	1.40

Date: Oct 12, 2016

Signed: _____

Appendix 7-5

Facilities Spill Plan

ALTON COAL DEVELOPMENT, LLC COAL
HOLLOW MINE
463 NORTH 100 WEST, SUITE I CEDAR CITY,
UTAH 84721

SPILL PLAN

PREPARED BY:

Alton Coal Development, LLC
463 N. 170 E. Suite 1
Cedar City, Utah 84721

March 2020

TABLE OF CONTENTS

1 Purpose, General Information, and Management Approval 1

2 Spill Plan Certification and Amendments 2

3 Facility Information 3

4 Spill Response, Cleanup, and Disposal Procedures 6

5 Spill Reporting 9

6 Potential for Equipment Failure 12

7 Containment and Diversionary Structures 14

8 Inspections, Tests, and Records 15

9 Personnel Training 16

10 Site Security 17

11 Facility Tank Car and Tank Truck Loading /Unloading Rack 18

12 Materials of Construction 19

List of Appendices

Appendix A Spill Plan Review Form 21
Appendix B Completed Plan Review Forms 23
Appendix C Blank Spill Reporting Form 24
Appendix D Completed Spill Reporting Forms 27
Appendix E Monthly Inspection Form 28
Appendix F Secondary Containment Drainage Log 32

List of Tables

Table 3-1 Oil Storage Containers 4
Table 4-1 Spill Cleanup Equipment and Supplies 6
Table 5-1 Oil S pill Repo11ing Table 10
Table *5-2* Spill Contact Information 11
Table 6-1 Potential for Oil Spills 13
Table 12- 1 Bulk Storage Containers 19

List of Figures

Figure 3- 1 Proposed Facility Site Plan 5

1 Purpose, General Information, and Management Approval

1.1 P URPOSE AND GENERAL INFORMATION

This Spill Plan (Plan) was developed for the Alton Coal facility located at the Coal Hollow Mine (Coal Hollow) near Cedar City, Utah. The purpose of the Plan is to establish procedures, methods, and equipment to prevent the discharge of oil or other hazardous material from the facility into water or upon the ground or in any way that may affect natural resources. This Plan identifies potential sources of spills, establishes measures of prevention, and defines control, cleanup, and reporting procedures.

1.2 MANAGEMENT APPROVAL

The signature below certifies that the management of Alton Coal fully approves of this Spill Plan and will commit the necessary resources to fully implement this Plan as described.

_____	_____
Name	Signature
_____	_____
Title	Date

2 Spill Plan Certification and Amendments

2.1 PROFESSIONAL ENGINEER REVIEW

This Plan has been reviewed and certified by a Registered Professional Engineer. The Professional Engineer's stamp below certifies that:

- The Professional Engineer or their agent has visited and examined the facility:
- The Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards
- Procedures for required inspections and testing have been established; and
- The Plan is adequate for the facility.

_____
Andrew R. Christensen

_____
Registration Number

_____
State

_____
Date

2.2 PLAN REVIEW

Alton Coal will review and evaluate this Plan at least once every five years to ensure its accuracy and to determine if additional or more effective spill protection and control technology that is applicable to the facility must be added. The changes will then be implemented as soon as possible. A Spill Plan review form is included in Appendix A. Completed Plan review forms will be contained in Appendix B.

2.3 PLAN AVAILABILITY

Alton Coal will maintain a complete copy of this Plan at the facility and made available as necessary to regulatory agency representatives for on-sit review during normal working hours.

3 Facility Information

3.1 GENERAL FACILITY INFORMATION

Facility Name and Address:

Company:	Alton Coal Development, LLC – Coal Hollow Mine
Address:	
City, State, Zip Code:	Kane County, UT

Facility Owner:

Company Name:	Alton Coal Development, LLC
Address:	463 North 100 West
City, State, Zip Code:	Cedar City, UT 84721

Facility Contact:

Name:	Clark Atwood
Title:	Mine Manager
Phone Number:	435.867.5331

Facility Location: The facility is located in Kane County.

Facility Description: The Coal Hollow Mine will be a typical surface coal mining operation. The coal sizing portion of the plant will be similar to a sand and gravel operation, with crushing/sizing. Screening, and stock piling. The coal mining will occur in sequential pits. with back filling and reclamation immediately following coal removal from each pit. Coal is transported by truck to the on-site processing area for so11ing and crushing. then routed via conveyors to the stockpile. A dozer will push the coal from the stockpile into the loadout conveyor for transport. Equipment includes one feeder breaker. one secondary crusher, one stacker belt, and miscellaneous mobile equipment.

Table 3 -1 lists the oil storage containers at the facility, including oil-filled equipment and the capacity of each.

Table 3- 1 Oil Storage Containers

TYPE OF EQUIPMENT	CONTENTS
Bulk Storage Tanks	Diesel and gasoline tanks
Oil-filled Operating Equipment	Generators
Portable Storage	Totes or 55-gal oil drums

3.2 PHYSICAL LAYOUT OF THE FACILITY

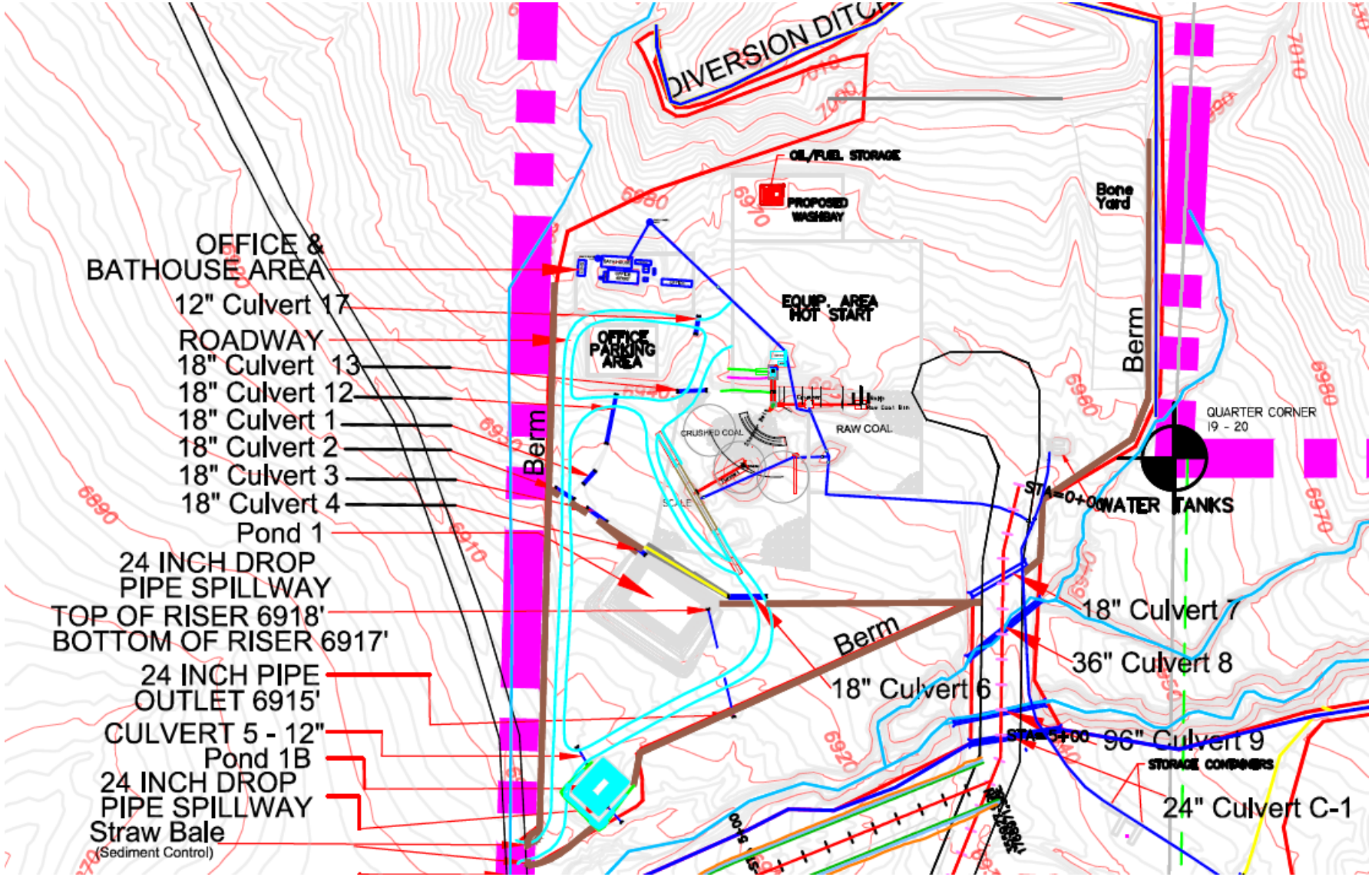
Coal Excavation - Mining at the project site will occur sequentially with work occurring in one 'active disturbed area' at a time, starting at the center of the facility boundaries and then moving towards the southern portion of the facility over a seven-year period.

Sizing/Sorting Process - This operation involves crushing/breaking, screening, conveying, and stockpiling and occurs at the northern portion of the facility.

Robinson Creek intersects the facility just north of the initial excavation area. Several other ditches and culverts will exist at the site.

The proposed physical layout of the facility is shown in Figure 3- 1. The layout of the facility as well as the equipment quantities and types shown are subject to change.

Figure 3- 1 Facility Site Plan



4 Spill Response, Cleanup, and Disposal Procedures

Alton Coal personnel will use established spill response and cleanup procedures in the event of an oil spill. These procedures arc outlined below. However. the procedures will be modified as needed when unforeseen circumstances arise.

4.1 INITIAL SPILL R ESPONSE ACTIONS

=> The first person on the scene must immediately notify their Foreman or Lead Man if the oil spill is outs ide of a secondary containment area or is greater than 10 gallons inside a secondary containment area (see the Internal Spill Reporting requirements in Section 5. 1).

=> Evaluate the health hazards in the area before proceeding.

=> Evacuate the area and establish a security zone around the spill, if needed, and control access into the security zone. Personnel not directly involved with the spill need to stay away from the spill area.

=> Stop release when it is safe to do so:

- Implement safety-related measures.
- Mobilize fire control equipment, if needed.
- Don appropriate persona l protective equipment before entering the spill area.
- Remove all ignition sources from the security zone.

=> Contain the spill by isolating and immobilizing the spill. Construct containment ditches and berms or place absorbent material in front of flowing material.

=> Estimate the volume of material that was spilled.

=> The environmental specialist must determine if authorities or regulatory agencies need to be notified and make the notifications as required.

4.2 SPILL C LEANUP MATERIAL AND EQUIPMENT

Spill clean-up equipment and supplies and their storage locations are listed in Table 4-1.

Table 4-1 Spill Cleanup Equipment and Supplies

QUANTITY	EQUTPM ENT OR	STORAGE
5+	Spill Cleanup Kits	Near tanks, equipment, and totes/drums

4.3 SPILL CL EANUP PROCEDURES

=> If a large spill occurred or the spill reached a waterway, call a cleanup contractor and they will provide additional equipment to clean up the spill. Contact information is located in Table *5-2.*

=> **DO NOT** use water to clear the spill away! Water will mobilize the spill and require additional cleanup efforts.

=> Pick up free liquid that has collected in s umps or containment areas with spill cleanup kits. Place free liquid that has been collected in a tank or drums for temporary storage.

=> Clean up liquid that has spread over a non -porous surface with absorbent material such as oil-dry or absorbent socks or booms. Collect oil-soaked cleanup materials *(e.g.*, oil-dry. absorbent socks, or booms) and place them in leak-proof containers.

=> For spills on gravel or soil, absorb as much of the liquid as possible with absorbent material and then excavated the oil-contaminated gravel or soil down to visibly clean material. Place the excavated material in piles for temporary storage.

4.4 DISPOSAL PROCEDCRES

An oil s pill is not considered cleaned up until all waste produced during the cleanup activities are properly disposed. The environmental specialist is responsible for disposing oil- contaminated cleanup materials in accordance with federal, state, and local regulations. General guidelines are listed below: however, the exact means of disposal will depend on the nature and volume of contaminated material and whether the material is contaminated with other substances.

=> Liquid oil that has been collected should he recycled at an offsite facility, if possible, or disposed of at a regulated and licensed facility.

=> Ship oily soil that has been excavated to a landfill or land farm that is permitted to dispose of or treat oil- contaminated soil.

=> Dispose of oil-soaked absorbent material in a land fill permitted for this type of industrial waste.

4.5 FOLLOW-UP RESPONSE ACTION

=> The environmental specialist is to complete a Spill Report Form as out lined in Section 5.1 (blank forms are in Appendix *C).* Complete d Spill Report Forms will be maintained in Appendix D.

=> Conduct an investigation as needed to

- Determine the cause of the spill;
- Review the response actions that were taken to identify any improvements for response to future incidents; and,
- Determine if any measures need to be implemented to prevent another spill.

=> Revise this Plan to reflect any changes at the facility or in operating procedures that result from an evaluation of the spill.

=> Re place all spill cleanup equipment that was used during the cleanup of the spill.

5 Spill Reporting

Proper reporting of spills is very critical and must be done carefully, accurately, and in a timely manner. Table 5-1, at the end of the section, summarizes the spill reporting information out lined in Sections 5.1 through 5.4. A call list with contact names and telephone numbers is located in Table 5-2.

5.1 INTERNAL REPORTING REQUIREMENTS

The person who discovers an oil spill that is outside of a secondary containment area must immediately notify their Supervisor. The Supervisor must then notify the environmental specialist. If the Supervisor is unavailable, the person who discovered the spill must notify the environmental specialist directly.

For any oil spill or release outside of a secondary containment area, the Supervisor or the environmental specialist must complete a Spill Repot1 Form (located in Appendix C).

5.2 FEDERAL REPORTING REQUIREMENTS

The environmental specialist or designated representative will determine if an oil spill must be reported to federal agencies. If the spill is determined to be reportable, the environmental specialist or designated representative will complete the required notifications.

5.3 STATE REPORTING REQUIREMIENTS

The Environmental Manager or designated representative will determine if an oil spill must be reported to state agencies. If the spill is determined to be reportable. the Environmental Manager or designated representative will complete the required notifications.

5.4 LOCAL REPORTING REQUIREMENTS

Contact the Local Emergency Response Commission (LERC), or for an emergency call 911.

Table 5-1 Oil Spill Reporting Table

QUANTITY SPILLED	SPILL AREA	WHEN TO REPORT	REPORT TYPE	WHO REPORTS SPI LL	REPORT SPILLTO:
Any	Outside of a secondary containment area or building	Immediately	Verbal	Person who discovered the spill	Supervisor
Any amount that creates a sheen, film, or discoloration	Any location where a spill enters, or has the potential to enter a stream or natural body of water	Immediately	Verbal	Environmental specialist or designee	NRC UDEQ
>42 gallons - twice in any 12-month period	Any water source or outside secondary containment	Within 60 days	Written	Environmental specialist or designee	UDEQ
= o r > l.000 gallons	Any water source or outside secondary containment	Within 60 days	Written	Environmental specialist or designee	UDEQ
Any	Impact to waterfowl or endangered species	Immediately	Verbal	Environmental specialist or designee	UDEQ

Table 5-2 Spill Contact Information

CONTACT	CONTACT INFORMATION
Facility Response Coordinator: Clark Atwood	435.867.5331
Other Facility Contacts: • Environmental Specialist	435.691.1551
Federal Agency Contact Numbers: • National Response Center (NRC)	800.424.8802
State Agency Contact Numbers: • Utah Division of Responses and Remediation Emergencies	801 .536.41 23
• Utah DEQ Division of Water Quality	801 .538.61 46
Local Agency Contact Numbers:	
• Local Emergency Response Commission (LERC)	435.586.6511
•	911

6 Potential for Equipment Failure

The Coal Hollow facility was inspected to identify each area where a potential for an oil spill exists. The rate of flow of a spill could range from a small drip from a crack in a line or tank to an instantaneous spill caused by the rupture of a tank or container. Table 6-1 lists the sources that have a reasonable potential for equipment failure.

Table 6- 1 Potential for Oil Spills

	SOURCE.	TYPE of OIL	MAJOR TYPE of FAILURE		DIRECTION of FLOW	SECONDARY CONTAJNMENT
	Tunk	Diesel or gasoline	Leak		SW	Berm and pond system with a drop pipe spillway
	Generators	Diesel	Leak		SW	Berm and pond system with a drop pipe spillway
	Totes/ Dr ums	Diesel	Leak		SW	Berm and pond system with a drop pipe spillway

7 Containment and Diversionary Structures

The Coal Hollow facility will employ berm and pond systems. This is intended to prevent a discharge of oil to navigable waters of the United States. The berm and pond located near the facility operations and oil storage area will be equipped with a drop pipe spillway

8 Inspections, Tests, and Records

An inspect ion is conducted monthly at the facility. The inspection includes a visual inspection or all oil containers, oil-containing equipment, piping systems, and secondary containment areas. The blank inspection form located in Appendix E describes the steps to be taken during the inspect ion and will be us ed to document the monthly inspections. The inspection form will be signed by the person performing the inspection. The completed inspection forms will be submitted to and maintained by the facility engineer for a period of three years from the elate of the inspect ion.

Secondary containment pits are inspected for an oil sheen prior to discharging or draining any water from them. The inspection is recorded on the Secondary Containment Drainage Log, which is locate d in Appendix F.

Mechanical integrity testing of bulk oil storage tanks will be conducted as described in Section 12. Integrity testing records will be maintained while the tank is located at Coal Hollow.

9 Personnel Training

9.1 INITIAL TRAINING

All Alton Coal personnel who have the potential to handle oil will receive initial Spill Plan training. New employees or employees whose jo function change will receive the initial training within one month of beginning their assigned duties. The initial training will consist of classroom and/or hands-on training. The initial t raining will include the following topics:

- Operation and maintenance of equipment to prevent discharges:
- Spill response, cleanup, and disposal procedures:
- Applicable pollution control laws, rules, and regulations:
- General facility operations; and.
- The contents of this Plan.

9.2 DESIGNATED P ERSON

The environmental specialist has been designated as the person who is accountable for spill prevention at the Coal Hollow facility.

9.3 ANNUAL BRIEFINGS

Oil-handling personnel will participate in an annual briefing. The briefing will ensure that personnel have an adequate understanding of this Plan. They will be informed of any known discharges that occurred during the prior year. The response and cleanup actions that were taken and the mode of failure of each spill will be discussed. The refresher training will also include a discussion of any recently developed precautionary measures.

9.4 TRAINING RECORDS

All training will be documented. The documentation will include who attended the training and what was included in the training. Training records will be maintained in the Safety Office. Individual training records will be maintained for the length of employment of the employee.

10 Site Security

10.1 FENCING

Public access to the facility will be controlled by personnel that are trained to recognize and discourage unauthorized access, along with " No Trespassing" signs to deter public entry.

10.2 DRAIN VALVES

Valves permitting outward flow have adequate security measures to remain in the closed position when in non-operating/ non-standby status.

10.3 OIL PUMPS

Alton Coal has locked the starter control on each pump in the "off' position and has locate d it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

l0.4 FACILITY PIPING

Piping is capped not in service or when in standby service for an extended time.

10.5 FACILITY LIGHTING

Due to night sky impact concerns in the surrounding area, the entire facility will not be lighted. However, there will be selective lighting. The outdoor lighting at the Coal Hollow facility is adequate to detect spills, inspect secondary containment structures, and to prevent vandalism during hours of darkness.

11 Facility Tank Car and Tank Truck Loading /Unloading Rack

11.l LOADING/ UNLOADING AREA CONTAINMENT SYSTEM

Transfer areas arc sloped to drain to a low area or catchment area that would serve to hold any spills on-site until it can be cleaned up.

12 Materials of Construction

The bulk storage containers located at the Coal Hollow facility and their material of construct ion are shown in Table 12-1. All of the bulk storage containers onsite are constructed of materials that are compatible with the material stored in them and the temperature and pressure of storage.

Table 12-1 Bulk Storage Containers

BULK STORAGE CONTAINER	CONTAINER CONTENTS	STORAGE PRESSURE	STORAGE TEMPERATURE	MATERIALS OF CONSTRUCTION
Oil and gas fuel tanks	Diesel oil or gasoline	Atm	Ambient	Steel
Totes/Drums	Oil	Atm	Ambient	Steel or plastic

INTEGRITY TESTING

The bulk oil storage tanks receive an external, visual inspection during the monthly inspection. An external inspection will be conducted by an authorized inspector every 5 years per the American Petroleum Institute (API) Standard 653.

Currently, the tank shell corrosion rate is not known and the diesel and gasoline tanks are less than five years old. Therefore, the first set of thickness readings on the tank shell will be obtained in 2014. The second set of thickness readings will be obtained five years after the first set in order to establish the corrosion rate of the tank shell. The thickness inspection interval will then be set at a maximum of 15 years and will be lower if the corrosion rate is higher than expected.

The bottom of the tanks can be accessed externally; therefore. the thickness of the tank bottom will be determined at the time the tank shell thickness is determined.

12.1 DISCHARGE PREVENTI ON FOR BULK STORAGE CONTAINERS

One of the following high liquid level devices is provided on each bulk oil storage container:

- High liquid level alarm with audible of visual signals
- High liquid level pump cutoff device
- Direct audible or code signa l communication
- A fast response system, including direct vision gauge (personnel present)

The liquid level sensing devices are tested regularly during inspections

12.2 VISIBLE DISCHARGES

All visible oil leaks will be promptly corrected. Leaks will be cleaned up and reported as outlined in Sections 4 and 5. respectively. Accumulations of oil within secondary containment areas will be promptly cleaned up and reported, if required.

12.3 MOBILE OR PORTABLE OIL STORAGE CONTAINERS

Mobile or portable containers are located such that any leakage is directed to secondary containment or catchment areas within the facility area.

12.4 FACILITY TRANSFER OPERATIONS

12.4.1 Pipe Supports

Based upon observations at the facility, the pipe supp orts for the oil transfer lines appear to be designed to minimize abrasion and corrosion and allow for expansion and contraction of the pipe lines

12.4.2 Piping Inspections

Aboveground valves, piping, and appurtenances are inspected during the monthly Plan inspection.

Appendix A Spill Plan Review Form

Spill Plan Review Documentation

"I have completed review and evaluation of the Spill Plan for the Coal Hollow facility in Utah on ___, 20 , and will / will not amend the Plan as a result."

_____ _____

Signature Date

_____ _____

Printed Name Title

For technical amendments to the Plan, the following certification from a Professional Engineer is required.

"I certify that the Alton Coal facility in Utah has been examined that this Spill Plan has been prepared in accordance with good engineering practices and industry standards, the required inspections and testing schedules have been established. and that the plan is adequate for the facility."

_____

Name of the Professional Engineer

_____

Registration Number

_____

State

_____

Date

Appendix B Completed Plan Review Forms

Appendix C Blank Spill Reporting Form

Spill Reporting Form

GENERAL INFORMATION

FACILITY NAME:_____PHONE NUMBER:_____

SPILL DISCOVEREDBY:_____TITLE:_____

PERSON REPORTING SPILL:_____TITLE:_____

DATE OF SPILL:_____TIME:_____

DATE SPILL WAS DISCOVERED:_____TIME:_____

DURATION OF THE INCIDENT:_____hours

MATERIAL SPILLED:_____

ESTIMATEDQUANTITY SPILLED:_____

AMOUNT RECOVERED: AMOUNT UNRECOVERED:

SPILL REPORTING INFORMATION

WHO WAS NOTIFIED OF THE SPILL? ____Supervisor ____Plant Engineer

_____ General Manager _____ Production Superintendent _____Alton Fire Dept.

WAS A REPORTABLE QUANTITY SPILLED? _____ YES _____ NO

WHICH AGENCIES WERE NOTIFIED OF THE SPILL? (Only the General Manager or his/her designee is authorized to make notifications):

UDEQ - DWQ	**UDERR**	**LEPC**
(801) 536-6146	(801) 536-4123	(435) 259-5602
Date:_____	Date:_____	Date:_____
Time:_____	Time:_____	Time: _____
Name:_____	Name:_____	Name:_____

National Response Center	**USFWS** - Spill Response **Coordinator**	Local Fire Department
(800) 424-8802	(801) 975-3330	911
Date:_____	Date:_____	Date:_____
Time:_____	Time:_____	Time:_____
Name:_____	Name:_____	Name:_____

SPILL INFORMATION

ESTIMATED QUANTITY THAT HAS, OR HAS THE POTENTIAL TO ENTER WATERS OF THE STATE OR UNITED

STATES:_____gallons NAME OF WATER BODY:_____

SPILL WAS RELEASED INTO (land. water, secondary containment, etc.):

WHERE DID THE SPILL GO OR WHICH DIRECTION DID THE SPILL TRAVEL?_____

ESTIMATED QUANTITY THAT WAS RELEASED OR MIGRATED OFFSITE:_____

WEATHER CONDITIONS:_____

EXACT LOCATION OF THE SPILL (include type of terrain. nearest waters or drains, direction the spill is moving as

applicable):

_____

SPILL INFORMAT/ON (continued):

SOURCE OF THE SPILL:_____

CAUSE OF THE SPILL (include equipment or activities involved in the spill):

_____

_____

WAS THE SPILL CONTAINED? _____YES _____NO

IF YES, HOW? _____

HAZARD/DAMAGE INFORMATION

IDENTIFY HEALTH HAZARDS OR CHARACTERISTICS:_____

_____

PRECAUTIONS THAT HAVE BEEN OR ARE BEING TAKEN: _____

_____

_____

LIST PERSONAL INJURIES, ENVIRONMENTAL DAMAGE, OR PROPERTY DAMAGE CAUSED BY THE SPILL

(environmental damage includes impacts to wildlife, wetlands, or other environmental resources):

_____

_____

EVACUATION NEEDED? _____ YES _____ NO

SPILL CLEANUP INFORMATION

OUTSIDE CONTRACTOR USED FOR SPILL CLEAN UP? _____YES _____ NO

CONTRACTOR'S NAME, IF USED: _____

CLEAN UP ACTIONS: _____

_____

_____

EFFECTIVENESS OF CLEANUP ACTIVITIES:_____

SPILL FOLLOW-UP

ACTION(S) TO BE IMPLEMENTED TO PREVENT FUTURE OCCURRENCES:_____

_____

_____

WAS THE PLAN REVIEWED AFTER THIS SPILL (applies only to oil spills)? _____ YES _____ NO

DOES THE PLAN REQUIRE MODIFICATION (applies only to oil spills)? _____ YES _____ NO

WAS THE SWPPP REVIEWED AFTER THIS SPILL (applies to spills other than oil)? _____ YES _____ NO

DOES THE SWPPP REQUIRE MODIFICATION (applies to spills other than oil)? _____ YES _____ NO

SIGNATURE: DATE:

Appendix D Completed Spill Reporting Forms

Appendix E Monthly Inspection Form

MONTHLY SPILL PLAN INSPECTION CHECKLIST

DATE: _____

TIME: _____

INSPECTOR:

√ = Satisfactory
N/A = Not Applicable
X = Repair or Adjustment Required (see comments under Problems Found

OIL STORAGE TANKS, DRUMS, and CONTAINERS

_____ Level gauges and alarms operating properly.

_____ No signs of deterioration on shell (*i.e.*, discoloration or flaking of coating, shell distortion, localized corrosion at welds, general corrosion, hairline cracks, or bulging).

_____ No damage or deterioration on supports, foundation, and anchor bolts (*i.e.*, cracking, distortion, buckling of supports or saddle, signs of settlement, corrosion, pitting, vehicle damage, or loose anchor bolts).

_____ No deterioration or leakage at pipe connections to container.

_____ No signs of leakage on container, foundation, or supports.

_____ Drain valves on tanks are closed and secured.

_____ Pressure relief devices, emergency vents, or relief vents are clean and free of obstructions.

_____ Mobile or portable containers are provided with secondary containment or located to prevent a discharge to water.

_____ Internal heating coils are operating properly and do not show signs of leakage.

SECONDARY CONTAINMENT AREAS

_____ No signs of leakage or spills, such as stained surfaces.

_____ Containment walls and floors are intact and are not cracked.

_____ Drainage from diked areas is restrained.

_____ Drain valves on dikes areas are closed.

_____ No visible oil sheen on water in containment areas.

_____ No standing water in containment areas.

SPILL CLEAN UP EQUIPMENT

_____ Spill kits contain proper equipment.

_____ Oil absorbent material is available.

VALVES/PIPELINES

_____ No signs of corrosion or damage on piping, valves, flanges, etc.

_____ Terminal connection of out-of-service pipes capped or blind-flanged and origin is marked.

_____ No leaks or signs of leakage at valves, flanges, or other fittings.

_____ No signs of abrasion or corrosion at pipe support locations.

_____ Piping, flanges, expansion joints, and pipe supports in good condition.

_____ Starter locked in 'Off' position on oil pumps when not in operation.

OIL-FILLED PROCESS and ELECTRICAL EQUIPMENT

_____ Equipment is operating properly.

_____ No signs of leakage.

_____ No rust, corrosion, or pitting on external surfaces.

_____ Equipment foundation/base in good condition.

_____ No oil sheen or runoff from around oil-containing equipment.

SECURITY

_____ Fence and gates in good condition.

_____ Gates around oil tanks/containers are locked.

_____ Facility lighting is adequate & working properly.

FACILITY DRAINAGE/TREATMENT

_____ No oil sheen or runoff around oil-containing equipment.

_____ No ruts or unusual drainage patterns around secondary containment areas.

_____ Effluent treatment system operating properly.

LOADING/UNLOADING AREAS

_____ Loading/unloading connections are capped or blind-flanged when not in service.

_____ A means to prevent premature departure of tank trucks is in place and used.

PROBLEMS FOUND: _____

_____

_____

CORRECTIVE ACTIONS: _____

_____

_____

Monthly Inspection Procedure

Observe the general condition of the facility and for conformance with the requirements in the facility' s SPCC Plan. The following areas must be observed during the inspect ion. If any problems are observed, make a note on the inspection form.

Oil storage tanks, drums, and containers:

- Drain valves on tanks are closed and secured.
- Inspect for signs of deterioration on containers shell *(i.e.,* discoloration or flaking of coating, shell distortion, localized corrosion at welds, general corrosion, hairline c racks, or bulging).
- Inspect for damage or deterioration on supports, foundation, and anchor bolts *(i.e.,* cracking, dis to1tion, buckling of support s or saddle, signs of settle men t, corrosion, pitting, vehicle damage, or loose anchor bolts.
- Inspect for signs of leakage on container, foundation, or supports.
- Pressure relief devices, emergency vents, or relief events are clean and free of obstructions.
- Level gauges and alarms operating properly.
- Mobile or po rt able containers are provided with secondary containment or located as to prevent a discharge to water.
- Internal heating coils are operating properly and do not show signs of leakage.

Oil-filled process and electrical equipment:

- Equipment is operating properly.
- Inspect for signs of leakage.
- Inspect for rust corrosion, or pitting on external surfaces.
- Equipment foundation/base in good condition.
- Inspect for oil sheen or runoff from around oil- containing equipment.

Diked areas or secondary containment areas:

- Containment walls and floors are intact and are not cracked.
- No visible oil sheen on water in containment areas.
- No standing water in containment areas.
- Inspect for signs of leakage or s pill s, such as stained surfaces.
- Drainage from diked areas is restrained.
- Drain valves on diked areas are closed.

Effluent treatment system: operating properly.

Loading/unloading areas:

- Loading/ unloading connections are capped or blind- flanged when not in service.
- A means to prevent premature departure of tank trucks is in place and used.

Monthly Inspection Procedure *(continued)*

Oil piping systems:

- Oil pump starters are locked in the OFF posit ion when not in operation.
- The terminal connect ion of out-of-service piping is capped or blind - flanged and origin is marked.
- Inspect for signs of abrasion or corrosion at pipe support locations.
- Inspect to r signs of leakage around pipe fittings, flanges, valves, instrumentation. and other fittings.
- Piping, flanges, expansion joints, and pipe supports in good condition *(i.e.*, no corrosion or damage).

Site security measures:

- Fencing and gates are in good condition.
- Gates around oil tanks / containers are locked.
- Facility lighting is adequate for discovering spills and working properly.

Spill Clean-up Equipment:

- Spill kits contain proper equipment.
- Oil absorbent material is available.

Appendix F Secondary Containment Drainage Log

SECONDARY CONTAINMENT DRAINAGE LOG

Record the following information every time water is drained from a secondary containment area.

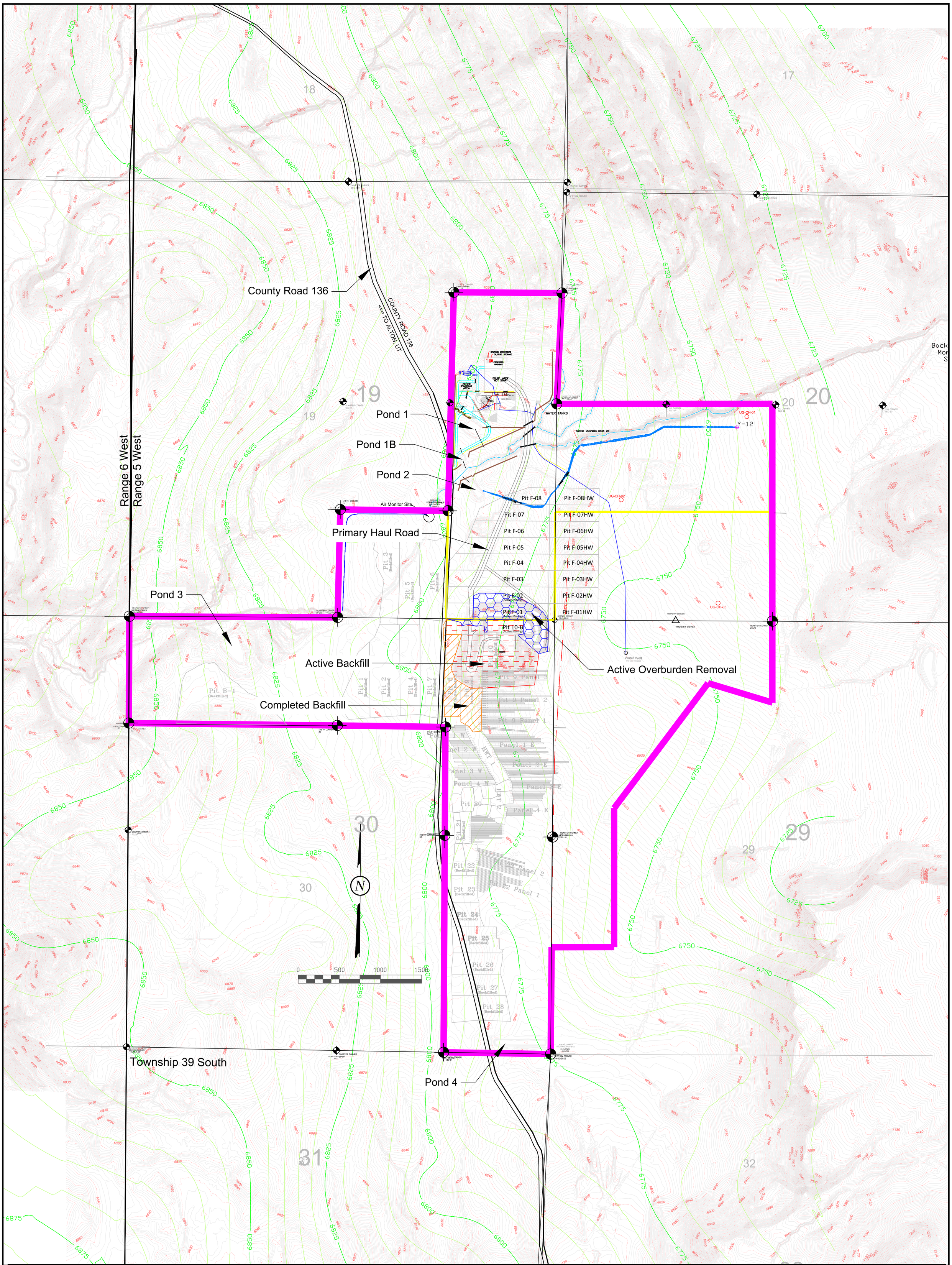
DATE	TIME	INSPECTOR	SECONDARY CONTAINMENT AREA (1)	WATER DISCHARGED? (YES/NO)	REASON FOR DISCHARGE (2)	APPEARANCE OF WATER (3)	DESTINATION OF DISCHARGED WATER

NOTES:

(1) Record which secondary containment area is being inspected.

(2) Rain, leak, etc.

(3) Clear, cloudy, dirty, oil sheen, etc. Do not discharge the water if it has an oi l sheen or contains oil.



LEGEND:

- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- TOP OF COAL CONTOUR
- SURFACE CONTOUR
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER

DRAWN BY:	CHECKED BY:
ARC	DWG
DRAWING: 1 of 2	DATE: 7/21/2015
	SCALE: 1" = 500'
JOB NUMBER:	SHEET

REVISIONS

DATE:	BY:
4/19/16	AC
1/1/17	AC
7/31/17	AC
10/17/17-no change	AC
6/25/18-no change	AC
10/31/18-no change	AC
12/31/19	AC

MINE MAP
Coal Hollow Mine

MSHA ID - 42-02519

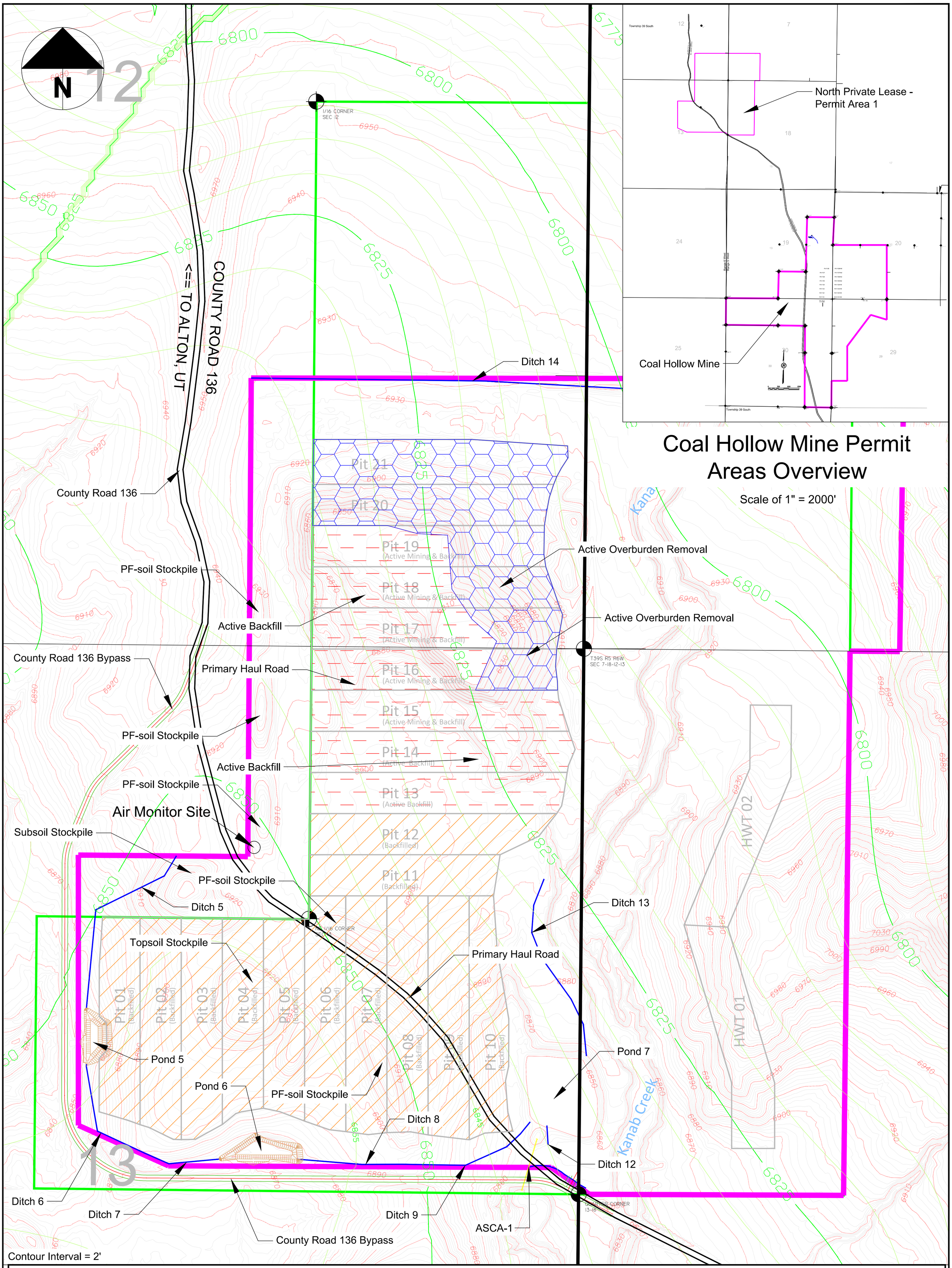
COAL HOLLOW PROJECT
2060 S. ALTON ROAD
ALTON, UTAH

DRAWING: 1 of 2

PROFESSIONAL ENGINEER
10230818
ANDREW R. CHRISTENSEN
STATE OF UTAH

Alton Coal Development
Coal Hollow Project

463 North 100 West, Suite 1
Cedar City, Utah 84721
Phone (435)867-5331
Fax (435)867-1192



LEGEND:

- PERMIT BOUNDARY
- PRIVATE COAL OWNERSHIP
- TOP OF COAL CONTOUR
- SURFACE CONTOUR
- SECTION LINE
- FOUND SECTION CORNER
- FOUND PROPERTY CORNER

DRAWN BY:	CHECKED BY:
ARC	DWG
DRAWING: 2 of 2	DATE: 4/19/2016
	SCALE: 1" = 200'
JOB NUMBER:	SHEET

REVISIONS

DATE:	BY:
3/31/17	AC
7/31/17	AC
10/17/17	AC
2/28/18	AC
6/25/18	AC
10/31/18	AC
12/31/19	AC

MINE MAP
Coal Hollow Mine
North Private Lease

MSHA ID - 42-02519

COAL HOLLOW PROJECT
2060 S. ALTON ROAD
ALTON, UTAH

DRAWING: 2 of 2

PROFESSIONAL ENGINEER 10230818 ANDREW R. CHRISTENSEN STATE OF UTAH

Alton Coal Development
Coal Hollow Project

463 North 100 West, Suite 1
Cedar City, Utah 84721
Phone (435)867-5331
Fax (435)867-1192

Tax-ID NO. 41-0696271

Agreement Number: 19-7349-9002 -FA
Account Code: 9X WSWR4949 REIMBUR OTCS WSWR49
District

COOPERATIVE SERVICE FIELD AGREEMENT
between
Alton Coal Development Company (Cooperator)
and
UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES

ARTICLE 1

The purpose of this agreement is to cooperate in a wildlife damage management project as described below.

To provide protection for nesting sage grouse by managing damage caused by common ravens, red fox, raccoons, skunks and coyotes.

ARTICLE 2

Under the Act of March 2, 1931, as amended (7 USC 426), and the Act of December 22, 1987 (7 USC 426c),), the Secretary of Agriculture may conduct a program of wildlife services with respect to injurious animal species and take any action the Secretary considers necessary in conducting the program. Additionally, the Secretary of Agriculture, except for urban rodent control, is authorized to conduct activities to control nuisance mammals and birds and those mammal and bird species that are reservoirs for zoonotic diseases. In carrying out a program of wildlife services involving injurious and/or nuisance animal species or involving mammal and bird species that are reservoirs for zoonotic diseases, the Secretary is authorized to cooperate with States, local jurisdictions, individuals, public and private agencies, organizations, and institutions.

APHIS-WS and the Cooperator agree:

ARTICLE 3

1. APHIS-WS will provide the requested wildlife damage management service;
2. The Cooperator will provide, at time of service, a certified or cashier's check, personal check or money order payable to USDA, APHIS in the amount of $ 7500.00 for: Salaries, benefits, supplies, equipment and vehicle expense...not to exceed 160hrs
3. The monies received by APHIS-WS will be used for the purpose stated above.
4. The performance of WDM actions by APHIS-WS under this Agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statues. APHIS-WS will not make a final decision to conduct requested WDM actions until it has made the determination of such compliance.
5. Nothing in this Agreement shall prevent any other individual or organization from entering into separate Agreements with APHIS-WS for the purpose of controlling wildlife damage.
6. That APHIS-WS has advised the Cooperator that other private sector service providers may be available to provide wildlife management services and notwithstanding these other options, Cooperator requests that APHIS-WS provide wildlife management services as stated under the terms of this Agreement.

KN initial

ARTICLE 4

This Agreement is contingent upon the passage by Congress of an appropriation from which expenditures may be legally met and shall not obligate the requisitioning agency upon failure of Congress to so appropriate. This Agreement also may be reduced or terminated if Congress only provides the Agency funds for a finite period under a Continuing Resolution.

ARTICLE 5

Pursuant to Section 22, Title 41, United States Code, no member of or delegate to Congress shall be admitted to any share or part of this Agreement or to any benefit to arise there from.

ARTICLE 6

APHIS assumes no liability for any actions or activities conducted under this agreement except to the extent the recourse or remedies are provided by Congress under the Federal Tort Claims Act (28 USC 1346(b), 2401(b), 2671-2680).

All WDM activities will be conducted in accordance with applicable Federal, State, and local laws and regulations.

This agreement is not a procurement contract (31 U.S.C. 6303), nor is it considered a grant (31 U.S.C. 6304). In this agreement, APHIS provides goods or services on a cost recovery basis to nonfederal recipients.

This Agreement shall become effective April 21, 20 19, and shall continue through April 20, 20 20 not to exceed one year. This agreement may be amended or terminated at any time by mutual agreement of the parties in writing. Further, in the event the Cooperator does not, for any reason, deposit necessary funds, APHIS-WS is relieved of the obligation to provide services under this Agreement.

Cooperator Name, Address, and Phone Number
Alton Coal Development Company
Contact: Kirk Nicholes Environ. Specialist
463 N 100 W Cedar City, UT 84721

435-867-5331 / 435-691-1551
Phone Number

Fax Number

42-1655092
Cooperator's Tax ID No. or Social Security No.
(As required by Debt Collection Improvement Act of 1996)

B. Kirk Nicholes — 4/9/19
Cooperator's Signature — **Date**

WS Representative Signature — **Date**

State Director's Signature — **Date**

Revised 11/12/13

B. Kirk Nichols
4/9/19

USDA

United States Department of Agriculture

Animal and Plant Health Inspection Service

Wildlife Services

P.O. Box 26976
Salt Lake City, UT 84126

801-975-3315

BILL FOR COLLECTION

COOPERATOR

Alton Coal Development Company
463 N. 100 W.
Cedar City, UT 84721

Attn: Kirk Nicholes

Telephone: 435-867-5331

Bill Number	OTCS 7349-19002
Customer Vendor Number	3283125
Agreement No.	19-7349-9002-FA

Billing Date	3/20/2019
Payment Due	**4/19/2019**

Dates of Service
4/21/19 - 4/20/20

DESCRIPTION	AMOUNT
Predator Control Porgram - Sage Grouse Protection Protect nesting sage group populations around current and future mitgation sites. Includes Salary & Benefits, Supplies, and Vehicle	$7,500.00
TOTAL DUE:	**$7,500.00**

BILLING DOCUMENT SUMMARY

	BILLING DOCUMENT NUMBER AND PAYMENT AMT:	
WBS: AP.RA.OTCS.WS.WR49	9XWSWR4949REIMBUROTCSWSWR49	$7,500.00
	For internal use only	
	Total	**$7,500.00**

NEW INFORMATION ABOUT HOW TO PAY

Please remit payment within 30 days to
USDA, APHIS
PO Box 26976
Salt Lake City, UT 84126

INCLUDE A COPY OF THIS BILL WITH YOUR CHECK

Make checks payable to: USDA-APHIS
Please write your Bill Number on your check.

For questions concerning this bill, please contact:
Chad Heuser (801) 975-3315

In accordance with the Debt Collection Improvement Act of 1996, invoices issued by USDA-APHIS are due and payable within 30 days. Payments not received by the due date are subject to late payment charges assessed at the rate established by the Dept. of Treasury (31 USC 3717).

PLEASE INCLUDE A COPY OF THIS BILL WITH YOUR PAYMENT.

☐ Cooperator Copy ☐ Remittance Copy ☐ State Office Copy/Fax ART

WS Form 16